

## **APPENDIX C**

### **COMMENTS AND RESPONSES TO DEIS**



## **Agency Comments and Responses**



US Department of Transportation  
**Federal Highway Administration**

January 4, 2001

Refer to HEPH

Mr. John M. Fowler  
Executive Director  
Advisory Council on Historic Preservation  
Washington, DC 20004

Dear Mr. Fowler:

Thank you for your December 15 letter to Secretary of Transportation Rodney E. Slater concerning the proposed Interstate 73 project in Virginia. I have been asked to reply on the Secretary's behalf.

We appreciate your letting us know the Council intends to consult on the Interstate 73 project on ways to avoid, minimize, or mitigate adverse impacts on historic properties in Bedford, Botetourt, Franklin, Henry, and Roanoke Counties. The Council has taken the appropriate action by notifying our Virginia Division Office of the Council's intention.

Please be assured the Federal Highway Administration will work with the Council to ensure appropriate consideration of impacts on historic properties

Sincerely yours,

Kenneth R. Wykle  
Administrator

**Advisory Council on Historic Preservation**

The Old Post Office Building  
1100 Pennsylvania Avenue, N.W. #809  
Washington, D.C. 20004

Hon. Rodney E. Slater  
Secretary of Transportation  
400 Seventh Street, S.W.  
Washington, DC 20590

Dear Secretary Slater:

The Council has concluded that construction of Interstate 73 in Bedford, Botetourt, Franklin, Henry, and Roanoke Counties, Virginia, has substantial potential for impacts to historic properties. Furthermore, the absence of sufficient consultation with the interested public during the identification and assessment of resources has resulted in considerable public controversy. Accordingly, we are notifying you that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, is met under the Council's regulations "Protection of Historic Properties" implementing Section 106 of the National Historic Preservation Act and that the Council intends to participate in the consultation to consider alternatives or modifications to the project that could avoid, minimize, or mitigate adverse effects on historic property. We are providing this notice as required by 36 CFR §800.6(a)(1)(iii). A copy of our letter to the Virginia Division of the Federal Highway Administration notifying it of our intent to participate in the consultation is enclosed.

Sincerely,

John M. Fowler  
Executive Director

Enclosure

**Response:** *Comments noted. The Council's intent to participate in the consultation to consider alternatives or modifications to the project that could avoid, minimize, or mitigate adverse effects on historic property has been acknowledged. Accordingly, the Council has been involved in the consultation process since 2001 and is a signatory to the Memorandum of Agreement.*

**Advisory Council on Historic Preservation**

The Old Post Office Building  
1100 Pennsylvania Avenue, N.W. #809  
Washington, D.C. 20004

Mr. Roberto Fonseca-Martinez  
Division Administrator  
Federal Highway Administration  
P. O. Box 10249  
400 N. 8<sup>th</sup> Street, Room 750  
Richmond, VA 23240

REF: Interstate 73  
Bedford, Botetourt, Franklin, Henry, and Roanoke Counties, Virginia

Dear Mr. Fonseca-Martinez:

The Council was first notified of the development of the referenced project in February, 2000, by the Virginia Division of the Federal Highway Administration; pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800). Although our initial reaction to your notification was that the Council need not participate in consultation to seek means to avoid or minimize the adverse effects of the project, we have since been contacted by a number of citizens who have raised concerns with the potential outcome of the project and the role of FHWA in the process. With the publication of the Draft Environmental Impact Statement for the project, it is now clear that the project has substantial potential for impacts to historic property. In accordance with 36 CFR §800.6(a)(1) of the Council's regulations, "Protection of Historic Properties" (36 CFR Part 800), the Council has concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, applies to this undertaking. Accordingly, we hereby notify you that the Council will participate in any further consultation regarding this undertaking. We have provided written notification, copy enclosed, of the Council's decision to enter the consultation on this project to Secretary Rodney Slater, as required by 36 CFR §800.6(a)(1)(iii).

We look forward to consulting with FHWA, the State Historic Preservation Officer of Virginia and other consulting parties to resolve the potential for adverse effects resulting from this undertaking. Should you have any questions or wish to discuss this matter further, you may contact this office at (202) 606-8505.

Sincerely,

Don L. Klima  
Director  
Office of Planning and Review

Enclosure

**Response:** *Comments noted. The Council's intent to participate in the consultation to consider alternatives or modifications to the project that could avoid, minimize, or mitigate adverse effects on historic property has been acknowledged. Accordingly, the Council has been involved in the consultation process since 2001 and is a signatory to the Memorandum of Agreement.*



**APPALACHIAN TRAIL CONFERENCE**

Central and Southwest Virginia  
Regional Office  
P.O. Box 10  
103 Old Newport Road, Suite A  
Newport, Virginia 24128  
(540) 544-7388  
Fax: (540) 544-7120  
[atc-varo@atconf.org](mailto:atc-varo@atconf.org)

Fred Altizer  
Virginia Department of Transportation  
1401 East Broad Street  
Richmond, VA 23219

January 11, 2001

Dear Mr. Altizer:

The Appalachian Trail Conference is concerned about deficiencies that we see in the draft environmental impact statement issued on the I-73 proposal east of I-81. We have been involved in a series of meetings with the Salem office led by Pete Sensabaugh and Rob Cary over the past two years to coordinate the analysis of impacts to the Trail. We have been in the field with VDOT personnel and your contractors to discuss impacts and needed data. Despite this effort, discussions with VDOT personnel and your contractors at the recent public meeting reveal that the area of the Trail where we believe impacts are the highest were not analyzed in the DEIS. We had a clear agreement with VDOT personnel in the field, that simulations were required from views along the ridge top between Fulhardt's Knob Shelter and Salt Pond Road which look to the east to the Blue Ridge. We believe that these views will prominently feature the massive road cut proposed across the face and over the top of the Blue Ridge if the eastern alternatives are chosen. The section of highway in question is segment 372 from point 800 toward point 900. It is clear from my discussions at the recent public hearing that this ball has been dropped and the lack of this analysis has led to a number of erroneous statements in the DEIS concerning the extent of the impacts on the Trail. We feel that these problems result in the understanding of impacts and consequent lack of consideration of those impacts on the Appalachian National Scenic Trail, a unit of the National Park System, where it lies on the U.S. Forest Service lands seat of the eastern build alternatives analyzed in the document. We would like to work with VDOT to remedy these problems and analyze the extent of impacts.

Because these impacts have been overlooked, we would also ask that VDOT review its statements in the DEIS concerning the need for Section 4 (f) compliance concerning constructive use of the Trail as a recreation resource of national importance. We believe that your current source of action is deficient.

**Response:** *FHWA has determined that there is no constructive use of the Appalachian Trail that can be attributed to the proximity or visibility of I-73. Federal regulations, specifically, 23 CFR § 771.135(p)(4)(ii) indicates a constructive use occurs when "the proximity of the proposed project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such features or attributes are considered important contributing elements of the value of the resource. Examples of such impairment to visual or aesthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting." Additional guidance can be obtained*

National Offices: 799 Washington Street, P.O. Box 807, Harpers Ferry, West Virginia 23425  
(304) 535-6331

form the preamble to the Final Rule on "Environmental Impact and Related Procedures; Constructive Use" found in the April 1, 1991 issue of the Federal Register (pages 13269-13280). According to the preamble, "Substantial impairment on the basis of visual impact is a more subjective determination than is the case in the assessment of noise. In order for constructive use on the basis of visual impact to occur, the resource must possess significant aesthetic or visual qualities." The FHWA has taken the position that diminishment cannot be equated with substantial impairment. As noted in the preamble to the proposed rule, "a constructive use does not arise merely because a transportation improvement can be seen from the protected resource. The visual impact must be more substantial, such when a proposed facility would dominate the immediate surroundings, interfering with primary views of or from the resource." In this case, I-73 would be located more than 3,000 feet from the Appalachian Trail at its closest point. Further, the DEIS noted that Segment 372 would enter the visual experience of the southbound Appalachian Trail hiker at the Fullhardt Knob Shelter, in the middleground distance, as the segment moves east of Coyner Mountain and aligns to cross the BRP in the Mountain Pass Road area. Project Team members took photos along the portion of the Appalachian Trail from Fullhardt's Knob to U.S. Route 220 during summer when foliage was heavy and during winter when foliage was non-existent. Segment 372 would be potentially visible to trail hikers for the three-mile (five-kilometer) hike from Fullhardt's Knob Shelter to U.S. Route 11. Toward the top of Tinker Mountain, another two miles (three kilometers) would be exposed to background views and displace farmland scenes, which are the primary subject of view from this part of the Appalachian Trail. These views are often currently impeded however, by trees and foliage that line the trail. The NPS in previous correspondence revealed, "This section of the Appalachian Trail (from Tinker Mountain to Blackhorse Gap) is one of the more popular day-hike sections of the Trail in Virginia." The fact that the Trail is so popular in this area is attributable to both its scenic appeal and the Trail's adjacency to a large urban area with access to a modern transportation network.

As for noise and constructive use, the Appalachian Trail was evaluated as an Activity Category A for noise impacts at three different locations. Activity Category A represents lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purposes. The FHWA Noise Abatement Criteria (NAC) applicable to Activity Category "A" sites is 57 dBA Leq (1 hour). There is no other external activity category with a lower dB(A) threshold available to FHWA in regulation. To establish a new one for this project or for the Appalachian Trail would be arbitrary and capricious. In addition, existing ambient noise levels were recorded along the trail at the three sites as being 45, 47 and 46 decibels. The noise impact analysis using STAMINA 2.0 determined that the noise levels at these three sites under the future, worst-case no-build condition would be 49, 47, and 46 decibels, respectively. Under the future, worst-case build condition, the future noise build levels will be 51, 47, and 47 decibels, respectively. The maximum difference between future build and future no-build levels would be 2 dB(A); under normal environmental conditions, a 3 decibel increase is barely perceptible to the human ear. Therefore, in accordance with 23 CFR § 771.135(p)(5)(ii) and (iii), there is no constructive use to the Appalachian Trail due to noise because 1) noise along the trail would not exceed the NAC; and 2) the difference between future build and future no-build levels is 3 dB(A) or less.

