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Appendix E
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Letter 1

Tennessee Valley Authority, Jon M. Loney

ID	Comment	Response
1.1	Although the Cedar Creek Battlefield is listed in Table 4.7-3, its status as a National Historical Park...is not recognized. This could be described in Section 4.7 or in Section 4.6 under federal parks and recreation areas. Its authorized boundaries would be included in Figure 5-6, Sheet 10.	The Cedar Creek and Belle Grove National Historical Park has been added to Section 4.6, Parks and Recreation Areas and to Figure 5-6, Sheet 10. In addition, Section 5.6 has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.
1.2	Because this Tier 1 document would provide guidance on future environmental reviews, you may wish to consider adding an additional section describing the mitigation measures that will be investigated in Tier 2, such as wildlife movement enhancement (p. 5-53) and shifting of the centerline landward where the Middle Fork Holston River runs adjacent to the existing roadway (p. 5-50).	Consistent with a tiered approach, mitigation for impacts to environmental resources are discussed conceptually throughout Chapter 5 of the Tier 1 Final EIS. The Tier 1 EIS does indicate that opportunities to enhance wildlife movement across improved transportation facilities would be considered, as necessary. The appropriateness of mitigation measures at specific locations would be addressed during Tier 2 studies. Decisions on the precise location and configuration of lanes will be made during Tier 2, when detailed information is developed. The Tier 1 FEIS acknowledges that the significance of the actual impacts of the individual SIUs is currently unknown. Therefore, Environmental Assessments (EAs) are the appropriate document type for Tier 2 for the SIUs. In accordance with NEPA, the EAs will be elevated to EISs if significant impacts are identified.

Letter 2

U.S. Army Corps of Engineers, Norfolk District, Nicholas L. Konchuba

ID	Comment	Response
2.1	Regarding (1) "the improvement concepts for highway and rail facilities," it is unclear whether the goal of the Tier 1 EIS is simply to list all possible improvement concepts, or whether the number of concepts will be reduced. The DEIS does state that Transportation Systems Management (TSM) and Rail concepts will not satisfy the Purpose and Need as stand-alone concepts. However, it is not clear whether the intent is to narrow the list of Build concepts and, if so, how that will be accomplished. If the intent is to carry forward only a portion of the Build concepts, there does not appear to be sufficient information provided to make those decisions. For example, it is stated on page 6-8 that the Tier 1 EIS does not discuss specific social, economic, or environmental impacts from potential corridors on new location, and that if one or more of the Build corridors evaluated in Tier 2 include new location sections, it is likely an EIS would be prepared. How can the Tier 1 EIS be used to identify the corridors to be carried forward when there has been no analysis of the impacts associated with new location sections, which could result in the greatest impacts of any of the options? In our comments on the preliminary DEIS, we stated the following, and we continue to have these concerns: However, we are concerned about the potential segments of roadway on new location that will apparently be part of some of the build alternatives, but are not being evaluated at this time. It is important to consider whether the impacts associated ultimately with those segments will impact resources at a level that requires reconsideration of some of the decisions made about concepts at this time. In particular, if it is found that impacts to waters of the U.S. are substantial for any of the segments on new location, we will still require evaluation of all alternatives that avoid and minimize those impacts.	The number of concepts to be advanced into Tier 2 has been reduced, as described in Chapter 6, Tier 1 Decisions. The "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to continue to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS. Based on the reasons given in Chapter 6, Tier 1 Decisions, rail concepts are not proposed to be advanced into Tier 2 of this NEPA study. The Process Streamlining Agreement between the Virginia Department of Transportation and the Federal Highway Administration on the Interstate 81 Corridor National Environmental Policy Act Process (the Process Agreement) contains a list of decisions that are to be made at the completion of the Tier 1 Study. Bullet #4 of the Process Agreement states that one of those decisions is the location of the corridor for studying alignments in Tier 2. In this case, the term "corridor" refers to the existing I-81 corridor, except as explained in the following paragraphs. There are two locations along the existing I-81 corridor that have extensive development adjacent to the I-81 right-of-way. The impacts from the potential I-81 improvement concepts, especially displacements, may rise to the level where a corridor on new location may be prudent. These sections are the I-77 overlap section near Wytheville (Milepost 72 to 81 (SIU #2)) and a section in Harrisonburg (Milepost 243 to 251 within SIUs #6 and #7). At these two locations, FHWA and VDOT propose to evaluate corridors on new location, as well as widening existing I-81, in Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis will occur in Tier 2 before the selection of any specific alignments. We note and acknowledge the Corps' jurisdiction over waters of the U.S. and will consult with them in Tier 2 to avoid and minimize impacts to these resources. The above addresses the decision listed in Bullet #4 of the Process Agreement and it will not require reconsideration of the proposed Tier 1 decision.

Letter 2

U.S. Army Corps of Engineers, Norfolk District, Nicholas L. Konchuba

ID	Comment	Response
2.2	One decision to be made, according to the DEIS, is to identify projects with independent utility and logical termini; it appears that there is information to guide those decisions, as discussed in Section 6.4. But other than identifying these independent projects, the DEIS is unclear concerning whether all possible build improvement concepts are simply to be identified in Tier 1 or will be reduced in number, and what information will serve as the basis for any such reduction.	Please see response to Comment 2.1. These decisions are being proposed with consideration of the information presented or referenced in the Tier 1 EIS (e.g., 2035 traffic projections and conceptual impacts) and with consideration of the comments received during the Tier 1 NEPA process.
2.3	It is also unclear how another decision to be made following completion of the Tier 1 EIS will be accomplished, (2) "the types of Tier 2 NEPA documents." Based on the broad information given in the Tier 1 document, it does not appear that such decisions can be made. However, it is stated on page 6-5 that if one or more Build concepts are advanced into Tier 2, "environmental assessments (EAs) or categorical exclusions (CEs) are proposed as the type of Tier 2 NEPA document for each SIU [Section of Independent Utility]." Given that the SIUs include segments of lengths of 72 miles, 78 miles, and 53 miles, it appears unjustified to assume that EAs or CEs will necessarily be the appropriate documents. The preliminary DEIS stated that seven of the proposed eight sections with independent utility will require the preparation of EISs, as noted by the Environmental Protection Agency in their comments on the preliminary DEIS. What factors have changed such that FHWA now expects to prepare CEs and EAs instead, and do you anticipate that the EAs will result in Findings of No Significant Impacts or in the preparation of EISs after the EAs?	The Preliminary Tier 1 Draft EIS did indicate that seven of the eight SIUs would require the preparation of EISs in Tier 2. However, the transmittal letter for that document stated that the Preliminary Tier 1 Draft EIS still had to undergo a fair amount of internal review. As part of that review, it was determined that EISs may not be appropriate based on FHWA's experience with previous interstate widening projects whereby, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. Environmental Assessments (EAs) or categorical exclusions (CEs) are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU. The Tier 1 Final EIS acknowledges that the significance of the actual impacts of individual SIUs is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the SIUs advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs if significant impacts are identified.
2.4	It is also questionable that a decision can reasonably be made following the Tier 1 EIS for "the location of the corridor for studying alignments in Tier 2." While three different Rail concept corridors are presented, in Figures 3-1, 3-2, and 3-3, only one corridor is depicted for all Build options, and it is the same as the I-81 study area, as shown in Figure ES-1. All potential natural resource and cultural resource impacts and land use, as depicted on numerous figures in the back of the DEIS, are shown for a single I-81 corridor. The Build concepts are described in Chapter 3, but no corridors are shown, since all include various lane additions to the existing highway. As noted above, no information is presented regarding any potential segments on new location. Therefore, it is unclear how "the location of the corridor or studying alignments" is going to be accomplished, or even what that means. In addition, on page 6-8, the document states that if Build concepts are advanced from Tier 1 to Tier 2, "the specific location of corridors would be studied in Tier 2." That appears contrary to the statement in the Tier 1 DEIS that that decision will be an outcome of Tier 1.	Please see response to Comment 2.1. The Tier 1 EIS simply delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. FHWA has not identified the actual location of those corridors on new location within these general areas, or the specific alignments within those corridors and their impacts. This detailed analysis will occur in Tier 2 before the selection of any specific alignments. This approach addresses the decision listed in Bullet #4 of the Process Agreement.
2.5	Page 4-43, Rivers and Perennial Streams: It is noted that in addition to the number of perennial streams and rivers and intermittent streams, there are a number of streams that have not yet been determined (in this study) as being either perennial or intermittent. For the purposes of your study, please note that mitigation is required for intermittent streams as well as perennial. Mitigation includes avoidance and minimization of impacts to all streams, which should be fully addressed in Tier 2 studies and should be a factor in alternative selections.	Comment noted. As stated in Chapter 5.9, Natural and Geologic Resources, the Tier 2 analyses would also evaluate avoidance and minimization measures. During Tier 2, unavoidable impacts to jurisdictional waters of the United States would be compensated, as appropriate.

Letter 2

U.S. Army Corps of Engineers, Norfolk District, Nicholas L. Konchuba

ID	Comment	Response
2.6	Page 4-60, Wetlands: The document refers to "available resource mapping" that was used in identifying wetlands. Page 5-51 (Wetland Impacts) refers to "GIS-mapped wetland areas." You should identify what sort of mapping was used, such as National Wetlands Inventory (NWI) maps, or others, and the source of the "GIS-mapped areas."	The appropriate locations of Section 4.8, Physical and Natural Resources, of the Tier 1 Final EIS have been modified to clarify that "available GIS data" and "available resource mapping" refer to hydrography and National Wetlands Inventory (NWI) mapping. In addition, Section 5.9, Natural and Geologic Resources, of the Tier 1 Final EIS has been revised to indicate that NWI maps are the source of the "GIS-mapped wetland areas".
2.7	Page 5-51, Wetland Impacts: Under the discussion of bridges, it is noted that pre-construction wetlands may be converted to another type (such as scrub-shrub to emergent) if a bridge is constructed over them, depending on the height of the bridge. It should be noted that all vegetation may be lost under a bridge, depending on the height and the width of the bridge.	Section 5.9, Natural and Geologic Resources, of the Tier 1 Final EIS has been revised to state that "Bridges are a common feature along the interstate where the roadway crosses larger stream/wetland complexes. Bridging offers the opportunity to minimize the complete loss of wetlands that would otherwise result from the use of fill material. In reality, the method of stream crossing currently in use for a particular stream and/or wetland would likely be reemployed for each "Build" concept, resulting in temporary impacts related to construction. Relatively minor streams presently flowing through culverts or pipes would continue to be conveyed as such, whereas larger bridged streams would be spanned similarly. However, loss of vegetation or the conversion of scrub-shrub or forested habitats to an emergent (early successional) vegetative stage may occur at these locations depending on the height of the bridge and/or the need to maintain an unforested area under the span."
2.8	Page 5-54, Type of Permits Needed: The discussion notes that navigable waters are regulated under Section 10 of the Rivers and Harbors Act. The FEIS should include a list of navigable waters located in the study area. The document mentions that Claytor Lake would require permits from the state agencies; Claytor Lake is a navigable waterway regulated by the Corps under both the Clean Water Act and the Rivers and Harbors Act.	Section 5.9, Natural and Geologic Resources, of the Tier 1 Final EIS includes a list of navigable waters in the study area.

Letter 2

U.S. Army Corps of Engineers, Norfolk District, Nicholas L. Konchuba

ID	Comment	Response
2.9	Given that the study area generally extends 500 feet from either side of the outside edge of pavement, and that the Build concepts involve the construction of lanes in that same 500 feet, we question that there are almost 40,000 linear feet of stream available for restoration in the study area. It is stated that over 30 potential streams with an estimated restorable length of greater than 500 feet were identified in the study area. How is it possible that they were of greater length than 500 feet, since the width of the study area on either side of the road is only 500 feet? --What factors were considered in determining whether streams were restorable? Was there any assessment of whether streams even need restoration, or simply that they existed in the study area? Does restoration simply mean planting buffers? We understand that the Tier 1 EIS is broad, but if the preparers were able to identify 38,347 linear feet of restorable stream, as stated, there must have been some on-the-ground effort with results that could be documented. --If there are restorable streams in the study area, it may be undesirable to target those streams as part of the mitigation. Because of their close proximity to a very large highway, it may well be impractical to expect to provide quality aquatic habitat. In summary, looking at restoration options only within the study area appears to be a somewhat pointless means of assessing stream restoration potential.	Not all streams potentially suitable for restoration within the I-81 study area are perpendicular to I-81. The estimation of almost 40,000 linear feet of stream available for restoration includes streams that run parallel to I-81 within the study area. It also includes lengths of streams within the median. As described in the Wetlands and Water Resources Technical Report (p. 4-9), "an evaluation of potential stream and wetland mitigation sites was carried out both in the field during the windshield survey and via telephone interviews with representatives of the Natural Resources Conservation Service (NRCS)...Potential restoration sites identified during the windshield survey were selected based on observable characteristics alone. No attempt was made to determine if the landowner is amenable to mitigation efforts on his/her property." Observable characteristics used to determine whether streams were restorable included signs of poor habitat, sedmimentation, erosion and scouring such as cut banks, slumping banks, braided channels, accumulated sediment, inadequate substrate, and lack of riparian vegetation. For this study, stream restoration was viewed as consisting of a variety of activities including planting of buffers, removal of accumulated sediment and substrate renewal, channel modifications, etc. Continuing on page 4-10 of the Technical Report, it is stated that "stream bank instabilities observed in most of these streams continued well beyond the study area." Where such streams were observed, it was assumed that, conceptually, restoration potential exists in the corresponding watershed. For each watershed, this assumption was then discussed with the NRCS and is summarized in Table 5.9-6 of the Tier 1 Final EIS. This level of conceptual analysis is consistent with a tiered approach. During Tier 2, VDOT and FHWA will work with the Corps to address permitting requirements and possible stream restoration options. A more detailed analysis of stream restoration opportunities will be addressed during Tier 2 studies.
2.10	Page 5-59, Surface Water Sources: In Smyth County, the Middle Fork of the Holston River runs parallel to much of I-81, and road widening may extend into the riparian area of the river at some locations, if not into the river itself. The document states that during Tier 2 studies, if a Build concept is advanced, design efforts "may" consider maximizing the distance between I-81 and the river. It is recommended that the FEIS state that design efforts "will" consider maximizing that distance and minimizing impacts to the riparian zone.	Section 5.9, Natural and Geologic Resources, of the Tier 1 Final EIS states that "During Tier 2 studies, additional design efforts may be considered, as appropriate, to maximize the distance between I-81 and the Middle Fork of the Holston River, particularly between Mileposts 35 and 40 and between Mileposts 47 and 48. Water quality permit requirements would be addressed in Tier 2 in consultation with the U.S. Army Corps of Engineers.

Letter 2

U.S. Army Corps of Engineers, Norfolk District, Nicholas L. Konchuba

ID	Comment	Response
2.11	Page 5-90, Cumulative Impacts: The document states "The level of loss caused by the potential highway improvements, however, would be relatively small when considered against the overall losses which can be attributed to past and future population growth and development throughout the corridor." That statement seems to contradict the definition of a cumulative effects, as quoted from 40 CFR 1507.7 on page 5-87, and therefore the purpose of analyzing cumulative effects: "the impact on the environment, which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions". Cumulative impacts can result from individually minor but collectively significant actions taking place over time [emphasis added]." In other words, the purpose of the cumulative impact analysis is not to show that the proposed action will have more or less impact than other actions affecting the same resources; the rest of the document is devoted to evaluating the effects of the proposed action in isolation. This section of the Tier 1 FEIS and the Tier 2 documents should not comment on the relative significance of the incremental effects of the proposed action(s), but should analyze and discuss as fully as possible the cumulative effects when added to past, present and future actions.	This sentence has been deleted from Section 5.15, Cumulative Impacts. Considering that this is a Tier 1 document, the level of effort to identify potential cumulative impacts is reasonable. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2, when more detailed information on travel lane and interchange configurations is available. The CEQ memorandum, Consideration of Past Actions in Cumulative Effects Analysis (June 24, 2005), will be used to evaluate cumulative impacts in Tier 2 studies.

Letter 3

U.S. Department of Agriculture, Forest Service, Maureen T. Hyzer

ID	Comment	Response
3.1	If a "Build" option is selected, as a cooperating agency, we will need to work with you on lessening the noise and visual impacts of traffic on I-81 to the recreational experience of the Appalachian Trail hikers where the AT crosses the interstate at Mile Post 55 at Groseclose, Virginia. At this same location, we concur with your analysis that wetlands and an aquatic species exist on federal land.	During Tier 2, VDOT and FHWA would evaluate measures to mitigate noise impacts to the Appalachian National Scenic Trail and would coordinate with the National Park Service and the U.S. Forest Service on these future design efforts.
3.2	Our records indicate the black sculpin (G4Q, S2) exists in the Middle Fork of the Holston River. We consider the sculpin as a Forest Service sensitive species, meaning we have concern over its population viability.	The Tier 1 EIS only discusses federal- and state-listed threatened and endangered species. In addition to discussing these listed species, Section 4.8, Physical and Natural Resources, has been revised to indicate that the black sculpin, which exists in the Middle Fork of the Holston River, is a Forest Service sensitive species.
3.3	Future studies will need to analyze AT mitigation measures such as the following: 1. To lessen the impact on noise from traffic on I-81, we suggest looking at a) construction of a separate trail underpass rather than an overpass for the Appalachian Trail, b) relocation of the trail north of its present location away from the existing interchange or along Dry Run/Bear Creek; and c) landscaping the corridor with planted conifer and deciduous trees native to the area. An especially beautiful native conifer tree to use could be the Frazier Fir. 2. To reduce any visual impacts, we suggest designing the face of the underpass to be inviting to AT hikers by utilizing a rock face at the tunnel entrances in the same vain as seen at tunnels and overpasses on the Blue Ridge Parkway or the Colonial Parkway at Williamsburg.	Please see response to Comment 3.1. This coordination would also occur to mitigate visual impacts to the Appalachian National Scenic Trail.

Letter 4

U.S. Department of the Interior, Willie R. Taylor

ID	Comment	Response
4.1	The DEIS adequately describes the Appalachian National Scenic Trail, as well as some of the impacts of the proposed project on the Trail in general terms. However, many of the impacts, including noise, visual impacts, and effects on the recreational experience and natural and cultural resources of the Trail, are not described at all, or are described in imprecise language. Thus, we believe that the impacts of the proposed project, many of which are likely to be significant, must be addressed in site-specific Tier 2 environmental impact statements, not categorical exclusions or environmental assessments as proposed by the Virginia Department of Transportation (VDOT).	The Preliminary Tier 1 Draft EIS did indicate that seven of the eight SIUs would require the preparation of EISs in Tier 2. However, the transmittal letter for that document stated that the Preliminary Tier 1 Draft EIS still had to undergo a fair amount of internal review. As part of that review, it was determined that EISs may not be appropriate based on FHWA's previous experience with previous interstate widening projects whereby, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. Environmental Assessments (EAs) or categorical exclusions (CEs) are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU. The Tier 1 Final EIS acknowledges that the significance of the actual impacts of individual SIUs is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts the SIUs advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs if significant impacts are identified.
4.2	Page 4-2, bottom: No mention is made here of Cedar Creek and Belle Grove NHP in the list of parks and recreation areas.	The Cedar Creek and Belle Grove National Historical Park has been added to the list of parks and recreation areas in the I-81 study area referenced in Chapter 4, Summary of Affected Environment, of the Tier 1 Final EIS.
4.3	Pages 4-21 -- 4-23, Visual Resources: There is no discussion here of views of Cedar Creek and Belle Grove NHP from I-81, or of views of the interstate from the park. Please include these important elements in the analysis.	Section 4.5, Visual Quality has been revised to include views of Cedar Creek and Belle Grove National Historical Park from I-81, and views of I-81 from the park.
4.4	Section 4-6, Parks and Recreation Areas: This is the section where important park and recreation resources are described, but Cedar Creek and Belle Grove NHP is omitted. Please include the park in the analysis. Later in the DEIS, under battlefields and historic resources, the Cedar Creek Battlefield is addressed. Nevertheless, the battlefield and the park, while overlapping, are not the same resource.	The Cedar Creek and Belle Grove National Historical Park has been added to Section 4.6, Parks, Recreation Areas, and Open-Space Easements.
4.5	Page 4-25 and 4-26: Please identify the Appalachian National Scenic Trail as a unit of the National Park System.	The Appalachian National Scenic Trail has been identified as a unit of the National Park System in the Tier 1 Final EIS.

Letter 4

U.S. Department of the Interior, Willie R. Taylor

ID	Comment	Response
4.6	Page 4-46: The Final EIS should indicate that significant wetlands are located on Appalachian National Scenic Trail lands administered by the Jefferson National Forest at MP 55 at Groseclose, along the Middle Fork of the Holston River and one of its tributaries, Dry Run/Bear Creek. The Final Tier 1 EIS also should note that these water bodies and associated wetlands may provide habitat for several of the threatened and endangered species listed in Table 4.8-9 on page 4-56. As a result, replacement may not be a suitable mitigation.	Because of the length of the study area and the large number of individual wetlands along the corridor, wetland impacts are not discussed at specific locations. However, potential wetland impacts are depicted in various figures in both the Tier 1 Draft EIS and the Wetlands and Water Resources Technical Report. Figure 5-8 (Sheet 2 of 11) of the Tier 1 Draft EIS does show wetlands in the vicinity of MP 55 and impacts are quantified between Exit 32 and 60. This same figure also shows Mielpost (MP)55 as being within an area where threatened and endangered species have been documented. More detailed information on wetland impacts is also provided in the Wetlands and Water Resources Technical Report. Specifically, the table in Appendix A on page A-114 shows approximately 0.1 acre of wetland impact between Exit 54 and Exit 60 for the Minimum Width, Maximum Width, and Add 2 Lanes concepts. Most of these impacts occur within the MP 55 area. More detailed information on specific wetlands being impacted by any road improvements would be discussed during Tier 2. Furthermore, consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 Final EIS. The appropriateness of mitigation measures at specific locations would be addressed during Tier 2 studies.
4.7	Page 4-72: The Final Tier 1 EIS should identify known specific resources and land uses where noise issues are expected to be a concern, instead of simply providing a generic list of types of land uses. The Appalachian National Scenic Trail should be included in that list as an Outdoor Leq (h) resource where quiet is an essential element of its intended purpose.	The Tier 1 Final EIS includes a copy of the I-81 Corridor Improvement Study Noise Technical Memorandum, dated October 7, 2005. Table 5.11-2 in this memorandum includes a detailed list of the noise-sensitive receptors that would receive noise levels of 66 dBA or greater. This list includes the two locations where the Appalachian National Scenic Trail crosses I-81 (in Smyth County and Botetourt County). These locations were not categorized as Category A locations, where serenity and quiet are of extraordinary significance, but were classified as FHWA Activity Category B (residences, schools, places of worship and recreational areas).
4.8	Page 5-33, Section 5.6.2: The analysis of impacts to parks and recreation areas fails to discuss Cedar Creek and Belle Grove NHP.	Section 5.6, Parks, Recreation Areas, and Open-Space Easements, has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.
4.9	Page 5-34, Table 5.6-1: The narrative and table should be changed to reflect that up to 40.82 acres of Appalachian National Scenic Trail fee lands (not right-of-way) lands between Milepost 151 and 152 north of the Daleville interchange may be affected by the proposed maximum width expansion of I-81. The maximum expansion of I-81 will likely require a complete relocation of the Trail footpath and its protective corridor of land to the west into a rapidly developing area. In addition, Appalachian National Scenic Trail fee lands are located at the Groseclose interchange (Milepost 55) and in Fauquier County (along Rail Section 8). These lands should be included in the inventory and reflected in the maps. All of these lands are Section 4(f) property.	Sections 5.6, Parks, Recreation Areas, and Open-Space Easements, and 5.8, Section 4(f)/6(f), have been revised to include impacts to the Appalachian National Scenic Trail fee lands.

Letter 4

U.S. Department of the Interior, Willie R. Taylor

ID	Comment	Response
4.10	Page 5-35: Expanding I-81 from its current 4-lane design to the maximum-width, 10-lane interstate could permanently change the character of the Appalachian National Scenic Trail between MP 151 and MP 152 in the vicinity of Daleville, Virginia. It is probable that the physical footpath of the Appalachian Trail and its protective corridor would be entirely dislocated between Route 220 (which also may be expanded significantly) and Route 779 (where the Trail passes under Interstate 81). While we recognize that the recreational experience of hiking the Appalachian Trail through this area is already heavily impacted by highway traffic, the improvements proposed under the maximum width alternative have the potential to obliterate the Trail and dramatically increase the exposure of visitors on the Trail to both the sights and sounds of traffic on Interstate 81 and Route 220, as well as surrounding development. We recommend that the VDOT enter into early consultation with the NPS to evaluate and identify potential mitigation measures that may exist before they are foreclosed by development.	Potential improvements will increase the exposure of visitors of the Trail to the sights and sounds of traffic on I-81. Future design efforts during Tier 2 would evaluate measures to avoid impacts to the Appalachian National Scenic Trail in conjunction with input from the officials having jurisdiction over the property. In addition, VDOT and FHWA would coordinate with the National Park Service and other appropriate parties to identify measures to mitigate unavoidable impacts to the Trail.
4.11	Page 5-40 to 5-43: The Final Tier 1 EIS should indicate that the Appalachian National Scenic Trail may be eligible for the National Register of Historic Places.	Table 3-4 in the Historic Properties Technical Report already includes the Appalachian National Scenic Trail on its list of potentially eligible architectural resources in the I-81 study area. Table 5.7-4 in the Tier 1 Final EIS has been revised to include the Appalachian National Scenic Trail in its list of potentially eligible architectural resources that would potentially be directly affected.
4.12	VDOT and Federal High Way Administration (FHWA) should work together with Cedar Creek and Belle Grove NHP of the NPS and with Belle Grove, Inc. the owner of the Fort Bowman property, to develop detailed avoidance and/or mitigation measures for this site.	In accordance with Section 4(f) and Section 106 regulatory requirements, VDOT and the Federal Highway Administration (FHWA) would coordinate with Cedar Creek and Belle Grove NHP of the NPS and with Belle Grove, Inc. to develop detailed avoidance and/or mitigation measures for impacts to this site during subsequent Tier 2 studies.
4.13	Page 5-54 to 5-55: The Final Tier 1 EIS should acknowledge that impacts to certain wetlands - particularly those that provide habitat for threatened and endangered species - may not be mitigated through off-site compensatory actions.	This text has been added to the Tier 1 Final EIS.
4.14	Table 5.9-9 and 5.9-10: Please provide more detailed information regarding occurrences of threatened and endangered species in the vicinity of milepost 55. These occurrences are not identified in our inventory.	Please see response to Comment 4.6.
4.15	Page 5-31 to 5-32: This narrative as currently written is not sufficient to evaluate the visual impacts of the widening scenarios to the Appalachian National Scenic Trail in the areas of Mileposts 55 and 150 where the trail crosses I-81. It needs to be presented in sufficient detail so that reviewers and the general public can understand how different sensitive visual resources such as the trail are affected, and the degree that these impacts would be affected with the minimum width and maximum width alternatives. This can be done through a narrative, or through a table that incorporates the Appalachian National Scenic Trail along with the other 27 sensitive visual resources and provides an estimation of the degree of impact associated with the various lane configurations.	The level of analysis for potential visual impacts included in the Tier 1 EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concepts. In Tier 2, the formal Section 106 process, which would include consultation with the National Park Service and other appropriate parties, would be the mechanism used to examine in detail the effects of individual projects on the Appalachian National Scenic Trail.
4.16	Pages 5-44 -- 5-47, Section 4(f) Resources: This section fails to include Cedar Creek and Belle Grove NHP in the list of 4(f) properties.	Please see response to Comment 4.8.
4.17	Page 5-72 to 5-74, including Table 5.11-1: We are unable to determine from the information that is provided whether the Appalachian National Scenic Trail is one of the noise-sensitive receptors identified in this narrative and table. Please provide sufficient detail on what noise-sensitive receptors are included in this analysis, and what the anticipated impacts to these resources and facilities would be.	Please see response to Comment 4.7.

Letter 4

U.S. Department of the Interior, Willie R. Taylor

ID	Comment	Response
4.18	Figure 5-6 and 5-7: The land base of the Appalachian National Scenic Trail should be identified in Figure 5-6 on Map 8 of 11, just like it has been identified on Map 2 of 11. The same is true for the map of Rail Section 8 on Sheet 3 of 4 of Figure 5-7.	The Appalachian National Scenic Trail only crosses I-81 at Milepost 55 in Smyth County (Figure 5-6, Sheet 2 of 11) and at Milepost 152 in Botetourt County (Figure 5-6, Sheet 5 of 11). The Trail was already identified in Tier 1 EIS for Rail Section 8 (Figure 5-7, Sheet 3 of 4).
4.19	Figure 5-9, Rail Section 8: Wetland vegetation and the 100-year floodplain extend to the eastern edge of the study area. The route of the Appalachian Trail should be depicted on the map.	Potential impacts to the Appalachian National Scenic Trail are depicted on Sheet 3 of 4 in Figure 5-7 (Potential Impacts to Land Uses and Man-made Environment). Figure 5-7 shows potential impacts to all parks and recreation areas. Figure 5-9 is intended to only show potential impacts to natural resources.
4.20	The Fish and Wildlife Service (FWS) recommends that the Tier 2 Draft Environmental Impact Statement (DEIS) for this project include a detailed migratory bird compensation plan and a commitment by the FHWA to implement that plan. According to the Tier 1 DEIS, this project would impact between 1,500 and 2,500 acres of forested habitat. In FWS letters to FHWA dated December 12, 2003 and February 15, 2005, FWS recommended that enhancement of fish and wildlife resources be made an intricate part of this study and overall project. FWS recommended that the Environmental Impact Statement (EIS) include a commitment by the FHWA to compensate migratory bird habitat impacts by restoring and protecting habitat. FWS continues to recommend this type of compensation.	Impacts to migratory bird habitats will depend upon the design of individual projects. As a result, the Tier 1 Final EIS indicates that during the Tier 2 studies, opportunities to enhance wildlife and migratory bird habitat would be evaluated when more detailed roadway design is available. Conceptually, such opportunities may include the protection and/or creation of natural areas, the restoration of upland forest habitat, as well as the establishment of forested riparian buffers next to streams and rivers. The evaluation of these habitat enhancement opportunities would be performed in consultation with the U.S. Fish and Wildlife Service and other appropriate parties.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.1	EPA has several concerns with this Tier 1 DEIS. An over-arching concern is the reliability of traffic modeling when projected to 2035. In our experience, this is much further ahead in time than typical traffic forecasting, and the Tier 1 DEIS provides little basis for describing how the projections were made. The Tier 1 document references the traffic technical study, but includes no data or factual summary to describe the assumptions used. Assumptions used in forecasting future demand that should be discussed in more detail in the body of the FEIS might include future changes in energy availability, fuel prices and stability, national and regional trends in truck vs. rail freight movement, and economic and growth trends along I-81 both inside and outside of Virginia.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take ten years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each SIU NEPA study in Tier 2. The Tier 1 EIS is a lengthy document and in an effort to reduce bulk and increase readability, in accordance with 40 CFR 1502.21, it was determined that the assumptions and data on traffic forecasting are better suited to be in the technical reports. The technical reports were made available for review on the internet and by request.
5.2	As a result of the uncertainty of 2035 projections, EPA recommends that perhaps three tiers of study may be warranted. Tier 2 could address 2020 needs driven by local transportation issues and local growth, with a third Tier of study to address longer term needs. This would allow for longer term projects to be adjusted according to updated traffic and economic analysis thus providing a clearer picture of what improvements are needed prior to implementation. EPA recommends at a minimum, a Tier 2 mechanism be identified in the FEIS to revisit the projected 2035 assumptions and needs before a project is committed to by the sponsoring agency.	Please see response to Comment 5.1.
5.3	Another major concern with this DEIS is the apparent intent (pages ES-xvi and 6-5) to proceed with either Categorical Exclusions (CE) or Environmental Assessments (EA) for the Tier 2 documents. This is a change from the pre-draft document, which identified certain Sections of Independent Utility (SIUs) as likely requiring EISs. EPA commented that the predraft document, which identified sections that may require a Tier 2 EIS, was a good start and even offered suggestions on adding details to this discussion so it was clear why an EIS may be required in Tier 2. However, all reference to the type of NEPA document expected for each SIU has been removed from the final draft. It is our opinion, even from the limited social and natural resource impact information contained in the Tier 1 DEIS, that EISs will likely be required for some of the Tier 2 projects. This would be particularly true for new alignments and projects with large numbers of residential displacements.	The Preliminary Tier 1 Draft EIS did indicate that seven of the eight SIUs would require the preparation of EISs in Tier 2. However, the transmittal letter for that document stated that the Preliminary Tier 1 Draft EIS still had to undergo a fair amount of internal review. As part of that review, it was determined that EISs may not be appropriate based on FHWA's previous experience with previous interstate widening projects whereby, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. Environmental Assessments (EAs) or categorical exclusions (CEs) are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU. The Tier 1 Final EIS acknowledges that the significance of the actual impacts of individual SIUs is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts the SIUs advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs if significant impacts are identified.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.4	The document is unclear in regard to exactly what improvement concept decisions will be made as a result of this study. This confusion appears in part to stem from the undefined relationship between the corridor long improvement concepts found in Chapter 3 and the SIUs identified in the Executive Summary. The improvement concepts discussed in Chapter 3 are not targeted to solve location specific issues. However, near the end of Chapter 3 more focus is put on location specific issues through the identification of certain highway stretches requiring one additional lane in each direction. The DEIS confuses this issue by not explaining the difference between these highway stretches, the SIUs, and two new concepts introduced in the Environmental Consequences section. The document does not explain why improvement concepts were developed for the entire 325 mile roadway since the identified SIUs would provide more focus. In addition, it is not clear if each of the numerous improvement concepts will be carried forward for more detailed study within each SIU.	This comment deals with the relationship among four elements discussed in the Tier 1 Draft EIS: "corridor-long improvement concepts", "certain stretches of the corridor that require at least one additional lane in each direction", "Sections of Independent Utility (SIUs)" and the "Minimum Width and the Maximum Width templates". The corridor-long improvement concepts discussed in Chapter 3 of the Tier 1 Draft EIS were targeted to address the overall purpose and need of the Tier 1 EIS. One of the conclusions reached from concept development process was that, because of the varying travel demands, no single consistent corridor-length concept satisfied the needs of I-81 in Virginia without providing more lanes than needed. A concept with a variable number of lanes between interchanges along I-81 most efficiently addressed the needs of the roadway and, in fact, is proposed to be advanced. The variable concepts would minimize the social, economic, and environmental impacts from the consistent lane concepts and would reduce costs by not providing more lanes than needed. From this point, depending upon the toll scenario and whether or not Rail Concept 3 was used in combination, stretches of corridor than required at least one additional lane in each direction were identified. For those stretches where the provision of one additional lane did not meet the level of service standard, there were several potential multi-lane solutions (e.g., separated versus non-separated lanes; exclusive truckways, non-exclusive truckways, and exclusive car lanes). This resulted in a range of concepts that met the Purpose and Need. For purposes of presenting potential impacts of this range of concepts and consistent with a tiered approach, the narrowest highway footprint and the widest highway footprint were determined. These potential roadway cross sections of these concepts are defined in detail in Chapter 5, Environmental Consequences and are referred to as the Minimum Width and the Maximum Width templates. The Sections of Independent Utility (SIUs) are also consistent with the overall purpose and need of the Tier 1 EIS. The use of SIUs, as stated in Chapter 6, Tier 1 Decisions, was to provide practical approach to improving I-81 throughout Virginia. This approach breaks the corridor into a series of sections (or projects) that had logical termini based on traffic breakpoints (i.e., traffic exchanges and service demands) using future No-Build traffic volumes. These SIUs would have more detailed environmental studies undertaken on them during Tier 2. The logical termini of the SIUs are not related to the various roadway cross sections that were used to compose the Minimum Width and the Maximum Width templates (as discussed in Chapter 5, Environmental Consequences) in that these termini do not necessarily coincide with the locations where there would be a proposed change from one roadway cross section to another. The potential roadway cross sections may transcend the locations of the logical termini. The precise roadway configuration would be determined in Tier 2, based on traffic projections or other factors, when detailed site-specific information is developed.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
		The text of the Tier 1 Final EIS has been revised to more clearly describe the relationships discussed in the above paragraphs. It also indicates the improvement concepts within each SIU that are to be advanced into Tier 2 for more detailed study.
5.5	A related concern is the lack of acknowledgement that improvement concepts identified in Tier 1 may not be entirely buildable as conceived due to environmental constraints that may be discovered in a Tier 2 review. It should be made clear that an improvement concept recommended for Tier 2 does not have to be built as conceived and may have to be modified as later design stages are developed.	The Tier 1 Final EIS acknowledges that the number of needed lanes for the improvement concept proposed to be advanced into Tier 2 may change. It indicates that the precise roadway configuration would be based upon detailed site-specific information and traffic projections developed during Tier 2, and on the results of further consultation with agencies and the public.
5.6	Chapter Six (Decisions to be Made) identifies two potential corridors on new location but provides no meaningful information on the conceptual corridors or the potential environmental consequences. This is a serious shortcoming of the Tier 1 document in that some of the larger environmental impacts and more costly aspects of the I-81 improvements will likely occur in these areas. There is no information to make a location or potential location decision for these areas in the Tier 1 document.	The Process Streamlining Agreement Between the Virginia Department of Transportation and the Federal Highway Administration on the Interstate 81 Corridor National Environmental Policy Process has a list of bullets that indicate the decisions that would be made in Tier 1. Bullet #4 of that list indicates that one of those decisions would be on the location of the corridor for studying future highway alignments. There are two locations along the existing I-81 corridor that have extensive development adjacent to the I-81 right-of-way. The impacts from the potential I-81 improvement concepts, especially displacements, may rise to the level where a corridor on new location may be prudent. These sections are the I-77 overlap section near Wytheville (Milepost 72 to 81 within SIU #2) and a section in Harrisonburg (Milepost 243 to 251 within SIU #6 and #7). At these two locations, FHWA and VDOT are simply proposing to evaluate corridors on new location, as well as widening existing I-81. EPA is correct in indicating that there is no information in the Tier 1 EIS to make a location decision or potential location decision. In fact, FHWA has not made ANY location decision. The Tier 1 EIS simply delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. FHWA has not identified the actual location of those corridors on new location within these general areas, or the specific alignments within those corridors and their impacts. This detailed analysis will occur during Tier 2. This approach addresses the decision listed in Bullet #4 of the Process Agreement. FHWA and VDOT acknowledge the possibility that the social, economic, and environmental impacts may be so large that corridors on new location are not practicable.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.7	EX-xvi: The second paragraph indicates that all Tier 2 documents will be either EAs or CEs. The FEIS should recognize that EISs could be needed for some sections. This was clearly indicated in the pre-draft document and should be included in the FEIS. In addition, please include a more thorough summary of the major issues expected in each EIS and EA that will follow in Tier 2. Additional details, such as the specific nature of the Section 4(f) and 106 issues should be given. For each Section 4(f) issue the name of the resource should be listed and the type of impact should be indicated. For example, will the impacts be due to right of way impacts, noise, visual or other?	Please see response to Comment 5.3. This Tier 1 EIS provides information on the range of potential construction impacts to Section 4(f) properties (i.e., direct acquisition). Section 5.8, Section 4(f)/6(f) Discussion acknowledges that, in addition to direct use of land from Section 4(f) properties, impacts may occur from constructive use whereby the property is not acquired in any way but the features that qualify the resource for Section 4(f) consideration are substantially impaired because of the proximity of proposed improvements. The text indicates, however, that the specific type of use of each affected Section 4(f) property cannot be determined at this stage of the study although preliminary estimates of direct encroachment on some Section 4(f) properties have been provided for comparison. Characterization of use of these resources associated with roadway improvements would be evaluated during Tier 2. Section 5.7, Historic Properties acknowledges that, in addition to direct impacts from construction, other types of effects to historic properties can occur as a result of an undertaking. These can include removing the property from its historic location, changing the character of the property's use or setting when they contribute to its significance, and introduction of visual, atmospheric, or audible elements that diminish the integrity of the significant features. While all or some of these effects may occur as result of the improvement concepts, the analysis in the Tier 1 EIS does not address these effects because the level of engineering available for the Tier 1 improvement concepts is insufficient to evaluate these effects. Consultation with the VDHR and other consulting parties and the public concerning the full range of effects to historic properties would be undertaken during the Tier 2 process. For the above reasons, the specific nature of the Section 4(f) and Section 106 issues cannot be included in the Executive Summary or elsewhere in the Tier 1 EIS.
5.8	NEPA Tiering Process: Page 1-2: If state law does not allow tolls on cars, please more thoroughly explain why tolling cars is being evaluated and by what legal mechanism it can be evaluated or implemented.	As discussed in the Tier 1 EIS, passenger vehicles can not currently be legally tolled on I-81. The legal mechanism with which tolls can be implemented is through an act of the legislature. Tolls for passenger vehicles are evaluated in the Tier 1 EIS to assess the impact these tolls could have on corridor operations and to assess the level of impact passenger tolls have on the potential for truck diversion. For example, the results of the toll diversion analysis show that if high tolls are assessed on trucks only, trucks would be more likely to divert to local roadways than if the same high tolls were assessed on both passenger vehicles and trucks. This is valuable information that could not be concluded if the analysis did not consider tolls on passenger vehicles.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.9	Purpose and Need: The traffic growth projections have a direct relationship with economic growth; by using growth forecasts from macroeconomic econometric models, traffic growth in the I-81 Corridor is estimated. However, issues such as modal shift, commodity composition, rising fuel prices, truck driver shortages, increased transport efficiency of rail, or environmental impacts such as diesel exhaust emissions, may or may not call into question the 2035 forecasting. Moreover, the growth projections were extrapolated from a time at which fuel prices were much lower than today and accounted for a smaller portion of total costs. These issues should be disclosed and discussed in the FEIS with the focus of the discussion on the accuracy of modeling growth as far out as 2035.	The traffic growth projections are based on a number of factors, including economic trends and historic traffic volume data in the region. These trends and historic data go back to 1978 and include the effects of previous energy shortages. While the factors noted have some effect on growth, they have not been shown to have a substantial affect over time and would not affect the overall traffic forecast, in some part because of the trade-off costs of shifting modes or choosing alternative routes. Additionally, the NEPA process directs federal agencies to consider the effects to the extent they are reasonably foreseeable. The inclusion of these speculative factors would not contribute to informed decisionmaking and, therefore, have not been included in the Tier 1 EIS. Notwithstanding, traffic forecasts will be reassessed and updated, as appropriate, for the Tier 2 NEPA studies for each SIU. The Transportation Technical Report provides a detailed description of the chosen horizon year. The Federal Highway Administration requires the useful life of completed projects on the interstate system to be at least 20 years from the time construction is complete. It is anticipated that any construction projects progressed along I-81 could be complete by 2015; therefore 2035 is the future horizon year.
5.10	The DEIS implies that congestion on Rt. 11 will not be negatively impacted either by the no-build alternative or by a build concept with tolling. This seems to indicate that I-81 is not as congested as forecasted or it would stand to reason that Rt. 11 would be more heavily impacted by the no-build. Please explain traffic condition assumptions for the no build and under tolling in the body of the FEIS.	As noted in the Executive Summary of the Tier 1 EIS and described in great detail in the Transportation Technical Report, an expanded I-81 without tolls would improve conditions on U.S. Route 11 and other local roadways in the I-81 study area by diverting traffic from these local roadways to the interstate. This is especially true in the more populated or urban areas. The analysis shows that 5 to 15 percent of traffic on parallel facilities will divert to an improved I-81 in 2035, reducing congestion along the local roadway network. If tolls are implemented, a portion of this traffic (depending on the toll charge and which vehicles are tolled) will divert back to the local roadway system. Under the low toll scenarios, traffic volumes on U.S. Route 11 are expected to be below 2035 No-Build projections, despite vehicles diverting from I-81 because of tolls. Therefore, there is no negative impact from tolls when compared to the No-Build condition. Under the high toll scenarios, volumes from diversion are pushed back to or beyond 2035 projections. Therefore, there is only a low impact from tolls when compared to the No-Build condition.
5.11	The DEIS switches back and forth between the term improvement concept and build concept. The FEIS could be much clearer by defining these terms and only using one or the other but not both, unless they are distinctly different.	There is no distinction between "improvement concepts" and "Build concepts" and these terms were used interchangably in the Tier 1 Draft EIS. We received no other comments regarding confusion about the interchangeable use of these terms. Therefore, we have not modified the Tier 1 Final EIS with regard to this terminology.
5.12	It is unclear what the relationship is between these identified stretches of highway found in Chapter 3 and the SIUs identified in the Executive Summary. The FEIS should clearly explain the relationship between the stretches of highway identified in this section and the SIUs.	Please see response to Comment 5.4.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.13	In addition, the FEIS should better explain how the minimum and maximum footprint concepts first identified in the Environmental Consequences section evolved from the improvement concepts found in the chapter. More explanation is warranted regarding why VDOT studied uniform corridor length improvements in the first place if certain sections will require more tailored localized improvements that may not resemble the concepts found in this document.	Please see response to Comment 5.4.
5.14	The conclusion of this section could be further clarified regarding specifically what will be recommended for Tier 2 study. It is not clear if each corridor long concept will be carried forward as an alternative for each SIU. For example, what will be studied in Tier 2 for the Harrisonburg area? Will TSM, TSM plus one lane in each direction, two lanes in each direction, uniform 6 lanes, uniform 8 lanes, separated lane concepts and each of the combinations of these with Rail Concept 3 be studied in Tier 2 for Harrisonburg? This should be more thoroughly described in the FEIS. There is a summary of information regarding what was learned from the various studies, but how this will be translated into a narrowing of concepts to be advanced to Tier 2 needs more explanation.	The conclusion section of Chapter 3, Improvement Concepts, now indicates that the improvement concepts that are to be advanced into Tier 2 for more detailed study are discussed in Chapter 6, Tier 1 Decisions. The "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to continue to be pursued under Section 1216(b) as a possible funding mechanism to support long-term improvements to I-81. Along with the "Build" concept being advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS. Further study will occur during Tier 2. Based on the reasons given in Chapter 6, Tier 1 Decisions, rail concepts are not proposed to be advanced into Tier 2 of this NEPA study.
5.15	3.9 TSM: Please explain what is meant by "the evaluation results were slightly conservative because the Transportation Demand Management (TDM) measure of increased park and ride lots was not included in the evaluation of the other stand alone alternatives". It appears that by not assuming the reduction of 3-5% in traffic from new park and rides that the evaluation results would be generous, not conservative.	To avoid confusion, the statement indicating that the evaluation results for the other stand-alone concepts were slightly conservative has been deleted.
5.16	3.2.3 Rail Concepts: The FEIS should contain more detail regarding the rail concepts, for example are there new tracks, sidings or alignments included in the rail improvements and if so where. This will help better understand the potential impacts as compared to the generic 100 foot wide corridor and is more commensurate with the information presented for the highway improvement concepts.	Section 5.1.2 of the Concept Development and Analysis Technical Report already has detailed information about the types of improvements included in each of the Rail Concepts. This information has now been included in Section 3.2, Improvement Concepts, in the Tier 1 Final EIS.
5.17	Please summarize in the narrative how the addition of a rail concept to a highway concept affects safety and capacity measures.	Chapter 3, Improvement Concepts, now indicates that rail concepts were studied, in part, because of their potential to divert freight (i.e., trucks) off of I-81 in Virginia. Because of this potential diversion, the addition of the rail concepts to roadway improvement concepts would, to a varying degree, improve safety and traffic operations along I-81. The Tier 1 Final EIS assesses the effectiveness of these combination concepts in addressing the needs of I-81.
5.18	Please develop a comparison table of the improvement concepts, including the combination and separated lane concepts, so that the concepts can be quickly compared to each other in regard to safety and capacity improvements.	Table 5-5 of the Transportation Technical Report compares the operational results (capacity) of the non-separated, combination, and separated lane improvement concepts. Safety is qualitatively discussed in Section 5.5, Safety Effects, in the Transportation Technical Report. This information is not conducive to being included in a table.

Letter 5

U.S. Environmental Protection Agency, Region III, William J. Hoffman

ID	Comment	Response
5.19	Please indicate by percentage how much of I-81 is in need of more than one lane in each direction. It appears that 61% of I-81 will need more than one lane in each direction by 2035. The FEIS should state this explicitly.	As stated in Section 3.2.11 and in Section 3.4 of the Tier 1 EIS, depending upon the toll scenario and whether or not Rail Concept 3 is used in combination, by 2035, approximately 37 to 64 percent of the corridor would need one lane in each direction. The remainder of the corridor would need more than one lane in each direction.
5.20	The I-81 Tier 1 DEIS is unique in the respect that a rather detailed alternative, put forward by private enterprise, Star Solutions, is, or was one of the improvement concepts being considered. What happened to the STAR Solutions "alternative" proposed several years ago and addressed in an earlier version of the DEIS? It is not clear if the Star Solutions alternative is the separated truck lanes concept in the DEIS or if it has been dropped from consideration.	The NEPA process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. Under NEPA, the Tier 1 EIS evaluated a range of reasonable and feasible improvement concepts that address the established purpose and need of the project. These solutions included truck-separated lane concepts, similar to the alternative presented by the Star Solutions team, but encompassed all reasonable variations thereof. Additionally, these roadway solutions were paired with more comprehensive railroad improvements. As stated in Chapter 6, Tier 1 Decisions, the separated lane concepts are not proposed to be advanced into Tier 2.
5.21	EPA supports the approach of tailoring the projects to the needs of the SIUs but the document needs to better explain how these evolved from the improvement concepts found in Chapter 3.	Please see response to Comment 5.4.
5.22	EPA recommends the FEIS contain a discussion of future coordination to occur regarding the evaluation and preservation of battlefield resources in Tier 2.	The Tier 1 Final EIS indicates that future coordination efforts regarding battlefields would be in accordance with Section 106 requirements. Consulting parties to the Section 106 process would include the VDHR, the Advisory Council on Historic Preservation, and other individuals and organizations with a demonstrated interest in the undertaking because of the nature of their legal or economic relation to the undertaking or the battlefields, or their concern with the undertaking's effects on battlefields. During Tier 2, the full range of effects on these battlefields associated with roadway improvements would be characterized. Furthermore, Section 106 and Section 4(f) require consideration of measures to avoid, minimize, or mitigate any adverse effects on the battlefields.
5.23	No data on forest impacts is given. EPA recommends forestland impacts be included in the FEIS.	Impacts to forested lands are described in Section 5.1, Land Use, and listed in Table 5.1-2.

Letter 6

U.S. Surface Transportation Board, Diana Wood

ID	Comment	Response
6.1	I spoke with one of our attorneys and he wants to know if Rail Concept 4 will support Amtrak for passenger service, or private carriers?	Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This concept was proposed during the Scoping Process by Rail Solution, a rail advocacy group. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans. Based on the reasons given in Chapter 6, Tier 1 Decisions, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 7

Commonwealth of Virginia Department of Conservation and Recreation, S. Rene Hypes

ID	Comment	Response
7.1	According to the updated information currently in our files, the I-81 project corridor intersects with fourteen Natural Heritage conservation sites in addition to several karst screening areas (Table 1). As noted on page 4-57 of the draft EIS, the Pedlar Hills Glades Natural Area Preserve is within the proposed study area in Montgomery County, which contains a significant Limestone/Dolomite Barren community located on a steep slope adjacent to the existing highway corridor.	Table 4.8-11 of the Tier 1 Final EIS contains a list of the natural heritage sites in the I-81 study area, which was defined as being generally 500 feet on either side of the existing pavement on I-81. This 1,000-foot buffer width was used because it is believed to represent the maximum area within which the potential highway improvement concepts may be developed. A one kilometer study area width was not used. The Karst Topography subsection in Section 4.8 has been revised to indicate that the Pedlar Hills Glades Natural Area Preserve in Montgomery County contains a significant Limestone/Dolomite Barren community on a steep slope adjacent to I-81.
7.2	Due to the potential for these study corridors to support populations of natural heritage resources, DCR recommends an inventory for these resources in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.	The Tier 1 Final EIS discusses potential impacts to natural heritage sites where state- and federal-listed species previously have been identified. The document indicates that a more detailed analysis of impacts to these species will occur in Tier 2. This more detailed analysis could involve a field survey of the state- and federal-listed species in the study area, if appropriate.
7.3	Please note on page 4-56, Table 4.8-4.9 Threatened and Endangered Species: I-81 Study Area identifies Smooth Coneflower (Echinacea laevigata, G2/S2/LE/LT) and Shale-barren rockcress (Arabis serotina, G2/S2/LE/LE) as "not listed" on the state level. Both of these rare plant species are listed as threatened by the Virginia Department of Agriculture and Consumer Services (VDACS).	Table 4.8-9 of the Tier 1 Final EIS now indicates that the Smooth Coneflower and the Shale-barren rockcress are listed as "Threatened" at the state level.
7.4	As stated in our previous comments, the I-81 study corridor transverses karst topography including two documented significant caves. The Interstate 81 Cave in Smyth County near Marion supports five documented natural heritage resources according to the scientific work conducted by John Holsinger in 1967. The second cave is the Billy Williams Cave in Rockbridge County. This cave was closed during the construction of Route 81, however may still support natural heritage resources.	Comment noted. Both significant caves (Interstate 81 Cave and Billy Williams Cave) are identified in the Tier 1 EIS. As stated, "the locations of these caves are not mapped in any figures [in the Tier 1 EIS] in order to protect these resources".

Letter 7

Commonwealth of Virginia Department of Conservation and Recreation, S. Rene Hypes

ID	Comment	Response
7.5	According to Wil Orndorff, DCR Karst Protection Coordinator, the draft EIS document is limited in addressing karst issues for the proposed project. It does not specify strategies for avoiding or mitigating impacts to karst features, except for one statement regarding avoidance of discharge to sinkholes. Karst is addressed in two short paragraphs on pages 3-35 and 3-36 of the "Wetlands and Water Resources" report, which acknowledges the intense karst development along portions of the I-81 corridor in southwest Virginia, and the inherent susceptibility of the karst aquifer to contamination, particularly of highway runoff and spills that may enter sinkholes. The issue of delineating the fate of contaminants, including highway runoff, discharged to the sinkholes in not addressed. DCR recommends any sinkhole along the I-81 corridor receiving runoff be studied using dye tracing techniques to determine potentially impacted wells, caves, springs, and streams. Karst conditions are described in general terms on page 4-42 of Chapter 4 - Affected Environment. This section also acknowledges two known state designated significant caves along the corridor, but does not state how impacts to these caves would be avoided or mitigated.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for determining impacts and identify the appropriate site-specific strategies for avoiding or mitigating impacts to environmental resources, such as karst features or caves.
7.6	The existence of rare cave biota is noted, but attention is paid only to listed species. It should be noted that bats are addressed under caves, when in reality only two of the five mentioned bat species use caves. Up to six additional cave bat species may be encountered in the study area, including three listed as endangered.	Section 4.8, Physical and Natural Resources, of the Tier 1 Final EIS has been revised to indicate that only two bat species reside in caves.
7.7	The Madison Cave Isopod (Antrolana lira, GZ/S2/LT/LT), which is known from along the corridor from Lexington to Harrisonburg, is listed a threatened under state and federal endangered species acts, but is not mentioned in the report. At the very least, inventory efforts along the interstate need to be made to determine whether this legally protected species is present.	Table 4.8-9 of the Tier 1 Final EIS now indicates that the Madison Cave Isopod is listed as "Threatened" at the federal level and at the state level.
7.8	Page 5-49 briefly addresses karst issues, but again does not significantly address the issue of impact avoidance or mitigation.	The issue of impact avoidance and/or mitigation relative to caves will be addressed in greater detail during Tier 2 studies when more detailed information on the location and extent of caves near I-81 is collected.

Letter 7

Commonwealth of Virginia Department of Conservation and Recreation, S. Rene Hypes

ID	Comment	Response
7.9	On page 5-58 the authors note that routing of runoff from the highway should be avoided due to potential impacts to karst aquifers, etc. This is not the existing practice along I-81, unless sinkholes that are off of the VDOT right of way are excluded fiom this provision. In many parts of southwestern Virginia, rerouting of runoff from sinkholes could prove both impracticable and environmentally detrimental. A better solution is the use of stormwater management facilities to impound runoff, trap contaminants, and discharge along natural channels, whether they lead to surface streams or sinkholes. The destination of water discharged to sinkholes, whether on or off of the VDOT right-of-way, should be determined via dye trace studies so that in case of a spill, appropriate recovery and alert measures can be implemented.	Please see response to Comment 7.5.

Letter 8

Commonwealth of Virginia Department of Conservation and Recreation, Robert Munson

ID	Comment	Response
8.1	The proposed improvements of the I-81 Corridor impact many scenic and recreational resources. The Tier 1 draft addresses some of the resources, but overlooks others. A list of the sites is attached for your consideration. All of the resources need to be addressed in the next I-81 Corridor Improvement Study Draft Environmental Impact Statement with more detailed impact descriptions, including physical, visual and noise impacts. Many of these impacts will require mitigation measures and costs of mitigation must be addressed site-specifically in the Tier 2 environmental impact statement.	Many of the recreation areas in the provided list are either already included in the Tier 1 EIS or are outside of the defined I-81 study area. The Geographic Information Systems (GIS) database used to characterize existing conditions and evaluate impacts does not include some of the additional recreation areas provided on your list. Scenic and recreational resources will be addressed during Tier 2 studies, as appropriate, when more detailed information on highway design is developed. This will allow for a more detailed description of physical, visual and noise impacts to these resources.
8.2	DCR has specific concerns for all recreational and scenic corridor crossings. Special consideration and care must be taken in the design of these to maintain the scenic corridor and provide safe crossings, whether by boat, foot, bike or horse.	Preservation or improved accessibility of non-motorized or motorized traffic (such as pedestrians, bicycles, horses, boats, or buggies) are more appropriately considered in Tier 2.
8.3	In the visual quality section, the view from several specific sites is missing, as is the sound impacts on these sites. Please include the additional site per the attached list. All of the sites need to be included on the maps.	Please see response to Comment 8.1.
8.4	Additionally, Table 4.6-1 is missing several recreation areas near or adjacent to the I-81 corridor. These are listed in the attached sheet. The New River Trial State Park is not listed as a 6(f) property and should be. DCR records indicate that development and purchase of land at this park were done with Land and Water Conservation Funds. DCR files also indicate that the funds used for the Virginia Creeper Trail were Recreation Trails Funds and do not hold the 6(f) restrictions. Please contact the land holders for each property to get a detailed description of the land holdings and restrictions for each property listed on the table.	Please see response to Comment 8.1. All recreation areas will be evaluated in more detail during Tier 2 studies including coordination with individual park property owners.

Letter 9

Commonwealth of Virginia Department of Environmental Quality, Richard F. Weeks, Jr.

ID	Comment	Response
9.1	...these numbers do not include intermittent stream impacts, which are likely to increase the total impacts significantly. Intermittent streams within the project area should be identified at the next level of analysis in order for DEQ to have a clear understanding of potential impacts.	As stated in Section 5.9, Natural and Geologic Resources, in the Tier 1 Draft EIS, "Although Table 5.9-1 does not include potential impacts to intermittent streams, each concept could impact at least 960 linear feet (0.2 miles) of intermittent streams. This number is likely to increase, however, since Tier 1 did not include the field analysis required to determine whether some water features in the I-81 corridor were intermittent (marked as "unknown"). The perenniality of "unknown" features would be determined during later stages of project development." The Tier 2 analyses would also evaluate avoidance and minimization measures. During Tier 2, unavoidable impacts to jurisdictional waters of the United States would be compensated, as appropriate.
9.2	...DEQ is unable to determine if avoidance and minimization has occurred to the maximum extent practicable and recommends that VDOT take steps to further avoid and minimize impacts. It appears that avoidance and minimization was minimally assessed from a Section 4(f) standpoint. Avoidance and minimization of surface waters should be accomplished to the maximum extent practicable; options include but are not limited to bridging, the use of floodplain pipes, alternative alignments, reduction of footprint through the use of retaining walls or steep slopes, bottomless culverts, and stream relocation. DEQ would like to see a discussion of avoidance and minimization techniques in the next level of analysis.	In accordance with Section 4(f) and other regulatory requirements, VDOT and the Federal Highway Administration (FHWA) would coordinate with the appropriate parties to develop detailed avoidance, minimization, and/or mitigation measures for impacts during subsequent Tier 2 studies.
9.3	The DEIS identified two active petroleum release sites. One of the identified sites has been closed since the time of this study. It is not anticipated that the known active releases will cause a significant problem in construction activities. The DEIS did not look at the closed petroleum release sites. Construction activities on closed sites have the potential to encounter petroleum impacted soils and groundwater. Closed petroleum release site should be identified and addressed in the next level of analysis. Likewise, active Underground Storage Tank (UST) and Aboveground Storage Tank (AST) facilities are not identified in the report. These sites may require tank closures activities if acquired by VDOT. Tank closure activities present a potential to discover additional petroleum releases that may impact VDOT activities. Active UST and AST facilities within the project area should be identified and addressed in the next level of analysis.	Comment noted. A more detailed analysis of active USTs, ASTs, and closed petroleum release sites will be undertaken during Tier 2 studies, as appropriate.

Letter 9

Commonwealth of Virginia Department of Environmental Quality, Richard F. Weeks, Jr.

ID	Comment	Response
9.4	Several impaired streams are located within the project area. The impaired waters within the proposed corridors should be identified and addressed in the next level of analysis.	A complete list of impaired streams, including the type of impairment, is provided in the I-81 Corridor Improvement Study Wetlands and Water Resources Technical Report. Detailed impacts to water quality are dependent on specific engineering design details and such an analysis would be completed during Tier 2. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for deterimining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to water quality.
9.5	...threatened and endangered species should be in the next level of analysis. DEQ recommends that efforts be made to avoid and minimize impacts to T&E species and that coordination be conducted with the Department of Game and Inland Fisheries, Virginia Marine Resources Commission, and the Department of Conservation and Recreation.	Section 5.9, Natural and Geologic Resources, of the Tier 1 Final EIS now indicates that Tier 2 efforts would include consultation with the United States Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, Virginia Marine Resources Commission, and the Virginia Department of Conservation and Recreation to address avoidance and minimization measures to ensure that the proposed activities will not jeopardize any listed species or their critical habitat.
9.6	Because of the proximity of this project to aquatic resources, it is critically important that there be strict adherence to and monitoring of erosion and stormwater management practices to ensure that these practices are adequately preventing sediment and pollutant migration into adjacent surface waters. This is particularly important given the fact that the majority of the streams are listed on DEQ's current §303(d) Total Maximum Daily Load (TMDL) Priority Waters List as impaired due to several causes.	Please see response to Comment 9.4.
9.7	DEQ conducted a cursory review of available geographic information system (GIS) database information from the websites of local governments along part of the corridor. The review was confined to a 1000-foot buffer along the proposed I-81 route, within counties and cities in the Roanoke area. The review indicates at least fifteen sites or hazardous waste generators are not included among those listed on pp. 4-74 through 4-76 of the draft report. Among the omitted sites are four landfills: [see table in comment letter]	Table 4.11-1 in the Tier 1 Final EIS has been revised to include the hazardous waste sites or generators included in the RCRA table in Virginia DEQ's comment letter. The landfill table in the DEQ's comment letter indicates that the landfills have either been closed or are in postclosure stages. Thus, Section 4.11.1 has been revised to state that "no active solid waste landfills....were identified within the I-81 study area".
9.8	...among data apparently omitted from the draft report on pp. 4-74/76 are eleven RCRA generators of hazardous waste: [see table in comment letter]	Please see response to Comment 9.7.

Letter 9

Commonwealth of Virginia Department of Environmental Quality, Richard F. Weeks, Jr.

ID	Comment	Response
9.9	During anticipated interstate construction, any sediment that is suspected of contamination or hazardous or solid wastes that are generated, transported, disposed, stored, or treated, as defined in the Virginia Solid and Hazardous Waste Regulations must be tested and handled in accordance with applicable Federal, State, local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 et seq.; Virginia Hazardous Waste Management Regulations (VJWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-1 10). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq., and the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107.	Comment noted. As noted on page 5-76 of the Tier 1 Draft EIS, "for this study, hazardous materials concerns were based on previously identified hazardous waste sites. During Tier 2, additional field investigations would be conducted prior to initiation of construction activities to identify suspected hazardous waste sites and to characterize the extent of possible contamination from all known or suspected sites." The identification, handling, and remediation of hazardous or solid wastes would be addressed in accordance with the referenced state and federal regulations and laws.
9.10	Any structures to be demolished, removed, or renovated should be checked for asbestos containing materials (ACM) and lead-based paint (LBP) prior to those activities. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.	Please see response to Comment 9.9. The identification, handling, and remediation of asbestos contatining materials (ACM) and lead-based paint (LBP) would be addressed in accordance with the referenced state and federal regulations and laws.
9.11	...the project passes within 20 kilometers of the Shenandoah National Park and the James River Face Wilderness Area. These areas are classified as Federal Class I Prevention of Significant Deterioration (PSD) areas. This classification indicates the areas are currently in compliance with the NAAQS. Care should be taken to keep these areas in attainment as well as to reduce emissions that may cause visibility impairment.	The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).
9.12	DEQ recommends that emissions of volatile organic compounds (VOCs), oxides of nitrogen (NOx), and fine particulate matter (PM2.5) generated from construction activities be kept to a minimum. This requires, but is not limited to, mitigation measures such as application of water to suppress fugitive dust from construction vehicles and paved roadways. The use of portable rock crushing and screening units or portable wood/debris grinders may require an air pennit from DEQ.	Section 5.16.3 in the Tier 1 Final EIS discusses mitigation measures to minimize or eliminate the generation of fugitive dust emissions. It now indicates that measures that may be used during construction include wetting of construction vehicles, wetting or cleaning of paved roadways, stabilization of exposed earth, and scheduling construction to minimize the amount and duration of exposed earth.
9.13	The disposal of land clearing debris by open burning may also be subject to state air regulations. VDOT should ensure that contractors have appropriate air permits in place prior to commencing operations. DEQ also encourages strict enforcement of the anti-idling and opacity requirements outlined in the regulation "Emission Standards for Mobile Sources" referenced below. The state air pollution regulations that may be applicable to this construction project are listed below. Fugitive Dust and Emission Control (9 VAC 5-50-60 et seq.) Open Burning Restrictions (9 VAC 5-40-5600 et seq.) Cutback Asphalt Usage Restriction (9 VAC 5-40-5490 et seq.) Emission Standards for Mobile Sources (9 VAC 5-40-5650 et seq.)	Construction activities on each project would be performed in accordance with the Virginia DOT's "Road and Bridge Specifications". These Specifications are approved as conforming with the State Implementation Plan and require compliance with all applicable local, state and federal regulations.
9.14	...to promote longer term reductions in air emissions, it would be beneficial to the Commonwealth to utilize supplementary emission mitigation measures during project construction such as truck stop electrification and retrofitting on-road and off-road construction equipment with particulate filters or oxidation catalysts.	Please see response to Comment 9.13.

Letter 9

Commonwealth of Virginia Department of Environmental Quality, Richard F. Weeks, Jr.

ID	Comment	Response
9.15	...there is a minor error on page 4-70 of the document (Section 4.9.3 Rail Corridor - Ozone). This section incorrectly states that all counties comprising the rail study area are in attainment, except Roanoke County. The Piedmont rail portion of the study area includes Prince William County which is currently an 8-hour ozone nonattainment area.	Section 4.9.3 of the Tier 1 Final EIS has been revised to indicate that Prince William County is an 8-hour non-attainment area for ozone.

Letter 10

Commonwealth of Virginia Department of Game and Inland Fisheries, Raymond Fernald

ID	Comment	Response
10.1	According to our records, the threatened and endangered species that are known to occur within the project area* and may be impacted by this project if suitable habitat exists include: ST loggerhead shrike, ST upland sandpiper, FESE gray bat, FESE Indiana bat, FESE Va Fringed mountain snail, FESE littlewing pearlymussel, FESE tan riffleshell, FTST Madison Cave isopod, FESE James spinymussel, FESE shiny pigtoe, FESE Roanoke logperch, ST wood turtle, FCST slabside pearlymussel, FC fluted kidneyshell, FSSE Tennessee heelsplitter, FSST orangefin madtom, FSSE shaggy coil, FSSE brook floater, ST black sandshell, FTST spotfin chub, FSSE Tennessee dace, FSST Henslow's sparrow, SE eastern tiger salamander, FTST bald eagle, FESE Va big-eared bat, Va northern flying squirrel, FSST Bachrnan's sparrow, FTST yellowfin madtom, FTSE bog turtle, FSST Madison Cave amphipod, FSSE Bewick's wren, FSSS (soon to be FSST) green floater, and FESE dwarf wedgemussel. *The project area searched by DGIF staff for natural resources extended beyond the study areas described in the Draft EIS to include a three mile buffer on the I-81 corridor and a 3 mile buffer on the Norfolk Southern Piedmont and Shenandoah lines.	The "project area" used by the Virginia Department of Game and Inland Fisheries was six miles wide and is, therefore, substantially greater than the width of the study area used in the Tier 1 EIS. The study area width used in the Tier 1 EIS was generally 500 feet on either side of the existing pavement on I-81 or rail centerline for an overall width of 1,000 feet. This 1,000-foot buffer width was used because it is believed to represent the maximum area within which the potential highway improvement concepts may be developed.
10.2	According to our records, the following resources are located within the project area. These resources may be known to support species not listed above, but for which we may recommend surveys, habitat assessments and/or mitigation. I-81 Corridor: 52 Cold Water (trout) Streams 30 T&E Species Waters Rail Corridors: 34 Cold Water (trout) Streams 23 T&E Species Waters 9 Potential Anadromous Fish Use Areas	Please see response to Comment 10.1.
10.3	Of great concern to this agency is wildlife movement across transportation corridors. Many roads (especially highways) and railroads in Virginia are the site of collisions with bear, deer, skunk, raccoon, squirrel, snakes, turtles, and birds. Large mammal species typically require expansive home ranges and utilize a variety of habitat types. Roads act as impediments to their movements in and between such habitats. As the size and lengths of roads increase, so do the number of vehicle/wildlife collisions. This is of concern not only in terms of the depletion of wildlife resources, but also in terms of motorist safety. Although wildlife crossing signs can be effective in alerting motorists to wildlife presence, they are often not effective in reducing collisions. We recommend consideration of wildlife crossing alternatives such as overpasses and underpasses. These structures allow wildlife to safely pass from one side of the road to the other to access habitat during daily movement and seasonal migration. Wildlife exclusion structures such as fencing can also be effective in reducing vehicle strikes while directing wildlife toward areas of safe passage.	Opportunities to enhance wildlife movement across improved transportation facilities will be considered during Tier 2 as necessary.
10.4	We are concerned that the impacts associated with this transportation project will be more extensive than those depicted by the area of study described in the Draft EIS. Secondary impacts associated with stream crossings, timbering, habitat fragmentation, erosion, and increased sedimentation may have significant adverse impacts upon wildlife resources in the project area. As this project moves forward, we recommend consideration of secondary and cumulative impacts as well as the impacts upon wildlife through habitat loss.	For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. Potential indirect impacts would be evaluated in greater detail during Tier 2 commensurate with more detailed information on travel lane and interchange configurations.

Letter 10

Commonwealth of Virginia Department of Game and Inland Fisheries, Raymond Fernald

ID	Comment	Response
10.5	We recommend that further studies and project review efforts include a clear delineation of habitats impacted (including cumulative totals and specific locations), number and location of stream crossings (new and existing structure construction), impacts upon significant features such as karst areas and impacts upon significant natural communities. Only through a detailed study and review of the project footprint and associated activities can adverse impacts upon wildlife due to construction of this project be evaluated.	Information presented in this Tier 1 EIS was at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. The Tier 1 EIS acknowledges that subsequent Tier 2 NEPA documents prepared for these individual projects would address site-specific details, before design and location decisions are made. These details would involve delineation of affected habitats and the number and location of stream crossings. Site-specific impacts to features, such as karst areas and to natural communities, and specific mitigation for those impacts would also be addressed during Tier 2.
10.6	Review of this plan [Virginia Wildlife Action Plan] may be helpful to VDOT in identifying the locations of imperiled wildlife species and their habitats within the ecoregions affected by this project.	The Virginia Wildlife Action Plan will be used as necessary to help identify locations of wildlife species and their habitats during Tier 2 studies.
10.7	Regarding any stream/wetland crossings that will be required for this project, we recommend conducting any instream activities during low- or no-flow conditions, using non-erodible cofferdams to isolate the construction area, blocking no more than 50% of the streamflow at any given time, stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures.	Comment noted.
10.8	Due to future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, we prefer stream crossings to be constructed via clear-span bridges. However, if this is not possible, we recommend countersinking any culverts below the streambed at least 6 inches, or the use of bottomless culverts, to allow passage of aquatic organisms. We also recommend the installation of floodplain culverts to carry bankfull discharges.	Section 5.9, Natural and Geologic Resources, has been revised to indicate that the use of bottomless culverts, floodplain culverts, and countersinking of culverts below the streambed will be considered as necessary during Tier 2 as potential mitigation measures for impacts to streams.

Letter 11

Commonwealth of Virginia Department of Historic Resources, Ethel Eaton

ID	Comment	Response
11.1	What we find problematic in the current approach, however, is that VDOT and FHWA are seeking public comment in Tier 1 but are explicitly deferring the initiation of consultation under Section 106 with the required consulting parties...FHWA should be aware that Federally recognized tribes resident outside the Commonwealth have expressed an interest in projects in Virginia...We recommend that FHWA initiate the required government to government consultation with these any other relevant tribes as soon as possible.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Commonwealth of Virginia Department of Historic Resources, Ethel Eaton

ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Commonwealth of Virginia Department of Historic Resources, Ethel Eaton

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.
11.2	...delaying consultation with the Department of Interior does not appear consistent with the statutory mandate of Section 4(f) to address all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the planned use, or with the requirements of Section 106 and 110 addressing NHLs, and consequently may compromise future decisionmaking.	The Tier 1 EIS identified existing parks, recreation areas, and open space easements within the I-81 and rail study areas based on readily available mapping and GIS data, review of local comprehensive plans and other documents (e.g., Virginia Outdoors Plan, 2000) and coordination with local parks and recreation directors. Information was obtained on the location and ownership of publicly owned parks, trails, Section 6(f) resources, wildlife/waterfowl refuges, and boat ramps. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

Letter 11

Commonwealth of Virginia Department of Historic Resources, Ethel Eaton

ID	Comment	Response
11.3	The Tier I draft EIS does not mention that Cedar Creek and Belle Grove National Historic Park is a unit of the Department of Interior/National Park Service...As an editorial point, the Cedar Creek and Belle Grove National Historic Park should be also be included in Section 5.6...the draft document fails to note that Congress has designated the Shenandoah Valley Battlefields National Historic District a National Heritage Area...Effects to the National Heritage Area as a whole should be considered under Section 4(f) as well as Section 106.	The Cedar Creek and Belle Grove National Historical Park has been added to Section 4.6, Parks, Recreation Areas, and Open-Space Easements. The analysis of impacts to parks and recreation areas (Section 5.6) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park. Page 4-35 of the Tier 1 Draft EIS already indicated that the National Park Service has classified the Shenandoah Valley Battlefield National Historic District (SVBNHD) as a National Heritage Area. The SVBNHD, as a whole, however, has not been listed or determined eligible for the National Register. Impacts to the SVBNHD, as a whole, are therefore not subject to Section 4(f) or Section 106. Individual historic properties within the SVBNHD that are eligible or on the National Register would be subject to the requirements of Section 106 and Section 4(f). These requirements will be fully addressed during Tier 2.
11.4	...we strongly recommend that FHWA initiate the Section 106 process prior to making decisions on corridor location, purchase of right of way and improvement concepts for highway and rail facilities. We recommend that FHWA initiate the 106 process at the earliest opportunity and begin identifying appropriate consulting parties.	Please see response to Comment 11.1.

Letter 12

Commonwealth of Virginia Department of Historic Resources, Marc Holma

ID	Comment	Response
12.1	Therefore, we recommend not only referencing the GIS information contained in DSS, but also visiting our archives to research our hard copy site maps and survey forms. Similarly, we are constantly adding new survey information to DSS. For example, DHR has not entered all of the data for the ongoing cost-share survey of Rockbridge County architectural resources. Therefore, it is important to update your search of our electronic and archival material regularly.	Cultural resources information, available through DSS and DHR's archival information, will be updated during subsequent Tier 2 studies.
12.2	It would be prudent to reference the mapping and reports produced by the National Park Service's Civil War Sites Advisory Commission located in our archive.	The Civil War Sites Advisory Commission's mapping and reports were reviewed for the I-81 Corridor Improvement Study and are referenced on pages 4-35 and 4-36 of the Tier 1 Draft EIS.
12.3	There are eleven known NHLs located in or near the I-81 corridor study area. They are: Belle Grove and Cedar Creek battlefields (Frederick County), Cyrus McCormick Farm and Workshop (Rockbridge County), Natural Bridge (Rockbridge County), Flint Run Archaeological District (Warren County), Virginia Military Institution Barracks (City of Lexington), Virginia Military Institution Historic District (City of Lexington), Lee Chapel at Washington & Lee College (City of Lexington), Washington and Lee Historic District (City of Lexington). Woodrow Wilson Birthplace (City of Staunton), and Stonewall Jackson Headquarters (City of Winchester). Please note the locations of these NHLs for your study and take them into consideration during the project planning.	The width of the I-81 study area for the Tier 1 DEIS was generally defined as a corridor extending 500 feet on either side of the existing roadway pavement. This width was used because it was believed to represent the maximum area within which potential road improvements may occur. However, for architectural resources (including National Historic Landmarks), the study area was extended to encompass an area 1,000 feet of either side of the roadway pavement (a total corridor width of approximately 2,000 feet). This was done to consider potential visual or auditory impacts to such resources. Furthermore, historic architectural properties found to be within view even beyond the 2,000-foot corridor were also identified. A total of three NHL's were inventoried within the defined study area: Belle Grove/Cedar Creek Battlefield, Cedar Creek Battlefield, and Cyrus McCormick Farm and Workshop. The other listed NHL's are beyond the defined study area and are therefore not included in the Tier 1 Draft or Final EIS. The level of analysis included in the Tier 1 FEIS, including the delineation of the study area, is commensurate with the decisions being proposed. The formal Section 106 process for individual projects along I-81 involving decisions on the Area of Potential Effect (APE) and the identification of resources within the APE will occur during Tier 2.
12.4	The DHR holds over 350 preservation easements throughout the Commonwealth. Some of these appear to be within or near the I-81 corridor study area. These are Cedar Creek Battlefield (Frederick County), Kennedy-Lunsford Farm (Rockbridge County), Edinburg Mill (Shenandoah County), Campbell Farm (Shenandoah County), and Chapel Hill (Augusta County). We ask VDOT and FHWA to pay special attention to these historic properties and their locations.	One historic preservation easement was identified within the defined I-81 study area: Cedar Creek Battlefield. The other listed NHLs are beyond the defined study area and are, therefore, not included in the Tier 1 Final EIS. The level of analysis included in the Tier 1 EIS, including the delineation of the study area, is commensurate with the decisions being proposed. The formal Section 106 process for individual projects along I-81 involving decisions on the Area of Potential Effect (APE) and the identification of resources within the APE would occur during Tier 2. During Tier 2, all pertinent regulations pertaining to historic preservation easements will be addressed.

Letter 13

Commonwealth of Virginia Department of Rail and Public Transportation, Karen J. Rae

ID	Comment	Response
13.1	Analysis to date, using rail intermodal technology, indicates that rail improvements restricted to only making those improvements within the confines of the Commonwealth will cap or restrict the full potential for a rail solution to work to attract and divert notable truckloads off of I-81. As found in the EIS, highway on and off ramps were studied with recommended improvements. Intermodal rail operations also need truck/trailer "on/off" ramps or terminals that must be planned for. The solution for a successful rail component requires that a multi state approach be developed and implemented to construct intermodal facilities in distant locations to connect to those within Virginia, while working to make improvements to the choke points and capacity constrained areas identified both inside and outside of Virginia. A multi- state rail improvement would result in an increase in truck diversions to intermodal rail service.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 13

Commonwealth of Virginia Department of Rail and Public Transportation, Karen J. Rae

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 14

Town of Abingdon, C.M. Vernon, Jr.

ID	Comment	Response
14.1	The project most needed in this region is the Exit 17 improvement...do not hold these [projects in the Six Year Plan] hostage to completing the I-81 Corridor Study. They are projects that will correct badly needed congestion and safety issues, which have already been identified.	Comment noted. As stated in Chapter 6, Tier 1 Decisions, in the Tier 1 FEIS, major improvements are needed at Milepost 17. This and other short-term improvements were included as part of the Transportation System Management Concept discussed in the Tier 1 EIS.

Letter 15

Blacksburg/Christiansburg/Montgomery Area MPO, Dan Brugh

ID	Comment	Response
15.1	Accomodation for passenger rail, the Transdominion Express, should be included in any rail upgrades.	The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. These rail improvements would likely accommodate passenger rail service, such as the Transdominion Express, should they come to fruition.
15.2	Explore other funding sources before consideration of tolls. This could include raising the gas tax, higher truck fees, etc.	These issues are outside the scope of the NEPA process and are the responsibility of the Virginia General Assembly to address.
15.3	A needs based solution should be used in determining additional lane requirements. Refine and closely evaluate where to change the number of lanes assuring that there are smooth transitions where lanes are dropped. Short sections of lanes should be avoided.	Existing and future capacity and safety conditions on I-81 were discussed in Chapter 2, Purpose and Need, of the Tier 1 Draft EIS. This chapter also discusses the number of additional lanes needed on I-81 to meet the level of service (LOS) standard in 2035 for mainline operations of LOS B in rural areas and LOS C in urban areas. A needs based solution was, therefore, used in determining additional lane requirements. The Tier 1 Draft EIS acknowledges that proper transitions would be needed between sections of the corridor where there would be a change in the required roadway cross section. The application of tolls or improvements to rail facilities would decrease the number of vehicles on I-81 and would change the additional lane requirements. The precise number of additional lanes needed along I-81 and their configuration is, therefore, dependent upon the specific projects evaluated in Tier 2. Decisions on the number of lanes to be constructed and their configuration would be made at the conclusion of Tier 2.
15.4	ITS and TSM technology should be developed and deployed throughout the corridor to improve safety and traffic flow.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

Letter 15

Blacksburg/Christiansburg/Montgomery Area MPO, Dan Brugh

ID	Comment	Response
15.5	VDOT should look closely at providing facilities that would serve other communication/utility needs regionally to promote economic development in the corridor.	Subsequent Tier 2 NEPA documents prepared for individual SIUs can appropriately address the issue of accommodating facilities to serve regional communication and utility needs because it requires roadway design beyond the conceptual engineering that was performed in Tier 1.