We are concerned with a line of analysis in the document that balances the impact of highway construction on natural or rural environments and viewsheds, with the pretty view that drivers on an interstate will have of the countryside. Such a line of reasoning is deeply flawed and unacceptable. We demand that the entire line of reasoning and any resulting analysis be dropped from the document. We expect better from our agency partners at VDOT. This project has serious impacts on visual resources of the region, resources that are an important part of the Appalachian Trail experience. Please get on with a clear and professional analysis of these impacts and cease this attempt to obfuscate the impacts to be considered. I find it hard to believe that professionals within the agency, or your contractors, who work with visual resources professionally feel that this line of analysis could withstand professional scrutiny.

**Response:** *The federal guidelines specifically state that the affected environment discussion should provide information that identifies the different viewer groups in the study area. The highway viewers are identified under two classes: (1) Those with a view of the road and (2) Those with a view from the road. As long as the methodology is used consistently throughout all build options, the results should allow for a comparative analysis of which option has a greater visual impact than the others and which options have the greatest visual quality. It is intended that the reviewer of the document judge which factor is more important or if the factors should be considered equal in importance. Language used in the DEIS suggesting that the visual quality and visual impact of some options would balance out has been removed.*

We are deeply concerned with the noise impact analysis as it relates to the Appalachian Trail. The standards by which impacts were judged are simply inappropriate for consideration of the impact of highway noise in recreational users in a backcountry setting. The standards used do not separate the noise of the natural environment (i.e. wind in the trees) from the noise of a busy industrial highway. The issue is not the absolute noise levels, but rather whether hikers experiences in a primarily natural environment are marred by being able to clearly recognize the noise of trucks on a four lane highway. I believe that it is perfectly reasonable to conclude that trucks pulling up a grade, or braking down the grade as they cross the Blue Ridge will be clearly broadcast across the valley to portions of the Trail where such intrusions do not presently exist. We would ask that VDOT recognize this obvious fact, include it in the impacts of the eastern alternative and include is a yet another factor in your decision concerning routes. This is yet another unconsidered impact on constructive use of the Appalachian Trail and should be considered in a 4(f) evaluation.

**Response:** *As stated above, the Appalachian Trail was evaluated as an Activity Category A for noise impacts at three different locations. Activity Category A represents lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purposes. The FHWA Noise Abatement Criteria (NAC) applicable to Activity Category "A" sites is 57 dBA Leq (1 hour). There is no other external activity category with a lower dB(A) threshold available to FHWA in regulation. To establish a new one for this project or for the Appalachian Trail would be arbitrary and capricious. In addition, existing ambient noise levels were recorded along the trail at the three sites as being 45, 47 and 46 decibels. The noise impact analysis using STAMINA 2.0 determined that the noise levels at these three sites under the future, worst-case no-build condition would be 49, 47, and 46 decibels, respectively. Under the future, worst-case build condition, the future noise build levels will be 51, 47, and 47 decibels, respectively. The maximum difference between future build and future no-build levels would be 2 dB(A); under normal environmental conditions, a 3 decibel increase is barely perceptible to the human ear. Therefore, in accordance with 23 CFR § 771.135(p)(5)(ii) and (iii), there is no constructive use to the Appalachian Trail due to noise because 1) noise along the trail would not exceed the NAC; and 2) the difference between future build and future no-build levels is 3 dB(A) or less.*

Lastly, we are concerned that flaws in the analysis, and a lack of information in the DEIS lead to the need for VDOT to produce a supplemental DEIS. The DEIS should include all information necessary to weigh alternatives and make a reasoned decision under NEPA and state law. During my review at the public hearing, I was told time and again that information that was required to make a reasoned analysis was not in the DEIS, but would appear in the FEIS, or was available, but would not appear at all. This is quite unproductive. The reason for production of a DEIS is to let the public and other agencies review the information that will be used to make a decision and give VDOT information that will improve their capability to make the best decision. If erroneous or misleading information appears in the FEIS without this scrutiny, and that information reasonably influences the decision, aggrieved parties have no redress except in the courts. This is certainly an expensive and time consuming option for both the petitioner and VDOT alike.

**Response:** *In addition to the DEIS, there were several Technical Memorandum that provide more information on the data included in and analyses conducted for the DEIS. These Technical Memorandums were available at the public hearings and copies of these documents have been available upon request.*

As always we stand ready to assist VDOT in any analysis concerning impacts on the Appalachian Trail. Thank you for this opportunity for input.

Sincerely,

Mike Dawson  
Regional Representative

Cc: Don Owen, ATPO  
Ken Landgraff, JNF  
Dick Clark, RATC  
Pete Sensabaugh, VDOT  
Rob Cary, VDOT  
Robert Fonseca-Martinez , FHWA

DEPARTMENT OF THE ARMY  
NORFOLK DISTRICT, CORPS OF ENGINEERS  
FORT NORFOLK, 803 FRONT STREET  
NORFOLK, VIRGINIA 23510-1096

February 1, 2001

Eastern Virginia Regulatory Section  
98-4506-15

Mr. Roberto Fonseca-Martinez  
Division Administrator  
Federal Highway Administration  
Dale Building  
1504 Santa Rosa Road  
Richmond, Virginia 23229

Dear Mr. Fonseca-Martinez:

This letter provides the comments of the Norfolk District Corps of Engineers on the Draft Environmental Impact Statement (DEIS) prepared for the proposed Interstate 73 (I-73) in the vicinity of the City of Roanoke Virginia and south to the North Carolina line. The Federal Highway Administration (FHWA) and the Virginia Department of Transportation (VDOT) are preparing the EIS, and the Corps of Engineers is a cooperating agency in the preparation of documents for this project. In that role, we reviewed the pre-DEIS and provided our comments on that document in a letter dated September 1, 2000. Those comments focused on the content of the document and the way the information was presented. Our comments on the DEIS focus on both the document and the project itself, considering the relative merits of the various alternatives presented in the DEIS.

Our primary concern with the pre-DEIS, as stated in our letter at that time, was the lack of documentation of the need for an interstate facility. As we noted, the problems establishing the need for improvements in the Route 220 corridor are provided and discussed, and additional information has been added to the DEIS to clarify the reasons that FHWA has determined that only an interstate-level facility will address the Purpose and Need, summarized on page 1-5. The Virginia portion of I-73 is seen as one segment of an interstate highway to extend from Michigan to South Carolina. Information is provided in support of the position that an interstate-level facility will better facilitate regional economic growth than another type of highway facility. The DEIS also identifies the movement of freight and vehicles and the enhancement of "general mobility and transportation linkage" through the Michigan to South Carolina "target market." These needs from Michigan to South Carolina are not supported in the document, but are simply stated as goals of I-73. The information in support of the need for an interstate-level facility focuses primarily on what "Congress intended in the National Highway Designation Act of 1995, TEA-21, and ISTEA with reference to I-73.

It is stated on page 2-6 that "FHWA believes that the designation by Congress of 'I-73' indicates the Congressional intent that this route would be an Interstate highway..." Yet, the pre-DEIS indicated that Ohio is not considering construction of I-73 (due to funding problems), and West Virginia has completed a Final EIS to upgrade an existing highway, but not to interstate standards. We note that this information was not included in the DEIS. Apparently the need for an interstate facility from Michigan to South Carolina is not apparent in certain other states along the corridor. As we noted in our comments on the pre-DEIS, if a segment of an interstate facility is constructed in Virginia, it appears that it will not be part

of a larger whole. With that framework, the substantiation of the needs in the Michigan to South Carolina corridor that can only be addressed by an interstate appears to be undermined.

**Response:** *While Congress recognized and designated the I-73 corridor as a nationally significant facility, they have appropriated very little money for the planning, design and construction of the facility. Consequently, some states have made more progress with I-73 than others due primarily to funding availability.*

*In Michigan the Michigan Department of Transportation (DOT) completed a preliminary corridor feasibility study in June 2001. The study concluded that there is sufficient traffic to warrant a freeway/Interstate investment. Three feasible location alternatives were advanced in the feasibility study. Each of the three alternatives has been screened for environmental flaws and each has the potential for further investigation. National Environmental Policy Act (NEPA) is the next step and the DOT will program that for later. For Michigan much of the corridor (approximately 80%) designated by Congress for I-73 is already freeway standard with limited access, grade separated interchanges and appropriate median widths for both urban and rural conditions. The existing freeway section of the corridor consists of I-75 and U.S. Route 127. There is funding allocated for improvements to interchanges and the median along the existing I-75/U.S. Route 127 corridor. The most difficult part to completing I-73 in Michigan is in the southeast part of the state where I-73 ties into Ohio.*

*In Ohio an I-73 toll feasibility study for the Turnpike Commission in Ohio has been completed. The results were not sufficiently strong enough to influence the Turnpike Commission to advance I-73 as a toll road at this time. The Ohio DOT has provided some I-73 components along the U.S. Route 23 alignment, which is the I-73 corridor in Ohio. From Columbus to Michigan few improvements are planned or underway. North of Columbus a few grade separated interchanges are in the program. A limited access bypass was proposed for an area just north of Columbus but has not advanced. From Columbus south to Portsmouth, spot improvements, intersection improvements and safety items are advancing. In Portsmouth, Ohio a bypass along the west and north side is currently undergoing NEPA evaluation. This section ties into the I-73 corridor in West Virginia. Funding for the Portsmouth bypass was secured from the Appalachian Corridor Development Fund, the same source that has provided much of the funding for West Virginia's I-73.*

*In West Virginia I-73, also known as the King Coal Highway, generally follows existing U.S. Route 52 from Williamson to Bluefield. Most of this corridor has been through the NEPA process. Much of it has been designed and segments are currently under construction.*

*In North Carolina approximately 60% of I-73 is Interstate or near Interstate standards. The current issue is funding. North Carolina DOT has identified and programmed all of the I-73 segments in the state with the exception of a portion of US 220 in Rockingham County. In areas where I-73 bypasses towns or cities and in large areas in Richmond, Montgomery, and Guilford counties, I-73 will occur on new location and will be built to Interstate standards. The area of U.S. Route 220 near the Virginia state line will remain as is until travel demand increases or Virginia's I-73 is completed. The intent along this section is to improve U.S. Route 220 to near Interstate standards as demand and need warrant the improvement. The Virginia Department of Transportation's (VDOT's) progress on I-73 to the Virginia-North Carolina state line would heavily influence North Carolina DOT's program for U.S. Route 220 from NC Route 704 to the state line. The Interstate shield is in place on I-73 in North Carolina.*

*In South Carolina, a feasibility study has been completed and a broad corridor has been identified. Charleston has been replaced with Myrtle Beach as the preferred eastern terminus of I-73. A construction price tag of \$5.0 billion has been estimated in the feasibility study. Under H.R. 3550, "The Transportation Equity Act: A Legacy for Users" (TEA-LU), approved by the House Transportation Committee on March 24th, 2004, South Carolina would be authorized to receive \$10 million for I-73. An*

effort is underway to designate **all of** I-73 as a project of regional and national significance so that it can be put among the top priorities to receive further funding. State officials believe I-73 will boost tourism as well as economic development, **which** will diversify the economy and create new jobs. The House approved a six-year transportation bill that would obligate \$275 billion over six years for highway and transit programs on April 2, 2004. The bill must be reconciled in a conference committee with the \$318-billion version the Senate passed in February 2004. The amount of money attached to the bill in its final form could determine how quickly I-73 gets built. South Carolina DOT is moving ahead with the NEPA process and is hoping to finish the Final Environmental Impact Statement (FEIS) before the end of 2007.