Letter 16

Town of Boyce, Arthur Clarke

ID	Comment	Response
16.1	In 2005 the State legislature enacted and the governor signed the Corridor Multi-state Transportation Planning Initiative, VDOT summarily ignored this initiative. In 2006 the legislature unanimously enacted and, I understand the Governor has signed or is committed to sign, HB 1581 The Interstate Route 81 Corridor: Diversion of Truck Traffic bill. And again VDOT is ignoring this fact, and has now announced it is rejecting the rail solution entirely. How can VDOT ignore not only the government of Virginia and its laws but also the will of the citizens of Virginia?	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 16

Town of Boyce, Arthur Clarke

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 17

Frederick County, John R. Riley, Jr.

ID	Comment	Response
17.1	...this Board requests the inclusion of the eastern portion of Route 37 into the alternative considerations for improvements to relieve congestion on I-81 through this area.	The Route 37 Project that the Frederick County Board of Supervisors referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.

Letter 18

ID	Comment	Response
18.1	...the HRMPO recommends that study areas (Sections of Independent Utility) be more appropriately lined to reflect the MPO study area boundary and in particular with the City of Harrisonburg and Rockingham County with consideration given to an appropriate study area encompassing the portion of the interstate from Exit 235 to Exit 257.	As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the logical termini of an SIU. Identifying the termini of SIUs on this basis would mean that congestion would not merely be moved to the next section of the highway. One method to determine a logical breakpoint is to identify substantial differences (i.e., 20 percent or greater) when comparing the predicted (2035) traffic volumes on I-81 on one side of an interchange to the predicted traffic volumes on I-81 on the other side of an interchange. Another method of determining a logical breakpoint is to identify where the predicted traffic volumes on I-81 interchange ramps were substantial (i.e., a total of 3,200 vehicles on all the ramps), even though the predicted traffic volumes on I-81 on either side of the interchange may not be substantially different. Exit 235 and Exit 257 do not meet these criteria on traffic volumes and are, therefore, not used as logical termini for the SIUs.

Letter 19

Knoxville Regional Transportation Organization, Fred Frank

ID	Comment	Response
19.1	If I-81 in Virginia is expanded to a 6-lane or 8-lane facility, a bottleneck effect may be created near the Tennessee state line as traffic feeds into the 4-lane facility. Safety concerns would also be raised if truck and car traffic was separated in Virginia and had to remerge into a single facility at the Tennessee state line. From our perspective, the EIS boundaries should have been extended into Tennessee for one to two interchanges to determine the impact of traffic and subsequent impacts on air quality and land use.	There are currently three lanes in each direction for at the Virginia/Tennessee border. In addition, the proposed "Build" concept does not involve widening the first three miles of I-81 in Virginia. Furthermore, potential improvement concepts on I-81 in Virginia include any planned roadway improvements at the Tennessee and West Virginia state lines and, following Federal design guidelines, would provide adequate distance for transition. Therefore, no bottlenecks would be created by construction of the concept proposed to be advanced into Tier 2.

Letter 20

City of Lexington, John W. Knapp

ID	Comment	Response
20.1	The overbuilding and lack of balance in the plan results from the pivotal assumption for the study regarding the Level of Service (LOS) to be achieved by the improvements. To enable the Commonwealth Transportation Board to consider requesting an "exception" to the Federal Highway Administrations LOS directives, it is critical to have additional analysis and information available at the June meeting of the Commonwealth Transportation Board. If the design standard Level of Service is reduced, the cost and the impacts would likely be reduced significantly. As we understand it, information concerning three alternative scenarios are necessary for the Transportation Board to request an "exception": 1) an analysis of the improvements (and impact reduction) related to achieving a Level of Service C and D respectively for Rural Urban road areas instead of a B and C respectively, 2) an analysis of the improvements (and impact reduction) related to achieving a LOS D throughout the system (no distinction between urban and rural), and 3) an analysis of #1 above in combination with Rail Concept #3.	As stated in Chapter 2, Purpose and Need, A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), is used to provide the LOS standard for highways on the National Highway System, which includes I-81. The level of service standard for mainline operations of I-81 is LOS B in rural areas and LOS C in urban areas. The policies published by AASHTO were the result of proven engineering research and experience, based on studies conducted by FHWA, the National Cooperative Highway Research Program (NCHRP), state research laboratories, and universities. These recommendations are, therefore, reasonable criteria for a Tier 1 analysis. The proposed Tier 1 decisions do not preclude the Commonwealth from requesting a level of service exception from FHWA as part of the Tier 2 process.
20.2	We believe that a fundamental weakness of this report is its failure to include a thorough analysis of the potential for an effective, efficient, rail system to impact the amount of future truck traffic on I-81, therefore, we urge that a more complete, comprehensive review of the impact of the "rail option" be required before this document is accepted.	The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia.
20.3	We also remain concerned about the impact of proposed improvements, including the possible use of tolls, on U.S. Route 11 which passes through Lexington as it does through many of the towns and cities in the valley. Although the draft report projects that this road will likely absorb most traffic diverted from I-81, and could see an increase in traffic of over 300%, the report concludes that "while the high value percentages may seem high, the actual impact resulting from the number of vehicles is low". Also many of the vehicles diverted will be large trucks, As regular users of Route 11, we would disagree with this conclusion. The impact of traffic increases of the magnitude being projected will have a significant impact on local traffic.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if I-81 is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes with an improved I-81 would be lower on local roadways than if no improvements are made. The decline in levels of service on I-81 with the No-Build condition are likely to have diversionary effects on long-haul freight. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. National evidence shows, in fact, that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule.

Letter 20

City of Lexington, John W. Knapp

ID	Comment	Response
20.4	We also disagree with the arbitrary decision to only evaluate the impacts of this proposal along a 500 foot corridor along both sides of the existing right of way. While this may be sufficient to evaluate the most tangible impacts such as the loss of residences, businesses and farm land, it fails to evaluate the broader impacts on communities located near I-81, both during and after construction. The impact of the increases in vehicular traffic on air quality will extend throughout the valley. What will be the effects of long term construction delays on both local businesses and tourism, a key component of the valley's economy? What would be the impact of an 8 lane interstate on tourism traffic through the corridor? These and other significant environmental and economic impacts are not evaluated in the DEIS because of the limited corridor width imposed on the study. We recommend that more rational limits be established for the varying kinds of impacts being studied and that the evaluation corridor be widened to enable a realistic evaluation of the impacts of this proposal on the many towns and cities located near I-81, We believe that 10 miles is a more realistic distance for many of these impacts.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width is reasonable for a Tier 1 analysis because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Finally, Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. During Tier 2, noise impacts will be evaluated in greater detail with consideration of site-specific characteristics.

Letter 21

Town of Middletown, Gene T. Dicks

ID	Comment	Response
21.1	[The DEIS] failed to identify Cedar Creek and Belle Grove National Historical Park as being part of the Federal Park system (Table 4.6-1).	The Cedar Creek and Belle Grove National Historical Park has been added to the list of parks and recreation areas in the I-81 study area referenced in the Tier 1 Final EIS.
21.2	[The DEIS] failed to identify Lord Fairfax Community College abutting I-81 north of Exit 302 (paragraph 4.2.1).	The width of the study area used in the Tier 1 Draft EIS was generally 500 feet on either side of the existing pavement on I-81. Existing facilities within the study area were identified using aerial photography and GIS data. The Lord Fairfax Community College was not mentioned in the Tier 1 EIS because it is outside the study area.
21.3	Under Chapter 2, Purpose and Need, Table 2.3-1, it is documented that truck traffic has nearly tripled in the past 25 years to now account for over 26% of I-81 traffic, and will increase significantly in the years ahead. But what is left unsaid, is what percentage of that traffic is by and for the economic benefit of the citizens of Virginia. The majority of this commerical traffic appears to be interstate rather than intrastate - meaning I-81 is a conduit for the economic benefit of other states while beign detrimental to the historical and environmental resources of the Shenandoah Valley. The document fails to justify the need to expand I-81 for the use of benefit of the people of Virginia, and particularly, the citizens of Middletown.	The purpose and need for the I-81 Corridor Improvement Study was based on traffic on I-81, regardless from where the traffic originates. On an annual basis about 50 percent of all truck trips have an origin or destination (or both) within the Commonwealth of Virginia. The analysis shows that with truck diversion to rail and the implementation of tolls, this percentage could be expected to increase up to 60 percent (depending on the rail and/or toll scenario selected). However, that is not to say that the remaining percent of truck trips do not benefit the people of Virginia. I-81 through Virginia is a corridor of national significance and local economies are as dependent on the truck freight system and the tax revenue they generate as they are on tourism and hospitality dollars. It is important to note that even if all trucks could be removed, the majority of I-81 would still need at least one additional lane in 2035.

Letter 22

New River Valley Economic Development Alliance, Aric H. Bopp

ID	Comment	Response
22.1	...before approving any plan to impose tolls on I-81 in Virginia, a thorough and independent study be made of the economic "impact" on Western/Southwest Virginia that may be experienced by a proposed plan of providing separate truck lanes the length of I-81, or any imposition of tolls on the use of I-81, in Virginia.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects and potential tolls would be analyzed during Tier 2, if a toll option is considered for a particular SIU. There are several steps that would need to be taken by VDOT before federal approval to toll I-81. It is also important to note that tolls could not be implemented until the completion of the Tier 2 NEPA process for a particular Section of Independent Utility. It should be noted that separated lane concepts are not proposed to be advanced into Tier 2.

Letter 23

New River Valley Planning District Commission, David W. Rundgren

ID	Comment	Response
23.1	The PDC recommends further analysis to understand the amount of traffic being diverted to local roads with a toll program implemented, along with the diversions during construction projects. The report appears to underestimate the impact from tolls on local roads (many corridors will be impacted outside of Route 11) and does not address diversions based on construction projects. The PDC recommends further analysis to understand the amount of traffic being diverted to local roads with a toll program implemented, along with the diversions during construction projects. The report appears to underestimate the impact from tolls on local roads (many corridors will be impacted outside of Route 11) and does not address diversions based on construction projects.	In addition to U.S. Route 11, the Tier 1 EIS identifies 14 local routes that are likely to see diversions due to tolls. U.S. Route 11 is a barometer for diversion impacts because this local roadway has the highest existing volume and is expected to see about 50 percent of all toll-related diversion. It is important to note that many of these local roadways will also see improved traffic operations once I-81 is improved and drivers choose the interstate as a faster way to complete their trip. If tolls are implemented, a portion of this traffic (depending on the toll charged and which vehicles are tolled) will divert back to the local roadway system. The Tier 2 NEPA analyses would analyze all routes in greater detail as necessary. This includes impacts from tolling and from construction. At that time, location-specific mitigation measures would be identified, if needed.
23.2	Low income and minority populations are present in census block groups that have > than 15 % of the population along the proposed corridor in the Counties of Pulaski and Montgomery (Figure 4-1, 4-2). Although, within the report they are not indicated as areas of concern (4-9, 4-10). If there is going to be further analysis done, these areas should be considered as well. Additionally, Figures 4-1 and 4-2 do not appear to agree with the City of Radford's demographic studies. An investigation into the contradictory results is requested.	While Pulaski and Montgomery Counties contain some minority and low-income populations greater than 15 percent, they do not represent the largest concentrations along the corridor (and, therefore, are not mentioned in the text). Please refer to Figures 4-1 and 4-2 for all locations where minority and low-income populations were greater than 15 percent. Section 4.2, Human Environment, of the Tier 1 EIS has been revised to state: "The largest concentrations of minority populations exist in the Cities of Roanoke (Milepost 141), Harrisonburg (Mileposts 241 to 249), and Winchester (Mileposts 313 to 317)."
23.3	Comments submitted on behalf of the New River Valley Historical Society Montgomery County additions: Rail: Train Depot at Cambria - a historical landmark City of Radford additions: Rail: eight Native American sites are located between Plum Creek and the New River Bridge Pulaski County additions: I-81: old Indian fish weirs are located in the river just downstream of the bridge [north] over New River; Native American site on each side of the New River exit to Radford; Palisade Indian village located southwest of Draper exit; "Locus Hill" built in 1792 by Robert Graham located northwest of Graham's Forge exit Rail: Confederate gun emplacements located on each hillside at New River RR Bridge.	Cultural resources information presented in the Tier 1 EIS reflects the information that was available from the Virginia Department of Historic Resources during the course of the study within the defined study corridor. This information will be updated during subsequent Tier 2 studies. Furthermore, field studies will be completed to identify previously unrecorded cultural resources and to evaluate the eligibility of recorded sites within the Area of Potential Effect established for the Tier 2 studies.

Letter 24

Northern Shenandoah Valley Regional Commission, Stephen W. Kerr

ID	Comment	Response
24.1	Any rail improvements recommended in the corridor [should] be sufficiently studied to include appropriate noise mitigation measures and at-grade rail crossing improvements.	As stated in the Tier 1 Final EIS, the feasibility of noise mitigation measures would be investigated in Tier 2. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail.
24.2	VDOT [should] work with other states in the I-81 corridor to establish a Northeast Rail Corridor planning effort designed to maximize the diversion of truck traffic off of I-81.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and in October 2006 at the Capital Corridor Summit in New York. They have a continuing commitment to work together to discuss transportation conditions on I-81. The Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. Any funded, committed rail improvements emerging from the study would be evaluated, as appropriate, prior to Tier 2 NEPA approvals.

Letter 24

Northern Shenandoah Valley Regional Commission, Stephen W. Kerr

ID	Comment	Response
24.3	Park and ride facilities [should] be studied and built along the I-81 corridor to improve modal choice and to support regional ridesharing efforts.	One of the concepts studied in the Tier 1 EIS was the Transportation System Management (TSM) Concept. This concept included Transportation Demand Management measures, such as park and the use of park and ride facilities. The Tier 1 Final EIS indicates that, while the TSM Concept, as a stand-alone concept, does not satisfy the Purpose and Need, it could complement roadway improvements and could be used as an element of other concepts. TSM measures are, in fact, proposed to be advanced in multiple locations.
24.4	The expansion of the Virginia Port Authority facilities in Hampton Roads and its impacts on the I-81 corridor, related highways, and the Virginia Inland Port need to be studied in greater detail.	Traffic forecasting for the SIUs will be reassessed and updated during Tier 2 prior to Tier 2 NEPA approvals.
24.5	[Frederick County Board of Supervisors] requests the inclusion of the eastern portion of Route 37 into the alternative considerations for improvements to relieve congestion on I-81 through this area.	The Route 37 Project that the Frederick County Board of Supervisors referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.
24.6	The proposed number of lanes recommended in the draft EIS differs from the adopted Win-Fred MPO Long-Range Plan. Additional study will be necessary to determine the correct lane configuration in the Winchester area.	At the borders of Frederick County (I-66 to the south and the West Virginia state line to the north) the forecasts for I-81 as part of this EIS and those in the Long-Range Plan are identical if the plan is extrapolated to 2035. Subsequent Tier 2 NEPA documents prepared for these individual projects would address site-specific details, before design and location decisions are made. For example, final decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, based on traffic projections or other factors, such as the growth assumptions used in the Win-Fred Plan.
24.7	The Win-Fred MPO...requests...better modeling of the impacts of traffic diversion (especially trucks on U.S. Rt. 11) caused by the specific tolling options be provided [and a] more balanced analysis of the impacts on the U.S. Rt. 11 corridor under the different funding scenarios. A comprehensive study must look at scenarios other than just No-Build or Toll and analyze impacts on local roadway	This comment does not suggest any specific alternative inputs to the traffic diversion modeling effort. The Tier 1 Draft EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements and various toll scenarios. The toll scenarios that were tested for each concept were: No toll; Low toll for all vehicles ($0.08 per mile per vehicle (car) / $0.04 per mile per axle (truck)); High toll for all vehicles ($0.14 per mile per vehicle (car) / $0.07 per mile per axle (truck)); Low toll for only commercial vehicles ($0.04 per mile per axle (truck)); High toll for only commercial vehicles ($0.07 per mile per axle (truck)). The effect of the tolls was estimated by modeling diversions from I-81 to other transportation facilities for trucks and cars or just trucks. In addition, traffic that diverts to I-81 because of the improved efficiency created by the proposed improvements (i.e., those that would divert from their normal travel pattern on a facility other than I-81 to I-81 if it were improved) was accounted for in the projection of traffic for each concept. The results of the diversion analysis show that overall there are no substantial impacts to U.S. Route 11. With an improved I-81, the majority of U.S. Route 11 would see lower traffic volume than is expected if no improvements are made. However, the DEIS goes on to identify the locations where additional lanes on I-81 have the potential to cause substantial impacts to U.S. Route 11 by 2035. The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. The Tier 2 NEPA studies would assess any local impacts in more detail, and would describe providing any required mitigation measures necessary to offset impacts.

Letter 24

Northern Shenandoah Valley Regional Commission, Stephen W. Kerr

ID	Comment	Response
24.8	The Win-Fred MPO recognizes that the Tier 1 Study indicates that the second highest existing and projected traffic volumes on I-81 in Virginia are between Rts. 50 and 7. Therefore, it is recommended that safe alternatives such as Collector-Distributor (C-D) roadways and the use of the Rt. 37 as an alternate I-81 Corridor be analyzed.	Please see responses to Comments 24.5 and 24.6.
24.9	The Win-Fred MPO acknowledges that significant potential business displacement impacts exist along the corridor as well as noise impacts. Therefore, the Win-Fred MPO strongly encourages consideration of the proposed Rt. 37 East Corridor as a "Potential Corridor on New Location" in a similar manner to that being considered for I-81 in the Harrisonburg Area between Mileposts 243 and 251. In the event that proposed Rt. 37 East is not considered or deemed unacceptable, then existing Rt. 37 West should be considered for new corridor location.	Please see response to Comment 24.5. In Harrisonburg and Wythville, the needs of the corridor in 2035 require a potential I-81 improvement concept whose impacts, especially displacements, may rise to the level where a corridor on new location may be prudent. The 2035 corridor needs in Frederick County can be generally accommodated within the existing right-of-way and would have little impact to local land use. Therefore, it is unnecessary to evaluate a corridor on new location in Frederick County in Tier 2 of this NEPA study.
24.10	According to information published by the Weldon Cooper Center, University of Virginia, the growth rate between 2000 and 2005 for the Winchester Metro Area was 12.7%. This is significantly higher than the Harrisonburg Metro Area (6.4%), Roanoke Metro Area (2.5%), Blacksburg Metro Area (1.9%), and the Bristol Metro Area (1.4%) along the remainder of the I-81 Corridor. Therefore, population and growth projections for the Winchester Metro Area should be reviewed carefully to determine if the correct trend line is addressed in the proposed traffic projections and other impacts reviewed in the EIS.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, to the extent that was reasonable, population and growth projections for the Winchester Metro Area are consistent with those produced for the Win-Fred Long Range Plan which has been adapted by the region. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. Notwithstanding, traffic forecasts will be reassessed and updated as appropriate for the Tier 2 NEPA studies for each SIU.

Letter 25

County of Prince William, Tom Blaser

ID	Comment	Response
25.1	the Virginia Railway Express (VRE) uses the Norfolk-Southern Piedmont Line in Prince William County for commuter rail service. Currently, the Broad Run Station is within your suggested improvements for that line. Also, VRE has identified, through its Strategic Plan, extensions of its service to both Haymarket on the east-west line and Bealeton (in Fauquier County) on the north-south line. Currently, VRE is preparing a feasibility study for the Manassas to Haymarket extension. Prince William County urges the study team to make sure it takes the existing and planned commuter rail services on the Piedmont Lines, through Prince William County, into consideration as it moves forward with this and any future study of this corridor. The study team must make sure that the additional freight service through the Piedmont Line will not disrupt VRE commuter service, which is essential in moving commuters through the peak-hours of congestion in Northern Virginia.	Existing and planned commuter rail service is discussed in Section 3.5, Existing Railway Infrastructure, in the I-81 Corridor Improvement Study Transportation Technical Report. Passenger service is provided by third party carriers and, therefore, leased from Norfolk Southern or CSX rail lines. The purpose and need for this study was to improve I-81 in Virginia, and as described in Chapter 3, rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway- including seven of the eight SIUs would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operation, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from that multi-state rail study, FHWA and VDOT would evaluate the traffic effects of those improvements in Tier 2, as appropriate

Letter 26

Town of Pulaski, John B. White

ID	Comment	Response
26.1	What has been missing from the public debate, and now has been overlooked again in the DEIS, is the potential economic impact of the variant of the STAR Solution's plan that VDOT is now supporting.	The economic impacts from the potential improvement concepts have been assessed as part of the Tier 1 EIS (please see the Economics Technical Report, Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS). As indicated in the Tier 1 EIS, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2 as necessary.
26.2	The DEIS likewise devotes little credibility or concern to the economic repercussions of tolls on the areas traversed by I-81. The thinking seems to be that businesses will simply pass any added burden on to customers in slightly higher prices. This thinking is seriously flawed. Businesses in Southwest Virginia compete with others statewide, nationally, and internationally. If our products are saddled with the extra taxes an I-81 toll structure imposes, they either have to absorb them (hence take a hit to their profitability) or raise prices verus competitors elsewhere who do not suffer from this added cost. Either way, they risk losing business.	As indicated in the Tier 1 Draft EIS, companies within the I-81 Corridor are already price competitive with companies elsewhere in Virginia and the United States. The cost of transporting goods, although an important consideration to many companies, is a fairly small portion of the overall cost of production. As such, there is very little variation found between the No-Build condition and the "Build" concepts (including those with tolls) in the cost to deliver goods. For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls should not create an unfavorable economy for the region's businesses.

Letter 27

County of Roanoke Board of Supervisors, Michael A. Wray

ID	Comment	Response
27.1	We feel that we need to clarify some statements that we observed in the Tier 1 DEIS pertinent to or attributable to Roanoke County. In Table 4.1-1, Table 5.1-1, and possibly in other areas of the Tier 1 DEIS, statements are made relevant to the County's transportation objectives and potential consistency with local transportation plans. In those tables and text, it states that Roanoke County desires to "limit widening of I-81". This is contradictory to numerous resolutions and Board actions that this and previous Board of Supervisors (dating back to at least 1997) have passed that are "very supportive of the Virginia Department of Transportation's proposed plan to increase the number of north and south travel lanes" on Interstate 81 and that "Roanoke County continues to support VDOT's proposed plan to widen I-81 from its present four lanes".	The Tier 1 Final EIS has been modified, where appropriate, to indicate Roanoke County's support for the widening of I-81.
27.2	Further, we want to reiterate some previous resolutions from the Roanoke County Board of Supervisors, in addition to the ones in support of widening that are mentioned above, that pertain to the Interstate 81 corridor. Resolution 071498-1 states support of the improvements to Interstate 81 but also requests County participation in the planning and design stages of the project. We are hopeful that this coordination and input will continue and become even more detailed and involved as we enter into the Tier 2 phase of this environmental study. In addition, Resolution 062403-6.d supports rail alternatives to complement any planned improvements to Interstate 81. County staff recently presented a summary of the information included in the Tier I Draft EIS. Subsequent to review of that information and discussion amongst the Board of Supervisors, we compiled the following list of comments for your consideration: 1. We encourage the use of an improvement concept with a variable number of lanes to address the varying traffic demands and capacity needs. 2. We oppose local toll options that would assess County residents merely commuting in the immediate area. 3. We support separated lanes for segments of the Interstate 81 corridor, especially in urban and high traffic areas. 4. We request that improvements to Route 11 precede any wide-scale improvements to Interstate 81.	The number of concepts to be advanced into Tier 2 has been reduced, as described in Chapter 6, Tier 1 Decisions. The "Build" concept that is being proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. Along with the "Build" concept being advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS. The Tier 2 efforts would include appropriate consultation with Roanoke County as the planning and design advances.

Letter 28

Rockingham County, Joseph S. Paxton

ID	Comment	Response
28.1	The County endorses the recommendation of the Harrisonburg-Rockingham Metropolitan Planning Organization that the study area for future I-81 analysis reflect more consistancy with the geographic boundaries of the metropolitan area, specifically as it pertains to the Harrisonburg metropolitan area, the recommendation is that the study area begin at Exit 235 and at Exit 257.	As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the logical termini of an SIU. Identifying the termini of SIUs on this basis would mean that congestion would not merely be moved to the next section of the highway. One method to determine a logical breakpoint is to identify substantial differences (i.e., 20 percent or greater) when comparing the predicted (2035) traffic volumes on I-81 on one side of an interchange to the predicted traffic volumes on I-81 on the other side of an interchange. Another method of determining a logical breakpoint is to identify where the predicted traffic volumes on I-81 interchange ramps were substantial (i.e., a total of 3,200 vehicles on all the ramps), even though the predicted traffic volumes on I-81 on either side of the interchange may not be substantially different. Exit 235 and Exit 257 do not meet these criteria on traffic volumes and are, therefore, not used as logical termini for the SIUs.

Letter 29

City of Winchester Common Council, Robin L. Link

ID	Comment	Response
29.1	...the Common Council of the City of Winchester, Virginia, in an interest to most efficiently address capacity and safety needs in our region while minimizing impacts on local businesses, again, specifically urges VDOT to incorporate Collector-Distributor (C-D) roadway improvements in each direction between Exits 310 and 313 and include a new interchange in the vicinity of Battaile Drive connecting to the C-D roadway between these two existing exits, consistent with the approved Win-Fred Long-Range Transportation Plan.	This Tier 1 Draft EIS acknowledges that subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, final decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, based on traffic projections or other factors, when detailed information is developed. Also, studies of improvements to existing interchanges or of additional interchanges are more appropriately included in Tier 2 because they involve roadway design beyond the conceptual engineering that was performed in Tier 1.
29.2	The proposed number of lanes recommended in the draft EIS differs from the adopted Win-Fred MPO Long-Range Plan. Additional study will be necessary to determine the correct lane configuration in the Winchester area A number of interchange improvements have been recommended in the Win-Fred MPO Long-Range Plan. Additional studies will be required to address interchange needs along the I-81 corridor in the EIS document.	Please see response to Comment 29.1.
29.3	The Win-Fred MPO [requests that] better modeling of the impacts of traffic diversion (especially trucks on US Route 11) caused by the specific tolling options be provided. [The MPO also requests that] a more balanced analysis of the impacts on the US Route 11 corridor under the different funding scenarios. A comprehensive study must look at scenarios other than just No Build or Toll and analyze impacts on local roadways.	This comment does not suggest any specific alternative inputs to the traffic diversion modeling effort. The Tier 1 Draft EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements and various toll scenarios. The toll scenarios that were tested for each concept were: -No toll -Low toll for all vehicles ($0.08 per mile per vehicle (car) / $0.04 per mile per axle (truck)) -High toll for all vehicles ($0.14 per mile per vehicle (car) / $0.07 per mile per axle (truck)) -Low toll for only commercial vehicles ($0.04 per mile per axle (truck)) -High toll for only commercial vehicles ($0.07 per mile per axle (truck)) The effect of the tolls was estimated by modeling diversions from I-81 to other transportation facilities for trucks and cars or just trucks. In addition, traffic that diverts to I-81 because of the improved efficiency created by the proposed improvements (i.e., those that would divert from their normal travel pattern on a facility other than I-81 to I-81 if it were improved) was accounted for in the projection of traffic for each concept. The results of the diversion analysis show that overall there are no substantial impacts to U.S. Route 11. With an improved I-81, the majority of U.S. Route 11 would see lower traffic volume than is expected if no improvements are made. However, the Tier 1 EIS goes on to identify the locations where additional lanes on I-81 have the potential to cause substantial impacts to U.S. Route 11 by 2035. The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. The Tier 2 NEPA documents would assess any local impacts in more detail and would provide any required mitigation measures necessary to offset impacts.

Letter 29

City of Winchester Common Council, Robin L. Link

ID	Comment	Response
29.4	[The Win-Fred MPO] recommend[s] that safe alternatives such as Collector Distributor (C-D) roadways and the use of the Route 37 as an alternate I-81 corridor be analyzed.	Please see response to Comment 29.1.
29.5	...the Win-Fred MPO strongly encourages consideration of the proposed Route 37 East Corridor as a "Potential Corridor on New Location" in a similar manner to that being considered for I-81 in the Harrisonburg Area between Mileposts 243 and 251. In the even that proposed Route 37 East is not considered or deemed unacceptable, then existing Route 37 West should be considered for new corridor location.	The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.
29.6	...population and growth projections for the Winchester Metro Area should be reviewed carefully to determine if the correct trend line is addressed in the proposed traffic projections and other impacts reviewed in the EIS.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent CORRIDOR-LENGTH transportation and socioeconomic indicators. Additionally, the Virginia statewide transportation model land use was used to forecast growth throughout the study area. Planned growth for the Winchester area is included in these land use projections through an extensive working group effort with the Win-Fred MPO and other planning organizations and commissions throughout the valley. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, at the borders of Frederick County (I-66 to the south and the West Virginia state line to the north) the forecasts for I-81 as part of this Tier 1 EIS and those in the Long-Range Plan are identical if the plan is extrapolated to 2035. Within Frederick County, the growth assumptions are the same to the extent they are reasonable.

Letter 30

City of Winchester, Tim A. Youmans

ID	Comment	Response
30.1	...incorporate Collector-Distributor (C-D) roadway improvements in each direction between Exits 310 and 313 and include a new interchange in the vicinity of Battaile Drive connecting to the C-D roadway between these two existing exits, consistent with the approved Win-Fred Long-Range Transportation Plan.	This Tier 1 EIS acknowledges that Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, the precise roadway configuration will be determined during Tier 2, based on traffic projections or other factors, when detailed site-specific information is developed. Also, improvements to existing interchanges or additional interchanges are more appropriately studied during Tier 2 because they involve roadway design beyond the conceptual engineering that is appropriate for Tier 1.

Letter 31

WinFred MPO, Stephen W. Kerr

ID	Comment	Response
31.1	The Win-Fred MPO questions the discrepancies between the Tier 1 Study and the MPO Study as it pertains to recommendations for roadway widening of I-81. Specifically, the MPO Plan calls for a 2-lane Collector-Distributor (C-D) roadway improvement in each direction between Exits 310 and 313. The Tier 1 Study calls for one additional lane in each direction along this stretch. For the segments of I-81 between Milepost 305 and 310, the MPO Study calls for one additional lane, while the Tier 1 Study calls for two additional lanes. Likewise, for the segments of I-81 between Milepost 313 and 324, the MPO Study calls for one additional lane, while the Tier 1 Study calls for two additional lanes. The Win-Fred MPO requests that the detailed analysis of local and regional traffic modeled with the MPO Plan be given strong consideration in resolving the discrepancies in I-81 lane recommendations resulting from these two planning efforts.	At the borders of Frederick County (I-66 to the south and the West Virginia state line to the north) the forecasts for I-81 as part of this DEIS and those in the Long-Range Plan are identical if the plan is extrapolated to 2035. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, final decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, based on traffic projections or other factors, such as the growth assumptions used in the Win-Fred Plan.

Letter 31

WinFred MPO, Stephen W. Kerr

ID	Comment	Response
31.2	The Win-Fred MPO requests that better modeling of the impacts of traffic diversion (especially trucks on Rte 11) caused by specific tolling options be provided. This includes impacts on air quality given the region's Early Action Compact that was approved to address the deferred status of the 8-hour ozone non-attainment status, as well as impacts on local heritage tourism since Rte 11 is a significant spine for the VDOT Enhancement Program-funded Civil War Battlefield Network.	This comment does not suggest any specific alternative inputs to the traffic diversion modeling effort. The Tier 1 Draft EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements and various toll scenarios. The toll scenarios that were tested for each concept were: -No toll -Low toll for all vehicles ($0.08 per mile per vehicle (car) / $0.04 per mile per axle (truck)) -High toll for all vehicles ($0.14 per mile per vehicle (car) / $0.07 per mile per axle (truck)) -Low toll for only commercial vehicles ($0.04 per mile per axle (truck)) -High toll for only commercial vehicles ($0.07 per mile per axle (truck)) The effect of the tolls was estimated by modeling diversions from I-81 to other transportation facilities for trucks and cars or just trucks. In addition, traffic that diverts to I-81 because of the improved efficiency created by the proposed improvements (i.e., those that would divert from their normal travel pattern on a facility other than I-81 to I-81 if it were improved) was accounted for in the projection of traffic for each concept. The results of the diversion analysis show that overall there are no substantial impacts to U.S. Route 11. With an improved I-81, the majority of U.S. Route 11 would see lower traffic volume than is expected if no improvements are made. However, the Tier 1 EIS goes on to identify the locations where additional lanes on I-81 have the potential to cause substantial impacts to U.S. Route 11 by 2035. The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. Tier 2 NEPA documentation would assess any local impacts in more detail and would provide any required mitigation measures necessary to offset impacts. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.
31.3	The MPO would also request a more balanced analysis of what exactly occurs on Route 11 under different funding scenarios. The Tier 1 Study currently states that Route 11 volumes would be drastically higher under the No-Build and lower than the no build on all toll scenarios except the High-Toll All Vehicles. A comprehensive study must allow for the possibility of another alternative rather than simply No-Build or Toll and analyze that scenario for impacts on local roadways.	The effect on U.S. Route 11 of a "Build" concept with no tolls was analyzed in the Tier 1 EIS.

Letter 31

WinFred MPO, Stephen W. Kerr

ID	Comment	Response
31.4	The Win-Fred MPO recognizes that the Tier 1 Study identifies the segment of I-81 between Rtes 50 and 7 as having the second highest existing and proposed traffic volumes on I-81 within Virginia and that there will be significant safety impacts on regional traffic movement in the area of these interchanges unless safe alternatives such as Collector-Distributor (C-D) roadways and potential use of Rte 37 as an alternate I-81 corridor are included.	This Tier 1 EIS acknowledges that subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, based on traffic projections or other factors, because they involve roadway design beyond the conceptual engineering that was performed in Tier 1. The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.
31.5	The Win-Fred MPO strongly encourages consideration of proposed Rte 37 East to be considered as a "Potential Corridor on New Location" in a similar manner to that being considered for I-81 in the Harrisonburg area between Mileposts 243 and 251. In the event that proposed Rte 37 East is not considered or is deemed unacceptable for new corridor location, then improved Rte 37 West should be considered for new corridor location.	Please see response to Comment 31.4.
31.6	The proposed number of lanes recommended in the draft EIS differs fiom the adopted Win-Fred MPO Long-Range Plan. Additional study will be necessary to determine the correct lane configuration in the Winchester area.	Please see response to Comment 31.4.
31.7	The Win-Fred MPO would like to request the following: Better modeling of the impacts of traffic diversion (especially trucks on U.S. Rt. 11) caused by the specific tolling options be provided. A more balanced analysis of the impacts on the U.S. Rt. 11 corridor under the different funding scenarios. A comprehensive study must look at scenarios other than just No-Build or Toll and analyze impacts on local roadways.	Please see response to Comment 31.2.
31.8	The Win-Fred MPO recognizes that the Tier 1 Study indicates that the second highest existing and projected traffic volumes on I-81 in Virginia are between Rts. 50 and 7. Therefore, it is recommended that safe alternatives such as Collector-Distributor (C-D) roadways and the use of the Rt. 37 as an alternate I-81 Corridor be analyzed.	Please see response to Comment 31.4.
31.9	The Win-Fred MPO acknowledges that significant potential business displacement impacts exist along the corridor as well as noise impacts. Therefore, the Win-Fred MPO strongly encourages consideration of the proposed Rt. 37 East Corridor as a "Potential Corridor on New Location" in a similar manner to that being considered for I-81 in the Harrisonburg Area between Mileposts 243 and 251. In the event that proposed Rt. 37 East is not considered or deemed unacceptable, then existing Rt. 37 West should be considered for new corridor location.	Please see response to Comment 31.4.

Letter 31

WinFred MPO, Stephen W. Kerr

ID	Comment	Response
31.10	...population and growth projections for the Winchester Metro Area should be reviewed carefully to determine if the correct trend line is addressed in the proposed traffic projections and other impacts reviewed in the EIS.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent CORRIDOR-LENGTH transportation and socioeconomic indicators. Additionally, the Virginia statewide transportation model land use was used to forecast growth throughout the study area. Planned growth for the Winchester area is included in these land use projections through an extensive working group effort with the Win-Fred MPO and other planning organizations and commissions throughout the valley. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, at the borders of Frederick County (I-66 to the south and the West Virginia state line to the north) the forecasts for I-81 as part of this Tier 1 EIS and those in the Long-Range Plan are identical if the plan is extrapolated to 2035. Within Frederick County, the growth assumptions are the same to the extent they are reasonable.

Letter 32

Wythe County Board of Supervisors, et al., Susan R. Criggler et al.

ID	Comment	Response
32.1	The overlap corridor in Wythe County should remain as I-77. The origin and terminus of the new I-81 section should be near the origin and terminus of the overlapping section. The new I-81 section should be classified as "rural urban" with a density of exits to provide access to developments in Wytheville and in the eastern portion of Wythe County. Design of the new I-81 section should provide for access to Progress Park. Design and construction of this segment should be given priority status because of projected usage and congestion.	At the I-77 overlap section near Wytheville (Milepost 72 to 81 (SIU #2)), FHWA and VDOT are proposing to evaluate corridors on new location, as well as widening existing I-81, during Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis would occur during Tier 2.

Letter 33

American Trucking Associations, Darrin Roth

ID	Comment	Response
33.1	An analysis conducted for ATA by ALK Technologies, and a study by Reebie Assoc. for VDRPT, both came to essentially the same conclusion - that at the high truck toll rate assumed in the DEIS (7 cents/mile/axle), less than half the truck traffic on I-81 would be retained. However, the DEIS analyis concluded that about 75% of truck traffic would be retained.	At first glance, it appears that the diversion rates in the Tier 1 EIS differ from those calculated by ALK and Reebie. This is primarily because the Tier 1 EIS examines route choice in 2035, assuming I-81 has received an $11 billion dollar investment that markedly improves it speed, safety, and reliability. By contrast, the ALK and Reebie studies are based on 2003 traffic and design speeds. The toll is placed only on I-81 with no toll on alternative routes and no corresponding investment or improvements made in I-81. Furthermore, the ALK study is based on current design speed on all routes with no assumption for congestion, while the Reebie study assumes design speed with an adjustment for current I-95 congestion. Neither model considers the effect of the additional congestion on alternative routes that would be caused by the diversion of more than half the trucks on I-81. In fact, the ALK and Reebie conclusions are extremely different. ALK estimates that, at a 10 cent toll, 11 percent of trucks will divert, while Reebie says 20 percent will divert for a 10 cent toll. ALK estimates that at a 20 cent toll, 51 percent of trucks will divert while Reebie says 35 percent will divert. The ALK analysis is based on changes in cost calculated using mileages and tolls. The results of the Tier 1 EIS are calculated similarly. However, since tolls are not the only cost trucks face, the Tier 1 EIS also considers changes in cost based on travel speeds and time. For example, in the Tier 1 EIS, I-81 speeds in 2035 are assumed to be 10 miles per hour faster than the No Build condition based on the $11 billion in partially toll financed improvement to the roads. For the 325 miles of I-81 in Virginia, this results in a time saving of almost one and a half hours. Reebie, in their toll diversion report, cites an average equipment and fuel cost of $27.50 per hour. This means that the speed improvements alone would save truck operators over 12 cents per mile. As a result, comparisons of diversion impacts need to compare adjusted toll rates in the Tier 1 EIS to reflect the value of improvements, such as speed increase. The Tier 1 EIS uses toll rates of 20 and 35 cents per mile. After adjustment for the 12 cents per mile in cost reduction from transit time savings alone, the effective Tier 1 EIS rates are 8 and 23 cents. The Tier 1 EIS estimated diversions for truck trips of over 500 miles, assuming no rail investment, are 11.0 and 39.8 percent at the two toll rates. When the Tier 1 EIS estimated diversions for trucks traveling over 500 miles are compared with all trucks using I-81, regardless of distance traveled, the percent diverted are 3.8 and 13.9 percent at the two toll rates. Neither ALK nor Reebie provide an estimate of percent diversions to all trucks using I-81.

Letter 33

American Trucking Associations, Darrin Roth

ID	Comment	Response
33.2	...the nature of diverted traffic was very different. While the first two studies found that about half the diversion occurs outside of the state, with most of the remainder shifting to I-95, the DEIS determined that the vast majority of the diverted traffic shifts to local roads, particularly U.S. 11...	ATA points out differences between the studies in the local and long distance diversions. The ALK and Reebie studies do not consider local diversions as the data used by Reebie and ALK only include for evaluation commodity movements moving over 200 miles from origin to destination. The Tier 1 EIS conducted a macro and micro diversion analysis. The macro analysis focused on truck trips greater than 500 miles. This includes both loaded and empty trucks estimated from commodity flows calibrated to actual traffic counts and then forecast to 2035 using state-level economic forecasts developed by Regional Economic Models, Inc. (REMI). The micro analysis focused on the local alternatives to I-81 and includes long distance through trips, long distance trips that have an origin or destination in the study corridor, and local trips. To forecast the route choices of carriers moving commodities over 500 miles, it is necessary to specify the level and quality of service offered by I-81, as well as by all the alternative routes. The Tier 1 EIS did not study the future conditions of alternative routes as this would be more appropriate for Tier 2. It was assumed that alternative routes had identical speed and reliability as for the I-81 No-Build scenario. Reebie and ALK did not estimate improvement in the I-81 corridor from the tolls and related financing and also did not consider the future conditions of the alternatives. The study assumes eastern and western alternatives and uses specific interstates (e.g., I-95) as a proxy to estimate a change in origins and destinations.
33.3	...it appears that while a lot of emphasis is placed on determining local origin and destination of freight, very little attention is placed on long-distance traffic on I-81. Based on our internal evaluation and conversations with carriers, we believe that long-distance truck traffic is far more likely to avoid I-81 tolls than local truck traffic. The exception is trucks with relatively short trips that will not incur a significant time penalty. Long-distance traffic is more likely to shift because the further away a truck is from I-81, the more options the driver has. We believe that the reason the DEIS found a smaller diversion rate than the other studies is because the DEIS did not fully account for diversion of truck trips with origins and/or destinations that are far removed from I-81 in Virginia. The number of these trips is significant.	Please see response to Comment 33.2.

Letter 33

American Trucking Associations, Darrin Roth

ID	Comment	Response
33.4	What is also confusing is that all three studies used the Reebie data in their analysis. Therefore, the data is likely not the issue here - the methodology is. Both the ALK study and the Reebie study used extensive practical information in coming up with their methodology and assumptions. It should be noted that ALK is the largest producer of routing technology in the country, and the firm does extensive consulting for trucking companies to determine optimum routing. The DEIS, based on the information provided, does not appear to incorporate these real-world elements into its analysis.	It is understandable that the comparison of results between these three analyses is confusing and appears to be in conflict. They are fundamentally different and the assumptions and individual models used to make comparisons are complex in many ways. ALK produces a widely used software tool that estimates the cost of alternative routes for truckers primarily by calculating route mileage. In their analysis, ALK increased the cost of using I-81 in Virginia by adding 10 and 20 cent per mile tolls on heavy trucks. Reebie expanded on previous work for the DRPT to include the addition of tolls ranging from 1 to 45 cents per mile. Reebie's diversion estimates used the Transsearch database for 2003 commodity flows. According to the commenter, ALK also used the Transsearch database, although the data appears to be from 1997. While there are many differences between the various methodologies, one stands out. The Tier 1 EIS is a detailed evaluation of several alternative highway and rail development scenarios for the year 2035. All these scenarios are compared to a No-Build concept. The amount of investment that is applied to the I-81 corridor varies by scenario, but it is generally $10 to $11 billion. These investments have substantial impacts on the road and rail options available to shippers and carriers in 2035 in the I-81 corridor. The Tier 1 EIS makes specific evaluations of each of these investment scenarios to determine their impact on the level and quality of service provided by the Virginia portion of I-81. For example, the Tier 1 EIS analysis estimates future I-81 speeds, type of facility (dedicated truck, mixed flow), and improved truck operations (ramp geometrics, climbing lanes). No such analysis is or could be attempted by the brief ALK or Reebie evaluations. Both ALK and Reebie impose a financial penalty on trucks operating on the Virginia portion of I-81 but offer no road or operating improvements in return. Thus, it is not surprising that the diversion estimates offered by those limited reviews are higher than those provided by the detailed Tier 1 EIS. The major investments in I-81 provide clear value to truck operations, many of which lower their Total Logistics Cost which is the primary determinate in route selection for the Tier 1 EIS.
33.5	We are concerned that the truck traffic retention rates in the DEIS may be too optimistic, which could have a dramatic impact on toll revenue forecasts, as well as on future state fuel tax revenue and costs incurred on diversion routes, particularly I-95.	Please see responses to Comments 33.1, 33.2, and 33.3. The methodology used for the Tier 1 EIS to determine truck diversion from tolling is reasonable.

Letter 34

Appalachian Trail Conservancy, Laura Belleville

ID	Comment	Response
34.1	As a significant national resource, it is imperative that the next iteration of the I-81 Corridor Improvement Study Draft Environmental Impact Statement more specifically describes the impacts to the Appalachian Trail, including visual impacts, noise impacts, and impacts to the biological resources. The Tier 1 Draft does not address any of these concerns specifically. Many of these impacts will require mitigation measures that must be addressed in site-specific Tier 2 environmental impact statements. The costs of this mitigation should be factored into the overall costs of the proposed alternatives.	Subsequent Tier 2 NEPA documents would indeed address site-specific impacts to the Appalachian National Scenic Trail, such as visual impacts, noise impacts, and impacts to biological resources. VDOT and FHWA would coordinate with the National Park Service, the U.S. Forest Service, and other appropriate parties to evaluate measures to mitigate those impacts. Chapter 5 of the I-81 Corridor Improvement Study Concept Development and Analysis Technical Report discusses preliminary cost estimates for each improvement concept. Items such as stormwater management ponds, landscaping, and wetland mitigation were incorporated into this preliminary estimate.
34.2	The impacts of the proposed project, many of which are likely to be significant for the Appalachian Trail, must be addressed in site-specific Tier 2 environmental impact statements, not categorical exclusions or environmental assessments as proposed by the Virginia Department of Transportation.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
34.3	There are a number of suggested actions outlined in the I-81 Corridor Improvement Study Tier 1 Draft Environmental Impact Statement that will have a significant impact on the Appalachian National Scenic Trail. These impacts occur in the vicinity of Daleville, Virginia. Expanding I-81 from its current four-lane design to the maximum-width, 10-lane interstate could permanently change the character of the Appalachian National Scenic Trail in this area. The physical footpath of the Appalachian Trail and its protective corridor would be entirely dislocated between Route 220 and Route 779 (where the Trail passes under Interstate 81). The improvements proposed under the maximum width alternative have the potential to obliterate the Trail and dramatically increase the exposure of visitors on the Trail to both the sights and sounds of traffic on Interstate 81 and Route 220, as well as surrounding development. It will be necessary to evaluate and identify mitigation measures in coordination with the National Park Service, ATC, and local trail maintaining clubs.	Potential improvements will increase the exposure of visitors of the Trail to the sights and sounds of traffic on I-81. Future design efforts during Tier 2 would evaluate measures to avoid impacts to the Appalachian National Scenic Trail in conjunction with input from the officials having jurisdiction over the property. In addition, VDOT and FHWA would coordinate with the National Park Service and other appropriate parties to identify measures to mitigate unavoidable impacts to the Trail.
34.4	Similarly, proposed actions at the Groseclose interchange may also have significant impact to the Appalachian Trail footpath. These impacts will need to be carefully evaluated and the necessary mitigation measures accounted for in coordination with stakeholders. In addition, Appalachian National Scenic Trail fee lands are located at the Groseclose interchange (Milepost 55) and in Fauquier County (along Rail Section 8). These lands should be included in the inventory and reflected in the maps. All of these lands were acquired under Section 4(f) authority.	Sections 5.6 (Parks and Recreation Areas) and 5.8 (Section 4(f)/6(f))have been revised to include impacts to the Appalachian National Scenic Trail fee lands. Also, please see comment to Response 34.3.

Letter 34

Appalachian Trail Conservancy, Laura Belleville

ID	Comment	Response
34.5	We expect that the Appalachian Trail will not to be closed to hikers at any time during construction of additional lanes, and hikers are protected from potential construction hazards.	No permanent impacts to Trail access across I-81 are expected to occur with the Minimum Width or Maximum Width footprints, although access may be temporarily affected during construction. Future design efforts during Tier 2 would evaluate measures to avoid impacts to the Appalachian National Scenic Trail in conjunction with input from the officials having jurisdiction over the property. In addition, VDOT and FHWA would coordinate with the National Park Service and other appropriate parties to identify measures to mitigate unavoidable impacts to the Trail.

Letter 35

Belle Grove, Inc., Elizabeth McClung

ID	Comment	Response
35.1	...any widening of the highway between Exit #298 and Cedar Creek [should] be done in the median or along the southbound lane.	Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, based on traffic projections or other factors, when detailed information is developed. In accordance with Section 4(f) and Section 106 regulatory requirements, VDOT and FHWA would coordinate with Cedar Creek and Belle Grove National Historical Park and with other interested parties to develop detailed avoidance, minimization, and/or mitigation measures for impacts to this site during subsequent Tier 2 studies.

Letter 36

Citizens Advisory Committee on the Comprehensive Plan, George Sylvester

ID	Comment	Response
36.1	In effect the STAR proposed widening of I-81 is at odds with the Comprehensive Plan in each of the following aspects: It would further diminish the agricultural acreage in the county and detract from the goals of preserving agriculture as both a way of life and a mainstay of the economy. It would adversely impact the scenic beauty and thus the character of this part of the Valley It would affect some very precious historic assets, particularly the New Market Battlefield It would have a further negative effect on the water quality of the North Fork of the Shenandoah River and its tributaries as well as the groundwater resources upon which 80% of the inhabitants of this county rely for their drinking water.	First, there is no correlation between the improvements recommended by STAR Solutions and the findings in the Tier 1 EIS. The Tier 1 EIS is a separate and independent review of corridor issues and potential solutions to meet the purpose and need. In fact, separated lane concepts are not proposed to be advanced into Tier 2. For this Tier 1 EIS, the potential indirect impacts to land use are based largely on communication with local planning officials in each county in the I-81 study area. Planning officials were queried concerning the potential for any of the "Build" concepts to induce development Generally, potential indirect impacts to land use would be relatively limited because the majority of the "Build" concepts would not be creating a new transportation facility on a new location, but would be implementing improvements to an existing facility. Additionally, many of I-81's access points are already developed. However, the Tier 1 EIS acknowledges that the land use category that may be most affected by induced development along I-81 is agricultural land. Where the "Build" concepts encourage development, a possible indirect impact to land use includes a reduced value of agricultural land adjacent to newly-developed land. Despite any potential development pressures concerning agricultural land, local governing bodies control the land use within their jurisdictions. As such, any induced development would be regulated by the localities in the study area through their zoning ordinances and comprehensive plans. The formal Section 106 process for impacts from individual projects to historic properties, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties and resolution of adverse effects would occur during Tier 2. During the formal Section 106 process, there would be consultation with the VDHR, the Advisory Council on Historic Preservation, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties along I-81, such as the New Market Battlefield. Since I-81 and the rail line already exist, the degree to which the landscape would change for viewers of the road or rail would be minimal. As stated in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual and the Virginia Stormwater Management Program. BMPs would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Detailed impacts to water quality are dependent on specific engineering design details and such an impact analysis would be completed during Tier 2.
36.2	To my knowledge there has not been an effort by the VDOT planners to integrate the widening of I-81 with the land use planning of Shenandoah County.	On March 15, 2004, a member of the Study Team met with Mr. Robert E. Rensley, a senior planner for Shenandoah County to discuss transportation and land use issues related to the Tier 1 EIS.

Letter 37

Citizens Advisory Commitee to the Comprehensive Plan, Rosemary Wallinger

ID	Comment	Response
37.1	...none of our Supervisors or Planners have any recollection of having been asked to participate in the DEIS process.	On March 15, 2004, a member of the Study Team met with Mr. Robert E. Rensley, a senior planner for Shenandoah County to discuss transportation and land use issues related to the Tier 1 EIS.

Letter 38

Civil War Preservation Trust, James Lighthizer

ID	Comment	Response
38.1	...the entire National Historical District must be treated as a Section 4(f) resource to ensure that all possible planning is done to minimize harm done to the District by the proposed I-81 widening project.	The Shenandoah Valley Battlefield National Historic District (SVBNHD), as a whole, has not been listed or determined eligible for the National Register. Impacts to the SVBNHD, as a whole, are therefore not subject to Section 4(f). Individual historic properties within the SVBNHD that are eligible or on the National Register and that are used by one of the individual projects would be subject to the requirements of Section 4(f). These requirements will be fully addressed during Tier 2.

Letter 38

Civil War Preservation Trust, James Lighthizer

ID	Comment	Response
38.2	The Tier 1 I-81 Draft Environmental Impact Study (DEIS) Corridor Study makes no effect determinations regarding any cultural resources. Instead, consultation with the State Historic Preservation Office is delayed until the Tier 2 studies...Of considerable concern to CWPT is the delay of the Section 106 process until Tier 2...	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000-foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Civil War Preservation Trust, James Lighthizer

ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Civil War Preservation Trust, James Lighthizer

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.
38.3	CWPT and its partners in the Shenandoah Valley request that the DEIS be expanded or supplemented to include the Reasonable Solutions as a viable alternative to the unimaginative road widenings proposed in the DEIS corridor study.	In accordance with the National Environmental Policy Act, the Tier 1 EIS evaluated a broad range of reasonable improvement concepts. These concepts included the No-Build Concept and 211 combinations of Transportation System Management, road improvements, rail improvements and various toll scenarios. As discussed in Chapter 6, Tier 1 Decisions, some of the elements of the Reasonable Solutions are, in fact, proposed to be advanced.
38.4	We also request that Section 106 consultations be initiated and the Tier 1 DEIS not be completed until potentially affected resources are fully accounted for.	Please see response to Comment 38.2.

Letter 39

Coalition for Smarter Growth and Shenandoah Valley Network, Stewart Schwartz and Megan Gallagher

ID	Comment	Response
39.1	...the Tier 1 DEIS wastes this opportunity to evaluate alternative modes to address transportation needs in the I-81 corridor by artificially confining the rail concept to Virginia-only...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Coalition for Smarter Growth and Shenandoah Valley Network, Stewart Schwartz and Megan Gallagher

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
39.2	...the DEIS improperly and prematurely suggests that at the Tier 2 stage, smaller individual projects, called "segments of independent utility," will be advanced without a full EIS, or even as Categorical Exclusions with no environmental analysis whatsoever... ...the Tier 1 DEIS may be used to justify the failure to evaluate any alternatives other than the highway "build" concepts at the Tier 2 stage, when individual projects of independent utility are advanced. Such a conclusion is entirely premature, particularly given the DEIS's recognition that all of the corridor-length highway "build" alternatives would provide excess capacity for most of the corridor. It is imperative that no decisions be made at the Tier 1 stage that foreclose the consideration of alternatives that would address the specific problems identified in these segments of I-81 at the Tier 2 stage more efficiently and with less harm to the environment than the corridor-length "build" alternatives...any Tier 2 decision on individual SIU's must be predicated on a detailed consideration of a comprehensive road improvement alternative, that includes targeted improvements to the network of local roads as well as the full range of techniques for addressing spot safety and capacity issues on I-81...	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.

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Coalition for Smarter Growth and Shenandoah Valley Network, Stewart Schwartz and Megan Gallagher

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39.3	...the Tier EIS concludes that alternative concepts found not to meet the needs on the entire I-81 corridor - a conclusion that is entirely premature and that is wholly at odds with the decision that the corridor-length highway "build" alternatives did satisfy the needs for the project, notwithstanding that each of these alternatives provided capacity far in excess of current and future needs on the I-81 Corridor.	The Tier 1 EIS indicates that portions of I-81 need additional highway capacity by 2035 but that no single consistent corridor-length solution meets the needs of future travel demand in the corridor without providing excess or insufficient capacity in the corridor. In addition, the study indicates that a varying number of general purpose highway lanes would most efficiently address the future travel demand. A variable concept would minimize the social, economic, and environmental impacts from consistent lane concepts and provide an opportunity to limit cost by not providing more lanes than are needed. Separated lane concepts are not proposed to be advanced into Tier 2. The "Build" concept that is, therefore, proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands

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Coalition for Smarter Growth and Shenandoah Valley Network, Stewart Schwartz and Megan Gallagher

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39.4	...the Tier 1 DEIS fails to adequately address this key issue of whether a different mode of transportation...can accommodate some of the needs presented by long distance truck traffic on I-81...this is due to the VDOT and FHWA decision to consider a Virginia-only rail concept, even though all the available literature...confirms that only an interstate rail option would be effective in diverting freight traffic from I-81. By artificially limiting the analysis of the rail concepts to Virginia only, the DEIS significantly impairs the effectiveness of the rail option to divert freight traffic from I-81, and therefore undermines the ability of the rail concept to address the project purpose and need...the rationale asserted in this memorandum for refusing to consider any multi-state rail options is fundamentally flawed. ...non-FHWA sources of funding for rail improvements,...private railroad industry financing, or special appropriations, may be available. Accordingly, a multi-state rail option is neither remote nor speculative, and the purported lack of a source of FHWA funding cannot lawfully be the basis for refusing to consider an otherwise reasonable alternative. The Memorandum asserts that a multi-state rail option would "only" divert 12 % of the total traffic. Yet, the Reebie study estimated 28-30% of truck traffic could be diverted to rail. Even assuming that the 12% diversion rate is correct, such a diversion is substantial, and may present a partial solution to the need for the project...the poor LOS on the corridor is the result of a combination of freight truck and local traffic. The dual problem is not amenable to a single solution...It is important that a multi-state rail concept be subject to a bona fide, valid review in this Tier 1 document, since the rail concept, in combination with alternatives such as the Transportation Systems Management (TSM), may well present the solution that best satisfies the dual purpose and need for improvements on I-81...the assumption that an out-of-state rail improvement concept would be too costly is completely unwarranted given the higher costs ascribed to some of the highway "Build" alternatives. Proposed rail upgrades within Virginia and in conjunction with other states have been estimated to cost less than many of the Maximum Width "Build" alternatives. A corridor-length strategy that includes even a few states, such as the three-state rail option recommended by RAIL Solutions in its comments, would cost even less while being more effective than limiting the rail option to Virginia only. In legislation passed by the Virginia General Assembly and signed into law by the Governor in 2006, the Governor and General Assembly in fact call for more thorough investigation of a rail alternative. The statute requires an updated multi-state rail study. This study should be incorporated into a revised, modified or supplemented Tier 1 DEIS.	Please see response to Comment 39.1.
39.5	...Given the significance and number of historic resources in the vicinity of I-81, it is likely that any "build" alternative proposed at the Tier 2 stage will inevitably involve severe adverse effects on these sensitive historic resources and have a significant impact on the environment, requiring the preparation of an EIS. It is highly inappropriate at this juncture to suggest otherwise.	Please see response to Comment 39.2.

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Coalition for Smarter Growth and Shenandoah Valley Network, Stewart Schwartz and Megan Gallagher

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39.6	...the Tier 1 DEIS may be used to justify the failure to evaluate any alternatives other than the highway "build" concepts at the Tier 2 stage, when individual projects of independent utility are advanced. Such a conclusion is entirely premature, particularly given the DEIS's recognition that all of the corridor-length highway "build" alternatives would provide excess capacity for most of the corridor. It is imperative that no decisions be made at the Tier 1 stage that foreclose the consideration of alternatives that would address the specific problems identified in these segments of I-81 at the Tier 2 stage more efficiently and with less harm to the environment than the corridor-length "build" alternatives. SVN believes that any Tier 2 decision on individual SIU's must be predicated on a detailed consideration of a comprehensive road improvement alternative, that includes targeted improvements to the network of local roads as well as the full range of techniques for addressing spot safety and capacity issues on I-81...	Please see response to Comment 39.3. As explained in the Transportation Technical Report, as congestion on I-81 increases, vehicles will seek alternate (often local) routes if no improvements are made.

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ID	Comment	Response
39.7	Another important area where the Tier 1 analysis of impacts falls far short is in the evaluation of impacts to historic resources. Many of the resources that are potentially affected by the highway "build" alternatives are overlooked in the DEIS, including the Cedar Creek and Belle Grove National Historical Park even though I-81 bisects the national park, with the result that impacts on these nationally significant resources are overlooked or given scant attention as part of these minimal environmental reviews. ...the evaluation of historic resources is too cursory even for a Tier 1 document. It is imperative that potentially affected resources be at least identified at the Tier 1 stage in order to carry out the FHWA's responsibilities under Section 4(f) of the Department of Transportation Act to evaluate all prudent and feasible alternative concepts that may satisfy the purpose and need for the project... The regulations implementing Section 106 of the National Historic Preservation Act likewise require agencies "to initiate the Section 106 process early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking," and provide that "agencies should consider their Section 106 responsibilities as early as possible in the NEPA process and plan their public participation, analysis and review in such a way in a timely and efficient manner." 36 C.F.R. §§ 800.1(c), 800.8(a). It is particularly important that these potentially affected resources be fully accounted for in the Tier 1 EIS, if, as the DEIS posits, EAs or CEs are proposed as the type of Tier 2 NEPA document for each SIU, with the result that impacts on these nationally significant resources are overlooked or given scant attention as part of these minimal environmental reviews.	Section 5.6, Parks, Recreation Areas, and Open Space Easements; has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park. Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources

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ID	Comment	Response
		outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods

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ID	Comment	Response
		used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

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39.8	The technical transportation analysis conducted by Smart Mobility Inc. ...confirms that an end-to-end highway expansion is not justified. It confirms that the following three specific transportation problems exist: 1. As described in the Purpose and Need there are very specific sections of the highway where safety improvements are necessary but these comprise a small percentage of the lane miles in the corridor. 2. Local traffic has added to congestion problems within the more urbanized areas along the corridor. 3. A significant proportion of freight traffic now and in the future is moving at long distances that are amenable to cost-effective shipment via rail. Despite the evidence from the DEIS that a multi-state rail investment, local roadway network upgrades to reduce traffic on I-81, and targeted safety improvements would - when combined with TSM measures - more directly address the purpose and need and the identified transportation problems, the DEIS fails to include these alternatives individually or in combination with a multi-state rail alternative...The DEIS's conclusion that the TSM alternative would not meet the purpose and need for the project is severely flawed.....by artificially limiting the study area to a narrow 500 foot corridor from the outside edge of the existing highway (with the exception of the rail corridors), the DEIS precludes the analysis of local road network upgrades that would be part of an alternative that could reduce local traffic volumes on I-81...it is entirely premature to conclude that the TSM/targeted road improvement alternative cannot satisfy the purpose and need for the project, particular given the DEIS's simultaneous recognition that the need for the project cannot be efficiently addressed by a "one-size-fits-all" corridor-length "build" alternative. As the FHWA's own guidance document governing purpose and need in environmental statements (Sept. 18, 1999) recognizes, alternatives that only partially satisfy the purpose and need for a project must be considered, particularly where doing so would reduce serious environmental impacts or impacts to Section 4(f)-protected properties. By suggesting at this stage that such an alternative does not meet the purpose and need for the project, the Tier 1 DEIS may be improperly relied on to reject, without	The Tier 1 EIS does not dismiss the TSM Concept and does not fail to include TSM Concept individually, or in combination, with rail concepts. The document concludes that, while the TSM Concept alone cannot meet the purpose and need, there is still an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the TSM Concept. These measures contribute to the reduction of the amount of capacity needed by 2035 and to the reduction of safety problem locations along the corridor. A purpose and need statement was appropriately developed for the entire 325-mile corridor of I-81. As the Transportation Technical Report outlines, the needs along I-81 do not occur from local traffic's misuse of the interstate, rather they stem from the increasing volume of regional car and truck traffic. A 500-foot wide study area is appropriate for a Tier 1 analysis. Further, while the study area for environmental impacts is generally a 500-foot corridor, the study area roadway network (as identified in the Transportation Technical Report and the Toll Impact Study) included I-81, U.S. Route 11, and 14 other local roadways. Finally, the Tier 1 EIS indicates that no single CONSISTENT corridor-length concept satisfies the needs of I-81 in Virginia without providing more lanes than are needed. It also states that a concept with a variable number of lanes between interchanges of the corridor most efficiently addresses the needs of the roadway. A variable concept would minimize the social, economic, and environmental impacts from consistent lane concepts and provide an opportunity to limit cost by not providing more lanes than are needed. A variable concept is, in fact, being proposed to be advanced. In reference to the FHWA memorandum concerning purpose and need in EISs, the Tier 1 EIS indeed considered many concepts that partially met the purpose and need (including Rail Concepts 1,2, 3, and 4 and several highway concepts as well as others). Localized alternatives would be evaluated as necessary during Tier 2.

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39.9	The FHWA's tiering regulations specifically provide that a Tier 1 EIS should evaluate the "land use impacts" associated with the alternative concepts in some detail. 23 C.F.R. 771.111(g). However, the discussion of current and future land uses, local comprehensive plans, and indirect and cumulative land use impacts in the DEIS is woefully inadequate, subjective, and poorly documented. Interviews with local planning officials and other supporting information for the opinions expressed about these subjects are referenced and relied upon but not documented in the DEIS or the technical appendices referenced on the I-81 project website.	Section 5.14, Indirect Impacts, and Section 5.15, Cumulative Impacts, discuss potential indirect and cumulative effects of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the corridor-length decisions that are being proposed. These Tier 1 decisions are outlined in the Process Streamlining Agreement in Appendix A. 23 CFR 771.111(g) states that a first tier EIS would focus on broad issues such as general location, mode choice, and areawide air quality and land use implications of the major alternatives. It should be noted, however, that the regulation does not specifically require or emphasize that these types of issues to be analyzed, but is merely providing examples of issues that can be analyzed. Potential indirect and cumulative effects will be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations during Tier 2. At that time, additional coordination would occur with officials in each county. The study was objective and supporting information was and is certainly available for review.
39.10	By limiting the study area to a 500 foot wide corridor measured from the outside edge of I-81 the study is overly restrictive in terms of its measurement of direct impacts, particularly at interchange areas. The DEIS fails to analyze the comparatively smaller impacts of the targeted projects in the No Build alternative.	The width of the study area used in the Tier 1 Draft EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000 foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. Information presented in this Tier 1 EIS was at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents would address site-specific impacts. The minor highway projects included in the No-Build Concept are projects whose impacts appropriately would be addressed in NEPA documents prepared independent of the I-81 Corridor Improvement Study.
39.11	By limiting the remaining "Build" alternatives to end-to-end highway expansion and by failing to identify the land use impacts of the "No Build" or TSM alternative, there is no "base-line" for comparing the potentially much reduced land use impacts offered by the "No Build" and by other alternatives such as local road network improvements that allow for pedestrian, bicycle, and transit use.	Please see response to Comment 39.9. A discussion of the land use impacts from the No-Build Concept was included in Section 5.1.1 of the Tier 1 Draft EIS.

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39.12	The DEIS states that "Overall, potential impacts for the "Build" concepts on I-81 are similar, and in many cases do not vary substantially." (p. 5-2) Furthermore, the DEIS states that "the addition of highway lanes or improvements to the interchanges on I-81 would not appreciably change the visual character of I-81" and "the degree to which the landscape would change for viewers of the road or rail would be minimal, irrespective of the concept." (p. 5-4). Such a statement cannot be made in the absence of objective analysis. The DEIS should compare actual photographs of highways of varying width and use photo simulations using sites along the I-81 corridor. Combined, these approaches would show that there is a substantial difference between adding one lane in each direction and adding 2 or more lanes in each direction (combined with sound walls which are not accounted for in the DEIS) in terms of its effect on a range of resources...	The quotations given in this comment were taken out of context that was provided in the Tier 1 EIS. The verbatim text of these statements from the Tier 1 Draft EIS is as follows: "Overall, potential impacts for the "Build" concepts on I-81 are similar, and in many cases do not vary substantially. The primary reason for this is that a large percent of impacts occur within the 91 interchange areas, and the footprints at interchanges do not vary substantially between "Build" concepts. The Minimum Width footprint generally has less potential impacts than the Maximum Width because the Minimum Width template is slightly narrower in those areas where more than two additional lanes are needed. "Since I-81 and the rail line already exist, the degree to which the landscape would change for viewers of the road or rail would be minimal, irrespective of the concept." Information presented in the Tier 1 Draft EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts and is commensurate with the corridor-length decisions being proposed on such issues as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. Subsequent Tier 2 NEPA documents would address site-specific visual impacts and any required mitigation for those impacts.
39.13	...the number of acres of farmland and battlefields that would be lost would be substantially different particularly if an additional lane were added in the median instead of on the outside edge.	Many battlefields are adjacent to I-81, especially in the northern portion of the corridor. In some cases, the boundaries of the battlefields encompass the median. The Tier 1 Draft EIS acknowledges that subsequent Tier 2 NEPA documents prepared for individual projects will address site-specific details, before design and/or location decisions are made. During Tier 2, the full range of effects on battlefields associated with roadway improvements will be characterized. Furthermore, Section 106 and Section 4(f) require consideration of ways to avoid, minimize, or mitigate any adverse effects on the battlefields. As a result, decisions on the precise location and configuration of lanes would be made at the conclusion of Tier 2, when detailed information is developed.

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39.14	The DEIS states that "The Minimum Width and Maximum Width footprints are generally consistent with most local comprehensive plans." This statement and the descriptions of the comprehensive plan and transportation objectives of the various jurisdictions do not appear to be consistent with the positions and formal resolutions taken by many of these jurisdictions to oppose massive expansion of I-81 and certainly beyond one additional lane where it might be needed. Not all counties, cities and towns are accounted for in the discussion of comprehensive plans, transportation plans, and interviews conducted for the DEIS... The expansion of I-81 to 8 or more lanes is inconsistent with most of the comprehensive plans in the corridor. The inconsistancies of the DEIS with local comprehensive plans is further illustrated in the case of Shenandoah and Rockingham Counties.	Sections 4.1 and 5.1 of the Tier 1 Final EIS, both which discuss the transportation elements in the local comprehensive plans, have been modified, where appropriate, to reflect the written comments and resolutions from counties, cities, or towns that were received during the comment period on the Tier 1 Draft EIS. The Uniform 8-Lane Concept is not proposed to be advanced. Furthermore, additional coordination with county officials would occur during Tier 2, during the evaluation of individual projects.
39.15	The DEIS falls far short of analyzing the indirect (or secondary) and cumulative impacts of the expansion of I-81 on adjoining jurisdictions and the addition of a new bypass in Rockingham County. Academic research has demonstrated the effect that increased highway capacity has on inducing additional development and shifting development from other locations. This research should be cited and accounted for in the DEIS. Among those cataloguing research in the field are Noland, Hansen, Cervero and Lippman. a. The indirect effect on Route 11 is acknowledged but the impacts are not catalogued including the effect on historic towns along Route 11. b. The displacement of commercial, retail and residential development into adjoining areas including currently unprotected portions of historic battlefields is not accounted for. c. Expansion of I-81 allowing for more truck traffic would require more and larger truck stops and would induce more large distribution centers consuming hundreds, if not thousands more acres of land. This can and should be estimated. d. Induced development in areas beyond existing defined growth areas and in adjoining but still-rural counties should be accounted for. Increased capacity would encourage increased long-distance commuting and development in outlying areas. e. Diversion of traffic to roads like I-95 due to tolls would create secondary impacts that have not been quantified.	Please see response to Comment 39.8.
39.16	The lack of an adequate land use analysis impairs the DEIS's ability to develop an alternative for addressing urban area traffic along I-81 that would include an enhanced local road network linked to a pattern of development and community design that would reduce vehicle trips or take those vehicle trips off of I-81. a. The Harrisonburg SE Connector DEIS shows that as much as 75% of traffic volume is seeking to move east-west with much of this crossing I-81, which like many interstates serves as a barrier to local traffic. The DEIS further shows that providing additional local road connections, particularly across I-81 would more directly meet local traffic needs than a new bypass. b. Recent work by the Thomas Jefferson Planning District Commission has demonstrated the potential for an enhanced local road grid to take traffic off of a major highway. c. Improved traffic models can account for shifts in jobs and housing and changes in community design linked to local road network improvements... d. Providing an enhanced local road network would reduce the number of short local trips on I-81...	Please see response to Comment 39.8.

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39.17	The Tier I DEIS offers a cursory discussion and inadequate documentation for the analysis of air quality impacts...It completely fails to document the impact on human health from the expansion of traffic in the I-81 corridor...The DEIS fails to address the impact on toxic pollution and haze in Shenandoah National Park. The inadequacy of this analysis is inexcusable, particularly give that the FHWA's own regulations specifically stress that broad issues such as "areawide air quality" impacts should be the focus of a first tier EIS. 23 C.F.R. § 771.111(g). The DEIS fails to measure air conformity for a project proposed as an end-to-end expansion along a 325 mile corridor, ignoring both the effect of the "build" alternatives on the attainment status of jurisdictions along the corridor and the impact on the State Implementation Plan. Delaying such an analysis to a series of individual projects during the second Tier of the EIS process would foreclose consideration of the full air quality impacts.	For the Tier 1 study, potential air quality impacts were broadly considered because of the corridor-length decisions that are being made. These Tier 1 decisions are outlined in the Process Streamlining Agreement in Appendix A. 23 CFR 771.111(g) states that a first tier EIS would focus on broad issues such as general location, mode choice, and areawide air quality and land use implications of the major alternatives. It should be noted, however, that the regulation does not specifically require or emphasize that these types of issues to be analyzed, but is merely providing examples of issues that can be analyzed. The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). None of the areas along I-81 are classified as non-attainment areas. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented. In addition, Sections 4.9 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts. The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their State Implementation Plan. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially

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		changed from 2035 No-Build conditions on those roadways.
39.18	...an independent review of the modeling including review of the assumptions and accuracy of that modeling is necessary in the face of the DEIS prediction that VOC, NOx and PM2.5 would decline significantly despite the massive increase in trucks per day proposed in the DEIS for 2030.	The air quality study for motor vehicle emissions was performed in compliance with U.S. Environmental Protection Agency modeling procedures. Supporting information for the air quality analysis was and is available for review. There are several factors contributing to the reduction of air pollution as part of this study. As roadway improvements are made, vehicles are able to travel at consistent rates of speed with reduced congestion. The elimination of idling vehicles is a major contributor to the reduction of air pollution.
39.19	The accuracy of measurement of current pollutants and the modeling of future emissions is hampered by having too few air monitors in Virginia including monitors in or near the I-81 corridor. The number and location of monitors in and near the corridor is also not set forth in the DEIS. Sufficient monitors must be in place to track the regional effects of air pollution in the corridor but also to monitor toxic hotspots and PM2.5 concentrations close to the highway.	Monitoring data may be used in project level analyses to aid in determining background pollutant concentrations. However, as previously stated, a project level detailed air quality analysis of CO, VOCs, NOx, and PM2.5 in terms of conformity to the State Implementation Plan would be conducted in Tier 2. Monitoring data are not used in an emissions analysis, such as was in the Tier 1 Final EIS, since this type of analysis is based on emission rates combined with vehicle activity data.
39.20	The Maximum Width highway build alternative appears to achieve significant reductions by NOT modeling or accounting for air pollution from traffic diverted from I-81 to parallel roads like Route 11, Route 340, Route 29, and Route 15, and to other intersecting roads.	Please see response to Comment 39.17.
39.21	In addition to total emissions from the rail alternative, the DEIS should report on emissions of pollutants per ton of freight moved and compare this to emissions per ton of freight moved by trucks.	In an analysis titled Environmental Impacts of a Modal Shift, the Minnesota DOT used the following fuel consumption and emission figures for comparison between rail and trucking: Fuel Use (Ton Miles/Gallon) Emissions (Pounds/Gallon) Truck 60 0.31 (.00517) Rail 204 0.69 (.00338) Source: (MnDOT, 1991, p. 2) Care must be exercised when using these or any numbers for comparison between rail and truck fuel economy and emissions levels. These numbers were based on fuel efficiency data from 1980 and emission results from the EPA's Mobile 4 model, both of which are now out of date. By converting these figures to pounds of emissions per ton-mile, it shows truck emissions at .00517 pounds per ton-mile while rail is .00338 pounds per ton-mile. These numbers provide a relative ranking and rough order of magnitude comparison between the two modes.
39.22	The DEIS cites the No Build and Minimum Width alternatives for having higher emissions than the Maximum Width, in part because the Maximum Width allows for freer flowing traffic. However, at least for NOx, the emissions reach a minimum in the 30-35 mph range but rise again with the higher speeds achieved on the overcapacity created by the maximum width alternative.	Based on the traffic data, the peak period speeds used to determine the emission rate for the Maximum Width footprint ranged from 54 miles per hour to 72 miles per hour. Speeds in the 30 to 35 mile per hour range were not appropriate for use.

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39.23	...the DEIS should model emissions levels in the event that stricter standards for emissions are not realized.	NEPA regulations direct federal agencies to consider the effects of proposed actions to the extent they are reasonably foreseeable and not speculative. As indicated in the Tier 1 Final EIS, the 2035 No-Build condition and the 2035 "Build" concept emissions of VOC, NOx, and PM2.5 would be lower than the existing condition emissions because of the implementation of emission control programs, such as the Federal Motor Vehicle Emission Control Program. It is speculative to assume that there would not be compliance with the federal standards for motor vehicles and for fuel formulations to reduce pollutants and that the levels of pollution reduction will not be realized in future years. As a result, the Tier 1 Final EIS continues to model emissions levels assuming that the implementation of emission control programs would occur and that reductions in emissions would be realized.
39.24	...the DEIS should also include a midcourse analysis of pollution levels and attainment status, not simply for existing and 2030. The DEIS presents a best case analysis, showing a dramatic decline from 2000 baseline study-area conditions for mobile source air toxics by 2030. This fails to evaluate the considerably higher MSAT emissions that will occur in 2010-2020, during which time significant expansion of I-81 would occur...The FEIS does not account for this delayed realization of MSAT emissions reduction and therefore the analysis considerably understates the aggregate MSAT emissions in the study area. ...the DEIS fails to include a full range of alternatives and all "Build" alternatives involve end-to-end expansion of I-81. Therefore, the analysis of NOx, VOC and PM2.5 emissions fails to include analysis of the relative emissions reduction benefits of an alternative multi-state rail, TSM, local road network improvements with land use changes that reduces truck and auto VMT and vehicle trips. Such an analysis should be included in addition to the Existing, No-Build 2035 and Build 2035 alternatives.	The EPA has issued a number of regulations that will dramatically decrease Mobile Source Air Toxics (MSATs) through cleaner fuels and cleaner engines. According to an FHWA analysis, even if VMT increases by 64 percent, reductions of 57 percent to 87 percent in MSATs are projected from 2000 to 2020. While local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures, the EPA-projected reductions are so significant (even after accounting form VMT growth) that MSAT emissions in the study area are likely to be lower in the future as well. Sections 4.9 and 5.10 of the Tier 1 Final EIS includes a discussion of MSATs and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. Please also see responses to Comments 39.1, 39.2, 39.5, and 39.7.
39.25	...the DEIS does not appear to model or report on the impact of vast increases in truck (and auto) traffic on I-81 to emissions and the non-attainment status within these areas [Botetourt County, City of Roanoke, and Frederick County] or to conversion of other areas to non-attainment status...the DEIS states that a detailed air quality analysis would not be conducted to Tier 2 and would be done for individual projects...	While all "Build" concepts ultimately involve an end-to-end expansion of I-81, construction of the improvements would not occur simultaneously. In fact, construction of the potential improvements identified in this study could take ten years to complete. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented.
39.26	the DEIS states that detailed air quality analysis will not be conducted until Tier 2...this would be too late to assess the total impact of the end-to-end "Build" alternatives on the [Shenandoah National] Park...this is directly contrary to the FHWA's own "tiering" regulations. The DEIS should provide substantially more discussion of current conditions of air pollution in the Shenandoah National Park...The DEIS also fails to account for the topography of the corridor...It is not clear whether the air models have been calibrated to account for this topography.	Please see responses to Comments 39.16 and 39.24. The level of the air quality analysis in the Tier 1 EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential air quality impacts of the improvement concepts. This level of analysis is NOT contrary to FHWA's environmental regulations (23 CFR 771.111(g) on tiering. These regulations simply include areawide air quality as one of the examples of the broad issues on which a first tier EIS could focus.

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39.27	...Documentation and measurement of emissions from diesel construction equipment must be included... The DEIS fails to document or measure the expansion of quarries, and concrete and asphalt plants to support the massive highway expansion and their contribution to emissions, especially harmful particulate emissions. This is not speculative as documented by proposals already being advanced to expand quarries including one next to Middletown in Frederick County. The proposed expansion of I-81 has been specifically cited as a rationale for the quarry expansion. During construction, traffic will be substantially slowed and traffic will be diverted to Route 11 and other roads...this additional pollution generated should be modeled for air conformity and for toxic hotspots for a mid-course year.	Construction activities on each project are to be performed in accordance with the Virginia DOT's "Road and Bridge Specifications". These Specifications are approved as conforming to the State Implementation Plan and require compliance with all applicable local, state and federal regulations. Emissions from diesel construction equipment will be addressed during Tier 2, as appropriate. In addition, if it can be demonstrated that the construction of improvements along I-81 directly result in expansion of quarries and concrete and asphalt plants, the emissions from these facilities will be discussed in Tier 2, as appropriate. Construction activities on I-81 could result in temporary or localized detours. The air quality impacts from these detours will be assessed during Tier 2 as necessary.
39.28	...The DEIS completely fails to address the human health impact from air pollutants generated by increased traffic and emissions along the I-81 corridor...The DEIS notes that a significant share of current and future development including residential development and schools is located near I-81 but does not assess the impact of these pollutants on children and neighborhoods within the study area...Without a discussion of the adverse environmental and health impacts that will occur as a result of increased pollution from nitrogen oxide, sulfur dioxide and coarse particulate matter, the EIS is inadequate... The DEIS fails to provide the required summary of existing credible scientific evidence which is relevant to evaluating the health effects and foreseeable adverse impacts posed by increased exposures to MSATs that would be the result of a decision to build the ICC. The DEIS must be supplemented with further analysis to produce health risk estimates based on analysis of estimated increase in exposures to MSATs for those living, working, or attending school in close proximity to I-81, and compared to a no-build case and other alternatives not presently considered in the DEIS...the DEIS neglects to identify mitigation strategies that might be undertaken to reduce these adverse health impacts...	Please see response to Comment 39.16. In addition, if the reference to ICC refers to the proposed Intercounty Connector in Maryland, we are unsure how that proposed project relates to the I-81 Corridor Improvement Study.
39.29	The DEIS fails to include the large body of recent evidence showing the adverse health effects of PM2.5 at levels that meet EPA's 1997 NAAQS...	As a result of recent studies on health effects from PM2.5, in the future, EPA may decide to change the NAAQS for PM 2.5 which may, in turn, change the PM2.5 attainment status in the I-81 study area. However, As stated in Section 4.9.2, Botetourt, Roanoke, and Frederick counties have entered into Early Action Compacts (EACs). Air quality conformity under Section 176A of the Clean Air Act is not required in areas with EACs. The remaining counties along I-81 are in attainment with the NAAQS. The only county in the rail study area that is in nonattainment for air quality is Prince William County. Conformity with Section 176A of the Clean Air Act would be required before any Federal approvals for projects in Prince William County. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented.
39.30	...If the contribution of emissions from this largest source of interstate emissions is significant under the Clean Air Act, then the emissions from 4-lane or larger highways must be considered as significant for purposes of requiring that these impacts be accounted for under the transportation project hot spot requirements.	Please see response to Comment 39.16.

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39.31	...the traffic analysis contained in the DEIS involves shortcomings including the projection of future demand that include failure to account for rising energy prices expected over the next decades...	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
39.32	...the DEIS improperly excludes consideration of a multi-state rail alternative which other studies have shown would address a significant share of traffic involving long-distance freight shipments...	Please see response to Comment 39.1.
39.33	...[the DEIS] improperly excludes alternatives which would target local traffic problems and does not include a composite alternative which would address all three identified problems -- long-distance freight, local traffic, and targeted safety problems...	Please see response to Comment 39.6 and 39.8.

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39.34	the Tier 1 DEIS [should] be supplemented, improved or modified to collect additional data and to support a more comprehensive analysis of impacts to historic, air, noise, visual, agricultural, community, and environmental resources into the Tier I DEIS.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
39.35	...the Tier 1 DEIS [should] incorporate additional alternatives individually and in combination that address the Reasonable Solutions proposal endorsed by 32 diverse groups including counties, cities, towns, conservation groups, preservation groups and business organizations...	In accordance with the National Environmental Policy Act, the Tier 1 EIS evaluated a broad range of reasonable improvement concepts. These concepts included the No-Build Concept and 211 combinations of Transportation System Management, road improvements, rail improvements and various toll scenarios. As discussed in Chapter 6, Tier 1 Decisions, some of the elements of the Reasonable Solutions are, in fact, proposed to be advanced.
39.36	...the Tier 1 DEIS [should] include and model transportation, land use and air quality effects of multi-state rail improvements, TSM, targeted highway safety improvements, and local road network improvements tied to community designs that reduce traffic on I-81 by supporting pedestrian, bicycle, transit and shorter vehicle trips...	Please see responses to Comments 39.1, 39.5, 39.8 and 39.17.
39.37	...the revised or supplemental Tier 1 DEIS [should] incorporate the multi-state rail study called for in legislation passed by the General Assembly and signed into law by the Governor in 2006.	See response to Comment 39.1 and 39.34.

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39.38	...no decision [should] be made to suspend the DEIS and proceed directly to targeted improvements to I-81, nor to conduct those targeted improvements with an eye toward an ultimate end-to-end expansion...	Chapter 1 of the Tier 1 Draft EIS outlined the steps in the tiered process. As stated in that document, the Tier 1 process consists of a Tier 1 Draft EIS, a Tier 1 Final EIS, and a Tier 1 Record of Decision. Concepts would be analyzed in more detail in subsequent Tier 2 NEPA documents. Furthermore, construction of individual projects could not occur until the completion of subsequent Tier 2 NEPA documents and compliance with all applicable environmental laws and regulations.

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
40.1	Because a significant number of Harrisonburg/Rockingham community members have concerns about the Southeast Connector being used as additional capacity for an I-81 bypass, we request that any comments received by VDOT for the Southeast Connector DEIS that mention I-81 in any way be considered also to be comments on the I-81 DEIS, and any comments received for the I-81 DEIS that refer in any way to a loop road, beltway, bypass, connector, or any other term a reasonable person would consider similar, be considered as comments for the Southeast Connector DEIS. Since the I-81 Tier 1 DEIS includes alternatives with a proposed new alignment around Harrisonburg, but does not document any of the resource impacts or relevant traffic modeling, we also request that the full Southeast Connector DEIS be incorporated as additional information in the Tier 1 DEIS for I-81.	The Southeast Connector in the Harrisonburg/Rockingham area is a separate and independent project and was not included as a concept in the Tier 1 EIS. FHWA and VDOT will, however, consider the effects of the Southeast Connector on the underlying assumptions, supporting data, and results of the analyses in each NEPA study conducted during Tier 2 as appropriate.
40.2	We request that the most recent comprehensive plan for Rockingham County, which includes "Cross Keys & Port Republic Battlefields Preservation Plan," be incorporated into the I-81 DEIS for consideration.	The Cross Keys and Port Republic Battlefields are outside of the I-81 study area (500 feet on either side of the existing edge of pavement). The recommendation provided may be considered during Tier 2 studies, as more refined concepts are developed and evaluated.
40.3	The I-81 DEIS mentions bypasses and major alignment shifts as remedies for impacts particularly in constrained areas (p. 5-46). However, the impacts of these bypasses are not evaluated, even briefly, in the DEIS. This is acknowledged on p. 6-8, "There is no discussion of the specific social, economic, or environmental impacts from potential corridors on new location in this Tier 1 DEIS." And yet, the decisions to be made at the end of Tier 1 will affect whether a Harrisonburg bypass or expansion within the current footprint is chosen. It is ironic that potential corridors on new location were not evaluated especially in light of this statement on page ES-i in the executive summary: "This Tier 1 EIS is the vehicle for fact-based analysis that supports informed decision making on corridorlength issues."	The Process Streamlining Agreement between the Virginia Department of Transportation and the Federal Highway Administration on the Interstate 81 Corridor National Environmental Policy Act Process (the Process Agreement) contains a list of decisions that are to be made at the completion of the Tier 1 Study. Bullet #4 of the Process Agreement states that one of those decisions is the location of the corridor for studying alignments in Tier 2. In this case, the term "corridor" refers to the existing I-81 corridor except as explained in the following paragraphs. There are two locations along the existing I-81 corridor that have extensive development adjacent to the I-81 right-of-way. The impacts from the potential I-81 improvement concepts, especially displacements, may rise to the level where a corridor on new location may be prudent. These sections are the I-77 overlap section near Wytheville (Milepost 72 to 81 within SIU #2) and a section in Harrisonburg (Milepost 243 to 251 within SIUs #6 and #7). At these two locations, FHWA and VDOT propose to evaluate corridors on new location, as well as widening existing I-81, in Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis will occur in Tier 2 prior to the selection of any specific alignments. This approach addresses the decision listed in Bullet #4 of the Process Agreement.
40.4	P. 4-11 Massanutten Technical Center was left off the list of potential impacts for widening/bypass. The new Rockingham Memorial Hospital site was not considered in the analysis of impacts even though rezoning has already occurred.	The width of the study area used in the Tier 1 Draft EIS was generally 500 feet on either side of the existing pavement on I-81. Existing facilities within the study area were identified using aerial photography and GIS data. The Massanutten Technical Center and the Rockingham Memorial Hospital site were not mentioned in the Tier 1 EIS because they are outside the study area.

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
40.5	P. 4-18 of the DEIS states "According to local planners, no (agricultural/forestal) districts are currently designated within the I-81 study area in...Rockingham County. Yet, as noted above, there are several a/f districts along I-81 in Rockingham, and the DEIS states no evaluation was done of impacts of widening on new location. There are almost certain to be impacts to agricultural/forestal districts in Rockingham.	Pages 4-17 and 4-18 of the Tier 1 Draft EIS note that, based on available GIS data, "prime farmland" and "soils of statewide importance" are located in Rockingham County. These classifications are different than farmland that is specifically designated by a locality as an "agricultural or forestal district". The Tier 1 FEIS has been corrected to note that based on available GIS data available for Rockingham County, no farmland has specifically been designated as an agricultural or forestal district within the I-81 study area. Therefore no impacts to designated agricultural or forestal districts were quantified. Officials in Rockingham County would be contacted again during Tier 2 studies to determine whether any new agricultural or forestal districts have been designated since the previous coordination efforts associated with the Tier 1 study. However, as noted on page 5-28 of the Tier 1 Draft EIS, roadway improvements would potentially affect both prime farmland and soils of statewide importance in Rockingham County. These impacts are also quantified and depicted on Figure 5-6 (Sheet 8 of 11 and Sheet 9 of 11).
40.6	P. 5-28 1,359 acres of prime farmland paved over in Rockingham for minimum footprint. This does not include other types of farmland. It is also unclear what the impact on farmland would be if a bypass was built since this is not considered.	Page 5-28 of the Tier 1 EIS states that the Minimum Width footprint would potentially impact 1,359 acres of soils of statewide significance, which are assumed to represent farmland of statewide importance. Soils of statewide importance are a different classification of agricultural resource than prime farmland as described in Chapter 4, Section 4.4. Potential impacts to prime farmland quantified for the Tier 1 EIS are depicted on Figure 5-6 (Sheet 8 of 11 and Sheet 9 of 11). The tables that accompany this figure indicate that a total of 169 acres of prime farmland are potentially affected in Rockingham County by the Minimum Width concept and 233 acres by the Maximum Width concept. Based on available GIS information, roadway improvements within the I-81 study area would not affect agricultural/forestal districts. In terms of a potential bypass, the Tier 1 EIS states that "the specific location of corridors...and the specific highway alignments in those corridors will be studied in Tier 2 and their impacts will be evaluated in detail".
40.7	P. 5-34 Smithland Soccer Complex in Harrisonburg is left off the list of parks and recreation areas impacted by I-81 widening. This is one of only two or three locations available for the entire community youth soccer program and is currently undergoing upgrades and expansion. Hillendale Park and Simms Community Center, which is located in the section of Harrisonburg with the highest minority population, are also excluded.	The width of the study area used in the Tier 1 Draft EIS was generally 500 feet on either side of the existing pavement on I-81. Existing facilities within the study area were identified using aerial photography and GIS data. The Smithland Soccer Complex, Hillandale Park, and Simms Community Center were not mentioned in the Tier 1 EIS because they are outside the study area.
40.8	In addition to Cross Keys and Port Republic Battlefields, other Civil War sites are in the potential path of the I-81 widening. A marker designating the location where Turner Ashby fell in the skirmish preceding the Cross Keys Battle is in jeopardy. So is the site in Dayton where Lieutenant Meigs' was killed leading to the burning of communities surrounding Dayton. Local citizens are currently preserving this site. There are many additional historic sites that should be protected as expansion of I-81 is considered, but the widening concept will be chosen in Tier I before these sites are evaluated.	Cultural resources information presented in the Tier 1 EIS reflects the information that was available from the Virginia Department of Historic Resources during the course of the study within the defined study corridor. This information will be updated during subsequent Tier 2 studies. Furthermore, more detailed studies will be completed to identify previously unrecorded cultural resources and to evaluate the eligibility of recorded sites within the Area of Potential Effect established for the Tier 2 studies.

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
40.9	Dividing the community into two different study areas will potentially pit the two SIUs against each other over road alignment as well as split the proposed bypass and Harrisonburg/Rockingham Metropolitan Planning Organization (HRMPO) into two different studies. We urge reevaluation of criteria used to determine SIUs to include community and MPO boundaries. An agreement to request revision to the boundaries so that the HRMPO would be included in only one SIU was approved at the April 20, 2006 HRMPO Policy Committee meeting.	The recommendation of the Harrisonburg-Rockingham Metropolitan Planning Organization was for a Section of Independent Utility to encompass the portion of the interstate from Exit 235 to Exit 257. As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the logical termini of an SIU. Identifying the termini of SIUs on this basis would mean that congestion would not merely be moved to the next section of the highway. One method to determine a logical breakpoint is to identify substantial differences (i.e., 20 percent or greater) when comparing the predicted (2035) traffic volumes on I-81 on one side of an interchange to the predicted traffic volumes on I-81 on the other side of an interchange. Another method of determining a logical breakpoint is to identify where the predicted traffic volumes on I-81 interchange ramps were substantial (i.e., a total of 3,200 vehicles on all the ramps), even though the predicted traffic volumes on I-81 on either side of the interchange may not be substantially different. Exit 235 and Exit 257 do not meet these criteria on traffic volumes and are, therefore, not used as logical termini for the SIUs.
40.10	Page 3-2 of the I-81 DEIS states that only corridor-length concepts were retained for further consideration. But then on the very next page it states "The findings of this analysis are that all consistent, corridor-length concepts are inefficient at addressing corridor-length capacity as standalone concepts." The result seems to be that all non-corridor-length concepts have been eliminated and the remaining corridor-length options found to be inefficient. What options are then left to carry forward? Were spot improvements as recommended in "Reasonable Solutions" then reconsidered?	The number of concepts to be advanced into Tier 2 has been reduced, as described in Chapter 6, Tier 1 Decisions. The "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
40.11	Page ES-x states that, "For these sections, the "Build" concepts under consideration are only those that provide for one additional lane in each direction. Most of the remaining sections of I-81 need more than one lane in each direction." It seems reasonable to conclude from this statement that widening concepts have already been chosen, at least for the sections of I-81 referred to in the statement. Isn't the DEIS process to be concluded before widening concepts are chosen?	It is not reasonable to conclude that widening concepts have already been chosen based on the noted statement. The statement only suggests that it would be unnecessary to consider anything greater than adding one lane per direction for those sections when studying them during Tier 2. Each of FHWA's decisions will be documented in a Tier 1 Record of Decision and the ultimate decision of whether those sections would be widened would occur during Tier 2. This decision would be based on a more detailed environmental data and engineering analysis. During Tier 2, the sections identified would also be further broken down to examine composite grades between interchanges.
40.12	The Executive Summary soothingly states, "The actual numbers (from potential impacts) may decrease during Tier 2 as a result of more detailed field investigations..." but leaves out the possibility of potential impacts increasing for corridors built on new location. This is a small detail except for the fact that local government representatives and officials were encouraged to just read the Executive Summary.	The Executive Summary of the Tier 1 Final EIS has been revised. It now indicates that the impact numbers in Table ES-4 do not include the impacts from potential corridors on new location.

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Community Alliance for Preservation, Kim Sandum

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40.13	It seems that by definition the "Maximum Width" should encompass the maximum impacts from any build option chosen. How then can "add 8-lanes" more seriously impact the following factors than the "Maximum Width" (Table ES-4, p. ES-xiii)? Battlefield acres NHRP listed/eligible historic acres Wetland impacts (acres) Stream impacts (miles) 100-year floodplains (acres) Threatened and endangered species Noise sensitive receptors	As explained on pages 5-7 through 5-9 of the Tier 1 DEIS, the Minimum and Maximum Width footprints represent concepts that were based on the transportation needs identified in Chapter 2, Purpose and Need. The impact footprints for both the Minimum and the Maximum Width concepts have a variable number of additional lanes for the length of I-81 depending on the results of the transportation analysis. In some areas, the Maximum Width concept has only 2 additional lanes (1 additional lane in each direction) and in other areas it has more than 2 additional lanes. In contrast, potential impacts were also calculated for concepts that add a consistent number of lanes the entire length of I-81 in Virginia, regardless of specific transportation needs. The "Add 8 Lanes" Concept adds 8 additional lanes (4 lanes in each direction) the entire length of I-81, therefore resulting in a larger impact footprint than the Maximum Width concept. This analysis was conducted to complement the "Build" concepts that provide a consistent improvement for the entire corridor. The findings of the study conclude that (1) there is no single consistent corridor-length concept that satisfies the capacity needs of I-81 in Virginia without providing excess capacity; and (2) based on the varying traffic demands a concept with a variable number of lanes would most efficiently address the capacity needs of the roadway.
40.14	The DEIS is written from the perspective that trucks will have two options if a toll is imposed, divert or pay. In the short term this is true, but in the long run it may be most attractive for businesses to relocate or chose not to do business in the region. The diversion numbers seem to make no distinction in near term and long term diversion rates. The near term diversion numbers and routes will likely be different than the long term when it is more likely that businesses will relocate. In fact, during the various public hearings several trucking companies have said as much.	For the most part, in 2035, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of whether tolls are implemented or not. Therefore, the imposition of tolls would not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the improved efficiency of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. National evidence shows, in fact, that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule.

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Community Alliance for Preservation, Kim Sandum

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40.15	Multi-modal options were not adequately considered in the I-81 DEIS. VDOT rail concepts were limited to Virginia's 325 miles only even though it is widely acknowledged that a minimum of 500 miles should be studied to accurately determine possible success of freight rail options. A multi-state rail alternative should be studied and the study included in the I-81 DEIS prior to choosing a design concept in Tier 1. This multi-state rail alternative study is already required by recent legislation passed by the General Assembly.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
40.16	Since it has been determined that all corridor-length options are inefficient, a combination of solutions should be reviewed as alternatives in the DEIS. Combination alternatives that includes local street grids and connectors across I-81 like the Stone Spring extension (CBA 4 in the Southeast Connector DEIS), targeted improvements within the corridor, multi-state rail, and Transportation System Management have widespread grassroots support and should be evaluated as alternatives in the I-81 DEIS.	A purpose and need statement was appropriately developed for the entire 325-mile corridor of I-81 and all reasonable concepts for this corridor-length study have been evaluated. The Tier 1 EIS considered many concepts that partially met the purpose and need (including Rail Concepts 1,2, 3, and 4 and several highway concepts as well as others). The Tier 1 EIS indicates that no single consistent corridor-length concept satisfies the needs of I-81 in Virginia without providing more lanes than are needed. It also states that a concept with a variable number of lanes between interchanges of the corridor most efficiently addresses the needs of the roadway. A variable concept would minimize the social, economic, and environmental impacts from consistent lane concepts and provide an opportunity to limit cost by not providing more lanes than are needed. A variable concept is, in fact, proposed to be advanced. The document also concludes that, while the TSM Concept alone cannot meet the purpose and need, there is still an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the TSM Concept. Localized alternatives would be evaluated during Tier 2 as necessary.

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Community Alliance for Preservation, Kim Sandum

ID	Comment	Response
40.17	Because there remain many outstanding unresolved issues we request that a Supplemental DEIS be developed to address these issues.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 41

Friends of Page Valley, Barbara A. Coulter

ID	Comment	Response
41.1	...a thorough study of rail improvements and options along the entire I-81 corridor (in Virginia and other states) needs to be concluded before any option to vastly expand I-81 is approved. The 2006 General Assembly unanimously passed a bill calling for a rail feasibility plan with a goal to divert 60% of the through-state freight from I-81. At the very least, VDOT should wait for the results of the General Assembly supported multi-state rail study.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Friends of Page Valley, Barbara A. Coulter

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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Friends of the Shenandoah River, George Ohrstrom

ID	Comment	Response
42.1	The study neglected the true potential of diverting goods from long distance trucks to the much more environmentally friendly mode of rail. Why was the shift of goods from road to rail neglected? The missed opportunity was caused by the lack of "depth" of the transport analysis presented in the Tier 1 study. The very narrow view taken by VDOT and the consultants unfairly favored road development over rail.	The shift of goods from road to rail was not neglected. In order for intermodal shifts to be feasible, "the minimum distance between origin and destination must be at least 500 miles in length." While improvements to the rail infrastructure were evaluated in Virginia, the Tier I EIS includes all freight movements using the I-81 corridor, regardless of trip length, origin, or destination. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways were both assessed. Therefore, the study team did appropriately evaluate freight diversion to rail for trips of over 500 miles in length.

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Friends of the Shenandoah River, George Ohrstrom

ID	Comment	Response
42.2	Instead of couching the Tier 1 analysis in a comprehensive context that looks at multiple States and therefore can take into account the large amount of long-distance traffic going from the North to the South of the Eastern United States, the study focused only on a trivially short section of the I-81 corridor that was wholly contained in only one State -Virginia.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Friends of the Shenandoah River, George Ohrstrom

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
42.3	Why does a narrow focus unfairly penalize rail? Rail logistics managers say that any haul shorter than 500 miles generally goes by truck, and anything longer than 1,000 miles will go by rail. Distances in between are up for grabs. Since the scope of the DEIS examined only a 325 mile long corridor, it artificially restricted the true potential for rail improvement.	Please see response to Comment 42.2.

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Friends of the Shenandoah River, George Ohrstrom

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42.4	In conclusion, we urge that VDOT redo the DEIS by taking a more comprehensive look at the whole I-81 corridor. This is a challenging task and will require, among many other things, partnering with the Departments of Transportation in Tennessee and other neighboring States and with the U.S. Department of Transportation.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted an I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania, and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005 at a meeting hosted by Tennessee DOT. Additionally, representatives convened in October 2006 in New York, and have a continuing commitment to work together to discuss transportation conditions on I-81.

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Harrisonburg-Rockingham Chamber of Commerce

ID	Comment	Response
43.1	To help provide a long-term solution for Interstate 81 and the rest of the Commonwealth's roadways, we ask for the development of a 20-year strategic transportation plan in coordination with the existing six-year plan to fix the 1,112 deficient bridges and provide for additional repairs and improvements to roadways. It is unacceptable that it is projected that by 2014 there will be no state dollars to match federal dollars for essential state transportation projects.	Virginia's 2025 State Highway Plan is a 20-year vision plan that identifies recommended improvements to the interstate and primary highway systems. This plan is updated every 3 to 5 years to provide a comprehensive and accurate strategy for addressing the changing needs of Virginia's citizens and businesses.

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Nashville and Eastern Railroad Authority and Nashville and Eastern Railroad Corporation, Ben L. Smith

ID	Comment	Response
44.1	...the VDOT Tier 1 DEIS for the I-81 Corridor did not seriously consider a railroad option consistent with the rail development concept which has so much support in Tennessee. VDOT must surely recognize that to divert trucks from I-81 it will be necessary to provide greatly enhanced train speeds and upgraded rail service for freight movements greater than 500 miles. The railroad option selected by VDOT for comparison to the prominent highway options falls far short of the scope necessary to be effective.	Four rail improvement concepts were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. Among those concepts was a concept (referred to as Rail Concept 4) proposed during the Scoping Process by Rail Solution, a rail advocacy group. Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans. The methodologies and assumptions used to determine divertibility of freight to rail were based on sound and reasonable logic. There was substantial coordination with Norfolk Southern, the Virginia Department of Public and Rail Transportation, and the Federal Railroad Administration. Freight diversion was examined for two separate cases. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways. Therefore, freight diversion to rail for trips of over 500 miles in length was indeed evaluated. Chapter 3, Improvement Concepts, in the Tier 1 EIS describes the results of that analysis. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs would still need additional highway lanes.

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Nashville and Eastern Railroad Authority and Nashville and Eastern Railroad Corporation, Ben L. Smith

ID	Comment	Response
44.2	...VDOT should prepare a final Tier 1 EIS which provides for much more extensive railroad development throughout the I-81 corridor in Virginia as will be defined by the H1581 comprehensive feasbility plan.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Nashville and Eastern Railroad Authority and Nashville and Eastern Railroad Corporation, Ben L. Smith

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 45

National Parks Conservation Association, Catharine Gilliam

ID	Comment	Response
45.1	...planning thus far fails entirely to consider the effects on the units of the National Park System that would be impacted by the proposed project - and inadequately addresses the effects on other natural, historic and cultural resources that are integrally related to those parks.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for these individual projects will address site-specific impacts.
45.2	...the DEIS does not even acknowledge the existence of Cedar Creek and Belle Grove NHP- thus failing completely to explore a prudent and feasible alternative. When the staff of the Park Service at Cedar Creek and Belle Grove NHP wrote to point out this omission, their letter was included in an Appendix, but no changes to the document were made in response...This omission is indicative of the complete failure of the DEIS to seriously address the protection of parks and historic resources- as required by federal law.	The Cedar Creek and Belle Grove National Historical Park has been added to the list of parks and recreation areas in the I-81 study area referenced in the Tier 1 Final EIS.
45.3	...The only way to achieve adequate consideration of the air quality impacts is to prepare a Tier 1 DEIS that actually addresses this critically important issue beyond the boundaries of the proposed project and fully assesses the harm to Virginian's health and Virginia's economy. VDOT should confer with air specialists from the NPS regional office in Philadelphia and leading scientists who have documented the impacts of pollutants on park resources...Future studies should fully address the impacts of the I-81 expansion to scenic views and air quality in one of America's leading national parks.	The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).
45.4	...I-81 expansion should be assessed for its impact on air quality and negative impacts on the scenic vistas...From the Blue Ridge Parkway the negative visual impact of an expanded I-81 must be assessed - as is required of the southern end of Shenandoah National Park.	Section 5.5, Visual Impacts, states that the addition of highway lanes, rail improvements, or improvements to interchanges would not appreciably change the visual character of I-81. The greatest number of viewers that would potentially experience minor impacts would likley occur to motorists driving on Scenic Byways in the study areas. During Tier 2, a more detailed assessment of visual impacts would be completed, as necessary, that identifies specific areas where existing visual buffers would be removed.

Letter 45

National Parks Conservation Association, Catharine Gilliam

ID	Comment	Response
45.5	A DEIS must address the impacts the I-81 project on the qualities of the Appalachian Trail.	Potential improvements will increase the exposure of visitors of the Trail to the sights and sounds of traffic on I-81. If use of the trail is "substantially impaired" as a result of roadway improvements, this would be characterized as a constructive use impact (see Section 5.8 of the Tier 1 EIS). Without specific roadway design details, the Tier 1 EIS, by design, could not definitively determine whether such an impact would actually occur. As noted on page 5-45 of the Tier 1 Draft EIS, "while widening of the road ... is not expected to result in a constructive use of parks and/or trails in the I-81 corridor..., a final determination of constructive use would be determined during Tier 2, in conjunction with input from the officials having jurisdiction over the property". Future design efforts during Tier 2 would evaluate measures to avoid impacts to the Appalachian National Scenic Trail. In addition, VDOT and FHWA would coordinate with the National Park Service to identify measures to mitigate unavoidable impacts to the Trail.
45.6	There are many historic communities, buildings, sites and resources adjacent to the route of I-81 that meet the criteria for inclusion in the National Register of Historic Places. There are numerous examples of these sites that have never been evaluated for eligibility for inclusion in the National Register. The DEIS does not evaluate the impact on these eligible sites and districts.	The Tier 1 Draft EIS describes the potential impacts to listed and eligible historic properties (including historic battlefields) that may occur as a result of each improvement concept, and it acknowledges that the level of resource identification and impact analysis undertaken for this Tier 1 Study does not fully satisfy the requirements of Section 106. However, the level of analysis included in the Tier 1 Draft EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concept. The formal Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would occur in Tier 2. During the formal Section 106 process, there would be consultation with the VDHR, the Advisory Council on Historic Preservation, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.
45.7	Due to the many serious inadequacies of the Tier 1 draft EIS, (as outlined above) and the need for substantive changes to this document, VDOT should issue a supplemental DEIS and provide another opportunity for public comment on Tier 1 plans, before requesting approval of the final Tier 1 EIS.	Please see response to Comment 45.1. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.1	...we believe this Tier 1 DEIS is substantially flawed in identifying and analyzing impacts to significant cultural and historic resources. In our view, VDOT and the FHWA have not adequately satisfied the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332(2)(C), Section 106 and Section 110(f) of the National Historic Preservation Act (NHPA), 16 U.S.C. §§ 470f, 470h-2(f), and Section 4(f) of the Department of Transportation Act, 49 U.S.C. § 303, 23 U.S.C. § 138. At a minimum, we believe the FHWA must supplement the Tier 1 DEIS in order to correct the flaws...prior to making a decision to proceed to a Tier 2 review.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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National Trust for Historic Preservation, Elizabeth S. Merritt

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. The Tier 1 EIS identified existing parks, recreation areas, and open space easements within the I-81 and rail study areas based on readily available mapping and GIS data, review of local comprehensive plans and other documents (e.g., Virginia Outdoors Plan, 2000) and coordination with local parks and recreation directors. Information was obtained on the location and ownership of publicly owned parks, trails, Section 6(f) resources, wildlife/waterfowl refuges, and boat ramps. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant

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		environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted. The proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Localized alternatives would be evaluated during Tier 2 as necessary.
46.2	The Draft EIS violates NEPA, Section 106 of the NHPA, and Section 4(f) of the Department of Transportation Act, by failing to provide adequate information about historic resources potentially impacted by the proposed alternatives.	Please see response to Comment 46.1.
46.3	For large phased corridor projects such as this one, the Section 106 regulations require the agency, at the very least, to initiate Section 106 consultation during the Tier 1 analysis, and to conduct "phased identification and evaluation" in accordance with 36 C.F.R. § 800.4(b)(2).2 In general, the agency is required to initiate Section 106 "early" in the planning process, in order to ensure that the agency considers a "broad range of alternatives." Id. § 800.1(c). More specifically, however, the agency must ensure that "project planning activities . . . do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties." Id. Here, the agency has improperly limited not only the area of potential effects and the scope of historic resources considered, but has also failed to seek input from potential consulting parties.	Please see response to Comment 46.1.
46.4	...the DEIS proposes to complete the identification of historic properties and the assessment of the effects on those historic properties during the Tier 2 analysis. Such an attempt to defer even the completion of the identification process for historic properties is not permitted by the Section 106 regulations. The Section 106 regulations do permit an agency to conduct a "phased" process of identification and evaluation...	Please see response to Comment 46.1.
46.5	Because the decisions made in the Tier 1 DEIS will narrow the "build" alternatives in Tier 2 and foreclose the agency's ability to consider a broad range of alternatives to avoid, minimize, or mitigate adverse effects to many significant historic properties, the agency, at a minimum, must initiate Section 106 consultation prior to completion of the Tier 1 EIS. Specifically, to meet the agency's obligations under Section 106, the agency must establish an adequate "area of potential effects," for direct, indirect, and cumulative effects, and must identify historic properties potentially adversely affected by the project.	Please see response to Comment 46.1.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.6	...the DEIS fails to identify a National Historical Park designated by Congress and the President in 2002...the DEIS identifies only those historic properties "listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP)" in the Tier 1 study...Given the pervasive and highly significant historic resources throughout this corridor, deferring the consideration of potentially eligible historic properties provides insufficient information on which to base a Tier 1 decision...the area of potential effects used for the DEIS - ranging from 1,000 to 2,000 feet wide - is inappropriately narrow. As a result, the DEIS ignores or underestimates broader historic characteristics, such as visual impacts to historic and cultural landscapes, and secondary or cumulative impacts to historic communities.	Section 5.6, Parks, Recreation Areas, and Open-Space Easements, and Section 5.8, Section 4(f)/6(f) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park. The width of the study area used in the Tier 1 Draft EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000 foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Finally, Section 5.11, Noise, in the Tier 1 Draft EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. Also, please see response to Comment 46.1.
46.7	Although the DEIS does acknowledge the potential direct impacts on the Cedar Creek Battlefield as a National Historic Landmark, it fails to recognize or even mention the status of this highly significant place as a National Historical Park designated less than four years ago by Congress and the President.	Please see response to Comment 46.6.
46.8	In addition to underestimating the project's harm to historic properties, the failure to identify [Cedar Creek and Belle Grove] National Historical Park also results in underestimating the harm to Park resources...the National Historical Park is not included on the list of potential impacts to parks.	Please see response to Comment 46.6.
46.9	The failure to identify the National Historical Park also affects the analysis under Section 4(f) of the Department of Transportation Act....Table 5.8-1, "Constrained Section 4(f) Areas: I-81 Corridor," does not include the Cedar Creek and Belle Grove National Historical Park, but merely refers to "Various Battlefields" between Milepost 291- 320 as being located "on both sides of I-81 and large in size."	Please see response to Comments 46.1 and 46.6.
46.10	In light of the national significance and Congressional designation of the Cedar Creek and Belle Grove National Historical Park, the failure to accurately identify and discuss this resource undermines the credibility of the DEIS, and appears to represent an overall failure of the DEIS to disclose a full and complete picture of the affected environment during the Tier 1 study.	Please see responses to Comments 46.1 and 46.6.

Letter 46

National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.11	The DEIS fails to identify many National Register-listed historic districts that are located outside of the limited I-81 study area, but are likely to be harmed by the indirect and cumulative impacts of the proposed project...it is reasonably foreseeable that the proposed expansion of I-81 will affect these historic districts by inducing a surge of commercial, industrial, and residential development at interchanges and along parallel and connecting roadways...induced commercial development and diverted traffic along the corridor would harm the economy of nearby downtown commercial historic districts.	Please see response to Comment 46.6. Also, as indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. As a result, there should be no induced development along Route 11 in 2035.
46.12	...of the 30 National Register-listed historic districts in the String of Pearls, the DEIS only identifies seven. The remaining historic districts are not even mentioned in the DEIS, presumably because they fall outside the narrow 1,000 to 2,000-foot-wide study corridor. In our view, however, these historic communities certainly will be affected by the long-term effects of the proposed project, even if they are outside the limits of construction. By failing to identify the historic districts along U.S. Route 11, known as the "String of Pearls," the DEIS marginalizes the role of historic preservation and heritage tourism in the economic success of these communities, and misinforms the public about the potentially devastating consequences of the proposed "build" alternatives.	Please see response to Comment 46.11. The width of the I-81 study area for the Tier 1 EIS was generally defined as a corridor extending 500 feet on either side of the existing roadway pavement. This width was used because it was believed to represent the maximum area within which potential road improvements may occur. However, for architectural resources, the study area was extended to encompass an area 1,000 feet of either side of the roadway pavement (a total corridor width of approximately 2,000 feet). This was done to consider potential visual or auditory impacts to such resources. Furthermore, historic architectural properties found to be within view even beyond the 2,000-foot corridor were also identified. The level of analysis included in the Tier 1 EIS, including the delineation of the study area, is commensurate with the decisions being proposed. The formal Section 106 process for individual projects along I-81 involving decisions on the Area of Potential Effect (APE) and the identification of resources within the APE will occur during Tier 2.
46.13	The DEIS also excludes hundreds of historic properties within the I-81 corridor that may be eligible for National Register listing but have not been identified or evaluated for their National Register eligibility.	Please see response to Comment 46.1. While a preliminary assessment of unidentified and/or unevaluated historic sites was completed for the Tier 1 EIS, as described in the Historic Properties Technical Report, more detailed investigations to identify historic properties that may be eligible for National Register listing but have not been identified or evaluated will be completed during Tier 2 studies.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.14	...a cursory windshield survey...led to an initial off-the-cuff determination that less than one-third of the 635 unevaluated properties...were considered potentially eligible for the National Register...No information is provided as to why the vast majority of these unevaluated properties were determined not eligible for the National Register. We question whether this assumption is realistic. Furthermore, even the 190 "potentially eligible" architectural resources within the 1,000-to 2,000-foot-wide study area were apparently whittled down to 17, without explanation, in Table 5.7-4. We believe the actual number of National Register-eligible architectural resources within the narrow study area is likely to be much higher than estimated by the cursory windshield survey. There is no legitimate reason to defer these evaluations to a Tier 2 study, especially since the constraints of Section 4(f) of the Department of Transportation Act are so stringent with respect to these historic properties.	The methods used to evaluate potentially eligible properties is described in the Historic Properties Technical Report. To preliminarily identify potentially eligible architectural resources in the study area, DSS forms for recorded properties at the Virginia Department of Historic Resources were first reviewed to assess the potential of unevaluated resources for eligibility. If the information on file at VDHR suggested that a resource may be potentially eligible, it was then viewed during the prelminary field survey. Unrecorded resources were also viewed and assessed for potential eligibility during the preliminary field survey. The 190 potentially eligible resources that came out of the preliminary assessment are shown in Figure 4-1 of the Historic Properties Technical Report in relation to the Maximum Width concept. The 17 properties identified in Table 5.7-4 are those potentially eligible resources that would be directly affected based on the GIS-level impact analysis. Also, please see responses to Comments 46.1, 46.6 and 46.13.
46.15	...the decision to consider only historic properties that are National Register-listed or are the subject of a formal eligibility determination is arbitrary, and would lead to a distorted Tier 1 determination. Given the enormous number of potential historic resources even just within the study area (i.e., hundreds), we believe this unresolved issue requires the preparation of a Supplemental EIS.	The Tier 1 Draft EIS describes the potential impacts to listed and eligible historic properties (including historic battlefields) that may occur as a result of each improvement concept, although it acknowledges that the level of resource identification and impact analysis undertaken for this Tier 1 Study does not fully satisfy the requirements of Section 106. However, the level of analysis included in the Tier 1 Draft EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concept. The formal Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would occur in Tier 2. During the formal Section 106 process, there would be consultation with the VDHR, the Advisory Council on Historic Preservation, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Also, please see response to Comment 46.1.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.16	The discussion of direct impacts in the DEIS is too vague and overly broad to satisfy NEPA's "hard look" requirement. The direct impacts of a proposed action include not only physical destruction and alteration of resources, but all effects that are caused by the action and occur at the same time and place. 40 C.F.R. § 1508.8(a). The direct impacts examined within the DEIS are fundamentally flawed for several reasons. First, the study area, a narrow corridor ranging from 1,000 to 2,000 feet wide, does not adequately capture the area of direct impacts from the project. Second, the information provided within the direct impacts analysis is simply quantitative and not qualitative, which undermines the ability to understand what the consequences are for each alternative. Third, the DEIS does not include an analysis of direct visual or audible intrusions on historic resources or landscapes. Also, the failure to distinguish between archaeological and architectural resources and landscapes regarding direct impacts undermines the analysis, because the landscape is an inextricable element of the historic character and setting for Civil War Battlefields and other historic resources, such as Cedar Creek and Belle Grove National Historical Park.	Please see responses to Comments 46.1, 46.6, and 46.13.
46.17	The DEIS defines the I-81 study area far too narrowly, particularly with respect to potential direct impacts. The 1,000 to 2,000-foot-wide corridor was used "because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed." DEIS at 4-1. However, the DEIS also recognizes that "potential effects on [historic properties] may occur beyond the physical limits of the improvement concepts." Id. at 4-1, 4-30. Yet this acknowledgement is not reflected in the analysis of direct impacts. Even historic properties within the narrow 1,000 to 2,000-foot-wide corridor are overlooked when assessing the effects or environmental consequences of the project. For example, the DEIS identifies ten historic districts within the narrow corridor that are National Register-listed or formally determined eligible. DEIS at 4-35 (Table 4.7-2). Yet, without explanation, the DEIS concludes that only two of them -Camp Russell and Newtown/Stephens City - would be directly affected, even by the maximum width footprint. Id. at 5-41 (Table 5.7-3). This conclusion simply defies credibility.	The Tier 1 Draft EIS distinguishes between potential "direct" impacts as a result of construction and other types of impacts. Examples of potential effects on historic properties that may occur beyond the physical limits of improvements concepts are noted in the Tier 1 Draft EIS, such as the introduction of visual, atmospheric, or auditory elements that may diminish the integrity of historic features. The Tier 1 analysis does not address these types of effects, in part, because information required to evaluate those effects is unavailable during Tier 1. Therefore, only direct impacts were calculated based strictly on a GIS-level of impact analysis whereby the potential construction limits were overlain on the historic property GIS layer. During Tier 2 studies, more detailed analyses will be completed to accurately define direct impacts as well as to determine other potential effects on historic properties. In terms of the example cited for historic districts, the impact results reflect that the maximum area within which potential highway improvements concepts may be developed does not extend substantially outside of the existing highway right-of-way, except in interchange areas. To better view the limits of the Maximum Width concept relative to historic properties, it is recommended that Figure 4-1 in the Historic Properties Technical Report be reviewed.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.18	The DEIS provides only quantitative information, rather than any qualitative analysis of the potential direct impacts on historic properties. The result is ineffective for purposes of informing the public and the agency about the environmental consequences of the proposed alternatives. Moreover, even the quantitative information in the DEIS is skewed and misleading, and provides a distorted picture of potential impacts on historic resources. The DEIS relies on GIS data to quantify potential impacts by estimating the number of acres that fall within the footprint of the project.	The Tier 1 Draft EIS DOES describe the potential impacts to listed and eligible historic properties (including historic battlefields) that may occur as a result of each improvement concept, although it acknowledges that the level of resource identification and impact analysis undertaken for this Tier 1 Study does not fully satisfy the requirements of Section 106. However, the level of analysis included in the Tier 1 Draft EIS is commensurate with the proposed decisions and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concept. Section 5.7, Historic Properties acknowledges that, in addition to direct impacts from construction, other types of effects to historic properties can occur as a result of an undertaking. These can include removing the property from its historic location, changing the character of the property's use or setting when they contribute to its significance, and introduction of visual, atmospheric, or audible elements that diminish the integrity of the significant features. While all or some of these effects may occur as result of the individual projects, the analysis in the Tier 1 EIS does not address these effects because of the nature of the proposed Tier 1 decisions. Also, please see response to Comment 46.1.
46.19	...the DEIS states potential acreage acquired from various historic properties without evaluating the qualitative nature and relative scale of the acres to be lost....these acreage numbers provide no information as to whether the portion of the property harmed represents the marginal fringe of a large district or the central core of a pristine battlefield. Nor do these acreage figures indicate whether the impact would include land only, or would involve the demolition of a historic structure as well.	Please see responses to Comments 46.1 and 46.18.
46.20	...the DEIS states that between 325 and 436 acres of the Cedar Creek Battlefield, a National Historic Landmark (and now a National Historical Park), would fall within the limits of construction for the project. Again, the DEIS fails to make any qualitative analysis of the potential impacts. Based on the map attached as Exhibit A, it appears that the acreage taken would cut right through the heart of the National Historical Park, destroying a large swath of "core battlefield."	Please see responses to Comments 46.1 and 46.18.
46.21	...the suggestion that the project, even at its worst, would only impact about 35 historic properties is misleading. That number includes only one archaeological site, and fails to account for the 635 individual architectural resources within 1,000 feet of the current highway that have not yet been evaluated for the National Register. To suggest that the only difference between the Minimum Width (240 feet) and the Maximum Width (540 feet) for the right-of-way would be the loss of one historic structure (see DEIS at 5-39, Table 5.7-1), simply defies credibility. The suggestion that the project, even at its worst, would only impact about 35 historic properties is misleading. That number includes only one archaeological site, and fails to account for the 635 individual architectural resources within 1,000 feet of the current highway that have not yet been evaluated for the National Register. To suggest that the only difference between the Minimum Width (240 feet) and the Maximum Width (540 feet) for the right-of-way would be the loss of one historic structure (see DEIS at 5-39, Table 5.7-1), simply defies credibility.	Please see responses to Comments 46.1 and 46.18.

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National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.22	...the DEIS defers consideration of indirect and cumulative impacts to the Tier 2 evaluation. Because these impacts will be enormous, however, this deferral interferes with the ability to understand the full consequences of the build alternatives...a Supplemental DEIS is needed to address these impacts in much greater detail.	Section 5.14, Indirect Impacts and Section 5.15, Cumulative Impacts discuss potential indirect and cumulative effects of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. The level of analysis included in the Tier 1 EIS was commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concepts. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Also, please see response to Comment 46.1.
46.23	The proposed expansion of I-81 has the potential to induce incompatible new development and increased traffic in the historic small towns (the "String of Pearls") along Route 11. Because these small towns have National Register historic districts, it is reasonably foreseeable that induced development and increased traffic would harm the character of these historic districts, and would undermine the demonstrated economic benefits of historic preservation and heritage tourism...Yet the DEIS concludes that both the construction of the I-81 expansion itself and future development and traffic would have only "positive economic effects" as a result of increased employment and tax revenues. We strongly disagree with this conclusion regarding cumulative economic impacts, which completely disregards the community's investment in protecting its historic character.	While some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 would not be substantially changed from 2035 No-Build conditions on those roadways. As a result, there should be no induced development along Route 11 in 2035.
46.24	...the DEIS concludes that the indirect impacts of increased traffic "are not anticipated to be substantial," because traffic volumes under a "build" scenario would not be much heavier than estimated traffic volumes under a "no-build" scenario. We disagree. In our view, higher traffic volumes, particularly the diversion of heavy truck traffic, would harm the string of historic districts along Route 11. Vibration caused by truck traffic would physically harm historic buildings. Higher traffic volumes would also directly undermine successful local efforts to promote economic revitalization and small business development.	Please see responses to Comments 46.1, 46.18, and 46.23.
46.25	...Where the "Build" concepts encourage development, a possible indirect impact to land use includes a reduced value of agricultural land adjacent to newly developed land. Much of that agricultural land is also historic, and certainly contributes to the historic setting of many other properties within the Shenandoah Valley. This land is extremely vulnerable to destruction as a result of induced development. That adverse effect, which acknowledged in the most general terms, has not been effectively taken into account in the Tier 1 analysis.	Section 5.14, Indirect Impacts, and Section 5.15, Cumulative Impacts, discuss potential indirect and cumulative effects of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the corridor-length decisions that are being made. Also, please see response to Comment 46.1. Potential indirect and cumulative effects will be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations during Tier 2.

Letter 46

National Trust for Historic Preservation, Elizabeth S. Merritt

ID	Comment	Response
46.26	The alternative concepts considered in the DEIS do not include a low-build alternative.	In accordance with the National Environmental Policy Act, the Tier 1 EIS evaluated a broad range of reasonable improvement concepts. These concepts included the No-Build Concept and 211 combinations of Transportation System Management, road improvements, rail improvements and various toll scenarios.The Tier 1 EIS does not dismiss the TSM Concept and concludes that, while the TSM Concept alone cannot meet the purpose and need, there is still an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the TSM Concept.
46.27	The Section 4(f) analysis in the DEIS does not provide sufficient information to satisfy the requirements of Section 4(f). In accordance with the Section 4(f) regulations, the Section 4(f) analysis may involve different levels of detail when addressed through a tiered analysis. 23 C.F.R. § 771.135(o)(1). However, the first tier requires a preliminary evaluation of "the potential impacts that a proposed action will have on section 4(f) land and whether those impacts could have a bearing on the decision to be made."...the DEIS does not provide sufficient information about historic properties and park resources to make an informed Tier 1 decision consistent with the mandate of Section 4(f).	The Tier 1 EIS identified existing parks, recreation areas, and open space easements within the I-81 and rail study areas based on readily available mapping and GIS data, review of local comprehensive plans and other documents (e.g., Virginia Outdoors Plan, 2000) and coordination with local parks and recreation directors. Information was obtained on the location and ownership of publicly owned parks, trails, Section 6(f) resources, wildlife/waterfowl refuges, and boat ramps. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements. Please see response to Comment 46.1.
46.28	The DEIS does include a list of 13 "Constrained" Section 4(f) areas, which are protected 4(f) resources that lie on both sides of I-81, or in such close proximity to I-81 that avoidance is not likely to be possible. Table 5.8-1, DEIS at 5-47. However, significant historic resources are missing or understated in this chapter....the Section 4(f) chapter does not include any mention of the Cedar Creek and Belle Grove National Historical Park, even though the project would destroy up to 436 acres of the Cedar Creek Battlefield. Fort Bowman (Harmony Hall) is also missing from Table 5.8-1. The National Register boundary for Fort Bowman includes land on both sides of I-81, and the historic house (c.1753) is only about 500 feet from the road. Yet the Section 4(f) analysis fails to consider these nationally significant historic properties. Because of the stringent avoidance mandate applicable through Section 4(f), we believe that omissions such as this from the Tier 1 phase of the analysis are especially likely to distort the decision-making process.	Section 5.6, Parks, Recreation Areas, and Open-Space Easements and Section 5.8, Section 4(f)/6(f), has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park. In accordance with Section 4(f) and Section 106 regulatory requirements, VDOT and FHWA would coordinate with Cedar Creek and Belle Grove NHP of the NPS and with Belle Grove, Inc., the owner of Fort Bowman, to develop detailed avoidance and/or mitigation measures for impacts to this site during subsequent Tier 2 studies. Please also see response to Comment 46.1.

Letter 47

National Trust for Historic Preservation, Robert Nieweg

ID	Comment	Response
47.1	...it is painfully clear that the fast-track environmental review document - which does not mention the Cedar Creek and Belle Grove National Historical Park - has failed to adequately evaluate the potential impacts to historic and cultural resources of the various concepts for widening Interstate 81.	The analysis of impacts to parks and recreation areas (Section 5.6) and Section 5.8 (Section 4(f)/6(f)) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.
47.2	...the DEIS assumes that the evaluation of impacts to historic resources will be developed after an alternative is selected, rather than at a time when it would influence the selection of the alternative in the first place. Delay of the Section 106 review is unacceptable and contrary to the federal law requirement that historic sites must be evaluated early in the development of the action when alternatives to the proposed action are under study. The Section 106 consultation process must integrated into the development and selection of alternatives, rather than treated as a post-hoc design review process.	
47.3	As to increased truck and car traffic diverted to Route 11 as a result of tolls on I-81, the DEIS acknowledges that 50 percent of diverted traffic would use Route 11 and that certain sections of Route 11 would experience "greatest impacts [of] higher traffic volumes" while other sections of Route 11 would experience "moderate traffic volume increases." At the same time, however, the DEIS dismisses the potential for adverse impacts from diverted traffic as "inconsequential" because "the number of vehicles traveling U.S. Route 11 would not be substantially changed" from VDOT's estimation of future conditions on Route 11 if the truck superhighway is not built.	The results of the diversion analysis show that overall there are no substantial impacts to U.S. Route 11. With an improved I-81, the majority of U.S. Route 11 would see lower traffic volume than is expected if no improvements are made. However, the DEIS goes on to identify the locations where additional lanes on I-81 have the potential to cause substantial impacts to U.S. Route 11 by 2035. Any required mitigation needed to offset these impacts will be identified as part of a Tier 2 document.
47.4	...failure to consider in any way at all the potential impacts of induced development and diverted traffic to the following designated historic districts: Abingdon Historic District, Marion Historic District, Wytheville Historic District, Edinburg Historic District, Mount Jackson Historic District, New Market Historic District, Strasburg Historic District, Middletown Historic District, Woodstock Historic District, Newbern Historic District, Buchanan Historic District, Downtown Chilhowie Historic District, and the Newtown- Stephensburg Historic District in Stephens City. Each of these historic districts is formally listed on the National Register of Historic Places. Each also is the heart of a traditional small town - the unique and irreplaceable "string of pearls" lined up along Route 11, the old Valley Turnpike. Each is at risk if VDOT's truck superhighway is built.	As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. As a result, there should be no induced development along Route 11 in 2035.

Letter 47

National Trust for Historic Preservation, Robert Nieweg

ID	Comment	Response
47.5	If the Environmental Impact Statement is to serve the public's interest in informed decisionmaking on this critical proposal, we urge VDOT: First, to address the serious flaws in the DEIS by preparing a supplemental DEIS; and, second, to provide another round of public hearings regarding the Supplemental DEIS and Tier 1 plans, before requesting approval of the final Tier 1 Environmental Impact Statement.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 48

Norfolk Southern Corporation, Kathryn B. McQuade

ID	Comment	Response
48.1	...no effort was made to adjust the traffic based on current trends in the logistics marketplace. For example, the continuing truck driver shortage, increasing fuel prices, and tolls increase the cost of trucking relative to rail, making a rail alternative more attractive, thus enhancing the economic incentive to divert traffic to rail.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
48.2	...service changes since the 2003 Reebie study, such as the December 2005 KCS, NS joint venture to increase capacity and improve service on the Meridian speedway, will assist to divert traffic from Mexico and the Southwest onto the railroads. The KCS-NS joint venture will feed NAFTA gateway traffic from the Meridian speedway onto the NS system through Birmingham and Chattanooga to connect to the I-81 intermodal corridor on its way to New York and other Northeast markets. This connection from the Southwest and Mexican markets to the Northeast should divert significant cross-state truck traffic off I-40 in Tennessee and I-81 in Virginia. In the DEIS traffic was adjusted downward to determine the diversion impact but not adjusted comparably to reflect market changes that encourage a greater shift to an intermodal logistical package for I-81 corridor traffic. We believe the opportunity to divert trucks to rail in the I-81 corridor continues to improve as NS service improves and market connections through multiple states are made.	There was substantial coordination with Norfolk Southern in developing the methodologies and assumptions used to determine divertibility of freight to rail. Furthermore, as discussed in Chapter 6, Tier 1 Decisions, the Virginia Department of Rail and Public Transportation is currently conducting a multi-state rail study in cooperation with Norfolk Southern. FHWA and VDOT will evaluate the effects of any committed rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.
48.3	It should be noted that there are some errors in Section 3 of the Transportation Technical Report. For example, the Buckingham Branch now operates the former CSXT line from Richmond to Clifton Forge via Charlottesville. The Alexandria, VA intermodal facility has been closed. The connecting line which runs west from Lynchburg to Roanoke is part of the former Norfolk and Western mainline between Roanoke and Norfolk and not the former Southern Railway mainline to Atlanta as stated in the DEIS. The NS Shenandoah Line from Knoxville, TN to Harrisburg, PA is 588 miles and signaled rather than the 832 miles with almost one-third not signaled mentioned in the DEIS. The only part of the Shenandoah corridor between Bristol, TN and Harrisburg, PA that is former Conrail property is the right-of-way north of Hagerstown, MD; the remainder of the Shenandoah route south of Hagerstown is former Norfolk and Western Railway.	The errata sheets for the I-81 Corridor Improvement Study Transportation Technical Report will include these descriptive corrections. The comments concerning Buckingham Branch and the Alexandria intermodal facility did prompt revisions in the errata sheets because, when the Tier 1 DEIS was released, these data were current and factual.

Letter 48

Norfolk Southern Corporation, Kathryn B. McQuade

ID	Comment	Response
48.4	The proposed Tier 2 practical approach to improving I-81 is to break the entire corridor into sections and do more detailed studies. This approach will work for further analysis of roadway impacts but it will skew the data away from a multi-modal solution including roadway improvements and railway improvements.	For the reasons explained in Chapter 6, Tier 1 Decisions, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation, has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

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Norfolk Southern Corporation, Kathryn B. McQuade

ID	Comment	Response
48.5	We urge VDOT to include further analysis of the multi-state multi-modal corridor approach with a combination of improvements to the Virginia roadway and investment in rail infrastructure and intermodal facilities, including access ramps to such facilities, in Virginia and other states along the I-81 corridor.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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RAIL Solution, David L. Foster

ID	Comment	Response
49.1	A fatal shortcoming of the DEIS was its failure to include an evaluation of Rail Option 4, suggested by RAIL Solution in the Scoping Process VDOT doomed this only viable rail option by failure to look beyond the 325 miles of I-81 in Virginia...this is very much contrary to NEPA guidelines that require all reasonable alternatives to be evaluated with equal rigor.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
49.2	HB-1581, passed unanimously by both houses of the General Assembly, calls for a determination of what would be required to divert 60% of through trucks from I-81 to rail, then a side-by-side comparison of the environmental and economic costs of providing that capacity on the railroad versus on the highway. The results of this study should be incorporated in the Supplemental DEIS, and the public should be given another opportunity to comment on whether the initial DEIS' inadequacies have been appropriately addressed.	Please see response to Comment 49.1.
49.3	The first five sections discuss five reasons for rail's poor showing in the study. Rail is not seriously considered: 1) because it is of limited effectiveness on a Virginia-only, intrastate basis; 2) because improvements needed are discretionary on the part of Norfolk Southern; 3) because no highway funding is available for rail; 4) because rail would only partially meet project needs; and 5) because to do a serious rail study would be too costly and impractical.	This comment is broken into several separate comments that are again included later in the letter. For a detailed response to (1) please see response to Comment 49.4; for (2) please see response to Comment 49.5; for (3) please see to responses to Comments 49.4 and 49.6; and for (4) and (5), please see response to Comment 49.4.

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RAIL Solution, David L. Foster

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49.4	Rail was not seriously considered because it is of limited effectiveness on a Virginia-only, intrastate basis. Here the pivotal issue is divertibility of highway freight to intermodal rail in corridors less than 500 miles. Three earlier Virginia studies have found that the likelihood of such diversion is minimal in corridors of less than 500 to 700 miles... This limited focus effectively predetermines that rail will be shown as an unworkable, ineffective alternative, and compromises the requirement for an objective environmental comparison between highway and rail. The finding that rail improvements outside of the borders of Virginia would accrue "additional benefits" is antithetical to the refusal to study a multi-state rail approach....the proffered rationales for refusing to consider a multi-state rail option are unpersuasive, inaccurate, and cannot be squared with the applicable guiding principles governing NEPA equal review of alternatives...FHWA's own guidelines are careful to differentiate between the corridor where construction is proposed and the corridor required for adequate environmental assessment, and recognize that the scope of the second may well be broader than the former .	Rail improvements were indeed seriously considered. The analysis of rail improvements was a substantial part of the study, as evidenced by the lengthy Freight Diversion and Forecast Technical Report. Please see response to Comment 49.1.
49.5	Rail was not seriously considered based on the improper assumption - that improvements needed are discretionary on the part of NS. This section reviews the issue raised in the DEIS of if or when Norfolk Southern will decide to make needed investments within and beyond the borders of Virginia to make rail transportation of truck-hauled freight a viable alternative. No comparable tests of practicality or timeliness of construction are imposed on the highway options evaluated in the DEIS, nor as to how or whether they can be financed. Such issues are completely improper screens for limiting consideration in a comprehensive environmental assessment of alternatives.	The fact that rail improvements would be at the discretion of Norfolk Southern is not related whatsoever to the evaluation of the rail concepts' ability to meet the needs on I-81. Norfolk Southern's discretion, the timeliness of construction, and the possibility for financing were not used as tests for concepts. Rather, the concepts were measured based on their ability to meet the transportation needs on I-81 as described in Chapter 2, Purpose and Need. Information about Norfolk Southern's discretion was included in the Tier 1 EIS because it is important that the public and the decisionmakers be aware of those potential limitations to making rail improvements. As each railroad is a private corporation, final decisions about large capital improvements to their privately-owned rail system are made at the discretion of their management team. These decisions can change quickly based on day-to-day business considerations.
49.6	Rail was not seriously considered based on the failure to consider non-highway sources of funding for needed improvements. The basis for the refusal to consider rail options outside of Virginia, despite the fact that all the available literature, including the VDOT's own technical studies, confirms that only an interstate rail option would be effective in diverting significant freight traffic, is set forth in a two page memorandum prepared by John Simpkins, FHWA's environmental project manager for the I-81 corridor study, in May 2004. (See DEIS, Appendix B). However, the rationales asserted in this memorandum for refusing to consider any multi-state rail options are fundamentally flawed. As the FHWA Memorandum acknowledges, the guidelines of the Council on Environmental Quality require agencies to consider all reasonable alternatives even if they are outside of the agency's jurisdiction to implement (40 CFR § 1502 14(c)) And yet, when no highway funding for rail was found, the issue was dropped and the unwarranted assumption was made that rail improvements could not be funded. No evidence appears in the DEIS study that alternative sources of funding for rail improvements were explored.	The Tier 1 EIS does state that there are no federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines as part of this study. This information was included because it is important that the public and the decisionmakers be aware of potential limitations to making rail improvements. The lack of federal highway funding categories for VDOT to implement rail improvements as part of this study, however, is not related whatsoever to the evaluation of the rail concepts. Rather, the rail concepts (and roadway concepts) were given due consideration in the study and were evaluated based on their ability to meet the transportation needs on I-81, as described in Chapter 2 Purpose and Need. Please refer to the response for Comments 49.1 and 49.4 for a discussion of why a multi-state rail concept is not reasonable in the context of this study. The evaluation of the Rail concepts was discussed in Chapter 3, Improvement Concepts of the Tier 1 EIS. The Tier 1 EIS describes possible sources of funding for rail improvements. See pages 3-9 and 3-10 of the Tier 1 DEIS.

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49.7	...a multi-state rail option is neither remote nor speculative, and the purported lack of a source of FHWA funding cannot lawfully be the basis for refusing to consider an otherwise reasonable alternative.	Please see responses to Comments 49.1 and 49.4.
49.8	Rail was not seriously considered based on the unsubstantiated assumption this alternative would only partially address the need for the project, despite the fact that the highway alternatives are also only partial solutions. The FHWA's attempt to suggest in its memorandum that corridor-wide rail options are not reasonable is wholly lacking in substantiation. For example, the Memorandum asserts that a multi-state rail option would "only" divert 12% of the total traffic (DEIS, Appendix B, p. 3). Even assuming that this diversion rate is correct, such a diversion may well be substantial, and may well obviate the need for some, though not all, of the additional highway capacity under consideration for I-81. There is no suggestion that this alternative would not, at least in part, satisfy the purpose and need for the project just as well, if not better, than the alternatives carried forward in the DEIS for detailed consideration. The failure to consider this option on the assertion that it would only partially address the need for the project is particularly difficult to defend since the DEIS acknowledges that none of the other concepts completely address the project needs (DEIS, p. 3-3) and that a combination approach is preferable. Moreover, NEPA requires agencies to consider reasonable alternatives even if they achieve, only partially, the objectives of a proposed action.	Please see the responses to Comments 49.1 and 49.4.

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49.9	Rail was not seriously considered based on the subjective and - unsubstantiated assertion that a serious study would be too costly or otherwise impracticable. The assumption that a multi-state rail option would not be "practicable" appears to be premised on the notion that such a "corridor-wide" strategy for the rail option "would involve improving rail infrastructure in 12 states from New York to New Orleans," and that the costs of studying the out-of-state rail improvement concept is too high to justify "spending public dollars" on the NEPA studies necessary to consider this otherwise reasonable alternative (DEIS, Appendix B, p. 2). This assumition is flawed on many levels. First, the FHWA's assumption that an out-of-state rail improvement concept must necessarily involve a study of rail in 12 states is incorrect Rather, a corridor strategy that includes only a few states would still be far more effective than limiting the rail option to Virginia only. For example, RAIL Solution, in its comments in the Scoping Process, urged consideration of a rail option that examines the 600-mile I-81 Corridor from Knoxville, TN to Harrisburg, PA, long enough to remove many through trucks from I-81 in Virginia (DEIS, p. 3-13, denoting this as "Rail Concept 4"). This five-state rail option would be a far more manageable study However, as the DEIS elsewhere makes clear, the FHWA arbitrarily limited the study of rail options to Virginia-only rail options, and did not even consider the costs or feasibility of a five-state rail option study, such as that proposed by RAIL Solution. Thus, there is no evidence whatsoever that such a five-state approach would not be "in the overall public interest" (DEIS, Appendix B, p 2). Even more fundamentally, it is not appropriate for the FHWA to refuse to consider any out-of-state rail improvement concepts simply because the FHWA believes that "spending public dollars" on the NEPA studies of such concepts is "not in the best overall public interest," based on the subjective determination made by a single FHWA staff member (DEIS, Appendix B, p. 3). Nowhere does the FHWA state what the costs of undertaking such a study would be, or compare them to the overall study costs, or otherwise provide any objective measure for assessing the reasonableness of study costs We find no support in the CEQ regulations or NEPA case law for refusing to study an otherwise reasonable alternative based on considerations of the cost of the study itself, much less based on such a vague, subjective, and unsubstantiated conclusion that "spending public dollars" on such a study is "not in the best overall public interest " Instead, the CEQ regulations and the case law make clear that agencies must evaluate all reasonable alternatives, and that the standard of reasonableness is whether the alternatives address, in whole or in part, the need for the project.	Please see the responses to Comments 49.1 and 49.4.
49.10	The origin and destination surveys which were the basis of the FDFTR's assessment of the diversion potential from truck to rail are totally lacking in statistical rigor and completely inadequate as a basis for decisionmaking. The sample populations are poorly defined, the samples are not scientifically selected, and the sample sizes are too small to be representative or predictive. Many conclusions are simply adopted where convenient from earlier studies or other informed sources without attempts at ndependent validation, confirmation, or relevance to the environmental assessment.	These surveys were not designed to provide either a random sampling or be statistically valid surveys. Rather, the surveys provided an opportunity for the freight stakeholders to provide input to the Tier 1 DEIS planning process, including the identification of specific traffic problems, open-ended questions about rail usage, and recommendations for I-81 improvements.

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RAIL Solution, David L. Foster

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49.11	Railroad costing is based on the Uniform Rail Costing Svstem (URCS), a regulatory dinosaur unleashed on the rail industry in the dying days of the Interstate Commerce Commission in the 1970s. Because of its heavy use of system averages, it was, and is, imprecise, inappropriate, and inadequate for making judgments on specific pieces of railroad business or evaluation of individual traffic corridors.	The URCS is continuously updated by the Surface Transportation Board based on mandatory data provided by every major railroad on their physical and financial operations. These are the only rail cost data in the public domain that are subject to review. Therefore, the use of URCS is reasonable. It is noted that this comment does not suggest any alternative approaches to using URCS. Prior to employing these data, the study team consulted extensively with Norfolk Southern (NS) staff on the appropriateness of these data to accurately represent the NS cost structure. NS provided ongoing review and comment on the selection of alternative URCS cost models.
49.12	In the ITR model used to assess divertibility of highway freight to rail, the railroad costs are further biased and burdened by imposition of large, irrelevant, and improper charges amounting to $340 per unit, for such things as trailer rental and drayage, that are completely inconsistent with the definitions of rail service set forth in Rail Options 2, 3, & 4.	Rail Concept 4 and the description of its characteristics were provided by Rail Solution. Specific details on the intermodal technology were not provided by Rail Solution. The intermodal transportation and inventory cost (ITIC) model calculates total logistics costs for freight movements by alternative modes in order to determine the selected mode. Total logistics costs include all costs from freight origin to final destination and as such include cost born not only by railroad, but by all shippers, carriers, and receivers involved in the move (including trailer lease and drayage). It is noted that this comment does not suggest any alternative approaches.
49.13	Characterizations of Norfolk Southern's Shenandoah Line and Piedmont Line are riddled with errors, making objective judgments impossible.	Draft Environmental Impact Statements are quite voluminous and minor errors are not uncommon. The National Environmental Policy Act process allows for such errors to be corrected in the Final Environmental Impact Statement before the federal agency makes its decision. We have considered your comments below, and have determined that the errors you pointed out were minor and did not individually or cumulatively affect the analysis or the conclusions.

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49.14	..the writers...reject the possibility by making the dismissive and unsubstantiated assertion that "such a process would not produce timely and accurate results" (FDFTR, p. 3-5). In fact, a study funded by the FHWA itself details advantages and disadvantages of various approaches for collection of truck movement data and establishes best practice recommendations Jessup, Eric, and Kassavant, Kenneth, "Truck Trip Data Collections Methods: Final Report, SPR 343, Oregon DOT and FHWA, Feb 2004). But no such rigor guided the I-81 DEIS study. Here the FDFTR resorts to using two poorly-conceived and conducted surveys, no doubt quicker and cheaper, which produce nearly worthless results: 1) the I-81 Freight Shipper/Carrier Survey (FSCS); and 2) the I-81 Truck Intercept Survey (TIS). FSCS "was designed for truck traffic that originates or terminates in cities and counties within the I-81 study area." The TIS "was designed to capture through traffic - trucks that utilize I-81 for interstate trips with neither origin nor destination in the study area." The implication, of course, is that together the two surveys constitute a comprehensive examination of trucking in the I-81 Corridor of Virginia. They do not. Nevertheless, they comprise the entire basis for the over 30 pages of graphs, tables, and other supposedly analytical results masquerading as research in Chapter 4 of the FDFTR.	As described in the Freight Diversion and Forecast Technical Report, the purpose of the FSCS and TIS was to capture the public comments of truckers using I-81 but not necessarily living within the borders of Virginia. Public comment is a critical component of the NEPA process and the surveys provided an opportunity for the freight stakeholders to provide input to the Tier 1 DEIS planning process, including the identification of specific traffic problems, open-ended questions about rail usage, and recommendations for I-81 improvements. These surveys were not intended (nor have they been used) to provide data for use in technical analysis. The assertion that "no such rigor guided the I-81 DEIS" is not true. The Freight report is clear that surveys were not used to develop the methodologies for truck trip growth and diversion potential. In reality, these were created in close consultation with FHWA, Virginia's Department of Rail and Public Transportation (DRPT) and Norfolk Southern Railroad; and use modeling procedures and nationwide freight commodity flow networks developed by FHWA and FRA as well as regional economic models developed by REMI. These methodologies and procedures are described in detail in the Freight report (beginning on page 3-6). The Tier 1 DEIS goes a step further in terms of methodology by calibrating the national freight flow database to actual existing traffic counts on I-81. This allowed truck load factors to be tied directly to movements at I-81 interchanges, a level of detail too specific for the nationwide model alone. While the comment does not suggest any specific alternative inputs to the traffic diversion modeling effort, it should also be noted that the forecast and diversion results are consistent with other freight studies completed in the region.
49.15	FSCS 1. Target population undefined. The survey was distributed to three diverse groups: major employers in the I-81 study area, truckers in Virginia using I-81, and freight transportation "stakeholders" in the Roanoke area. It was also available to anyone else on the consultant's website. 2. Response rate. Only 107 completed questionnaires were received. There is no way to know how many were distributed The 107 responses can in no way be said to be a random sample of any population. 3. Statistical inadequacy. Included in the 107 responses are 3 from persons who are neither shippers, receivers, nor carriers in the I-81 Corridor. Only 57 "shipper/receivers" responded, 8 of whom were outside the Virginia study area and had to be dropped, leaving only 49 such responses on which to gauge results, plus 39 trucker replies. 4. Definitional imprecision. Analysis further suffers from lack of definitional consistency. Aside from criteria used elsewhere in the DEIS, any trucking over 50 miles was considered "Long Distance" Also, North Carolina was considered as a state in the I-81 Corridor: "The most common response to the survey [origin of freight] was North Carolina, followed by Pennsylvania, Maryland, New York, and Tennessee. Interstate 81 traverses these five states (FDFTR, p. 4-12). "The most common state of destination for their cargo was Pennsylvania, followed by North Carolina, New York, Maryland, and Tennessee I-81 runs through all five of these states " (FDFTR, p. 4-14).	The American Trucking Association (ATA) encouraged its members to participate in the I-81 survey and posted it on their web site. The survey was, therefore, accessible to a large population of viewers. There is no way to determine the percentage of those who viewed the survey on the ATA web site. Notwithstanding, as stated in response to Comment 65.10, this survey was not designed to provide either a random sampling or be a statistically valid survey. Rather, the surveys provided an opportunity for the freight stakeholders to provide input to the Tier 1 DEIS planning process, including the identification of specific traffic problems, open-ended questions about rail usage, and recommendations for I-81 improvements. Most responses were provided from the targeted mailings to I-81 corridor employees. For purposes of the survey, trips over 50 miles were considered to be "long distance" (not local). This is different than the rail divertible trips that were assumed to be over 500 miles.

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49.16	TIS 1. Poorly designed sampling. 220 truck drivers were sampled at truck stops in Virginia on I-81 on two days. As discussed in "Administering the Survey" on p 3-5 of the FDFTR, drivers interviewed were selected on the basis of being accessible and readily available to talk. There is no basis to claim a representative random sample of through truckers on I-81. 2. Definitional imprecision. In fact, as shown in Tables 4-39 and 4-40, 57 of the truckers surveyed (25 9%) originated in Virginia, and 50 of them (22.7%) said their destination was in Virginia. Because the announced purpose of this survey work was to collect data from truckers moving through Virginia (i.e. , neither origin nor destination within VA), these 107 responses should have been dropped and the remaining sample of 113 used. Nevertheless, the origination and terminating truckers' data was combined with the truly through trucks and a hodge-podge of all 220 responses was used for all the data presented and conclusions drawn on pp. 4-25 through 4-32.	As stated in response to Comment 49.15, this survey was not designed to provide either a random sampling or be a statistically valid survey. The survey was not designed to be a random sample of truckers on I-81. To address the comment about the 220 responses, on page 4-1, paragraph one, of the Freight Diversion and Forecast Technical Report, the following will be added after the third sentence, "These include trips with both origin and destination within Virginia but outside the I-81 study area."
49.17	Three well-known prior transportation studies, all cited in the DEIS, have been conducted by VDOT and VDRPT to examine possible diversion of highway freight to rail, four if the Reebie Draft and Final reports are considered separately. These studies were all commissioned for valid reasons at the time, yet none was intended to be the assessment of alternatives required by NEPA. Instead, they focused on economic and feasibility issues. The DEIS in many places relies heavily on these past efforts, embracing and adopting their findings with no standard of environmental relevance. This may serve to short-circuit the environmental review by applying inappropriate economic feasibility tests where in fact the standard for consideration of alternatives in the DEIS is whether or not these alternatives would satisfy, either in whole or in part, the purpose and need for the project. Similarly, input from other sources such as RAIL Solution is accepted and presented with no attempts at independent corroboration. Opinions of David Foster or Michael Testerman, though possibly sound, should be subject to expert review and ratification.	The Tier 1 Draft EIS references and acknowledges these studies and presents their results for background information only. The Tier 1 Draft EIS is an independent study that used a methodology developed specifically for the Tier 1 Draft EIS. We are uncertain what is meant by "standard of environmental relevance." The previous studies were not conducted in accordance with the National Environmental Policy Act, and any environmental analysis contained in them had no relevance to the Tier 1 Draft EIS. No economic tests from secondary studies were applied in the Draft EIS in lieu of environmental screenings. The diversion model appropriately uses economic information to calculate the potential for diversion. Rail Solution implies that the comments they made as part of the scoping process may not be accurate. However, since Rail Solution developed their own rail concept to be evaluated, it was reasonable to consult with them regarding the particulars of the concept. Rail Solution's concept (Rail Concept 4) uses a technology that is not being used anywhere in the United States. Therefore, it would be difficult to subject the concept to expert review. The study team evaluated Rail Concept 4 based on their professional expertise and conversations with Rail Solution. This comment is general and neither specifically describes the perceived problems with the analysis of Rail Concept 4 nor recommends improvements to the analysis.

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RAIL Solution, David L. Foster

ID	Comment	Response
49.18	The Uniform Railroad Costing System (URCS) never was intended, or used by, the rail industry to make internal pricing and profitability judgments on specific traffic segments or shipping lanes, because they quickly realized that if the traffic under examination departed by its nature in any significant way from system averages, the costs and any decisions based on them would be wrong. Nevertheless, almost 30 years later, the FDFTR trots out the standard of 135% of Norfolk Southern URCS variable cost as some kind of economic hurdle that truck traffic must meet to be deemed divertible to rail in the I-81 Corridor. Such an over-simplifying rule of thumb does not accurately depict costs on the rail lines at issue here. Even if operations on the NS Shenandoah and Piedmont lines exactly mirrored system-wide performance, which is completely speculative, use of this current cost threshold would be clearly inappropriate on a future, substantially upgraded and double-tracked Shenandoah Line after a $37 billion capital infusion as envisaged in Rail Concept 4.	Please see response to Comment 49.11.
49.19	Inconsistent rail service descriptions and costs included in the model further plague the diversion analysis presented in the FDFTR. Section 6.3.1 provides detailed descriptions of the four Rail Options (pp. 6-4 to 6-6). Rail Option 2, and by inference Option 3 (an enhanced version of Concept 2), are based on use of "the Canadian Pacific (CP) Expressway technology which provides 'drive-on, drive-off capability, [and] allows truck shipper to use existing trailer equipment..." Similarly Rail Option 4 is based on an unspecified 'open intermodal technology' capable of handling all highway trailers with rapid loading and unloading. Nevertheless the diversion cost summary, variously appearing as Tables ES-4, 5-4, and 6-3 of the FDFTR, includes $340 or more against each unit for such services as trailer lease rental and 80 miles of drayage at each end of the trip @ $200/mile. These are not at all applicable or appropriate costs of such an intermodal operation This flaw well illustrates the peril of VDOT's consultant using the URCS Plan 1 Trailer-on-Flatcar (TOFC) costs. In these modern intermodal scenarios, the trailers are owned by shippers. The railroad is not renting them. Further, the shippers are, by definition, delivering their trailers directly to the railhead and picking them up. Clearly no drayage of any kind is involved.	Please see response to Comment 49.12.
49.20	Multiple simple errors of fact undermine the integrity of the rail analysis in the TTR. While individually these may lack significance, especially given the large and material deficiencies of the technical appendices already set forth, they are relevant when viewed together. They greatly erode confidence in the technical work and undermine credibility of the far more complex computer modeling work that cannot be readily reviewed or audited. Also, the mistakes are so basic that they defy explanation. Together they result in an inaccurate representation of the viability of the rail options, particularly for the the Shenandoah Line.	We disagree with the statement that the complex computer modeling cannot be readily reviewed or audited. All technical reports were made available for review, including on the Internet, for six months, which is 4½ months longer than what is required. Any additional background data is certainly available for review. The study was objective and included careful consideration of rail concepts. Draft Environmental Impact Statements are quite voluminous and minor errors are not uncommon. The National Environmental Policy Act process allows for such errors to be corrected in the Final Environmental Impact Statement before the federal agency makes its decision. We have considered your comments below, and have determined that the errors you pointed out were minor and did not individually or cumulatively affect the analysis or the conclusions.
49.21	The [Lynchburg to Roanoke] line described never has been part of Southern Railway and has always been part of the Norfolk & Western Railway mainline between Roanoke and Norfolk.	This was a grammatical error on page 3-33 of the Transportation Technical Report that occurred during editing. The sentence, "This section of the railroad is the former Southern Railway 'main line' to Atlanta, Georgia," will be removed. Originally, it referred to the rail line south of Manassas to Atlanta.

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RAIL Solution, David L. Foster

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49.22	The [Piedmont] line segment, over 200 miles, is by no means on level grade. It is doubtful such a situation would obtain anywhere in the US. Anyone who has driven the parallel US 29 between Lynchburg and Charlottesville can attest to the rolling hill topography of the area. There is a significant grade on the line south of Charlottesville that is known on the railroad as Red Hill.	The second bullet on page 3-34 of the Transportation Technical Report will be revised to read: North from Atlanta to Manassas (608 miles), it uses both double-track and single-track with extensive sidings...,is on relatively level grade and has many long straight (tangent) sections which favor rail operations;
49.23	The portion north of Front Royal to the West Virginia line is also in Virginia and has been omitted altogether.	Page 3-33 table in the Transportation Technical Report will be revised to read: NS Shenandoah Line Atlanta to Harrisburg-832 miles Within Virginia: Bristol to Front Royal- 353.8 miles Front Royal to WV Line- 4.6 miles "Connector" Roanoke to Lynchburg- 36.0 miles Subtotal within Virginia- 414.4 miles Source: NS Track charts and the "Northeast-Southeast-Midwest Marketing Study"; Appendix 6 Page 3-34 table will be revised to read: Piedmont Line Atlanta to Harrisburg-788 miles Within Virginia: NC Line to Manassas- 208 miles Manassas to Front Royal-51 miles Front Royal to WV Line- 24.6 miles Subtotal within Virginia- 283.6 miles Source: NS Track charts and the "Northeast-Southeast-Midwest Marketing Study"; Appendix 6
49.24	It [the NS Shenandoah Line from Knoxville, TN to Harrisburg, PA] is only 587 miles between these points on NS.	The first bullet on page 3-33 of the Transportation Technical Report will be corrected to read: 832 miles long (Atlanta to Harrisburg) with about 414.4 miles in Virginia:
49.25	It [the route] is all signaled. And except for the possible exception of the terminal at Bristol, it is all traffic controlled.	The third bullet on page 3-33 of the Transportation Technical Report will be clarified to read: Almost one-third of the total route does not have signals, while 570 miles is signaled.
49.26	Except for the sections north of Hagerstown, MD this entire line [NS Shenandoah Line] has always been part of Norfolk & Western. Only the portion between Hagersotwn and Harrisburg involved any prior Conrail ownership.	Page 3-33 of the Transportation Technical Report will be revised to indicate that, "The NS Shenandoah Line north of Bristol, Tennessee uses the former Norfolk and Western alignment while north of Hagerstown, Maryland uses former Conrail-owned lines."
49.27	Few mainline railroad grades anywhere in the US approach 4%, and certainly there is none on this line. The ruling grades on this line are Bristol to Roanoke - 1.32%; Roanoke to Bristol - 1.58%; Roanoke to Hagerstown - 1.6%; and Hagerstown to Roanoke - 1.85%. There are only a few spots where speed is restricted to less than 25 mph south of Hagerstown: Bristol 1.4 miles through the terminal - 20 MPH; Roanoke behind passenger station about 0.2 miles - 15 MPH; Riverton 0.3 miles - 15 MPH. Altogether these three total only 1.9 miles and are hardly numerous.	The fourth and fifth bullet on page 3-33 of the Transportation Technical Report will be revised to: Several grades of 2 percent occur in Virginia Some speed restrictions (<35 mph) south of Hagerstown, MD

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RAIL Solution, David L. Foster

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49.28	Forecasts of freight traffic growth are based on economic growth projections in a static world with no shifts between rail and truck modes due to driver shortages, commodity shifts, relative efficiency, rapidly rising fuel prices, or environmental impact. The technical appendices rely on a direct regression relationship calculated to a 0.99 level of significance between economic growth and growth of truck traffic. Hence, by using growth forecasts from macroeconomic econometric models, trucking growth in the I-81 Corridor is projected directly. Future trucking volumes are crucial to all decisions about capacity addition. Therefore, it is a pivotal omission that no attempts have been made to fine tune these static projections for such factors as modal shift, commodity composition, rapidly rising fuel prices, chronic truck driver shortages, increased transport efficiency of rail, or environmental impacts such as diesel exhaust emission regulations, all of which have the potential to disrupt the neat one-to-one relationship assumed in the projections to continue through 2035. Extrapolations of current growth are projected primarily on data from 2003 and 2004...thus all these data and subsequent projections spring from a time when fuel cost ranged between $1.00 and $1.60 per gallon, and have not been adjusted to recognize that fuel has recently cost twice that much... Also absent from the projects is the acute driver shortage being experienced in the trucking industry...	The Tier 1 Draft EIS follows procedures for freight forecasting established by FHWA and the freight analysis framework and by other researchers in the field. The ITIC model incorporates total logistics costs for rail and highway movements when identifying selected modes. It is impossible to predict with certainty the future fuel prices, driver shortages, etc. While these factors could affect the relationship between economic growth and mode choice, our approach to the freight forecast is reasonable and speculating on dynamic issues like fuel prices would not contribute to informed decisionmaking. In addition, their impact on the overall relationship and, therefore, the freight forecast within the analysis year of 2035 is expected to be minimal. It is noted that this comment does not suggest any specific alternative inputs to the forecast modeling to address the issues raised.
49.29	No economic impact of tolls on the business climate of Western Virginia has been considered. The DEIS contains lots of discussion of the effects of tolling, but limits it to diversion of traffic from I-81 in avoidance of the tolls. A possibly even more nefarious effect, not examined at all, is the impact that tolls on only this one north/south interstate highway would have on business and industry in the I-81 Corridor of Virginia and adjacent states...to burden I-81 differentially can be expected to have a huge effect on jobs, long-term growth, and the general level of economic activity in the already depressed areas of Western and Southwestern Virginia...	An assessment of the economic impacts has indeed been conducted. See the Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects of the Tier 1 Draft EIS. More detailed economic impacts of individual projects would be analyzed during Tier 2.
49.30	Potentially dire effects of traffic diversion to other routes is rather cavalierly pushed aside, especially the impact on parallel US. Route 11...The fallacy of this assumption [low impact to US Route 11] is immediately obvious. Route 11 will be okay because the traffic volume there will be no more, or only a little more,...if no improvements at all ("the No-Build condition") were made to I-81. Thus, the DEIS fails to take into account the effect of this diversion of projected future traffic volumes on Route 11. The DEIS's assumption that the traffic diverted from I-81 onto Route 11 would not substantially change Route 11 and would have a low impact is highly suspect. It completely ignores the environmental impact based on projected future traffic volumes on Route 11.	There is no fallacy. It appears the commenter overlooked the word "improved" in the first quotation. The statement is describing tolls on an improved I-81 (not the No-Build condition) and comparing it to the No-Build condition. On an improved I-81, more vehicles will be attracted from Route 11 to I-81 than diverted from I-81 to Route 11 due to tolls. With the exception of the high tolls for commercial vehicles only scenario, traffic volumes on Route 11 are indeed expected to be below 2035 No-Build volumes with an improved I-81. The No-Build concept was not rejected in the Tier 1 Draft EIS. The Tier 1 Draft EIS does indicate that the No-Build concept would not adequately address the transportation needs along I-81.