Therefore, it appears that all the states affected by I-73, except West Virginia, are pursuing freeway standards for their portion of the high priority corridor.

Based on the information in the DEIS, it is not clear that a non-interstate build alternative would not address the substantiated problems identified in the Purpose and Need while at the same time potentially reducing impacts to waters of the U.S. A Department of the Army permit will be required for the construction of a build alternative or the TSM alternative, since all of these alternatives involve the placement of fill in waters of the United States, including wetlands and navigable waters. As part of our public interest review and in accordance with the Clean Water Act Section 404(b)(1) Guidelines, the Corps must evaluate alternatives that avoid impacts to waters of the U.S. Because an upgrade of Route 220 was not included in the DEIS, it appears that all reasonable and feasible alternatives to minimize environmental impacts have not been evaluated. Our dilemma is that we do not know whether an improvement of Route 220 will minimize impacts. Therefore, the information would be required for us to evaluate a permit application for this project.

**Response:** *Design concepts involving the upgrade of U.S. Route 220 were addressed in Section 2.3.2 of the DEIS as the “low build or intermediate build alternatives”. While this alternative did address safety, it little to address the other purpose and need elements of freight transport, economic growth and vitality, operations (access and capacity), or general mobility and linkage (speed, travel time, travel delay, and operational cost reduction).*

*Further, the DEIS generally discussed the direct impacts that could be expected from a roadway designed to principle arterial design standards (i.e. freeway design standards) versus a roadway designed to other principle arterial design standards (i.e. non-freeway design standards) noting that there was no difference in those design elements that would have the greatest bearing on direct impacts (lane width, shoulder width, median width, slopes, clear zone, etc.) when comparing freeway and non-freeway standards. Finally, additional discussion has been added to the FEIS regarding fully controlled and limited access controlled facilities.*

All of the Build Alternatives will result in substantial environmental impacts: the displacement of 340 to 707 homes and 23 to 63 businesses; 2014 to 4391 acres of forests; 12 to 36 acres of wetlands; 76 to 166 stream crossings; noise increases of 10 dBA or greater to 411 to 3316 homes; etc. The impacts were estimated based on a 600-foot wide corridor, whereas the typical section involves a 250-foot right-of-way. The broad corridor used for estimating impacts complicates our evaluation of the relative merits of one alternative versus another, since it is unknown to what extent shifts within that corridor will reduce impacts. However, based on the information as presented, we have some recommendations.

Alternatives that avoid impacts to waters of the U.S., including wetlands, are preferred. Based on the information in the DEIS, Alternatives 3 (3, 3a, 3b, and 3c) and 4 involve fewer crossings of streams. The "3" Alternatives also involve the least impacts to wetlands. However, it is unknown whether through bridging and alignment shifts the impacts of the various alternatives could be made approximately equivalent in terms of impacts to waters and wetlands.

An important consideration in our evaluation of the alternatives is the potential for secondary impacts resulting from development stimulated by the project. The DEIS evaluates potential impacts from development by determining the amount of developable land located within a one-mile radius around each interchange along each Build Alternative, since interchanges are generally the most likely location for such development to occur. Developable land was defined as all agricultural and forest land not considered prime agricultural property or designated as wetlands (Table 4.12-1, page 4.12-2). The document states that 24-39% of this land is already planned for conversion to developed land, and suggests that development is already anticipated in these areas with or without the introduction of an interstate.

This information and analysis raises two issues we consider important: (1) As noted at several locations in the document, I-73 is included in most local and regional plans. Therefore, the planned conversion of lands may very well be an indication not that the development will occur regardless of the interstate, but rather that the interstate is already expected and development plans have already been spurred by that expectation. A statement to that effect should be added to the Final EIS; (2) At interchanges of the various alternatives, 61-76% of the land which is developable is not already planned for development, but will likely become attractive for development if an interstate is constructed. This analysis suggests a likelihood of considerable secondary development resulting from the roadway. It is noted on page 4.12-3 that less than one percent of the amount of acreage at the interchanges represents wetlands under any of the build options. However, Table 4.12-1 indicates that all of the "2" and "3" alternatives include 164-176 acres of wetlands within the interchange radii. While these areas would be subject to regulation, we have concerns that the construction of the interstate will increase pressure on and impacts to these wetlands. Avoidance of potential secondary impacts to wetlands, as well as direct impacts, should be a factor in your selection of an alternative

**Response:** *In preparing the DEIS, VDOT looked at the comprehensive plans and other planning documents for the Cities of Roanoke and Salem and the Counties of Botetourt, Bedford, Roanoke, Henry and Franklin. With the exception of Franklin County, no other locality has included alignments for I-73 in their comprehensive plans or other planning documents. As for Franklin County, their comprehensive plan recommended two different corridors for the location of I-73, but these corridors pre-date the alternatives development process for I-73.*

To summarize, our primary concern with the DEIS is that it is unknown whether impacts to communities and natural resources could be reduced through the construction of a build alternative of a lesser design than an interstate. At the same time, the DEIS does not substantiate that only an interstate-level facility will address the Purpose and Need, other than an interpretation of the "intent" of Congress. We prefer alternatives that avoid impacts to waters of the U.S., recognizing that other factors must be considered in determining whether an alternative is practicable. Both direct and indirect/secondary impacts to waters of the U.S., including wetlands, are being considered in our comparison of the alternatives. The Final EIS should document how avoidance and minimization of impacts to waters of the U. S. was a factor in the selection of an alternative.

**Response:** *Comments noted. The preferred alternative identified by VDOT has the least direct impact on wetlands.*

Please see the enclosure for additional, specific comments we have concerning the DEIS. As a cooperating agency, we appreciated the opportunity to review and comment on the pre-DEIS as well as the DEIS. We trust that our comments and recommendations will be fully addressed, with a goal of the Corps being able to adopt the EIS prepared by FHWA as part of our compliance with the National Environmental Policy Act.

Should you have any questions, you may contact Alice Allen-Grimes at 757-441-7219.

Sincerely,  
J. Robert Hume, III  
Regulatory branch

Enclosure

Copies Furnished:

Virginia Department of Transportation, Richmond  
Environmental Protection Agency, Reston  
U.S. Fish and Wildlife Service, Gloucester  
National Marine Fisheries Service, Oxford  
Virginia Department of Environmental Quality/Water Division, Richmond

**Response:** *Responses to COE comments are provided under each specific topic in the following section titled "Page-Specific Comments of the Corps of Engineers, Draft Environmental Impact Statement - I-73"*

Page-Specific Comments of the Corps of Engineers  
Draft Environmental Impact Statement - I-73

1. Page 3.7-1. While it is likely that the I-73 project will be coordinated through VDOT's monthly interagency coordination meeting, permits will probably not be 'issued at the meeting', as suggested on this page. For a project of this size, a public notice would likely be issued, after which a permit decision (issuance or denial) would be made, considering public comments.

**Response:** *Comment noted.*

2. Page 4.1-2, Table 4.1-1. Is there an error in the ADT volume for Option 4 for the segment of Rt. 220 north of Ridgeway? That segment is the same for Option 2 (2, 2a, 2b, 2c), and yet the volumes shown for Option 4 are twice the volumes for Option 2. Options 2 and 4 share the same location south of Ridgeway too, so it is not clear why there is a jump in volumes for Option 4 north of Ridgeway.

**Response:** *There is not an error in the table. The traffic volumes identified for the various I-73 options analyzed in the DEIS came from model runs of the entire corridor conducted for four separate alignments. The combination of the various segments into four distinct alignments resulted in the occasional occurrence of a similar segment having different forecast traffic volumes due to the different segments and overall alignment option modeled. The combination of segments in Option 4, with the western alignment around Martinsville, produced the identified forecast traffic volumes as compared to the combination of segments in Option 2, which had an eastern alignment around Martinsville.*

3. Page 4.1-12, Travel Time Analysis. It is stated that the travel time analysis under the Build condition assumes a completed I-73 from Michigan to Charleston, SC. West Virginia has completed an EIS to improve an existing highway to less-than-interstate standards and Ohio is not pursuing an I-73 project due to funding problems. Therefore, the Travel Time Analysis seems to be predicated on a situation that will not occur, estimating improvements that are unsubstantiated.

**Response:** *The travel time analysis was an attempt to recognize that although a purpose and need has been developed for I-73 specific to the study area in Virginia, I-73 also has an identity rooted in the context of the Congressional designation of the I-73 high priority corridor from Michigan to South Carolina, which the Virginia portion of I-73 would ultimately contribute to. Therefore, while we cannot speculate on the timing of various stages of project development in other states or the ability of those states to obtain funding to develop an interstate facility (See response to status of I-73 in other states on page 2 of this letter), the travel time analysis was an attempt to identify the travel time savings that could be achieved if the high priority corridor, as designated by Congress, was implemented without restriction. Certainly, the hurdles and limitations that some of the states are experiencing are noted. It is further noted that these hurdles and limitations would undoubtedly affect the results of the travel time estimates. Notwithstanding, the analysis used average travel speeds of 60 mph for Interstate travel and 50 mph for US Highway travel. These speeds were intended to represent a typical commodity movement speed along these types of facilities. Since posted speeds for Interstates and US Highways would vary from state to state and within states, it was necessary to assume average travel speeds for the entire corridor in order to complete a reasonable analysis. Even if the entire length of I-73 through West Virginia were posted at 55 mph, posted speeds on interstates in other states would range between 65 and 70 mph, making the 60 mph assumption for the entire corridor both reasonable and conservative.*

4. Page 4.1-13, Table 4.1-10. The travel time savings within Virginia -- five minutes from Roanoke to Martinsville, 3 minutes from Roanoke to Rocky Mount, and 6 minutes from Roanoke to Smith

Mountain Lake - seem limited when the substantial impacts associated with the project are taken into consideration.