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RAIL Solution, David L. Foster

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49.31	Diverted traffic volume could significanty affect life along Route 11... imagine the widening of Route 11 that would be likely, kids waiting for the school bus with I-81 trucks going by, the noise night and day, the diesel smell and dirty air, and the effect on residential property values Yet such effects are completely overlooked by VDOT in the DEIS.	Please see response to Comment 49.30. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.
49.32	...the DEIS, like other predecessor studies in Virginia, refuses to look beyond the borders of Virginia, limiting the scope to 325 miles of the I-81 Corridor. These two antithetical criteria have severely limited the usefulness of previous studies and they again prevent potential diversion of highway freight to rail from being adequately recognized and considered. Serious diversion takes serious dollars, but the study placed all the investment for the entire line within Virginia, where little intrastate diversion would occur Instead of undertaking a study of Rail Option 4, a five-state rail option from Knoxville, TN to Harrisburg, PA, the DEIS simply defaulted to Rail Concept 3. The DEIS's assertion that Rail Concept 3 "provides the most diversion of freight from truck to rail per dollar of investment" (DEIS, p ES-ii, xi; TTR, p.5-9) is only correct in the context of the limited universe of Virginia-only rail options considered in the DEIS. As the TTR concedes, Rail Concept 3 performs best only because the FHWA refused to look at any multi-state rail option.	Please see Response to Comment 49.1.
49.33	What is this Rail Option 3 that is chosen as the best? It involves improvements on 13 short segments of railroad within Virginia, ranging in length from one-half mile to 10 miles, averaging only a mile or two in length. With these few contemplated improvements, six additional trains per day in each direction could be handled, with an average train speed of 33 mph. Projections of truck diversions are virtually useless and self-defeating if based on such meager rail enhancement. To divert meaningful volumes of through trucks from I-81 in Virginia, the upgraded rail line would need to be handle six new trains per hour, not per day! Having embraced the grossly suboptimal Option 3, all because of lower cost and location entirely in Virginia, it was an easy next step for the study to reject rail altogether.	Four rail concepts (not simply Rail Concept 3) were evaluated to determine the degree to which they would meet the needs on I-81. Rail Concepts 1, 2, and 3 were developed in consultation with Norfolk Southern. The rail concepts only minimally address the needs. When evaluating combination alternatives (i.e., rail plus roadway concepts), we determined that it was a reasonable approach to evaluate the rail concept that provided the most diversion of freight from truck to rail per dollar of investment. FHWA's overall approach to analyzing rail concepts is reasonable.
49.34	Determine the investment needed to upgrade the rail line all the way from Knoxville to Harrisburg as RAIL Solution recommended in the scoping comments we filed on February 26, 2004.	Please see response to Comment 49.1.
49.35	Treat the investment as bond financing, to be paid back on a 25-year project basis at 4.75%, that RRIF uses, or whatever terms are deemed reasonable. In this more realistic approach, additional rail freight diverted from I-81 repays the financing and Rail Concept 4 can no longer be dismissedfor financial reasons. Conceptually it is akin to the toll revenues being viewed as a funding source for the highway options.	Concepts were not dismissed in the Tier 1 Draft EIS because of high costs. Rather, rail and roadway concepts were evaluated to determine the degree to which they would meet the needs on I-81.

Letter 49

RAIL Solution, David L. Foster

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49.36	Determine, using cost- and time-competitive rail service parameters what truck diversion would likely occur. Determine whether freight transportation capacity for that many trucks would be better provided economically and environmentally on rail or on highway.	All of these factors have been appropriately considered in the Tier 1 EIS.
49.37	...One of the pivotal failings in the Draft Environmental Impact Statement (DEIS) for the I-81 Corridor [FHWA-VA-EIS-05-04-TID] is its limitation placed on the rail alternative labeled Rail Concept 4. Even though this rail alternative was suggested during the Scoping Process and described as a rail line running parallel to I-81 between Harrisburg, PA and Knoxville, TN, the DEIS looked at only the 325 miles of the I-81 Corridor lying within the borders of Virginia...By failing to define the environmental assessment endpoints as Knoxville and Harrisburg, a highway distance of approximately 550 miles, the DEIS doomed Rail Concept 4 to ineffectiveness. A corridor of 325 miles was of insufficient length to look at all impacts. Failing to consider and evaluate related improvements (i.e., rail and highway) within the Corridor as one project deprived the analysis of a viable rail alternative, resulting in selection of a larger than otherwise needed highway project. It also restricted consideration of foreseeable rail transportation improvements in the future by putting total reliance on new highway capacity,	Please see Response to Comment 49.1.
49.38	The I-81 DEIS does not include the FRA among its list of Cooperating Agencies RAIL Solution finds this highly inappropriate inasmuch as a number of railroad-related issues were under consideration alongside highway alternatives.	Only agencies with jurisdiction by law are required to be cooperating agencies (see 40 CFR 1501.6) and FRA has no jurisdiction by law over privately owned rail lines. Notwithstanding, the study team consulted with FRA regarding rail modeling issues and the Tier 1 DEIS was sent to FRA for their review and comment. They did not provide any comments on the document and did not request to be a cooperating agency.
49.39	... rejection of Rail Concept 4, for a number of improper reasons including inappropriate corridor segmentation, prevented any side-byside comparison of the environmental merits of moving freight in the I-81 Corridor by rail versus by highway.	See response to Comment 49.1.

Letter 50

RAIL Solution, Rees Shearer

ID	Comment	Response
50.1	The issues are with the assumptions for the models. While models such as MOBILE6.2 must be used because of the inadequacies in the database and the need to project into the future, many of the basic assumptions for the models are seriously flawed, as EPA recognizes in its own literature... ...Several research efforts currently (as of 1996) are underway that have the objective of developing a fundamentally new approach to estimating vehicle emissions. These new analytical methods are explicitly being designed to determine the impacts of non-FTP driving, but are not expected to be practically available for another seven to ten years, and possibly longer. Have these "new" procedures for estimating the emissions from vehicles been used in Table 5.10-2 (page 5-69) to represent real-life driving situations? If not, the estimates for emissions clearly are not accurate. The problems are compounded with projections some 30 years into the future. The question is not rhetorical; Roanoke currently fails to comply with EPA 8-hour ozone requirements.	The level of the air quality analysis in the Tier 1 EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential air quality impacts of the improvement concepts. The air quality study for motor vehicle emissions was performed in compliance with U.S. Environmental Protection Agency (EPA) modeling procedures. As discussed in Section 5.10.5 of the Tier 1 Final EIS, Air Quality Conformity, a detailed air quality analysis will be conducted during Tier 2.
50.2	Three configurations are analyzed: no build, minimum width and maximum width. There is a fourth: during construction. During the construction phase, which is projected to last from 10-20 years depending on events and the build strategy, there will be substantial additional pollution in the regions then under construction. The traffic will be substantially slowed, traffic will be diverted to Rt. 11 with subsequent higher levels of pollution, and there will be substantial levels of ambient dust generated by both the construction and the infrastructure needed to support the construction such as stone quarries and asphalt plants. Ambient dust issue is a rapidly growing national issue with impacts on humans, vegetation, crops, and animals. The environmental impact of the "during construction" phase needs to be analyzed for both the minimum width and maximum width options as these will require both different times for completion and infrastructure support.	Construction activities on I-81 could result in temporary or localized detours. The air quality impacts from these detours will be analyzed in Tier 2, if necessary. Construction activities on each project would be performed in accordance with the Virginia DOT's "Road and Bridge Specifications". These Specifications are approved as conforming with the State Implementation Plan and require compliance with all applicable local, state and federal regulations. Section 5.16.3 in the Tier 1 Final EIS discusses mitigation measures to minimize or eliminate the generation of fugitive dust emissions. Measures that may be used during construction include wetting of construction vehicles, wetting or cleaning of paved roadways, stabilization of exposed earth, and scheduling construction to minimize the amount and duration of exposed earth.
50.3	The DEIS considers only a single value, deterministic result for the projections of emissions due to mobile sources in 2035. In view of the wide disparity in the assumptions for the models, particularly for emissions, and the well-known problems with the assumptions, a set of possible scenarios needs to be considered. That set would include both a best and a worst-case, as well as several intermediate levels of assumptions. The best case, currently assumed in the DEIS, is that all of the standards for emissions will be realized. The worst case would be if none of the standards were realized.	Please see response to Comment 50.1.

Letter 50

RAIL Solution, Rees Shearer

ID	Comment	Response
50.4	The health impacts have not been considered. This is true for any of the scenarios presented: no-build, minimum width, and maximum width. Table ES4 and Table 5-1 (page 5-6) summarize the environmental impacts, supposedly including the "human environment", but has no information on the health impacts of I-81 in any of its configurations.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. In addition, Sections 4.10 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.

Letter 51

Rockbridge Area Conservation Council, R. Hunt Riegel

ID	Comment	Response
51.1	Rail has not adequately been considered. Options for upgrading rail include upgrades to a mere 13 spots totaling something on the order of 33 miles. While not sufficient alone, rail provides a long-term solution to at least a part of the I-81 problem (truck congestion). A 21st century rail upgrade offers huge savings in fuel consumption and environmental impacts.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Rockbridge Area Conservation Council, R. Hunt Riegel

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
51.2	Many, many issues have been deferred to tier 2, but the DEIS indicates that only categorical exclusions or environmental assessments will be completed, with no further public input. For any section receiving categorical exclusion status, the tier 2 "further study" alluded to in the DEIS would not occur....For these reasons a categorical exclusion should not be requested, nor should one be granted, for any sections of I-81 that are proposed to have at least one lane in each direction added. Further, a supplemental environmental impact statement that reflects both better informed rail recommendations and more complete environmental impact statements should be drafted and submitted for public comment.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified. Regardless of the type of document prepared to comply with NEPA, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by the Federal Highway Administration.

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Rockbridge Area Conservation Council, R. Hunt Riegel

ID	Comment	Response
51.3	Construct improvements to eliminate the safety hazards. VDOT has already identified 8 spots where the accident rate is greater than 50% more than the state average, and 33 spots where the accident rate is 25% higher than average. All together, these spots comprise no more than 44 miles of the 650 miles of north- and southbound lanes.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
51.4	Identify areas where trucks-only climbing lanes are needed. These will likely qualify for categorical exclusions, and should qualify for funding under the federal $100 million earmark.	Please see response to Comment 51.3.
51.5	Complete the feasibility plan passed by the General Assembly this year whereby long-haul trucks are diverted to intermodal rail, incorporating multi-state collaboration, the Shenandoah line, grade separation, roll-on, roll-off technology, and dual tracking for as much of the line as possible.	Please see response to Comment 51.1.
51.6	Prepare a supplemental environmental impact statement which includes the results of the rail improvement feasibility study and a more complete discussion of environmental impacts that will occur under the build options beiug actively cousidered.	Please see response to Comment 51.1. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

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Rockbridge Area Conservation Council, Barbara L. Walsh

ID	Comment	Response
52.1	In particular, we are concerned about, and adamantly opposed to, the possibility that this segment [I-81 corridor between Lexington and Staunton] could be assigned a "categorical exclusion" status so that construction can begin without a more thorough study of the environmental consequences this section of the Valley of Virginia would experience. We are convinced that water, air and noise pollution would be significantly increased, and that mitigation of these effects would be inadequate to preserve the quality of our rural environment and economy.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, during Tier 2, EAs are proposed to be prepared for each SIU. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
52.2	The effects of tolls are minimized. While VDOT acknowledges that even the "minimum build" option cannot be completed without tolling the interstate, the options put forth as possible scenarios often exclude tolls as a part of the analysis. No tolls are considered in the economic analysis, despite their likely adverse effects on tourism and local businesses. Economic analysis is insufficient. The projected positive gains appear to be too marginal over too long a period to be compelling-particularly when the adverse effect of tolls has not been considered. The toll issue is a very big issue - and conspicuous by its absence.	An appropriate assessment of the economic impacts from tolls has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have postive economic effects when compared to the No-Build condition in 2035. More detailed economic impacts of individual SIUs would be analyzed during Tier 2.
52.3	Many of the traffic projections are based on faulty assumptions. Increases in fuel costs have not been considered, even though it is known that higher fuel costs result in less driving. In addition, the report fails to recognize that truck-driver shortages are acute and will continue to be a problem, limiting the potential for increased truck traffic.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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52.4	Diversion is rail is not seriously considered. The analysis of truck diversion to rail was based on projected rail improvements only within the borders of Virginia with no multistate communications suggested to encourage a more comprehensive approach. Diversion projections based on a rail corridor that begins and ends in Virginia doom rail to be found inadequate. Nobody is advocating such a narrow focus for rail improvements.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and

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		assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
52.5	Route 11 would be heavily impacted. US Route 11 is acknowledged to be the road most likely to absorb diverted traflic, and could see an increase of over 300% of its current traffic. The approach taken in the report is to diminish these real effects by simply dismissing them.	On low volume roadways, percentages often tend to be higher as differences in smaller numbers can be more dramatic when expressed as a percentage. When broken down by hour and direction, the increase in number of trips is generally low. While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies would examine traffic diversion in closer detail and identify any required mitigation measures.
52.6	Safety can be improved without further delay. The spots that have yielded the lowest level of service and the highest accident rates have been known for more than two years now, and it is time to have them fixed. It is unacceptable to leave these problem areas unattended, as the report in effect does, in order to justify a much more massive construction project.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

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52.7	Increasing the width of the highway will even more severely disrupt wildlife passage among adjacent biological communities, increase runoff of salts and chemicals from the road, and decrease air and water quality. Yet the DEIS suggests that the "maximum build" would actually enhance air quality.	In Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. In Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, will be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, relatively minor impacts to water quality are anticipated. As stated in Section 5.10. Air Quality, the Maximum Width footprint (with Rail 3 and high tolls) would decrease VOC, NOx, and PM2.5 emissions compared to the 2035 No-Build condition because it would reduce the number of vehicles traveling on I-81 by shifting freight traffic from trucks to rail. There is another factor that contributes to the "Build" concepts improving air quality. As roadway improvements are made, vehicles are able to travel at consistent rates of speed with reduced congestion; the elimination of idling vehicles is a major contributor to the reduction of air pollution. Further, as noted in the Tier 1 EIS, regardless of the number of trucks removed from the interstate (even if all trucks were removed) many sections of I-81 would still need improvements to accommodate 2035 traffic demands. Without these improvements, congestion is expected to worsen and idling emissions would continue to increase.

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52.8	Effects of tolls minimized. It is important to understand that economic consequences are based on only four options: No Build -doing the already planned remedial fixes to the existing roadbed ("16 federally funded minor highway improvements"), some of which are currently underway (e.g., bridge work in Rockbridge County); Minimum Width Build- footprint ranges from roughly 240 feet to 430 feet depending on the location, varying depending on the need from one lane in each direction (37% of the 325 miles) to two new lanes in each direction (most of the rest of the 325 miles); Maximum Width Build- footprint ranges from roughly 240 feet to 540 feet depending on the location, varying fiom one to 4 new lanes in each direction (up to 8 additional lanes total); Rail Concept 3- Generally 100 feet wide for the 13 rail improvement sections. No tolls are considered in the economic analysis. This is a potentially tremendous flaw, which may call into doubt the study's conclusions on economic effects across the board. The report excludes the "maximum build" option and tolls from the economic effects study, and compares only the difference in effects of minimum width build (plus "Rail Concept 3") versus "No build" - again, leaving the maximum width build and tolls out of the equation in all cases. Exclusion of any real consideration of tolls from the study is not supportable: The study repeatedly suggests that the "minimum width" scenario would have beneficial effects on a variety of economic factors (e.g., jobs, disposable personal income, gross regional product, delivered goods, etc.), in every case excluding tolls from the equation. Although the study acknowledges some vague potentially negative impacts of tolls as they relate to these factors, it also offers mitigating language that always characterizes the effect of tolls as benign. This supposed benign nature of tolling is not supported by the data provided. In other words, the report omits what is potentially the "worst case" scenario, fiom an economic point of view - the combination of maximum build and tolls -fiom the economic impact study. The best it seems we can expect is that tolls would be considered in more detail in Tier 2, alter the decision to begin tolling has been made.	An appropriate assessment of the range of economic impacts from the range of "Build" Concepts has indeed been conducted. As explained in Section 2.1, Economic Forecast Modeling Methods and Assumptions, in the Economics Technical Report, the improvement concepts that have the minimum and maximum economic impacts were chosen to be used in the economic analysis because they provided the least and the greatest demographic and economic benefit to the I-81 study area compared to the No-Build condition, as determined by the REMI model. The minimum economic impact is generated by the scenario with lowest efficiency gains and the highest tolling rate. In this case, the scenario with the minimum economic benefit is the Maximum Width template that includes high tolls for all vehicles and Rail Concept 3. In contrast, the greatest incremental economic benefit comes from the scenario with the greatest efficiency gains and no tolling. The scenario that has the maximum economic benefit compared to the No-Build condition is the Minimum Width template that includes Rail Concept 3, but does not include tolls. A more detailed analysis would be conducted during Tier 2. Also, tolling could not occur until after Tier 2 studies are complete.

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52.9	Insufficient economic analysis. Besides overlooking the economic effect of tolls, the DEIS suggests a rosy picture of the economic impact of expansion in the I-81 corridor: "There is development occurring or proposed in every county and major city in the I-81 study area. The majority of occurring or proposed development along the corridor is commercial or industrial. .... The I-81 Corridor Improvement Study Economics Technical Report includes a more complete and detailed listing of projects." (4-15) Given this scenario of anticipated growth in the corridor, it is all the more disturbing that the DEIS does not address what would happen to this growth as a result of tolling on the interstate. The report goes on to say: "The cost of transporting goods, although an important consideration to many companies, is a fairly small portion of the overall cost of production .... For the most part, the 'Build' concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls should not create an unfavorable economy for the region's businesses." (5-25 & 5-26) The cost of transporting goods may be a small portion of the overall cost of production, and tolls may only add a relatively small amount to that. But to dismiss tolls as not affecting the region's businesses is to completely disregard the fact that profit is also a very small part of the overall revenues generated by those businesses. It has come to our attention that at least one company has already withdrawn its plans to develop a presence in Augusta County as a result of contemplated tolls, and it is logical to assume that others would do the same. Even slight increases in costs due to tolls would require businesses either to increase their prices to offset the added costs butting them at a competitive disadvantage), or to absorb the added costs, thereby significantly reducing their profit margins. We fail to find this issue addressed in the DEIS.	As indicated in the Tier 1 Draft EIS, companies within the I-81 Corridor are already price competitive with companies elsewhere in Virginia and the United States. The cost of transporting goods, although an important consideration to many companies, is a fairly small portion of the overall cost of production. As such, there is very little variation found between the No-Build condition and the "Build" concepts (including those with tolls) in the cost to deliver goods. For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls should not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. These could include some of the region's larger and old line industries (e.g., furniture manufacturing and chemical production) who operate in very price competitive, global markets. More detailed analyses would be conducted in Tier 2.
52.10	Perhaps the most significant assumption concerns the financing of the project. The report assumes that "all 'Build' concepts would be financed the same way." The authors admit that "actual funding for improvements to I-81 and rail may be a combination of federal, state, and private sources (including tolling)," but argue that "any assumptions made at this point would be premature." Premature, perhaps, but assuming identical financing is not realistic. With a more thorough approach, the DEIS might well have reached different conclusions.	Identifying funding sources are outside the scope of this study. The conclusions reached in the EIS are independent of particular funding sources, and are not related to and have no bearing on funding. The Economics Technical Report explains this further by stating that "For the purposes of this analysis, it was assumed that all "Build" concepts would be financed the same way. Since this is a Tier 1 analysis, the actual funding sources have not been identified. Although actual funding for improvements to I-81 may be a combination of federal, state, and private sources (including tolling), any assumptions made at this point would be premature. To this end, it was necessary to assume a uniform financing structure to make a meaningful comparison of the projections."
52.11	Nowhere is the cost of the project considered against the projected economic benefits. In other words, there is no cost benefit analysis. For example, forest and farm land will be impacted by the build concepts. As discussed in Section 5.1, Land Use, up to 2,500 acres of forest cover and 5,100 acres of agricultural/pasture land cover would potentially be impacted as a result of the maximum width footprints. What is that forest land worth? What is that prime farm land worth? What are the projected crop values over 30 years that will be lost if that land is taken out of farm use? What of the 944 residential and 684 business displacements?	As indicated in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (specifically, in 40 CFR 1502.23), for purposes of complying with NEPA, the merits and drawbacks of the various potential improvement concepts need not be displayed in a monetary benefit-cost analysis, and typically are not, especially when there are other important considerations that are relevant to the decision.

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52.12	Loss of businesses. While many of the hundreds of potentially displaced businesses may move to new locations, some businesses will undoubtedly close permanently, resulting in a loss of tax base and loss of jobs. It may well be that tolls - with diverted traffic, including some of the tourist trade - could cause many more businesses to close. A larger, tolled interstate will be less attractive to tourists seeking beautiful rural landscapes, and will discourage "incidental tourism" - tourism prompted by passing surprise points of interest while driving along a free highway. The "build" concepts are apparently promoted on the basis of potential economic returns, but these benefits are marginal at best. The study concludes: "Transportation eflciency gains are the greatest determinant of economic benefit." (p. 5-25) But these projected economic benefits are not supported by the study's findings as reported, whether we look at the economic areas individually or collectively. The positive gains appear to be too marginal over too long a period to be compelling- particularly when the adverse effect of tolls has not been considered. Meanwhile, none of the negative impacts are translated into economic terms. These adverse economic effects should be show as offsets to the positives as argued in the study. This would seem to be a serious deficiency in the DEIS.	Please see response to Comment 52.9.
52.13	Fuel costs not considered. Projected growth in traffic, according to the report, is expected to produce major congestion by 2035. However, these projections are based on current growth, and have consistently omitted the significant decreases in traffic (both car and truck), which are predictable with higher fuel costs. Projected growth rates have been calculated primarily based on growth seen fiom 1997 to 2003. All of these data and subsequent projections are based on a time when fuel cost between $1.00 and $1.60 per gallon, and have not been adjusted to recognize the fact that he1 has recently cost twice that much, and is highly likely to rise again.	Please see response to Comment 52.3.
52.14	Truck driver shortage. An additional factor is that the trucking industry continues experiencing an acute driver shortage, and there is little prospect for that shortage to diminish, according to American Trucking Associations' May, 2005 report. In fact, given the difficulty of finding new drivers, it would seem virtually impossible that truck traffic could continue to grow 2.8 % per year, unless some method other than driving is used for moving the trucks. In other words, it should be abundantly clear - and included as a factor in making predictions of need - that while freight movement demands may continue to grow over the next 25 years, some other methods for moving that freight must be add to our transportation plans. Modern, higher-speed intermodal rail is one such method.	Please see response to Comment 52.3.
52.15	Diversion to rail is not seriously considered. The DEIS analysis of truck diversion to rail was based on rail improvements only within the borders of Virginia, assuming that no such improvements would occur outside the borders. Despite the multistate transportation planning initiative passed by the General Assembly in 2005, no multistate planning is included in the DEIS. Diversion projections are based on a rail corridor that begins and ends in Virginia, making it totally irrelevant for long-haul freight.	Please see response to Comment 52.4.

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52.16	The Rail 3 concept, offered for consideration as an adjunct to major widening efforts, actually involves improvements on only 13 segments ranging in length from 112 to 10 miles, with most between 1 and 2 miles in length. Projections of truck diversions are virtually useless and self-defeating if they are based on such meager improvements.	Please see response to Comment 52.4. Four rail concepts (not simply Rail Concept 3) were evaluated to determine the degree to which they would meet the needs on I-81. Rail Concepts 1, 2, and 3 were developed in consultation with Norfolk Southern. When evaluating combination alternatives (i.e., rail plus roadway concepts), we determined that it was a reasonable approach to evaluate the rail concept that provided the most diversion of freight from truck to rail per dollar of investment. FHWA's overall approach to analyzing rail concepts is reasonable.
52.17	These projections completely ignore the potential for Virginia to initiate multistate communication regarding the entire I-81 corridor and its feeder highways. Yet the VDOT report itself admits, "While rail improvements outside of Virginia are beyond the scope of this study, such improvements, if made, could accrue additional benefits beyond those identified in this analysis by further removing chokepoints and improving rail speeds and service reliability." (Freight Technical Report, p. ES-4).	Please see response to Comment 52.4.

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52.18	The report's rail diversion rates are misleading. The fact is intermodal rail would be expected to divert only those trucks going more than 500 miles (long-haul). Table 3.2-2 suggests that the most significant rail build would only divert 5.8% of the traffic from the interstate. This is a percentage of all traffic (not a percentage of the relevant long-haul trucks) in 2035, and predicated on the use of only Virginia's 325 miles of rail. It also assumes that nothing will be done between the time rail upgrades could be completed (2010) and 2035. In 2010, using even the most conservative numbers proposed by the DEIS and an average speed of 40 mph, a full 25% of through trucks could be diverted to rail. (This estimate was calculated based on taking 1,224,000 of an approximate 4,870,000 long-haul trucks off the road in 2010.)	While improvements to the rail system were only considered for sections within Virginia (325 miles), the freight movement considered in the Tier 1 EIS includes all movements of freight that use the I-81 corridor in Virginia regardless of their origin or destination. As the comment notes, those trips greater than 500 miles are susceptible to rail diversion. The facts presented in the Tier 1 EIS and supporting technical documents are in complete agreement. As noted in Table 5-4 of the Transportation Technical Report and Tables ES-4 and 6-3 of the Freight Diversion and Forecast Technical Report, by 2035, there will be approximately 7,364,000 annual truck trips greater than 500 miles traveling I-81. These tables also show that the most significant rail option (Rail Concept 4) will divert approximately 16.6 percent of these truck trips (5.8 percent of the total). This represents an estimate of 1.2 million diverted annual truck trips from the Virginia I-81 corridor in 2035. These diversions do little to address the day-to-day needs of the corridor and this rail option does not present the largest truck diversion per dollar of investment. These diversions are not predicated on the use of only Virginia's 325 miles of rail; they are based on improvements to rail within Virginia as part of this study and any planned and funded improvements outside of Virginia's borders that are documented in capital improvement plans in other states (Freight Diversion Technical Report p. 6-1). As also described on p 6-1, "The study also assumes that the railroads will make the necessary improvements in the future to maintain capacity for expansion in their existing rail system, both within and outside the borders of Virginia." Therefore this comment is inaccurately stating that the Tier 1 EIS assumes nothing will be done between 2010 and 2035. Finally, the 2010 truck estimates noted in the comment are misleading and inaccurate. The calculation applies 2035 truck diversion estimates to a lower 2010 truck volume, which will always result in a seemingly higher percentage of diversion. Since the 2010 truck trip diversions would actually be based on a smaller number of total trips, the 1.22 million is vastly overstated. Assuming the 2010 truck volume estimate of 4.87 million is correct (this volume is not based on anything provided in the DEIS) diversion estimates in 2010 would be closer to 808,500 trips (16.6 percent).
52.19	A modern intermodal system would use "roll on, roll off technology for faster loading, be double-tracked for the entire 550+ miles fiom Knoxville to Harrisburg, separate rail from road by eliminating grade crossings, and travel at an average 60 miles per hour. It is certain that diversion of truck freight to this kind of system would be significantly higher than is projected.	See response to Comment 52.4.

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52.20	And finally, DEIS models used to predict trends and projections of future traffic do not differentiate the varying impacts of various modes of transportation. This makes it impossible to determine the relative merits of highway improvements versus rail improvements. This is a serious deficiency of the models used.	This statement is false. The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data (dating to 1978), as well as recent transportation and socioeconomic indicators and the land use projections used for the Virginia statewide model and projected on a corridor-long basis. However, freight and passenger vehicle traffic were forecast separately and are presented separately in the Transportation Technical Report and the Freight Diversion and Forecast Technical Report. Additionally, the 211 "Build" concepts identified include all roadway and rail improvement options as stand alone concepts. The relative merits of all of these improvements are provided in Chapter 3 of the Tier 1 EIS, the Concept Development and Analysis Technical Report, and the Transportation Technical Report.
52.21	Rail funding. Lack of funding is one reason cited for not considering rail more seriously. How silly this is as a criterion for excluding rail becomes immediately clear when one considers that funding for the many highway options considered in the DEIS is not identified either. Meanwhile, the DEIS ignored the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress. Highlights of the RRIF program include: -Loans amount limit: No dollar limit on loans/guaranties -Repayment: up to 25 years, mortgage style repayment -Interest rate: the equivalent yield on US Treasuries of the same tenor (about 4.75% on 25 year paper as of December 2005) -Collateral: The FRA does not require collateral but does charge a credit risk premium that can be prohibitive if there is no collateral. Many of the loans have incurred zero credit risk premium, but each borrower offered the FRA collateral such as right of way and/or rolling stock. The FRA finds loan applications with a government entity as a participant very attractive. Discussion about a regional railroad authority as a conduit for funds would thus seem to be both appropriate and timely.	The Tier 1 EIS does state that there are no federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines as part of this study. This information was included because it is important that the public and the decisionmakers be aware of potential limitations to making rail improvements. The lack of federal highway funding categories for VDOT to implement rail improvements as part of this study, however, is not related whatsoever to the evaluation of the rail concepts. Rather, the rail concepts (and roadway concepts) were duly considered in the study and were evaluated based on their ability to meet the transportation needs on I-81, as described in Chapter 2 Purpose and Need. Please refer to the response to Comment 49.4 for a discussion of why a multi-state rail concept is not reasonable in the context of this study. The evaluation of the Rail concepts was discussed in Chapter 3, Improvement Concepts of the Tier 1 EIS. The Tier 1 EIS describes possible sources of funding for rail improvements. On page 3-9, immediately following the citation noted, the Tier 1 DEIS explicitly states that SAFETEA-LU has specific appropriations for multimodal interface facilities and other improvement options for the corridor. Page 3-10 goes on to state "in addition to $41.5 million of designated funding to "manage freight movement and safety improvements" along I-81, SAFETEA-LU also includes a number of general freight finance provisions that Virginia may be able to take advantage of in obtaining additional funds to improve privately owned rail lines." The Tier 1 DEIS goes on to list five SAFETEA-LU freight provisions that may offer opportunities to improve rail freight along the corridor.
52.22	Route 11 impact. U.S. Route 11 is acknowledged to be the road most likely to absorb diverted traffic, and could see an increase of over 300% of current traffic, or four times the traffic now seen on U.S. 11. While potentially catastrophic to local traffic flow, with increased safety hazards on Route 11, the approach taken in the report is to diminish these real effects by dismissing them: "Therefore, it can be concluded that while the high value percentages may seem high, the actual impact resulting from the number of vehicles is low. " (p. 3-4). Any driver on U.S. 11 would disagree. Other roads that would be impacted by traffic diversions fiom I-81 include U.S. 221, U.S. 220 and U.S. 340, and to a lesser extent, U.S. 29.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will look at traffic diversion is closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes (including the 4 identified) that are likely to see diversions from tolls. Route 11 is a barometer for diversion impacts because this road has the highest existing volume and is expected to see about 50 percent of all toll-related diversion. Many of these local roadways would also see improved traffic operations once I-81 is improved.

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52.23	Safety now. Only 8.6% of the lanes, and 1% of the ramps, were found to be below the approved level of service, and the average speed on I-81 was 69 mph, indicating a lack of congestion on the vast majority of the route. Over a fifth of all accidents, and nearly a third of all fatal accidents, occurred in only 7% of the total corridor miles. The spots that have yielded the lowest level of service and the highest accident rates have been known for more than two years now, and it is time to have them fixed. It is unacceptable to leave these problem areas unattended (as has been suggested in the "no-build" option described on page 2-11), apparently in order to justify a much more massive construction project.	Please see response to Comment 52.6.
52.24	A 500-foot limit was defined as the area within which environmental consequences would be considered. This 500-foot limit excludes effects that are diffuse, such as air pollution, and minimizes other effects (such as noise pollution) by limiting the number of "receptors" that would be affected. Many people report-hearing significant interstate noise more than a mile away from the interstate. The view of the Valley from the Blue Ridge Parkway and Shenandoah National Park already includes a persistent haze trapped by the mountains, and this haze will deepen with increasing truck traffic. These consequences are simply excluded from consideration. In fact, the DEIS says, "The Maximum Width footprint (with Rail 3 and high tolls) would decrease VOC, NOx, and PM2.5 emissions compared to the 2035 No-Build condition because it would reduce the number of vehicles traveling on I-81 either by diverting traffic to parallel roadways or by shifting fieight traffic fiom trucks to rail." (Ch. 5, p. 69) This statement suggests that air quality would actually be enhanced by the maximum width footprint, when under one option it could actually increase, since traffic would be shifted to parallel roads, where greater congestion might well create more pollution. The second option would decrease air pollution -- by shifting truck traffic to rail.	The width of the study area used in the Tier 1 Draft EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000 foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. Information presented in this Tier 1 EIS was at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents would address site-specific impacts. The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP). Section 5.10.1 of the Tier 1 EIS has been revised to state that "The Maximum Width footprint (with Rail 3 and high tolls) would decrease VOC, NOx, and PM2.5 emissions compared to the 2035 No-Build condition because it would reduce the number of vehicles traveling on I-81 by shifting freight traffic from trucks to rail."
52.25	The DEIS estimates that 23 to 32 miles of streams would be affected by construction. How they might be affected is not stated. If stream channels are modified as VDOT has done in the past the streams would lose floodplain areas and be much more prone to flooding downstream. Each situation would be different, but 32 miles of modifications could be quite significant in some drainage basins.	Section 5.9, Natural and Geologic Resources, in the Tier 1 FEIS indicates that streams may potentially be directly affected as a result of stream channel modifications, the placement of fill in the stream, or bridging. This document also states that site-specific impacts to floodplain will be characterized during Tier 2, when design features are more defined. In addition, appropriate compensation for floodplain impacts will be identified during Tier 2.

Letter 52

Rockbridge Area Conservation Council, Barbara L. Walsh

ID	Comment	Response
52.26	Noise level varies greatly depending on atmospheric conditions. The information in table 5.11.1 is based on a study that was made without recognition of the variation in the area adversely affected by noise. Even without this information it was estimated that between 7,000 and 9,000 homes would be adversely affected by noise from a "build" concept. It is unclear whether the DEIS considered the likely resulting loss of property, but it appears that this is another piece of information missing from the projected environmental impact.	FHWA's Traffic Noise Model Version 2.5 (TNM 2.5) was used to calculate future highway traffic-related noise levels for each of the concepts, including the No-Build. TNM 2.5 uses traffic volume data, speeds, vehicle type (automobile, medium-duty truck, heavy-duty truck, bus, and motorcycle), highway geometry, receiver distance from highway (source), ground absorption, and shielding from local terrain and structures to generate noise level predictions in dBA (Leq) at a given distance from the centerline of a highway. TNM 2.5 was used to establish the location of noise contours. Section 5.11, Noise, in the Tier 1 Draft EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. Federal Highway Administration guidelines require that noise mitigation measures, such as the construction of noise barriers, be evaluated for receptor locations where noise impacts have been identified. The feasibility of these noise mitigation measures will be investigated during Tier 2.
52.27	Too many questions have gone unanswered in the DEIS, deferring to the Tier 2 review for more information. Unfortunately, the current tiered approach to addressing federal requirements has created a situation in which "build" concepts will be selected before this important information is gathered; the answers to the most important questions will be addressed only after the decision to build has been made.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts.
52.28	Given the erroneous calculations and unclear components of the data in tables 5.13-1, -2, and -3, it is impossible to determine what energy savings or costs would be expected if trucks were diverted to rail. Table 5.13-1 appears to focus on passenger vehicle data only, and calculates the energy used as miles times miles per gallon. The rail energy use may or may not be correct in Table 5.13-2 (we are not given enough information to verify the conclusion presented), but does not take into account the energy that would be saved by not driving the same trucks through the corridor. Table 5.13-3, being a combination of the previous two tables, is therefore meaningless.	Tables 5.13-1 and 5.13.3 in the Tier 1 EIS have been revised to correct the arithmetic errors and to reflect fuel consumption of passenger cars and trucks.

Letter 52

Rockbridge Area Conservation Council, Barbara L. Walsh

ID	Comment	Response
52.29	Identify highest priority safety hazards and construct improvements to eliminate the hazards. In most cases, this will involve simply extending or adjusting the geometry of some curves and acceleration lanes, for which categorical exclusions will likely be appropriate. VDOT has already identified 8 spots where the accident rate is greater than 50% more than the state average, and 33 spots where the accident rate is 25% higher than average. All together, these spots comprise no more than 44 miles of the 650 miles of north- and southbound lanes.	Please see response to Comment 52.6.
52.30	Identify areas where trucks-only climbing lanes are needed. These will also likely qualify for categorical exclusions, and should qualify for funding under the SAFETEA-LU $100 million earmark.	Please see response to Comment 52.6.
52.31	Develop a feasibility plan whereby 60% of long-haul trucks are diverted to intermodal rail, incorporating multi-state collaboration, the Shenandoah line, grade separation, roll-on, roll-off technology, and dual tracking for as much of the line as possible.	See response to Comment 52.4.
52.32	Prioritize remaining build segments requiring additional lanes and conduct Tier 2 reviews as appropriate.	Prioritization of SIUs is not a Tier 1 decision.

Letter 53

Scenic 340 Project, Frederick Andreae

ID	Comment	Response
53.1	...a significant amount of that [diverted] traffic will choose to use Rte. 340, presently a winding, rural road...a major increase in traffic on this road would have severe consequences for the historic, scenic, and cultural resources of the area.	The Tier I EIS identifies U.S. Route 11 and 14 local routes (including Route 340) that are likely to see diversions from tolls. While some level of diversion to local roads is expected, 5 to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies would examine traffic diversion in closer detail and identify any required mitigation measures.
53.2	There is no mention of the impact on Shenandoah National Park in the preliminary EIS. A rail component would reduce the problem of increased air pollution.	The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).

Letter 54

Shenandoah County Historical Society, Barbara Adamson

ID	Comment	Response
54.1	Questions have been raised about the advisability of projecting as far out as 2035 to construct such an expensive and damaging project; many, many unknowns exist that far into the future.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take ten years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2.
54.2	...truck traffic diversion onto local roads would be significant under a toll scenario, in contrast to the level of diversion suggested in the Tier 1 Study.	The Tier I EIS identifies U.S. Route 11 and 14 local routes that are likely to see diversions from tolls. While some level of diversion to local roads is expected, 5 to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies would examine traffic diversion in closer detail and identify any required mitigation measures.

Letter 54

Shenandoah County Historical Society, Barbara Adamson

ID	Comment	Response
54.3	The expanded use of rail to alleviate transportation challenges has not been thoroughly explored.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and

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Shenandoah County Historical Society, Barbara Adamson

ID	Comment	Response
		assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
54.4	The Tier 1 Study states that improvements will only occur within the current highway right of way. What is the current right of way?	The Tier 1 EIS does not state that the improvements would occur only within the current right-of-way. The right-of-way is variable along I-81. The "Build" concept will be analyzed in more detail in subsequent Tier 2 NEPA documents and the impacts presented may increase or decrease because design refinements would likely change the potential construction limits. The formal Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of adverse effects, and resolution of adverse effects will occur in Tier 2. During the formal Section 106 process, there will be consultation with the State Historic Preservation Officer, the Advisory Council on Historic Preservation, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

Letter 54

Shenandoah County Historical Society, Barbara Adamson

ID	Comment	Response
54.5	The Study also states that impacts are not to be considered beyond 500 feet from the roadway. That is an inadequate measure; impacts will be felt much further than 500 feet from pavement!	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources, and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans.

Letter 55

Shenandoah Water Resources Advisory Committee, George Sylvester

ID	Comment	Response
55.1	The DEIS states that a max of 15 public wells would be impacted by this project. I cannot speak to the accuracy of that number, but I can say that Shenandoah County has 13 public wells that would be impacted.	Based on available GIS information, 9 public wells were found within 500 of either side of the outside edge of pavement for I-81 in Shenandoah County. Of those, three would potentially be directly impacted by the roadway construction footprint. Consistent with a tiered approach, potential impacts to public wells were calculated using available GIS data and were not verified in the field. A more detailed investigation of impacts to public wells, including coordination with Shenandoah County officials, will be completed during Tier 2 studies.
55.2	In 2001 the county conducted a SWAPP. Using scientific hydrogeological methods, we delineated the recharge areas of each of our public wells serving the public water systems of the towns of Toms Brook, Edinburg, Mt. Jackson, and New Market. I-81 bisects 13 of the 15 recharge areas. Adding more impermeable surfaces, such as the proposed widening of I-81, would significantly reduce the effectiveness of the recharge areas by reducing the acreage of permeable soils that allow precipitation to trickle through to replenish the water in the wells beneath. It would also increase the potential for contaminated runoff, both to groundwater and surface water. In Shenandoah County we are in karst country, where fractionated limestone, characterized by sinkholes, caverns, underground pools and conduits abounds. Karst is notorious for acting as a carrier of contaminated water.	Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 Draft EIS. As stated in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects will address site-specific methods for deterimining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to environmental resources, such as karst features.
55.3	Switching to surface water, the North Fork of the Shenandoah River and all of its tributaries in our county are on DEQ's list of impaired streams. the most dominant cause of impairment is runoff from residential properties, farmland, and impervious surfaces such as rooftops, parking lots, roads, and superhighways. Removing these streams from the impaired list is an uphill struggle. All jurisdictions in the Chesapeake Bay Watershed have a mandated goal of reducing pollution to specified levels by 2010. Frankly, we are not going to make it. it is an open question whether we will make it by 2020. Widening I-81 and introducing ever more toxic runoff is going to make it even more difficult to attain the goals of tie Chesapeake Bay agreement.	Please see response to Comment 55.2. Detailed impacts to water quality are dependent on specific engineering design details and such an analysis would be completed during Tier 2.

Letter 56

Shenandoah Forum, Rosemary H. Wallinger

ID	Comment	Response
56.1	It is inconceivable to us that any proposal would be advanced before studies for how this susceptibility to ground water contamination would be impacted given the enormity of the threat to the health and safety of our community.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for determining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to environmental resources, such as groundwater.
56.2	...we are incensed at the notion that VDOT plans to review the impacts of the proposals in segments, allowing the agency to use two lesser levels of review and so avoid a full blown environmental impact study.	Please see response to Comment 56.1.
56.3	Shenandoah Forum asks that detailed information on the impact the proposals will have on our air quality, our hospital services, our forests, our children and our water resources be obtained before proceeding to Tier 2.	Please see Response to Comment 56.1.
56.4	...Shenandoah Forum does not consider it unreasonable that in depth studies be undertaken to determine the full extent of the impact these proposals will have on Virginian's agricultural base in relation to jobs, economy and land use.	Please see Response to Comment 56.1.

Letter 56

Shenandoah Forum, Rosemary H. Wallinger

ID	Comment	Response
56.5	We find it remarkable that in this era of technology and industry there are no current meaningful transit options available to us. Where in this proposal is this need addressed?	Four rail improvement concepts were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. These concepts included a concept (referred to in the Tier 1 Draft EIS as Rail Concept 4) proposed by Rail Solution, a rail advocacy group. Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans.
56.6	In our study of the PPTA process we were deeply disturbed to discover how little weight our region's CTB member carries in this decision making process. Shenandoah Forum asks that the CTB be granted a statutory roll in the planning process and that no PPTA proposals be considered for projects until they have passed through the CTB's Six Year Plan.	The NEPA process is completely separate and independent from the PPTA process. The NEPA process has no jurisdiction over PPTA matters and does not have the authority to grant CTB members statutory roles in the process.

Letter 57

Shenandoah Resource Conservation and Development Council, Joan Comanor

ID	Comment	Response
57.1	...any project that includes Federal Highway funds must take into account Low Impact Development principles and that is certainly not the case with the proposed approach.	The Federal Highway Administration encourages, but does not require, Federal, State, tribal and local partners involved in infrastructure planning, design, review, and construction to use practices that promote sustainability.

Letter 57

Shenandoah Resource Conservation and Development Council, Joan Comanor

ID	Comment	Response
57.2	To not consider all reasonable options, including rail, does not meet the intent of NEPA and thus makes the current EIS process completely flawed and legally inadequate according to NEPA case law. The DEIS should go back to the drawing board, incorporate rail and Low Impact Development principles, adequately address socioenvironmental impacts and provide a new DEIS for public review and comment.	Please see response to Comment 57.1. It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 57

Shenandoah Resource Conservation and Development Council, Joan Comanor

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Supplemental EIS is, therefore, not warranted.

Letter 58

Shenandoah Valley Battlefields Foundation, Howard Kittell

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58.1	...the protection afforded the battlefields by Section 106 of the National Historic Preservation Act of 1966; Section 4(f) of the Department of Transportation Act of 1966, and Section 6(f) of the Land and Water Conservation Fund Act must be rigorously applied to the project to ensure that harm to these battlefields in particular, and to the National Historic District as a whole is minimized and mitigated. The DEIS fails in this regard. Consequently, the DEIS erroneously concludes that, "the difference in potential environmental impacts between a variety of different "Build" concepts was generally negligible along the 325-mile I-81 corridor" (Historic Resources Technical Report page 2-8). Because the Tier 1 DEIS does not adequately evaluate the impact on cultural resources of the various concepts before making fundamental decisions about the character of future transportation improvements in the Shenandoah Valley, it does not meet the standards set by the National Environmental Policy Act, the National Historic Preservation Act; the Department of Transportation Act, or the Land and Water Conservation Fund Act. SVBF restates its request, made previously in its comments during the "scoping" phase of the project and in other communications with the Virginia Department of Transportation (VDOT) and the Federal Highways Administration (FHWA), that an analysis of the impact of the alternatives on individual battlefields and of the cumulative impacts on the National Historic District be added to the Tier 1 EIS.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being made and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic

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		properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties

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		have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. The Tier 1 EIS identified existing parks, recreation areas, and open space easements within the I-81 and rail study areas based on readily available mapping and GIS data, review of local comprehensive plans and other documents (e.g., Virginia Outdoors Plan, 2000) and coordination with local parks and recreation directors. Information was obtained on the location and ownership of publicly owned parks, trails, Section 6(f) resources, wildlife/waterfowl refuges, and boat ramps. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize

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		harm to the property resulting from such use.

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58.2	A determination of the impact each alternative will have on these resources should be conducted during the Tier 1 EIS. However, the regulations allow Section 4(f) analysis involving "different levels of detail" in a tiered EIS if "the detailed information necessary to complete the Section 4(f) evaluation may not be available." The Tier 1 DEIS makes no effect determinations regarding any cultural resources and only reviews existing sources of information on these cultural resources. Consultation with the State Historic Preservation Officer regarding identifying historic properties, determining eligibility of properties, and making effect determinations will occur only during the Tier 2 Studies, after a preferred alternative has been selected by the Commonwealth Transportation Board (CTB) and approved by FHWA. The delay of the Section 106 process until Tier 2 is unacceptable and contrary to the requirement that historic sites and public parks be evaluated "early in the development of the action when alternatives to the proposed action are under study." The Section 106 regulations likewise require agencies "to initiate the Section 106 process early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking," and provide that "agencies should consider their Section 106 as early as possible in the NEPA process and plan their public participation, analysis and review in such a way in a timely and efficient manner." 36 C.F.R. 800.l(c), 800.8(a). All of the concepts carried forward in the Tier 1 study would have a substantial impact on the Valley's battlefields which are of well-defined and unarguable national significance, while concepts that would likely involve the least impacts to battlefields (rail, TSM, and road improvement concepts) have been rejected as failing to satisfactorily meet the need for the project. The decisions about which concepts to carry forward should not be made without taking into account and comparing their impacts on historic properties, and particularly, the many significant historic battlefields in the project area. Since the detailed information necessary to complete the Section 4(f) evaluation is available regarding the battlefields, a determination of impact cannot be deferred to the Tier 2 study. An analysis of the impact of each concept on these properties individually and the cumulative impact on the region's outdoor resources must be added to the Tier 1 EIS. Even if full consultation with the State Historic Preservation Officer regarding the identification of historic properties that are potentially eligible for the National Register, and making effect determinations is delayed until the Tier 2 study for some less well-defined properties, the Tier 1 EIS must still evaluate potential impacts of the concepts on those properties for which detailed information is available... The Tier 1 EIS must ensure that "opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the first-tier stages." Perhaps because of the cursory review of battlefields and other historic and cultural resources undertaken in the DEIS, the document fails to examine a number of ways that the project could impact the battlefields discussed below. As recommended in the scoping comments of the Environmental Protection Agency, the Tier 1 EIS should place more emphasis on	The Tier 1 EIS does describe the potential impacts to listed and eligible historic properties (including historic battlefields) that may occur as a result of each improvement concept, and it acknowledges that the level if resource identification and impact analysis undertaken for this Tier 1 Study does not fully satisfy the requirements of Section 106. However, the level of analysis included in the Tier 1 Draft EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concept. Section 5.7, Historic Properties acknowledges that, in addition to direct impacts from construction, other types of effects to historic properties can occur as a result of an undertaking. These can include removing the property from its historic location, changing the character of the property's use or setting when they contribute to its significance, and introduction of visual, atmospheric, or audible elements that diminish the integrity of the significant features. The analysis in the Tier 1 EIS does not address these effects, in part, because the level of detail needed to evaluate these effects is unavailable during Tier 1. Please see response to Comment 58.1.

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	the unique historical and scenic nature of the Shenandoah Valley and ongoing efforts to protect the natural and cultural resources of the Valley. Even if the Section 106 and Section (4f) determinations are not conducted until Tier 2 of the EIS, the Tier 1 document and Record of Decision must include a commitment to finding ways to avoid and minimize these impacts to the battlefields. For each battlefield, the types of direct and indirect impacts should be identified and quantified, including right-of-way impacts, noise, visual, and other impacts.	
58.3	In addition to the core and study areas of the seven major battlefields traversed by I-81, the area of potential effect for the EIS should also be defined to include the National Historic District in its entirety. The National Historic District as a whole should be treated as a Section 4(f) resource. The Federal Highways Administration (FHWA) and the Virginia Department of Transportation have previously agreed that the National Historic District is a Section 4(f) resource in its entirety.	The Shenandoah Valley Battlefield National Historic District (SVBNHD), as a whole, has not been listed or determined eligible for the National Register. Impacts to the SVBNHD, as a whole, are therefore not subject to Section 4(f) or Section 106. Individual historic properties within the SVBNHD that are eligible or on the National Register and that are affected by one of the individual projects would be subject to the requirements of Section 106 and Section 4(f). These requirements will fully be addressed during Tier 2.
58.4	Since the NPS has determined that the entire National Historic District qualifies for listing as a National Historic Landmark on the National Register of Historic Places, the entire National Historic District should be treated as a Section 4(f) resource to ensure that all possible planning is done to minimize harm to the District by the project.	Please see response to Comment 58.3.
58.5	It should be noted that the above referenced commission was a federal commission established pursuant to the Shenandoah Valley Battlefields National Historic District and Commission Act of 1996 and appointed by the US Secretary of the Interior. It should also be noted that the Shenandoah Valley Battlefields National Historic District Management Plan was approved by the Secretary of the Interior and endorsed by the Commonwealth of Virginia and most of the municipal governments in the National Historic District. Simply stated, the plan was created under congressional authority with the participation of state and local government, not by a private entity.	Section 4.7, Historic Properties, and the Historic Properties Technical Report have been revised to reflect the information provided.

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58.6	Table 4.7-3 of the DEIS (shown below) states that, in addition to Cedar Creek, which is a National Historic Landmark, only Opequon (Third Winchester) is listed on or has been determined eligible for the National Register of Historic Places. In fact: New Market is listed on the National Register of Historic Places and the Virginia Landmarks Register and Second Winchester, Third Winchester, and Kernstown have been determined by the Virginia Department of Historic Resources (VDHR) to be eligible for listing on the National Register of Historic Places and the Virginia Landmarks Register. In the same table, it is also unclear why "n/a" appears under "Listing or VDHR Evaluation" for First and Second Kernstown and Marion. Likewise it is unclear why "Winchester 1" is included in the table and in other listings of Civil War battlefields throughout the DEIS but the Second Winchester battlefield is referenced nowhere in the document. The First Winchester battlefield (CWSAC Reference #: VA104) was designated Class A by the Civil War Sites Advisory Commission (CWSAC), created by Congress in 1991. Only 45 battlefields nationwide were ranked "Class A because they had "a decisive influence on a campaign and a direct impact on the course of the war." The First Winchester battlefield is also largely destroyed, being ranked Priority IV by the CWSAC (Fragmented Battlefields, All Military Classes, Poor Integrity) in the area of integrity. Land at First Winchester is not eligible for acquisition under the SVBF appropriation, authorized by the Shenandoah Valley Battlefields National Historic District and Commission Act. It is also not likely to qualify for listing on the National Register of Historic Places because it lacks integrity. The Second Winchester battlefield (CWSAC Reference #: VA107) was designated Class B by the Civil War Sites Advisory Commission (CWSAC). Only 104 battlefields nationwide were ranked "Class B" because they had "a decisive influence on a campaign." The Second Winchester battlefield is eligible for acquisition under the SVBF appropriation, authorized by the Shenandoah Valley Battlefields National Historic District and Commission Act and has been the subject of an SVBF acquisition. Second Winchester is traversed by I-81 and should be analyzed in the DEIS.	New Market Battlefield actually has two VDHR numbers. The New Market Battlefield (VDHR # 269-5001) is listed in Table 4.7-3. This VDHR resource has not been evaluated for eligibility by VDHR according to the VDHR archives inventory and VDHR survey form. The New Market Battlefield Park (VDHR #085-0027) was not included in Table 4.7-3, but was included in Table 4.7-1 as listed on the NRHP and VLR. The resource number (VDHR # 269-5001) used in Table 4.7-3 had the larger boundary and included the smaller New Market Battlefield Park boundary. We always tried to look at the larger battlefield boundary. We did not omit the listed New Market Battlefield Park; it is featured in Table 4.7-1 as being within the study corridor. Only small areas of Second Winchester and Kernstown have defined boundaries with VDHR file numbers. These eligible boundaries are well outside of the study area. Third Winchester has a VDHR number (034-0456) and the boundary associated with that number was determined eligible by VDHR as reflected in Table 4.7-3. Kernstown I and II were included in Table 4.7-3 because the boundaries as defined by the CWSAC were within the study area. These larger CWSAC boundaries do not have a VDHR number, are not listed, and have not been evaluated. The introduction that precedes Table 4.7-3 states that "both the core and the study areas are assumed to be eligible for the NRHP unless they are documented to have lost integrity." For this reason, Table 4.7-3 also lists which battlefields were part of the CWSAC survey. Second Winchester has a small area to the west of the survey area that has a VDHR number (034-5023). This area is eligible, but again is outside the study area. The larger Winchester 2 boundary defined by the CWSAC is within the study area. This battlefield was not included in the Tier 1 EIS because the entire area that falls within the study area also falls within the boundaries of CWSAC boundaries of Winchester 1, Opequon, and Kernstown. Winchester 2 was not included because its boundaries within the study area were already included within the three CWSAC battlefield boundaries that are assumed to be eligible for the NRHP. Under "Listing or VDHR Evaluation" "n/a" was used for the CWSAC resources that did not have a VDHR boundary that extended into the study area. Marion has no VDHR number, so was not evaluated by VDHR, and it is not listed on the NRHP, so the "Listing or VDHR Evaluation" was not applicable. Kernstown has VDHR numbers, but the areas defined in the VDHR archives are outside the study area so these numbers were not used in the document. However, the larger CWSAC boundaries are within the study area, so the battlefields were included. The boundaries that extend into the study area have not been evaluated by VDHR and are not listed on the NRHP so the "Listing or VDHR Evaluation" was not applicable. Again, these three battlefields were surveyed by the CWSAC and as stated in the introduction, their study and core areas are considered eligible for the NRHP unless they are documented to have lost integrity. The resources listed as "eligible" in Table 4.7-3 were determined to be so by VDHR.

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58.7	The need for a more rigorous evaluation of the impacts that improvement concepts may have on the battlefields is demonstrated by the fact that the DEIS makes no mention of the Cedar Creek and Belle Grove National Historical Park even though I-81 bisects the national park. The national park...could be severely affected by any expansion of I-81, yet none of the impacts are described in the DEIS	Section 5.6, Parks, Recreation Areas, and Open-Space Easements, and Section 5.8, Section 4(f)/6(f) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.
58.8	...Collector distributor lanes are not shown in the minimum width interchange templates...The Tier 1 DEIS does not include templates showing the proportions of maximum and minimum width cloverleaf and diamond interchanges with additional ramps required for separation...If the "Build" concept footprints used to calculate potential impacts do not vary substantially at the interchanges and a large percent of potential impacts to battlefields occur within interchange areas, the estimates of impacts to battlefields based on these footprints are unlikely to be accurate. Given that the Maximum Width Cloverleaf Interchange Template would require 32 percent more land than the Minimum Width Cloverleaf Interchange Template, the variance between the maximum and minimum impacts to the battlefields cannot be unsubstantial.	Typical sections for four interchange types were included in the appendix to the Concept Development and Analysis Technical Report. These include the diamond interchange, cloverleaf interchange, single point urban interchange, and duel cloverleaf interchange for the separated truck lane concepts. These typical section shound not be confused with the interchange template capture areas used for the impact analysis. The templates used for the environmental impact analysis were created to encompass the maximum area needed to construct the interchange for any of the "Build" concepts. This includes a 1,250-foot diameter circle of impacts over the interchange area and 2,500 to 11,000-foot tapers (depending on the type of interchanges) to account for impacts from collector/distributor roads. Therefore, while the "Build" concept footprints do not vary between the Minimum and Maximum Width templates, they do appropriately capture the maximum width land area. In actuality, if the Minimum Width interchanges require 32 percent less land than the Maximum Width interchanges, the potential environmental impacts are overstated.
58.9	Table 4.6-1 Parks, Recreation Areas, and Open-Space Easements: I-81 Study Area on page 4-25 identifies the New Market Battlefield Park as a locally-owned facility and a "Section 6(f) resource." This may be an incorrect reference to the state-owned New Market Battlefield State Historical Park. Table 4.6-1 does not identify any other battlefield properties.	The name of the New Market Battlefield State Historical Park has been corrected in Table 4.6-1 of the Tier 1 EIS.
58.10	The additional properties that have been acquired with LWCF funds are listed below [see table]. They should all be treated as Section 4(f) and Section 6(f) in the EIS.	Comment noted. Table 5.7-5 of the Tier 1 EIS has been annotated to reflect this information. In addition, Section 5.8, Section 4(f)/6(f) has been modified indicate that numerous battlefields potentially affected by the improvement concepts are also Section 6(f) properties.
58.11	The CWSAC also determined that the following battlefields in the National Historic District are of national significance, although they are not mentioned in the DEIS. Impacts of the project on these battlefields should also be discussed in the DEIS. 1. Berryville (CWSAC Reference #: VA118) 2. Cool Spring (CWSAC Reference #: VA114) 3. Cross Keys (CWSAC Reference #: VA105) 4. Front Royal (CWSAC Reference #: VA103) 5. Guard Hill (CWSAC Reference #: VA117) 6. Piedmont (CWSAC Reference #: VA111) 7. Port Republic (CWSAC Reference #: VA106) 8. Rutherford's Farm (CWSAC Reference #: VA115) 9. Waynesboro (CWSAC Reference #: VA123)	These battlefields are outside the I-81 study area.
58.12	The CWSAC also determined that the following battlefields outside the National Historic District but in the study area of the DEIS are of national significance, although they are not mentioned in the DEIS. Impacts of the project on these battlefields should also be discussed in the DEIS. 1. Saltville (CWSAC Reference #: VA076) 2. Saltville (CWSAC Reference #: VA082)	These battlefields are outside the I-81 study area.

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58.13	Archaeological features and patterns associated with each battle should be examined in the Tier 1 EIS to determine the effects of the concepts on the battlefields, as recommended by the National Park Service American Battlefield Protection Program in its letter commenting on the Pre-Draft Tier 1 DEIS. The following archaeological approach should be used to identify battlefield features: 1. review available literature to identify contributing features to each battle; 2. ensure that professional archaeologists with battlefield survey experience conduct the field investigations; 3. develop predictive research using remote sensing techniques; and 4. identify and evaluate the cultural landscape features that contribute to the understanding of each battle. Using this approach would allow VDOT to determine conclusively the presence of battle-related artifacts, human remains, and patterns and to determine how each concept may impact the archaeological record of the battles.	The response to the comment letter from the National Park Service's American Battlefield Protection Program on the Preliminary DEIS states that the recommendations provided will be considered during the Tier 2 studies, when more refined project alternatives are developed and evaluated. The Tier 1 EIS only includes potential broad level corridor-length concepts. The level of detail suggested for identification, impact analysis, and mitigation for avoidable impacts for battlefield resources is commensurate with the level of detail that would be performed during the Tier 2 studies.
58.14	On page 5-84 the DEIS states that for the "Tier 1 study, the potential indirect impacts to land use are based largely on communication with local planning officials in each county in the I-81 study area. Planning officials were queried concerning two issues: the potential for any of the "Build" concepts to induce development along I-81, and whether tolls on I-81 would induce development on US Route 11 as a result of increased numbers of motorists using US Route 11 as an alternate route to avoid tolls." The EIS should include information on these indirect effects from the town governments as it has the county governments.	Section 5.14, Indirect Impacts, of the Tier 1 Draft EIS examines the potential indirect impacts of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. During Tier 2, potential indirect impacts would be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations. At that time, additional coordination would occur with officials in each county and with officials in each town, as appropriate.
58.15	A more concerted effort needs to be made in Tier 1 to measure the likely indirect impacts on the battlefields driven by induced development. None of the local governments in the Shenandoah Valley has undertaken any systematic analysis of these potential indirect impacts, nor do they have the resources and expertise to do so. The lack of analysis is evidenced by the responses provided by local planning officials and summarized in Table 5.14-1 on page 5-85 of the DEIS...[see table]	For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. Potential indirect impacts would be evaluated in greater detail during Tier 2 commensurate with more detailed information on travel lane and interchange configurations.
58.16	The DEIS points out that the major land use impacts on the battlefields are likely to occur at interchanges which will have to be reconstructed to meet modern highway standards. Many of these interchanges are on battlefields, as at exit 264 in New Market. Expansion of the New Market interchange will require the relocation of numerous businesses that service travelers on I-81. If these businesses are relocated anywhere near the interchange, they will have to convert battlefield land now in farm and forest uses that are compatible with battlefield conservation and interpretation to more intensive uses. These indirect takings of battlefield land should be analyzed in the Tier 1 DEIS.	Please see response to Comment 58.15.
58.17	There are also substantial undocumented differences between the concepts explored in Tier 1 regarding the amount of land taken at interchanges. These differences are largest between concepts involving the addition of one lane in each direction and those involving exclusive separation of truck and automobile traffic, because the latter would require the construction of two sets of on and off ramps at each interchange, The Tier 1 DEIS should quantify the differences in the amount of land that would have to be taken for each concept at each interchange and the consequent level of indirect impact that these takings would cause.	For Tier 1, broad interchange concepts were developed commensurate with a Tier 1 level study. In most cases, the impact footprints for the Tier 1 interchange concepts represent a worse case scenario. Site-specific quantification of impacts at each interchange is more appropriate at the Tier 2 level when more engineering will be completed at each interchange, allowing for a variety of interchange layouts and design. During Tier 2, measures will be taken during design to avoid and minimize impacts to the environment.

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58.18	The DEIS states on page 5-10, "Based on communication with planning officials in each county and city in the I-81 study area, the "Build" concepts are generally consistent with most comprehensive plans." This statement inaccurately characterizes some of the comprehensive plans in the Shenandoah Valley. These plans deal with many issues that relate to the I-81 corridor that make it impossible to characterize them as either "consistent" with or inconsistent with any individual build concept, much less all of them. Moreover, prior to the release of the DEIS, there was no description of the build concepts for local planners to react to. Even the DEIS itself, with its limited description of impacts, provides a minimal basis for determining whether the concepts are or are not consistent with local comprehensive plans.	The Tier 1 EIS summarizes the consistency of the Minimum Width and Maximum Width footprints with specific transportation objectives included within the Comprehensive Plans. "Build" concepts were considered generally consistent with local plans if those plans support general improvements to I-81, either widening of the mainline or specific interchange improvements, as opposed to improving local roads or building new roads on new location for the purpose of accommodating traffic that currently uses I-81. The document also noted when local plans specifically support rail improvements.
58.19	Frederick County has a longstanding interest in the preservation of the Second and Third Winchester, Cedar Creek, and First and Second Kernstown battlefields, established in the following local plans. Some of the concepts under consideration in the DEIS would conflict with these plans as regards the taking of land at those battlefields for additional lanes and expanded interchanges.	Comment noted. Please see response to Comment 58.18.
58.20	Figure 6-3 of the DEIS is a map entitled "Harrisonburg Mile Post 243 to 251." The map shows a dashed line that is not defined in the map legend. It is unclear whether this dashed line delineates the area that would be under consideration for a by-pass around Harrisonburg if one or more of the improvement concepts was moved forward into Tier 2 that included consideration of such a bypass. The map also includes the Cross Keys and Port Republic Historic Preservation Area that is planned in the Rockingham County Comprehensive Plan 2020 and Beyond. If a corridor on a new location was located in this area, southeast of Harrisonburg, it would severely affect the Cross Keys battlefield and be in conflict with the Rockingham County comprehensive plan. The Tier 1 DEIS should examine the impacts of this contemplated corridor on a new location on the Cross Keys battlefield.	The dashed line in Figure 6-3 delineates the geographic extent of the general locations of the potential new location corridors. The specific location of corridors in these general locations and the specific highway alignments within those corridors would be studied during Tier 2 and their impacts will be evaluated in detail.
58.21	On page 4-2 the DEIS states that the Shenandoah County comprehensive plan supports "six-laning of I-81." This is inaccurate and should be corrected. The DEIS states on page 4-35, "I-81 traverses all four battlefields in Shenandoah County, which account for more than 40 percent of the district's battlefield acreage." In order for the Tier 1 DEIS to be remotely in accord with the Shenandoah County comprehensive plan, it must include an evaluation of the impacts each concept explored will have on the battlefields in the county. The Tier 1 EIS should include a closer examination of the impacts each concept would have on the planning policies of localities in the Shenandoah Valley Battlefields National Historic District.	The Shenandoah County Comprehensive Plan states that "with the increases in traffic along the length of I-81, it is felt that this facility will have to be widened to three lanes". Sections 4.1 and 5.1 of the Tier 1 Final EIS, both which discuss the transportation elements in the local comprehensive plans, have been modified, where appropriate, to reflect the written comments and resolutions from counties, cities, or towns that were received during the comment period on the Tier 1 Draft EIS.
58.22	Even though I-81 traverses seven battlefields for a distance of 32 miles, no consideration is given to the impact that improvements could have on the views of the battlefields from the road. The Tier 1 EIS should be amended to include an analysis of the impact each concept would have on the views of the battlefields from the road.	The level of analysis for potential visual impacts included in the Tier 1 EIS is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concepts. In Tier 2, the formal Section 106 process, which would include consultation with the Virginia Department of Historic Resources and other appropriate parties, would be the mechanism used to examine in detail the visual effects of individual projects on battlefields.

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Shenandoah Valley Battlefields Foundation, Howard Kittell

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58.23	Table 4.5-2 lists "specific visual resources" that, "when traveled upon, are currently subject to views of I-81. These resources include recreational facilities (trails and parks), rivers, and scenic byways . . . Other potentially sensitive visual resources, not listed below, are historic properties listed or eligible for listing on the National Register of Historic Places (see Section 4.7, Historic Properties) (DEIS 4-22). Even though I-81 traverses seven battlefields for a distance of 32 miles, no consideration is given to the impact that improvements could have on the views of the road from the battlefields. The Tier 1 DEIS should be amended to include an analysis of the impact each concept would have on the views of the road from the battlefields.	Please see response to Comment 58.22.
58.24	The DEIS does not discuss noise impacts in relation to any of the battlefields or in relation to Cedar Creek and Belle Grove National Historical Park. Neither the DEIS nor the I-81 Corridor Study Noise Technical Memorandum provide any data regarding the variance in noise impacts between the concepts. Regarding battlefields, increased noise levels are very likely to substantially impair the features that qualify them for consideration under Section 4(f). Serenity and quiet are of extraordinary significance to battlefields and serve an important public need. The preservation of quiet is essential if the battlefields are to continue to serve their intended purpose under the Shenandoah Valley Battlefields National Historic District and Commission Act. The Noise Technical Memorandum states: "The Minimum Width template with low tolls results in the lowest increase in noise because this concept has the lowest vehicle miles traveled (VMT), the lowest proportions of medium and heavy trucks in the vehicle mix, and the lowest vehicle speeds. "The Maximum Width template with exclusive truck lanes to the outside and exclusive car lanes to the inside, no tolls, and with Rail results in the highest increase in noise because this concept has the highest VMT, the highest proportions of medium and heavy trucks in the vehicle mix, the highest vehicle speeds, and an additional rail noise component." The Tier 1 EIS should quantify this statement and characterize the variance in noise impacts that would occur under each concept studied. Maps should be provided in the Tier 1 EIS show the noise contours generated by each concept from the data already developed in the corridor study using the FHWA's Traffic Noise Model Version 2.5 (TNM2.5). Moreover, it is entirely premature for the DEIS to make any conclusions about whether increased noise or visual impacts will result in a constructive use of the battlefields. Instead, such a determination must be based on the consultations and determinations of effect made as part of the Section 106 process, a process that has not yet been initiated.	The level of analysis in the Tier 1 EIS used to determine noise impacts is commensurate with the decisions that were proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the number of noise-sensitive receptors that would potentially receive noise levels of 66 dBA or greater. As indicated in Appendix C, Noise Technical Memorandum, these receptors included battlefields. During Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific impacts. A careful reading of Section 5.8 would demonstrate that there have been no conclusions about whether increased noise or visual impacts will result in a constructive use of the battlefields. If use of the battlefields is "substantially impaired" as a result of roadway improvements, this would be characterized as a constructive use impact (see Section 5.8 of the Tier 1 EIS). Because the level of detail required to evaluate such effects are unavailable in Tier 1, the Tier 1 EIS does not definitively determine whether such an impact would actually occur. A final determination of constructive use would be determined during Tier 2, in conjunction with input from VDHR and other consulting parties and the public. Future design efforts during Tier 2 would evaluate measures to avoid impacts to the battlefields and to identify measures to mitigate unavoidable impacts to them.

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Shenandoah Valley Battlefields Foundation, Howard Kittell

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58.25	Environmental impact statements should be conducted for each of the sections of independent utility (SIU) identified in the DEIS. Each SIU involves extraordinary circumstances including: 1. significant environmental impacts; 2. substantial controversy on environmental grounds; and 3. significant impact on properties protected by Section 4(f) of the DOT Act and Section 106 of the National Historic Preservation Act.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, during Tier 2, EAs are proposed to be prepared for each SIU. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.

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Shenandoah Valley Network, Megan Gallagher

ID	Comment	Response
59.1	Multi-state rail upgrades essential for removing trucks from I-81 have not been studied, while $35 billion is available to the states to make such upgrades through the federal Railroad Rehabilitation Investment Fund, known as RIFF.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and

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Shenandoah Valley Network, Megan Gallagher

ID	Comment	Response
		assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. The Tier 1 EIS also describes possible sources of funding for rail improvements in Chapter 3, Improvement Concepts.

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Shenandoah Valley Pure Water Forum, Bruce Lundeen

ID	Comment	Response
60.1	...road pollution and toxic spills should be studied for environmental impact before any construction.	As discussed in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing, but antiquated BMPs, or areas altogether lacking BMPs, will be evaluated for updates during subsequent design efforts. The direct routing of surface runoff into karst features will be avoided, to the maximum extent possible. In addition, the I-81 "Build" concepts lie chiefly within "discharge" areas where groundwater is sustaining stream flow. This, coupled with the fact that the existing alignment will be used to some degree, would result in minor impacts to groundwater recharge areas. Based on the above discussion, relatively minor impacts to water quality are anticipated. Local, state, (Virginia Department of Emergency Management and Virginia Department of Emergency Quality) and federal government agencies (such as the U.S. Environmental Protection Agency) would respond to hazardous material spills on I-81. VDOT often acts as a support agency to one of these agencies by providing traffic control or materials to contain the spill.
60.2	We submit our study done in Shenandoah County, "Geographic Information System Application to Water Supply Protection in Karst Geology" on the potential of storm water channels from the highway to carry pollutants, especially toxic spills from the corridor transporters into ground water aquifers. Four of the six towns in Shenandoah County have public drinking water well recharge areas intersected by the existing highway. Storm water run-off channels from the highway need careful consideration with engineering designs developed to prevent the infiltration through sinkhole conduits or storm water run-off that impacts the recharge areas for the public drinking water supply aquifers in the whole valley. Before road construction environmental impact studies should determine engineering designs for detention ponds and other filter systems to prevent contamination of ground water supplies. This should include HAZMAT response capabilities to prevent toxic spills and road pollution enter in storm water discharges from the highway.	Please see response to Comment 60.1.

Letter 61

Sierra Club Virginia Chapter, James Wamsley

ID	Comment	Response
61.1	This DEIS fails to address fully the needs of the state, of the region, and the larger national economy over the design period 2006-2035. One cannot rebuild I-81 within Virginia from the Tennessee border to the West Virginia border without seriously affecting transportation in states to the south, west and north, as well as along the network of highways within Virginia. This DEIS's failure to address the regional picture in Tier 1 means that the larger conceptual issues of demand for regional transportation services, alternative regional solutions to satisfying demand, and regional impacts will be ignored throughout this tiered NEPA process, thus, completely violating the spirit of NEPA, as well as the requirements of NEPA as mandated by statute and by regulatory guidelines.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Sierra Club Virginia Chapter, James Wamsley

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
61.2	This DEIS fails to take into account factors such as fuel cost trends, trucking industry employment/recruitment, saturation in demand for consumer goods, and changes in the nature of consumer demand for goods. Because projected growth in truck traffic is the principal reason given for rebuilding I-81, the DEIS's failure to assess the functional relationship between such growth and the costs of fuel and labor means that the growth projections assumed are highly questionable.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
61.3	Such failures to consider critical economic factors must be corrected before this DEIS can become useful for informing the decision on whether to proceed to Tier 2 studies. Given the uncertainties of such factors, a wide range of scenarios describing future growth in transportation service demand within the corridor must be developed and analyzed with respect to alternative solutions.	Please see response to Comment 61.2.

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Sierra Club Virginia Chapter, James Wamsley

ID	Comment	Response
61.4	This DEIS takes a brute force approach of building more lanes, and fails to fully consider effective solutions to address the underlying I-81 heavy vehicle problem such as new heavy rail lines and streamlining freight carriage. The study correctly identified heavy vehicle (truck) growth far beyond design loading as the major contributing factor to congestion, accidents, and wear and tear, yet fails to adequately address this problem. The study does note valid concerns with sections of I-81 amounting to about 45 miles in each direction which need improvements to increase safety and which should proceed under any plan.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
61.5	This DEIS minimizes or ignores the negative impacts of the proposed I-81 build-out. For example, in analyzing the air quality impacts it fails to take into account the likely tightening of National Ambient Air Quality Standards (NAAQS) over the study period, while currently published scientific findings indicate the need for tighter PM2.5 and ozone standards to protect public health. Such tightening of NAAQSs for PM2.5 and ozone would put much of the corridor out of compliance for both pollutants today, and in the future under higher precursor emissions within the corridor, even with improved emission control technology. Moreover, the DEIS is seriously flawed in its failure to consider the impact of the proposed added capacity on the emissions of vehicles using the corridor once they leave the 500 ft half-width of the study corridor. Vehicles just don't stop emitting once they leave the corridor as this draft implies! Then to complete the fragmentation that so destroys the usefulness of this draft, it dismisses as "beyond its purvey" the impacts of its proposals on the nearby Shenandoah National Park, a Class 1 area under the Clean Air Act. Such fragmentation and failure to consider is found repeatedly in Chapter 5 of this DEIS.	EPA may decide to change the NAAQS for PM 2.5 and ozone which may, in turn, change the attainment status for these air pollutants in the I-81 study area. However, the air quality study for motor vehicle emissions was performed in compliance with current U.S. Environmental Protection Agency (EPA) modeling procedures. A detailed air quality analysis will be conducted during Tier 2. Any individual projects would have to conform to the NAAQS in effect at the time before they could be implemented. As indicated in Section 5.14 of the Tier 1 EIS, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).

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Sierra Club Virginia Chapter, James Wamsley

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61.6	A new DEIS must be developed that solves these identified overarching problems, and no decision to proceed to Tier 2 should be made until an adequate DEIS has been prepared. In developing this new DEIS we suggest that those preparing it identify clearly the decision makers being addressed (which specific decisions are to be decided by whom), and that they also pay attention to the following: Specific study problems: -No analysis of regionally coordinated heavy rail improvements or new buildout and truck diversion strategies sufficient to provide a solution to the heavy vehicle traffic problem -No consideration of the effect of rising fuel prices on future traffic projections, revenue and economic analyses. -Impacts beyond a zone of 500 feet from the highway are ignored including the increase in polluted storm water runoff and effects on the Chesapeake Bay, air pollution increases and resultant negative on human health including increased asthma, lung cancer, increase in noise pollution. -The effect of industrializing one of the nation's most beautiful rural interstate highways. -Increased safety problems created with a higher percentage of trucks sharing the road with passenger vehicle (truck traffic is predicted to increase much faster than passenger traffic) -Failure to consider the funding advantage for the rail alternative.	Please see responses to Comments 61.1 and 61.2. The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources, and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. A more detailed environmental analysis will be conducted during Tier 2, when site-specific information is available. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans.
61.7	Also not considered is the fact that rail upgrades can be funded with $35 billion in RRIF federal loans and can be repaid by the railroad.	The Tier 1 EIS describes possible sources of funding for rail improvements. See pages 3-9 and 3-10 of the Tier 1 DEIS. The Tier 1 EIS does state that there are no federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines as part of this study. This information was included because it is important that the public and the decisionmakers be aware of potential limitations to making rail improvements. The lack of federal highway funding categories for VDOT to implement rail improvements as part of this study, however, is not related whatsoever to the evaluation of the rail concepts. Rather, the rail concepts (and roadway concepts) were given due consideration in the study and were evaluated based on their ability to meet the transportation needs on I-81, as described in Chapter 2 Purpose and Need. Please refer to the response for Comments 61.1 for a discussion of why a multi-state rail concept is not reasonable in the context of this study. The evaluation of the Rail concepts was discussed in Chapter 3, Improvement Concepts of the Tier 1 EIS.