**Response:** *Travel times were recalculated since the circulation of the DEIS in response to questions raised by various parties, including COE. The new analysis revealed a savings of 4 minutes using I-73 from Roanoke to Rocky Mount and a savings of 9 minutes using I-73 from Roanoke to Martinsville. These travel times were calculated using an average congested flow speed for Virginia roadways of 51.3 mph. The average travel speed used for the Build Alternative was 60 mph. The Build Alternative average travel speed was a conservative estimate used for the entire travel time comparison given the varying speeds of interstate facilities throughout the corridor from Michigan to South Carolina. In reality, through the study area, the interstate congested flow speed would generally be greater than 60 mph since the posted speed limit would be 65 mph. This would result in a greater study area travel time savings with the Build Alternative. The revised travel time comparison is included in the following table, which has been included in the FEIS:*

Route	No Build		Build			Savings (Minutes)	Miles on (No-Build)		Miles on (Build)		
	Distance	Time	Route	Distance	Time		Route	Interstate	US Highway	Interstate	US Highway
Roanoke to Rocky Mount	25	0.49	US 220	25	0.42	I-73	4	0	25	25	0
Roanoke to Martinsville	55	1.08	US 220	55	0.92	I-73	9	0	55	55	0

Speed  
 Interstate 60  
 Congested Flow Speed 51.3

Additionally, it should be reiterated that travel time savings was not the only item supporting the I-73 purpose and need. Other items included:

- *The need for improved transportation facilities for goods movement which link the port of Charleston, South Carolina with Detroit, Michigan and Sault Ste. Marie, Michigan;*
- *The need for an effective and efficient roadway which facilitates interstate travel between Michigan, Ohio, West Virginia, Virginia and North and South Carolina;*
- *The need for a safe and direct transportation link for business trucking between North Carolina's Piedmont Triangle and the Roanoke Valley's I-581 and I-81 corridors; and*
- *The need for an interstate transportation facility to foster planned economic development between southwestern Virginia and the Piedmont Triad regions and between Virginia communities from the City of Roanoke to the North Carolina state line.*

5. Page 4.2-16, Table 4.2-7. It is not clear what is intended by the column "Tourist Attractions." The narrative that precedes and refers to the table discusses only the "Enterprise Zones and Growth Areas," but does not discuss the tourist attractions. Are the tourist attractions located within a certain distance from the various options? If so, is the implication that there is better access to them or potential negative impacts because interchanges are not located near these tourist attractions? The purpose for including the information should be explained.

**Response:** *It is acknowledged that a statement should have been added to indicate that the listed tourist attractions are near the various options and that these options provided improved access to these locations. It is only stated that the No-Build Alternative would not improve regional access to any of the identified activity centers, industrial parks, enterprise zones, tourist attractions or other economic incentive areas within the study area. Information on how the various options improve and encourage tourism is provided in the Land Use Technical Memorandum. This information has been included in the FEIS.*

6. Page 4.7-3, Section 4.7.1.3. The text on the previous page acknowledges that a new interstate will serve as a physical barrier to wildlife species and that wildlife-vehicle collisions will increase. However, in the discussion of mitigation in this section no mention is made of providing wildlife crossings. For a project of this size, with the potential for significant interruption of wildlife corridors, the feasibility and potential effectiveness of providing crossings for wildlife should be evaluated.

**Response:** *The DEIS acknowledges that habitat fragmentation comprises a significantly greater concern to wildlife as compared to direct displacement of habitat by paved surfaces and maintained rights-of-way. Where feasible, passageways for terrestrial wildlife will be provided or maintained beneath proposed bridges to help minimize effects of wildlife corridor bisection. To further address this issue, the FEIS includes a discussion of practicable mitigation measures intended to minimize the probability of wildlife-vehicle collisions (such as fencing, planting of vegetation with minimal wildlife attraction characteristics, etc.). Finally, the Virginia Department of Conservation and Recreation is working on the Virginia Conservation Lands Needs Assessment Project where they are prioritizing ecologically important habitats and corridors in Virginia. VDOT is committed to coordinating with the VDCR to identify the ecologically important corridors that would be impacted by I-73 and considering design measures that will sustain and minimize impacts to such corridors.*

7. 4.7-6, Section 4.7.2.3. The discussion of mitigation for impacts to aquatic habitat simply states that "compensation measures for unavoidable impacts will be developed during the permit process." It is important in evaluating the comparative merits of the alternatives to know the potential opportunities for compensating for such impacts. While it is recognized that the type and location of impacts is different for the alternatives, for a project of this size with a potential for such substantial impacts, efforts should be underway now to develop a conceptual compensation plan. Such a plan would consider appropriate goals for compensation, the type of compensation, and potential sites. For example, it is difficult to identify suitable sites for stream mitigation, whether through restoration of riffles/pools, provision of buffers, limiting access by cattle (fencing), or whatever. The project proponents should invest time now to find such opportunities. To begin the effort, the project proponents could investigate stream improvement opportunities on publicly held land in the study area.

**Response:** *A conceptual mitigation plan addressing water quality, stream channel modifications, and wetland impacts has been developed for the FEIS including a discussion of wetland banks and locations of compensatory wetland mitigation. In addition, we have coordinated with the USFWS to identify specific streams for riparian restoration and to identify opportunities for preserving land near or adjacent to publicly owned land such as Grassy Hill. This information has been included in the FEIS and biological assessment.*

8. Page 4.7-7, Section 4.7.3. With reference to navigable waters, it is stated for both the TSM and build options that temporary causeways and cofferdams will be used for bridge construction. Such temporary features in the navigable waters will have to be coordinated and approved with reference to their potential impacts to navigation as well as water quality issues. Causeways should not extend more than 50% across a waterway at any one time, and signage or other warnings to boaters may be required. Bridge heights should be coordinated prior to design.

**Response:** *It is acknowledged that the use of temporary causeways and cofferdams will have to be coordinated and approved with reference to their potential impacts to navigation as well as water quality issues. Phased construction methods for bridges and appurtenant structures (such as temporary causeways and cofferdams) is discussed in section 4.7.3.1.3 of the DEIS. Additional language will be provided in the FEIS regarding the use of causeways that will not extend more than 50% across a waterway at any one time and the appropriate use of signage or other warnings to boaters. The need to*

*coordinate bridge heights with appropriate reviewing agencies prior to final design is also acknowledged. Language pertaining to means to allow for unimpeded passage of recreational watercraft (presently presented in section 4.7.3.1.3 of the DEIS) will be expanded to clarify the intent that design criterion for spacing of support structures will apply to vertical as well as horizontal dimensions*

9. Page 4.7-10, Section 4.7.3.2. The DEIS states that ponds formed through impoundment of ephemeral streams were determined to be non-jurisdictional. It is difficult to distinguish between and intermittent stream and an ephemeral stream, and ponds formed through the impoundment of intermittent streams are jurisdictional. Please have any determination that a stream is ephemeral confirmed by the Corps of Engineers.

**Response:** *Ephemeral streams are defined as streams that convey water only during brief periods following rain events and, because of their low volume, duration, and frequency of flow, do not exhibit an ordinary high water mark. Section 4.7.3.2 of the DEIS explains that identification of ephemeral streams was accomplished by (1) performing field reconnaissance on a representative number of headwater stream systems to identify the relationship between ephemeral stream segments and their position in the landscape (i.e., their relationship to the headwaters), upstream drainage areas, and soil types, (2) developing a qualitative probability model based on observed relationships, and (3) applying this model to similar hydrogeomorphic settings within the study area. Application of these methods was deemed appropriate for a NEPA planning level study where equal treatment of all alternatives under consideration is required and it is acknowledged that verification of jurisdictional wetland boundaries will be required prior to issuance of permits for any alternative selected. This requirement for agency verification has been addressed in the FEIS.*

10. Page 4.7-12, Table 4.7-4. The wetland impact estimates for several of the build options have changed substantially since the pre-DEIS. Those associated with Options 2b, 2c, 3, 3a, 3b, and 3c have all increased, some by as much as 20 acres. What led to those changes? We also noted that the impacts for the TSM alternative have dropped 27 acres from the pre-DEIS. We noted in our comments on the pre-DEIS that those impacts seemed very high, but we would like to know the reason for the change in number.

**Response:** *Unit of measurement labels for "acres" and "hectares" appearing in the column headings were erroneously reversed in one of the tables provided in the "pre-DEIS". The corrected version of the table was subsequently included in the DEIS, thus leading to the impression that wetland impact acreages had increased substantially. In addition, following preparation of the "pre-DEIS", a determination was made not to include wetland impacts associated with roadway improvement projects identified under the No Build Alternative as part of the TSM Alternative impacts, since those No Build construction impacts are anticipated to occur independent of TSM implementation. The downward-adjusted wetland impact figures provided in the October 2000 DEIS are now considered to more accurately reflect impacts associated with the TSM Alternative.*

11. Page 4.7-19, Section 4.7.3.2.3. This section discusses mitigation for impacts to wetlands. As we advised above for other aquatic resources, the project proponents should at this time be actively working to identify potential wetland compensation sites. The opportunity for providing wetland compensation for the various alternatives is an important consideration in comparing them. It is stated that compensation for some of the impacts to ponds could be provided through the inclusion of extended wet detention basins as part of the storm water management (SWM) system. The requirement to provide SWM is above and beyond mitigation for aquatic resources, and SWM facilities by themselves are generally not accepted to "double" as mitigation. The text also includes preservation of existing wetlands as an option for mitigation. If preservation were proposed as mitigation, then the project proponents should identify threats to any properties proposed for preservation. In addition, if preservation is included as a component of any mitigation package, a minimum of 1:1 replacement of wetlands through restoration or creation is

generally required in addition to any preservation to guarantee no net loss of wetland functions and values.