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Sierra Club Virginia Chapter, James Wamsley

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61.8	Because the DEIS failed to consider multi-state rail improvements, it exaggerated the need for future capacity. The DEIS projected trucking growth using low fuel prices and ignoring today's chronic truck driver shortage. The DEIS underestimates the effectiveness of rail by segmenting the route and assuming all continuing trips will be on I-81 (68% of all truck traffic on I-81 traverses VA and therefore is a candidate for rail). VDOT disregarded rail upgrades outside Virginia, rejecting a Knoxville to Harrisburg route. This route is long enough for intermodal trips.	While some short-term fluctuation is likely, historic fuel cost increases have not slowed traffic growth over the long term. Further, future fuel cost increases could be offset by advances in alternative fuel sources. NEPA regulations direct federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Future capacity is appropriately considered. First, even if all trucks could be diverted to rail, the majority of I-81 in Virginia would still need improvement by 2035. Second, while rail improvements were evaluated in Virginia only, all trips divertible to rail (generally greater than 500 miles) were considered. Trip routes are not segmented, therefore the appropriate level of detail for diversion exists. Further, the 68 percent referenced includes all truck trips defined as "through trips" - these are trips with neither an origin nor destination in the general study area, but they do not necessarily travel all 325 miles of I-81 in Virginia. In many cases, the 68 percent includes trucks traveling much shorter portions of I-81, even if their total trip length is greater than 500 miles. For example, an approximately 880 mile trip between St Louis, Missouri and Newport News Virginia is classified as a "through trip" on I-81, even though it's distance traveled on I-81 is limited to just 30 miles of the I-64/I-81 overlap. This is an example of part of the 68 percent of all truck traffic on I-81 traversing Virginia.

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Southern Environmental Law Center, Trip Pollard

ID	Comment	Response
62.1	...the deficiencies in the DEIS need to be remedied in a revised or supplemental DEIS for this study to satisfy the requirements of the National Environmental Policy Act (NEPA) and to serve as an effective tool for the assessment of improvements to the I-81 Corridor. NEPA requires a more complete examination of alternatives and impacts before a project or projects should go forward. In addition, since one of the most glaring omissions in the DEIS - the failure to consider interstate rail improvements as an alternative - will be the subject of a study the Virginia General Assembly has just mandated, the revised or supplemental DEIS should include the results of this study.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 Draft EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. During Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives

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		include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to

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		be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
62.2	The DEIS shows that the most serious safety problems are concentrated in a rather small portion of the roughly 325 miles of I-81 in Virginia, particularly the 8 miles that have crash rates more than twice the statewide average. (ES-iii, 2-7). In light of this finding, VDOT's planning efforts and state and federal taxpayers' funds would be better invested in solutions targeted to these particular problems. Yet the DEIS, having recognized the failure of corridor-wide solutions to address the needs of the entire corridor, for the most part proceeds to conduct just such an analysis.	The Tier 1 EIS indicates that no single CONSISTENT corridor-length concept satisfies the needs of I-81 in Virginia without providing more lanes than are needed, not that a corridor-length concept is not needed. In fact, a concept with a variable number of lanes most efficiently addresses the needs of the roadway. As discussed in Chapter 6, Tier 1 Decisions, along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
62.3	Much more should be done to document and distinguish between the role local traffic and through traffic play in causing congestion in the corridor. See, Report of Norman L. Marshall of Smart Mobility, Inc., filed by the Shenandoah Valley Network and the Coalition for Smarter Growth. In urban and urbanizing portions of the corridor, local traffic tends to play a much larger role in causing congestion; as a result, solutions reducing local traffic, such as improving local street networks, may be much more effective in these areas. The relative role of local and through traffic must be clearly spelled out for the DEIS to properly identify the need for improvements and to tailor alternatives to demonstrated need.	A purpose and need statement was appropriately developed for the entire 325-mile corridor of I-81. As the Transportation Technical Report outlines, the needs along I-81 are due to the increasing volume of regional car and truck traffic, regardless of origin or destination.
62.4	Estimates of capacity needs are based upon relatively high level of service (LOS) target standards - LOS B in rural areas and LOS C in urban areas. (2-5). Significant portions of interstates in Virginia and throughout the country do not have such a high level of service. VDOT and FHWA should conduct an alternative needs assessment based on a slightly lower LOS and model alternatives to gauge their ability to provide this LOS.	As stated in Chapter 2, Purpose and Need, A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), is used to provide the LOS standard for highways on the National Highway System, which includes I-81. The level of service standard for mainline operations of I-81 is LOS B in rural areas and LOS C in urban areas. The policies published by AASHTO were the result of proven engineering research and experience, based on studies conducted by FHWA, the National Cooperative Highway Research Program (NCHRP), state research laboratories, and universities. These recommendations are, therefore, reasonable criteria for a Tier 1 analysis. The proposed Tier 1 decisions do not preclude the Commonwealth from requesting a level of service exception from FHWA as part of the Tier 2 process.

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62.5	The lengthy time horizon used for modeling raises concerns about the reliability of the modeling and may lead to overestimating capacity needed in the corridor. As EPA has pointed out, projecting to 2035 is "much further ahead in time than typical traffic forecasting, and the Tier 1 DEIS provides little basis for describing how the projections were made." Comment letter from William J. Hoofman to John Simkins, FHWA, dated February 16, 2006. Many changes could occur in such a lengthy time period that would result in significantly less traffic demand than projected and thus reduce the need for additional capacity. We recommend that a shorter time period be used, or used in addition to the 30 year projection to increase the likelihood that decision-makers will act on the basis of accurate information. At the very least, the many potential inaccuracies in the forecast should be highlighted.	The Transportation Technical Report provides a detailed description of the chosen horizon year. The Federal Highway Administration requires the useful life of completed projects on the interstate system to be at least 20 years from the time construction is complete. It is anticipated that any construction projects progressed along I-81 could be complete by 2015; therefore 2035 is the future horizon year. NEPA regulations direct federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Notwithstanding, traffic forecasts will be reassessed and updated, as appropriate, for the Tier 2 NEPA studies for each SIU.
62.6	Even if a shorter time horizon were used, it is notoriously difficult to predict future economic growth, which will have a major impact on traffic growth in the corridor. Alternative projections of travel demand should be made based on several alternative economic scenarios in order to provide decision-makers with information regarding the sensitivity of traffic demand forecasts to economic growth assumptions and to better assess the need for capacity improvements and the effectiveness of various alternatives.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan (which include US Census population estimates). As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making.
62.7	Estimates of projected travel demand in the corridor also are likely to be incorrect because these forecasts fail to consider the impact of rising fuel prices. The projections of travel demand were extrapolated from a period based on much lower fuel prices than are present today, and there is growing indications that fuel prices will rise further in the future...it is critical to examine the sensitivity of demand forecasts to changes to assumptions which could greatly affect the need for additional capacity. The DEIS should highlight the potential impact of rising energy prices and the potential for further fuel price hikes on travel demand and modal choice...additional analyses should be conducted to assess the sensitivity of the data in the DEIS "particularly travel demand and congestion forecasts" to rising fuel prices.	Please see response to Comment 62.6.
62.8	Travel demand projections also could be inaccurate because of the failure to consider more than one set of assumptions of future land use...this is particularly a problem since FHWA and VDOT have selected a 30 year time horizon for this study. Modifications in the pace and location of land use development in and around the corridor could have a significant impact on travel demand and modal choice, particular since...the congestion problems that do exist and are projected to exist in the corridor are a combination of local and through traffic...a scenario analysis should be conducted to examine the impact on demand and congestion projections if different land use patterns emerge. For example, more compact development that provides greater proximity between residences and jobs could reduce the number and length of vehicle trips, reducing local traffic and congestion on I-81, suggesting that smarter growth policies should be explored to improve the performance of the corridor.	Please see responses to Comments 62.5 and 62.6. Further, NEPA regulations direct federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. It is impossible to predict whether local planning organizations might change their future land use forecasts and what those changes might be. Speculating on them would not contribute to informed decision-making.

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62.9	Estimates of diversion rates for trucks if the tolls considered in the DEIS to pay for the massive cost of the various Build concepts are adopted appear to be underestimated, as truckers and other transportation experts have noted. See, for example, Norm Marshall report. As a result, the DEIS overestimates the need for additional capacity on 81 if tolls are adopted and underestimates the need for additional capacity and other improvements to roads that would receive diverted traffic, such as Route 11, I-64, I-95, and Route 29.	The Tier 1 EIS estimates diversion based on the route vehicles are likely to divert to and the magnitude of the diversion. These estimates, in fact, correlate well to previous studies performed in the region that appropriately consider diversions from an improved I-81. Higher diversion rates noted in other studies occur because those studies assume tolls on I-81 and no improvement to the highway. In accordance with Section 1216(b) of TEA-21, improvements would need to be made to I-81 in order to toll the facility. Further, the Tier 1 EIS identifies 15 local routes (including Route 11) that are likely to see diversions due to tolls. U.S. Route 11 is a barometer for diversion impacts because this road has the highest existing volume and is expected to see about 50 percent of all toll-related diversion. It is important to note that many of these local roadways will also see improved traffic operations once I-81 is improved and drivers choose the interstate as a faster way to complete their trip. If tolls are implemented, a portion of this traffic (depending on the toll charged and which vehicles are tolled) will divert back to the local roadway system. Tier 2 NEPA analyses will examine impacts to all routes in greater detail as necessary. This includes impacts from tolls and impacts caused by construction. At that time, location-specific mitigation measures would be identified if needed.
62.10	Since no single alternative can address the needs of the corridor, a mix of alternatives carefully tailored to the different problems in different portions of the corridor should be the preferred alternative and there is no reason to place such heavy emphasis on the Build Alternatives. Moreover, NEPA requires lead agencies to consider reasonable alternatives even if they achieve, only partially, the objectives of a proposed action. See e.g., Natural Resources Defense Council v. Morton, 458 F.2d 827, 836 (D.C. Cir. 1972) (stating that an agency may not "disregard alternatives merely because they do not offer a complete solution to the problem"); North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533, 1542 (11th Cir. 1990) ("discussion of alternatives that would only partly meet the goals of the highway project may allow the decision-maker to conclude that meeting part of the goal with less environmental impact may be worth the trade-off with a preferred alternative that has a greater environmental impact").	A purpose and need statement was appropriately developed for the entire 325-mile corridor of I-81 and all reasonable concepts for this corridor-length study have been evaluated. The Tier 1 EIS considered many concepts that partially met the purpose and need (including Rail Concepts 1,2, 3, and 4 and several highway concepts as well as others). The Tier 1 EIS indicates that no single consistent corridor-length concept satisfies the needs of I-81 in Virginia without providing more lanes than are needed. It also states that a concept with a variable number of lanes between interchanges of the corridor most efficiently addresses the needs of the roadway. A variable concept would minimize the social, economic, and environmental impacts from consistent lane concepts and provide an opportunity to limit cost by not providing more lanes than are needed. A variable concept is, in fact, proposed to be advanced. The document also concludes that, while the TSM Concept alone cannot meet the purpose and need, there is still an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the TSM Concept. Localized alternatives would be evaluated during Tier 2 as necessary.

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62.11	One of the most glaring failures in the DEIS is the failure to consider the rail alternatives that could offer the greatest improvement to traffic in the I-81 corridor...Comments submitted by Rail Solution provide a far more detailed discussion of potential rail improvements. As VDOT and FHWA know from the limited studies conducted thus far, interstate rail improvements offer the greatest potential to reduce truck traffic on I-81 by diverting a significant portion of freight traffic to rail.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
62.12	Yet the DEIS fails to consider any interstate rail improvements since it flatly and arbitrarily rejects consideration of improvements that extend even one inch beyond Virginia's borders. The cursory two page memorandum that seeks to justify this limited review is attached as Appendix B to the DEIS. As explained more fully in comments submitted by Rail Solution, the Shenandoah Valley Network, and the Coalition for Smarter Growth, the rationales advanced in this memo are unpersuasive. NEPA requires an examination of reasonable alternatives, and this arbitrary cutoff effectively rules out some of the most promising alternatives for improving I-81. A supplemental or revised DEIS should include a thorough examination of the potential for interstate rail to at least partially satisfy the goals of this project. As noted previously, the Virginia General Assembly recently has directed that a comprehensive rail study be undertaken to examine "the conditions that would be necessary to divert the maximum amount feasible of the long-haul, through-truck freight traffic to intermodal rail in the Interstate Route 81 Corridor." At the very least, the revised or supplemental DEIS should include the results of this study.	Please see response to Comment 62.11. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

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62.13	The DEIS concludes that the Transportation System Management (TSM) alternative of safety improvements, truck climbing lanes, Intelligent Transportation System (ITS) elements, law enforcement, and park-and-ride projects does not satisfy the Purpose and Need by itself, and proceeds to marginalize this alternative. (ES-vii). The DEIS also largely ignores alternatives (such as improving local street networks and providing greater transit services) that could address local traffic and improve the corridor. ...the Purpose and Need must be refined further and at least the capacity need is overstated. If needs are identified more accurately, a TSM alternative - combined with a more realistic analysis of rail alternatives and steps to address local transportation - should be able to provide the improvements needed in at least some portions of the corridor. See Norman Marshall report. It certainly is premature -and an inappropriate use of tiering - to relegate TSM to merely potentially being included in some widening projects the DEIS puts forward. (ES-xv). ...a well-designed TSM alternative could address [safety] needs far more cost effectively and with far fewer adverse impacts than the Build Alternatives. The DEIS shows quite clearly that the vast majority of safety problems occur in a very small portion of the corridor. The deficiencies in these areas clearly should be corrected. Moreover, enforcement has a critical role to play. VDOT reported earlier this year that the total number of crashes decreased by 29% in the I-81 safety corridor near Roanoke in 2005 as compared to the previous year. ...there is no justification to move into Tier 2 with a primary focus on substantially widening I-81. The inadequate analysis of alternatives must be corrected and additional studies conducted on a more effective and less destructive combination of freight rail improvements, targeted improvements to I-81, enforcement, and improvements to local roads and mass transit services.	In accordance with the National Environmental Policy Act, the Tier 1 EIS evaluated a broad range of reasonable improvement concepts. These concepts included the No-Build Concept and 211 combinations of Transportation System Management, road improvements, rail improvements and various toll scenarios.The Tier 1 EIS does not dismiss the TSM Concept and concludes that, while the TSM Concept alone cannot meet the purpose and need, there is still an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the TSM Concept and are discussed in Chapter 6, Tier 1 Decisions.
62.14	The DEIS underestimates direct, indirect, and cumulative impacts by underestimating the diversion that is likely to result if tolls are imposed on I-81. Among other things, greater diversion would lead to congestion and increased wear and tear on other roads, increased costs to taxpayers, more serious impacts to communities, increased air pollution, and increased noise. All of these impacts are likely underestimated in the DEIS.	While some level of diversion to local roadways is expected, 5 to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on local roadways would not be substantially changed from 2035 No-Build conditions on those roadways. As a result, the discussion of direct, indirect, and cumulative impacts in the Tier 1 Final EIS is reasonable. Potential direct, indirect, and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed site-specific information is available.

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62.15	The impacts on battlefields and other historic resources are underestimated, as described in comments by the National Trust for Historic Preservation, Shenandoah Valley Battlefields Foundation, Civil War Preservation Trust, and others. The failure to adequately consider these resources raises serious issues about whether FHWA is discharging its obligations under Section 4f of the Department of Transportation Act and Section 106 of the National Historic Preservation Act.	Section 5.6, Parks, Recreation Areas, and Open Space Easements; has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park. Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources

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		outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods

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		used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.
62.16	There is virtually no analysis of the impact on the unique cultural resources of the region, including resources connected with the tradition of yeoman farming.	During the formal Section 106 process for individual projects conducted during Tier 2, potential impacts to unique cultural resources will be addressed as appropriate.

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62.17	Water quality impacts have not been adequately assessed, including the failure to consider the potential impacts on ground water due to the fragile karst geology in many areas	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for determining impacts and identify the appropriate site-specific strategies for avoiding or mitigating impacts to environmental resources, such as karst features or caves.

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Southern Environmental Law Center, Trip Pollard

ID	Comment	Response
62.18	The analysis of air quality impacts is grossly inadequate. Many comments have mentioned the failure to adequately take into account the topography of the area. In addition, the DEIS underestimates air pollution by considering a limited number of the air pollutants emitted by vehicles. The study should be expanded to consider carbon monoxide, sulfur dioxide, air toxins, and carbon dioxide. In addition, the DEIS almost completely ignores the health impacts of air pollution, impacts on Shenandoah National Park, and pollution during construction (which could last 10-20 years), uses questionable assumptions to minimize the calculations of emissions for the pollutants it does consider, and largely overlooks air quality problems that already exist in the region.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented. In addition, Sections 4.9 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts. The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their SIP.
62.19	The analysis of the direct land use impacts of the alternatives is inadequate. Among other things, limiting the study area to a 500 foot wide area measured from the outside edge of I-81 will not capture the land use impacts of the Build Alternatives, especially around interchanges. The comments of the Shenandoah Valley Network and the Coalition for Smarter Growth raise a number of other problems with the land use analysis in the DEIS.	The width of the study area used in the Tier 1 Draft EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000 foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." Finally, Section 5.11, Noise, in the Tier 1 Draft EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81.

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Southern Environmental Law Center, Trip Pollard

ID	Comment	Response
62.20	The DEIS fails to adequately consider the indirect impacts of various alternatives on land use. Federal regulations clearly recognize that "Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate..." 40 C.F.R. § 1508.8(b). Yet the DEIS only spends about half of one page on this important issue, simply concluding: "Generally, potential indirect impacts to land use would be limited because the "Build" concepts would not be creating a new transportation facility on a new location, but would be implementing improvements to an existing facility." (5-84). There is no justification advanced for this position, nor is one likely to be available. The businesses and residences displaced will need to relocate somewhere. Moreover, experience and evidence have shown that induced development is not limited to new transportation facilities at a new location. Expanding existing highways similarly spurs new development. The DEIS then goes on to suggest that where increased development pressures might occur, "local governing bodies control the land use within their jurisdictions. As such, any induced development would be regulated by the localities in the study area..." (5-84). This issue cannot be dismissed by dumping it in the lap of local governments. Although it is correct that localities regulate land use, it is also the case that investing billions of dollars in certain build alternatives will create tremendous pressure to change land use. This attempted dodge highlights the fundamental disconnect transportation and land use that Governor Kaine, the General Assembly, and the Commonwealth Transportation Board have all indicated needs to be addressed.	For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. The potential indirect impacts to land use are based largely on communication with local planning officials in each county in the I-81 study area. Planning officials were queried concerning the potential for any of the "Build" concepts to induce development Generally, potential indirect impacts to land use would be limited because the majority of the "Build" concepts would not be creating a new transportation facility on a new location, but would be implementing improvements to an existing facility. Additionally, many of I-81's access points are already developed. However, the Tier 1 EIS acknowledges that the land use category that may be most affected by induced development along I-81 is agricultural land. Where the "Build" concepts encourage development, a possible indirect impact to land use includes a reduced value of agricultural land adjacent to newly-developed land. Despite any potential development pressures concerning agricultural land, local governing bodies control the land use within their jurisdictions. As such, any induced development would be regulated by the localities in the study area through their zoning ordinances and comprehensive plans. Potential indirect effects would be evaluated in greater detail in Tier 2 when more detailed information on travel lane and interchange configurations is available. At that time, additional coordination would occur with officials in each county.
62.21	...the DEIS suggests that a large amount of the analysis of the potential adverse impacts of the Build Alternatives should be deferred to Tier 2. It is consistent with a tiering approach to conduct more detailed analyses in Tier 2 environmental documents if any concept is carried forward for implementation. Yet it also appears that many of these impacts will not be studied since FHWA and VDOT express the intent to proceed in Tier 2 only with Categorical Exclusions (CE) or with Environmental Assessments (EA). (ES-xvi, 6-5). This is not acceptable. As EPA has noted, "even from the limited social and natural resource impact information contained in the Tier 1 DEIS, ...EISs will likely be required for some of the Tier 2 projects." The DEIS should be revised to abandon the push for minimal environmental review; instead, FHWA and VDOT should commit to undertaking full environmental studies if any concept is carried forward to Tier 2.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, during Tier 2, EAs are proposed to be prepared for each SIU. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.

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Valley Conservation Council, John Eckman

ID	Comment	Response
63.1	The DEIS has not fully considered the potential benefits of rail alternatives. VDOT should proceed with Tier 1 after the results of the General Assembly's mandated truck-to-rail study are available for consideration. With this rail study in hand, VDOT should incorporate its results and the public input and rework the Tier 1 draft. VDOT should provide a supplemental EIS to provide full consideration of reasonable alternatives and to ensure a high quality public input process.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Valley Conservation Council, John Eckman

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

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Valley Conservation Council, John Eckman

ID	Comment	Response
63.2	In light of both the Governor's recent call to meet the mandated Chesapeake Bay agreement and protect an additional 400,000 acres of land by 2010 and of the recent report from American Rivers citing "runaway development" as one of the greatest threats to the health of the Shenandoah River, VDOT should fully consider the broader impact of interchanges and other spinoff development on the Valley's landscape.	Section 5.14, Indirect Impacts of the Tier 1 Draft EIS examines the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect effects would be evaluated in greater detail during Tier 2 when more detailed information on travel lane and interchange configurations is available. At that time, additional coordination would occur with officials in each county.
63.3	Beyond the very obvious impact of construction on numerous historic sites including Civil War battlefields and as yet unidentified archaeological resources, diversion of traffic from road construction and tolls will adversely impact efforts to create scenic driving trails incorporating Route 11.	The implementation of a low toll on an improved I-81 would gradually shift traffic to the local roadway network, although, in most locations, traffic volumes would still be below 2035 No Build predictions. The implementation of higher tolls on an improved I-81, however, would result in slight increases in local traffic throughout much of the study area as compared to the No-Build condition. Even though about half of the diverted traffic would go onto U.S. Route 11, the resulting increase is slight as compared for the No-Build condition for this type of roadway (a rural principal arterial) and the overall impact would be low. The remaining traffic diverted from I-81 would be distributed among other local roadways, as well as other interstates (i.e. I-64 and I-95), and the actual traffic impacts on these roadways from the number of additional vehicles would be low as well.

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Virginia Association for Parks, Johnny Finch

ID	Comment	Response
64.1	...the study is fundamentally and fatally flawed in its approach to the rail component. The study's view of the problem and the solution as being constrained within Virginia's borders is neither prudent nor realistic...a multi-state rail approach must be one of the considered options.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Virginia Association for Parks, Johnny Finch

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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Virginia Association for Parks, Johnny Finch

ID	Comment	Response
64.2	...any plan should include a complete study and mitigation of the impact it will have on the numerous historic resources of the Shenandoah Valley including Cedar Creek Battlefield and the historic sites of the Shenandoah Valley Battlefields National Historic District.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Virginia Association for Parks, Johnny Finch

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Virginia Association for Parks, Johnny Finch

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.
64.3	We question the adequacy of the study's assessment of related impacts on the state parks and natural areas along the I-81 corridor.	Information presented in this Tier 1 EIS is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts.

Letter 65

Virginia Association of Railway Patrons, Michael Testerman

ID	Comment	Response
65.1	The DEIS needs to give more study to the microclimate directly surrounding the Interstate.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. Mitigation measures for air quality impacts would be assessed during Tier 2, as necessary. In addition, Sections 4.9 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.

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Virginia Association of Railway Patrons, Michael Testerman

ID	Comment	Response
65.2	In discounting the effectiveness of Virginia-only rail upgrades in diverting meaningful quantities of trucks off I-81, the DEIS assumes that rail improvements stop at our borders. Yet the analysis fails to acknowledge that traffic growth on the Virginia segment of I-81 will require capacity upgrades in adjoining corridor states. This is one of many examples of a road bias found throughout the DEIS. The DEIS focuses mostly on freight volumes but there is the underlying assumption that Interstate upgrades will also handle passenger vehicle increases. There is no acknowledgement that rail upgrades can also handle passenger trains. The improvements found in Rail Concept 3 will actually handle several thousand daily commuters in the Haymarket-Manasses I-66 corridor. Rail Concepts 3 and 4 upgrades will handle as many as 5,000 passengers per day on the TransDominion Express route that parallels I-81 and US-29. We encourage VDOT to consider both passenger and freight capacities when evaluating rail upgrades in state transportation corridors.	Existing and planned commuter rail service is discussed in Section 3.5, Existing Railway Infrastructure, in the I-81 Corridor Improvement Study Transportation Technical Report (see Errata Sheet). Passenger service is provided by third party carriers and, therefore, leased from Norfolk Southern or CSX rail lines. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. This conclusion has been reaffirmed. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. These improvements may accommodate passenger rail service, such as the Transdominion Express. However, as described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail

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Virginia Association of Railway Patrons, Michael Testerman

ID	Comment	Response
		Study and is independent of this tiered environmental process. While the a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, in Tier 2.

Letter 66

Virginia Forest Watch, Sherman Bamford

ID	Comment	Response
66.1	Because of the presence of extensive forestlands on both sides of I-81, VDOT should make every possible effort to provide black bears, other large mammals, reptiles, amphibians, small mammals, and other wildlife with a safe passage from one side of I-81 to the other side.	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.
66.2	Avoidance of potential suitable habitat, or exclusion from potential suitable habitat and loss of genetic diversity are two of the indirect impacts of these highways and surrounding developments ...consider alternatives that provide constructed wildlife corridors...examine the latest science regarding wildlife utilization of constructed wildlife corridors and to only build those types of corridors that have been proven safe and effective for wildlife.	Please see response to Comment 66.1.
66.3	VDOT should only consider alternatives that fully protect source water, springs, seeps, underground aquifers, karst, sensitive soils, riparian areas, other water and soil resources, and wildlife and native plants that rely on these resources. These are numerous around existing I-81. Expansion of I-81 should be avoided in areas where these resources cannot be protected.	As stated in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Detailed impacts to water quality are dependent on specific engineering design details and such an impact analysis would be completed during Tier 2.
66.4	VDOT should only consider alternatives that fully protect Virginia's great trails, including the Appalachian Trail, the New River Trail, the Transamerica Bicycle route and other trails and greenways near the I-81 corridor.	Incorporation and protection of existing or planned bike trails in the area are more appropriately considered during Tier 2 because they involve roadway design beyond the conceptual engineering that was performed in Tier 1.
66.5	VDOT should address and reduce the cumulative impacts of sprawl and secondary development.	Section 5.14, Indirect Impacts, and Section 5.15, Cumulative Impacts, discuss potential indirect and cumulative effects of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. In Tier 2, potential indirect and cumulative effects would be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations.
66.6	VDOT should analyze and disclose to the public the role of this highway in relationship to the North American Free Trade Agreement (NAFTA), the Free Trade Agreement of the Americas (FTAA), and other instruments of economic globalization that facilitate exploitation by transnational corporations at the expense of building stronger, local, sustainable economies. To what degree is this project a subsidy by the federal government to transnational corporations? What additional subsidies will state and local governments provide to transnational corporations (tax breaks, special deals, infrastructure and access provided at below-cost) along the I-81 corridor? Is the proposed expansion of I-81 designed to ship goods to or from any countries (e.g. Canada, overseas, Atlantic ports) with lower labor, environmental or consumer standards? Will an expanded I-81 lead to erosion of local or US wages as a result of easier sourcing from low wage countries or countries with lower environmental, labor or consumer standards?	These issues are outside the scope of this Tier 1 EIS.

Letter 66

Virginia Forest Watch, Sherman Bamford

ID	Comment	Response
66.7	How will the project exacerbate the loss of tree cover in the Roanoke Valley and other portions of western Virginia?	Forest cover is the least potentially affected land use category within the I-81 corridor, with the majority of impacts occurring south of Rockbridge County. From Botetourt County to the Tennessee state line, the Minimum Width footprint would potentially affect 766 acres and the Maximum Width footprint would potentially affect 1,126 acres. At the county level, Frederick County would experience the most impacts to forest cover. A more detailed environmental analysis will be conducted during Tier 2, when site-specific information is available.
66.8	There are economic costs associated with the removal of tree cover associated with I-81 expansion, surrounding secondary development, and similar projects...The report also mentions the benefits of other air and water quality improvement, enhanced wildlife habitat, energy conservation, greenhouse gas sequestration, and improved quality of life. These costs should be calculated for the project and factored into the cost-benefit analysis.	As indicated in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (specifically, in 40 CFR 1502.23), for purposes of complying with NEPA, the merits and drawbacks of the various potential improvement concepts need not be displayed in a monetary benefit-cost analysis, and typically are not, especially when there are other important considerations that are relevant to the decision.

Letter 67

Virginia Organizing Project, Janice Johnson

ID	Comment	Response
67.1	We encourage VDOT to do a complete multi-state rail analysis, then rewrite the Draft Environmental Impact Statement (DEIS).	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Virginia Organizing Project, Janice Johnson

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 68

Virginia Trucking Association, P. Dale Bennett

ID	Comment	Response
68.1	The Virginia Trucking Association is certain that the imposition of tolls to use I-81 will cause diversion of a significant number of trucks onto alternative routes along the I-81 corridor and other interstates in Virginia. These routes are less suited to handle increases in truck traffic due to currently existing congestion or design issues. Two studies, including one conducted for the Commonwealth, support our conclusion that diversion will occur. However, since the submission of their proposal and, most recently at the DEIS public meetings, representatives of STAR have claimed that the imposition of tolls on I-81 will result in only minimal diversion. But, they do not present any studies or analyses to support their claim.	The two studies referenced (completed by Reebie and ALK Associated for ATA and DRPT) use fundamentally different methodological assumptions - the most important of which are (1)Both studies assume tolls are charged with no corresponding I-81 improvements (2)Both studies are based on current traffic volumes, speeds, and geometric constraints and (3)Neither of the previous studies assume independent increases (which will occur over time) in congestion on the routes they indicate motorists would divert too. The combination of these three factors, along with other nuances, drives the expected diversion higher. The Tier 1 EIS analysis supports the statement that if I-81 was tolled AND no improvements were made to I-81, diversion estimates would be higher. However, tolls would absolutely not be allowed if the highway were not improved. The diversion analysis presented in the Tier 1 EIS (which is a study independent of the proposed plans by STAR) assumes that the capacity and safety of I-81 is improved by a future year of 2035. This improved condition is expected to divert about 5 to 15 percent of traffic from local roadways to I-81. As tolls are implemented, vehicles will begin to divert back to local roadways. However, when compared to the 2035 No-Build traffic projections on these local roadways, the diversion increase (if any) is minimal for most scenarios. The supporting analysis for the conclusions summarized in the Tier 1 EIS Executive Summary can be found in accompanying supporting documents - the Transportation Technical Report, Toll Impact Study, and Freight Diversion and Forecast Technical Report.
68.2	The DEIS concludes, "However, the diversion of traffic (regardless of toll scenario) is relative low." We strongly disagree with this conclusion, especially when viewed in terms of the increased numbers of trucks that will be using other roads to avoid tolls on I-81. We are certain that the residents who use the roads that will experience significant increases in the number of trucks diverting from I-81 do not view the impact of the diversion as "relatively low."	The DEIS does not conclude that diversion of traffic is low regardless of toll scenario. In fact, the Toll Impact Study and Transportation Technical Report state that substantial diversions could be expected if a high toll rate were imposed on commercial vehicles only. While some level of diversion to local roads is expected, 5 to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made.
68.3	...we believe the DEIS has grossly underestimated the degree of diversion that will occur. The study assumed that while $10 billion to $11 billion worth of improvements will be made to I-81 by 2035, the alternative routes will not be improved at all, or will be improved minimally. The study further assumes that traffic levels on all routes will continue to grow. This assumption distorts the relative attractiveness of alternative routes, many of which are assumed to be congested as a result of increased traffic combined with no or little improvement, versus I-81, which is assumed to be free-flowing due to an assumed investment of up to $11 billion.	The EIS assumptions made with respect to roadway improvements are fully consistent with NEPA procedures and FHWA policies. Only planned, funded improvements or projects can be assumed when comparing the benefits of the study's improvement concepts. I-81 is assumed to be improved because tolls can only be applied to I-81 if it is improved. Over the next 30 years, traffic volume will increase on I-81 and on all surrounding local routes. As I-81 becomes more congested, motorists (especially those making local trips) will seek alternate routes on local roadways to complete their trip. Improvements made to I-81 would aid in keeping regional traffic off the local roadway infrastructure, as an improved I-81 would continue to provide a faster trip time.
68.4	...there will be insufficient truck traffic to support the tolls and pay for the bonds. STAR Solutions has already admitted that its proposal has a significant funding shortfall.	The NEPA process is completely separate and independent from the PPTA process. Tolls could only be implemented after completion of the Tier 2 NEPA process for a particular SIU. An act of the Virginia legislature would be required in order to toll passenger vehicles on I-81.

Letter 68

Virginia Trucking Association, P. Dale Bennett

ID	Comment	Response
68.5	According to VDOT, negotiations between VDOT and Star Solutions do not include the design of the improvements. Therefore, it is difficult to offer comments regarding the plans for I-81. The design and scope of the improvements is likely to be very different from what Star Solutions proposed. Therefore, the project should be re-opened to the competitive bidding process or new PPTA proposals accepted.	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor.

Letter 69

Form Letter 1

ID	Comment	Response
69.1	VDOT's economic conclusions do not even include the impact of tolls, while at the same time indicating that the widening cannot be achieved without tolling.	An appropriate assessment of the economic impacts from tolls has indeed been conducted. Please see the Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. More detailed economic impacts of individual projects would be analyzed during Tier 2.
69.2	VDOT's traffic growth projections for I-81 fail to account for recent fuel cost increases or to recognize that the trucking industry continues experiencing an acute driver shortage.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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Form Letter 1

ID	Comment	Response
69.3	The DEIS rejected an innovative rail alternative that would shift truck freight off of the interstate and onto rail, because the study limited analysis of rail improvements to inside Virginia. Narrowing proposed rail improvements to in-state only dooms any rail alternative to failure, because diversion will only be significant with long-haul trucks traveling more than 500 miles. The railroad from Knoxville to Harrisburg meets that criterion.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Form Letter 1

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
69.4	Lack of funding is another reason cited for not considering rail more seriously. But the DEIS ignored the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress.	The Tier 1 EIS does state that there are no federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines as part of this study. This information was included because it is important that the public and the decisionmakers be aware of potential limitations to making rail improvements. The lack of federal highway funding categories for VDOT to implement rail improvements as part of this study, however, is not related whatsoever to the evaluation of the rail concepts. Rather, the rail concepts (and roadway concepts) were given due consideration in the study and were evaluated based on their ability to meet the transportation needs on I-81, as described in Chapter 2 Purpose and Need. Please refer to the response to Comment 69.3 for a discussion of why a multi-state rail concept is not reasonable in the context of this study. The evaluation of the Rail concepts was discussed in Chapter 3, Improvement Concepts of the Tier 1 EIS. The Tier 1 EIS describes possible sources of funding for rail improvements. See pages 3-9 and 3-10 of the Tier 1 DEIS.

Letter 69

Form Letter 1

ID	Comment	Response
69.5	We should identify highest priority safety hazards along I-81, and construct improvements to eliminate the hazards...VDOT should also determine areas where trucks-only climbing lanes are needed. These should qualify for funding under the SAFETEA-LU $100 million earmark.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

Letter 70

Form Letter 2

ID	Comment	Response
70.1	...VDOT's study fails to consider a comprehensive alternative that would cost less and protect our communities.	The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures.
70.2	The General Assembly this session passed HB 1581, mandating a multi-state study of ways to divert up to 60 percent of the long-haul, through-truck freight traffic to intermodal rail in the Interstate Route 81 Corridor. VDOT should wait for the results of this study and incorporate it into the Tier I draft Environmental Impact Statement (EIS) for I-81, before completing the Tier I study.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 71

Form Letter 3

ID	Comment	Response
71.1	...wait for the I-81 Corridor Multi-state Rail Feasibility Plan to be completed, then review this critical analysis and issue a supplemental DEIS.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 72

Frank Albrecht

ID	Comment	Response
72.1	...make a supplemental EIS taking into account all proposed solutions to the I-81 problem, including rail, and also considering all impacts...	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 73

F. James Bailey, Jr.

ID	Comment	Response
73.1	If I-81 is reconstructed with tolls as the major revenue source I can assure you that traffic will divert from the toll road onto highways such as Routes 11, 15, 29, and 340. Without improvements, how will these alternate routes handle the increased traffic volume?	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.
73.2	A decade ago I attended public hearings regarding improvements to I-81. These improvement addressed the need for additional "at-grade" climbing lanes for trucks as well as expanded acceleration and deceleration lanes at major interchanges- what happened to those plans?	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
73.3	Negotiations between VDOT and Star Solutions did not include the design of improvements; therefore, how can the PPTA process go forward?	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor.

Letter 74

Madison Brown

ID	Comment	Response
74.1	...issue a reader/citizen friendly explanation of the specifications (and their origins) and findings of the EIS to date and what is to come.	The Executive Summary discusses the findings contained in the Tier 1 Final EIS.

Letter 75

Davis S. Cangalosi

ID	Comment	Response
75.1	...wait for the results of the study mandated by HB 1581 before making any decisions.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 76

Jim Hanger

ID	Comment	Response
76.1	I also oppose the environmental impact study only extending 500 feet to either side of the roadway. This is completely ridiculous and devious in the extreme.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources, and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans.

Letter 77

Mark and Sara Hollberg

ID	Comment	Response
77.1	Take the time to do more studies. We need more information on the full range of options (such as truck to rail on a multi-state level).	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 77

Mark and Sara Hollberg

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
77.2	The public came out strongly against the conclusions of the DEIS. The study should be revised to address their concerns and more opportunities should be offered for public input.	The proposed decisions discussed in the Tier 1 Final EIS were made with consideration of the information presented or referenced in that document and the comments received during the Tier 1 NEPA process. During Tier 2, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by the Federal Highway Administration. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 77

Mark and Sara Hollberg

ID	Comment	Response
77.3	We request that state leaders work with affected communities and with adjoining states to undertake a broad-based scoping process to come to some agreement on the goals and guidelines for the project. Only then should the plans be drawn up.	The proposed decisions discussed in the Tier 1 Final EIS were made with consideration of the information presented or referenced in that document and the comments received during the Tier 1 NEPA process. This Tier 1 Environmental Impact Statement identifies the current and future need for increased capacity and improved safety along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of conceptual-level improvements in addressing those needs. The Tier 1 EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements and various toll scenarios.

Letter 78

Jeff Holsinger

ID	Comment	Response
78.1	The standards of service in the rural areas are higher than in the urban areas. This doesn't make sense...	As stated in Chapter 2, Purpose and Need, A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), is used to provide the LOS standard for highways on the National Highway System, which includes I-81. The level of service standard for mainline operations of I-81 is LOS B in rural areas and LOS C in urban areas. The policies published by AASHTO were the result of proven engineering research and experience, based on studies conducted by FHWA, the National Cooperative Highway Research Program (NCHRP), state research laboratories, and universities. In general, increased congestion and delay in urban areas is commonplace, therefore lower standards are accepted.
78.2	...the Sections of Independent Utility are divided in Rockingham County at Route 33 and Exit 247. This should be moved to Exit 257 or even Exit 262. That way, the entire Harrisonburg MPO can be dealt with consistently and adequately.	As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the logical termini of an SIU. Identifying the termini of SIUs on this basis would mean that congestion would not merely be moved to the next section of the highway. One method to determine a logical breakpoint is to identify substantial differences (i.e., 20 percent or greater) when comparing the predicted 2035 traffic volumes on I-81 on one side of an interchange to the predicted traffic volumes on I-81 on the other side of an interchange. Another method of determining a logical breakpoint is to identify where the predicted traffic volumes on I-81 interchange ramps were substantial (i.e., a total of 3,200 vehicles on all the ramps), even though the predicted traffic volumes on I-81 on either side of the interchange may not be substantially different. Exits 257 and 264 do not meet these criteria on traffic volumes and are, therefore, not used as logical termini for the SIUs.

Letter 79

Rae Lynn Kasdan

ID	Comment	Response
79.1	...I hope you have looked into the issue of air quality in Shenandoah National Park, which is already one of the worst in the national park system.	The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).

Letter 80

Brian Kelley

ID	Comment	Response
80.1	If Virginia must raise this revenue, why not raise the 14 cent fuel tax and then use the fuel tax revenue for highway improvements and maintenance as it should instead of going to the general fund. Highway use tax and fuel taxes should only be used for the construction and maintenance of our highways and proper budgets could allow the money to be allotted for the needed improvements.	These issues are outside the scope of the NEPA process and are the responsibility of the Virginia General Assembly to address.
80.2	...if tolls are allowed, I see nowhere a mention of when the tolls are to be dropped. If the roads cannot be funded in any other way (which we have already discussed they can) then we MUST stop the tolling the minute that roadway is paid for.	This issue is outside the scope of this Tier 1 EIS. If tolling is implemented, FHWA and VDOT will enter into an agreement that addresses the period of toll collections and the plan for the facility to become a free facility at the end of the toll collection period.
80.3	One other faction to look at on this issue of truck tolls is this: what are we doing to address the parking issue of trucks? Is the toll going to somehow create the hundreds if not thousands of parking spaces that will be needed by 2025? If trucks are forced onto secondary roads the answer is no.	As indicated in Section 5.14, Indirect Impacts, impacts along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.

Letter 81

Anita Kersch

ID	Comment	Response
81.1	...postpone this megaproject until after the House Bill 1581 feasibility study on putting trucks on trains in completed, then you need to to more than comment, you need to have this draft study re-done.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 82

Anita Kersch

ID	Comment	Response
82.1	...postpone this megaproject until after the House Bill 1581 feasibility study on putting trucks on trains in completed, then you need to to more than comment, you need to have this draft study re-done.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 83

Don Kersch

ID	Comment	Response
83.1	...postpone this mega project until after House Bill 1581 feasibility study on putting trucks on trains is completed, then you need to do more than comment, you need to have this draft study re-done.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 84

Ronald J. Kovatch

ID	Comment	Response
84.1	How about improving the overall safety and environmental impact, by advocating better safety standards, regulations and policies, and mandating improved gas/diesel engines that give off lower emissions and get greater gas mileage.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. These suggested issues are outside the scope of this I-81 Tier 1 EIS.

Letter 85

Tesi K. Lamb

ID	Comment	Response
85.1	The environmental impact study does not seem to address... the affects of run off from the massive amounts of pavement and the pollution that will result.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.

Letter 85

Tesi K. Lamb

ID	Comment	Response
85.2	The DEIS indicates that not enough truck traffic will be diverted by adding a rail component. However, only truck traffic within the boundaries of Virginia was considered. Much of the truck traffic is long haul that passes through the state without stopping and would benefit from rail.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts and similar to previous rail studies (which indicated that rail divertible trips had to have a length of 500 miles), the freight movements considered in the Tier 1 EIS included all movements of freight that use the I-81 corridor in Virginia regardless of their origin and destination (including out-of-state origins and destinations). Freight diversion was examined for two separate cases, a macro analysis for trips greater than 500 miles, which could divert to rail or other roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to other local roadways. Furthermore, there was substantial coordination with Norfolk Southern, the Virginia Department of Public and Rail Transportation, and the Federal Railroad Administration on the methodologies and assumptions used to determine divertibility of freight to rail. The traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 86

Malcolm Livick

ID	Comment	Response
86.1	...We would hope that you would look at not only a rail solution through Virginia, but would be able to cooperate with Tennessee and Pennsylvania in the plan proposed by Rail Solutions.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 86

Malcolm Livick

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 87

Nicholas MacNeil

ID	Comment	Response
87.1	VDOT should wait for the results of the HB 1581 rail feasibility study and include that in a supplemental Tier 1 Environmental Impact Study before making its recommendation to the Commonwealth Transportation Board.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 88

Nicholas MacNeil

ID	Comment	Response
88.1	A supplemental EIS is needed which includes long distance intermodal rail before VDOT holds public hearings again and before it recommends and to the Commonwealth Transportation Board.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 89

Joan G. Marshall

ID	Comment	Response
89.1	Another economic boost for coastal cities: Swift seagoing barges are coming Likely to be launched in three years, fast, stable barges will each ferry hundreds of big truck trailers up and down the Atlantic and Pacific coasts. Such short-seas shipments are expected to be a cost- and time-effective alternative to long-haul trucking on crowded highways." My question: Is VDOT aware of this planned program to introduce a more cost-, time-effective, and environment friendly alternative to long-haul trucking on crowded highways in Viiginia? If so, how did this information impact VDOT's Plan in committing to immediate, massive, expensive, and such high impact changes to Interstate 81?	For the freight analysis, the Tier 1 EIS followed procedures for freight forecasting established by the Federal Highway Administration and by other researchers in the field. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While changes in freight transportation by barge could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking.

Letter 90

Thomas P. Nelson

ID	Comment	Response
90.1	Is regulating large truck traffic to use the right lane (slower lane) throughout I-81 (in VA) an option...? Is the current technology for recording commercial truck speeds...a possibility for reducing truck to the speed limits on our highways?...Will a law to keep large trucks from passing from the slower lanes unless the faster lane is clear and the truck in front is below the speed limit?	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement is not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction. Prohibition of trucks in the left lane would require action by the Virginia General Assembly.

Letter 91

Bonnie Powell

ID	Comment	Response
91.1	It is imperative that this megaproject be put on hold until House Bill 1581 finishes the feasibility study of putting tracks on trains. The "draft" study must be re-done.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 92

A. Erskine Sproul

ID	Comment	Response
92.1	The solution would be a multi-state balanced-transportation plan involving trucks on trains. Local truck deliveries would still use I-81, but longer distance could go by trucks on trains, preferable on the east side fo the Blue Ridge Mountains. Land in that area is more amendable to right of way and grading. Funds could be diverted from interstate infrastucture to roadbed-grading for rail. It would probably be cheaper and the same contractors could be used.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 92

A. Erskine Sproul

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 93

Hugh Sproul

ID	Comment	Response
93.1	VDOT failed to consider a 500 mile rail line from Knoxville to Harrisburg which would make intermodal transfer to rail a viable alternative to throughput trucking.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 93

Hugh Sproul

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
93.2	VDOT needs to work with the USDOT and the Congress to create a new interstate highway along the US 29 corridor from Greensboro where it would connect with I-85 and I-40 to Frederick where it would connect with I-270 and I-70. From there it could be continued on to York or Harrisburg. This expansion of the Interstate System would provide more flexibility to travelers and truckers and relieve the pressure on I-81.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.

Letter 94

George K. Taylor

ID	Comment	Response
94.1	Another approach is to improve alternative corridors such as Route 29. That would spread out the burden and provide more efficient access to other communities.	Upgrading U.S. 29 so that it is a continuous four-lane divided highway is outside the scope of this Tier 1 EIS.

Letter 95

Dirk van Assendelft

ID	Comment	Response
95.1	Predictions of future growth in traffic do not take into account the impact of higher gas prices. Given the increased fuel costs inevitable over the next 30 years, traffic growth may very well be NEGATIVE in the I-81 corridor between now and 2035.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
95.2	There is no analysis of adding tolls to the existing corridor in combination with rail enhancements. Doing so may well keep traffic growth in check so that the existing corridor can meet traffic needs into 2035.	It is contrary to Federal law to toll an existing roadway without also providing improvements to that roadway.

Letter 95

Dirk van Assendelft

ID	Comment	Response
95.3	Although the study accurately points out that a NEPA analysis cannot be conducted in other states, if fails to encourage dialogue between Virginia and other states in the I-81 corridor to jointly address traffic growth issues. The I-81 "problem" is a multi-state issue, and should be addressed as such. At a minimum, VDOT should not move forward until the Multi-Sate Rail Feasibility study is completed.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 95

Dirk van Assendelft

ID	Comment	Response
95.4	The DEIS predicts that traffic will increase, yet fails to propose or suggest any ways of controlling that growth, such as tolls in specific sections, increased diesel fuel taxes, limited additional lanes, tax credits for multi-modal transport, increased/decreased speed limits as appropriate, and tax relief or tax credit for rail companies. All the rail options are ruled out as "not effective". However, no scientific basis for this conclusion is given.	The majority of the means in which traffic growth could be reduced is speculative and, therefore, cannot be incorporated as part of a I-81 Tier 1 EIS. There is no evidence that can be used to confirm assumptions on the reduction of traffic from increased taxes or tax incentives. In areas where these measures are currently implemented successfully, growth reductions of about 10 percent or less are seen. This reduction is not enough to substantially change the corridor needs in 2035. The Tier 1 EIS does, in fact, show that tolls would reduce traffic growth along some areas of I-81. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 95

Dirk van Assendelft

ID	Comment	Response
95.5	The DEIS does not address the increased air, water, and noise pollution from the construction of the proposed mega-highway. The DEIS also does not adequately recognize the impact of the proposed solution on air and noise quality through the corridor.	The 1990 Clean Air Act Amendments (CAAA) and the Virginia State Implementation Plan (SIP) require that a proposed project not cause any new violation of the National Ambient Air Quality Standards (NAAQS), or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented. FHWA's guidelines require that noise mitigation measures be evaluated for the receptor locations where adverse noise impacts have been identified. These measures can include traffic management, alteration of horizontal and vertical alignment, acquisition of property to serve as a buffer zone, construction of a noise barrier, and noise insulation of public buildings. The feasibility of these mitigation measures would be investigated during Tier 2. Section 5.9.2 of the Tier 1 EIS includes a subsection that discusses conceptual mitigation for water-related resource impacts.
95.6	The DEIS fails to acknowledge the 47 local governments and planning organizations that support a rail solution.	As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While the a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 96

Richard D. Amstutz

ID	Comment	Response
96.1	The DEIS rejected an innovative rail alternative that would shift truck freight off of the interstate and onto rail, because the study limited analysis of rail improvements to inside Virginia. Narrowing proposed rail improvements to in-state only dooms any rail alternative to failure, because diversion will only be significant with long-haul trucks traveling more than 500 miles. The railroad from Knoxville to Harrisburg meets that criterion.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Richard D. Amstutz

ID	Comment	Response
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Letter 97

Genevieve Goss

ID	Comment	Response
97.1	VDOT should wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS. [The multi-state Rail Feasibility Plan, HB-1581 was passed unanimously by the 2006 General Assembly, and will correct a major flaw in the DEIS, which failed to evaluate the impact on truck traffic of rail improvements beyond Virginia's borders.] VDOT should then issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 98

John J. Goss

ID	Comment	Response
98.1	VDOT should wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS. [The multi-state Rail Feasibility Plan, HB-1581 was passed unanimously by the 2006 General Assembly, and will correct a major flaw in the DEIS, which failed to evaluate the impact on truck traffic of rail improvements beyond Virginia's borders.] VDOT should then issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 99

Lee Hartzell

ID	Comment	Response
99.1	...toll booths create traffic problems, slow downs, and accidents. Tolling also creates additional fuel consumption resulting from unnecessary stopping and starting.	It is believed that any toll infrastructure would be high-speed gantry tolling and that no toll booths will be installed as part of any project. The nature of the high speed tolls eliminates the need for toll booths and for starting, stopping, and lane queues.
99.2	A specific and immediate problem exists on I-81 at exit 150. I-81, route 220 and US 11 all come together at this exit, which has 2 major truck stops. This exit with its intersections is very poorly configured. There have been numerous accidents in this area, and the rate of accidents will increase with the continuing growth of truck traffic. Exit 150 is also a major entrance/exit point for Botetourt Co. auto traffic, which is significantly increasing as a result of growth in Botetourt Co.	Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

Letter 100

Lowell Smith

ID	Comment	Response
100.1	The projections for future increased demand for transportation services in the I-81 corridor utilized in this draft are highly suspect. The point of origin-point of destination analysis employed is little more than a smokescreen for extrapolating past growth in the use of I-81 to project a similar growth rate over the next thirty years. Expecting that the past few decades could provide meaningful guidance for estimating future growth of transportation services is a futile exercise. The past few decades have been marked by relatively low energy prices, robust growth in square footage of newly constructed homes (and, thus, growth in demand for household goods), declining interest rates, an increasing population primarily due to immigration, and a marked expansion in the globalization of commerce. All of these factors have led to strongly increasing demand for transportation services. It is irresponsible to not consider whether these fundamental driving factors will continue on the same track thirty years into the future that they have followed over the past several decades if one is to attempt the implicit extrapolation of the future from the past.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data (dating to 1978), as well as recent transportation and socioeconomic indicators. In fact, as described in Chapter 4 of the Transportation Technical Report, the more recent transportation and socioeconomic indicators show that growth is slowing through the corridor. The transportation analysis provided assumes a diminishing growth rate over the next 30 years. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While some short-term fluctuation is likely, historic fuel cost increases have not slowed traffic growth over the long-term. Further, future fuel cost increases could be offset by advances in alternative fuel sources. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
100.2	...this draft makes little mention of these important trends [increase cost of fuel and trucker shortage], and does nothing to use them to analyze how they will affect the growth of demand for transportation services in the I-81 corridor.	Please see response to Comment 100.1.
100.3	...this draft has failed to recognize that I-81 between the Tennessee border and the West Virginia border is a part of the Interstate Highway System...This failure is critically important when analyzing the effect that this project could have in drawing traffic from other routes and displacing traffic to other alternative routes when considering alternatives to the project; in estimating a reasonable range of demand for future transportation services within this corridor; and in accounting for the social and environmental costs of the project...	The traffic analysis completed includes the movement of all people and freight along I-81 in Virginia, regardless of their origin or destination. While improvement concepts are limited to the Commonwealth of Virginia, the analysis considers passenger traffic and freight that travels beyond Virginia's borders. Both diverted demand from other roadways and diverted trips to other roadways are included in the analysis.

Letter 100

Lowell Smith

ID	Comment	Response
100.4	The draft...fails to implement a credible regional transportation demand systems analysis for this area, and its authors explicitly deny that they have any duty to consider any feasible rail concept that extends across Virginia's borders. It is not possible to comply with the NEPA Tiering Process without the inclusion in the analysis of the flow of goods through all the states through which they are actually transported. Tier 1 analysis is intended to survey the broadest range of feasible alternatives...It is contrary to the abundant NEPA case law to focus solely on one portion of the system, thereby foreclosing on the feasibility of more attractive alternatives to a project...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 100

Lowell Smith

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 100

Lowell Smith

ID	Comment	Response
100.5	This draft ignor[es] the emissions from vehicles outside the general 500 foot width of the corridor. This is particularly important if the project were to stimulate (as is likely) more development to the Valley, thus stimulating a substantial increase in the vehicle miles traveled throughout the airshed...this analysis must also fully consider the aging of these vehicles' emission control systems over the vehicle lifetimes. It must also take into account that due to global warming, the summertime air temperatures experienced will be higher, making the atmosphere more chemically reactive in the formation of ozone and PM2.5...It must also take into account that the project will make higher vehicle speeds possible, thereby increasing emissions per vehicle mile traveled...and this effect was not considered in the energy section of this draft.	Section 5.10, Air Quality of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. The air quality study for motor vehicle emissions was performed in compliance with U.S. Environmental Protection Agency (EPA) modeling procedures. Supporting information for the air quality analysis was and is available for review. Based on the traffic data, the peak period speeds used to determine the energy consumption for the Maximum Width template ranged from 54 miles per hour to 72 miles per hour.
100.6	...it is faulty to assume that the Valley which is marginally on the edge of non-compliance with today's standards will still be in compliance with tomorrow's standards. It is quite possible that this corridor will be challenged to reduce its future levels of ozone and PM2.5, and this draft must make a conclusive showing that this project will be conducive to achieving this objective...	NEPA regulations direct federal agencies to consider the effects of proposed actions to the extent they are reasonably foreseeable and not speculative. EPA may decide to change the NAAQS for ozone and PM 2.5 which may, in turn, change the PM2.5 attainment status in the I-81 study area. However, as stated in Section 4.9.2, Botetourt, Roanoke, and Frederick counties have entered into Early Action Compacts (EACs). Air quality conformity under Section 176A of the Clean Air Act is not required in areas with EACs. The remaining counties along I-81 are in attainment with the NAAQS. The only county in the rail study area that is in nonattainment for air quality is Prince William County. Conformity with Section 176A of the Clean Air Act would be required before any Federal approvals for projects in Prince William County. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented.

Letter 100

Lowell Smith

ID	Comment	Response
100.7	A credible analysis would also take into account the truckers' strong aversion to paying tolls that they have expressed at the public hearings as a part of the system that includes human users interacting with the project. There seems to be a substantial disconnect between what this draft assumes would be a diversion of truck traffic from I-81 onto parallel routes as a result of the imposition of tolls and what truckers have testified to in the public hearings. Apparently, the systems analysis performed by the writers of this draft is faulty. The reasons for this disparity must be identified, and this new understanding used to develop a more realistic analysis of likely diversions, as well as a more accurate portrayal of the impacts of this diversion on surrounding communities, cultural resources, and trucking economics. This effect may become even more pronounced if the traffic volume anticipated by this draft does not materialize, thus forcing the private investors to greatly increase the tolls imposed in order to recoup their capital investment. No such possibility is considered in this draft.	A key component is that potential tolls are only a portion of the cost of a truck trip. The additional cost related to increased fuel consumption and trip time on a local roadway is likely to far outweigh the cost of tolls for many truckers. In fact, national evidence shows that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule. Evidence also shows that it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. Further, while some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low-toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. The purview of this study is to identify potential impacts related to the identified conceptual improvements. A financial analysis is outside the scope of this study and would be completed as part of a separate investment grade traffic and revenue study, if tolling is implemented.
100.8	A credible analysis would directly assess the growth inducing aspects of this project on the Valley's population, industrial and commercial development, and resultant changes in land use patterns. Yet, the cursory discussion in this draft of the induced development is pathetic. There is an extensive literature on this phenomenon, so it is incredible that the authors would have limited their conclusions regarding induced development to those opinions obtained from a few discussions that they held with local government officials! It is simply unreasonable (and contrary to NEPA case law) to ignore the impacts that this induced growth will have on regional air and water quality, or to forestall any serious effort to analyze these impacts until after a decision to move to Tier 2 has been made. As previously stated, air quality in the Valley is teetering on the edge of unacceptability by today's standards and may be re-designated as unacceptable under more stringent air quality standards that are likely in the future. What will this induced development do to aggravate this situation? Many water courses today carry unacceptable loads of sediment and bacteria. By how much will their cleanup be impeded further by such induced development? What is the prognosis for adding more streams to the impaired water quality list because of such induced development? Such important questions were not only not answered, they were not even mentioned in this draft. Yet, an understanding of such issues is critical to making an informed decision on whether to move this project ahead to a Tier 2 status.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. Information presented in this Tier 1 EIS is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Section 5.14, Indirect Impacts, of the Tier 1 Draft EIS examines the potential indirect impacts of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. In Tier 2, potential indirect impacts would be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations. At that time, additional coordination would occur with officials in each county and with officials in each town, as appropriate.

Letter 100

Lowell Smith

ID	Comment	Response
100.9	...the analysis presented in this draft is completely inadequate to inform decision makers regarding the benefits and costs of this project. Based on the information in this draft, a decision maker would be uninformed about major impacts leading to substantial degradation of the human environment...this draft fails to analyze and discuss the substantial uncertainty that exists in the authors' attempt to project the future growth in demand for transportation services in the I-81 corridor...A new demand analysis must be performed that will analyze the full range of uncertainty in what transportation services demand within the I-81 corridor might be thirty years hence under varying assumptions about the underlying factors that will determine that demand.	Please see response to Comment 100.8.
100.10	No decision to proceed to Tier 2 should be made until an adequate DEIS has been prepared, reviewed, and accepted. Failure to follow this recommended path can only result in a badly informed decision, because this decision will be based upon a fatally flawed analysis that relies upon assuming implicitly at its outset the conclusions that the proponents of this project desire.	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 101

Evert Beekman

ID	Comment	Response
101.1	When Rail Solution was considered, only the section in Virginia was considered. With rail it has to be from Harrisburg to near New Orleans as railroads are only efficient with a long haul. The interstate system is a National system and railroads should be considered nationally too.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 101

Evert Beekman

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 102

James E. Clark, III

ID	Comment	Response
102.1	...your environmental document and the plans it advocates downplay the system effects of a significant impact on just one link of the highway network. More traffic on I-81 means more traffic on connecting roads. More traffic on connecting roads means more upgrades...	The 2035 traffic volume forecasts include moderate to substantial growth along the local roadway system adjacent to I-81. These growth projections are based on the statewide Virginia transportation demand model and consistent with the long-range plans of planning organizations along the corridor. By 2035, with no improvement to I-81, vehicles are likely to begin diverting to the local roadway system to avoid interstate congestion. With an improved I-81, this traffic will remain on the interstate and approximately five to 15 percent of local traffic will also divert to the interstate because it would offer the advantage of a faster trip. Some level of diversion to local roads is expected with the implementation of tolls, however in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.

Letter 102

James E. Clark, III

ID	Comment	Response
102.2	...amend the DEIS with a detailed study of an interstate railroad upgrade between Harrisburg and Knoxville. Negotiate in earnest with Pennsylvania, Maryland, West Virginia, Tennesse, and railroad officials for concurrence in a serious study of a railroad upgrade as an alternative to the I-81 upgrade.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 102

James E. Clark, III

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
102.3	With a coalition of states, seek endorsement from the American Association of State Highway and Transporation Officials for a new public program to improve rail freight transportation similar to the program that established the Interstate Highway System. Start talks with the Federal DOT on the benefits of seeking rail improvements as a way to relieve highway stresses, to counter fuel shortages, and to control costs.	This issue is outside the scope of this Tier 1 EIS.
102.4	Adopt and implement a separate program of spot improvements on I-81 to remedy known safety problems.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

Letter 103

Trudi Dixon

ID	Comment	Response
103.1	Any plan approved by VDOT needs to include a complete study and mitigation of the expansion impact on the numerous natural resources of the Shenandoah Valley. Increased traffic on I-81 could increase air pollution and harm natural resource values at Shenandoah National Park and the Blue Ridge Parkway that I-81 parallels. Shenandoah National park contains 40 species of plants that are vulnerable to damage from air pollutants. Ten of these plant species are already showing signs of damage.	The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP). As discussed in Section 5.10.5, Air Quality Conformity, a detailed air quality analysis will be conducted during Tier 2. Any individual projects will have to conform to the NAAQS before they can be implemented.

Letter 104

Gene E. Fisher

ID	Comment	Response
104.1	VDOT should investigate routing I-81 around the east side of Winchester thorugh Frederick County (Rte 37 east path). Turn existing I-81 from Kernstown to Stephenson into service lanes for Winchester. Evaluate the cost to build new I-81 (on proposed Rte 37 east path through Frederick County) versus the cost to improve the existing I-81 path from Kernstown to Stephenson.	There are two locations along the existing I-81 corridor that have extensive development adjacent to the I-81 right-of-way. The impacts from the potential I-81 improvement concepts, especially displacements, may rise to the level where a corridor on new location may be prudent. These sections are the I-77 overlap section near Wytheville and a section in Harrisonburg (Milepost 243 to 251). At these two locations, FHWA and VDOT propose to evaluate corridors on new location, as well as widening existing I-81 during Tier 2. The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.

Letter 105

Larry Hewitt

ID	Comment	Response
105.1	I am requesting by virtue of this communication that effective natural and/or manufactured noise barriers be included in the ongoing planning processes for I-81 improvements.	The feasibility of the noise mitigation measures, such as noise barriers, would be investigated during Tier 2.

Letter 106

Lawson and Silek, P.L.C., Thomas Moore Lawson

ID	Comment	Response
106.1	When previous VDOT plans for I-81 were being developed, representatives of the Apple Blossom Mall (Mall) and its owners lobbied hard to ensure that the interchange at Exit 313 was not redesigned to consume land on the Mall's property. We were able to secure a VDOT agreement that the interchange would be redesigned with the installation of a single point urban interchange ("SPUI") off I-81 at this location. As you also know, VDOT approved plans to improve I-81 at Exit 313, including extending acceleration lanes and adding additional lanes and traffic signals. Simon Properties, Inc. (Simon) is also in the process of working with the City of Winchester and VDOT to develop plans to redesign and modify Frontage Road, which connects Route 50/17 with the Mall. This exit is heavily trafficked and is the most utilized entrance into the Mall.	During Tier 2, potential direct impacts would be evaluated in greater detail when more detailed information on travel lane and interchange configurations are available.

Letter 107

Glenn McLain

ID	Comment	Response
107.1	Without considering local needs, the I-81 study is further flawed. Bypasses, like VA 37E, would eliminate the need for adding additional lanes within Frederick County. Currently there is no North/South road east of I-81 and any traffic desiring to go East on 7 or North on 11 must use I-81. Bypasses would help to relieve traffic on other local roads as well. In Frederick County, 37E would resolve many problems with heavy trucks on local roads that have no choice but to use those roads. Bypasses may not work or be practical in some areas, but in others they make a lot of sense and would resolve other issues as well. They also help to resolve problems when there is an incident by providing a way around the incident. They make repairs to the Interstate and the bypass easier by allowing one or the other to be closed for a few days. This would allow a repair to be made in a few days rather than weeks of partial lane closures and lane shifts.	The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.
107.2	More consideration of regional needs, in addition to local needs, need to be considered as part of the overall study. Traffic on 7 has an effect on many counties. Local/regional conditions need to be considered. Local/regional improvements may yield better results than changes to I-81.	The purpose of the Tier 1 EIS is to study deficiencies related to I-81 and present possible solutions regarding improving safety and capacity. These solutions would be assessed further in Tier 2. Local (and sometimes regional) roadways in the study area were assessed to determine the benefits/impacts of improving I-81 on the local roadway infrastructure. As part of Tier 2, these roadways will be evaluated in more detail as necessary in order to mitigate any impacts expected because of changes to I-81.
107.3	...if truckers could use a drive on/off service while getting legal rest time, a time of 10-14 hours could make sense to truckers. Any cost would need to be equal or less than what it cost them to drive. With a regular schedule, and on time, of 2 to 6 trains in each direction, 7 days a week, a drive on/off service may be viable. To make this option even more viable, longer runs fromlto different locations would be better than from/to a single pair of locations. This approach should be more than just the I-81 corridor. Examples: Atlanta to Roanoke, Manassas, Front Royal, Hagerstown. Having a cafe/rest care for drivers would be better, and safer, than having them stay in their trucks. Provide the drivers with something like a small truck stop in this car.	As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 108

Mitch Orndorff

ID	Comment	Response
108.1	There must be provisions for Route 37 eastern bypass around Winchester as this develops.	The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.

Letter 109

SpecialMade Goods, Mitch Orndorff

ID	Comment	Response
109.1	...it would be extremely shortsighted...to allow any upgrades to I-81 [and] not include the Route 37 element.	The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.

Letter 110

William Owen

ID	Comment	Response
110.1	...my house is about 160 from the interstate fence. Sound barriers need to be planted or constructed to keep down the noise coming from the interstate no matter which plan is taken.	The feasibility of the noise mitigation measures, such as noise barriers, would be investigated during Tier 2.

Letter 111

Matt Schroeder

ID	Comment	Response
111.1	Although the study purports to reveal the inability of any rail option to deal with fume increases in truck traffic, it appears to have done this only by choosing an inferior rail option to test against road options Rail Option 3 was chosen on the basis of cost; I saw no similar criterion for any of the road options. By ignoring the intricacies of rail financing (which could have made other rail options quite feasible), the study's authors chose the least desirable rail option, thereby biasing its findings from the beginning against rail. Although the study declined to examine the potential impacts of a Knoxville-to-Harrisburg rail upgrade (under the reasoning that this was beyond Virginia's control), I do hope that VDOT will wait for the results of the Multi-State Rail Feasibility analysis before proceeding with any I-81 upgrade.	Four rail concepts (not just Rail Concept 3) were evaluated to determine the degree to which they would meet the needs on I-81. Rail Concepts 1, 2, and 3 were developed in consultation with Norfolk Southern. When evaluating combination alternatives (i.e., rail plus roadway concepts), we determined that evaluating the rail concept that provided the most diversion of freight from truck to rail per dollar of investment is an approach that is reasonable and consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. No assumption was made that rail improvements could not be funded. The Tier 1 DEIS describes possible sources of funding for rail improvements. See pages 3-9 and 3-10 of the Tier 1 Draft EIS. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.
111.2	...the study's authors appear to have glossed over the potential diversion of truck traffic to local roads I struggle to reconcile the twin assertions on the same page (p 3-29) that the impact to local roads would be low and that tolls would shunt half of I-81 traffic to local roads. The more frequent starts and stops would likely increase the already substantial air pollution that communities along the I-81 corridor.	The summary on page 3-29 clearly states that half of all traffic diverted from I-81 can be expected to divert to U.S. Route 11, not that half of all I-81 traffic would be diverted. The summary also states that while some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. High speed, electronic tolls would likely be used and would likely eliminate air quality-related toll impacts.

Letter 111

Matt Schroeder

ID	Comment	Response
111.3	...this issue of air pollution appears to lack any rigorous analysis in the study. By limiting the analysis to the I-81 corridor, the study seems to conjure away the results of increased truck traffic by assuming that tolls will divert traffic to local roads (p. 5-69). But these potential increases in air pollution contributed by local roads are somehow overlooked for mysterious reasons (p 5-83). The rail options, because they would have a far more dramatic effect on freight diversion and pollution, should have been weighed more thoroughly in this regard.	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-length air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.
111.4	I found very little about the economic impacts on local businesses, which would be disproportionately hurt by tolls, and the study's assertion to the contrary failed to convince.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects and potential tolls would be analyzed during Tier 2. There are several steps that would need to be taken by VDOT before federal approval to toll I-81. It is also important to note that tolls could not be implemented until the completion of the Tier 2 NEPA process for a particular Section of Independent Utility.
111.5	I am concerned with the method used to identify potential adverse impacts of construction. Using a 500-foot buffer on either side of the current interstate and rail lines, although it may include the actual construction footprint, does not begin to analyze the potential indirect impacts of construction I trust that this will be treated in more depth in Tier 2.	Section 5.14, Indirect Impacts, of the Tier 1 EIS examines the potential indirect impacts of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. In Tier 2, potential indirect impacts would be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations. At that time, additional coordination would occur with officials in each county.

Letter 112

David Worthington

ID	Comment	Response
112.1	...wait for the feasibility study and cost analysis for the rail study asked for by our Governor and find ways to include rail in the I-81 solution.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 113

Ken Anderson

ID	Comment	Response
113.1	In partnership with NS, fund a study improving the Shenandoah rail line as a part of the corridor solution. If the truck separation concept is eliminated, the money for improving the Shenandoah line will be available along with reasonable widening of I-81.	The Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from that multi-state study, FHWA and VDOT would evaluate the traffic effects of those improvements during Tier 2, as appropriate.

Letter 114

Don Barber

ID	Comment	Response
114.1	...other means to control traffic and get a handle on truck traffic have not been evaluated or implemented. Limiting the speed for trucks to 55 mph and mandating that they stay in the right lane works very well in Europe. Only in the US do trucks travel over 70 mph, weave in and out of lanes, and basically obstruct the smooth flow of automobiles. Perhaps tighter regulations for trucks and actual enforcement would help.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 115

Ron Gaysunas

ID	Comment	Response
115.1	I'm concerned about the future unintended consequences of the proposed project- i.e., without due consideration being given to the most cost-effective means of transporting "thru-trucks" from one out-of-state point, with no in-state destinations, to another out-of-state destination.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 115

Ron Gaysunas

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 116

Mary Lee Hendricks

ID	Comment	Response
116.1	...wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan...	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 117

James B. Jones

ID	Comment	Response
117.1	It must be recognized that VDOT's Draft Environmental Impact Study is a seriously flawed document. Apparently, it was prepared by people with only further road-building in mind as a possible solution. High-speed rail only within Virginia was considered and dismissed with short shrift, although it is widely recognized that high-speed rail is effective if it is available for longer distances. Perhaps this was the result of incompetence and a too-narrow view of transportation rather than deliberate obfuscation, but it is surprising that this inadequate treatment of the subject was accepted by those responsible for reviewing the document.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 117

James B. Jones

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 118

Jerome Long

ID	Comment	Response
118.1	The elimination of speed differences should be the objective. Setting low speed limits leads to greater danger because a certain number of drivers will rebel against low limits and induce lane changes and speed difference. All vehicles admitted to the interstate should Be driven by operators who have passed thorough exercises in driving simulators which should be developed with priority. Admitted vehicles should be capable of maintaining a constant designated maximum speed on all grades. Maximum speed should be posted on electronic bulletins and adjusted to conditions. Engine replacement is much cheaper than road replacement. One of the worst safety and congestion problems has to do with vehicles which do not maintain the speed limit and invite passing. A slow truck passing a slower truck on an uphill stretch is an egregious example. If oversize and slow vehicles must use the interstate they should be restricted to good weather in the 1-4 AM time period.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 119

John A. McLeod

ID	Comment	Response
119.1	...a rail solution will not appear feasible without a multi-state rail analysis. It appears that VDOT deliberately intended its study of a rail solution to fail by disregarding rail upgrades outside Virginia!	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 119

John A. McLeod

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 120

J.D. Stahl

ID	Comment	Response
120.1	...wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS. I request that you issue a supplemental DEIS for comment, incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 121

Mr. and Mrs. Ralph K. Stoots

ID	Comment	Response
121.1	...a significant number of cars and trucks will simply take a quick turn onto Route 460 to bypass the headache of 8 lanes and the expensive tolls...this has been dismissed as a minimal problem. It is not minimal for the people who live in this small town area. It will increase the traffic and congestion in an area in no way able to accomodate this kind of traffic.	The Tier I EIS identifies 14 local routes that are likely to see diversions due to tolls. While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. If tolls are implemented, a portion of this traffic (depending on the toll charged and which vehicles are tolled) will divert back to the local roadway system. During Tier 2, impacts to these routes from tolling and impacts from construction would be analyzed in greater detail as necessary. At that time, any location-specific required mitigation measures would be identified.

Letter 122

Mr. and Mrs. Ralph K. Stoots

ID	Comment	Response
122.1	VDOT has not done a fair study on Rail transportation. A former partner of Star Solutions was chosen to conduct the study of Environmental Impact. VDOT only conducted a practically "overnight" rail study from Winchester to Bristol, VA.	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor. The PPTA process did not influence the alternatives analysis required by NEPA or the proposed decisions on the improvement concepts. The Federal Highway Administration Virginia Division took an unbiased, objective, hard look at all facets of VDOT's environmental impact statement preparation, including purpose and need, improvement concepts including the No-Build Concept, and potential impacts. VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into the Tier 1 EIS.

Letter 123

Francis Symanoskie

ID	Comment	Response
123.1	Why did VDOT refuse to analyze the benefit of a true regional rail alternative instead of the cursory local option as presented? Was it just easier or does it reflect VDOT'S true interest in self propogation as a highway department?	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 123

Francis Symanoskie

ID	Comment	Response
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Letter 124

Charles S. Tubman

ID	Comment	Response
124.1	There was no consideration given to the impact that rising fuel prices will have on future highway transport needs.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
124.2	There was also no consideration given to alternatives to automobile usage- most notably, implementation of the Trans Dominion Express service and its potential for taking cars off of I-81.	The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. These rail improvements would likely accommodate passenger rail service, such as the Transdominion Express, should they come to fruition.

Letter 125

Anonymous

ID	Comment	Response
125.1	Preserve bicycle US76 access through this area (The transamerica route/Bike Route 76 and other bike routes run though/parallel to Interstate 81).	Incorporation and protection of existing or planned bike trails in the area are more appropriately considered during Tier 2 because they involve roadway design beyond the conceptual engineering that was performed in Tier 1.

Letter 126

Anonymous

ID	Comment	Response
126.1	What is LOS standard? I think I am more tolerant than you. Presentation never says if B, C, D, E is standard.	As stated in Chapter 2, Purpose and Need, A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), is used to provide the LOS standard for highways on the National Highway System, which includes I-81. The level of service standard for mainline operations of I-81 is LOS B in rural areas and LOS C in urban areas. The policies published by AASHTO were the result of proven engineering research and experience, based on studies conducted by FHWA, the National Cooperative Highway Research Program (NCHRP), state research laboratories, and universities. In general, increased congestion and delay in urban areas is commonplace, therefore lower standards are accepted.

Letter 127

Sherman Bamford

ID	Comment	Response
127.1	...the DEIS is biased because VDOT...Shortchanged the role rail can play in reducing the scope of highway construction. VDOT didn't look beyond the 325 miles of I-81 in Virginia to a multi-state corridor of sufficient length for effective through-freight diversion to rail.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 127

Sherman Bamford

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
127.2	...the DEIS is biased because VDOT...Developed desired findings in an Executive Summary, referencing technical appendices for support. Told people that the Executive Summary is all they need to read.... Filled multiple volumes of technical appendices with numerical data, graphs, and tables, even though much of it is scientifically meaningless, full of errors, and does little or nothing to justify the reported findings.	The Council on Environmental Quality regulations (Section 1500.4(h)) implementing the National Environmental Policy Act call on agencies to reduce excessive paperwork by summarizing the environmental impact statement.

Letter 128

Mary Bishop

ID	Comment	Response
128.1	...examine the diversion to traffic along improved rail lines stretching from Pennsylvania to Tennessee, and not just...within Virginia's boundaries.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for

Letter 128

Mary Bishop

ID	Comment	Response
		trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
128.2	...draft environmental impact analysis needs to consider the impact to air pollution of dramatic increases in I-81 truck traffic.	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts.

Letter 129

Mary Bishop

ID	Comment	Response
129.1	For the next version of the environmental impact study, take into consideration how rail lines throughout the East Coast and Midwest...could divert much of the freight load from trucks and offer a healthier option...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 129

Mary Bishop

ID	Comment	Response
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Letter 130

James H. Buchanan

ID	Comment	Response
130.1	Please amend present VDOT application to Federal Highway Administration to omit the proposal of placing tolls on I-81 as a revenue source. Could a citizens vote for bond issue be put on a ballot for approval/disapproval?	The issue of a ballot vote on tolling is outside the scope of this Tier 1 EIS.

Letter 131

Steven Chapin

ID	Comment	Response
131.1	...the "potential battlefield impacts" are greatly overstated. The areas shown in the Tier 1 document include the I-81 right-of-way, even the median. The acreage also includes developed areas (i.e. motels, residential areas, etc.) beyond the right-of-way. We understand the areas were calculated within the benefit of any field review. Based on this methodology, even a "No-Build" option would have impacts on hundreds (and possibly a 1,000+) of acres of battlefields. Within the battlefield areas, widening is proposed to the inside meaning that most of the improvements will occur within the median. In some locations the existing median narrows to 66 feet and will require approximately 10 feet of widening to the outside. Where the median is wider than 66 feet, the outside widening will be reduced or eliminated. In all situations this leaves approximately 100 feet of unpaved width to the existing right-of-way fence on each side. For example, the impacts at New Market are shown to be approximately 150 acres in Table 4-4. Based on inside widening and minimal outside widening of up to 4 feet for approximately 1 mile of the 5 mile battlefield, the acreage impact along the roadway should be "zero". Minimal impacts may occur at interchanges; however, these are generally areas that have already experienced development.	The "Build" concepts that are evaluated in the Tier 1 EIS range from a non-separated highway only improvement concept to a combined separated facility concept with rail improvements. The range of direct impacts to battlefields was calculated by superimposing the footprints for the Minimum Width Template and for the Maximum Width Template, as well as for Rail Concept 3, over Geographical Information System (GIS) data available for battlefields. Each footprint represents the potential limits of construction. Depending on the template, the width of the footprint varies from approximately 360 feet to 540 feet along I-81. Where the footprint and GIS data overlapped, an impact was assumed. At interchanges along I-81, the footprint widths were expanded to accommodate the anticipated type of interchange improvement (i.e., diamond or cloverleaf interchange). For rail improvements, a 100-foot footprint was generally used for calculating impacts because it represents the potential limits of rail construction. This level of analysis is commensurate with the decisions being proposed in Tier 1 and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concepts. The "Build" concept will be analyzed in more detail in subsequent Tier 2 NEPA documents and the impacts presented may increase or decrease because design refinements would likely change the potential construction limits.

Letter 132

M. Rupert Cutler

ID	Comment	Response
132.1	...address the long haul freight capacity needs of the Interstate 81 corridor by passing and funding laws that will create a multi-state agency and task it to build a new, high-speed, high-capacity railroad line connecting Harrisburg, Pennsylvania, and Knoxville, Tennessee, through Virginia paralleling Interstate 81.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While the a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 133

Joyce Foster

ID	Comment	Response
133.1	VDOT's draft environmental impact statement is incomplete and unacceptable because it does not consider the truck traffic that would be diverted from I-81 onto a rail truck ferry beginning at Harrisburg, PA, and ending at Knoxville, TN. Instead, to make the multi-laning of I-81 look like the only feasible option, VDOT considered only the diversion of truck traffic onto rail in Virginia.	The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. In order for intermodal shifts to be feasible, "the minimum distance between origin and destination must be at least 500 miles in length." While improvements to the rail infrastructure were evaluated in Virginia only, the Tier 1 EIS includes all freight movements using the I-81 corridor, regardless of trip length, origin, or destination. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways were both assessed. Therefore, the study team did appropriately evaluate freight diversion to rail for trips of over 500 miles in length and did not consider only diversion of truck traffic in Virginia.

Letter 134

Randolph Gregg

ID	Comment	Response
134.1	Why not propose to Norfolk-Southern a service somewhat like Amtrak's Auto-Train that has successfully operated between Lorton, VA and Sanford, FL?	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 134

Randolph Gregg

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 135

Randolph Gregg

ID	Comment	Response
135.1	...trucks will not be improved by widening because trucks will not be irrevocably separated from other traffic except by "rumble strips". This means that the perception for "monster trucks" travelling in the adjacent lane, inches away, will still be present. Additionally, such trucks will need to cross in automobile-occupied lanes to reach exits and breakdown lanes and also to reach the truck lanes separated only by rumble strips.	The Tier 1 EIS also considered a barrier as a method to separate lanes in the same direction of travel. As stated in Section 3.2.10 of the Tier 1 EIS, "Concepts involving the separation of lanes (in the same direction of travel) were considered and were divided into two types: those involving exclusive separated lanes and those involving non-exclusive separated lanes. Exclusive lanes are barrier-separated lanes with separate interchange ramps to all the interchanges along the roadway. Non-exclusive lanes provide a rumble strip between the separated lanes and the other lanes, which allows vehicles in the separated lanes to merge into the other lanes to use the existing interchange ramps." Separated lane concepts are not proposed to be advanced into Tier 2.