**Response:** *Comments noted. See the response provided above. A conceptual mitigation plan addressing water quality and wetland impacts has been provided in the FEIS.*

12. Page 4.12-3. As we noted in our letter, it might or might not be true that development that is already planned in the proposed interchange locations means that development will occur with or without the interstate facility. Clearly, the interstate is anticipated by all of the localities and has been considered in their planning. The planned development could very well be because the interstate is expected and not regardless of it. A statement to that effect should be added to the Final EIS.

**Response:** *As stated above, in preparing the DEIS, VDOT looked at the comprehensive plans and other planning documents for the Cities of Roanoke and Salem and the Counties of Botetourt, Bedford, Roanoke, Henry and Franklin. With the exception of Franklin County, no other locality has included alignments for I-73 in their comprehensive plans or other planning documents. As for Franklin County, their comprehensive plan recommended two different corridors for the location of I-73, but these corridors pre-date the alternatives development process for I-73.*

13. Section 4.13. There is no mention of historic architectural structures in the 4(f) discussion. It is our understanding that Section 106 properties are also Section 4(f) properties. Archaeological properties are discussed, along with the Blue Ridge Parkway (included as a parkland). Section 4.9.1 on page 4.9-1 states that located within the Area of Potential Effect of the build options are 14 architectural resources eligible for the National Register. Are they not included within the Section 4(f) analysis because there is no expected use of these properties? This section should discuss architectural resources, even if only to state why they are not being included as potential Section 4(f) properties.

**Response:** *Section 106 properties are only considered Section 4(f) properties if there is a direct use of land from that property or if the integrity of that property is diminished substantially enough to qualify as a constructive use. Therefore, National Register eligible properties were only included in the Section 4(f) evaluation if they met these criteria. The Blue Ridge Parkway was the only National Register-eligible property meeting these criteria and was addressed in the Section 4(f) Evaluation accordingly. Additional discussion regarding the applicability of Section 4(f) to architectural and archeological resources in the study area has been added to the FEIS.*

**COMMONWEALTH of VIRGINIA**

J. Carlson Courter, III  
Commissioner

**Department of Agriculture and Consumer Services  
Division of Consumer Protection  
Office of Plant & Pest Services**

PO Box 1163, Richmond, Virginia 23218  
Phone: 804/786-3515 Fax: 804/371-7793 Hearing Impaired: 800/828-1120  
<http://www.state.va.us/~vdacs/vdacs.htm>

January 5, 2001

Earl T. Robb  
State Environmental Administrator  
Virginia Department of Transportation  
1201 East Broad St.  
Richmond, VA 23219

Dear Mr. Robb,

The I-73 Draft Environmental Impact Statement and Section 4(f) Evaluation for the Counties of Bedford, Botetourt, Franklin, Henry, and Roanoke and Cities of Roanoke and Martinsville was reviewed for impact on responsibilities associated with the Virginia Department of Agriculture and Consumer Services. The document adequately addresses concerns of agricultural lands, invasive plants species, noxious-weed seeds and threatened or endangered plant species. Each issue is presented with the potential impact and required mitigation for route alternatives being considered. The desire to minimize environmental impact for the preservation of natural resources was noted throughout the document.

The document was reviewed as to coverage of the impact of this highway project on agricultural lands and both invasive and endangered plant species. The importance of protecting and preserving prime farmland soils is acknowledged within the documentation. The engineering design of the various route alternatives illustrate a desire to minimize the loss of agricultural lands. References to the Farmland Protection Policy Act and Virginia Seed Law contained within the impact statement provide verification of designers attempt to consider implications of route alternatives on Virginia agriculture. Executive Order 13112 directing federal agencies to combat the introduction and spread of invasive species and the environmental concerns associated with non-native flora and fauna are presented in the impact statement. These citations provide insight into potential harm to the environment, human health and regional economy associated with the introduction of invasive plant species. The presence of endangered plants in the Rocky Mount and Salem areas and continued need to monitor the study area for threatened and endangered plant species was also noted. Engineering plans to avoid and mitigate impact on known populations provide protection of endangered plant species. In general the concerns of the Virginia Department of Agriculture and Consumer Services as this project impacts the agriculture and fauna of the study area are addressed.

The Transportation System Management alternative for this highway, as presented in the impact statement, is the preferred route. This alternative minimizes environmental impact on agricultural lands and endangered plants. The Build Alternative routes will result in increased impact on prime farmlands and possibly federal and state listed endangered plant species. The alternative options 1a, 2a-c, 3a, 3c, and 4 significantly increase the loss of prime farmlands in the study area. Options 1a and 4 may result in adverse impact on two endangered plant species. The latter alternatives are designed to avoid known populations of endangered plant species. However, the possible existence of additional endangered plant populations will necessitate a survey of the areas in question prior to initiating construction.

Thank you for the opportunity to comment on the I-73 Draft Environmental Impact Statement. I will be available to answer any questions you have regarding these comments.

Sincerely,

Keith R. Tignor  
Endangered Species  
Coordinator

Cc: Roy E. Seward, Jr.  
Policy and Planning Director, VDACS

**Response:** *Comments noted. Efforts have been made to avoid and minimize impacts to federal and state listed endangered plant species. To the extent practical, mitigation for impacts to federal and state listed endangered plant species have been included in the FEIS.*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

January 12, 2001

Roberto Fonseca-Martinez  
Federal Highway Administration  
Virginia Division Office  
P.O. Box 10249  
Richmond, Virginia 23240-0249

Re: Draft Environmental Impact Statement (DEIS) for the proposed I-73 project; Franklin, Henry and Roanoke Counties and the City of Roanoke; southwest Virginia.

Dear Mr. Martinez:

In accordance with the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) offers the following comments regarding the subject DEIS. The portion of I-73 covered by the DEIS is between 69 and 79 miles long and will cost between \$1.1 and \$1.3 billion. It is one element of a Congressionally-designated National Highway from Sault Ste. Marie, Michigan to Charleston, South Carolina.

EPA assigns this project and document a rating of Environmental Objections (EO) - Insufficient Information (2). This EO-2 rating is based on the potential high levels of environmental impact and the lack of an adequate range of alternatives presented in the document. A copy of EPA's rating system is enclosed for your information. The following major concerns capture the issues that resulted in this rating. These issues should be addressed as supplement to the DEIS.

The benefit of improved future traffic conditions does not appear to outweigh its environmental impacts. For example, the best performing Build Option, Option 2, shows improvement in the Level of Service (LOS) in the year 2025 for only six of the 28 locations studied and stabilizes the LOS at 17 of the 28 locations studied. This is compared to an improvement in LOS at three locations studied and stabilization of LOS of 17 locations by the year 2025 with the no-build. This is a marginal improvement over the no-build condition. Moreover, since an upgrade of the existing Rt. 220 was not studied, the benefits of this type of facility improvement on LOS are not known

The environmental impacts of this proposal are very large, ranging from 340 to 707 residential displacements, 22 to 147 business displacements, 2,063 to 4,391 acres of forest land loss, 1,203 to 7,241 acres of farm land loss, and 11.84 to 35.61 acres of wetlands loss. In addition, an increase in stormwater pollutant loadings (12% to 37%) over the base condition will result. The proposed new facility is located in mountainous terrain and will necessitate a new crossing of the Blue Ridge Parkway, which is a National Park and is eligible for inclusion in the National Register of Historic places.

In addition, this proposal will increase vehicle miles traveled in the study area by as much as 58%. This will result in additional pollutant Loadings to the Roanoke valley. Even though the proposed 8-Hour Ozone National Ambient Air Quality Standard (NAAQS) is currently not enforceable and the official attainment status designation for the Roanoke area is still to be made, we recommend performing an emission analysis to determine the impact of I-73's changes on this NAAQS. We also recommend an analysis be performed to assure that there are no violations of 1-hour Ozone, Particulate, and Nitrogen Oxide (NAAQS) created by the changes to I-73 and an analysis to determine if visibility is impacted in the Class 1 protected James River Face Wilderness area.

Cumulative and secondary impacts from this proposal have the potential to be very significant. Between 61% and 76% of the land within one mile of each proposed new interchange is currently not planned for commercial or residential development. With the introduction of this facility, these areas are subject to increased development pressure, leading to the loss of additional natural resources in these areas. The effects of this induced growth on natural resources, water and air quality need to be assessed in a supplemental DEIS.

The purpose and need includes elements of safety, mobility, Congressional intent and economic development. This document does not convincingly demonstrate that a new interstate-style facility is the only alternative that will satisfy the purpose and need. The new interstate facility, shown in the DEIS as a limited access freeway design, was selected as the preferred alternative partially on the basis of Congressional intent. This decision does not appear to be based on hard data that would demonstrate this is the only alternative that would meet the other elements of the purpose and need. Indeed, West Virginia chose the less-damaging controlled access design for their segment of I-73. Moreover, an upgrade of Rt. 220 was not studied in the DEIS. An upgrade of the existing Rt. 220 would fall in the scope of design and environmental between TSM and new limited access freeway. The lack of an upgrade to the existing Rt. 220 limits the range of alternatives considered and leaves many questions unanswered regarding the functionality of such a road and its environmental impacts, which would presumably be less than that of a new facility at a new location.

In summary, the I-73 proposal has the potential to cause a large degree of environmental impact throughout the study area and its benefits on mobility do not appear to be commensurate with its capital and environmental costs. A potentially less damaging upgrade of Rt. 220 or a lesser design standard roadway was not studied. Given this finding, the EPA recommends a supplement be prepared to the DEIS that includes an upgrade to the existing facility and addresses the issues given above.

Thank you for the opportunity to comment on this document. Should you have any questions regarding our comments please do not hesitate to call Peter Stokely at (703) 648-4292.

Sincerely,

Richard V. Pepino, Director  
Office of Environmental Programs

**Response:** *Responses to EPA's comments above are provided below under each specific topic in the following EPA section titled "I-73 DEIS Supporting Comments".*

I-73 DEIS Supporting Comments:

#### Purpose and Need

Page 1-1: The new statement found in this section that was included in the pre-draft EIS regarding the clear congressional intention that this road be an interstate design standard needs to be cited. Exactly what legislation and amendments are being referred to? An excerpt from it would be helpful.

**Response:** *The legislation that initially designated I-73 as a high priority corridor was the Intermodal Transportation Efficiency Act of 1991 (ISTEA), Title I, Section 1105. Additional legislation designating the location of I-73 is found in the National Highway System Designation Act of 1995 (NHS). Title III, Section 332 of the NHS designates I-73 as a future part of the Interstate System. "Any segment of such routes shall become a part of the Interstate System at such time as the Secretary determines that the segment – (i) meets the Interstate System design standards... and (ii) connects to an existing Interstate System segment." Additional reference to I-73 as a high priority corridor as well as funding was provided in the Transportation Equity Act for the 21<sup>st</sup> Century of 1998 (TEA-21). The Transportation Equity Act for the 21<sup>st</sup> Century was enacted on June 9, 1998 with amendments added as the TEA-21 Restoration Act of July 22, 1998. Both the June legislation and July amendments are now incorporated into federal code as TEA-21.*

*It needs to be recognized that 'Congressional intent' regarding an interstate facility does not mean that the facility must be designed to Interstate design standards. The draft EIS speaks to Congressional intent and acknowledges the flexibility provided by Congress by stating, "...[Congress] has not ruled out other design standards such as that for other principle arterials...(draft EIS 2-6)." The context in which this verse appears in the draft EIS is in a context which states that FHWA believes that the designation by Congress of "I-73" indicates the congressional intent that this route would be an Interstate highway. Further reinforcing this intent, Congress has amended existing legislation and passed additional legislation designating the section of I-73 from Charleston, South Carolina to Portsmouth, Ohio as a future part of the Interstate system subject to the conditions that the section to be added meets Interstate design criteria and connects to an existing Interstate segment, as referenced above. Although this does not rule out other design standards, which West Virginia is pursuing, those decisions are left to the individual states. Therefore, even though Congress has provided the states with flexibility, they have expressed their intent through legislation as referenced above and have provided states with the legal mechanism to designate the route as part of the Interstate system should they meet the conditions noted, even though the Interstate System has been essentially completed. Accordingly, the draft EIS identifies the Interstate design standard as the "preferred design alternative" for I-73 in Virginia in keeping with the documented purpose and need which includes congressional intent. Notwithstanding, the draft EIS further clarifies that the Interstate design is being used to assess impacts and compare alternatives for purposes of selecting a location, a worst-case scenario if you will; the actual design and design related features won't be approved until after final design which cannot be initiated under FHWA regulations until after a Record of Decision is issued. Finally, the draft EIS clearly documents that I-73 would need to be constructed to principle arterial design standards because of its functional classification. The EIS went on to explain that principle arterial design standards are composed of "freeway" design standards under which an Interstate facility would fall and "other principle arterial" design standards under which non-Interstate or non-freeway facilities would fall. The EIS further documents that there is no difference between horizontal design dimensions (shoulder width, lane width, median, slopes, etc.) of a freeway design and the other principle arterial design. In other words, the impacts from the footprint created by either a freeway (i.e. Interstate) design and an "other principle arterial design" are not appreciably different.*

Page 1-10; The trend in the loss of jobs is clear but what is not clear is the reasons why these jobs were lost and if the lack of transportation contributed to this if new road construction would help. This issue needs further clarification. This confusion is added to by the fact that several businesses have either indicated they would expand or locate in the study area. Were these decisions based on the expectation if a new I-73?

**Response:** *There is no easy answer for dramatic job losses in a community. The type of jobs lost and global economic competitiveness explain much of the high unemployment in Henry County/Martinsville. The area in question has been dominated by two principal economic sectors, manufacturing and agriculture. In Henry County, the manufacturing sub sectors of furniture and textiles have been hit hard by lower labor production costs in South American and Pacific Rim countries. Much of the textile manufacturing relocation has been to facilities in Central and South America where the labor costs are substantially lower. Given the great disparity between wages south and north of the American border, it is unlikely that transportation variables would have had a significant influence on the relocation decisions of the textile industry. A few apparel/textile assembly facilities have recently located in the Martinsville /Henry County area and have hired back a small percentage (10%) of the textile workers who have lost their jobs in the past three years. The factors driving these decisions have more to do with the availability of textile labor and the niche market occupied by those firms that located in the area. For example, Nautica, the high-end retail clothier, located an assembly facility in Martinsville recently. The agricultural sector previously dominated by the tobacco growers has been in decline for over twenty years. Decreased domestic tobacco demand, cheaper tobacco leaf prices in Brazil and fewer growers have had more influence over agricultural employment in the area than variables such as transportation, education, climate and quality of life.*

*The big regional picture for Henry County, Martinsville, Pittsylvania County and Danville is a concentrated effort by local governments, economic development authorities and the Commonwealth of Virginia to help the area re-invent itself and redefine its employment base away from textile and tobacco and towards a high tech manufacturing and service sector base. These initiatives take time and take visibility. The economic development potential of the area is enhanced when the marketing effort can claim direct access to the Interstate. Without direct Interstate access, most communities struggle to attract significant economic activity centers as Congress found when they designated the high priority corridors. As acknowledged in the DEIS, an improved transportation system is only a tool for use by the localities to attract business, and the localities and business community in the study area have generally supported an interstate facility because of the potential associated with it. In fact, in March of 1994, after VDOT completed a feasibility study to determine the general location or refined study area for Interstate 73 in the state, the Commonwealth Transportation Board selected a proposed location for the I-73 corridor that entered Virginia from West Virginia on Route 460 west of Narrows, and which generally followed Routes 460 and 220 to the North Carolina State line. In late 1994, the cities of Roanoke and Salem and the County of Roanoke expressed a desire that the location of I-73 be improved by routing it along I-581 and I-81 because they saw its benefit as a tool to facilitate economic development. Aside from an improved transportation system, other factors play an important role in an areas ability to attract and keep economic development. Factors such as water, sewer, and electrical lines, quality of schools and other public services, prevalence of undevelopable land (e.g. wetlands, floodplains, parks, slope conditions, etc.), efforts by the localities themselves to attract economic development, land acquisition and development costs, impact fees and zoning ordinances, access to a skilled work force, etc. all play a role in whether a economic development is attracted to an area. This basic conclusion was reinforced recently when, at the direction of Congress, FHWA completed the Economic Development Highways Initiative. The overall results of the initiative support the general linkage between highway improvement and economic development, and validate the contention that highway improvements are a necessary but not sufficient condition for capturing economic growth potential. Finally, as referenced in the draft EIS, the TransAmerica Feasibility Study, which shared a common alignment with I-73 in Virginia west of Blacksburg, demonstrated that interstate facilities have a greater magnitude of economic development **potential** than other types of facilities Alternatives*

Page 2-6: The discussion regarding the differences between controlled and limited access design should include the point that both controlled and limited access highways can and do receive new intersections which can degrade their performance. A recent example of this is the 234 by-pass intersection with I-66 in Prince William County, this interchange has severely degraded the performance of I-66 during peak hours.

Similarly the limited access design would also require frontage roads where it is on the location of existing Rt 200.

**Response:** *A facility such as I-73 would not be constructed with at grade "intersections". Interchanges could be added to an Interstate facility in the future but not until a point of access study was conducted and approved by FHWA's Washington office. Unlike interstate facilities, which require FHWA approval for changes in access and have minimum standards for level of service and interchange spacing, requirements on controlled access facilities are less restrictive when considering requests for new access points.*

Also on this page is a statement that the limited access decision was chosen in accordance with the documented purpose and need and congressional intent. The purpose and need section, with the exception of the congressional intent portion, does not indicate that a limited access design standard is needed to meet the various other aspects of the purpose and need.

**Response:** *The DEIS does document the advantages that a limited access facility would have over a controlled access facility relative to issues like safety and economic development potential. For example, the need to improve safety through the study area, is one of the main purpose and need issues behind the recommendation of a new facility. A limited access facility would greatly improve the safety for the vehicles traveling through the corridor as compared to the existing facility or an upgraded controlled access facility. This point is detailed in the Traffic and Transportation Technical Memorandum, Section 5.5 Safety Effects of Alternatives.*

2-9: The discussion on this page regarding the 1994 VEC study states this study illustrated the ability of Interstate type improvements to generate expansion in the service industry. Yet when this report is discussed on pages 1-7 and 1-8 no mention of the style of road that was used to make these assumptions is given. It is implied this is a corridor study and the interchanges could be controlled access as well as limited access.

What were the findings, if any, of the Economic Impacts of I-73 on the City of Roanoke, in February 2000? The study is mentioned in the text but no conclusions if there are any, were presented in the document.

**Response:** *The 1994 VEC study assumed Interstate design standards with full grade separated interchanges. The use of the word corridor in this case indicates that a broad corridor width, representative of a study area, was assumed for each of the 13 potential locations.*

*There were findings and conclusions for the independent economic impact study conducted for the City of Roanoke discussed in the DEIS. The study findings suggested five principal factors related to transportation investment that influenced the city's economic base. These factors include access to activity sites/centers within the city, travel time reduction, shifting of traffic behavior/volumes, reductions in congestion delay and minimization of business relocations. The study concerned itself with three base build alternatives and a no-build alternative. The build alternatives assumed an Interstate design standard. The build alternatives included an East Alternative (Option 1) a Central Alternative (Options 2 & 3) and a West Alternative (Option 4). The alternatives were evaluated on how well each addressed the five factors influencing the city's economic base. Conclusions drawn from the study indicated the Central Alternative did the best job of maximizing access to sites, reducing travel times, shifting travel behavior toward the city's CBD and reducing congestion and delay. The No Build Alternative did the best job of minimizing the relocations of businesses but failed to address any of the other four factors. The Western Alternative was a distant second in addressing the five factors influencing the city's economic base. The Eastern Alternative was the least preferred build alternative from an economic impact perspective.*

Page 2-10: Table 2.3-1: These travel times seem to over estimate the benefit of the proposed I-73. For example the trip from VA to Charleston, SC using the 60 mph assumption in this study indicates the distance between these cities to be 292 miles. The current distance is 340 miles, to make the 340 mile trip

in 4.86 hours the average speed would have to be 70 miles per hour. Likewise to travel the current distance from Flint MI to Roanoke VA in the projected 9.01 hours would require an average speed of 67.7 mph. Furthermore the travel times from Ohio and Michigan assume an interstate facility the entire distance, an inaccurate assumptions because WVA is not building their section to interstate standards. These figures should be reexamined or further explained.