Letter 135

Randolph Gregg

ID	Comment	Response
135.2	Upgrading this rail corridor would not only be environmentally superior to widening I-81 but could be completed more quickly and at a fraction of the infrastructural cost. The contention that rail would not reduce traffic on I-81 does not take into consideration these factors or the flexibility of intermodal freight carriage. It also ignores the possibility of intermodal freight carraige. It also ignores the possibility of an auto-ferry service similar to that provided by Auto-Train, a popular and profitable service to the motoring public by Amtrak between Lorton, VA and Sanford, FL.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Randolph Gregg

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 136

Hall Insurance Services, Keith Hall

ID	Comment	Response
136.1	VDOT should include a viable rail option in any and all studies. The rail option should be a major part of the solution to highway congestion in the I-81 corridor, The studies should definitely include the entire length of I-81 [not just that portion in Virginia] for any improvements, rail and highway, for the study to be realistic.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Hall Insurance Services, Keith Hall

ID	Comment	Response
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Letter 137

Stephen Harkrader

ID	Comment	Response
137.1	The multi-state Rail Feasibility Plan, HB-1581 was passed unanimously by the 2006 General Assembly, and will correct a major flaw in the DEIS, which failed to evaluate the impact on truck traffic of rail improvements beyond Virginia's borders.	As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 138

Mary Harshfield

ID	Comment	Response
138.1	The other major problem with DEIS is that it did not consider the amount of diversion of trucks to rail if the rail line were upgraded to a dual track high speed rail over a 500 mile distance. This is critically important to consider and decisions over what improvements to make on I-81 should not be made until that study is completed.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 138

Mary Harshfield

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
138.2	How do we pay for rail? The Federal Government has 35 billion dollars set aside for rail improvement. Virginia could tap into some of that money, and bonds could be issued. Where there is a will to fund rail, the means can be found. User fees will pay off the costs over time.	On page 3-9, the Tier 1 DEIS explicitly states that SAFETEA-LU has specific appropriations for multimodal interface facilities and other improvement options for the corridor. Page 3-10 goes on to state "in addition to $41.5 million of designated funding to "manage freight movement and safety improvements" along I-81, SAFETEA-LU also includes a number of general freight finance provisions that Virginia may be able to take advantage of in obtaining additional funds to improve privately owned rail lines." The Tier 1 EIS then lists five SAFETEA-LU freight provisions that may offer opportunities to improve rail freight along the corridor. However, outside of these opportunities, there are no Federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines and that any improvements made to the privately owned rail lines would be at the discretion of the owner (Norfolk Southern).

Letter 138

Mary Harshfield

ID	Comment	Response
138.3	The impact on secondary roads are bound to be enormous, contrary to the DEIS which states that the impact would be "low". Secondary roads will become much less safe as large numbers of tractor trailers and college students use them to avoid tolls.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.

Letter 139

Donald A. Koop

ID	Comment	Response
139.1	I believe that an adequate, multi-state analysis of the utility of using rail transportation for trucks has not been done.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Donald A. Koop

ID	Comment	Response
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Letter 140

Carl Krippendorf

ID	Comment	Response
140.1	No plans were made to partner with the railroads to create high speed, heavy tonnage rail lines to handle increased freight instead of more trucks.	There was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. Freight diversion was examined for two separate cases. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways. Therefore, freight diversion to rail for trips of over 500 miles in length was evaluated. Chapter 3, Improvement Concepts, in the Tier 1 EIS describes the results of that analysis. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs would still need additional highway lanes. Notwithstanding, FHWA's memorandum, dated May 4, 2004, encourages the States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In fact, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from the study, FHWA and VDOT would evaluate the traffic effects of those improvements during Tier 2 as appropriate.

Letter 141

Ray Lunsford

ID	Comment	Response
141.1	It would appear that a vital link has been completely overlooked, and we could be upgrading a current almost continuing four lane US 15 and US 29 South from Harrisburg, PA through to Greensboro, NC.	Upgrading U.S. 15 and U.S. 29 from Harrisburg, Pennsylvania to Greensboro, North Carolina so that it is a continuous four-lane divided highway is outside the scope of this Tier 1 EIS.

Letter 142

Francis Maher

ID	Comment	Response
142.1	The rail corridor only makes sense for longer distances. At a minimum a rail corridor option from Chattanooga, TN to Harrisburg, PA should be examined for feasibility.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 142

Francis Maher

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 143

Jim Overholser

ID	Comment	Response
143.1	VDOT should use the AASHTO study "Freight Rail Bottom Line Report" instead of ignoring it.	The Tier I EIS considers four rail alternatives as stand-alone concepts and in concert with roadway improvements. As such, it fully considers rail improvements.

Letter 144

Kristin Peckman

ID	Comment	Response
144.1	The I-81 Tier 1 DEIS Transportation Technical Report's determination of 2035 traffic on I-81 is based on data obtained up through, at the latest, 2004. Historical data used to extrapolate future traffic covers the 25 years prior to 2004. This is a period when fuel prices remained flat, or even declined, when adjusted for inflation. Beginning in the summer of 2005, and continuing until now, we have seen a sharp rise in the price of fuel. Analysts agree that this price rise will only continue, as fuel supplies become more expensive to exploit, and countries like China and India are competing for those more limited supplies.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 144

Kristin Peckman

ID	Comment	Response
144.2	It is clear that rail improvements can be made more quickly and at much lower cost, than widening I-81. Yet the rail improvements proposed in the DEIS are so timid, that they almost seem designed to prove that rail cannot do the job. Rail improvements need to do several things that are not even considered in the DEIS. They need to allow greater speeds and more frequent trains to run. That means double-tracking and grade-separated crossings. In order to be attractive for intermodal shipping, rail lines need to cover a distance of 500 miles or more. Harrisburg, PA to Knoxville, TN is considered a segment that would really pay to improve. Yet the DEIS refuses to consider studying any options outside the state of Virginia.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 144

Kristin Peckman

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
144.3	The following are serious oversights in the I-81 DEIS that must be corrected in a Supplemental DEIS: The DEIS does an inadequate job of studying rail options. This oversight needs to be corrected...The HB 1581 study results should be incorporated into the supplemental DEIS.	Please see response to Comment 144.2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
144.4	All the conclusions of the I-81 DEIS depend on accurate traffic projections. Without taking into account rising fuel prices, all the conclusions of the Tier 1 DEIS are invalid.	Please see Response to Comment 144.1.

Letter 145

Elizabeth A. Pingle

ID	Comment	Response
145.1	...what about attracting industry to this region or the Dan River/Martinsville area? Do you really think that a company is going to seriously consider opening up in the area if every load of goods that needs to go through this corridor is going to cost them an extra 65-100 dollars to ship?	As indicated in the Tier 1 EIS, companies within the I-81 Corridor are already price-competitive with companies elsewhere in Virginia and the United States. The cost of transporting goods, although an important consideration to many companies, is a fairly small portion of the overall cost of production. As such, there is very little variation found between the No-Build condition and the "Build" concepts (including those with tolls) in the cost to deliver goods. For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls should not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. These could include some of the region's larger and old line industries (e.g., furniture manufacturing and chemical production) who operate in very price-competitive, global markets.
145.2	Has anyone really looked at trying to shift some of this to rail?	The Tier 1 EIS looks at diverting any truck trips greater than 500 miles (in total distance) to rail. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 146

Daniel Russell

ID	Comment	Response
146.1	...study and seriously consider the inclusion of a commuter rail option in the plans for improvements to the I-81 corridor.	The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. These rail improvements would likely accommodate passenger rail service, such as the Transdominion Express, should they come to fruition.

Letter 147

Don Schellhardt

ID	Comment	Response
147.1	In the case of all options that are being analyzed for the I-81 corridor, clearly define, and separate, potential costs and savings for the government of the Commonwealth and the overall economy of the Commonwealth. This will help the Commonwealth to identify in advance, and avoid, potential situations in which Virginia's economy may lose more dollars from a policy decision than Virginia's government is able to gain from that decision.	As indicated in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (specifically, in 40 CFR 1502.23), for purposes of complying with NEPA, the merits and drawbacks of the various potential improvement concepts need not be displayed in a monetary benefit-cost analysis, and typically are not, especially when there are other important considerations that are relevant to the decision.
147.2	The projected costs of an intermodal rail service line should include separate estimates for both a diesel fuel rail line and an electric rail line.	The rail concepts were measured based on their ability to meet the transportation needs on I-81 as described in Chapter 2, Purpose and Need, of the Tier 1 EIS. Since projected costs played no part in the evaluation of the rail concepts, separate estimates for both a diesel rail line and an electric rail line are unnecessary.
147.3	With respect to all options that are being analyzed for the I-81 corridor, the oil price projections should include two different scenarios, carried out at least 30 years: (1) "The High Priced Oil Scenario" -- Assume at least a doubling of retail oil prices (in real dollars) by 2015, at least a quadrupling of retail oil prices (in real dollars) by 2025 and at least a ten-fold increase in retail oil prices (in real dollars) by 2035. In this scenario, estimate the savings to the Virginia economy from conserving oil -- first, by shifting heavy duty trucks to an intermodal rail line that runs on electricity and second, by shifting them to an intermodal rail line that runs on diesel fuel. Plus (2) "Rationed Oil Scenario" -- Whether it results from formal rationing or oil rationing by price, assume that only the portion of the heavy duty truck fleet which hauls necessities of physical and economic life (such as food and spare parts) will have guaranteed access to oil supplies in 2015, 2025 and 2035. In this case, for each referenced year, estimate the oil conserved by diverting heavy duty trucks to an intermodal rail line -- both one that runs on electricity and one that runs on diesel fuel -- and then measure the economic activity that results from shifting the conserved oil to passenger vehicles and light duty trucks that would otherwise not have enough oil to operate at all.	The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. NEPA regulations direct Federal agencies to consider the effects of proposed actions to the extent they are reasonably foreseeable. FHWA is not required to include scenarios that are remote and speculative in any NEPA document. The scenarios identified above fall in this category and should not be considered at this time. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Further, fuel costs make up only a portion of an overall vehicle trip (whether truck or passenger car). While short-term shifts may be seen, the long-term effect of rising fuel costs is small when compared to total logistical costs or the cost of shifting modes.
147.4	In comparing the electric rail line option to the diesel fuel option, the diesel fuel emissions at the point of end use should not be compared to the virtually nonexistent electricity emissions at the point of end use. Instead, to assure a truly accurate comparison, the diesel fuel emissions at the point of end use should be compared with the powerplant emissions at the point of electricity production. If an electric rail line is ultimately required, as recommended in the referenced Written Comments of May 26, this comparison of diesel fuel end use emissions to powerplant generation emissions could be used to set further requirements regarding the type of powerplants that are used to generate the purchased power for the new electric rail line.	Please see response to Comment 147.2.

Letter 148

Dolores C. Smith

ID	Comment	Response
148.1	I would like to suggest that special consideration be given to the area located off of I-81, exit 141. This is known as the Hanging Rock Area . The Hanging Rock was the site of a Battle between Union and Confederate Forces around 21-24 June 1864. The original area was approximately 40 - 50 acres. Today due to encroachment from progress in real estate, construction of highways, and sprawling industry, all that remains is about 1+ acres of the battlefield. This 1 + acreage is located off Route 419 to Buzzards Rock off Kessler Mills Road and the intersections of Routes 311 & 419. At the present time I am actively working on a Preliminary Information Form to be submitted to the Virginia Department of Historic Sites for their consideration.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Dolores C. Smith

ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

Letter 148

Dolores C. Smith

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

Letter 149

Mark Snead

ID	Comment	Response
149.1	According to Railsolutions.org, VDOT commissioned a former partner of STAR to conduct the environmental study...they also say that rail was not considered as part of a multi-state plan...are these accusations true?	The Federal Highway Administration (FHWA) Virginia Division took an unbiased, objective, hard look at all facets of VDOT's environmental impact statement preparation, including purpose and need, improvement concepts including the No-Build Concept, and potential impacts. VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into the Tier 1 EIS.

Letter 150

Steven B. Stanley

ID	Comment	Response
150.1	The Secretary of Transportation has now been directed by the Virginia General Assembly to conduct a study of the impact of such a multi-state rail improvement plan as I have described. No committment to rebuilding or redesigning Interstate 81 should be signed by VDOT until results from this unbiased study have been seen and assessed.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 151

Edna Whittier

ID	Comment	Response
151.1	...is VDOT willing to commit money to building similar [noise] walls along I-81?	Section 5.11, Noise, in the Tier 1 Draft EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. Federal Highway Administration guidelines require that noise mitigation measures, such as the construction of noise barriers, be evaluated for receptor locations where noise impacts have been identified. The feasibility of these noise mitigation measures would be investigated during Tier 2.

Letter 152

Anonymous

ID	Comment	Response
152.1	Virginia HB 1581 requires a full feasibility study of a multi state high speed railway to carry much of I-81's truck traffic. Until that study is complete, any analysis of a possible solution is premature.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 153

Barry Bingham

ID	Comment	Response
153.1	Projections do not adequately assess the impact of high gas prices and tolls.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 154

Linda Black

ID	Comment	Response
154.1	...the emissions from those trucks who refuse to pay those tolls and who use alternate routes, like Route 11, will affect the environment as well, although your study did not address this.	As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.
154.2	...who would be in charge of the maintenance of I-81 if the additional lanes are added.	The Virginia Department of Transportation is responsible for maintenance of I-81.

Letter 155

Charles and Adrienne Bodie

ID	Comment	Response
155.1	Due to the mamy serious inadequacies of the Tier 1 draft EIS, as outlined, and the need for substantive changes to this documeamt, VDOT should issue a supplemental DEIS and provide another opportunity for public comment on Tier I plans, before requesting approval of the final Tier 1 EIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 155

Charles and Adrienne Bodie

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 156

Department of Physics and Engineering, Washington and Lee University, Bruce Boller

ID	Comment	Response
156.1	We need an approach that includes modal support for rail that extends beyond the state of Virginia.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Department of Physics and Engineering, Washington and Lee University, Bruce Boller

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Letter 157

Paul Bourdon

ID	Comment	Response
157.1	Expected numbers are too high - fuel costs $5 to $10 per gallon will mean traffic level will not grow as fast as predicted.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data (dating to 1978), as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While some short-term fluctuation is likely, historic fuel cost increases have not slowed traffic growth over the long-term. Further, future fuel cost increases could be offset by advances in alternative fuel sources. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking.

Letter 158

Ted and Elsa Burrowes

ID	Comment	Response
158.1	The economic impact of reduced tourism resulting from degraded air quality, increased noise levels and dangerous mixed-vehicle roads does not apear to have been seriously considered.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects and potential tolls would be analyzed during Tier 2, if a toll option is considered for a particular SIU. There are several steps that would need to be taken by VDOT before federal approval to toll I-81. It is also important to note that tolls could not be implemented until the completion of the Tier 2 NEPA process for a particular Section of Independent Utility. It should be noted that separated lane concepts are not proposed to be advanced into Tier 2.

Letter 159

Mary Varson Cromer

ID	Comment	Response
159.1	...the entire document seems to proceed from the premise that increased capacity is all that is needed to make the road safer. The study does not adequately address the flip-side of such logic: that increased capacity will actually increase demand.	There often appears to be an observed increase in traffic volume that occurs soon after the opening of a new highway or the widening of a previously congested highway. However, this observation is often misinterpreted to mean that new traffic would be generated automatically as a result of an increase in highway capacity. In fact, there is general agreement among transportation planning professionals that entirely new trips represent a relatively small share of the increased traffic appearing on a new or widened highway facility. The relationship between increases in highway capacity and traffic is complex, and it is influenced by the travel behavior of the driving public, the location of residential and business properties, and changes in socioeconomic factors in the region, such as population and economic growth. In most cases, a large number of the additional trips on a new or improved facility are trips that were already being made, albeit on other less congested facilities to the same destination, to different destinations that do not require using that roadway, or during other times of the day. The increase in traffic resulting from these cases creates the perception that the new or improved facility has created new trips; however, the increase is largely offset by reductions in traffic along parallel routes and at other times of the day. Therefore, while hourly volume totals may be different, the net effect on daily volume totals and on region-wide daily vehicle miles of travel (VMT) resulting from these travel behavior changes is minimal. New trips may result when travelers switch from other modes, such as public transportation, to the automobile in order to take advantage of reduced travel times on the new or improved facility. In addition, new trips may result when travelers take a trip that they previously avoided altogether, because it was "too much trouble" to make under congested conditions. These two types of trips would contribute to an increase in the region-wide VMT. The above travel behavior patterns are primarily responsible for the increases in traffic that are observed shortly after a new or widened highway facility is opened. Over the longer term, in urban areas, it is relatively rare for a highway project to provide new or substantially improved access to a large geographic area (e.g., an entire county) such that it would lead to a large increase in traffic. However, in many rural areas, increased highway capacity may improve the accessibility of one geographic area relative to other areas, making it more attractive for development. In the I-81 corridor, which is largely rural, a large part of the traffic growth that is expected by the year 2035 can be attributed to the following three factors: projected growth (due to changes in demographic/socioeconomic factors and supported by a review of historical traffic data); diversion from parallel facilities due to the improvements to I-81; and increased travel that would result from injecting money into the economy and improving access to some under- or undeveloped areas along the corridor.

Letter 159

Mary Varson Cromer

ID	Comment	Response
		The potential for traffic diversions to and from I-81 are discussed in more detail in the I-81 Corridor Improvement Study Transportation Technical Report.
159.2	Neither does it [the DEIS] adequately address the potential impact of increasing oil prices and increased greenhouse gas regulations in its need projections for 2035.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 159

Mary Varson Cromer

ID	Comment	Response
159.3	VDOT should prepare a supplemental EIS to rectify the numerous inadequacies of this DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 159

Mary Varson Cromer

ID	Comment	Response
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159.4	...the DEIS fails to aclcnowledge or incorporate the General Assembly's recently passed bill, HB 1581. That bill requires that Virginia undertake a comprehensive feasibility study on diverting the maximum amount of truck traffic from I-81. In that bill, the General Assembly specifically mandated that the state undertake the feasibility study as a multi-state analysis, involving as many as 13 states. The feasibility study would include the possibility of a high-speed dual-track railway from Knoxville, TN to Harrisburg, PA, something not considered in the DEIS. In its Preamble to HB 1581, the General Assembly specifically states that "such a rail operation has the potential to divert a higher percentage of truck-borne freight from Interstate Route 81 in Virginia than conventional intermodal rail concepts considered in earlier studies." The supplemental EIS should be delayed pending the completion of the multi-state feasibility study. The findings of that study should be incorporated into the supplemental EIS.	Please see response to Comment 159.3.

Letter 159

Mary Varson Cromer

ID	Comment	Response
159.5	It is difficult to see how the segmentation of the study area into eight discrete Sections of Independent Utility meshes with the goal of a corridor-length look at the issue. A corridor-length study would require that VDOT consider the indirect and cumulative impacts of the entire road-building project on the Valley of Virginia.	There is no contradiction. The Tier 1 EIS examines the potential impacts from the potential improvement concepts on a corridor-length basis, while a practical approach to implementation of the improvement concepts is to break the entire corridor into sections that are independent, useful, and stand on their own merit. Section 5.14, Indirect Impacts, of the Tier 1 EIS examines the potential indirect impacts of the potential improvement concept along I-81 in Virginia. Similarly, Section 5.15, Cumulative Impacts, discusses cumulative impacts along I-81 in Virginia.
159.6	...since the project is designed to meet the transportation needs, not just of Virginia, but of all of the East, the corridor under consideration should also include the connecting states to the north and south of Virginia.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. Further, the VDRPT multi-state rail study is in cooperation with Norfolk Southern.

Letter 159

Mary Varson Cromer

ID	Comment	Response
159.7	It appears from the DEIS that the segmentation into SIUs leaves open the possibility that each SIU, when considered independently, is not significant enough to warrant a full environmental impact study of any build scenario undertaken. This is particularly troubling because the DEIS only expressly promises a full Tier 2 EIS for new terrain. The segmentation into eight SIUs disconnects the studies of the areas in such a way that VDOT cannot conduct an adequate analysis of the cumulative and induced impacts of the various build alternatives. A full-length corridor study should be included in the supplemental EIS. Even if the SIUs are retained in the supplemental EIS, a Class I EIS will still be required for each SIU because of the cumulatively significant impacts. None of the SIUs should be granted a categorical exclusion because of a lack of significant environmental impacts. Any combination of build scenarios in the eight SIUs will significantly affect the region's air quality and economy and will impact many historical sites and many acres of residential and farrnland. The supplemental EIS must address the cumulative environmental impacts of building in the areas. In addition, as shown by the public interest in this process and the scoping process that went on before, none of these "units" are available for categorical exclusion because of the public controversy surrounding the project. VDOT's right of categorical exclusion from public comment is meant for routine maintenance, ordinary upgrades, administrative necessities, or emergencies. The law does not allow categorical exclusion to be used to bypass public controversy.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified. Section 5.14, Indirect Impacts, and Section 5.15, Cumulative Impacts, discuss potential indirect and cumulative effects of the potential improvement concepts along I-81 in Virginia. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. The level of analysis included in the Tier 1 EIS was commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of potential impacts of the improvement concepts. In Tier 2, potential indirect and cumulative effects would be evaluated in greater detail when more detailed information on travel lane and interchange configurations is available. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 159

Mary Varson Cromer

ID	Comment	Response
159.8	The DEIS concludes that the Maximum Width Footprint (or the maximum build scenario) would lead to overall decreases in ozone-generating pollutants as compared with a no-build scenario. The conclusion that increased capacity would lead to a decrease in traffic-generated air pollution is absurd. The I-81 corridor running through the Valley of Virginia lies to the west of the Blue Ridge Mountains, one of the biggest tourist attractions in Western Virginia. Air pollution, haze, and ozone problems plague this area. The I-81 corridor passes through two of Virginia's significant ozone nonattainment areas, the Roanoke area and the Shenandoah National Park. The Supplemental EIS needs to adequately study the increased air pollution, and its impacts on both the environment and the economy of the area, that would come from expanding the capacity of the I-81 corridor in Virginia. If VDOT builds it, they will come. The conclusion that increased capacity would lead to decreased air pollution can only come from a short-sighted premise that the demand on I-81 in 2035 will be constant regardless of what is or is not built, regardless of the price of oil, and regardless of the likely increases in the regulation of greenhouse gases. Such a premise cannot be sustained. The supplemental EIS needs to address the fact that increased capacity will induce traffic. It also needs to factor in the effects of increasing oil prices and likely increases in greenhouse gas regulations.	Please see responses to Comments 160.1, 160.2, and 160.7.

Letter 160

Malcolm A. Crosbie

ID	Comment	Response
160.1	VDOT has refused to consider the Rail Solutions proposal for a rail line (500 mile) from Harrisburg to Knoxville.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 161

Marcia Crosbie

ID	Comment	Response
161.1	...wait on this decision until the multi-state rail feasibility study is complete and studied, as unanimously passed by our state legislature, before moving ahead with any changes to our transportation system.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 162

Catherine Denham

ID	Comment	Response
162.1	Any road improvement should include money to buy more buffer width next to the highway to accomodate high earthen berms with evergreen trees on them to absorb the damaging noise pollution and air pollution the trucks produce.	The feasibility of the noise mitigation measures will be investigated during Tier 2. Also, during Tier 2, a detailed air quality analysis will be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. Mitigation measures for air quality impacts would be assessed during Tier 2, as necessary.

Letter 163

Peggy Dyson-Cobb

ID	Comment	Response
163.1	[the DEIS] excluded tolls from its economic study. It excluded the biggest build option from its economic study.	An appropriate assessment of the economic impacts from tolls has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have postive economic effects when compared to the No-Build condition in 2035. More detailed economic impacts of individual SIUs would be analyzed during Tier 2.

Letter 163

Peggy Dyson-Cobb

ID	Comment	Response
163.2	It dismissed upgrading rail as an alternative on the specious grounds that doing so only in VA would be pointless, though it did not extend that logic to upgrading I-81 only in VA....	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 163

Peggy Dyson-Cobb

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
163.3	...[the DEIS] dismissed the impact of traffic tripling on Rt. 11 by those avoiding tolls, even while citing such traffic diversion in its claim for low air pollution impact.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. It is this diversion to I-81 that accounts for some of the low air quality impacts.

Letter 163

Peggy Dyson-Cobb

ID	Comment	Response
163.4	The DEIS concludes that doubling I-81 asphalt surface, tying traffic in knots for 15 years of construction, and increasing truck traffic quickly beyond its carrying capacity will cause minimal environmental impact. Most devastating of all it proposes that the I-81 corridor be considered in arbitrarily separate segments, and by circuitous logic consequently exempted from further environmental study.	The logical termini of the Sections of Independent Utility (SIUs) were not arbitrary. As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the SIUs. Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
163.5	...VDOT contracted the study out to a former STAR Consortium firm, Vanasse-Hagen-Brustlin, and the integrity of this NEPA process has thereby been severely compromised. VDOT must contract a truly independent firm to address the failures of this document, with a public hearing on their supplemental report.	The Federal Highway Administration Virginia Division took an unbiased, objective, hard look at all facets of VDOT's environmental impact statement preparation, including purpose and need, improvement concepts including the No-Build Concept, and potential impacts. VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into the Tier 1 EIS. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 164

Peggy Dyson-Cobb

ID	Comment	Response
164.1	The local economic effects of turning up to 2,500 acres of forest and 5,100 acres of agricultural land into pavement is not addressed. The economic effects of imposing tolls are not addressed (even tho tolls will be required to finance the construction). The displacement of up to 944 homes, 684 businesses, as well as school buildings, and tourist sites is not addressed. In fact, the largest construction option (4 lanes added each direction) isn't even included in the economic assessment.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts (including the concept of adding 4 lanes in each direction) would generally have postive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.

Letter 165

Bart and Shirley Hellmuth

ID	Comment	Response
165.1	...wait for the results of the multi-state feasibility plan for the I-81 Corridor ordered by the 2006 General Assembly.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 166

Cleve Hickman

ID	Comment	Response
166.1	It is my understanding that VDOT has not included these rising [oil] costs in its consideration of traffic predictions. Why not?	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 167

Donald Huffman

ID	Comment	Response
167.1	Why are you not looking at a new rail line that follows I-81? Make all the trucks that do not stop in Virginia get on this line for a price, the time saved by the trucks plus fuel could pay for the line. Europe has them, the trucks drive on and off the line. The land is there for a dual line north and south, and a high speed electric train could haul both freight and people with very little pollution of the air,water, and noise, at speeds of over 90mph. This line could be extended from Texas to Main. The only stops in Virginia for truck would be at Lexington and Staunton where I-64 branches off. Roanoke might need a branch line from the south from NC. Other stops for people on a different train could be made as the need arises. A train from Roanoke to Washington would be faster and safer than driving. Building a train line would be cheaper than building roads and easier to maintain.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 167

Donald Huffman

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 168

Donald Huffman

ID	Comment	Response
168.1	I cannot understand how you could so quickly do an environmental impact study on widening I-81 from beginning to end, with so many different areas involved...Have you studied what it would cost to build a high-speed electric train parallel to I-81?...Widening the road to four lanes or more is NOT an option with us.	As stand-alone concepts, rail improvements only slightly decrease the capacity needs on I-81 in 2035. As such, they do not satisfy the Purpose and Need. Since projected costs played no part in the evaluation of the rail concepts, separate estimates for both a diesel rail line and an electric rail line are not necessary.

Letter 169

Lawrence E. Hurd

ID	Comment	Response
169.1	The calculation of impact "footprint" for road widening scenarios assumes that the impact of construction and subsequent operation of a widened interstate is limited to at most a few hundred feet on either side of the right-of-way. While this may or may not be true for developed and agricultural areas, it is less likely to be true of forested areas, and particularly unlikely to be true for wetlands (between 230 and 281 of them, according to the report) and streams. Forest habitats are subject to what is often called an "edge effect" in which woodland species avoid the apparent boundaries of forests because of such factors as greater sunlight penetration, wind, and noise from outside. Edges are also prime sites for invasion of exotic species, one of the most important threats to biological diversity worldwide, and quite prevalent in Virginia (e.g., tree-of-heaven and oriental honeysuckle). If forested area is to be pushed back by widening the road, the "edge effect" will also be pushed back, and may in fact increase in depth if pollution and noise from traffic increases proportionately.	The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. The level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. The Tier 1 Final EIS indicates that, during the Tier 2 studies, opportunities to enhance wildlife habitat would be evaluated when more detailed roadway design is available. Conceptually, such opportunities may include the protection and/or creation of natural areas, the restoration of upland forest habitat, as well as the establishment of forested riparian buffers next to streams and rivers. The evaluation of these habitat enhancement opportunities would be performed in consultation with the U.S. Fish and Wildlife Service and other appropriate parties.
169.2	Wetland and stream ecosystem integrity are maintained by adequate water flow across and between habitats. Runoff from roads, including toxic chemicals and salts will not be limited to a lateral distance of a few hundred feet. What is needed is a thorough hydrologic/biological impact assessment to begin to predict not only the effects from the widened roadway in operation, but also for what is likely to be considerable runoff of various materials and silt from actual construction.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.

Letter 169

Lawrence E. Hurd

ID	Comment	Response
169.3	The present draft report is very short on specific impacts. Before undertaking a project of such magnitude, we need more than a cursory examination of its long-term effects on our environment. We need more basic information before we can predict environmental impacts with any degree of confidence. Due to the many serious inadequacies of the Tier I draft EIS, some of which are outlined above, and the need for substantive changes to this document, VDOT should issue a supplemental DEIS and provide another opportunity for public comment on Tier 1 plans, before requesting approval of the final Tier 1 EIS.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for these individual projects would address site-specific impacts. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that these two conditions necessary to require a Supplemental EIS have not been met. A Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 170

Thomas E. and Kathryn R. Jenks

ID	Comment	Response
170.1	The DEIS fails to include a realistic examination of the impact of tolls within its economic analysis of I-81 widening...	An appropriate assessment of the economic impacts has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. The implementation of a low toll on an improved I-81 would gradually shift traffic to the local roadway network, although, in most locations, traffic volumes would still be below 2035 No-Build predictions. The implementation of higher tolls on an improved I-81, however, would result in slight increases in local traffic throughout much of the study area as compared to the No-Build condition. Even though about half of the diverted traffic would go onto U.S. Route 11, the resulting increase is slight as compared for the No-Build condition for this type of roadway (a rural principal arterial) and the overall impact would be low. The remaining traffic diverted from I-81 would be distributed among other local roadways, as well as other interstates (i.e., I-64 and I-95), and the actual traffic impacts on these roadways from the number of additional vehicles would be low as well. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition, largely as a result of the improved efficiency of I-81.
170.2	...it [the DEIS] fails to acknowledge and predict the impact of diverted traffic moving to local roadways to avoid the tolls.	Traffic diversions and their associated impacts expected due to tolls are described in detail in the Toll Impact Study and the Transportation Technical Report. These reports are supporting documents to the Tier 1 EIS, which provides a summary of their findings.

Letter 170

Thomas E. and Kathryn R. Jenks

ID	Comment	Response
170.3	The Department of Transportation fails to include a serious rail alternative in its DEIS. Moving long-haul trucks onto an improved intermodal rail system has been systematically ignored.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 170

Thomas E. and Kathryn R. Jenks

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
170.4	It is unacceptable for the Virginia Department of Transportation (VDOT) to seek to exempt the I-81/I-64 overlap section of Interstate 81 from the final phase of detailed study, or Tier II EIS, which would mean that most of Rockbridge County would never receive a thorough site-specific environmental or economic impact study. There are inconsistencies with "Categorical Exclusion" status including: 1. Significant environmental impacts; 2. Substantial controversy on environmental grounds; 3. Significant impact on properties protected by section 4(f) of the DOT Act or section 106 of the National Historic Preservation Act; or 4. Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.

Letter 171

Joel Kuehner

ID	Comment	Response
171.1	...work with our neighbors in Tennessee, West Virginia, Maryland, and Pennsylvania to form a multi-state rail solution...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Joel Kuehner

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 172

Lynn Leech

ID	Comment	Response
172.1	...do not make a decision until the results of the 2006 Virginia General Assembly multi-state rail feasibility plan for the I-81 corridor has been completed and made public. These results should then be taken into consideration in the DEIS impact analysis.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 173

Faye Lowry

ID	Comment	Response
173.1	It also limits historic properties in the valley to those on the National Register of Historic [Places]. How short sighted! There are far more historic properties NOT on that register than ON it.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Faye Lowry

ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Faye Lowry

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

Letter 174

Colquitt Meacham

ID	Comment	Response
174.1	Add more state police to I-81 and increase safety enforcement (parking violations, aggressive driving, driver testing, etc.).	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.
174.2	Initiate discussions with other states and with the federal agencies to extend the I-81 solution for its entire length.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. Further, the VDRPT multi-state rail study is in cooperation with Norfolk Southern.
174.3	Set more demanding standards for noise, air, and quality-of-life impact analysis (66 db for threshold noise seems arbitrary when considering peak volumes/peak noise traveling conditions) and use these during Phase II design.	The noise standards used in the I-81 Corridor Improvement Study were issued by the Federal Highway Administration for use by state and Federal highway agencies in the planning and design of highways. The Environmental Protection Agency established the National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented.

Letter 175

Suzanne G. Noonan

ID	Comment	Response
175.1	...it [the DEIS] does not deal adequately with the impact of tolls...another major effect that's not addressed is congestion and traffic hazards on local roads, where trucks will go in effort to duck tolls.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.
175.2	...the study doesn't address the effects of paving over as much as 2,500 acres of forest and 5,100 acres of farmland, or of the displacement of businesses.	Section 5.1, Land Use, of the Tier 1 EIS states that loss of forested land and agricultural land could have negative economic effects to agriculture- and forest-related industries. However, improved access to business along I-81 and potential induced growth could benefit the overall economy. Section 5.3, Economic Effects, discusses potential impacts caused by business displacements. It indicates that, while many of the potentially displaced businesses are likely to continue operating in a new location, some businesses may permanently close, resulting in a loss of tax base and loss of jobs.

Letter 176

Sarah Nunneley

ID	Comment	Response
176.1	It is time to take a serious look at rail alternatives, not just the truncated options within Virginia's borders, but the real thing running from Pennsylvania to Tennessee and connecting with the rest of the country.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 176

Sarah Nunneley

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 177

Wendy E. Richards

ID	Comment	Response
177.1	Not only will the actual construction cause massive harm to the local waterways but after that impervious pavement is in place, there will increased run-off of highway oils, gasoline, chemicals, solvents, car parts, and litter which will make its way into our waterways.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.

Letter 178

Nancy F. Qubain

ID	Comment	Response
178.1	The DEIS analysis is all on toll rates and not on the actual costs of the tolls. Why? Do its authors want to mislead the public? For example possible low and high car tolls range between 8 cents and 14 cents per mile. Never does the DEIS mention how much the actual trip will cost, but a car traversing the entire length of I-81 in the State of Virginia - 325 miles - would pay $26.00 at the 8 cent rate and $45.50 at the 14 cent rate. The reader has a much different reaction to the toll question, when he sees the high figure of $45.50 as opposed to a rate of 14 cents. Even worse are projected truck rates, which range between a low rate of 4 cents per axle and a high rate of 7 cents per axle per mile....The DEIS emphasis is on making the project look viable, rather than on its negative impact on the American people, their economy, and interstate commerce passing through Virginia...	As described in the Tier 1 EIS and used for other impact analysis throughout the document, a range of toll rates was chosen to bracket the impacts expected from toll diversion. This range encompasses the national average rates for both passenger cars and trucks. The Tier 1 EIS analysis identifies which routes are particularly susceptible to toll diversion and to what extent diversion may be likely on that route. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. There are several steps that would need to be taken by VDOT before federal approval to toll I-81. In addition, tolls could not be implemented until the completion of the Tier 2 NEPA process for a particular Section of Independent Utility.
178.2	...the DEIS looks at I-81 in terms of the traffic moving in and out of the State of Virginia. Absent from the study is the effect on the local communities and economies that I-81 touches as it passes through Virginia.	The economic impacts from the potential improvement concepts on the I-81 Corridor Economic Study Region (which includes the counties and cities along I-81) have been assessed as part of the Tier 1 Study (please see the Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS). As indicated in the Tier 1 EIS, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.
178.3	The Star Solutions I-81 project should be evaluated from the view and needs of the nation, its users, and what road improvements are really needed, rather than from a study that skewers the financing of the plan to make it look viable when it really is not.	The NEPA process is a separate independent process that evaluates the purpose and need of I-81 improvements and the impacts associated with those improvements. Roadway cross-sections similar to those previously proposed by the PPTA were included in the 211 "Build" concepts analyzed. The Tier 1 study indicates that portions of I-81 need additional highway capacity by 2035 but that no single consistent corridor-length solution meets the needs of future travel demand in the corridor without providing excess or insufficient capacity in the corridor. In addition, the study indicates that a varying number of general purpose highway lanes would most efficiently address the future travel demand. A variable concept would minimize the social, economic, and environmental impacts from consistent lane concepts and provide an opportunity to limit cost by not providing more lanes than are needed. Separated lane concepts are not proposed to be advanced into Tier 2. The Tier 1 EIS discusses financing generally but does not evaluate the funding of any proposed concept. That evaluation is outside the scope of this study.

Letter 179

Frederick A. Richter

ID	Comment	Response
179.1	How does the actual traffic load compare with that forecast in the original study? Have other factors been considered, such as the impact of higher fuel prices, the aging of the baby boomers, and the probable increase in security of our southern border (which would reduce the rate of population growth)?...Economics are apparently driving companies to expand the use of rail transportation, which should certainly be factored into your forecasts.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan (which include US Census population estimates). As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 180

R. Hunt Riegel

ID	Comment	Response
180.1	I note that your web site indicates that the application to FHWA for tolling I-81 includes the statement: "The application requests approval for flexibility in the classification of vehicles to be tolled." Would you please explain to me whether this "flexibility" could include tolling passenger automobiles, overriding the General Assembly's ban?	The ability to apply tolls to all vehicles would require passage by the Virginia General Assembly.

Letter 181

Glenn Rose

ID	Comment	Response
181.1	That impact will reach far beyond the 500 foot corridor that this study designates with just the interstate's noise and air pollution alone. It will reach far beyond 500 feet as track seeks to bypass tolls by taking routes through towns and rural areas to escape tolls. We need a study that looks at the hard pollution that increased traffic will create - litter, tire remains, engine and fuel leaks, cargo spills. We need a study that takes a much more detailed look at these problems.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources, and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Finally, Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. Information presented in this Tier 1 EIS was at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. During Tier 2, impacts will be evaluated in greater detail with consideration of site-specific characteristics.
181.2	To the inadequacies of this report is the added prospect of...designating the Rockbridge area "Categorical Exclusion (CE)" or "Environmental Assessment (EA)" status, thus precluding any more public hearings on the matter.	Regardless of the type of document prepared to comply with the National Environmental Policy Act, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by the Federal Highway Administration.

Letter 182

Hillside House Environmental Education Center, Georgia Smallman

ID	Comment	Response
182.1	...it [the DEIS] fails to acknowledge, along with stated transportation needs, the current growth-related environmental difficulties that already challenge inhabitants of the Great Valley, with impact of an enlarged I-81 potentially catastrophic for many established industries and land uses, making the need for a fully-developed EIS particularly critical.	Section 5.14, Indirect Impacts, of the Tier 1 EIS examines the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. In addition, Section 5.15 of the Tier 1 EIS discusses cumulative impacts which are defined as "the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). The purpose of the cumulative impact analysis is to determine whether any of the improvement concepts, considered with other previous and foreseeable impacts, will result in the significant degradation of a resource, loss of biological diversity, or significant social or economic effects that would not occur if the improvement concepts were considered separately. For the Tier 1 study, potential indirect and cumulative impacts were broadly considered because of the conceptual decisions to be made. Potential indirect and cumulative effects will be evaluated in greater detail commensurate with more detailed information on travel lane and interchange configurations during Tier 2.
182.2	For an Executive Summary of even a Tier I EIS, should briefly acknowledge all major environmental problems, even if briefly, just as it describes the project, its purpose and its location. For few people bother to read the exhaustive detail that makes the entire EIS valuable.	Table ES-4 in the Executive Summary of the Tier 1 EIS contains a summary of the potential environmental consequences of the No-Build and "Build" concepts.
182.3	Possible impacts of an expanded I-81 on broader local land uses, as produced by each alternative course of action, pro and con, are largely absent. These should have been briefly mentioned in the Executive Summary, again enumerated in Chapter 4, and thoroughly discussed in Chapter 5.	Please see response to Comment 182.1. Potential indirect impacts were broadly considered because of the corridor-length decisions that may be made about highway alignment, construction footprints, and the amount of right-of-way that may be needed. Section 5.14, Indirect Impacts, of the Tier 1 EIS discusses the potential indirect impacts of the improvement concepts

Letter 182

Hillside House Environmental Education Center, Georgia Smallman

ID	Comment	Response
182.4	...as increased development caused by an enlarged I-81 generates more areas of impervious surfaces, these additional roads, roofs and parking lots will unavoidably generate increased pollution by stormwater runoff, despite increased use of the preventive landscaping which Chapter 5 recommends for road construction. Therefore over time, there is real risk of increased pollution that has gradually drained into the Valley's valuable deep karst limestone aquifers. Once limestone rocks as deep as deep as the Great Valley's formations are contaminated, cleansing them is impossible. This EIS notes that large amounts of groundwater flow within the voids and caverns of Valley limestone karst more rapidly than through igneous cracked rocks or through clay deposits elsewhere. Possible effective interception by extensive use of various types of bioretention structures, as claimed in EIS Chapter 5, may only delay the pollution process. It should be noted that the risk, of such a critical possible impact on water supplies, is buried just before an improbable, hasty conclusion, on Page 5-58: "No sole-source aquifers would be impacted by any of the impact footprints in the I-81 or rail corridors." Given the lack of groundwater study data in this Draft I-81 EIS, that statement seems rash indeed!	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. In Tier 2, subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for determining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to environmental resources, such as karst features.
182.5	By comparing water quality and retention times for groundwater flowing from the numerous springs in this portion of the Great Valley, USGS researchers found that, in this portion of the Valley, groundwater generally contributes more than half of a surface stream's flow. This important fact was not mentioned in any of the Draft I-81 EIS discussion of groundwater, nor was the fact that this USGS testing program also found that the Valley's calcareous rocks, the deepest and oldest aquifers in Virginia, out-produced all other aquifers within the entire Chesapeake Bay watershed!	Section 5.9, Natural and Geologic Resources, states, "Much of I-81 lies within the Great Valley and follows the course of many major stream systems (e.g., Middle Fork of the Holston River, Beaver Creek, Peak Creek, and Purgatory Creek). "Build" concepts involving I-81 lie chiefly within "discharge" areas, where groundwater is actively sustaining streamflow. This landscape position, coupled with the fact that these "Build" concepts involve the use of the existing roadway alignment to some degree, would result in comparatively minor impacts to groundwater recharge areas. The routing of any surface runoff into subsurface recharge points will be avoided and minimized to the maximum extent possible during subsequent design efforts."
182.6	This I-81 EIS Study, for such an expensive project, should also consider obvious historic trends that would affect usage of an enlarged I-81. Since this study was begun, energy and economic trends have seemed to worsen. These could radically change affect the uses of this road in multiple ways not considered in this report. Impact of such possibilities should be mentioned and assessed.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 183

Jan Smith

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183.1	The toll scheme will divert traffic to local roads. Who will pay the additional cost of maintenance on those roads?...When tolls are not sufficient who/how will the cost be covered?	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The purview of the Tier 1 study is to identify which local roadways could be affected and where these impacts may occur (see Toll Diversion Study). The Tier 2 studies will examine traffic diversion is closer detail and identify any required mitigation measures. The NEPA process identifies the potential environmental impacts of proposed build concepts. Funding of roadway improvements and the feasibility of paying for improvements with tolls is outside the scope of this study.
183.2	How can widening I-81 in Virginia help the truckers when I-81 is not widened in other states?	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. Further, the VDRPT multi-state rail study is in cooperation with Norfolk Southern.

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Jan Smith

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183.3	The environmental consequences are not been addressed- noise, air quality, road salts, oil - are to be addressed later in Tier 2.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Section 5.9, Natural and Geologic Resources, discusses impacts to groundwater and indicates that appropriate stormwater management to offset effects to groundwater would be addressed in Tier 2. Section 5.10, Air Quality, evaluated corridor-length emissions associated with the improvement concepts and Section 5.11, Noise, identified the number of noise-sensitive areas that would be impacted by the No-Build and the range of "Build" concepts. The feasibility of noise mitigation measures would be investigated in Tier 2.

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Pat Thomas

ID	Comment	Response
184.1	You would greatly increase air pollution in the valley (your air impact study is so flawed that it is useless -you did not consider the total traffic increase on all roads from widening 81).	As indicated in Section 5.14 of the Draft Tier 1 EIS, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.

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Pat Thomas

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184.2	You would damage and/or destroy many locally important and historical properties. This goes well beyond the buildings and localities listed in your stage one impact study which hid behind very strict criteria to down play the effect of widening I-81.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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Pat Thomas

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Pat Thomas

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		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

Letter 184

Pat Thomas

ID	Comment	Response
184.3	Trucks are much less efficient than trains at moving vast amounts of freight and people. As gas shortages and pollution problems become worse, trucking becomes much less viable. How many trucks and how much gas do they use to move the same cargo as can be carried by a 50 car freight train?	It is difficult to establish a common freight fuel efficiency by mode as each individual Origin and Destination (O-D) pair has unique trip characteristics that affect the fuel consumed on that trip. For example, road topology, condition, congestion, load, vehicle type, driver training, and many other factors affect trip fuel requirements. For a rail haul, the requirements for truck dray moves at origin and destination points can be some of the most fuel inefficient miles of a trip and their length can affect overall trip efficiency. Both the American Trucking Association and the Association of American Railroads indicate that they have no estimate of current fuel impacts, let alone 2035 impacts. The Department of Energy cites a 1991 source as the best available information on freight energy intensities. The 1991 report evaluates the fuel efficiency of rail freight operations relative to competing truckload service in one region. The findings are based on computer simulations of rail and truck freight movements between the same origins and destinations, based on actual rail and truck operations. Data were provided by U.S. Class I and regional railroads and by large truck fleet operators. Rail achieved from 1.4 to 9 times more ton-miles per gallon than competing truckload service. The study considered rail circuitry, fuel used in rail switching, terminal operations, and truck drayage (for rail). The data used for that study are now 15 years old. On the other hand, the average fuel efficiency of heavy trucks and locomotives has not changed substantially over the past 10 to 15 years. For example, heavy trucks have gotten 5 to 7 miles per gallon for nearly 20 years. The FRA reports that it is unsure of the correct value but, in its analysis of mode choice, it assumes rail is three times more fuel efficient then highway operations.

Letter 185

Lisa Tracy

ID	Comment	Response
185.1	The DEIS, Tier I, has not addressed any of these foreseeable impacts; has brushed the economic impact of tolls under the table, deferring it until Tier II, while at the same time essentially admitting that Tier II could be meaningless, since - as the DEIS itself states -the next step after Tier I could be a Categorical Exclusion or Environmental Analysis scenario that allows building to begin without further environmental and economic study or comment.	An assessment of the economic impacts has indeed been conducted. See the Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects of the Tier 1 EIS. More detailed economic impacts of individual projects would be analyzed during Tier 2. Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are propose to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
185.2	...we would like to see the necessary repairs and improvements on a dozen really dangerous spots along I-81 undertaken and completed with dispatch. VDOT has known of these spots for years. You didn't need a $26 million dollar study to tell you where they are. They are the spots that drive up I-81's fatality rate and give your outside analysts the excuse to declare, inaccurately, that I-81 overall is a dangerous highway.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
185.3	...this whole project needs further study - while those repairs are being done - to address two areas in which the DEIS is clearly deficient. The first is the environment and our quality of life, two of Western Virginia's major assets, which draw good businesses and the vital tourism industry to our area.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific impacts.

Letter 185

Lisa Tracy

ID	Comment	Response
185.4	...as for safety... a wildlife expert has told us that with a widened highway that relies on "Jersey barriers" to divide northbound and southbound lanes - instead of the earthen, forested median strips currently on I-81 - the wildlife kill rate approaches 100 percent.	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.
185.5	You also are going to be creating an additional safety hazard for drivers who will be running into deer and other large mammals that are no longer able to cross the highway. In 2003 in the state of Virginia, the cost of vehicle damage from deer collisions alone was estimated at 42.6 million dollars. Look for that number to increase significantly. And this widening is supposed to make the highway safer for motorists?	Please see response to Comment 185.4.
185.6	The other area the DEIS really fails to address is an obvious, viable solution to much of the excessive through truck traffic in Virginia, and that is the RAIL solution.	Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This concept was proposed during the Scoping Process by Rail Solution, a rail advocacy group. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans. Based on the reasons given in Chapter 6, Tier 1 Decisions, rail concepts are not proposed to be advanced into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While the a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 186

Deborah Ujie

ID	Comment	Response
186.1	...in the rush to get on with the project, VDOT has so far not made a serious effort to assess the potential benefits of a high-speed, intermodal rail system, such as that proposed by RAIL Solutions. I therefore, ask you to make every effort to conduct a complete and thorough multistate rail analysis and to rewrite the DEIS, one based on a study that meets not only the minimum legal requirements of the federally-required study, but also its original spirit, free and fair, untainted by any conflict of interest with STAR Solutions business partners such as Vanasse Hangen & Brustlin.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Deborah Ujie

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. The Federal Highway Administration Virginia Division and VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into a NEPA document.

Letter 187

Joe Vita

ID	Comment	Response
187.1	Could you please tell me if anyone who has been considering a solution for the proposed the I-81 rail system has looked into the MagLev type train used in Germany and Japan?	A Mag Lev rail system would cost roughly $60 million per mile. Because of these prohibitive costs, it is not considered a reasonable concept and was, therefore, not included in the I-81 Tier 1 EIS.

Letter 188

Harry H. Warner

ID	Comment	Response
188.1	Is there available data [to show] where truck traffic originates from and what the destinations are on I-81 going both north and south?	There are some statistics in the I-81 Corridor Improvement Study Transportation Technical Report and in the I-81 Corridor Improvement Study Freight Diversion and Forecast Report regarding the origin/destination pattern of truck users on the corridor.
188.2	Has the alternative cost/benefit of improving Rt 29 in VA to interstate status and linking it to the interstates in NC and MD been researched? It would relieve I-81 growth, give much more flexibility for long term growth with two north/south roads, link Danville, Lynchburg, Charlottesville and Culpepper with an interstate. Cost, distruption and environmental impact may be less.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.

Letter 189

James P. Warren

ID	Comment	Response
189.1	Environmental impact does not consider multi-state rail possibilities from Knoxville, TN to Harrisburg, PA.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 189

James P. Warren

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 190

Robert Wicklund

ID	Comment	Response
190.1	The DEIS, as written, is at best flawed and, as it is contracted to a subsidiary of the named company that will do work on the highway, it is automatically suspect of bias and self serving.	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor. The PPTA process did not influence the alternatives analysis required by NEPA or decisions on the improvement concepts. The Federal Highway Administration Virginia Division took an unbiased, objective, hard look at all facets of VDOT's environmental impact statement preparation, including purpose and need, improvement concepts including the No-Build Concept, and potential impacts. VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into the Tier 1 EIS.

Letter 191

Alice Williams

ID	Comment	Response
191.1	It is possible to solve the overload situation on Interstate 81 at no cost to the taxpayers. Very few vehicles use the roads at four in the morning. I would suggest that from 7 pm until 7 am the roads be used by trucks, and that no trucks over 60 feet (or whatever size seems sensible) be allowed on the interstate from 7 in the morning to 7 at night. If they insist on using it at those hours, they will be charged a huge fee. This toll will be taken at the truck weighing stations. There are several reasons why this plan is good: 1) The trucks will not have the little cars passing them as they speed up and slow down. I assume that most cars will drive during the day if after 7pm the road "belongs to trucks". 2) Cars will be relieved of the dangers of the road wrecks that we now have between cars and trucks. 3) Use of the highway will be spread out over 24 hrs. and the highway will not be overused as it is now. 4) If this is too extreme, the rule could be used just in the Shenandoah Valley. This historical valley is in peril, and the "no trucks in the day" rule could help save the Shenandoah Valley for posterity.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 192

Anonymous

ID	Comment	Response
192.1	My property adjoins I-81. Will VDOT compensate me fairly for what it takes?	Following completion of the Tier 1 and Tier 2 NEPA processes, VDOT would assist displaced families, businesses, and non-profit facilities to relocate into replacement facilities with minimal disruption. VDOT assures that adequate, decent, safe, and sanitary housing would either be available or provided. Each person would have sufficient time to negotiate for and obtain replacement housing or business space. All housing would be fair housing and available to all persons, regardless of race, color, sex, religion, or national origin. The acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Property Acquisition Policies Act of 1970, as amended.
192.2	My property adjoins I-81. Will you provide a sound wall (for noise)?	The feasibility of the noise mitigation measures, such as noise barriers, would be investigated during Tier 2.

Letter 193

Dewie Arey

ID	Comment	Response
193.1	Please wait until the I-81 truck-to-rail study mandated by the General Assembly is completed before proceeding with Tier I of the draft Environmental Impact Statement. Please take the results of the rail study and the widespread public support for multi-model options, like Reasonable Solutions, and rewrite the Tier I draft plan for I-81. I would then like to see a supplemental draft EIS and offer another round of public comments.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 193

Dewie Arey

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 194

William C. Benish

ID	Comment	Response
194.1	Are wildlife crossings being factored? Aside from impact upon the wildlife, this is a safety concern. Since deer frequently attempt to cross or enter roadways, if passage through "safe" crossings is encouraged or facilitated, this should cut down on vehicular damage and the danger to travelers due to wildlife collision occurences. Safe passage through undercrossings along low places such as stream beds will lessen harmful secondary wildlife impact by helping to prevent biological island effects experienced by creatures such as turtles...	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.

Letter 195

Malcolm Cameron

ID	Comment	Response
195.1	The Rail Component study needs to be expanded to include adjacent states and look at passenger rail. Work with our Congressmen to provide funding and tax incentives for rail improvement.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 195

Malcolm Cameron

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. The Tier 1 DEIS described possible sources of funding for rail improvements. See pages 3-9 and 3-10 of the Tier 1 Draft EIS.

Letter 196

Ronald Dean

ID	Comment	Response
196.1	Has anyone thought of double decking. Separating heavy commercial from light passenger vehicles altogether. Plus being double decked for the bottom lanes it takes snow removal out of the picture.	A double deck viaduct would cost roughly $1 billion per mile. Because of these prohibitive costs, it is not considered a reasonable concept and was, therefore, not included in the Tier 1 EIS.

Letter 197

Laura Dent

ID	Comment	Response
197.1	...if you add one or more non-exclusive lanes, create a left lane with "No Trucks Allowed"! Build noise walls!! I saw on your site that noise walls can only be built as part of a *new* project, so please add them to this project!	The feasibility of the noise mitigation measures, such as noise barriers, would be investigated during Tier 2.

Letter 198

Arthur Allen Douglass, Jr.

ID	Comment	Response
198.1	...rigid enforcement of the speed limit, particularly at the northern end above I-64, using high fines collected for the support of 'mobile' check points, having the support of the state's supreme court and the lower courts' judges of the law enforcement officers and their issuance of speeding tickets, the speeding and the many resulting accidents are going to rise. Where there are long up grades, 1/4 mile or more long, a third lane might be beneficial...	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement is not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 199

Christine Edwards and Robin McNallie

ID	Comment	Response
199.1	...take a good look at the Rail Feasibility plan, which will be studied in accordance with the newly-enacted HB 1581...Please wait for the results of this plan before taking action; and please issue a supplemental DEIS after the results are in.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined and has reaffirmed that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put onto rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the FHWA's memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 200

Emerson C. Gambill, Sr.

ID	Comment	Response
200.1	...the trucking industry should be charge a per ton fee for the upkeep of the present I-81. It might be helpful to have the big rigs operate from 9:00PM to 6:00AM at 65 mph and "civilian" drivers be assigned the hours 6:00AM to 9:00PM at 55 mph in order to avoid so many accidents involving trucks and autos. The average driver should not be penalized or expected to finance a large industry.	The per ton fee issue is outside the scope of this Tier 1 EIS. The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 201

RAILSolution, Paul Graham

ID	Comment	Response
201.1	...the estimate of traffic diversions to rail in the DEIS is grossly understated because the study did not include traffic overhead to the Commonwealth of Virginia.	While improvements to I-81 were evaluated in Virginia only, vehicle trips on I-81 were not limited. All trips using I-81 in Virginia as a through route were considered in great detail. This includes trips greater than 500 miles (regardless of how long their I-81 trip is), which data indicate is the minimum distance between origin and destination that a trip could be diverted from truck to rail. The Tier 1 EIS includes all freight movements using the I-81 corridor, regardless of trip length, origin, or destination. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways were both assessed. Therefore, the study team did appropriately evaluate freight diversion to rail for trips of over 500 miles in length.
201.2	Star calls the widening they will do "safety improvements." Widening increases capacity, it is not a safety improvement. The widening proposal does not include physical separation of cars and trucks. Safety problem spots are well documented, exist at about a dozen discrete locations, and require individual study to determine the appropriate remedy to the underlying factors contributing to accidents at each location. A widened road with more mixed traffic will not be safer, and will be at capacity again according to STAR's calculations.	The Tier 1 EIS is a separate and independent review of corridor issues and potential solutions to meet the purpose and need. There is no correlation between the improvements recommended by STAR Solutions and the findings in the Tier 1 EIS. In fact, separated lane concepts are not proposed to be advanced into Tier 2. The number of concepts to be advanced into Tier 2 has been reduced, as described in Chapter 6, Tier 1 Decisions. The "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
201.3	The project will be governed by strict environmental safeguards. On page 6-5, the DEIS recommends less than full EIS level study for the ENTIRE corridor, except for sections of new alignment.	Compliance with all applicable environmental laws and regulations would occur for each project during Tier 2, regardless of the NEPA documents that are prepared for those projects.
201.4	STAR offers innovative financing to be paid by tolls on trucks. Car tolls on interstate highways currently are illegal in VA. VDOT CFO Barbara Reese commented that the STAR financing plan should be given the scrutiny of an investment grade financial analysis, since the debt burden and risk it adds tangentially to the Commonwealth could jeopardize AAA bond rating of the state. The I-81 PPTA advisory panel also heavily qualified their recommendation of STAR including, among other conditions, that federal funding of $1.6 billion is included in the federal transportation bill of 2005- which it was not.	The proposals put forth as part of the PPTA process and any recommendations ultimately presented by STAR are separate and independent from this NEPA process. This study is an independent review of corridor issues and potential solutions. A financial analysis is outside the scope of this study and would be completed as part of a separate investment grade traffic and revenue study, if tolling is implemented.

Letter 202

RAILSolution, Paul Graham

ID	Comment	Response
202.1	Upon review of the data in the DEIS regarding freight diversion analysis in the Freight Diversion and Forecast Technical Report, there are costs included in Table 6-3, Mode Diversion Analysis Results Using URCS Plan 1.0 Estimates of Norfolk Southern Rail Variable Cost/Intermodal Transportation Costs, that are inappropriately used in the analysis. These costs minimize the percentages of truck diversion to rail in a negative manner for the four rail concept plans show in Figure 6-3. Plan 1 rail costs do not include trailer ownership costs or drayage costs. The costs shown in Figure 6-3 include: Truck trailer equipment lease rate (shown as $20 per day), Drayage charge (shown as $340.00, based on $2.00 per mile for 80 miles?). Intermodal Plan 1 involves the movement of a privately owned trailer, usually owned by a motor carrier, fiom one rail terminal to another rail terminal with the motor carrier being responsible for the movement of the trailer to and from the rail terminals. The ownership cost of the trailer is not a cost to the rail carrier, but is a cost the motor carrier considers when pricing that particular movement for a shipper. The costs shown for drayage are also inappropriate as the motor carrier accounts for this when pricing a movement for a shipper. Any extrapolations taken from the percentages of truck diversion shown in Figure 6-3 are in error and should not be used in the DEIS evaluation.	Rail Concept 4 and the description of its characteristics were provided by Rail Solution. Specific details on the intermodal technology were not provided by Rail Solution. The intermodal transportation and inventory cost (ITIC) model calculates total logistics costs for freight movements by alternative modes in order to determine the selected mode. Total logistics costs include all costs from freight origin to final destination and as such include cost borne not only by railroad, but by all shippers, carriers, and receivers involved in the move (including trailer lease and drayage). It is noted that this comment does not suggest any alternative approaches.

Letter 203

RAILSolution, Paul Graham

ID	Comment	Response
203.1	A number of parties have requested that VDOT do a supplemental study before completing the Tier 1 Study. One might ask why should an additional study be made. After all, VDOT admits the more detailed environmental studies will be done in Tier 2, so why is one needed now? It is because VDOT's recommendation of a build option to the Commonwealth Transportation Board (CTB) (a recommendation likely to be approved by the CTB and the Federal Highway Administration) could proceed with widening an unknown extent of I-81 without further hearings...	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted. Regardless of the type of documents prepared in Tier 2 to comply with the National Environmental Policy Act, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by FHWA.
203.2	VDOT should wait for the results of the HB 1581 rail feasibility study and include that in a supplemental Tier 1 Environmental Impact Study before making its recommendation to the CTB.	The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 203

RAILSolution, Paul Graham

ID	Comment	Response
203.3	...the public is not able to make a cost-benefit comparison between any of these options...	As indicated in the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (specifically, in 40 CFR 1502.23), for purposes of complying with NEPA, the merits and drawbacks of the various potential improvement concepts need not be displayed in a monetary benefit-cost analysis, and typically are not, especially when there are other important considerations that are relevant to the decision.

Letter 204

Kathy Hartje

ID	Comment	Response
204.1	If we widen I-81 and have to relocate people of our community are they going to compensated according to today's market price?	Following completion of the Tier 1 and Tier 2 NEPA processes, VDOT would assist displaced families, businesses, and non-profit facilities to relocate into replacement facilities with minimal disruption. VDOT assures that adequate, decent, safe, and sanitary housing would either be available or provided. Each person would have sufficient time to negotiate for and obtain replacement housing or business space. All housing would be fair housing and available to all persons, regardless of race, color, sex, religion, or national origin. The acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Property Acquisition Policies Act of 1970, as amended.

Letter 205

Kathy Holm

ID	Comment	Response
205.1	There seems to be a number of critical environmental impact considerations that have been deferred in this study to Tier 2 of the process. Such deferrals put us in the position of having to accept recommendations for "improvements" in principle without sufficient data about their effects to make informed decisions. More specifically, aspects of the environmental impact study that have not been addressed in this DEIS, but have been deferred to Tier 2 include impacts and mitigation of impacts on: agriculture and prime farmland; parks and trails; tourism; historic properties; culturally significant sites; battlefields; wildlife habitat; wetlands and streams; air quality analysis; ground water recharge and quality; flooding and storm water runoff quality; Karst gology and related unique biota; night sky; human health; local and regional comprehensive, transportation, and land use plans; overall economic impact; corridor-wide cumulative impacts; residential displacements; business displacements; low-income households affected; rest areas and bike trails; These issues have either been deferred to some possible Tier 2 studies, or have been passed over by reference to other federal regulatory mitigation. For these and other reasons, the DEIS is inadequate. At a minimum, a supplemental DEIS should be prepared to address these problems, with further opportunity for public review and comment, prior to issuance of a final Record of Decision under the National Environmental Policy Act, and prior to any issuance of permits for the "improvement" of I-81 and signing of a comprehensive agreement under Virginia's Public Private Transportation Act (PPTA).	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being propoed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. During Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific impacts. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
205.2	We have also seen skyrocketing energy prices over the past year which do not seem to be mitigating themselves soon, if ever. Has anyone considered the impact of higher gas prices on these proposed improvements and how they would contribute to paying for this project???	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. As stated in the Tier 1 Final EIS, actual funding for improvements to I-81 may be a combination of Federal, state, and private sources (including tolling). Some of this funding may be derived from fuel taxes.

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Scott Jost

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206.1	The addition of tolls and massive increases in lanes and traffic will cause many drivers to divert to adjacent Rt. 11, which will reach overcapacity in the process. The impact on U.S. Rt. 11 by massive I-81 expansion has not been adequately addressed.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.

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Scott Jost

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206.2	I am very much in favor of diverting truck traffic to rail. Unfortunately, the rail alternative has not been given serious consideration by VDOT. VDOT must take the rail alternative seriously, and look at rail from a comprehensive, multi-state standpoint. For example, one attractive option already on the table involves an intermodal rail corridor between Harrisburg, PA and Knoxville, TN. If VDOT only considers rail diversion within the boundaries of Virginia, it is doomed to fail... A private-public partnership with rail companies should be explored to make rail diversion of truck traffic viable.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Scott Jost

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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Tim Jost

ID	Comment	Response
207.1	...the tier I EIS is replete with errors. The most serious of these is its failure to consider long distance rail and its failure to consider spot widenings of I-81 to address what is essentially a truck problem.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
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207.2	...we need to look at actually enforcing traffic laws on I-81...If you want to stop accidents, don't add more lanes, just slow the trucks down.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.
207.3	We need a supplemental EIS to look at solutions overlooked in the first one, and to address some of the obvious mistakes made in the first EIS.	Please see response to Comment 207.1. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier Supplemental Draft EIS is, therefore, not warranted. If funding commitments arise from the aforementioned HB-1581 Study, FHWA will reevaluate the Tier 1 Final EIS, as appropriate.

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Tim Jost

ID	Comment	Response
208.1	The bias in the document is obvious on its face. It does not even consider rail solutions of a realistic and appropriate scale that would actually remove a significant share of the truck traffic from I-81. It does not consider improvements within the footprint of I-81 that would alleviate current problems without creating new problems.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Tim Jost

ID	Comment	Response
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208.2	The bias of this document is also obvious from the air quality sections of the EIS...They [the authors] claim that a maximum build solution would reduce air pollution and energy consumption because the tolls would get trucks off of I-81. If we are going to have fewer trucks, why do we need a bigger road?	There are several factors contributing to the reduction of air pollution and energy consumption. As roadway improvements are made, vehicles are able to travel at consistent rates of speed with reduced congestion; the elimination of idling vehicles is a major contributor to the reduction of air pollution. Further, as noted in the Tier 1 EIS, regardless of the number of trucks removed from the interstate (even if all trucks were removed) many sections of I-81 would still need improvements to accommodate 2035 traffic demands. Without these improvements, congestion is expected to worsen and idling emissions would continue to increase.

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Tim Jost

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208.3	The document seriously suggests that increasing tolls on I-81 would not increase pollution on Highway 11 because it would not increase traffic on Highway 11 beyond increases that would otherwise take place. If I have to pay a significant toll to get from Harrisonburg to Lexington on I-81, I am heading for Highway 11. I expect a lot of others will do the same. I can't imagine anyone paying $5 to get from Harrisonburg to Staunton if they can drive it on 11. But my car will still be traveling between Harrisonburg and Lexington, I will still need to get to work. I will now be burning more fuel, and causing more pollution, because I will be constantly starting and stopping, speeding up and slowing down.	As noted in the Executive Summary in the Tier 1 EIS and described in great detail in the Transportation Technical Report, an expanded I-81 without tolls would improve conditions on U.S. Route 11 and other local roadways in the I-81 study area by diverting traffic from these local roadways to the interstate. This is especially true in the more populated or urban areas. The analysis shows that five to 15 percent of traffic on parallel facilities will divert to an improved I-81 in 2035, reducing congestion along the local roadway network. If tolls are implemented, a portion of this traffic (depending on the toll charge and which vehicles are tolled) will divert back to the local roadway system. Under the low toll scenarios, traffic volumes on Route 11 are expected to be below 2035 No-Build projections, despite vehicles diverting from I-81 because of tolls. Therefore, there is no negative impact from tolls when compared to the No-Build condition. Under the high toll scenarios, volumes from diversion are pushed back to or beyond 2035 projections. Therefore, there is only a low impact caused by tolls when compared to the No-Build condition.
208.4	The EIS does not even consider carbon monoxide emissions. It does not examine potential impact of a maximum build solution on non-attainment areas, although it notes that some counties are in non-attainment status. The Valley traps air pollution, and much of the additional pollution that a New Jersey turnpike running up the Valley creates will be added to our already heavy load, as well as to the pollution load of Shenandoah National Park, already one of the most polluted parks in the country.	EPA has established National Ambient Air Quality Standards (NAAQS) that set limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of volatile organic compounds (VOCs), oxides of nitrogen (NOx), particulate matter (PM2.5), and carbon monoxide (CO). Section 5.10, Air Quality, of the Tier 1 Draft EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. The 1990 Clean Air Act Amendments and the Virginia State Implementation Plan require that a proposed project not cause any new violation of the NAAQS or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. A detailed air quality analysis would be conducted during Tier 2. Any individual projects would have to conform to the NAAQS before they could be implemented.

Letter 209

Keplinger Family

ID	Comment	Response
209.1	...wait until the I-81 truck to rail study is completed, and use this information to change the widening plan.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Keplinger Family

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 210

Bonnie Price Lofton

ID	Comment	Response
210.1	...the Multi-state Rail Feasibility Plan has not yet been completed and that it has not received full consideration as an alternative to the Environmental Impact Study. If this is so, awaiting this plan is an absolute necessity before any decisions are made. The plan may point to the need for a Supplemental Draft Environmental Impact Study.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Bonnie Price Lofton

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Orv Lehman

ID	Comment	Response
211.1	I am concerned about highway runoff especially after the fish kills in the Shenandoah River. It seems important to include wildlife tunnels for wildlife to use. They should be numerous and large. Please do away with wildflower gardens as they kill numerous hummingbirds and butterflies with vehicular collisions...	All improvements would require appropriate best management practices to attentuate storm flow and mitigate pollutant loads. All such features would be designed and constructed in accordance with the Virginia Erosion and Sediment Control Handbook. Appropriate stormwater management would be addressed in Tier 2. Furthermore, in Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.

Letter 212

Alisa K. A. Lundeen

ID	Comment	Response
212.1	... I see no reference to the aquifer and groundwater that supplies each and every one of us with the water we require to sustain life. I haven't forgotten the horrendous accident at Exit 222 involving a chemical spill and explosion that could have compromised our only source of water. Has VDOT considered how water supply might be affected, what can be done now to protect water supply, and what responsibility VDOT will take in the event of a chemical spill?	Local, state, (Virginia Department of Emergency Management and Virginia Department of Emergency Quality) and Federal government agencies (such as the U.S. Environmental Protection Agency) would respond to hazardous material spills on I-81. VDOT often acts as a support agency to one of these agencies by providing traffic control or materials to contain the spill. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.
212.2	I further am amazed to have watched your spokesperson on TV-3 state that AFTER construction begins, then further environmental impact studies will be conducted. If VDOT intends to conduct environmental analyses anyway, why not do it up front prior considering plans so that problems can be avoided.	Chapter 1, NEPA Tiering Process, of the Tier 1 EIS clearly indicates that, during Tier 2, construction of individual projects could not occur until the completion of subsequent NEPA documents and, furthermore, compliance with all applicable environmental laws and regulations would occur for each project during Tier 2.
212.3	...put into place policies, staff training, and operational plans that recognize VDOT is a community resource and, therefore, is accountable to us. Develop and publicize a way for commuters to notify you of problems, establish procedures for dealing with these situations in a timely manner including notifying local radio stations, and get rid of employees who do not respond civilly or truthfully to callers. 2) Coordinate with local law enforcement to enforce prevention versus punishment. Unmarked cars who catch people speeding may slow traffic temporarily but an underdog caught speeding can create sympathy amongst those of us who think, "There but for the grace of God...". Instead, make it a point to run marked cars at times of heavy traffic - in Central Shenandoah this means 8-9am, 3pm, 5-6pm - in order to enforce safe driving. Make the minimum speed 65mph and get vehicles off the road which do not operate at the posted speed limit. Require trucks and slower vehicles to stay in the right lane, so they do not inhibit the flow of traffic. 3) Provide amenities to travellers, including truckers. Virginia reststops are run down, filthy, and the bathrooms stink so powerfully of disinfectant that the chemical fumes suggest a toxic waste dump. Give people a reason to stop by providing paper and wall maps, indoor seating, hygenics facilities, and phones that connect to motels and tourist attractions. If needed, coordinate improvements with other Virginia State departments. Also, post, "Stay Alert" and other such signs, along the highway as well as electronic alerts to notify commuters to delays and accidents. These are improvements that can be made immediately which would alleviate some of the existing problems of I-81 and which are long term investments that will reap benefits regardless of which plan is chosen.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement is not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction. Additional rest areas along I-81 could complement roadway improvements as an element of the concepts.

Letter 213

Ian Maddison

ID	Comment	Response
213.1	The proposal for I-81 widening takes no account of energy costs and usage. The fuel consumed on inertial changes made by trucks in traffic is a significant part of their costs and explains the murderous attempts by most of the speeding trucks on I-81 to conserve momentum. This is not addressed, neither is the inevitable increase in fuel costs over the next 20 years. At present the energy costs of alternative fuels will not be competitive, especially since many of them, proposed by the current administration, use the same fossil fuels in their generation. There is a limit to the change in agricultural land use and water use that would make a large enough generation of alternative fuel to justify the old fashioned style of freeway enlargement proposed for 1-8 1	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
213.2	...the reporting of the effects of fatigue on incidence of crashes have been reduced by the expedient of comparing collisions per vehicle type with road usage averages for that vehicle type. This action, deliberately or accidentally, hides the effect of long driving distances without adequate rest when applied to heavy vehicles. The figures would make more sense, if the actual distance traveled by a vehicle involved in an accident was used as a basis for the risk calculation rather than the average distance traveled by the average truck with or without an accident.	Crash statistics reported are consistent with Federal and state guidelines. They are categorized by facility type. Statistics such as these are collected using the same parameters so as to present a comparison of data on similar facilities in different locations. Crash statistics are not compared based on length of trip. There is no way to identify the trip length of vehicles involved in crashes, since that information is not collected by law enforcement responding to the crash.

Letter 214

Ian Maddison

ID	Comment	Response
214.1	...the cost for development [should] include the construction of sound-limiting barriers...The possibility of cut-and-cover should also be considered for an already sunken roadway...cut-and-cover offers additional land to James Madison University as well as significant reduction in noise.	Chapter 5 of the I-81 Corridor Improvement Study Concept Development and Analysis Technical Report discusses preliminary cost estimates for each improvement concept. Noise barriers were incorporated into this preliminary estimate.

Letter 215

Francoise Marchat

ID	Comment	Response
215.1	I think your growth assumptions are very questionable...high oil prices will make differences...traffic might decrease.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, to the extent that was reasonable, population and growth projections for the Winchester Metro Area are consistent with those produced for the Win-Fred Long Range Plan which has been adapted by the region. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. Notwithstanding, traffic forecasts will be reassessed and updated as appropriate for the Tier 2 NEPA studies for each SIU.

Letter 216

Francoise Marchat

ID	Comment	Response
216.1	More recent data should be analyzed, posted, and used (at least to monitor trends) before committing to such a project. Given developments this past year (oil prices for example), you want to avoid basing huge projects on outdated assumptions.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, to the extent that was reasonable, population and growth projections for the Winchester Metro Area are consistent with those produced for the Win-Fred Long Range Plan which has been adapted by the region. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. Notwithstanding, traffic forecasts will be reassessed and updated as appropriate for the Tier 2 NEPA studies for each SIU.
216.2	The STAR project for I-81 is a worst case scenario, and it is deeply flawed in fundamental ways. It assumes an extreme increase in traffic, which is not likely to occur. It plans for a maximum amount of construction, which would invite disaster rather than remedy it. It uses extreme assumptions and plans extreme actions, against all common sense.	The Tier 1 EIS is a separate and independent review of corridor issues and potential solutions to meet the purpose and need. There is no correlation between the improvements recommended by STAR Solutions and the findings in the Tier 1 EIS. In fact, separated lane concepts are not proposed to be advanced into Tier 2. The number of concepts to be advanced into Tier 2 has been reduced, as described in Chapter 6, Tier 1 Decisions. The "Build" concept that is being proposed to be advanced into Tier 2 is proposed to be a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
216.3	Data should be analyzed carefully to track changing usage patterns. More data should be collected and analyzed as needed to answer questions about trends and trouble spots. Alternatives should be listed and investigated. In addition, the data, not just selected reports, should be easily and routinely available to the public, for example in a database available online.	Data from the past 30 years were collected and analyzed as part of this study. These includes data collected during periods of economic recession and previous energy crises. The information collected as part of this study has been made available on the I-81 project website.
216.4	In areas with heavy commuter traffic which reverses direction at different times, switchable lanes in the median that could accommodate all traffic might help.	Final decisions on the precise location, configuration, and operation of lanes will be made at the conclusion of Tier 2, based on traffic projections or other factors, when detailed information is developed.

Letter 216

Francoise Marchat

ID	Comment	Response
216.5	If STAR occurs as planned, my property will be seriously degraded, and possibly taken. Compensation for this should include replacement cost before STAR, moving expenses, and possibly damages. Has this been taken into account?	Please see response to Comment 216.2. Following completion of the Tier 1 and Tier 2 NEPA processes, VDOT would assist displaced families, businesses, and non-profit facilities to relocate into replacement facilities with minimal disruption. VDOT assures that adequate, decent, safe, and sanitary housing would either be available or provided. Each person would have sufficient time to negotiate for and obtain replacement housing or business space. All housing would be fair housing and available to all persons, regardless of race, color, sex, religion, or national origin. The acquisition and relocation program would be conducted in accordance with the Uniform Relocation Assistance and Property Acquisition Policies Act of 1970, as amended.

Letter 217

Earl Martin

ID	Comment	Response
217.1	...respond to the widespread criticism of the DEIS at public hearings...wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS...issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 217

Earl Martin

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 218

Robert McFadden

ID	Comment	Response
218.1	...no plans are being made to connect I-81 with the H Corridor at Strasburg in West Virginia! VDOT is simply "blind" to the obvious need to connect the two highways. First, the H Corridor provides a major evacuation route for the citizens of northern Virginia in case of a major disaster. In light of Hurricane Katrina, it is an obvious and urgent need. Second, the connecting link at Strasburg provides the major route to the recreational areas of the Appalachian Mountains. Ski resorts, hunting areas, and scenic locations are all included in this. West Virginia's State Parks are accessible through this connecting road. Third, the road connecting I-81 with the H Corridor connects with the Robert C. Byrd Regional Appalachian Highway system. For regional transportation, it is a key and crucial link. Fourth, planning for the reconstruction of I-81 is being done to handle the increased traffic in the years ahead. A connecting link with the major highways in the mountains would reduce traffic on I-81, both trucks and automobiles. One of the major goals of rebuilding I-81 is to provide for traffic needs in the future.	The purpose of the Tier 1 EIS is to address the current and future needs along the entire 325-mile corridor of I-81 in Virginia. A connection between I-81 and Corridor H is a separate and independent project and was, therefore, not included in the study.

Letter 219

Edward Miller

ID	Comment	Response
219.1	Tolling on I-81 is a poor idea. It discourages business from locating along the I-81 corridor. It encourages traffic to move to secondary routes, much less suited for heavy traffic. It either slows the movement of traffic by requiring vehicles to stop, sometimes numerous times, or it requires vehicles to purchase automated equipment to automatically pay tolls. There are many disadvantages in tolls. Finacially, it is not efficient, as the mere process of collecting tolls will in itself cost money. A much wiser choice to increase revenue, would be to increase the existing fuel tax. Increasing the fuel tax, would raise revenue, and would not have any of the aforementioned drawbacks, nor would it cost moeny to collect like ongoing tolls would.	For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls would not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the improved efficiency of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. National evidence shows, in fact, that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule. Further, while some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.

Letter 220

William and Louisa Painter

ID	Comment	Response
220.1	Enforcement of existing traffic laws must also be a part of any program to improve I-81...And firm enforcement must extend to adjacent highways such as US 11, 29, and 340, so the problems of I-81 do not simply move to other roads.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 221

Don Seese

ID	Comment	Response
221.1	Are there any statistics regarding the length of trips, by the various users of I-81? I suspect that a large part of the congestion is caused by people using the Interstate as a commuter road, rather than a long distance road, as it was originally meant to be.	There are some statistics in the I-81 Corridor Improvement Study Transportation Technical Report and in the I-81 Corridor Improvement Study Freight Diversion and Forecast Report regarding the origin/destination pattern of truck users on the corridor.

Letter 222

Robert Shehane

ID	Comment	Response
222.1	I'm very concerned that a highly flawed and incomplete model is being used to forecast the need for this costly and destructive highway. The model simply extrapolates future transportation load from historical data. Much higher fuel cost resulting from the arrival at peak oil, concurrent with dramatically increased consumption by China, India, and other countries racing to establish consumer societies, is not considered. The fact that 78 million baby boomers - one half the current workforce - will retire in the next 10 years was not considered in the plan.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan (which include US Census population estimates). As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 222

Robert Shehane

ID	Comment	Response
222.2	Understandably, rail was not considered for future transportation planning because VDOT has no control over it. However, rail must be a central component of any future transportation plan. Either VDOT needs to be authorized to subsidize rail infrastructure, or broad transportation planning needs to be handed to an existing or new agency possessing this authority.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 222

Robert Shehane

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
222.3	The General Assembly this session passed HB 1581, mandating a multi-state study of ways to divert up to 60 percent of the long-haul, through truck freight traffic to intermodal rail in the Interstate Route 81 Corridor. VDOT should wait for the results of this study and incorporate it into the Tier I draft Environmental Impact Statement (EIS) for I-81, before completing the Tier I study...	Please see response to Comment 222.2.

Letter 223

Charles Shiflet, Jr.

ID	Comment	Response
223.1	The I-81 Corridor from the Gulf of Mexico to the Canadian border is a national study, then why isn't there any coordination between the states? West Virginia has solved their problem around Martinsburg, while Virginia is still stuck with a 1950s model. This point has not been mentioned either. Also, I haven't heard or seen extensive planning by our northern neighbors Maryland and Pennsylvania.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and in October 2006 at the Capital Corridor Summit in New York. They have a continuing commitment to work together to discuss transportation conditions on I-81. The Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. Any funded, committed rail improvements emerging from the study would be evaluated, as appropriate, prior to Tier 2 NEPA approvals.