**Response:** We agree with the above statements that many of the distances used in the original travel time analysis were incorrect. Travel times were recalculated since the circulation of the DEIS in response to questions raised by various parties, including EPA. The new analysis revealed a savings of 45 minutes using I-73 from Roanoke to Charleston and a savings of 31 minutes using I-73 from Martinsville to Charleston. Additionally, a savings of 63 minutes would be realized using I-73 from Flint to Roanoke. The results of the revised travel time analysis are found below and have been included in the FEIS.

**TRAVEL TIME COMPARISON**

Origin City	Destination City	No-Build/TSM		Build Alternative		Savings (minutes)
		TT <sup>1</sup> (hr)	Route	TT <sup>1</sup> (hr)	Route	
Flint, MI	Roanoke, VA	11.31	I-75 to I-80 to I-77 to I-81	10.25	I-75 to I-73	63.6
Flint, MI	Greensboro, NC	12.74	I-75 to I-80 to I-77 to I-40	11.85	I-75 to I-73	53.4
Toledo, OH	Roanoke, VA	9.06	I-75 to I-80 to I-77 to I-81	8.00	I-75 to I-73	63.6
Toledo, OH	Greensboro, NC	10.49	I-75 to I-80 to I-77 to I-40	9.60	I-75 to I-73	53.4
Roanoke, VA	Greensboro, NC	1.94	*U.S. Route 220	1.60	I-73	20.4
Roanoke, VA	Charleston, SC	6.68	I-81 to I-77 to I-26	5.94	I-73	44.4
Roanoke, VA	Raleigh, NC	3.39	*U.S. Route 220 to U.S. Route 29 to I-40	3.05	I-73 to I-85 to I-40	20.4
Martinsville, VA	Greensboro, NC	0.83	*U.S. Route 220	0.68	I-73	9.0
Martinsville, VA	Charleston, SC	5.54	*U.S. Route 220 to NC 68 to I-40 to U.S. Route 52 to I-85 to I-77 to I-26	5.02	I-73	31.2

Note: \*No direct U.S. interstate connection. No-Build travel time estimated.  
<sup>1</sup>. TT = Travel Time.

	<i>Speed</i>
<i>Interstate</i>	60
<i>US Highway</i>	50

It is further noted that the new analysis used average travel speeds of 60 mph for Interstate travel and 50 mph for US Highway travel. These speeds were intended to represent a typical commodity movement speed along these types of facilities. Since posted speeds for Interstates and US Highways would vary from state to state and within states, it was necessary to assume average travel speeds for the entire corridor in order to complete a reasonable analysis. Even if the entire length of I-73 through West Virginia were posted at 55 mph, posted speeds on interstates in other states would range between 65 and 70 mph, making the 60 mph assumption for the entire corridor both reasonable and conservative.

Build Alternative:

Page 2-29: No alternative falling in scope between the TSM and freeway style alternative was developed. This lack of a range of alternatives will limit the public and others ability to make informed decisions that balance cost, environmental impacts and economic development potential. For example the TSM alternative, although it includes dozens of items, is not a full upgrade of the existing Rt 220 to an access controlled facility. Such an upgrade of the existing Rt. 220 which may provide the safety and mobility aspects outlined in the purpose and need at far less cost and impact. The justification for not including this type of alternative is found on page 2-47, but is not backed up with any factual data or by the purpose and need. Therefore it remains unclear how much of the purpose and need could be addressed by an upgrade of the existing Rt 220 to less than freeway standards. This type of alternative may have less environmental impact than a new interstate. A Rt 220 upgrade alternative should be developed in a supplement to the DEIS so the public and others can make a fully informed decision regarding the RT 220 corridor.

**Response:** *A low build alternative to improve US Route 220 was discussed in the Alternatives chapter of the DEIS (see DEIS, Section 2.3.2, page 2-13) using the assumption that it would be upgraded to current VDOT principal arterial geometric standards. The US Route 220 upgrade alternative did not include improvements between Route 419 in Roanoke and Boone's Mill, nor did it improve any deficiencies at existing bypasses of Rocky Mount or Martinsville. The result of this analysis concluded that a relatively costly investment (\$300 million) resulted in safety improvements greater than the TSM but less than the full Interstate. Additionally, the US Route 220 upgrade did little to address the other purpose and need elements of freight transport, economic growth and vitality, operations, general mobility or linkage. With respect to impacts, the DEIS documented that I-73 would need to be constructed to principle arterial design standards because of its functional classification. The EIS went on to explain that principle arterial design standards are composed of "freeway" design standards under which an Interstate facility would fall and "other principle arterial" design standards under which non-Interstate or non-freeway facilities would fall. The EIS further documents that there is no difference between horizontal design dimensions (shoulder width, lane width, median, slopes, etc.) of a freeway design and the other principle arterial design. In other words, the impacts from the footprint created by either a freeway (i.e. Interstate) design and an "other principle arterial design" are not appreciably different.*

Affected Environment

Air Quality

The DEIS mentions mesoscale analysis appropriate type study for hydrocarbons and ozone precursors yet this type of analysis was not performed. Although 40 CFR Part 93, "Transportation Conformity Rule Amendments: Flexibility and Streamlining; Final Rule," does not mandate the following recommendations we believe that it would be prudent to:

- Perform an analysis to assure that there are no violations of the 1 Hour Ozone, Particulate, and Nitrogen Dioxide National Ambient Air Quality Standard (NAAQS) created by the changes to I-73.
- Perform an analysis to determine if visibility is impacted in the Class 1 protected James River Face Wilderness area.

**Response:** *Aside from prudence, EPA has not provided any justification for conducting these analyses. First, the 1-hour ozone standard is being phased out by EPA and will no longer be applicable come June 15, 2005. Second, the formation of ozone involves complex chemical relationships that cannot be modeled. Instead, hydrocarbons and nitrogen oxides, precursors to ozone, are modeled and conclusions extrapolated about ozone based on the results of the analysis. Also, ozone only forms under certain weather conditions and can form many miles and hours removed from the sources that contribute to*

its formation further complicating the ability to conduct any modeling that might forecast violations attributable to a single cause. Third, regional analyses for hydrocarbons and nitrogen dioxides don't produce results (i.e. in ppm) that allow one to compare them to EPA's National Ambient Air Quality Standards (NAAQS) to determine if there will be any violations. Instead, the results that are produced by a regional analysis using EPA's Mobile6.2 model are compared against the mobile emissions budgets for those pollutants for the area. However, the VDEQ has not established any budgets nor has EPA approved any budgets for the area because it has not been designated nonattainment by EPA. Further, conducting a 'build-no-build test' or a 'less than base-year test' in the absence of mobile emissions budgets, which are the other regional analyses prescribed by EPA in nonattainment areas, will not produce results that allow one to determine if there will be any violations of the NAAQS. The only way to determine if there have been any violations of the NAAQS is to take air samples with air quality monitors. Fourth, when it comes to regional pollutants such as ozone, EPA acknowledges that regional pollutants must be analyzed on a system-wide basis and be controlled through regional strategies in order to be effective. Consequently, sources that may contribute to regional emissions such as transportation projects are analyzed in the aggregate, rather than individually where assessment of regional impacts cannot be measured with any degree of accuracy.

For the record, the James River Face Wilderness Area is located approximately 41 miles northeast of the northern terminus of I-73 and approximately 110 miles northeast of the southern terminus of I-73. In 1999, the U.S. Environmental Protection Agency announced a major effort to improve air quality in national parks and wilderness areas by issuing the Regional Haze Rule. This rule calls for states and federal agencies to work together to improve visibility in 156 national parks and wilderness areas such as the James River Face Wilderness area. The rule requires the states, in coordination with the Environmental Protection Agency, the National Park Service, U.S. Fish and Wildlife Service, the U.S. Forest Service, and other interested parties, to develop and implement air quality protection plans to reduce the pollution that causes visibility impairment. According to their web site, EPA has encouraged the States and Tribes across the U.S. to address visibility impairment from a regional perspective, not a project-specific basis. In this regard, EPA currently provides funding to five regional planning organizations to address regional haze and related issues. These organizations are evaluating technical information to better understand how their States and Tribes impact national park and wilderness areas (Class I areas) across the country, and these regional planning organizations will then pursue the development of regional, not project-specific, strategies to reduce emissions of particulate matter and other pollutants leading to regional haze. Virginia is a member of the Visibility Improvement State and Tribal Association of the Southeast, which is a collaborative effort of state governments, tribal governments, and various federal agencies established to initiate and coordinate activities associated with the management of regional haze, visibility and other air quality issues in the Southeastern United States. Therefore, regional haze is being addressed on a multi-state, regional basis and not on a project-specific basis. According to EPA's website, areas classified as attainment or unclassifiable have until early-2006 to submit their haze plans which will establish progress goals and control strategies for addressing regional haze.

Further, according to EPA's Fact Sheet on the Regional Haze Final Rule, regional haze is closely linked with fine particulate matter less than 2.5 microns in diameter ( $PM_{2.5}$ ), which is why they proposed the regional haze regulations in conjunction with new national ambient air quality standards for fine particulate matter. None of the localities comprising the study area have been designated nonattainment by EPA for  $PM_{2.5}$ ; therefore, it is not anticipated that transport of fine particulate matter from the study area will be an issue making the request for a regional haze analysis unjustified

Finally, like other regional pollutants such as ozone, EPA acknowledges that regional pollutants must be analyzed on a system-wide basis and be controlled through regional strategies in order to be effective. Consequently, sources that may contribute to regional emissions such as mobile sources are analyzed in the aggregate, rather than individually where assessment of regional impacts cannot be measured with any degree of accuracy. Notwithstanding, EPA has not even established standards for regional haze. Therefore an analysis of project-specific  $PM_{2.5}$  will not allow anyone to determine if a project will adversely

*effect visibility in the James River Face Wilderness area located, at a minimum, over 41 miles from the northern terminus of the project.*

Finally, even though the proposed 8 Hour Ozone NAAQS is currently not enforceable and the official attainment status designation for the Roanoke area is still to be made, we recommend performing an emission analysis to determine the impact of I-73's changes on this NAAQS.