Letter 224

Donald H. Zuercher

ID	Comment	Response
224.1	...study the possibility of a double deck roadway.	A double deck viaduct would cost roughly $1 billion per mile. Because of these prohibitive costs, it is not considered a reasonable concept and was, therefore, not included in the Tier 1 EIS.

Letter 225

John Adamson

ID	Comment	Response
225.1	A 30 year planning horizon is too long...Limit the planning horizon to 10-15 years.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take 10 years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2.

Letter 226

Rev. James Baseler

ID	Comment	Response
226.1	Have you seriously considered the rail alternative or at least a rail option? I believe you come to a bogus conclusion - "rail improvements alone do little to address future needs on I-81."	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 226

Rev. James Baseler

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
226.2	Have you thought about upgrading US 29 to interstate status? There's another north-south route that could take a lot of pressure off of I-81.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.

Letter 227

Marion and Bernard Brown

ID	Comment	Response
227.1	...how would VDOT propose to cope with the immense traffic jams which would occur northbound at the West Virginia border and southbound at the Tennessee border.	There are currently three lanes in each direction for at the Virginia/Tennessee border. In addition, the proposed "Buid" concept does not involve widening the first three miles of I-81 in Virginia. Furthermore, potential improvement concepts on I-81 in Virginia include any planned roadway improvements at the Tennessee and West Virginia state lines and, following Federal design guidelines, would provide adequate distance for transition. Therefore, no bottlenecks would be created by construction of the concept proposed to be advanced into Tier 2.

Letter 228

Beth Cardwell

ID	Comment	Response
228.1	...Your purpose and need statement - the most important information you could share with the public - is not detailed or specific. Whose purpose and need are you presenting? I believe you are confusing the needs of industry with the needs of Virginians and Valley residents...	Chapter 2, Purpose and Need in the Tier 1 EIS explicitly lists the needs along the corridor. These include over 90 percent of I-81 operating below the Level of Service standard by 2035, 45 miles of the corridor (7 percent) currently being in excess of the statewide crash rate and accounting for 21 percent of all crashes and 33 percent of all fatalities, and numerous existing geometric deficiencies. Without improvement, further degradation of the highway safety and capacity is expected. These impacts have a direct impact on residents of Virginia, as a whole, and the Valley specifically.
228.2	...Why haven't you presented detailed maps of which homes, businesses, and battlefields will be destroyed?...	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts.

Letter 229

Kenneth S. Culnan

ID	Comment	Response
229.1	...consider seriously the forthcoming multi-state rail feasibility plan along with lower cost, lower impact alternatives for improving I-81.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Kenneth S. Culnan

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Letter 230

Ed Drabkowski

ID	Comment	Response
230.1	Rail freight can handle greater loads for lower cost and rail infrastructure takes less abuse than highway pavements. Shouldn't this be studied more fully?	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 231

Warren B. French, Jr.

ID	Comment	Response
231.1	Could the resources of Amtrak which provides daily passenger rail service over routes using private railroads; the Appalachian Regional Commission that is a federal-state partnership that works with the people of Appalachia to create opportunities for self-sustaining economic development and improved quality of life; and the Department of Agriculture's REA-Telephone Program that made low cost loans to improve telephone service in rural America be helpful in preparing a feasibility study to improve major East Coast railroad routes to handle long haul truck containers?	Potential funding options were not part of the scope of this Tier 1 EIS. Further, concepts were not dismissed in the Tier 1 EIS because of high costs. Rather, rail and roadway concepts were evaluated to determine the degree to which they would meet the needs on I-81. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 232

Kim Hafner

ID	Comment	Response
232.1	With the increase in truck traffic we'll see a tremendous increase in air pollution. Has VDOT considered this?	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts.

Letter 232

Kim Hafner

ID	Comment	Response
232.2	There should absolutely be no VDOT decision before the Virginia General Assembly multistate rail feasibilty plan has been thoroughly examined. What are some of the reasons for seriously considering this plan? How about that it would be one third cheaper than VDOT's plan? How about that it would produce one-fifth the pollution of trucks? How about that it would require one-third the energy to move freight? How about that it would use little land for major capacity increases?	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 233

Diana Horvat

ID	Comment	Response
233.1	The General Assembly this session passed HB 1581, mandating a multistate study of ways to divert up to 60 percent of the long-haul, through-truck freight traffic to intermodal rail in the Interstate Route 81 Corridor. VDOT should wait for the results of this study and incorporate it into the Tier 1 draft Environmental Impact Statement (EIS) for I-81, before completing the Tier 1 study.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 234

Maurice Houghton

ID	Comment	Response
234.1	Of all the literature I have read which has been put out by your organization, I find no mention on the fact that trucks using I-81 at present are subject to a toll.	While it is currently legal to toll trucks on I-81, no tolls have been implemented along the interstate. Tolls could not be implemented to any vehicle unless improvements were made to the interstate.

Letter 235

Wendy Jaccard

ID	Comment	Response
235.1	VDOT exaggerated the need for future capacity, projecting trucking growth using low fuel prices and ignoring today's chronic truck driver shortage.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 235

Wendy Jaccard

ID	Comment	Response
235.2	VDOT set up rail to fail. VDOT disregarded rail upgrades outside Virginia -- rejecting a Knoxville to Harrisburg route (long enough for intermodal transfer).	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 236

Ronald N. Landis

ID	Comment	Response
236.1	A rail alternative is inadequately examined: The Knoxville to Harrisburg length was not examined, only rail within Virginia and here only 33 miles of upgrades to existing lines are proposed. Rail upgrades financed with loans fiom the $35 billion Federal Railroad Rehabilitation and Improvement Fund could increase capacity for handling through intermodal freight in the corridor.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Ronald N. Landis

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
236.2	The assertion of minimal diversion to other roads if I-81 is tolled is laughable on the face of it. Routes 340, 11 and 42 will be overloaded with trucks if I-81 is tolled.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes (including Routes 340 and 42) that are likely to see diversions caused by tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.

Letter 236

Ronald N. Landis

ID	Comment	Response
236.3	Study set a 500 foot limit on the environment that would be considered impacted; it omits substantial impacts on the environment which will extend well beyond the 500 foot limit-air and water pollution, noise.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width is reasonable for a Tier 1 analysis because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Finally, Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. During Tier 2, noise impacts will be evaluated in greater detail with consideration of site-specific characteristics.

Letter 236

Ronald N. Landis

ID	Comment	Response
236.4	Decisions on the future of I-81 at the end of the Tier 1 process will preclude any new options in Tier 2 where the impacts on the local and regional economy, air, water, historic, cultural and natural resources will be examined in much greater detail. By ruling out spot highway improvements, rail freight upgrades and transit options now, options are forclosed in the next stage of planning for I-81.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts. As discussed in Chapter 6, Tier 1 Decisions, along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS. Localized alternatives would be evaluated as necessary during Tier 2.

Letter 237

Ronald N. Landis

ID	Comment	Response
237.1	I believe that your Tier 1 DEIS on rail is seriously flawed because it focuses only on the stretch of railroad within Virginia. It should have focused on at least a 500 mile multi-state stretch from Tennessee to Pennsylvania when evaluating cost and freight impacts as compared with highway alternatives.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Ronald N. Landis

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 238

Susan Lane

ID	Comment	Response
238.1	The draft EIS is a joke, and does not address the real issues that will be caused by an I-81 expansion, especially by tolls that will drive heavy truck traffic onto Route 11.	The implementation of a low toll on an improved I-81 would gradually shift traffic to the local roadway network, although, in most locations, traffic volumes would still be below 2035 No-Build predictions. The implementation of higher tolls on an improved I-81, however, would result in slight increases in local traffic throughout much of the study area as compared to the No-Build condition. Even though about half of the diverted traffic would go onto U.S. Route 11, the resulting increase is slight as compared for the No-Build condition for this type of roadway (a rural principal arterial) and the overall impact would be low. The remaining traffic diverted from I-81 would be distributed among other local roadways, as well as other interstates (i.e., I-64 and I-95), and the actual traffic impacts on these roadways from the number of additional vehicles would be low as well.

Letter 239

William C. Lane

ID	Comment	Response
239.1	Therefore, the whole case for this project depends on a guess about what future traffic growth might be. To guess future growth, VDOT takes 9 straight line projection of past traffic growth and projects it out thirty years. But both parts of the procedure that VDOT has adopted are fatally flawed. The first flaw is that, 30 years is a ridiculous planning horizon. It is far too long. There is no possible way that any guess that goes out 30 years in the future can be accurate. The Draft EIS says that construction even on the massive version of this project will take ten years. So why not take ten years as your planning horizon? More realistically, why not take 4-5 years. That way you can know with reasonable certainty that there will be a demand for your product when you are done. You will not be expanding this highway, and doing terrible environmental damage to the Valley, in the service of an illusion. The only reason for picking a thirty year planning horizon is to drive the analysis in favor of the conclusion that VDOT wants to reach. No possible projection of growth over the next ten, or even fifteen years could justify the kind of large-scale damage that VDOT wants to do. So VDOT picked 30 years. But nothing in the Draft EIS justifies the use of a thirty year planning horizon. In the Transportation Technical Report, a large table shows how crowded each segment of I-81 will be thirty years from now under the No Build Option. But because VDOT uses a linear, compound growth projection, about 60% of the projected increase in traffic comes after 2020. Almost 80% of the projected increase in crowding comes after 2015. There is no justification for expanding the highway now to take care of traffic that will not show up, even if all of your projections are right, until after 2015. Any private manager who suggested that a new factory should be built because the old one might be overcapacity thirty years from now would be told that he is out of his mind. The same thing applies to highways.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take 10 years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2. Further, the growth projections used as part of this study are not linear. Overall growth rates are reported as average annual for simplicity in reporting. In fact, growth rates are expected to be closer to 3 or 3.5 percent for the next several years, gradually slowing to about 1 percent per year by the horizon year. The majority of traffic growth can, therefore, be expected in the near term.
239.2	The second flaw is VDOT's decision to project past growth into the future, The Transportation Technical Report says: "The results of all historical volume analyses and projected future volume research indicate that average annual traffic volumes on I-81 are likely to continue growing along their current linear path." This statement is wrong for two reasons. First, VDOT did not do any actual estimation of future volume. None of your analysis looks toward factors that might affect traffic flow in the fbture; it is all based on the simpleminded assumption that the past thirty years of growth will continue on a straight line into the future. Second, there are in fact big changes, both economic and technical that will dramatically reduce traffic growth in the future that have not been considered.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
239.3	When gasoline prices exceed five dollars per gallon (which they will do if crude oil prices only double) traffic on I-81 may be flat or decline rather than increasing. We do not know for sure because VDOT has not done that analysis.	Please see response to Comment 239.2.
239.4	A second factor that VDOT failed to consider is computing technology, which is making telecommuting more and more feasible. Today, the major barrier to telecommuting is simple inertia on the part of managers. But since every study I have seen shows that workers who telecommute are more productive than those who don't, the marketplace will soon overcome that inertia. There is no analysis anywhere in the Transportation Technical Study of how dramatically increased telecommuting will affect traffic demand.	Please see response to Comment 239.2.

Letter 240

William C. Lane

ID	Comment	Response
240.1	Your projections suffer from...projecting into the future a linear continuation of what has happened in the past. This is...the easiest project to make, and it is also the easiest way to avoid criticism, since anyone who tries to question it has to show why things might change. The only problem with this approach is that it often leads to the wrong conclusion.	It is standard procedure to refer to future growth on an "annual average" basis for simplicty in reporting. However, as described in the Transportation Technical Report, future forecasts are made by "aggregate growth" - the amount of growth expected over the next 30 years. As the report indicates, it is very likely that growth within the corridor will not occur linearly and will, in fact, diminish over time. Therefore, the actual annual growth would most likely be on the order of three percent annually for the next few years, gradually declining to one percent annually - an average growth rate of two percent annually.
240.2	Consider first commuter traffic, which accounts for the majority of the projected growth in your study, especially in your "high growth" areas. Today with only a few exceptions, there is no reason that anyone who works primarily at a computer should commute to their job...Eventually, the market will reward this additional efficiency and managers who insist on people showing up at work will simply be removed. None of this was true during the base period of yoru linear projection; it only became true during the past 4-5 years, and its truth is still not reflected in the way people behave.	While some "high growth" areas are anticipated to be commuter growth, interstate to interstate travel (I-81 to/from I-77, I-64, or I-66 as well as I-77 through traffic and I-64 through traffic) and through state travel (Tennessee to West Virginia, or a number of states to Eastern Virginia and Washington DC) are expected to have a substantial effect on growth in the corridor. These trips range in nature from pleasure to business. Some reduction in future travel demands can be (and was) taken into account for changes in commuting patterns, however, they do little to alter future demand needs of the corridor.
240.3	A second reason your linear projection is wrong involves future fuel prices. Your projection of future traffic flows on I-81 does not even mention the future price of oil. Price is, of course, a function of supply and demand. The supply of oil is fixed, while the demand is growing. This will necessarily result in large price increases, of which we are now experiencing only the beginnings. The supply of oil is fixed or possibly declining...All of this means that the long-term price of oil (and hence of motor fuel) will substantially increase. This in turn means a) that the use of cars for long-range personal travel will tend to decline, and b) that the use of trucks to haul long-range freight will decline relative to other modes. Truck miles on I-81 may still increase, but they will not increase nearly as fast as your linear projection suggests.	While some short-term fluctuation is likely, historic fuel cost increases have not slowed traffic growth over the long-term. Further, future fuel cost increases could be offset by advances in alternative fuel sources. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making.
240.4	Is there not a considerable degree of arrogance involved in presuming to project travel miles on a major highway in 2035? Why 2035? This is never explained in either your study or your technical report. Why not 2105 or 2235? Obviously, if you assume any growth percentage (even 0.1%), then pick your planning year far enough in the future, it is possible to justify building anything because of projected growth between now and then. But what, exactly, is the rationale for 2035? No rationale is suggested in your documents.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take 10 years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2.
240.5	Reasonable planning for any project would consider demand in the year in which construction is to be complete. Do you really expect that it will take nearly 30 years to build the projected "improvements" to I-81? If construction will take that long, it is not worth doing. On a discounted present value basis the disruption and slowing of traffic that will be caused by 30 years of construction will far outweigh any long-term improvements in traffic flow. Assuming a more reasonable period for construction -- say through 2015 -- your whole analysis falls apart. Running your projected traffic flow numbers just through 2015, I-81 will be experiencing no problems to speak of. So why not wait until 2015, and decide then whether or not to go forward with this project?	Please see response to Comment 240.4.

Letter 240

William C. Lane

ID	Comment	Response
240.6	...you do not consider noise pollution unless it reaches 67 decibels. Sixty decibels is the sound level of normal conversation. Currently, when I go to sleep at night, I hear nothing, not even 1 decibel, except for the occasional owl hooting or deer walking through the bushes. My personal environment, and the environment of tens of thousand of other citizens would be dramatically worsened if I had to listen to a sound level equal to normal conversation while I was trying to fall asleep. To simply ignore that impact (not even to consider how far from the highway it might extend) is not only inhumane; it violates NEPA.	FHWA has established Noise Abatement Criteria (NAC) to help protect public health and welfare from excessive vehicle traffic noise. The regulations contain noise abatement criteria that represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. Recognizing that different areas are sensitive to noise in different ways, the NAC varies according to land use. Noise is considered problematic when it interferes with speech communication on the land use associated with the property. The NAC were included in Table 4.10.1 in the Tier 1 EIS. For residential areas, the noise abatement criterion is 67 dBA. Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. Federal Highway Administration guidelines require that noise mitigation measures, such as the construction of noise barriers, be evaluated for receptor locations where noise impacts have been identified. The feasibility of these noise mitigation measures would be investigated during Tier 2.

Letter 241

Mike Liskey

ID	Comment	Response
241.1	... what are states to the north of us doing? It makes little sense to spend billions of dollars widening the interstate through Virginia, if the road suddenly narrows at the state line.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. There are currently three lanes in each direction for at the Virginia/Tennessee border. In addition, the proposed "Build" concept does not involve widening the first three miles of I-81 in Virginia. Furthermore, potential improvement concepts on I-81 in Virginia include any planned roadway improvements at the Tennessee and West Virginia state lines and, following Federal design guidelines, would provide adequate distance for transition.

Letter 242

Carolyn F. Long

ID	Comment	Response
242.1	When addressing the issue of traffic diversion on page 3-5 the DEIS states "the overall impact is low." Yet when I take the figures from table 2.4-1 that state in 2035 there will be an average of 88,400 vehicles 33% of which will be trucks that number is 29,172; and then I take as stated in table 3.1-1 the 25% of trucks that would be diverted if there are high tolls only on commercial vehicles the number is 7,293; and then on page 3-4 it states that only half of the diverted traffic will go to Route 11. Now in Shenandoah County I suppose if they aren't going to use 11 the other 3,646 trucks will have to use Back Road.	The scenario described is taken out of context and applies corridor average diversions for the "high toll for commercial vehicles only" scenario to projected average truck volumes at the eight permanent count station locations on I-81. Since the average numbers represent different corridor-average conditions, it is difficult to compare them to each other and it is not appropriate to make this comparison to Shenandoah County specifically. Assuming the corridor average values could be taken as a direct comparison, the calculations would indicate that a daily average of 3,646 trucks (about 150 trucks per direction during peak periods) would be diverted to routes other that U.S. Route 11 (14 additional routes were identified in the EIS), spread among all the counties in the study area from Tennessee to Virginia. The actual number of trucks on other roadways in Shenandoah County (or any one county) would be substantially less, as only a small portion of these trucks would travel the entire length of the Commonwealth. Most importantly, the quote taken from page 3-5 is related specifically to U.S. Route 11 and discusses the "overall" impact as being low for this type of roadway (principal arterial). In fact, the EIS recognizes that this impact would be perceived as greater on local back roads and states that "high toll for commercial vehicles only" is the one case where the effects of tolls would cause a substantial amount of trucks to divert to local roadways.
242.2	America has some beautiful valleys - Napa, the Hudson River, Brandywine - but none is more famous or beautified than the Shenandoah Valley and our state is quick to tout it. Name a Virginia tourism campaign that does not include scenes from the Valley. Yet this study does not address the environmental impact of a massive truckway on tourism. An industry that pours millions of dollars into the state's coffers. It will be like viewing a city's magnificent skyline from the middle of its worst ghetto.	Section 5.5, Visual Impacts, states that, in the cases where people currently have unobstructed views of the I-81, the magnitude of impact is not expected to be great since viewers already see an interstate. Since I-81 already exists, the addition of highway lanes or improvements to interchanges would not appreciably change the visual character of I-81. The greatest potential visual impacts would occur in those areas where people cannot currently see the road from sensitive resources because views are currently obstructed by some type of visual buffer. Road improvements may potentially involve the removal of a vegetative buffer or other barrier, resulting in new views of the road from sensitive resources. This would particularly occur for resources that do not involve a crossing of I-81, such as the George Washington and Jefferson National Forest. Such visual impacts would also be more prevalent for those historic properties that currently have some type of visual buffer. During Tier 2, a more detailed assessment of visual impacts would be completed as necessary that identifies specific areas where existing visual buffers would be removed.

Letter 242

Carolyn F. Long

ID	Comment	Response
242.3	We are proud growers for the Virginia Poultry Growers Cooperative. You can imagine my relief when I read on page 4-25 of the Economic Technical Report that the "imposition of tolls should not create an unfavorable economy for the region's businesses." And perhaps you can also imagine my confusion when I read five sentences later that, "Stated another way, tolling would have a negative influence on the overall potential economic benefits that can be derived from improvements to I-81." Since the DEIS can't quite decide, let me inform my fellow Virginians that tolls will be devastating to the poultry industry.	As indicated in the Tier 1 Draft EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. The second sentence cited in the comment has been revised in the Tier 1 Final EIS and the Economics Technical Report to be clearer. The sentence now is, "Stated another way, tolling would decrease the overall potential economic benefits from improvements to I-81 than if there were no tolls, but would not necessarily have a substantial economic impact on local individuals who use I-81."

Letter 243

Charles E. Maddox, Jr.

ID	Comment	Response
243.1	How much additional capacity would be realized if: -Trucks would stay in the right lane and not operate at different speeds... -Only the fastest vehicles have continuous access to the inside lanes... -No one passes on the right. -Better safety inspections on all vehicles. -Establish speed zones routinely where trucks can pass slower vehicles in front. -Common courtesy and respect for the other driver...	Some additional capacity may be realized in the immediate future. However, by 2035, even if no trucks travel I-81, corridor-length improvements are needed to handle the projected passenger car growth. Additionally, confining trucks to the right lane of a two-lane highway would make entering and exiting the highway more dangerous for passenger cars during particular times of the day. This condition becomes exacerbated as freight traffic continues to grow.
243.2	Will it [widening I-81] work without tolls being assessed?	The "Build" concepts identified in the Tier 1 EIS are concepts to address the purpose and need of the corridor, irrespective of tolls. Several concepts meet the established purpose and need and would "work" without the implementation of tolls. However, the need and extent of improvements throughout Virginia's portion of I-81 far exceed the available Federal funding for improvements. Therefore, tolls become an option for funding improvements.

Letter 244

Charles Miller

ID	Comment	Response
244.1	...when VDOT prepared its recent draft Environmental Impact Statement about I-81, it deliberately confined itself to highway and rail improvements in Virginia. Such restricted thinking is rooted in the history of both VDOT and the interstate system. The result is still a cramped vision of how to deal with the crowded traffic on I-81, in particular truck traffic. VDOT's Impact Statement carries out neither the Constitution's vision of interstate cooperation nor, as one can infer from today's gas prices, a vision of American energy needs.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 244

Charles Miller

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
244.2	What has VDOT's response to a rail idea been? First, it has been to confine their study to I-81 in Virginia. Second, within Virginia's 325 miles, VDOT has studied not the railroad as whole, but rather thirteen discrete sections of line, none of them more than ten miles long. Third, it has concluded that "rail improvements alone do little to address future needs on I-81." But if there's anything certain about the interstate, it is that nothing alone will do much to address the future needs of the I-81 corridor. Rail improvement solely within Virginia is not advocated by anyone. VDOT has evaluated a small fraction of a large idea and then singled out the large idea to disparage.	Please see response to Comment 244.1.

Letter 245

Charles Miller

ID	Comment	Response
245.1	Tolls for I-81 would presumably raise a significant portion of the cost of improving the interstate. But tolls are also like taxes in that they change the behavior of the people who are affected by them. For I-81 this means that some traffic would go over to, and clog, U.S. 11 and other roads near the interstate.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will look at traffic diversion is closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes (including the 4 identified) that are likely to see diversions from tolls. Route 11 is a barometer for diversion impacts because this road has the highest existing volume and is expected to see about 50 percent of all toll-related diversion. Many of these local roadways would also see improved traffic operations once I-81 is improved.
245.2	A strong visionary argument can be made for a new north-south interstate in central Virginia and adjacent states. It would generally follow U.S. 29 from Greensboro, North Carolina, where it would connect with I-40, I-85, and I-73, to east of Frederick, Maryland, where it would connect with I-70. Such an interstate would benefit traffic already in that corridor, especially on crowded U.S. 29. It would also draw off a portion of traffic from I-81.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.
245.3	A railroad that mainly paralleled I-81 requires exceptional vision. This idea, although it is treated by VDOT, is not treated seriously. The literature distributed at the hearing reports that the Department has studied thirteen discrete section of rail line, none of them more than ten miles long. On that basis it concludes that "rail improvements alone do little to address future needs on I-81" (emphasis added). But if there's anything certain about the I-81 problem it is that nothing alone will do much to address the future needs of the I-81 corridor. Why evaluate a small fraction of a large idea and then single out the large idea to castigate? The loaded rhetoric of "rail improvements alone" is unworthy of the government of Virginia and not advocated by anyone.	Four rail improvement concepts were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. Among those concepts was a concept (referred to as Rail Concept 4) proposed during the Scoping Process by Rail Solution, a rail advocacy group. Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans. The methodologies and assumptions used to determine divertibility of freight to rail were based on sound and reasonable logic. There was substantial coordination with Norfolk Southern, the Virginia Department of Public and Rail Transportation, and the Federal Railroad Administration. Freight diversion was examined for two separate cases. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways. Therefore, we did evaluate freight diversion to rail for trips of over 500 miles in length. Chapter 3, Improvement Concepts, in the Tier 1 EIS describes the results of that analysis. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs would still need additional highway lanes.

Letter 246

R. Patrick Murphy

ID	Comment	Response
246.1	Another possibility is turning US 29 into an interstate. Substantial portions are already four-lane and divided with many of the attributes of an interstate highway.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.

Letter 247

Suzanne Roulston

ID	Comment	Response
247.1	HB 1581 mandates a multi-state study of ways to divert up to 60 percent of the long-haul, through-truck freight traffic to intermodal rail in the Interstate Route 81 Corridor. VDOT should wait for the results of this study and incorporate it into the Tier I draft Environmental Impact Statement (EIS) for I-81, before completing the Tier I study.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 247

Suzanne Roulston

ID	Comment	Response
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Letter 248

Jeanne Russell

ID	Comment	Response
248.1	VDOT should wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in hte DEIS...VDOT should then issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 248

Jeanne Russell

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Letter 249

Linda Walcroft

ID	Comment	Response
249.1	I suggest that the Dial 511 system on I-81 should be expanded to help traffic flow. For example, additional electronic signs warning of traffic problems ahead, posters (even web broadcasts) in numerous service stations and restaurants along the highway, and eye-catching ads in tourist publications and websites to publicize 511. Motorists can use alternate routes such as US 11, Middle Road, Routes 42 and 340 if they know ahead of time that I-81 is blocked.	As stated in Chapter 6, Tier 1 Decisions, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.

Letter 250

Kent Womack

ID	Comment	Response
250.1	...a supplemental site-specific analysis of the selected design should be conducted and presented for public review and comment prior to proceeding to Tier 2.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for these individual projects would address site-specific impacts. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that these two conditions necessary to require a Supplemental EIS have not been met. A Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 251

Kent Womack

ID	Comment	Response
251.1	Star Solutions has not done a valid study of the impact of that transferring long distance trucking to rail would have. Only studied impact in VA and data is questionable.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 251

Kent Womack

ID	Comment	Response
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251.2	TX, AR, TN, VA, WV, MD and PA need to work together to facilitate the upgrade of this rail line to move inter-modal containers by rail fom Mexico to the Northeast.	See response to Comment 251.1.

Letter 252

Kent Womack

ID	Comment	Response
252.1	It is understood that much of the increase in truck traffic on I-81 has resulted from NAFTA traffic between Mexico and the Northeast US. Tennessee is plagued with the same problems as Virginia and in an effort to deal with them they are looking into subsidizing an upgrade of the 500 mile rail line between Memphis and Bristol. Since the Norfolk Southern has a rail line that extends fiom Bristol up the Shenandoah Valley through Hagerstown and into the Northeast United States, Tennessee contacted the State of Virginia about a cooperative effort. Unfortunately, Virginia was not receptive. This needs to be reconsidered because the rail lines in Tennessee and Virginia alone combine to cover almost half the distance between the Northeast US and Mexico.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006. FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB 1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off I-81 and onto rail. As a result, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered NEPA process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 253

Kent Womack

ID	Comment	Response
253.1	The General Assembly passed HB 1581 which mandates a multi-state study of ways to divert up to 60 percent of the long-haul, through-truck freight traffic on I-81 to intermodal rail. Before the Tier I study is completed, please wait for the results of this study and incorporate it into the Tier I draft Environmental Impact Statement (EIS).	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 253

Kent Womack

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 254

Kimberly B. Woodwell

ID	Comment	Response
254.1	The current VDOT option fails to consider a comprehensive alternative that would cost less and protect our communities. Before VDOT proceeds with Tier I of the draft Environmental Impact Statement (EIS), we should wait until the I-81 truck-to-rail study mandated by the General Assembly is completed. VDOT should take the results of the rail study and the widespread public support for multi-model options, like Reasonable Solutions, and rewrite the Tier I draft plan for I-81.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 255

Fred Wynn

ID	Comment	Response
255.1	Strongly recommend VDOT more clearly present data showing the major impact of local traffic.	As discussed in Chapter 3, Improvement Concepts, of the Tier 1 EIS and in the Transportation Technical Report, while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.

Letter 256

Joseph F. Ellis, Jr.

ID	Comment	Response
256.1	The Department's plan does not assess the full environmental impacts including public safety issues such as a toll road in mountainous regions, especially during inclement weather...	If tolls are implemented along I-81, a high-speed electronic system would likely be used so that vehicles would not be required to stop to pay the toll. Since vehicles would not be required to stop, there would be no increased risk to public safety.
256.2	[The Department's plan does not assess] the ability of the local working person to pay tolls in addition to fuel costs and generally low wages earned in this area, economic dislocation, negative impact on tourism and pollution risks.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts (including the concept of adding four lanes in each direction) would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2. As indicated in the Tier 1 EIS, the data indicate that all the "Build" concepts would have a positive, but minor, effect on local residents. Real disposable personal income is projected to increase at a faster rate than if no improvements were made to I-81. Tolling would decrease the overall potential economic benefits from improvements to I-81 than if there were no tolls, but would not necessarily have a substantial economic impact on local individuals who use I-81.

Letter 257

Suzanne Ellis

ID	Comment	Response
257.1	I do not believe adequate evaluation of the rail system alternative was given. Please consider waiting for the 81 Corridor Multi-state Rail Feasibility Plan to be completed, then review this critical analysis and issue a supplemental DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 258

Mary Myers

ID	Comment	Response
258.1	If the number of lanes on the Interstate were increased to six to eight on each side there may no longer be a Route 11 in Marion. Furthermore, it would encompass the Southwestern Virginia Mental Health Institute and Correctional Center situated near the Interstate. Has this been addressed or is it one of those items that we'll think about when we get to that point?	Regarding Route 11 in Marion, this Tier 1 EIS acknowledges that, during Tier 2, subsequent Tier 2 NEPA documents prepared for individual projects will address site specific details, before specific design and/or location decisions are made. For example, decisions on the location and configuration of lanes would be made during Tier 2, based on updated traffic projections or other factors, when detailed information is developed. The width of the study area used in the Tier 1 EIS was generally 500 feet on either side of the existing pavement on I-81. Existing facilities within the study area were identified using aerial photography and GIS data. The Southwestern Virginia Mental Health Institute and Correctional Center were not mentioned in the Tier 1 EIS because it is outside the study area.

Letter 259

Linda Stackpole

ID	Comment	Response
259.1	...wait for the 81 Corridor Multi-state Rail Feasibility Plan to be completed.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 260

Leslie Fiddler

ID	Comment	Response
260.1	...the redesign of I-81 needs to be considered in terms of user needs along the entire corridor not just Virginia.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and in October 2006 at the Capital Corridor Summit in New York. They have a continuing commitment to work together to discuss transportation conditions on I-81. In addition, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded, committed rail improvements emerging from the study would be evaluated, as appropriate, before Tier 2 NEPA approvals.

Letter 261

Leon Alder

ID	Comment	Response
261.1	VDOT should issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 262

Melissa Ball

ID	Comment	Response
262.1	How long will it take to complete an entire corridor?	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements has not yet been identified.

Letter 263

Paul and Nancy Blaney

ID	Comment	Response
263.1	VDOT's Draft Environmental Impact Statement fails the public trust by not including a multi-state rail study as urged by the 2006 General Assembly. Making any decision about I-81 without such a study is simply irresponsible. VDOT must complete the multi-state rail analysis, and then rewrite the DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Paul and Nancy Blaney

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Letter 264

Ernie Braganza

ID	Comment	Response
264.1	...correct the flaws and limits of the current DEIS by taking into consideration the upcoming results of the I-81 Corridor Multi-state Rail Feasibility Plan and then issue a supplemental comment period.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 265

Anne Corley

ID	Comment	Response
265.1	...wait for the results of the I-81 Multi-state Rail Feasibility Plan before making any decisions about improvements to I-81.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 266

S. Harmon

ID	Comment	Response
266.1	Has anyone thought of building a road just for the trucks? It could be built a little at a time because sooner or later this is going to have to happen anyway.	The Tier 1 EIS considered a barrier as a method to separate lanes in the same direction of travel. As stated in the Tier 1 EIS, "Concepts involving the separation of lanes (in the same direction of travel) were considered and were divided into two types: those involving exclusive separated lanes and those involving non-exclusive separated lanes. Exclusive lanes are barrier-separated lanes with separate interchange ramps to all the interchanges along the roadway. Non-exclusive lanes provide a rumble strip between the separated lanes and the other lanes, which allows vehicles in the separated lanes to merge into the other lanes to use the existing interchange ramps." Separated lane concepts are not proposed to be advanced into Tier 2.

Letter 267

Marshall Hatfield

ID	Comment	Response
267.1	...tolls on Interstate 81 will drive many longhaul truck drivers to use US Highway 11 as a substitute. I can tell you from personal knowledge that the diversion of a significant portion of Interstate truck traffic will cause serious problems along US Highway 11...has any thought been given to the fact that US Highway 11 is, for the most part, two-way traffic with one lane in each direction? Can you imagine the congestion? How many accidents, injuries, and deaths would this diversion of heavy truck traffic from an Interstate dependent upon tolls to an essentially rural, rustic highway cause?	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.

Letter 268

Archie Hubbard

ID	Comment	Response
268.1	...toll roads would have a negative effect on commerce in that it would cause more trucks to go to the state highways trying to avoid the tolls.	The implementation of a low toll on an improved I-81 would gradually shift traffic to the local roadway network, although, in most locations, traffic volumes would still be below 2035 No-Build predictions. The implementation of higher tolls on an improved I-81, however, would result in slight increases in local traffic throughout much of the study area as compared to the No-Build condition. Even though about half of the diverted traffic would go onto U.S. Route 11, the resulting increase is slight relative to the No-Build condition for this type of roadway (a rural principal arterial) and the overall impact would be low. The remaining traffic diverted from I-81 would be distributed among other local roadways, as well as other interstates (i.e., I-64 and I-95), and the actual traffic impacts on these roadways from the number of additional vehicles would be low as well. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition, largely as a result of the improved efficiency of I-81.

Letter 269

Elisabeth Iskra

ID	Comment	Response
269.1	...wait for the 81 Corridor Multi-state Rail Feasibility Plan to be completed, then review the analysis and issue a supplemental DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Elisabeth Iskra

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Letter 270

Florence Robertson

ID	Comment	Response
270.1	The I-81 DEIS gives does not adequately and fully examine the public health impacts of the proposed expanded highway of 8-12 lanes covering the full length of I-81.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. The 1990 Clean Air Act Amendments and the Virginia State Implementation Plan require that a proposed project not cause any new violation of the NAAQS or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. In addition, Sections 4.10 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.
270.2	On Feb. 13, 2006, a Roanoke Times article states that "Proposed changes in U.S. Environmental Protection Agency rules... put the Roanoke Valley, and Bristol at or above regulatory limits for airborne particles..." "Roanoke, Salem and Bristol are barely within the current standards for average annual exposure. Conditions in much of the rest of Western Virginia are unknown because there are no monitors-to record particulates." (1). Yet, reading the I-81 DEIS, one does not get a sense of the dangerous reality of current air pollution conditions, much less a valid projection and comparison of risks for the different options for handling current congestion and future expected freight and passenger needs and increases. Granted, the above particular EPA study came out after VDOT released the DEIS. However, the ethical response would be for VDOT to publish a retraction or addendum, so that the public can make truly informed decisions.	Section 4.9 of the Tier 1 EIS discusses the air quality attainment status for each of the counties through which I-81 passes, as of the time of the publication of this document.

Letter 271

Joel Rudy

ID	Comment	Response
271.1	SW Virginia has our economy strongly tied to tourism and scenic views - the pollution resulting from I-81 expansion will eradicate these views - through smog and haze.	The Tier 1 Draft EIS indicated that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).
271.2	There are recent medical studies explicitly tying automobile and especially diesel pollution to increased cardiac damage - both short and long term. I-81 widening and increased truck traffic will result in worse health for anyone living in SW VA.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. In addition, Sections 4.10 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.

Letter 272

Susan M. Stanley

ID	Comment	Response
272.1	Complete the multi-state rail analysis. Rewrite the DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Susan M. Stanley

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Letter 273

James Warden

ID	Comment	Response
273.1	...wait for and incorporate the results of the I-81 Multi-state Rail Feasbility Plan in the DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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273.2	...issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	Please see response to Comment 273.1. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 274

Sarah Williams

ID	Comment	Response
274.1	No decision to widen I-81 can be a wise decision unless it also takes into consideration the benefits of moving freight by rail. This study needs to be completed before decisions are made.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Sarah Williams

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Letter 275

Mark Stanley

ID	Comment	Response
275.1	[There is] nothing in plan to eliminate wildlife/auto deaths by using 10-foot fences. No wildlife underpasses.	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.

Letter 276

Thomas and Lara Addison

ID	Comment	Response
276.1	The public wanted a study from a multi-state transportation overview, and we believe this option should be considered rather than dismissing it with no rationale.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Thomas and Lara Addison

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 277

Wanda F. Addington

ID	Comment	Response
277.1	...VDOT investigated rail freight potential only from Winchester to Bristol, knowing full well that a minimum 500 mile distance is required to work intermodal transfer; from truck to rail to truck.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Wanda F. Addington

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Letter 278

Robert Q. Barker

ID	Comment	Response
278.1	In order for intermodal to be economically feasible it requires a rail line to be at least 500 miles in length, and VDOT is well aware of this fact.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for

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Robert Q. Barker

ID	Comment	Response
		trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
278.2	To be successful for truck diversion, an inter-state corridor planning of 500 miles or more, not just the 325 miles in Virginia.	Please see response to Comment 278.1.
278.3	The Governor and General Assembly must initiate a full-scale multi-state economic feasibility plan for diverting up to 60% of through-state truck traffic from I-81. All of the current diversion feasibility studies, plus the DEIS, have refused to look beyond the borders of Virginia and have found that railroads can have little effect on highway truck volume in the state. If Virginia truly wants to divert through-trucking from I-81 within its borders, the focus and analysis need to be inter-state, on the 535-mile I-81 corridor between Knoxville and Harrisburg. The 2005 General Assembly passed legislation calling for an I-81 Corridor Multi-State Transportation Planning Initiative requiring VDOT to work with neighboring states. VDOT has failed to do this and should not rush to a decision without the results of this study!	Please see response to Comment 278.1.

Letter 278

Robert Q. Barker

ID	Comment	Response
278.4	Our mountain and valley landscape naturally traps air-like a big bowl. A huge increase in truck traffic would mean an equally huge increase in air pollution and incidence of asthma, emphysema, and other respiratory ailments, especially in children and the elderly.	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. This analysis would occur during Tier 2. Any individual projects will have to conform to the NAAQS before they can be implemented. In addition, Sections 4.9 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.

Letter 279

Jerryanne Bier

ID	Comment	Response
279.1	How does a private consortium gain access with a proposal before there has been a determination of what needs to be done? This process and sequencing is ludicrous and defies any kind of planning and development logic other than inappropriate corporate influence.	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor. The PPTA process did not influence the alternatives analysis required by NEPA or decisions on the improvement concepts.

Letter 279

Jerryanne Bier

ID	Comment	Response
279.2	The DEIS fails to study comprehensive rail options including investments in developing new rail infrastructure...Go back to the drawing board and incorpoate the options for increasing and modernizing both passenger and freight rail in collaboration with neighboring states.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 279

Jerryanne Bier

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 279

Jerryanne Bier

ID	Comment	Response
279.3	The implementation of tolls in order to support a vastly overbuilt, unnecessary, inappropriate, and destructive road build option will create massive diversion of traffic and trucks to other roadways. The DEIS projections in this regard are way off the mark.	The Tier 1 EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements, and various toll scenarios. The toll scenarios that were tested for each concept were: -No toll -Low toll for all vehicles ($0.08 per mile per vehicle (car) / $0.04 per mile per axle (truck)) -High toll for all vehicles ($0.14 per mile per vehicle (car) / $0.07 per mile per axle (truck)) -Low toll for only commercial vehicles ($0.04 per mile per axle (truck)) -High toll for only commercial vehicles ($0.07 per mile per axle (truck)) The effect of the tolls was estimated by modeling diversions from I-81 to other transportation facilities for trucks and cars or just trucks. In addition, traffic that diverts to I-81 because of the improved efficiency created by the proposed improvements (i.e., those that would divert from their normal travel pattern on a facility other than I-81 to I-81 if it were improved) was accounted for in the projection of traffic for each concept. The results of the diversion analysis show that overall there are no substantial impacts to U.S. Route 11. With an improved I-81, the majority of U.S. Route 11 would see lower traffic volume than is expected if no improvements are made. However, the Tier 1 EIS goes on to identify the locations where additional lanes on I-81 have the potential to cause substantial impacts to U.S. Route 11 by 2035. The mitigation required to offset these impacts would be identified as part of a Tier 2 document. The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. Tier 2 studies would assess any local impacts in more detail and provide any required mitigation measures to offset impacts, as appropriate.
279.4	The Improvement Concepts defy common sense in the face of present realities relating to the future lack of availability of fossil fuels and the consequent necessity for building regional economies and fostering transportation that is not petroleum dependent. The entire projection process on which the concepts are based is but theoretical modeling from an outdated paradigm...Break out of the "way we've always done it" mode into real-world, technologically advanced, integrated conceptualizing.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 279

Jerryanne Bier

ID	Comment	Response
279.5	The DEIS references the I-81 Corridor Forum and communication with other states relating to the future of the I-81 corridor. Yet, there is nothing in the DEIS that describes what this process yielded in terms of priorities, planning and collaborative commitments. What does it matter that VDOT talked with other states if there is no indication that there is a collaborative process in place that represents a long-term, comprehensive inter-state approach? Clarify how the coalition of states along the I-81 corridor is working, and what the goals are.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted an I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania, and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005 at a meeting hosted by Tennessee DOT. Additionally, representatives convened in October 2006 in New York, and have a continuing commitment to work together to discuss transportation conditions on I-81.
279.6	...clearly identify what the vision is for the I-81 corridor in a comprehensive, people/community-centered context. Start with the safety and well-being of Virginia's citizens, not the corporate interests of a few. The DEIS and the tiered process have really become an array of smoke and mirrors.	The proposed decisions discussed in the Tier 1 Final EIS were made with consideration of the information presented or referenced in that document and the comments received during the Tier 1 NEPA process. This Tier 1 Environmental Impact Statement identifies the current and future need for increased capacity and improved safety along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of conceptual-level improvements in addressing those needs. The Tier 1 EIS evaluated the No-Build Concept and 211 combinations of TSM, road improvements, rail improvements and various toll scenarios.

Letter 280

Jerryanne Bier

ID	Comment	Response
280.1	How ludicrous to make projections for 2035 based on current conditions, incorporate future projections related to fuel costs, regional sustainability, quality of life issues.	The forecasts of traffic growth for the I-81 corridor in Virginia was based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making.

Letter 281

Eileen Brennan-Porter

ID	Comment	Response
281.1	Now that multi-state Rail Feasibility Plan HB-1581 was passed unanimously by the 2006 General Assembly and signed into law by Governor Kaine, it is imperative that VDOT wait for the results and incorporate them into the DEIS...This project must not go forward without such a study and a serious look at a rail option for north-south interstate freight traffic...issue a supplemental DEIS for comment that incorporates the results of the Rail Feasibility Plan...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
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Letter 282

Arthur Clark

ID	Comment	Response
282.1	I urge consideration for planning and development of a Mono Rail for people transportation and remove some of the heavy traffic from the Interstate system. It may be possible to engineer and construct some type of a rail system within the Interstate system. This will reduce the need to purchase new Right way and promote better land use for our environment.	This concept is outside the scope of this Tier 1 EIS.

Letter 283

Harris Trucking Co, James G. Doss

ID	Comment	Response
283.1	Why tolls for trucks only. Are they the only ones that will benefit from improvement that are planned for the I-81 corridor. It would seem that if the general traveling public will benefit than they should pay their share of the cost for those planned improvements. Also tolls will increase the risk of accidents due to increased traffic congestion and merging traffic in and around toll collection points.	As discussed in the Tier 1 EIS, passenger vehicles cannot currently be legally tolled on I-81. The legal mechanism with which tolls can be implemented is through an act of the legislature. Tolls for passenger vehicles are evaluated in the Tier 1 EIS to assess the impact these tolls could have on corridor operations and to assess the level of impact passenger tolls have on the potential for truck diversion. For example, the results of the toll diversion analysis show that, if high tolls are assessed on trucks only, trucks would be more likely to divert to local roadways than if the same high tolls were assessed on both passenger vehicles and trucks. This is valuable information that could not be concluded if the analysis did not consider tolls on passenger vehicles.

Letter 284

Anne Doyle

ID	Comment	Response
284.1	Why wouldn't you take into account rail, which is the more efficient, cost effective freight transport mode? If VDOT is anxious to subsidize, why not subsidize those rail loads travelling under 500 miles (i.e. within the state of Virginia)?	Four rail improvement concepts were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. Among those concepts was a concept (referred to as Rail Concept 4) proposed during the Scoping Process by Rail Solution, a rail advocacy group. Rail Concept 4 was defined as including full-level improvements to the Norfolk Southern Shenandoah Line and new rail freight hauling technology that interfaces with intermodal centers at strategic locations along the I-81 corridor. This rail concept was described as a modern, dual-track, high speed rail line, grade separated from all road crossings, capable of carrying intermodal freight and passenger trains at speeds of up to 80 miles per hour along Norfolk Southern's line between Harrisburg, Pennsylvania, and Knoxville, Tennessee, and possibly beyond to Memphis and New Orleans. The methodologies and assumptions used to determine divertibility of freight to rail were based on sound and reasonable logic. There was substantial coordination with Norfolk Southern, the Virginia Department of Public and Rail Transportation, and the Federal Railroad Administration. Freight diversion was examined for two separate cases. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 284

Anne Doyle

ID	Comment	Response
284.2	The DEIS rejected an innovative rail alternative that would shift truck freight off of the interstate and onto rail, because the study limited analysis of rail improvements to inside Virginia...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Anne Doyle

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 285

Ed Farmer

ID	Comment	Response
285.1	Any plan approved by VDOT needs to include a complete study and mitigation of the expansions impact on the numerous historic resources of the Shenandoah Valley including Cedar Creek Battlefield and the historic sites of the Shenandoah Valley Battlefields National Historic District.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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Ed Farmer

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		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

Letter 286

Rich Fisher

ID	Comment	Response
286.1	...is Virginia trying to foot the entire bill? Where is the money from the Federal government?	Since this is a Tier 1 analysis, the actual funding sources have not been identified, although actual funding for improvements to I-81 may be a combination of federal, state, and private sources (including tolling). Section 1216(b) of the Transportation Equity Act for the 21st Century (TEA-21) established a toll pilot program to allow conversion of a free Interstate highway into a toll facility. The Tier 1 EIS demonstrates that the impacts on Route 11 and other roads (both local roads and other interstate facilities) from traffic that is diverted from I-81 as a result of tolls are low. In addition, the environmental impacts on other interstate facilities from tolling would be inconsequential. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. The tolling application process under Section 1216(b) of TEA-21 is independent of NEPA and requires additional federal approval. If a toll option is considered for a particular Section of Independent Utility (SIU), the effects of various toll rates will again be studied in Tier 2. Tolls could not be implemented until the completion of the Tier 2 NEPA process for that SIU.

Letter 287

Richard and Anna L. Fowler

ID	Comment	Response
287.1	There is the possibility here in VA of creating a rail line in the center of Interstate medians as has been done in the Washington, D.C. area (the Metro Project). That project provides a generic model for a rail approach, which should be considered in the overall I-81 planning.	The purpose and need for this study was to improve I-81 in Virginia, and as described in Chapter 3, Improvement Concepts, rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway-including seven of the eight SIUs would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operation, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from that multi-state rail study, FHWA and VDOT would evaluate the traffic effects of those improvements during Tier 2, as appropriate

Letter 288

Rick Harrell

ID	Comment	Response
288.1	The heart of the Star Solution proposal is the separation of cars and trucks. However, the actual proposal does not have one mile of complete separation. Isn't it ridiculous to talk and talk about the separation of cars and trucks, and then not really separate them?	The Tier 1 EIS considered a barrier as a method to separate lanes in the same direction of travel. As stated in the Tier 1 EIS, "Concepts involving the separation of lanes (in the same direction of travel) were considered and were divided into two types: those involving exclusive separated lanes and those involving non-exclusive separated lanes. Exclusive lanes are barrier-separated lanes with separate interchange ramps to all the interchanges along the roadway. Non-exclusive lanes provide a rumble strip between the separated lanes and the other lanes, which allows vehicles in the separated lanes to merge into the other lanes to use the existing interchange ramps." Separated lane concepts are not proposed to be advanced into Tier 2.
288.2	The creation of the truck only lanes is put forth as a solution to the problem of the road, i.e. big trucks sharing the highway with cars. The truth, however, is that your own studies show that the Star Solutions road, as designed with half of the road limited to trucks, will be at gridlock insofar as cars are concerned because the cars are growing and expected to continue growing than the trucks.	The Tier 1 study indicates that portions of I-81 need additional highway capacity by 2035 but that no single corridor-length solution meets the needs of future travel demand in the corridor without providing excess or insufficient capacity in the corridor. In addition, the study indicates that a varying number of general purpose highway lanes would most efficiently address the future travel demand while also minimizing impacts to the environment and reducing cost. The "Build" concept that is, therefore, being proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands.

Letter 289

John Huennekens

ID	Comment	Response
289.1	Evaluation of alternatives should be based on different scenarios for inflation of fuel costs.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data (dating to 1978), as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. While some short-term fluctuation is likely, historic fuel cost increases have not slowed traffic growth over the long-term. Further, future fuel cost increases could be offset by advances in alternative fuel sources. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking.

Letter 290

Jan Hullum

ID	Comment	Response
290.1	VDOT's traffic growth projections for I-81 fail to account for recent fuel cost increases or to recognize that the trucking industry continues experiencing an acute driver shortage.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
290.2	Lack of funding is another reason cited for not considering rail more seriously. But the DEIS ignored the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress.	The Tier 1 EIS does not cite lack of funding as a reason not to consider rail. It simply points out a statement of fact that there are no Federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines and that any improvements made to the privately owned rail lines would be at the discretion of the owner (Norfolk Southern). The Tier 1 EIS does, in fact, consider rail very seriously. However, while managing to remove a fairly considerable number of annual truck trips, rail improvements do little to address the everyday capacity needs of the corridor. In actuality, regardless of the number of trucks that can be diverted, even if all trucks can be diverted, capacity improvements will still be required along the majority of the corridor by 2035. The Tier 1 EIS lists five SAFETEA-LU freight provisions that may offer opportunities to improve rail freight along the corridor.

Letter 291

Ray Earl Martin

ID	Comment	Response
291.1	I understand that for $2 billion we can rebuild the entire freight railroad from Bristol to Winchester. This of course can't be considered according to current "government rhetoric" because it would be a subsidy to the NS. It would not be subsidy if we charged NS to run on the new tracks and let CSX run on them also... Is there any chance that this very simple rail concept will be considered?	Concepts were not dismissed in the Tier 1 EIS because of high costs or because they would involve improvements to privately owned rail lines. Rather, rail and roadway concepts were evaluated to determine the degree to which they would meet the needs on I-81. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. If funded rail improvements emerge from that multi-state rail study, FHWA and VDOT would evaluate the traffic effects of those improvements during Tier 2, as appropriate

Letter 292

Bruce Minter

ID	Comment	Response
292.1	You must take into account the negative impact such a plan would have on businesses all along I-81. Negative impact on business means negative impact on tax revenues.	An appropriate assessment of the economic impacts has been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.

Letter 293

Betty Morgan

ID	Comment	Response
293.1	VDOT should respond to the widespread criticism of the DEIS at public hearings throughout the Corridor. VDOT should wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS. [The multi-state Rail Feasibility Plan, HB-1581 was passed unanimously by the 2006 General Assembly, and will correct a major flaw in the DEIS, which failed to evaluate the impact on truck traffic projections of rail improvements beyond Virginia's borders.] VDOT should then issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Betty Morgan

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 294

Dave Muhly

ID	Comment	Response
294.1	VDOT should respond to the widespread criticism of the DEIS at public hearings throughout the Corridor. VDOT should wait for and incorporate the results of the I-81 Corridor Multi-state Rail Feasibility Plan in the DEIS...VDOT should then issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen comments on the current DEIS, including the perspectives of non-partisan, objective medical and public health professionals.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 294

Dave Muhly

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 295

Aubrey Neas

ID	Comment	Response
295.1	...the economic conclusions of VDOT officials does not even include the affect of tolls, as tolls may cause some of the I-81 traffic to be diverted to nearby parallel roads, including U.S. routes 11, 29, 340 and I-95.	An appropriate assessment of the economic impacts has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. The implementation of a low toll on an improved I-81 would gradually shift traffic to the local roadway network, although, in most locations, traffic volumes would still be below 2035 No-Build predictions. The implementation of higher tolls on an improved I-81, however, would result in slight increases in local traffic throughout much of the study area as compared to the No-Build condition. Even though about half of the diverted traffic would go onto U.S. Route 11, the resulting increase is slight as compared for the No-Build condition for this type of roadway (a rural principal arterial) and the overall impact would be low. The remaining traffic diverted from I-81 would be distributed among other local roadways, as well as other interstates (i.e., I-64 and I-95), and the actual traffic impacts on these roadways from the number of additional vehicles would be low as well. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition, largely as a result of the improved efficiency of I-81.
295.2	...tolls may cause some of the I-81 traffic to be diverted to nearby parallel roads, including U.S. routes 11, 29, 340 and I-95. So, are these roads equipped to handle diversions of truck traffic, which has been indicated in the results of a 2004 study that VDOT officials conducted that indicates that traffic might increase, as a result of significant tolls on I-81.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.
295.3	The traffic growth projections, according to VDOT officials, for I-81 fail to account for recent fuel cost increases or to recognize that the trucking industry continues experiencing an acute driver shortage.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 295

Aubrey Neas

ID	Comment	Response
295.4	The DEIS should not have rejected any innovative rail alternative that would result in getting truck freight off the interstate and onto rails, as apparently those who led the previous study chose to limit their analysis of rail improvements to inside Virginia. Many of the trucks may be part of long-haul trucking that travels more than 500 miles.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 295

Aubrey Neas

ID	Comment	Response
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295.5	...did the VDOT officials, in their development of the DEIS, ignore the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress?	The Tier 1 EIS does not cite lack of funding as a reason not to consider rail. It simply points out a statement of fact that there are no Federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines and that any improvements made to the privately owned rail lines would be at the discretion of the owner (Norfolk Southern). The Tier 1 EIS does, in fact, consider rail very seriously. However, while managing to remove a fairly considerable number of annual truck trips, rail improvements do little to address the everyday capacity needs of the corridor. In actuality, regardless of the number of trucks that can be diverted, even if all trucks can be diverted, capacity improvements will still be required along the majority of the corridor by 2035. The Tier 1 EIS lists five SAFETEA-LU freight provisions that may offer opportunities to improve rail freight along the corridor.

Letter 296

Charles Newton

ID	Comment	Response
296.1	Any work that VDOT plans to do on the I-81 corridor, must look beyond the right-of-way (ROW) in order to minimize impacts to community and private water supplies. Because of the karst terrain, VDOT needs to go beyond standard drainage and storm water management regulations, to construct ways to protect water resources from run-off. Storm water injection into near-surface aquifers, blasting, and dump-off the- ROW methods of storm water disposal threaten both public health and safety as well as private property rights.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific methods for determining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to environmental resources, such as karst features.

Letter 297

John Pickard

ID	Comment	Response
297.1	I urge you to consider alternative transportation systems in particular intermodal rail. A rail improvement was rejected because the proposal only considered improvements within Virginia. This limitation is of course short-sighted and lacks the cooperation with our neighboring states that is needed in this day and age. Cost was also cited as a factor for the rejection of the rail proposal. However, the proposal failed to include consideration of the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 297

John Pickard

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 298

William Aaron Pratt

ID	Comment	Response
298.1	You cannot publish the final DEIS without including the transportation secretary and the Rail Advisory Board's upcoming comprehensive feasibility plan and a cost analysis which will determine what it would require to divert freight off I-81 and onto rail. Without the Rail Advisory Board's information, it is impossible for VDOT to eliminate rail as one of the alternatives for alleviating I-81's congestion and safety hazards while maintaining a responsible government approach.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Letter 299

Ann Rogers

ID	Comment	Response
299.1	The DEIS for I-81 is flawed because it provides an inadequate and inappropriate evaluation of the rail alternative.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 299

Ann Rogers

ID	Comment	Response
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299.2	...issue a supplemental DEIS for I-81 based on the findings of the 81 Corridor Multistate Rail Feasibility Plan.	Please see response to Comment 299.1. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 300

John Sage

ID	Comment	Response
300.1	Concerning the I-81 study, I would like to comment on safety and congestion problems along the I-81 and I-77 overlap in Wythe County. There are already 10 lanes running side by side in this corridor (six lanes of interstate and 2 lanes each of frontage road). Adding more lanes will wipe out many businesses along the frontage roads.There is already a provision in the federal highway law to route the new Interstate 74 through the same corridor with I-77. If there is a serious truck accident involving hazardous material in the six mile overlap, you will have three interstate highways blocked. A more prudent choice would be to separate highways and route the new Interstate 74 to the north around this area and join I-77 north of Wytheville. The new link could pass through the 1200 acre regional industrial park now under construction to provide better highway access and take traffic off the narrow country road (Peppers Ferry Road) which is the only entrance into the industrial park. I-74 is already being built up to the Virginia border in both West Virginia and North Carolina. The short link from Fort Chiswell to a point north of Wytheville on I-77 would be the only new construction needed in Virginia for I-74. You could put the I-74 shields on I-77 from Fancy Gap to the West Virginia border.	At the I-77 overlap section near Wytheville (Milepost 72 to 81 (SIU #2)), FHWA and VDOT are proposing to evaluate corridors on new location, as well as widening existing I-81, during Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis would occur during Tier 2.

Letter 301

Mark Schonbeck

ID	Comment	Response
301.1	...with the imminent approach of "peak oil" and declining availability of affordable fossil fuels, current projections for continued increase in truck and car traffic in the coming years and decades may be completely inacurrate.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 302

Rhonda Sechrest

ID	Comment	Response
302.1	Many experts believe that the price of motor fuel is going to continue to go up. If this is the case, the projections for truck traffic are going to change. Companies will figure out more efficient ways to get their goods to market.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 303

Craig Urbanowicz

ID	Comment	Response
303.1	I understand...that building a highway may cost a substantial amount of money. As an alternative solution, I'll offer the following ways to fund this highway project without tolls: - a surcharge on car registration fees or car taxes - a gas tax of a few cents per gallon on all gas stations within a few miles of I-81 - additional sales tax on businesses within a few miles of I-81 - a revolving trust find that would purchase bonds to be paid off over time, but using Federal Highway money instead of tolls	These issues are outside the scope of the NEPA process and are the responsibility of the Virginia General Assembly to address.

Letter 304

Stephen Vandivere

ID	Comment	Response
304.1	...I understand that the current draft EIS does not include a complete study and mitigation of the expansion's effect on the numerous historic resources of the Shenandoah Valley including Cedar Creek Battlefield and the historic sites of the Shenandoah Valley Battlefields National Historic District. It should...	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

Letter 305

Joanne Villers

ID	Comment	Response
305.1	It is important to look outside of Virginia since I-81 is an interstate. A rail line could be tied into I-81 outside of Virginia as well (from Knoxville, TN all the way to Harrisburg, PA).	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Joanne Villers

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 306

Christina Wulf

ID	Comment	Response
306.1	...your economic conclusions do not even include the impact of tolls, while at the same time indicating that the widening cannot be achieved without tolling. Looking at social and economic impact is a critical part of the Environmental Impact Statement process. This omission must be corrected before the FEIS is issued.	An appropriate assessment of the economic impacts from tolls has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have postive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.
306.2	VDOT's traffic growth projections for I-81 fail to account for recent fuel cost increases or to recognize that the trucking industry continues experiencing an acute truck driver shortage.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Letter 306

Christina Wulf

ID	Comment	Response
306.3	...the DEIS rejected an innovative rail alternative that would shift truck freight off of the interstate and onto rail, because the study limited analysis of rail improvements to inside Virginia. Narrowing proposed rail improvements to in-state only dooms any rail alternative to failure, because diversion will only be significant with long-haul trucks travelling more than 500 miles. The railroad from Knoxville, TN to Harrisburg, A, meets that crtierion. This is another omissions which must be corrected before the FEIS is issued.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Christina Wulf

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
306.4	Lack of funding is another reason cited for not considering rail more seriously. But the DEIS ignored the $35 billion Railroad Rehabilitation and Improvement Financing that has been made available by Congress. Please correct this omission.	The Tier 1 EIS does not cite lack of funding as a reason not to consider rail. It simply points out a statement of fact that there are no Federal highway funding categories that VDOT can use to implement improvements to privately owned rail lines and that any improvements made to the privately owned rail lines would be at the discretion of the owner (Norfolk Southern). The Tier 1 EIS does, in fact, consider rail very seriously. However, while managing to remove a fairly considerable number of annual truck trips, rail improvements do little to address the everyday capacity needs of the corridor. In actuality, regardless of the number of trucks that can be diverted, even if all trucks can be diverted, capacity improvements will still be required along the majority of the corridor by 2035. The Tier 1 EIS lists five SAFETEA-LU freight provisions that may offer opportunities to improve rail freight along the corridor.

Letter 307

Tara F. Crookshank

ID	Comment	Response
307.1	The I-84 Draft Environmental Impact Statement (DEIS) is fatallly flawed and should be set aside and a new DEIS performed. As noted by the comments submitted by Rail Solutions on April 27, 2006, the current DEIS failed to adequately consider Rail Option 4 proposed by Rail Solutions in the Scoping Process.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Tara F. Crookshank

ID	Comment	Response
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307.2	...before implementing any increase in the use of tolls on I-81, VDOT should assess the impact such action would have on the use of parallel Route 11.	This effects of tolling has been assessed not only on U.S. Route 11 but also on 14 other local roadways running parallel to I-81. The findings are summarized in the Tier 1 EIS and the detailed analyses provided in the accompanying supporting documents. Any required improvements on U.S. Route 11 would be identified during Tier 2.

Letter 308

Dave Doughty

ID	Comment	Response
308.1	...consider the rail alternative, not just within Virginia, but partnering with the DOTs of Tennessee, West Virginia, Maryland, Pennsylvania, and New York to develop a multi-state plan that would divert more big rigs onto the rails.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Dave Doughty

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308.2	...include a plan that would allow for passenger rail service. With the cost of gasoline rising at the current rate, we will not be filling our cars as often.	The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. These improvements may accommodate passenger rail service, such as the Transdominion Express. However, as described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Please see response to Comment 308.1.

Letter 309

Dave Doughty

ID	Comment	Response
309.1	More emphasis should be placed on moving more trucks to rail use, not just within Virginia, but the length of the I-81...get other states along the I-81 corridor, as well as major trucking companies who use I-81 ot fund improvements to current rail infrastructures.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Dave Doughty

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 310

Powell and Sharon Foster

ID	Comment	Response
310.1	The VDOT proposal ignores the problems in adjoining Tennessee, which already is working on rail solutions.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and in October 2006 at the Capital Corridor Summit in New York. They have a continuing commitment to work together to discuss transportation conditions on I-81. The Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with Norfolk Southern. Any funded, committed rail improvements emerging from the study would be evaluated, as appropriate, prior to Tier 2 NEPA approvals.

Letter 311

Norma Longo

ID	Comment	Response
311.1	VDOT should issue a supplemental DEIS for comment incorporating the results of the Rail Feasibility Plan and responding to concerns expressed in the citizen commetns on the current DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 311

Norma Longo

ID	Comment	Response
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Letter 312

Bonni McKeown

ID	Comment	Response
312.1	...re-study the I-81 widening issue to include the entire length of I-81--not only Virginia but also West Virginia, Maryland, Tennessee, PA. Then issue another EIS with a true picture of how rail, with spot improvements to road bottlenecks, can facilitate freight traffic with a minimum of danger to car drivers, damage to towns and historic sites, and air pollution in the Shenandoah Valley.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 312

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Letter 313

Anonymous

ID	Comment	Response
313.1	Look at multi-state impact of thru-traffic, not just the segment in Virginia.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 313

Anonymous

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 314

Anonymous

ID	Comment	Response
314.1	How are we going to control sediment and related contaminants?	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.

Letter 315

Anonymous

ID	Comment	Response
315.1	Wait for the results of HB 1581 study, then do a supplemental DEIS.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 315

Anonymous

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Letter 315

Anonymous

ID	Comment	Response
315.2	Traffic projections are meaningless- based on 2004 fuel prices and assuming no increase beyond inflation. Do it over in a supplemental DEIS.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. Also, FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

Letter 316

Michael Brimmer

ID	Comment	Response
316.1	...complete the recently authorized mult-state study of rail feasibility, and then amend the DEIS accordingly, before making a formal proposal to the CTB.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 316

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Letter 317

J. M. Chambers, Jr.

ID	Comment	Response
317.1	However, it would appear to me that if a by-pass can be built around a city, one can be build around a battlefield. If necessary, make that portion of I-81 a toll road to offset the cost.	The formal Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects will occur in Tier 2. During the formal Section 106 process, there will be consultation with the VDHR, the Advisory Council on Historic Preservation, and other parties with an interest in the effects on historic properties to seek measures to avoid, minimize, or mitigate any adverse effects on historic properties.

Letter 318

Brian Crain

ID	Comment	Response
318.1	First, I would like to say that I am fully against enacting a truck only toll on I-81. If the state wishes to enact a toll for the interstate, why would you only do it for the mode of transport that is most commonly used to ferry goods into and out of the state. Granted, there are rail systems in use here, but they cannot carry everything. If you are going to enact tolls for semis only, maybe there should be tolls for other forms of heavy frieght hauling as well. As we are already paying IFTA tax of .16 cents per gallon of fuel.	FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. If a toll option is considered for a particular Section of Independent Utility (SIU), the localized effects of toll facilities will be studied for the SIU during Tier 2. The ability to apply tolls to all vehicles would require passage by the Virginia General Assembly. The tolling application process under Section 1216(b) of TEA-21 is independent of NEPA and requires additional federal approval. In addition, tolls could not be implemented until the completion of the Tier 2 NEPA process for a particular SIU.
318.2	The one question that is in my mind at this point is why would you even entertain the idea of one single lane for a truck to drive in? If you were to try and incorporate that, that would cause even more problems than what you started with. Trucks don't all do the same in pulling and in speed.	The Tier 1 EIS considered a barrier as a method to separate lanes in the same direction of travel. As stated in the Tier 1 Draft EIS, "Concepts involving the separation of lanes (in the same direction of travel) were considered and were divided into two types: those involving exclusive separated lanes and those involving non-exclusive separated lanes. Exclusive lanes are barrier-separated lanes with separate interchange ramps to all the interchanges along the roadway. Non-exclusive lanes provide a rumble strip between the separated lanes and the other lanes, which allows vehicles in the separated lanes to merge into the other lanes to use the existing interchange ramps." Separated lane concepts are not proposed to be advanced into Tier 2.

Letter 319

Forest Crosbie

ID	Comment	Response
319.1	...VDOT should wait for the results of the multi-state rail feasibility plan before making a decision.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 319

Forest Crosbie

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 320

WP Forster

ID	Comment	Response
320.1	The STAR approach ignores the benefits of upgrading the rail line parallel to I-81.	There is no correlation between the "STAR approach" and the Tier 1 EIS. The EIS is an independent NEPA study that does not endorse or reject the findings of the STAR Solutions 2003 report. The rail upgrade considered in the STAR proposal are similar to those presented as Rail 1 in the EIS. As described in Chapter 3, Improvement Concepts, of the Tier 1 EIS, rail concepts do very little to address the 2035 traffic needs on I-81. In fact, even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 of the United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study.

Letter 321

Stephen Haer

ID	Comment	Response
321.1	...Where is Norfolk Southern on this issue [Rail Concept 4]?	Norfolk Southern supports a multi-state combined roadway and railroad infrastructure solution using a combination of private, state, and federal funding sources used to implement railroad improvements. As described in Chapter 3, Improvement Concepts, of the Tier 1 EIS, rail concepts do very little to address the 2035 traffic needs on I-81. In fact, even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 of the United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operations, has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered NEPA process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

Letter 322

Karen Hill

ID	Comment	Response
322.1	...if our government does not think the added pollution will not cause a great increase in health problems, then maybe you need a study? Did the speculative proposition that was received from the Halliburton Corporation include a study of how the increased emissions would affect the air quality of not only just one area, but essentially the entire length of the Shenandoah Valley and South West Virginia?	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. In addition, Sections 4.10 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts. The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. This analysis would, therefore, be conducted during Tier 2. Any individual projects would have to conform to the NAAQS before they could be implemented.

Letter 323

Larry Hill

ID	Comment	Response
323.1	...the study of the "rail option" has been limited to traffic diversion only within the state of Virginia. I understand that your study may have been limited by the Federal directive, but I think it is unbelievably shortsighted to do so. It certainly biases the study against the possibilty of rail relief for highway traffic. I think that the only way to apply rail capacity to such a transportation issue to is take a multistate total systems approach. Any rail study must consider the total route of truck traffic passing over the Virginia section of I-81 and develop collection and distribution points to maximize the rail portion of the routes in question.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 323

Larry Hill

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 324

Alice Lynch

ID	Comment	Response
324.1	...you should do further studies on intermodal transportation networks. If studies have to be done with neighboring states than so be it.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

Letter 324

Alice Lynch

ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

Letter 325

Joe McCue

ID	Comment	Response
325.1	I've not seen any info related to I-81 that recommends an enforcement of the existing traffic laws...	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement was not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction.

Letter 326

John Osinga

ID	Comment	Response
326.1	I believe that a GPS based system for each vehicle will be the answer for paying for future roads. Everyone will then pay their fair share by the mile and not by the gallon. This GPS system will save untold wasted hours and energy at toll booths and expense for all the additional areas and road toll structures. This system should be implemented in the entire country to pay for all roads, not only I-81. I believe there is a system being tested for commercial vehicles now in Europe. Its just a matter of time where this will be perfected and used in all vehicles. Until this system is perfected, an increase in fuel tax should pay for these road improvements.	These issues are outside the scope of the NEPA process.

Letter 327

Rebecca Reed

ID	Comment	Response
327.1	If tolls are implemented, do you have a date for the bonds to be paid off? Will tolls be eliminated or will they continue after that date?	FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. If tolls are implemented, there would be an agreement that addresses the period of toll collections and the plan for the facility to become a free facility at the end of the toll collection period. Investment-grade financial analyses are outside the scope of the Tier 1 NEPA process.

Letter 328

Sandra Rose

ID	Comment	Response
328.1	I am fascinated by the new word "overlap" to describe something. Exactly what is an "overlap". Why does it pertain only to Harrisonburg and Wytheville??	In the Tier 1 EIS, the term "overlap" was used for the two sections of I-81 where there is another designated interstate highway that runs along I-81. These sections are from Exit 72 to Exit 81 near Wytheville (referred to as the I-77 overlap) where I-77 and I-81 are concurrent and from Exit 191 near Lexington to Exit 221 near Staunton (referred to as the I-64 overlap). Since there is no overlap near Harrisonburg, the commentor is likely referring to the potential corridors on new location. There are two locations along the existing I-81 corridor that have extensive development adjacent to the I-81 right-of-way. The impacts from the potential I-81 improvement concepts, especially displacements, may rise to the level where a corridor on new location may be prudent. These sections are the aforementioned I-77 overlap section near Wytheville and a section in Harrisonburg (Milepost 243 to 251). At these two locations, FHWA and VDOT propose to evaluate corridors on new location, as well as widening existing I-81, during Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis will occur during Tier 2.
328.2	The congestion relief of good rail service along I-81 is so self evident that it is highly puzzling that you say it will be of little benefit. Exactly what are your calculations that show your proof? If just one train carries 5 flatbed cars containing 3 truck trailers, isn't that 15 trailers that are eliminated from the highway for a certain distance?? Isn't that a significant reduction in fuel expenditure?? Isn't that time that drivers are being refreshed from driving by reading or sleeping?	The Tier 1 EIS evaluated the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluated the effectiveness of conceptual level improvements in addressing those needs. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The purpose and need for this study was to improve I-81 in Virginia, and as described in Chapter 3, rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway- including seven of the eight SIUs would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operation, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from that multi-state rail study, FHWA and VDOT would evaluate the traffic effects of those improvements in Tier 2 as appropriate.

Letter 329

Roger Sturgeon

ID	Comment	Response
329.1	Not driving 81 will hurt local business in the area because they will have lost revenue from are trucks (i.e., not buying fuel, food, hotels and other things).	As indicated in the Tier 1 EIS, while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. As a result, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition, largely as a result of the improved efficiency of I-81.

Letter 330

D. Cabell Vest

ID	Comment	Response
330.1	Use of the 500-foot from either side of the I-81 outside edge of pavement is unrealistic in terms of measuring impacts. This width fails to take into account numerous impacts of proximity to an interstate, including highway-related development, particulate pollution, noise pollution, visual blight, and destruction of connectivity of the Valley.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width is reasonable for a Tier 1 analysis because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Finally, Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. During Tier 2, noise impacts will be evaluated in greater detail with consideration of site-specific characteristics.

Letter 330

D. Cabell Vest

ID	Comment	Response
330.2	The matrix appears to low-ball impact on historic properties. I suspect that this is as a result of the definition of such properties. A trip up I-81 reveals significant numbers of older structures very close to the right-of-way.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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D. Cabell Vest

ID	Comment	Response
		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

Letter 330

D. Cabell Vest

ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

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331.1	Return the interstate speed limits to 75 for cars, & 65 for trucks. And, emulate the state of Ohio, forbidding trucks from getting side by side, & blocking the interstate.	The Tier 1 EIS identified deficiencies throughout the corridor, developed a range of potential solutions, and evaluated those solutions. Additional enforcement is not included as part of the study's Purpose and Need because the funding for this effort is from other sources in the Commonwealth and is outside of VDOT's jurisdiction. Prohibition of trucks in the left lane would require action by the Virginia General Assembly.

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332.1	(Mark Chase) In a public hearing regarding improvements to I-81, these improvements addressed the need for additional climbing lanes for trucks as well as expanded acceleration and deceleration lanes at major interchanges. What happened to those plans?	As stated in Chapter 6. Tier 1 Decisions, the "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81, including, but not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
332.2	(Mark Chase) STAR Solutions proposed major changes to I-81 the entire length of the highway throughout Virginia. Is that truly needed? Negotiations between VDOT and STAR Solutions did not include the design of improvements. Therefore, how can the PPTA process go forward?	The National Environmental Policy Act (NEPA) process and the Public-Private Transportation Act (PPTA) process are independent processes, each with a different purpose. The PPTA is a state procurement law with the purpose of selecting a contractor. The NEPA process is a federal process that allows informed decisions on solving problems of the I-81 corridor. The Tier 1 Study indicates that the addition of general purpose lanes would cost substantially less than the separated lane concepts in order to achieve the same level of service benefit. In addition, numerous citizens opposed the separated lane concepts. As such, separated lane concepts are not proposed to be advanced into Tier 2.
332.3	(J.R. Ritenour)...consider building a new interstate roughly paralleling U.S. 29 originating somewhere in the Carolinas, paralleling 29 up to the Washington corridor...would take off an extraordinary amount of traffic...for people going into the northeast quadrant of this country...	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.
332.4	(Timothy Evans)...we need a multi-state solution. Improving the road in Virginia will just shift the traffic and safety concerns over to Pennsylvania, West Virginia and Tennessee.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006.

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332.5	(Irvin Hess)...there should be a supplemental section done on Tier 1, Section 4F, National Historic Act, and Section 6F of Land and Water Act, to see what benefits and what damage will be done to Rockingham County Civil War Battlefields and to the Shenandoah Valley Battlefield National Historic District	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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ID	Comment	Response
		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Section 5.8, Section 4(f)/6(f), characterizes potential impacts and evaluates potential avoidance, minimization, and mitigation measures at a conceptual level appropriate for Tier 1 analysis. This approach is not inconsistent with Section 4(f) requirements which require an evaluation of avoidance alternatives prior to the USE of Section 4(f) property. No use of Section 4(f) property would occur based on the proposed Tier 1 decisions. FHWA's environmental regulations, specifically 23 CFR 771.135 (o)(1), state that a preliminary determination MAY be made at the time of the Tier 1 EIS as to whether there are feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land. FHWA is not making a preliminary Section 4(f) determination in this Tier 1 EIS. Notwithstanding, based on the amount of existing right-of-way along I-81, Section 4(f) involvement may be avoided. During subsequent Tier 2 studies, when design details are available, in accordance with Section 4(f) and other regulatory requirements, VDOT and the FHWA would coordinate with the U.S. Department of Interior and other appropriate parties to develop and evaluate detailed avoidance, minimization, and/or mitigation measures for any Section 4(f) impacts. Any required Section 4(f) approvals during Tier 2 would include a determination that there is no feasible and prudent alternative to the use of land from Section 4(f) properties and the action includes all possible planning to minimize harm to the property resulting from such use.

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332.6	(Nancy Hess) The DEIS study apparently didn't touch [battlefields and air quality] so there needs to be a supplemental study of Section 4(f) and 6(f) for the historical land.	Section 5.7, Historic Properties of the Tier 1 EIS does describe the potential impacts to listed and eligible historic properties (including historic battlefields) that may occur as a result of each improvement concept. Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-length air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
332.7	(Nancy Hess) We...haven't seen any graphics of [the proposed interchanges] to show how massive that is going to be if [VDOT]...goes with the STAR [proposal]...	Based on future travel patterns and traffic volumes at each interchange, either a diamond or full cloverleaf interchange was considered in the analysis of potential impacts. Depending on the number of lanes on the mainline of I-81, different footprints were developed for each interchange design. Figures 5-2 through 5-5 of the Tier 1 EIS showed two footprints (a minimum and a maximum) for a typical diamond and cloverleaf interchange design. Figures 5-6 through 5-9 showed the location of potential impacts to land uses, the man-made environment, and natural resources as a result of highway and rail improvements.
332.8	(Tom Benzing) I don't know how you got estimates of impacting 35 miles of stream by extending to eight lanes, but I think that's wildly underestimating the potential impact.	Streams were identified using GIS data, aerial photography, and a windshield survey. The length of each perennial stream that would be affected was calculated by superimposing the "Build" concept footprints on top of GIS data and determining where they overlapped. Section 5.9 of the Tier 1 Final EIS, however, does not analyze impacts to intermittent streams. Each concept is likely to impact at least 0.2 mile of intermittent streams and could increase with further study. In Tier 2, more detailed analysis would be performed to identify impacts to perennial and intermittent streams.
332.9	(Jim Suter)...we should have looked at a new interstate east of the Blue Ridge that would basically replace 29.	A new multi-state interstate highway is outside the scope of this Tier 1 EIS.

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332.10	(Tim Jost) The document doesn't even consider Rail Solutions of a reasonable and appropriate scale, not limited to Virginia but running all the way from Tennessee to Pennsylvania. It doesn't consider improvements within the footprint of I-81 that would alleviate current problems without creating new problems.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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332.11	(Bruce Lundeen)...road pollution and toxic spills should be studied for an environmental impact before any construction is done.	As discussed in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing, but antiquated BMPs, or areas altogether lacking BMPs, will be evaluated for updates during subsequent design efforts. The direct routing of surface runoff into karst features will be avoided, to the maximum extent possible. In addition, the I-81 "Build" concepts lie chiefly within "discharge" areas where groundwater is sustaining stream flow. This, coupled with the fact that the existing alignment will be used to some degree, would result in minor impacts to groundwater recharge areas. Based on the above discussion, relatively minor impacts to water quality are anticipated. Local, state, (Virginia Department of Emergency Management and Virginia Department of Emergency Quality) and federal government agencies (such as the U.S. Environmental Protection Agency) would respond to hazardous material spills on I-81. VDOT often acts as a support agency to one of these agencies by providing traffic control or materials to contain the spill.
332.12	(Nicholas MacNeil)...VDOT is scheduling these public hearings required by law before there is a specific proposal to comment on. We're being asked to comment on design concepts only. The preferred option is not identified and there is no assessment of the full environmental and economic impact of these concepts on the Valley in general and our own localities in particular. Only after the public comments does VDOT reveal which build option it's going to recommend and there are no public comments required at that point and the public still won't have a detailed environmental assessment.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific impacts.

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332.13	(Nicholas MacNeil)...we should be demanding a supplemental environmental impact statement to (1) include long distance intermodal rail; (2) describe full environmental impact of each alternative; and (3) identify VDOT's preferred alternative and then have a public comment.	Please see response to Comment 332.10 and 332.12. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
332.14	(Paul Graham)...the estimate of the traffic diversion to rail in the EIS is grossly misstated because the study did not include traffic overhead to the Commonwealth of Virginia.	While improvements to I-81 were evaluated in Virginia only, vehicle trips on I-81 were not limited. All trips using I-81 in Virginia as a through route were considered in great detail. This includes trips greater than 500 miles (regardless of how long their I-81 trip is), which data indicate is the minimum distance between origin and destination that a trip could be diverted from truck to rail. The Tier 1 EIS includes all freight movements using the I-81 corridor, regardless of trip length, origin, or destination. A macro analysis for trips greater than 500 miles, which could divert to rail or alternative roadway corridors, and a micro analysis for trips of less than 500 miles, which could divert to alternative roadways were both assessed. Therefore, the study team did appropriately evaluate freight diversion to rail for trips of over 500 miles in length.
332.15	(Carolyn Long)...this study has not addressed the environmental impact of a massive truck way on tourism...	Section 5.5, Visual Impacts, states that, in the cases where people currently have unobstructed views of the I-81, the magnitude of impact is not expected to be great since viewers already see an interstate. Since I-81 already exists, the addition of highway lanes or improvements to interchanges would not appreciably change the visual character of I-81. The greatest potential visual impacts would occur in those areas where people cannot currently see the road from sensitive resources because views are currently obstructed by some type of visual buffer. Road improvements may potentially involve the removal of a vegetative buffer or other barrier, resulting in new views of the road from sensitive resources. This would particularly occur for resources that do not involve a crossing of I-81, such as the George Washington and Jefferson National Forest. Such visual impacts would also be more prevalent for those historic properties that currently have some type of visual buffer. During Tier 2, a more detailed assessment of visual impacts would be completed as necessary that identifies specific areas where existing visual buffers would be removed.

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332.16	(Carolyn Long) You can imagine our relief when I read on page 4-25 of the economic technical report that the imposition of tolls should not create an unfavorable economy for the region's businesses and perhaps you can also imagine my confusion when I read five sentences later that stated another way tolling would have a negative influence on the overall potential economic benefits that can be derived from this increase to Interstate 81. Since the DEIS can't quite decide let me inform my fellow Virginians that tolls will be devastating to the poultry industry.	As indicated in the Tier 1 Draft EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have positive economic effects when compared to the No-Build condition. The second sentence cited in the comment has been revised in the Tier 1 Final EIS and the Economics Technical Report to be clearer. The sentence now is, "Stated another way, tolling would decrease the overall potential economic benefits from improvements to I-81 than if there were no tolls, but would not necessarily have a substantial economic impact on local individuals who use I-81."
332.17	(Rosemary Wallinger) It is inconceivable to us that any proposal would be advanced before studies for how this affectability to ground water contamination would be impacted given the enormity of the threat to our health and safety. Given the enormity of the threat we are upset that VDOT proposes to review the impact as it stands allowing the agency to use two lesser levels of review.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Consistent with a tiered approach, mitigation for impacts to any environmental resources are discussed conceptually in the Tier 1 EIS. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific methods for determining impacts and determine the appropriateness of site-specific strategies for avoiding or mitigating impacts to environmental resources, such as groundwater.
332.18	(Rosemary Wallinger) Shenandoah Forum requests that the Commonwealth Transportation Board be granted a statutory role in the decision making process and that no PPTA proposal be considered to progress until they have passed through the Commonwealth Transportation Board's six year plan.	The entire NEPA process currently underway is completely separate and independent from the PPTA process. The NEPA process has no jurisdiction over PPTA matters and does not have the authority to grant CTB members statutory roles in the process.

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332.19	(Kim Sandum) We would like to see the impact study before a decision is made on what concept will be passedalong to the next stage and we also want to make sure that you take time to consider a supplemental DEIS for additional public comments.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Information presented in this Tier 1 Draft EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. During Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal

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		guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental

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		process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
332.20	(Kim Sandum)...we ask that you not split our community into two sections of independent study cordoned right down the line at 33. Half of the bypass will be studied in one study, half of the bypass will be studied in another study and the community will be pitted against each other. That makes no sense whatsoever. Please don't put us in two study areas.	The recommendation of the Harrisonburg-Rockingham Metropolitan Planning Organization was for a Section of Independent Utility to encompass the portion of the interstate from Exit 235 to Exit 257. As discussed in the Tier 1 EIS, "breakpoints" in traffic were the basis for the determination of the logical termini of an SIU. Identifying the termini of SIUs on this basis would mean that congestion would not merely be moved to the next section of the highway. One method to determine a logical breakpoint is to identify substantial differences (i.e., 20 percent or greater) when comparing the predicted (2035) traffic volumes on I-81 on one side of an interchange to the predicted traffic volumes on I-81 on the other side of an interchange. Another method of determining a logical breakpoint is to identify where the predicted traffic volumes on I-81 interchange ramps were substantial (i.e., a total of 3,200 vehicles on all the ramps), even though the predicted traffic volumes on I-81 on either side of the interchange may not be substantially different. Exit 235 and Exit 257 do not meet these criteria on traffic volumes and are, therefore, not used as logical termini for the SIUs.

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332.21	(Trip Pollard) There are errors in some of the assumptions in this study...the omission of consideration of alternatives beyond state lines which effectively rules out the most effective rail alternatives.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
332.22	(Trip Pollard) Forecasts of growth do not consider rising gas costs. We need to examine sensitivity to demand since this is the justification of what we're doing.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
332.23	(Trip Pollard) [The DEIS does] not look at the run up in oil prices and other factors as escalating construction costs.	Please see response to Comment 332.22.
332.24	(Tom Landon)...VDOT [needs] to take a look at the possibility of running new interstate, a north/south interstate pretty much along the 29 corridor from...Danville to Lynchburg to Charlottesville to Culpeper and Warrenton to I-66.	A new multi-state highway is outside the scope of this EIS.

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332.25	(Frank Nolen) There were no diversion figures for the no build option. We ought to have those to know what we're doing, how many cars when it really gets full will be diverted.	No toll diversion analysis was completed for the No-Build condition because it is contrary to Federal law to toll a roadway without providing improvements to the roadway infrastructure.
332.26	(Frank Nolen) Nothing was mentioned [in the DEIS] about the rail concept down the median strip.	The purpose and need for this study was to improve I-81 in Virginia, and as described in Chapter 3, rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway- including seven of the eight SIUs would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 United States Code, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, the Virginia Department of Rail and Public Transportation, whose responsibilities include working with the railroad companies to improve freight operation, has initiated a multi-state rail study in cooperation with Norfolk Southern. If funded rail improvements emerge from that multi-state rail study, FHWA and VDOT would evaluate the traffic effects of those improvements during Tier 2, as appropriate

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332.27	(Catharine Gilliam)...VDOT [should] issue another supplemental DEIS and provide another opportunity for public comment where we can really meaningfully comment on the proposal.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
332.28	(Catharine Gilliam) Another omission, one of our newest national parks in the United States is Cedar Creek Belle Grove...[the DEIS] never mentions the park or the impact.	The Cedar Creek and Belle Grove National Historical Park has been added to Section 4.6, Parks and Recreation Areas and to Figure 5-6, Sheet 10. In addition, Section 5.6 has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.

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332.29	(Howard Kittell)...we encourage that any improvements occur within the existing right-of-way of the interstate and that the rail alternative be given a thorough and rigorous study as an interstate issue as the alternatives to Interstate 81 should also be an interstate analysis, not just a Virginia study.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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332.30	(Howard Kittell)...[the DEIS] does not adequately address the impacts to the seven battlefields and possibly two more battlefields if the Harrisonburg loop project is included. Overall the impact statement is not a significantly rigorous analysis or facility that could have such drastic impacts on the Shenandoah Valley. We also believe that the current document does not adequately address the spirit nor the intent of the National Historic Preservation Act, the National Transportation Act or the National Environmental Protection Act.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. For purposes of this Tier 1 FEIS, historic properties were defined as properties that are either listed on or formally determined eligible for the Virginia Landmarks Register (VLR) and/or the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR), or that may be potentially eligible for listing. In Virginia, VDHR serves as the State Historic Preservation Office (SHPO) for the purposes of the National Historic Preservation Act of 1966 and related regulations. An eligible property is any district, site, building, structure, or object that meets the National Register's Criteria for Evaluation. For purposes of inventorying historic properties, the width of the study area varied. Like other resources, archaeological sites were inventoried within 500 feet on either side of the I-81 edge of pavement or rail center line. However, because above-ground historic resources outside the potential construction limits, but within view of a project, could be visually affected, historic properties were inventoried 1,000 feet on either side of the I-81 edge of pavement or rail center line. Historic properties within this 2,000-foot-wide corridor were assumed to be visible from the interstate or rail line. In addition, historic properties that may be within view beyond the 2,000-foot-wide corridor were also identified. Identification of previously recorded historic properties within the study areas involved background research at VDHR, such as review of archival, cartographic, and other primary sources. Previously recorded historic properties that were listed on the NRHP or that VDHR had determined eligible for the NRHP were identified from that agency's files. The properties were defined from VDHR's digital maps and verified on the master maps at VDHR. Information on the historic properties was obtained from VDHR's Data Sharing System (DSS) files for all previously recorded resources, and the complete files for those resources that were listed on or eligible for the NRHP were physically examined at VDHR to locate the historic properties within a minimum 2,000-foot corridor as well as all above ground historic properties beyond the 2,000 foot corridor. All previously recorded historic resources that could reasonably be expected to be visible from the 2,000-foot corridor were also mapped on project topographic quad maps. Information on previously recorded historic resources outside the 2,000-foot corridor was obtained from the same VDHR sources to ensure that resources possibly visible from the I-81 corridor were considered. A qualified architectural historian conducted a

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		preliminary field reconnaissance survey to compile a list of historic resources, including those that had been previously recorded and those that had not been recorded, but appeared to be potentially eligible for the NRHP. All resources with unresolved eligibility recommendations were viewed during the preliminary field reconnaissance survey to assess their potential eligibility. The field reconnaissance survey consisted of the following: -Listed and determined eligible resources along the entire 2,000-foot I-81 study corridor, as well as those that were visible from the study corridor, were viewed to assess their current condition. -Resources that appeared to be potentially eligible were viewed to preliminarily assess their potential for eligibility. -Resources that, from the DSS forms, were suspected to have some potential for eligibility were viewed. -Any unrecorded resources that appeared on the topographic map to warrant further inquiry were located and viewed in the field to determine if they had some potential for eligibility. Unrecorded resources that were not on the topographic map but that were encountered in the field and appeared to warrant further inquiry were also viewed to determine if they had some potential for eligibility. These unrecorded resources are listed in the I-81 Corridor Improvement Study Historic Properties Technical Report with the designation "CCR-#". In addition, a review of the VDHR funded county surveys was conducted in consultation with VDHR staff to assess the completeness of the regional survey coverage. Previously recorded archaeological sites were reviewed and their potential to contain human remains was assessed. This work included a thorough review of archaeological site files housed at the VDHR archives. In addition, past issues of the ASV Bulletin, the journal of the Archaeological Society of Virginia (ASV), were reviewed. Section 2.4.1 of the I-81 Corridor Improvement Study Historic Properties Technical Report describes the predictive criteria that were developed to help evaluate which sites have the potential to contain human remains, and Section 3.1.5 contains the determinations (i.e., Very Low Potential, Low Potential, Moderate Potential, Strong Potential, or Burials Present). Sites with human remains were the focus of the inventory because, as stated in the technical report, they pose a greater regulatory constrict than archaeological sites without human remains. In addition, research was also conducted to determine whether federally recognized Indian Tribes attach religious and cultural significance to any historic properties in the study area. No instances were found. A review of VDHR files also indicated that no Traditional Cultural Properties have been inventoried in the study area. The background review, combined with the preliminary field review, resulted in the identification of a total of 979 resources. More detailed information on the methods used to inventory the historic and archaeological properties for this study is included in the I-81 Corridor Improvement Study Historic Properties Technical Report. The level of resource identification and analysis undertaken for this Tier 1 FEIS is appropriate to

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		compare relative potential for impacts among the concepts. One of the purposes of the Tier 1 EIS is to serve as the basis for the identification of individual, independent projects (i.e., undertakings). The Section 106 process for individual projects, involving identification of historic properties, decisions on Areas of Potential Effects, assessment of the full range of effects to historic properties, and resolution of adverse effects would be completed during Tier 2 before approval of any undertakings. At that point, there would be additional consultation with the VDHR, the Advisory Council on Historic Preservation, federally recognized Indian Tribes, and other parties with an interest in the effects on historic properties to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
332.31	(Howard Kittell)...a supplemental environmental impact statement does need to be prepared at this level of analysis before decisions are made and move on to the second phase.	Please see response to Comment 332.30.

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333.1	(Katherine Jewell)...What if we just fix those sections of I-81 that operate below standard and don't begin to fix what is not broken? Currently, there are 16 construction projects for I-81 that are already funded and are yet to be started. This along with one; upgrading certain conditions, certain sections to meet the current safety design criteria such as expanding inside shoulder widths where needed, adding truck climbing lanes where needed, providing advance warnings of bridge clearances. Two; addressing the identified problems and specific areas. And three; joining with our neighboring states, shipping companies, port authorities, and railroad companies to do an unbiased study on the feasibility of alternative means of transporting cargo such as high speed rail.	As stated in Chapter 6, Tier 1 Decisions, the "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. Along with the "Build" concept being advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81. These include, but are not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS. The traffic analysis that was conducted for the Tier 1 EIS demonstrates that, even if 100 percent of the truck traffic were removed from I-81 in Virginia and their freight put onto rail, the majority of I-81 in Virginia would still need additional highway lanes. Therefore, evaluating out-of-state rail improvements would not alter FHWA's Tier 1 decision to advance a "Build" concept into Tier 2. Nonetheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Public Transportation has initiated a multi state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process, While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.
333.2	(Dan Marston)...how they are going to provide funds?...Tolls will not fly...the General Assembly and VDOT should address and move to provide funding for this road.	This issue is outside the scope of this Tier 1 EIS.

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334.1	(Bob Barker) ...the DEIS...is seriously flawed...VDOT only considered the three hundred twenty-five miles of I-81 in Virginia. To be viable, rail needs a minimum of five hundred miles. VDOT purposely used this flawed data to justify their position that rail was not feasible. I-81 needs quick improvements to hazardous spots. The DEIS shows that a third of all fatal accidents occur in only eight percent of its lane miles. Thus, quick design improvements and congestion abatement such as truck hill-climbing lanes and interchange redesign will save lives and meet our needs now as no fifteen-year construction project can. ...the Governor and the General Assembly must initiate a full-scale multi-state economic feasibility plan for diverting up to sixty percent of through state truck traffic from I-81. All the current division feasibility studies plus the EIS has refused to look beyond the borders of Virginia and have found that railroads can have little affect on highway truck volume in the state. If Virginia truly wants to divert through trucking from I-81 within its borders, the focus and analysis need to be interstate on the five hundred thirty-five mile corridor between Knoxville and Harrisonburg...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
334.2	(Catherine Jewell) What if we just fix those sections of I-81 that operate below standard and don't begin to fix what's not broken? Currently, there are 16 construction projects for I-81 that are already funded and are yet to be started...upgrade certain sections to meet the current safety design criteria, expanding inside shoulder widths where needed, adding truck climbing lanes where needed, providing advance warnings of bridge clearances, and addressing the identified problems and specific areas...think of another way to move truck traffic and cooperate with other states to do it.	As stated in Chapter 6. Tier 1 Decisions, the "Build" concept that is proposed to be advanced into Tier 2 is a non-separated highway facility that involves constructing no more than two general purpose lanes in each direction, where needed, to address 2035 travel demands. Along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81. These include, but are not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
334.3	(Monty Vernon) ...we have a problem in Abingdon and that's at Cummings Street, I-81 Exit 17 interchange...some of these local problems need to be addressed and taken care of and not be held hostage to the whole I-81 process...take care of these individual problems and projects that need to be addressed and already have been looked at and a design has been done...	Comment noted. As stated in Chapter 6, Tier 1 Decisions, in the Tier 1 FEIS, major improvements are needed at Milepost 17. This and other short-term improvements were included as part of the Transportation System Management Concept discussed in the Tier 1 EIS.

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ID	Comment	Response
334.4	(Ben Smith) ...VDOT did not consider seriously in their Tier 1 DEIS rail option consistent with the rail development concept, which has so much demonstrated support in Tennessee. VDOT must surely recognize that to divert trucks from I-81, it will be necessary to provide enhanced rail speeds and upgraded rail service for freight movements greater than five hundred miles. The railroad option selected by VDOT for comparison to the prominent highway options falls far short of the scope necessary to be effective...we ask that the final EIS demonstrate a rail development approach as provided - a more robust rail development approach as provided by HB 1581...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2

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ID	Comment	Response
334.5	(John S. Gaines)...you've missed the boat by not considering the full rail implications. The rail implications have to be connected to Tennessee. Bristol is not the end of the line in any logical transportation system except delivering things to our speedway and our grocery stores and our retail outlets and our food centers.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
334.6	(Ryland Sutherland)...the Draft Environmental Impact Statement did not take a multi-state approach...to the rail problem...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
334.7	(Florence Robertson)...The Draft Environmental Impact Statement does not adequately and fully examine the public health impacts of a proposed expanded highway of eight to twelve lanes covering the full length of I-81...reading the I-81 DEIS one does not get a sense of the dangerous reality of current air pollution conditions, much less a valid projection and comparison of risks for the different options for managing highway congestion and future expected freight and passenger increases...	The Environmental Protection Agency has established National Ambient Air Quality Standards (NAAQS) that sets limits on air pollutants considered harmful to public health. The predominant sources of air pollution are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. The 1990 Clean Air Act Amendments and the Virginia State Implementation Plan require that a proposed project not cause any new violation of the NAAQS or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS. A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. Any individual projects would have to conform to the NAAQS before they could be implemented. In addition, Sections 4.10 and 5.10 of the Tier 1 Final EIS have been revised to be in conformance with FHWA's Interim Guidance on Air Toxic Analysis in NEPA Documents, dated February 3, 2006. The Tier 1 Final EIS includes a discussion of Mobile Source Air Toxics (MSATs) and a qualitative assessment of the future MSAT emissions from the "Build" and No-Build Concepts. The Tier 1 EIS also discusses information that is unavailable or incomplete information that precludes prediction of health effects from the MSAT emission changes associated with the improvement concepts.

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ID	Comment	Response
334.8	(Florence Robertson)...The Draft EIS was not comprehensive in its cataloging of and due respect for our region's many unique, beautiful and valuable assets, nor for the overall environmental damage that a mega highway could do to our health, our businesses, including tourism, and our entire way of life along Virginia's great valley...wait until a multi-state rail feasibility plan is properly conducted...VDOT should conduct another study taking into account the above considerations as well as comments and studies of other concerned parties...the data and the conclusions should be reviewed by a panel of nonpartisan objective experts including ecologists, environmental ethicists, and...public health experts...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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Natural Bridge Transcript

ID	Comment	Response
335.1	(Nancy Qubain) I don't believe that there has been enough focus on really what an impact a toll road would have on the local people here in the Shenandoah Valley.	For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls would not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the improved efficiency of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. National evidence shows, in fact, that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule. Further, while some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion from tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.
335.2	(Bill Reulein) The main concern is that U.S. 11 really isn't designed for any large number of trucks. And anything that produces that kind of truck traffic on 11 is going to create, obviously it's going to create safety hazards. And so my concern is that that is really going to impact the environment locally for anyone living and using Route 11.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures.
335.3	(Rene Hasey) When this study was started gasoline was $1.50 a gallon. It's now over $2.50 a gallon and has no signs of going down so I really feel like that has to have some impact on the study and the results of the study.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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Natural Bridge Transcript

ID	Comment	Response
335.4	(Lester Davis) If the estimates of the trucking growth are way overstated then clearly VDOT is going to be trying to build a bigger highway than they need to. And I think fuel cost factors are not mentioned at all in this study and I think that's important that they be considered.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

Transcript 335

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ID	Comment	Response
335.5	(Lester Davis) It takes a corridor of maybe five to seven hundred miles for rail to compete effectively and VDOT knows that because there's been other studies done in Virginia that has shown that, that you need that kind of length of haul. But they have confined the analysis in this DEIS to the three hundred and twenty-five miles of the I-81 corridor in Virginia instead of looking through the whole corridor, say from Pennsylvania to Tennessee or something like that.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
335.6	(Gail MacLeod) Before this goes to the Commonwealth Transportation Board I'd like to see an analysis, an analysis presented to that board what the project baseline number of lanes and other improvements would be if the level of service standards were B and C--C and D instead of B and C. Because right now as explained to me by the Department staff the number of lanes being added have the intent to bring it up to the level of service B and C and C and B is not unreasonable. And as part of that analysis of what would be the improvements required under that scenario I would like to have an idea of what the environmental benefits and the cost benefits would be. And then, secondly, that scenario just described in combination with Rail Concept 3, an analysis of that combination to determine what the benefits are for getting trucks off of that road.	As stated in Chapter 2, Purpose and Need, A Policy on Geometric Design of Highways and Streets, published by the American Association of State Highway and Transportation Officials (AASHTO), is used to provide the LOS standard for highways on the National Highway System, which includes I-81. The level of service standard for mainline operations of I-81 is LOS B in rural areas and LOS C in urban areas. The policies published by AASHTO were the result of proven engineering research and experience, based on studies conducted by FHWA, the National Cooperative Highway Research Program (NCHRP), state research laboratories, and universities. These recommendations are, therefore, reasonable criteria for a Tier 1 analysis. The proposed Tier 1 decisions do not preclude the Commonwealth from requesting a level of service exception from FHWA as part of the Tier 2 process.

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335.7	(Thomas Jenks) ...why not ask the legislature, the Department of Transportation petition the legislature for the legal authority to do [a multi-state rail] study so that you could determine if that would make a significant impact on the alternatives that you would consider for this kind of an expansive large project...	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.8	(John Beghtol) I have a lot of concern about the study that it doesn't go far enough out into the future. Everything seems to me on 2035.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take 10 years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2.

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335.9	(John Beghtol) ...it seems to me in all the reading of your documents that it's a little bit light on attending to the rails. How can you avoid by the year 2070 if your figures about traffic is doubling about every thirty-five years. At what point does the rail solution become dominant. I mean there are just so many lanes you can put up the Shenandoah Valley and that's it.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.10	(Lisa Tracy) ...a wildlife expert has told us that a widened highway that relies on areas to divide northbound and southbound lanes in such a highway the wildlife kill rate reaches 100%. But not only does this make a highway kill high rate, pollutant farm land and forest and damage vital tourism industry, it will concomitantly be creating a safety hazard for drivers who will be running into deer and other large mammals that are no longer able to cross the highway.	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.
335.11	(Lisa Tracy) The Draft EIS is inadequate. We, your public, the taxpaying public, believe that your analysts have wasted your and our time and money. We would like to see at the very least a supplemental DEIS done by someone with better information before the first shovel is dug on the proposed mega highway.	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.

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335.12	(Lee Merrill) This draft study is based on Virginia only minor rail improvement as the basic assumptions. Its current predictions and conclusions are unreliable and not qualified to be considered judging the options that should be before you.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for trips greater than 500 miles, and a micro analysis for

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335.13	(Lee Merrill) ...revise the study to demonstrate the fullest feasible rail system, let that mission have a fair shot at being seen as the best outcome and then you can identify the best choices for transportation system improvements.	Please see response to Comment 335.12.

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335.14	(Lee Merrill) Our board also, however, takes the strongest exception to the recommendation of the draft study that the Rockbridge section of I-81 as I understand it is proposed for categoric exclusion from Tier 2 DEIS analysis. The logic of that assumption escapes us as a community. The area is just as high, if not higher, in its expected impacts, and it is the area within the I-81 corridor of arguably the most concern and fodder for law suits based on an inadequate discovery and analysis as you go forward.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified. Regardless of the type of document prepared to comply with the National Environmental Policy Act, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by the Federal Highway Administration.
335.15	(Glenn Rose) ...the study seemed more weighted to the idea of widening the highway...without really adequately looking at the rails...part of what was discussed is that tolls are going to maybe make the highway a little lighter because folks are going to be traveling off of it to avoid the tolls, but what kind of impact is made on the roads, a study hasn't been made on what it's going to do to the roads and the traffic for those that are off the interstate.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low-toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The tier 2 studies will look at traffic diversion in closer detail and identify necessary mitigation measures if required. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions due to tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.
335.16	(Glenn Rose) Another thing about the report that alarms me if I'm understanding correctly is that almost by royal fiat it's going to designate the Rockbridge area as a categorical exclusion for an environmental assessment status which I understand would preclude any more open hearings or public hearings on this matter so that essentially we'd be cut off. We're in a special area and that's it.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified. Regardless of the type of document prepared to comply with the National Environmental Policy Act, VDOT will conduct public involvement in accordance with its Policy Manual for Public Participation in Transportation approved by the Federal Highway Administration.

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335.17	(Nancy Anderson) And we need if we're going to do an environmental study, we need to do a real one and no exclusions. We need to look at the air, we need to look at the water, we need to look at sound, and it doesn't stop five hundred feet from the highway. Air continues to carry on. We need to do a comprehensive study and do justice to the people who live here.	Regarding Categorical Exclusions, please see response to Comment 335.16. Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-length air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. With the implementation of appropriate stormwater management controls, relatively minor impacts to water quality are anticipated. Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. The width of the study area used in the Tier 1 Draft EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81.

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335.18	(Georgia Smallman) ...a Tier 1 [DEIS] should talk about the environmental impact...growth was not mentioned. Impact on groundwater was hidden in Chapter 4. It certainly wasn't mentioned in the executive summary...All you talk about in the executive summary is your project. You don't talk about environmental impact.	Section 5.14, Indirect Impacts, of the Tier 1 EIS examines the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. In addition, Section 5.15 of the Tier 1 EIS includes discusses cumulative impacts which are defined as "the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). The purpose of the cumulative impact analysis is to determine whether any of the improvement concepts, considered with other previous and foreseeable impacts, will result in the significant degradation of a resource, loss of biological diversity, or significant social or economic effects that would not occur if the improvement concepts were considered separately. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Table ES-4 in the Executive Summary of the Tier 1 EIS contains a summary of the potential environmental consequences of the No-Build and "Build" concepts.
335.19	(Georgia Smallman) You need to go back to the drawing board to do a ground water study. I want to refer you quickly to a study that was done by the U. S. Geological Service in 1999 that shows conclusively that this is the most productive aquifer in the whole region. The deepest rocks, if you get them dirty you will never get them clean. The deepest rocks in Virginia.	As stated in Section 5.9, Natural and Geologic Resources, water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual and the Virginia Stormwater Management Program. Best Management Practices would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. Detailed impacts to water quality are dependent on specific engineering design details and such an impact analysis would be completed during Tier 2.

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335.20	(Hunt Riegel) ...rail has not been adequately considered...Options for upgrading rail improves upgrades to a mere thirteen spots totaling on the order of something like twenty or thirty-three miles.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
335.21	(Hunt Riegel) ...for any section receiving categorical exclusion status the Tier 2 further study alluded to in the DEIS would not occur. Substantial controversy exists on environmental grounds regarding this issue.	Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.

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335.22	(Hunt Riegel) A supplemental environmental impact statement that reflects both better informed rail recommendations and more complete environmental impact statements should be drafted and submitted for public comment.	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
335.23	(Hunt Riegel) ...identify areas where trucks only climbing lanes are needed. These will likely qualify for categorical exclusion and should qualify for funding under the federal $100 million earmark.	As discussed in Chapter 6, Tier 1 Decisions, along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81. These include, but are not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
335.24	(Laura Neale)... in this draft environmental impact study projected traffic increases is a prediction based upon present conditions where traffic continues to increase at a known rate and all other variables remain static...	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
335.25	(Laura Neale) I feel that every variable that counts was either not included or superficially mentioned in the draft environmental impact statement. The variables that need to be addressed include impacts on natural resources which I'd like to point out are not of renewable infinite supply, impacts of tolls on traffic patterns and overflow off the interstate onto local highways, impact over reduced fossil fuel supplies say twenty or forty years from now on traffic supply and demand for additional highway monies and impacts of noise pollution.	Section 5.9, Natural and Geologic Resources, of the Tier 1 EIS discussed impacts to natural resources. The Tier 1 EIS identified 14 local routes that are likely to see diversions due to tolls. While some level of diversion to local roads is expected, 5 to 15 percent of local roadway traffic will divert to I-81 if it is improved. All routes will be analyzed in greater detail, as necessary, during Tier 2. Section 5.11, Noise, in the Tier 1 EIS identified the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts.

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335.26	(Peggy Dyson-Cobb) Among numerous other failings [the DEIS] excluded tolls from its economic study. It excludes the biggest build option from its economic study.	An appropriate assessment of the economic impacts from tolls has indeed been conducted. Please see the I-81 Corridor Improvement Study Economics Technical Report, the Toll Impact Study, and Section 5.3, Economic Effects, of the Tier 1 EIS. As indicated in the Tier 1 EIS, even under the various toll scenarios, the range of potential improvement concepts would generally have postive economic effects when compared to the No-Build condition. More detailed economic impacts of individual projects would be analyzed during Tier 2.

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335.27	(Peggy Dyson-Cobb) [The DEIS] dismissed upgrading rail as an alternative on specious grounds. That doing so only in Virginia would be pointless. But they did not extend that logic to upgrading I-81 only in Virginia.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.28	(Peggy Dyson-Cobb) ...VDOT contracted the study out to a former STAR consortium firm and thereby the integrity of this NEPA process has been severely compromised. VDOT must contract a truly independent firm to address the failures of this document with a public hearing on their supplemental report.	The Federal Highway Administration Virginia Division took an unbiased, objective, hard look at all facets of VDOT's environmental impact statement preparation, including purpose and need, improvement concepts including the No-Build Concept, and potential impacts. VDOT independently reviewed the studies and conclusions reached by consultants before their inclusion into the Tier 1 EIS.

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335.29	(Ellen Martin) ...how do you propose ensuring a partnership between the neighboring states for a rail solution.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.30	(Eli Fishpaw)... working with rail solutions and Ben Cline and other legislators we now have a bill to develop a feasibility plan to move this idea forward. And I would like to see you incorporate that plan developed by professionals to evaluate the environmental impact and also I would like to see you revise your plan to include say the reality of increasing oil prices as a result of declining oil supplies.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.31	(Catharine Gilliam) There are so many errors, omissions and inadequacies in the Tier 1 Draft DEIS that VDOT must issue a supplemental DEIS and provide another opportunity for public comment on these plans.	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
335.32	(Catharine Gilliam) Among these failures are ignoring the many sites, regions and communities that are eligible for the National Registry of Historic Places and failure to protect the Civil War battlefield resources that Congress voted to protect when it created the Shenandoah Valley Battlefields National Historic District. One of our newest national parks in the United States is the Cedar Creek Belle Grove National Historic Park. The proposal that you have described would cut right through this brand new national park. Your Draft DEIS does not even mention the existence of this national park.	The analysis of impacts to parks and recreation areas (Section 5.6) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.

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335.33	(Catharine Gilliam) Air quality impacts on the Shenandoah National Park, the Blue Ridge Parkway and Appalachian Trail are absolutely barely referred to in the Draft DEIS.	The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).
335.34	(Jim Bailey) If Interstate 81 is reconstructed with tolls as the major revenue source I can assure you that traffic will divert from the toll road onto highways, such as Routes 11, 15, 29 and 340. Without major improvements how will these alternate routes handle the increased traffic volume?	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.

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335.35	(Roy Fauber)... I would like as a taxpayer for VDOT to consider the cost effectiveness of various solutions. If rail can be done much less expensively than large improvement to I-81 we'd like for the economics of that to be considered, the return on the taxpayer's investment over time, because it looks like all reasonable studies indicate that substantial improvements can be made in rail for a third or so of the cost of what would be necessary to improve the interstate to this largest proposal.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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335.36	(Barbara Thomas)...there are "facts" in one section that are not backed up by facts in another section...you say yes, tolls will have no impact, but then you say so much traffic is actually going to go out onto 11.	The facts presented are entirely consistent. The Tier 1 EIS states that U.S. Route 11 could be expected to absorb about 50 percent of all local diversions. The DEIS identifies 14 other local routes that may also be susceptable to diversion. The EIS goes on to state that the overall impacts to Route 11 are low for this type of roadway. In fact, while some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made.

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335.37	(Laura Neale) To suggest that a five hundred foot width corridor is the extent to which air will be impacted by interstate traffic is a joke and lacks credibility of your findings.	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. As indicated in Section 5.14, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways.
335.38	(Laura Neale) Non-point source water pollution contributed by impervious surfaces is another environmental consequence of adding multiple lanes to the interstate which has not been adequately addressed.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.
335.39	(Laura Neale)...I do not believe the issue of tolls has been adequately addressed in the Draft Environmental Impact Study. In VDOT's Interstate 81 update this is the synopsis given to us through the impact of tolls. "Generally the higher the toll the more traffic will divert from I-81 to other facilities which reduces the number of additional lanes required along I-81. However, the diversion of traffic regardless of toll scenario is relatively low."...We ought to know about the impact of tolling on our local roads and communities.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made. The Tier 2 studies will examine traffic diversion in more detail and identify any required mitigation measures. The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. NEPA regulations direct Federal agencies to consider the effects of proposed actions to the extent they are reasonably foreseeable. FHWA is not required to include scenarios that are remote and speculative in any NEPA document. The effects of the limits of fossil fuel supplies are speculative (as are scenarios that consider alternative fuel sources) and, therefore, these scenarios were not considered.

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335.40	(Laura Neale)...I deserve to know why a thorough examination of the potential of moving freight to rail and ultimately gets used by passengers was not addressed in the Draft Environmental Impact Statement. It is inexcusable for the Department of Transportation to not investigate a rail alternative.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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335.41	(Laura Neale) ...due to the serious inadequacies of the Tier 1 Draft Environmental Impact Statement VDOT needs to issue a supplemental draft environmental impact statement and provide for another opportunity for comment on Tier 1 planning before requesting approval of the final Tier 1 Environmental Impact Statement.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. In Tier 2, subsequent NEPA documents prepared for individual projects would be updated and refined to address site-specific impacts prior to construction. FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted.
335.42	(Eric Sheffield)...there are a number of serious flaws in this draft environmental study. The major one of which is that it seems to take no account of the future dwindling supplies of oil and rising prices. Now, this purports to be a study of what the road use is going to be in thirty years. Well, you know, in the last three or four years we've seen fuel prices triple and that's had an impact. I think we're only going to see more of that. And if we don't take that into account this can have no validity.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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335.43	(Eric Sheffield) I really don't think this is fair to put tolls on 81 without having a comprehensive plan for tolls for other roadways because it's going to put our local businesses at a disadvantage. Now, they've got to work on a toll road whereas businesses in other areas don't.	For the most part, the "Build" concepts would not greatly affect the projected cost to deliver goods to the marketplace, regardless of the whether tolls are implemented or not. Therefore, the imposition of tolls would not create an unfavorable economy for the region's businesses. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the improved efficiency of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. Delays on the interstate would affect the length of trip for many drivers, forcing them to seek alternate routes to stay on schedule. National evidence shows, in fact, that businesses will incur the cost of tolls if highways provide good enough levels of service to allow trucks to remain on or ahead of schedule.
335.44	(Gregg Amonette) The problem with the study is that the economics are based on the minimum width build without tolls, a combination minimum width and rail. It basically finesses the idea that the maximum width with tolls and minimum width with rail have about the same economic impact over time, but they don't actually support this with any evidence whatsoever. The point I would make is this. We really need to do a very thorough economic second phase study of this whole project because you can't simply say that the impact of tolls will not take away any economic benefit that is laid out in the environmental impact study.	An appropriate assessment of the range of economic impacts from the range of "Build" Concepts has indeed been conducted. As explained in Section 2.1, Economic Forecast Modeling Methods and Assumptions, in the I-81 Corridor Improvement Study Economics Technical Report, the improvement concepts that have the minimum and maximum economic impacts were chosen to be used in the economic analysis because they provided the least and the greatest demographic and economic benefit to the I-81 study area compared to the No-Build condition, as determined by the REMI model. The minimum economic impact is generated by the scenario with lowest efficiency gains and the highest tolling rate. In this case, the scenario with the minimum economic benefit is the Maximum Width template that includes high tolls for all vehicles and Rail Concept 3. In contrast, the greatest incremental economic benefit comes from the scenario with the greatest efficiency gains and no tolling. The scenario that has the maximum economic benefit compared to the No-Build condition is the Minimum Width template that includes Rail Concept 3, but does not include tolls. As indicated in the Tier 1 EIS, even under the various toll scenarios, the potential improvement concepts would generally have positive economic effects when compared to the No-Build condition, largely as a result of the improved efficiency of I-81. Tolls would not create a disincentive for individuals and companies to locate in the corridor or cause others to relocate from the corridor because of the potential improvements implemented on I-81. On the contrary, it would be the decline in levels of service on I-81 with the No-Build condition that may have this effect on individuals and companies that are dependent on the interstate. These could include some of the region's larger and old line industries (e.g., furniture manufacturing and chemical production) who operate in very price-competitive, global markets.
335.45	(Gregg Amonette)... the Commonwealth absolutely must invest in a very thorough study to understand what the impact of the maximum width project or any project with tolls will be over time because it clearly is not supported in the phase one study, in the Tier 1 study that the tolls will not have a negative effect on the very positive things that the study tries to identify.	Please see response to Comment 335.44.

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335.46	(Mark McManus) That study hasn't even begun to touch the impact ultimately on the James, the Potomac and the Chesapeake Bay receiving water system. That DEIS hasn't even touched that.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.
335.47	(Barbara Walsh) ...there are a number of errors and factual mistakes in the DEIS that we really do believe justifies a supplemental EIS and that the concerns and the controversy about the other impacts involving historic properties and environmental impacts rises above the level of categorical exclusion for any of the segments of this proposal.	FHWA's Environmental Impact and Related Procedures (23 CFR 771.130) indicate that a Supplemental EIS is required only when FHWA determines that: (1) Changes to a proposed action would result in significant environmental impacts that were not evaluated in an EIS; or (2) New information or circumstances relevant to environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in an EIS. FHWA has determined that the two conditions necessary to require a Supplemental EIS have not been met and a Tier 1 Supplemental Draft EIS is, therefore, not warranted. Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
335.48	(Tom Wright) There's such things as suspended modes traveling. Has anybody ever thought of what they could drive a load with? Have you ever watched in a department store these tubes that are air driven? Is there some reason we couldn't use air? Is it not possible?	This concept is outside the scope of this Tier 1 EIS.

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336.1	(David Foster)...the purpose of an Environmental Impact Statement is supposed to be to compare alternatives. It is to do a side-by-side comparison of various ways to get a job done and then pick the lowest cost way with the least impact to the environment and to the economy. It is important to realize that this DEIS product doesn't do that. It doesn't pick a meaningful rail alternative whatsoever to compare the highway options with...what we really need is to have the DEIS recast using an honest assessment of the merits and costs of adding the required capacity on the highway versus adding a similar amount of capacity on the railroad.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
336.2	(Harriet Hodges)...I want to see more figures on accident incidents when we pour millions more trucks in. I want to see the fuel factor fully addressed. Some recognition that VDOT knows that fuel costs have gone up.	Chapter 3, Improvement Concepts, in the Tier 1 EIS and the Transportation Technical Report discusses the effects on safety from the improvement concepts. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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336.3	(Harriet Hodges)...I want to see costs of diversions to other roads to the municipalities and to the state.	While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. The Tier 2 studies will examine traffic diversion in closer detail and identify any required mitigation measures. In addition to Route 11, the Tier I EIS identifies 14 local routes that are likely to see diversions from tolls. Many of these local roadways would also see improved traffic operations once I-81 is improved.
336.4	(Harriet Hodges)...I want to see air pollution figures - where the baselines, where they come from, what are the costs going to be.	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts.
336.5	(Harriet Hodges)...I want to see farm losses addressed more than just in terms of acreage because farm loss is far more than acreage.	The Tier 2 analyses would evaluate anticipated farmland impacts in greater detail.
336.6	(Harriet Hodges) I want to see...some consideration of what the inflation of time and costs are going to be with Halliburton.	Construction costs are presented in 2005 dollars and 2015 dollars. The 2005 dollars represent current cost and the 2015 dollars coincide with the possible completion of the construction of the improvements. FHWA and VDOT will reevaluate the costs in each NEPA study conducted during Tier 2.
336.7	(Harriet Hodges)...I don't see any mention in this statement of Melinda Wagner's Cultural Attachment to Place Study out of Radford University.	Cultural attachment has been defined as the cumulative effect over time of a collection of traditions, attitudes, practices, and stories that ties a person to the land, to physical place, and to kinship patterns. If applicable, cultural attachment to place will be considered during Tier 2 studies, when more a refined design has been developed and evaluated.
336.8	(Harriet Hodges) [The DEIS makes] no reference to endangered species. No reference to fragmentation of habitat.	Pages 4-55 to 4-57 of the Tier 1 EIS discusses the potential presence of Federal- and state-listed threatened and endangered species, natural heritage sites that contain listed species, and designated and proposed critical habitat. Pages 5-65 to 5-67 includes an evaluation of the range of potential impacts to Federal- and/or state-listed species from the proposed improvements. The Tier 1 EIS states that improvements to I-81 are not expected to cause additional fragmentation to wildlife habitats since the transportation corridor already exists and has created a barrier for the movement of wildlife. It also indicates that, in Tier 2, opportunities to enhance wildlife movement across improved transportation facilities would be considered, as appropriate.

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336.9	(Harriet Hodges)...[The DEIS makes no reference to] water pollution in terms of figures of runoff to the Chesapeake Bay, further contamination of already filthy water in this state. No reference as to what our topography in this area means.	The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that support informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. The level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Detailed impacts to water quality are dependent on specific engineering design details and such an analysis would be completed during Tier 2.
336.10	(Kristin Peckman) Historical data used to extrapolate future traffic [in the DEIS] covers the 25 years prior to 2004. This is a period when fuel prices remained flat or even declined when adjusted for inflation...VDOT has ignored...the sharp rise in fuel prices, which analysts agree is going to continue...VDOT has not adjusted its projections of 2035 traffic to reflect the rise in fuel prices.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
336.11	(Laura Belleville) The Tier 1 draft does not address any of these concerns specifically, many of these impacts will require mitigation measures that must be addressed in site specific Tier 2 Environmental Impact Statements. The cost of this mitigation should be factored into the overall cost of the proposed alternatives...impacts of the proposed project, many of which are likely to be significant for the Appalachian Trail, must be addressed site specific Tier 2 Environmental Statements, and that these are not categorical exclusions or environmental assessments as proposed by the Virginia Department of Transportation.	In Tier 2, subsequent NEPA documents would address site-specific impacts to the Appalachian National Scenic Trail, such as visual impacts, noise impacts, and impacts to biological resources. VDOT and FHWA would coordinate with the National Park Service, the U.S. Forest Service, and other appropriate parties to evaluate measures to mitigate those impacts. Chapter 5 of the I-81 Corridor Improvement Study Concept Development and Analysis Technical Report discusses preliminary cost estimates for each improvement concept. Items such as stormwater management ponds, landscaping, and wetland mitigation were incorporated into this preliminary estimate.
336.12	(Dale Bennett)...the 12 to 25 percent diversion that is estimated in the DEIS is significant and not...relatively low as is characterized in the material that has been distributed to the public.	The toll diversion analysis presented is complex and cannot be summarized as a 12 to 25 percent diversion. First, the commenter does not account for the diversion of vehicles from local roadways to an improved I-81. As detailed in the Tier 1 EIS and supporting technical reports, 5 to 15 percent of local traffic is expected to divert to I-81 once the interstate is improved. As tolls are implemented, vehicles begin diverting back to the local roadway system. For example, under a low toll scenario, if 15 percent of local roadway vehicles divert to I-81 and 12 percent divert to local roadways because of tolls, there is still a net loss of traffic on local roadways of 3 percent. Second, the 25 percent diversion noted relates to high tolls on commercial vehicles only. The Tier 1 EIS and Toll Impact Study explicitly state that the high toll on commercial vehicles only scenario is the only scenario in which the diversions begin to become substantial.

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336.13	(Dale Bennett)...we have difficulty understanding how two groups can use the same set of data and come up with widely different conclusions. The study done for Rail and Public Transportation using the same set of data found that there would be a 50 to 75 percent diversion at the truck toll rates that were proposed by STAR. Yet in the DEIS, using the same data, the conclusion was that the high truck toll rate it would only be 25 percent diversion.	At first glance, the diversion rates between the two studies appear to differ. However, the study conducted for DRPT is fully consistent with the Tier 1 EIS if the same underlying assumptions are incorporated, particularly for trips greater than 500 miles. The Tier I EIS examines route choice in 2035, assuming I-81 has received an $11 billion investment (partially toll financed) that markedly improves its speed, safety, and reliability. By contrast, the study completed for DRPT and other similar studies are based on 2003 traffic and design speeds. In those studies, the toll is placed on I-81 with no corresponding investment or improvement made in I-81, and an increase in congestion on surrounding local roadways over time is not considered.
336.14	(Dale Bennett)...the DEIS has greatly underestimated the diversion that will occur if truck tolls are imposed on I-81 and has significantly dismissed the impact this diversion will have on other roads and the people who live and travel along these roads.	Please see response to Comment 336.13. The diversion estimates are consistent with other studies that include an improved I-81 facility. The high diversion impacts the commenter draws comparison to include implementing tolls along the corridor without providing any related infrastructure. The Tier 1 EIS supports the fact that, if tolls were implemented and no improvements were made, diversions could be expected to be substantially higher in some locations.
336.15	(Sarah Corey)...no effort was made to adjust the traffic based on current trends in the logistic marketplace, continuing truck driver shortage, increasing fuel prices and tolls.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
336.16	(Sarah Corey) Track improvements to support a multi-modal I-81 solution entail partnering with a private corporation should not preclude the rail solution from further investigation.	The rail concepts were measured based on their ability to meet the transportation needs on I-81 as described in Chapter 2, Purpose and Need, of the Tier 1 EIS. The fact that Norfolk Southern is a private corporation played no part in the evaluation of the rail concepts.

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ID	Comment	Response
336.17	(Sarah Corey) The proposed Tier 2 practical approach to improving I-81 is to break the entire corridor in sections and do more detailed studies. This approach will work for further analysis of roadway projects' impact, but will skew the data away from a multi-modal solution including roadway improvements and rail improvements.	The Sections of Independent Utility only apply to the roadway portion of the "Build" concepts and did not play any part in the evaluation of the rail concepts. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation, has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.

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336.18	(Rupert Cutler)...use...historic examples of Federal and State cooperation and address the long-term long-haul freight capacity needs of the Interstate 81 corridor by passing laws that would create a multi-state agency, and interstate compact, and task it to build a new high-speed, high-capacity railroad line connecting Harrisburg, Pennsylvania and Knoxville, Tennessee through Virginia paralleling Interstate 81.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
336.19	(Davis Luck)...you need to look 50 years or better into the future, considering the railway transportation as well, mass transit systems would probably work on a corridor such as this if you look at your population figures to go with it.	The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take ten years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each NEPA study conducted during Tier 2.
336.20	(Ira Chaffin)...look long and hard at the crude oil and cement situation. Look at future repairs to this supposed new road.	The quality of the material used on all Virginia Department of Transportation (VDOT) projects continues to be dictated by VDOT's Road and Bridge Specifications.

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337.1	(Bernard Griswold) ...the environmental review process is basically considering just the footprint of the construction process without any consideration of air quality, without any consideration of what it will do to other highway arteries and the use of highway arteries along the Valley because people will certainly divert from the interstate because of the toll process and it's going to affect areas on each side of the highway for twenty miles.	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts. Additionally, U.S. 11 and 14 other local roadways were included in the analysis to assess the impacts of diversions caused by tolls. As indicated in Section 5.14 of the Tier 1 EIS, Indirect Impacts, potential indirect impacts to air quality along U.S. Route 11, other local roadways, or interstates are not expected, despite the diversion of traffic to these roads from improvement concepts with tolls. This is because while some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion due to tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 and other roads would not be substantially changed from 2035 No-Build conditions on those roadways. During Tier 2, a detailed air quality analysis will be conducted. Any individual projects will have to conform to the NAAQS before they can be implemented. Mitigation measures for air quality impacts would also be assessed during Tier 2 as necessary.
337.2	(Maya White Sparks) ...utilize the tolls so that there would be lower rates for vehicles that are hybrid more than are using a non-petroleum fuel. Also I think local residents should have a lower rate to use the road. Another idea that would help mitigate air pollution is to create a greenway parallel to I-81, to work with local areas, save trees and put in trees and could also include bike lanes.	Section 1216(b) of the Transportation Equity Act for the 21st Century (TEA-21) established a toll pilot program to allow conversion of a free Interstate highway to a toll facility. FHWA has given "conditional provisional approval" to VDOT to make I-81 a toll pilot facility. VDOT would be responsible for implementation and administration of the toll pilot. Section 1216(b) allows the states the flexibility to decide who and how much to toll. The predominant sources of air pollution from vehicles are emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen, (NOx), and fine particulate matter (PM2.5). A microscale analysis is needed to determine if the NAAQS are met and the design of the improvement concepts would need to be further advanced before a microscale air quality analysis can be conducted. This analysis would, therefore, be conducted during Tier 2. Any individual projects would have to conform to the NAAQS before they could be implemented. Mitigation measures for air quality impacts would also be assessed during Tier 2, as necessary.
337.3	(Maya White Sparks) ...concerned with wildlife and the effect of wildlife crossing the highways. It causes accidents and injuries, not only to wildlife but to the people. So I would like to see wildlife crossings put in.	During Tier 2, opportunities to enhance wildlife movement across improved transportation facilities will be considered, as necessary.

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337.4	(Ed Provost) I think that mass transportation and a rail solution should have been studied. I think it was given very short script and it wasn't looked at and the approach was that well, if it's beyond Virginia then we don't have to worry about it.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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337.5	(Janet Ophelia Kilby) ...not enough information has been made available from the Tier 1 evaluation to allow a decision to be made on the overall approach to widening of I-81 and the improvements to be made before a decision is going to be made. So the decision is going to be made without really understanding what the impacts are. And at Tier 2 level some levels will get further environmental studies but a good number of areas may get no additional environmental study except for a categorical exclusion which is quite cursory. So I'm concerned about the fairness and the reasonableness and whether it's a valid environmental impact statement process if all the environmental impacts are not addressed and we don't know what significant environmental impacts will come out of these alternatives.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. Information presented in this Tier 1 EIS is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted during Tier 2. Based on FHWA's experience, in accordance with 23 CFR 771.115, interstate widening projects are not normally EISs and have not resulted in significant impacts. EAs or CEs are the typical NEPA documents used for this type of project. As an example, I-81 near Bristol, Virginia was widened in the median under a CE designation. Notwithstanding, EAs are proposed to be prepared for each SIU, with the possible exception of the corridors on new location. The Tier 1 EIS acknowledges that the significance of the actual impacts of individual projects that may be advanced into Tier 2 is currently unknown. Based on the detailed information in the EAs, informed decisions would be made on the significance of the impacts of the projects advanced into Tier 2. Therefore, EAs are the appropriate document type for the Tier 2 SIUs. In accordance with NEPA, the EAs will be elevated to EISs, if significant impacts are identified.
337.6	(Janet Ophelia Kilby) I'm very concerned about the public input process. The process that's used has been to give us a relatively short amount of time to digest a gigantic document that's really only available to people via the web. And there are a lot of people, like my mother who just testified, that don't have access to the web so how do they find out what this is about. A document like that that's three inches thick plus technical reports is not something that the general public can easily read and digest.	The Tier 1 EIS and all accompanying technical reports were made available for review for six months, which is 4½ months longer than what is required.

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337.7	(Kim Woodwell) I am concerned about VDOT's tiered planning process. By using this tiered process the first stage decision making in the future of I-81 cannot be made without adequately addressing the impacts that the proposed expansion would have on the economy, air, water, farms, battlefields and communities of the Shenandoah Valley of Virginia.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 Environmental Impact Statement (EIS) is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. Information presented in this Tier 1 EIS is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts.
337.8	(Barbara Adamson) I question the traffic projections and planning as far out as 2035. In contradiction to the DEIS I believe there will be significant impact from diverted traffic to local roads and the effect on the local communities from this diversion will be enormous.	The study's methods and approach are reasonable for a Tier 1 analysis and are consistent with NEPA, CEQ's regulations implementing NEPA, and FHWA's environmental regulations and procedures. The Federal Highway Administration requires the useful life of completed projects on the interstate system to be at least 20 years from the time construction is complete. It is anticipated that any construction projects progressed along I-81 could be complete by 2015, therefore 2035 was used as the future horizon year. While some level of diversion to local roads is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements are made.
337.9	(Kim Hafner) With the increase in truck traffic we'll see a tremendous increase in air pollution. Has VDOT considered this?	Section 5.10, Air Quality, of the Tier 1 EIS presents the results of an air quality study that evaluated corridor-long air emissions from motor vehicle traffic and train trips associated with the proposed improvement concepts.
337.10	(Ray Ewing) ...Stephens City has suggested during the I-81 study process that 307 should be slightly relocated to the south and that the current bridge be left simply as an overpass...	This Tier 1 EIS acknowledges that, during Tier 2, subsequent NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, the precise roadway configuration will be determined during Tier 2, based on traffic projections or other factors, when detailed site-specific information is developed. Similarly, studies of improvements to existing interchanges (such as to Exit 307) are more appropriately included during Tier 2 because they involve roadway design beyond the conceptual engineering that was performed in Tier 1.
337.11	(John Bishop) On April 12th the board voted to pass a resolution which I am submitting this evening. That resolution very strongly states the desire of the board of supervisors to see a planned eastern Route 37 included as an alternative in this study.	The Route 37 Project that the Frederick County Board of Supervisors referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.

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337.12	(John Bishop) In the Harrisonburg area which currently only has about half the growth of our own metropolitan area a bypass is mentioned in the Tier 1 EIS and is being considered due to physical constraints around I-81 in that area. In this area the typical constraints for I-81 are quite similar with substantial retail, university property, park land and battlefields in close proximity to the I-81 corridor. Unfortunately there is no mention of this critically needed roadway in the I-81 analysis in spite of its potential to go a long way toward relieving any congestion along I-81 in this urbanized area. It is critical that consideration be given of the amount of relief that eastern Route 37 can offer to I-81 traffic through this area.	Please see response to Comment 337.11.
337.13	(John Bishop) ...the analysis of Route 11 currently only looks at either no build or the toll impacts and doesn't really give statements of what can be done if it's paid for in some other fashion. The study really does need to make some statement of that.	Alternate funding sources are outside the scope of the NEPA documents. A financial analysis is outside the scope of this study and would be completed, if tolls are implemented, as part of a separate investment grade traffic and revenue study prior to implementation. The Tier 2 NEPA documents would, as necessary, assess any local impacts to U.S. Route 11 and identify any required mitigation measures.

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337.14	(Jim Clark) ...exercise your leadership and amend the DEIS with a detailed study of an interstate railroad upgrade between Harrisburg and Knoxville.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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337.15	(Charles Vandervoort) In the I-81 study the real road is not given a fair chance to compete because the focus is on improving only a short 325 mile section of the corridor at a cost of several billion dollars of which only a very small part goes towards rail.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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337.16	(Megan Gallagher) Multi-state rail upgrades is central for removing trucks from I-81 and have not been adequately studied and have been rejected as VDOT goes forward with planning for the highway.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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337.17	(Darrin Roth) VDOT's conclusion that traffic diversion under a tolling scenario will be relatively low points to a fundamental lack of understanding of the trucking industry.	There are many costs associated with the total cost for a trucking company to ship goods. An underlying assumption of the technical transportation analysis equates a trucker's time with the cost to complete his trip, i.e., the faster a trucker can ship goods from Point A to Point B, the less expensive it is for the company to ship that good. An improved I-81 would provide a less congested, more efficient roadway by which to ship goods and would allow I-81 traffic to maintain (on average) the speeds currently observed. Without improvement to I-81, the travel speed on the corridor would drop 15 miles per hour by 2035. This drop in speed would have a substantial impact to the trucking industry and costs they incur to ship goods through Virginia. A trip of the full length of I-81 in Virginia currently takes just under 5 hours to complete. Without improvement this same trip would take over 6 hours to complete by 2035. The overall low toll diversion seen in the analysis does not show a fundamental lack of understanding of the trucking industry. In fact, the toll rate incurred by the trucking industry to use the facility is not higher than the additional costs that would be associated with using local roadways or parallel interstate facilities, both of which would create a longer trip and use more fuel, two very significant cost expenditures. Since these costs offset each other, there is little to no incentive for trucks to divert to other roadways. Further, national evidence shows that businesses do and will continue to incur the costs of tolls if the roadways they are traveling provide time and fuel cost reductions. The trucking industry has gone on record in Congress in saying they would support tolls on roadways that provide them exceptional service and potentially higher weight restrictions.
337.18	(Darrin Roth) ...the DEIS toll analysis seriously underestimates the number of trucks that would divert to other routes. Independent toll diversion analyses have been completed recently, while totally independent of one another, their conclusions were very similar. That at the maximum toll rate computated by the DEIS at least half the trucks would divert from I-81, double what the DEIS found. I would offer these studies where something is wrong with the DEIS analysis.	The independent toll diversion analyses referenced actually provide different conclusions. At a 10 cent toll, one study estimates that 11 percent of trucks will divert, while the other says 20 percent will divert. For a 20 cent toll, one study says 51 percent of trucks will divert while the other says 35 percent will divert. One study calculates that 16 percent of loads will be diverted with a one cent per mile toll. This is explained in their report as being because the truckers are currently making bad choices to take the less financially desirable I-81. The different reports have different diversion estimates because they have different underlying assumptions. One key assumption is that the previously completed studies do not assume any improvements to I-81. Therefore, these studies provide a financial penalty to trucks with absolutely no return for that investment. The methodology used in the Tier 1 EIS assumes that the trucker (or driver) benefits from paying a toll with a less congested more direct route, which saves substantial time and fuel consumption. The Tier 1 EIS agrees with the findings of the previous studies - if the roadway is tolled and no improvements are made (a scenario that cannot occur under Federal law), then the diversion rates are indeed higher. Further, the study results previously completed for the Virginia Department of Rail and Public Transportation are similar to those presented in the Tier 1 EIS if the assumptions are altered and the study year is extended to 2035.

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337.19	(Fred Andreae) There is no mention of the Shenandoah National Park in the preliminary EIS.	The Tier 1 EIS indicates that, in 1999, the EPA issued regulations to improve visibility by reducing haze in 156 national parks and wilderness areas across the country, including the Shenandoah National Park, which have been classified as Class I areas. Under the EPA haze regulations, states must establish goals to improve visibility in Class I areas and develop long-term strategies to reduce the emissions of air pollutants that cause visibility impairment. States implement their individual regional haze programs through revisions to their state implementation plans (SIP).

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337.20	(Ron Landes) A rail alternative is inadequately examined. The Knoxville to Harrisburg link was not examined, only rail in Virginia, and here only 33 miles of upgrades to existing lines are proposed.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.

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337.21	(Ron Landes) The study set a five hundred foot limit on the environment that would be considered impacted. They omit substantial impacts on the environment that would extend well beyond the five hundred foot limit on air, water, pollution, noise.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000-foot buffer width is reasonable for a Tier 1 analysis because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2 when more detailed information is available. Finally, Section 5.11, Noise, in the Tier 1 EIS identifies the number of noise-sensitive areas that would potentially have noise impacts from the No-Build and from the range of "Build" concepts. In some cases, these noise-sensitive areas were farther than 500 feet from I-81. During Tier 2, noise impacts will be evaluated in greater detail with consideration of site-specific characteristics.
337.22	(Ron Landes) Decisions on the future of I-81 at the end of the Tier 1 process will preclude any new options in Tier 2.	Tiering is a staged approach to the National Environmental Policy Act (NEPA) that addresses broad programs and issues in initial (Tier 1) or systems-level analyses, and analyzes site-specific proposals and impacts in subsequent tier studies. The tiered process supports decision-making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier 1 EIS is the vehicle for fact-based analyses that supports informed decision-making on corridor-length issues associated with I-81 in Virginia, such as consideration of the use of tolls as a funding source for improvements and consideration of opportunities for separation of trucks and passenger vehicles. These proposed Tier 1 decisions do not restrict the evaluation of avoidance, minimization, and mitigation measures that would be conducted in Tier 2. Information presented in this Tier 1 EIS was based primarily on available Geographic Information System data; other available databases; interviews with local, state, and Federal officials; and limited field surveys. This level of analysis is commensurate with the decisions being proposed and is at an appropriate level of detail to allow a comparison of the relative differences in the range of costs and potential impacts of the improvement concepts. Subsequent Tier 2 NEPA documents prepared for individual projects would address site-specific impacts.

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337.23	(Ron Landes) By ruling out spot highway improvements, rail freight upgrades and trains as options now, options are foreclosed in the next stage of planning for I-81 in my opinion.	Please see response to Comment 337.21. As discussed in Chapter 6, Tier 1 Decisions, along with the "Build" concept proposed to be advanced into Tier 2, there is an immediate need for smaller, independent safety and operational improvement projects along I-81. These include, but are not limited to, the construction of truck climbing lanes, the extension of entrance and exit ramps at various interchanges, the installation and upgrading of guardrail, and the modification of major interchanges. These short-term improvements were included as part of the Transportation System Management Concept discussed in this Tier 1 FEIS.
337.24	(Dan Smith) To test future growth VDOT has taken the straight line projection of past traffic growth and projected it out thirty years. But both parts of the procedure that VDOT has used are fatally flawed. The first was that thirty years is a ridiculous planning horizon. It is far too long. There is no possible way that any test can go out thirty years in the future and be accurate. The Draft EIS said that the construction, even the massive version of the project, will take ten years. So why take the ten years as your planning horizon? Why not take three or four years?...VDOT uses the literal compounding growth projection 60% of the projected increase in traffic comes after the year 2020. 80% of projected increase in crowded traffic comes after 2015. There is no justification for expanding that highway now to take care of traffic that may not show up...	Straight line projection was not used to project traffic growth. As described in detail in the Transportation Technical Report, the forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. This aggregate growth is reported as "average annual" for simplicity and ease of clarity. As described, the growth percentage is likely to be higher during the short term (about 3 percent per year) and diminish over time (to about 1 percent per year). As such, the traffic forecasting approach used to derive the traffic projections was reasonable. The time needed to complete this study and subsequent NEPA documents, design, right of-way acquisition, and construction for the potential improvements identified in this study could take 10 years to complete. Furthermore, since I-81 is an interstate highway, there should be a useful service life of 20 years beyond the estimated time of completion of the proposed improvements. The year 2035 was, therefore, selected as the horizon year for the traffic forecasts. FHWA and VDOT will reevaluate the underlying assumptions, supporting data, and results of the analyses for each SIU NEPA study conducted during Tier 2.
337.25	(Dan Smith) VDOT did not use any actual estimate of future volume. None of the analysis looks forward to the factors that might affect growth in the future. Second, there is a big chance both economical and technical that would drastically reduce traffic growth in the future.	Please see response to Comment 337.24. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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337.26	(Lowell Smith) ...if the transportation demand grows at a significantly different rate under the projected demand scenario the findings and recommendations of this Draft EIS will be irrelevant. How good is the demand scenario? It is based on straight line projecting the past growth in transportation over thirty years into the future. Is this reasonable? There is truck traffic that fails to take into account rising costs of energy.	The traffic forecasting approach used to derive the traffic projections was reasonable. As described in detail in the Transportation Technical Report, the forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia Statewide Transportation Plan. It is not based on straight line projection of historical growth. It is standard procedure to refer to future growth on an "annual average" basis for simplicity in reporting. However, as described, future forecasts are made by "aggregate growth" - the amount of growth expected over the next 30 years. As the report indicates, it is very likely that growth within the corridor will not occur linearly and will, in fact, diminish over time. Therefore, the actual annual growth would most likely be on the order of three percent annually for the next few years, gradually declining to one percent annually - an average growth rate of two percent annually. In addition, NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.
337.27	(Lowell Smith)... the draft also fails to take into account rising truck labor costs, it fails to take into account changes in international trade and in the global economy which may well affect where our goods are coming from in the future. Because the assumed growth of transportation demands are so critical to conclude what should be done about I-81 the Draft EIS must be reanalyzed with a range of each of those assumptions that will drive transportation demand over the next thirty years.	Please see response to Comment 337.26.
337.28	(Randy Mullett) ...the growth projections that are being stated here today for freight are not unique to I-81 so I take a little bit of exception with the EIS using that as a tactic that pits I-81 against other roads saying that I-81 is going to be worse off than others.	Chapter 2, Purpose and Need, in the Tier 1 Final EIS discusses the needs along the I-81 corridor. These include over 90 percent of I-81 operating below the Level of Service standard by 2035, 45 miles of the corridor (7 percent) currently being in excess of the statewide crash rate and accounting for 21 percent of all crashes and 33 percent of all fatalities, and numerous existing geometric deficiencies. Without improvement, further degradation of the highway with respect to safety and capacity is expected.
337.29	(Randy Mullett) ...the EIS...does not take into account things like ultra low sulfur diesel that are being mandated by the federal EPA. It does not take into account new truck engines that are being mandated in 2007, 2010. I also don't think that it makes really good use of all the other alternatives that are available.	The vehicle emission factors (i.e., the amount of pollution attributed to each type of vehicle) used in the mesoscale air quality analysis were obtained using EPA's MOBILE6.2 emissions model. This emissions model takes into account the implementation of emission control programs, such as the Federal Motor Vehicle Emission Control Program.
337.30	(Robert Nieweg) ...it's clear that the environmental impact document which does not mention the Cedar Creek and Belle Grove National Historical Park has failed to adequately evaluate impacts.	The analysis of impacts to parks and recreation areas (Section 5.6) has been revised to include a discussion of potential impacts to the Cedar Creek and Belle Grove National Historical Park.

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337.31	(Robert Nieweg) ...the DEIS assumes the evaluation of impacts to historical resources will be developed after an alternative is selected. Thus, the DEIS fails to adequately consider two things, amongst others. First, the impacts of the surge of induced development in and around the small towns along Route 11. And, second, the impacts of increased traffic diversion from 81 to 11. In fact, the DEIS fails to consider in any way the potential impacts of induced development from diverted traffic to the following thirteen designated historic districts, in Abingdon, Marion, Wytheville, Edinburg, Mt. Jackson, New Market, Strasburg, Middletown, Woodstock, New Bern, Buchannon or in Stephens City.	While some level of diversion to local roadways is expected, five to 15 percent of local roadway traffic will divert to I-81 if it is improved. Therefore, in some cases (particularly under the low toll scenario) even considering diversion caused by tolls, 2035 traffic volumes would be lower on local roadways than if no improvements to I-81 are made. Generally, the number of vehicles traveling on U.S. Route 11 would not be substantially changed from 2035 No-Build conditions on those roadways. As a result, there should be no induced development along Route 11 in 2035.
337.32	(Steve Kerr) The proposal recommended in the Draft EIS differs from the adopted Win-Fred MPO long range plan. Additional studies are going to be necessary to determine the necessary correct lane configuration in the Winchester area. A number of interchange improvements have also been recommended in the Win-Fred MPO long range plan. Additional studies will be required to address the interchange needs along the corridor in the EIS document.	This Tier 1 EIS acknowledges that Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, the precise roadway configuration will be determined during Tier 2, based on traffic projections or other factors, when detailed site-specific information is developed. Also, improvements to existing interchanges or additional interchanges are more appropriately studied during Tier 2 because they involve roadway design beyond the conceptual engineering that is appropriate for Tier 1.
337.33	(Steve Kerr) The Win-Fred MPO recognizes that the Tier 1 Study indicates that the second highest existing and projected traffic volumes on I-81 in Virginia are between Routes 50 and 7. Therefore, it's recommended that safe alternatives such as collector distributor roadways and the use of Route 37 as an alternate I-81 corridor be analyzed.	This Tier 1 EIS acknowledges that Tier 2 NEPA documents prepared for individual projects would address site-specific details, before design and location decisions are made. For example, the precise roadway configuration will be determined during Tier 2, based on traffic projections or other factors, when detailed site-specific information is developed. Also, improvements to existing interchanges or additional interchanges are more appropriately studied during Tier 2 because they involve roadway design beyond the conceptual engineering that is appropriate for Tier 1. The Route 37 Project referred to is a separate and independent project whose NEPA process was completed in 2001. Therefore, it was not included as an alternative concept in the Tier 1 EIS.
337.34	(Steve Kerr)... the MPO strongly encourages consideration of the proposed Route 37 East corridor as a potential corridor on new location in a similar manner that's being proposed in the Harrisonburg area.	Please see response to Comment 337.33.
337.35	(Steve Kerr) ...population and growth projections for the Winchester Metropolitan Area should be reviewed carefully to determine if the correct trend is addressed in the proposed traffic projections and other impacts reviewed in EIS.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators and the land use assumptions of the Virginia statewide transportation plan. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. Further, to the extent that was reasonable, population and growth projections for the Winchester Metro Area are consistent with those produced for the Win-Fred Long Range Plan which has been adapted by the region. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decision-making. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised. Notwithstanding, traffic forecasts will be reassessed and updated as appropriate for the Tier 2 NEPA studies for each SIU.

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337.36	(Mary Gessner)... the affected environment is defined as five hundred feet on either side of the interstate. I would argue that the impacts to the environment, to the human environment and the natural environment are going to extent well beyond that one thousand foot footprint of the project. Air pollution, water pollution, stream habitat, degradation impacts are all going to go on far outside that defined impact zone. I believe that's a significant error in the Draft EIS that probably should be addressed before you finalize the document.	The width of the study area used in the Tier 1 EIS varied depending on the resource being described, but was generally 500 feet on either side of the existing pavement on I-81 or rail centerline. This +1,000 foot buffer width was used because it was believed to represent the maximum area within which potential highway or rail improvement concepts may be developed. Historic properties, visual resources and economic characteristics were described beyond these limits because potential effects on these resources may occur beyond the physical limits of the improvement concepts. In addition, Section 5.14, Indirect Impacts, of the Tier 1 EIS examined the potential indirect impacts of the improvement concepts. Indirect impacts are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect impacts may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR Section 1508.8). Indirect impacts typically include impacts to human and natural systems from changes in land use patterns or growth rate accelerations that are induced by proposed plans. Potential indirect and cumulative effects will be evaluated in greater detail during Tier 2, when more detailed information on travel lane and interchange configurations is available.
337.37	(Mary Gessner) It is confusing in the Draft Environmental Impact Statement document that speaks to tolls on both trucks and cars. And the gentleman from STAR Solutions tonight says that there's no plan to toll cars. I don't think that sort of confusing information is real helpful to the process either.	The proposals put forth as part of the PPTA process and any recommendations ultimately presented by STAR are separate and independent from this NEPA process. This study is an independent review of corridor issues and potential solutions to meet the purpose and need. Therefore, while passenger car tolls may not have been part of STAR's previous proposal, that has no bearing on this study. The purpose of the Tier 1 EIS analysis was to study toll diversions for both the truck-only scenario and the all-vehicle scenario to draw conclusions on the impact that tolls would have on the interstate and adjacent local roadways, and whether a decision to toll trucks only has a further impact to the regional transportation infrastructure. The Tier 1 EIS demonstrates that the impacts on Route 11 and other roads (both local roads and other interstate facilities) from traffic that is diverted from I-81 as a result of tolls are low. In addition, the environmental impacts on other interstate facilities caused by tolling would be inconsequential. FHWA proposes to advance I-81 as a toll pilot facility which would allow tolling to be pursued as a possible funding mechanism under Section 1216(b) to support long-term improvements to I-81. If a toll option is considered for a particular Section of Independent Utility (SIU), the localized effects of toll facilities will be studied for the SIU during Tier 2.
337.38	(Elizabeth McClung) Belle Grove, Inc.'s particular concern is as a partner of the Cedar Creek and Belle Grove National Historical Park which is not mentioned in the environmental impact statement.	The Cedar Creek and Belle Grove National Historical Park has been added to the list of parks and recreation areas in the I-81 study area referenced in the Tier 1 Final EIS.

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ID	Comment	Response
337.39	(George Sylvester) ...the North Fork of the Shenandoah River and all of its tributaries in our county are on DEQ's list of impaired streams. The proposed widening of Interstate 81 would make it more and more difficult to remove those streams, the North Fork and those streams from DEQ's impaired list. And, therefore, serving the Chesapeake Bay agreement would become much more difficult in the years ahead.	Water quality impacts would be minimized by proper erosion and sedimentation control practices in accordance with the VDOT Erosion and Sediment Control and Stormwater Management Program Manual, and the Virginia Stormwater Management Program. Best Management Practices (BMPs) would be required to treat waters before their release to streams or to retain them for slow infiltration to groundwater. During Tier 2, wherever possible, areas along I-81 having existing but antiquated BMPs, or areas altogether lacking BMPs, would be evaluated for updates during the design phase. With the implementation of appropriate stormwater management controls, minor impacts to water quality are anticipated.
337.40	(Steve Kerr) ...the regional commission recommends that any rail improvements recommended in the corridor be sufficiently studied to include appropriate noise mitigation measures and rail crossing improvements.	As stated in the Tier 1 Final EIS, the feasibility of noise mitigation measures would be investigated during Tier 2. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. However, independent of this tiered environmental process, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. The FHWA provides guidelines and standards for the correct design of at-grade rail crossings; safety assessments at at-grade rail crossings; and appropriate placement of traffic control devices at and on the approach to an at-grade rail crossing as described in their Manual on Uniform Traffic Control Devices (MUTCD).
337.41	(Steve Kerr) ...Expansion of the Virginia Port Authority facilities in Hampton Roads and its impacts on the I-81 corridor, related highways and the Virginia Inland Port need to be studied in greater detail.	Traffic forecasting for the SIUs will be reassessed and updated during Tier 2 prior to Tier 2 NEPA approvals.

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ID	Comment	Response
338.1	(Charles G. Crockett)...I-74 comes into Mount Airy and also continues in West Virginia should probably be a part of this study...even though...it will probably follow 77 through this section of Virginia...[it is] extremely important to Wytheville, Wythe County and our industrial growth that we keep in general the exits that are currently here.	The I-74 Project referred to is a separate and independent project and was, therefore, not included as an improvement concept in the I-81 Corridor Improvement Study.
338.2	(Wayne D. Sutherland)...the location of I-81 and I-77 is a major importance to the economic well-being and the quality of life of the citizens of Wythe County. The existing overlapping corridor in Wythe County should remain as I-77. The origination and determination of a new I-81 section should be near the existing origination and determination of the currently overlapping section. The new I-81 section should be classified as rural/urban with a density of exits to provide access to existing developments in Wytheville and the eastern portion of Wythe County...the design of new I-81 section should provide for ingress and egress from Progress Park...the design and construction of this segment of I-81 quarter upgrade be given priority status due to the projected uses and congestion...	At the I-77 overlap section near Wytheville (Milepost 72 to 81 (SIU #2)), FHWA and VDOT are proposing to evaluate corridors on new location, as well as widening existing I-81, during Tier 2. The Tier 1 EIS delineates the geographic extent of the general areas on either side of I-81 where these corridors on new location may be located and discusses the environmental resources within these general areas. The actual location of those corridors on new location within these general areas and the specific alignments within those corridors and their impacts, however, have not yet been identified. This detailed analysis would occur during Tier 2.

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338.3	(Caroline Norris)...Virginia's General Assembly has approved a rail feasibility plan which unlike some of the plans being described here goes beyond the state borders, does not come to a halt right at West Virginia and Tennessee, but actually considers interstate transport, which is the chief body of the trucking that we put up with all the way from Knoxville up to Harrisonburg. Governor Kaine has said that he approves of this plan, so that would be an alternative.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
338.4	(Elaine Holeton)...[did the DEIS look at] the impact of the supply of oil that's available for a country and whether or not...the amount of oil available for driving trucks and cars and whatnot will start to decrease. I'm concerned that we are going to spend a great deal of time and money on this project to find out 20 years from now that we should have considered the rail possibility further.	The forecasts of traffic growth for the I-81 corridor in Virginia were based on a variety of historical data, as well as recent transportation and socioeconomic indicators. As such, the traffic forecasting approach used to derive the traffic projections was reasonable. NEPA regulations direct Federal agencies to analyze the effects of proposed projects to the extent they are reasonably foreseeable and not speculative. While energy and economic trends could affect the traffic projections, it is impossible to predict these dynamic issues with certainty, and speculating on them would not contribute to informed decisionmaking. Likewise, scenarios that consider alternative fuels (which could increase the rate of traffic growth) are also not included. Furthermore, this comment does not suggest any specific alternative inputs to the traffic forecast modeling to address the issue raised.

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338.5	(Liza Freed).....we would like to see the Rail Solution investigated a little bit more thoroughly as an option...would like to see a different kind of landscaping protocol take place along the interstate corridors and possibly the highways too, specifically along 81 corridor.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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ID	Comment	Response
		trips greater than 500 miles, and a micro analysis for trips less than 500 miles. The methodologies and assumptions used to predict divertibility of freight to rail were based on sound and reasonable logic, and there was substantial coordination with Norfolk Southern, the Virginia Department of Rail and Public Transportation, and the Federal Railroad Administration. As described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81. Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. As stated in the aforementioned memorandum, dated May 4, 2004, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi-state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81 as appropriate during Tier 2.
338.6	(Chris Disibbio)...try to isolate the truck traffic in such a way whether its through excavation and elevation of exit ramps to where they are not using jake brakes...It's something that may be considered a ways in the elevations throughout specific areas that may be sensitive to the pollution and noise.	Decisions on the precise location and configuration of lanes and on roadway profiles would be made in Tier 2, based on traffic projections or other factors, because they involve roadway design beyond the conceptual engineering that is performed for Tier 1.

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338.7	(Jim Minick)...consider the legislation that's been placed by our state general assembly that is requiring us to complete a multi state rail analysis. We need that study before we consider the full impact of its current proposal with all these studies, this DEIS, which does not adequately address the rail component with that.	It is important to first understand the context in which the I-81 study has been conducted. Under the Federal-aid highway program (FAHP), Congress makes funding available to each State for its use in improving the highway system within the State. There are several requirements that the State has to address before Federal-aid highway funds are authorized by the Federal Highway Administration (FHWA). One of the key requirements is compliance with the National Environmental Policy Act (NEPA), which requires an evaluation of the environmental impacts of Federal actions. The Tier 1 Environmental Impact Statement (EIS) was prepared pursuant to NEPA. The Tier 1 EIS assesses the current and future transportation needs along the entire 325-mile corridor of I-81 in Virginia and evaluates the effectiveness of a range of concept level improvements in addressing those needs and the potential environmental impacts of those concepts. Because of the strong public interest in studying rail improvements to divert freight (i.e., trucks) off of I-81 in Virginia, FHWA and VDOT evaluated rail improvement concepts as a key part of the analysis, as evidenced by the lengthy Freight Diversion and Forecast Report. Four rail improvement concepts, including a concept proposed by Rail Solution (referred to as Rail Concept 4), were evaluated to determine the degree to which they would meet the needs on I-81 in Virginia. According to Federal regulations implementing NEPA [40 CFR 1502.14(a)], the key factor in the determination of whether to evaluate an alternative in an EIS is whether the alternative is reasonable. The Council on Environmental Quality, which oversees the implementation of the NEPA process, issued formal guidance that indicates that reasonable alternatives include those which are practical or feasible from the technical and economic standpoint and using common sense. In addition, FHWA, as stewards of Federal highway funds, needs to be cognizant of limited transportation funding and is directed by the United States Code [23 USC. 109(h)] to make decisions in the best overall public interest. It is not in the best overall public interest to authorize Federal highway funds on the exploration of unreasonable alternatives. The suggestion that this Tier 1 EIS evaluate in detail a multi-state rail concept was made at the onset of the study during the scoping process. After much research and deliberation, FHWA determined that it was not reasonable for this Tier 1 EIS to evaluate multi-state rail improvements. The reasons for FHWA's determination are specified in a memorandum, dated May 4, 2004, which was included as an appendix to the Tier 1 DEIS. While the Tier 1 EIS does not evaluate multi-state rail improvements, the EIS does evaluate the influence of multi-state rail traffic and committed rail improvements in other states on future conditions along I-81 in Virginia. Chapter 3, Improvement Concepts in the Tier 1 EIS describes the results of that analysis. The freight movements considered in the Tier 1 EIS included all movements of freight that use I-81 in Virginia regardless of their origin and destination, including out-of-state origins and destinations. Freight diversion was examined for two separate cases - a macro analysis for

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338.8	(Ms. Hale)...why isn't passenger rail service...considered as part of the study?	The rail concepts evaluated in the Tier 1 EIS included items such as new rail sidings (places for trains to pull off the main track to allow passage of another train), improvements to rail signal and communication systems, and, in some cases, double tracking. These improvements may accommodate passenger rail service, such as the Transdominion Express. However, as described in Chapter 3, Improvement Concepts, the traffic analysis indicated that rail concepts do very little to address the 2035 traffic needs on I-81 Even if 100 percent of the trucks were removed from I-81 in Virginia and their freight put on to rail, the majority of the roadway, including seven of the eight SIUs, would still need additional highway lanes. In addition, FHWA has no control or responsibility over privately owned rail lines and, pursuant to Title 23 USC, cannot fund improvements to those lines. Based on the above, FHWA does not propose to advance rail concepts into Tier 2 of this NEPA study. Nevertheless, FHWA encourages States to begin a dialogue on addressing regional rail needs along the I-81 corridor. In addition, in 2006, the Virginia General Assembly (through HB-1581) directed that an additional study be conducted to identify improvements and funding mechanisms needed to divert truck traffic off of I-81 and onto rail. As a result, the Virginia Department of Rail and Transportation has initiated a multi=state rail study in cooperation with the Virginia Office of the Secretary of Transportation and Norfolk Southern to expedite short-term rail improvements and to study the potential long-term diversion of truck traffic along I-81 to rail. This study will be referred to as the I-81 Freight Rail Study and is independent of this tiered environmental process. While a rail concept is not being proposed to be advanced into Tier 2 of this NEPA study, if funded rail improvements emerge from the I-81 Freight Rail Study, FHWA and VDOT would evaluate the effects of those rail improvements on the projections of future travel demand along I-81, as appropriate, during Tier 2.
338.9	(Mr. Tubman) ...the study only looked at traffic within Virginia just like we would not look at Interstate 81 as going to a two-lane road at the Tennessee border or the West Virginia border...by the same token, we need to consider traffic beyond that.	The FHWA Virginia Division and VDOT have been conducting ongoing coordination with the states through which I-81 traverses. In April 2004, representatives of the Departments of Transportation for West Virginia, Pennsylvania, Tennessee, and Maryland were consulted to determine the influence of highway projects in those states on I-81 to the extent available. Each state submitted available historical traffic counts and future traffic forecasts to the study team, as well as improvement concepts under study, particularly highway widening and toll options currently being considered. In September 2004, the FHWA Virginia Division and VDOT hosted a I-81 Corridor forum, a meeting attended by a group of transportation officials representing Tennessee, Virginia, West Virginia, Maryland, Pennsylvania and New York. Each state was invited to present and discuss highway and rail initiatives in their state; to share information on their respective transportation challenges and on their opportunities for meeting those challenges; and to share information on current studies along I-81 in their state. These states convened again in July 2005, at a meeting hosted by Tennessee DOT, and have a continuing commitment to work together to discuss transportation conditions on I-81. The states met again in New York in October 2006.