**Response:**

*Similar to the answers given above in response to EPA's request for a regional analysis to assure that there will be no violations of the 1-hour ozone, particulate matter, and nitrogen dioxide NAAQS, regional analyses for hydrocarbons and nitrogen dioxides don't produce results (i.e. in ppm) that allow one to compare them to EPA's National Ambient Air Quality Standards (NAAQS) to determine if there will be any violations.*

*Recently, the EPA determined that the Roanoke area consisting of the City of Roanoke, City of Salem, Roanoke County and Botetourt County exceeded the 8-hour standard for ozone based on current monitoring data while being in attainment for the PM2.5 standard. However, instead of designating the area nonattainment under the 8-hour standard, EPA deferred the nonattainment designation because the area is proactively working to clean up the air through implementation of an Early Action Compact (EAC). If the area meets the required milestones prescribed for EAC areas and can submit three consecutive years of clean monitoring data, then the region will be reclassified as an attainment area in 2007. Interstate 73 would have no bearing on this effort since it would not be constructed or under construction by 2007. Notwithstanding, EPA's preamble to the 8-hour final rule states that conformity (in this case, we are speaking specifically of the preparation of a regional analysis) is not a control measure to be used like the voluntary measures that are included in the EAC. Rather, conformity establishes a process in nonattainment areas for state and local governments to consider the broader emission impacts of their transportation decisions. In addition, the EAC protocol developed by EPA does not require the EAC area to meet the transportation conformity requirements since the conformity requirements only kick in one year after an area is designated nonattainment. Consistent with 40 CFR 93.102(d) and Section 176(c)(6) of the Clean Air Act, conformity for the 8-hour standard (i.e. regional analysis) does not apply in early compact areas provided the area meets all of the terms and milestones of its EAC. Failure to meet these terms or milestones will invoke the nonattainment designation requiring conformity for the 8-hour standard within one year of the designation.*

*Further, the Clean Air Act Amendments of 1990 established a conformity process in nonattainment areas that recognizes that transportation-related air quality issues must be analyzed on a system-wide basis and be controlled through regional strategies in order to be effective. Consequently, projects in transportation plans and improvement programs are analyzed in the aggregate, rather than individually where assessment of regional impacts cannot be measured with any degree of accuracy. As such, analysis of the regional network through the conformity process establishes the context of the impact on regional emissions attributed to network improvements. For this reason, transportation conformity is performed on programs of projects, instead of individual projects, and the results compared to the State Implementation Plan (where one has been developed) or to a no-build analysis where the impact from the program of projects can be determined relative to regional emissions. Therefore, conducting a regional analysis of I-73 is meaningless unless an analysis was conducted through the conformity process of all of the projects programmed for improving the regional network establishing the context of the results.*

Environmental Consequences

The purpose and need includes elements of safety, mobility, congressional intent and economic development. While each on of these is relatively easy to understand, no where does this document prove that a new interstate style facility is the only alterative that will satisfy any portion of the purpose and need other than congressional intent for a new interstate facility.

**Response:** See the previous responses related to Congressional intent and the freeway design standard.  
Traffic

Page 4. 1-2: The text references existing traffic conditions but there is no Table included in this section that shows existing traffic conditions.

**Response:** The text has been changed to reference the appropriate table.

Table 4.1.1 indicates that, with the exception of Options 2, 3, 4 in the northern portion of Rt 220, that overall the Options do little relieve the modest levels of traffic Rt 220, and will significantly increase traffic on RT 81 and 581 over the no-build.

**Response:** All options identified provide for some traffic diversion from existing US 220 throughout most of the study area. Segments that provide little diversion of traffic indicate a less than optimal location from a traffic standpoint but are included as potential alternatives to resource avoidance. The segments resulting in larger diversions would be preferred choices for the final alignment to help achieve traffic diversion and improve safety in the corridor. Improvements to I-581 are included as part of Options 2 and 3 to account for the forecast traffic increases. I-81 and I-581 capacity improvements have been programmed in the local and statewide long range plans and are justified with or without I-73.

Table 4.1.3 shows a similar finding, and additionally shows that the no-build improves or stabilizes conditions at 20 of the 28 locations studied over the 1997 levels. Where the no build fails to improve or stabilize those conditions, the Build Options only show improvement for a maximum of 4 of the 28 locations studied. The best performing build alternative, Option 2, stabilizes or improves 23 of the 28 locations studied, compared to 20 with the no-build.

**Response:** It should be noted that the construction of I-73 is not for congestion relief but for those reasons as identified in the purpose and need. Improvements in operating conditions are important in terms of overall impacts on the existing roadway network and can be referred to when making a recommendation for a preferred alignment option.

From examination of 2020 Level of Service data contained in Table 4.1.3 and 4.1.4 it can be seen in the northern portion of the study area there are two critically failing areas of roadway after the no-build is implemented; I-581 between Rt 11 and Rt460, and Rt 220 from Rt 24 to Wonju St. None of the Build Options show any improvement to the Rt 220 section over the no-build and even with Build Options the I-581 sections is still failing.

**Response:** The proposed I-73 Options 1 and 4 actually reduce forecast traffic volumes in these critical areas and indicate slight improvements in LOS, from an F to an E or D, without project roadway improvements. This occurs since these options bypass these sections of existing highway. I-73 Options 2 and 3 have planned improvements through these areas to accommodate the additional traffic associated with the I-73 connection. The additional traffic is accommodated with either similar or slightly improved LOS conditions as compared to the no-build condition.

Finally, additional traffic simulation modeling was conducted along the highly urbanized section of I-73 (i.e along I-581) from I-81 in Roanoke County to Route 419 in the City of Roanoke. The CORSIM application was utilized to optimize alternative typical sections and interchange configurations to assure that a safe level of service could be achieved while encouraging a design footprint with minimal impact. This analysis showed that appropriate level of service could be achieved through interchange improvements and the use of collector and distributor roads instead of adding additional lanes to the main line that were not previously considered in the draft EIS.

In the Southern portion of the study area US Rt 221, Rt's 121, Rt 57 and Rt 40 show deteriorating conditions with the no-build. None of the Options improve the Rt 221 or the Rt 57 west of Rt 220 problem and only two areas of improvement can be found in the other problem areas with any of the Options.

**Response:** *In general, routes that cross rather than parallel new facilities, such as the routes identified above, would not experience substantial traffic diversion or improved operations. In the case of the proposed I-73 alignment options, operation improvements are more likely for parallel routes that travel in the north/south direction versus routes that generally serve traffic moving in the east/west direction.*

Table 4.1.12 Vehicle Miles Traveled, shows that each of the build alternatives increase VMT from 28% to 58% in the study area.

**Response:** *As noted in the VMT discussion, reductions do occur on study area roadways under some of the build options. The inclusion of I-73 does attract additional traffic to the study area from parallel roadways outside the corridor (see Section 4.1.7 Screenline Analysis). This added traffic does increase the overall VMT in the study area.*

*It is important to note that VMT has historically increased in the last three decades at rates in excess of population or employment growth. This is a national trend and manifests itself statewide and locally and has no correlation with growth in roadway capacity. Nationally, VMT has increased 37% from 1984 to 1994. During the same period in Virginia, VMT increased 52%. During that same period, new construction adding roadway capacity has increased only 9% to 10%.*

*Nationally, VMT has increased 259% from 1960 to 1997, a pace that outstrips growth in fuel consumption, vehicle registration, population, and roadway capacity. The growth in VMT has occurred far ahead of roadway network capacity. From 1993 to 1999 in the Southeast, the 14 largest metropolitan areas exhibited an annual average growth rate in new roadway mileage of 1.3%. During that same period VMT grew at an annual average rate 3.4%.*

*These statistics are corroborated in EPA's publication, Indicators of the Environmental Impacts of Transportation, which contain similar statistics. For example, the U.S. population has grown by 30%, the number of licensed drivers has increased 87%, and VMT has increased 125% over the past 30 years. During this same time, new highway capacity has only increased 6%.*

Table 4.1.15: Accident Data shows that significant reductions in the accidents along Rt 220 are likely with the build options. Two points need to be made regarding this important finding. First it is not clear if these numbers include forecasted accidents of the Options themselves and two, since an upgrade of existing Rt 220 was not included there is no way to know what improvements to the accident rate this would achieve.

**Response:** *The forecast accident comparison is shown for existing U.S. Route 220 only and does not include those accidents anticipated to occur along the I-73 facility itself. Accident rates for limited access facilities such as that proposed for I-73 would be anticipated to be 59% lower than the accident rates currently found along a four lane, non-divided, non-access controlled facility, such as U.S. Route 220, based on identified statewide averages. Improvements to existing U. S. Route 220 were identified as part of the TSM alternative but were not quantifiable in terms of future accident impacts. As noted in the discussion, the roadway classification was used as the basis for this particular comparison.*

Air Quality:

A big question with this project is the effect of increasing VMT in the study area. Each of the Options increase VMT in the study area over the no-build alternative. The range of increase is from 28% to 58%, depending on the Option chosen. This increase is not evaluated in the air quality portion of this chapter. It is not clear what this increase will mean regarding the current National Ambient Air Quality Standards

(NAAQS). In addition, new standards for ozone have been established by EPA (1997 new 8-hour standard for ozone). Based on existing monitoring data, portions of this study area will not currently pass this new standard. With an increase of 12% to 37% more VMT each day what will the effect be on both the old standard and the new standard?

**Response:** *Experience since 1990 in Virginia's nonattainment areas of Richmond, Hampton Roads, and Northern Virginia (i.e. the Washington, D.C. Metropolitan Area) has shown that areas larger than Roanoke can experience similar or greater increases in VMT over the life of their long range transportation plans and still demonstrate conformity in accordance with the Clean Air Act. In fact, both the Richmond and Hampton Roads 1-hour ozone nonattainment areas have successfully demonstrated attainment to the 1-hour ozone standard and have been reclassified as maintenance areas despite the forecasted increases in VMT. When these areas were required to conduct build/no-build tests on their Transportation Improvement Programs and Long Range Transportation Plans, they were able to demonstrate that the programmed transportation improvements would be better for regional air quality than the no-build condition despite the forecasted increase in VMT. They were able to demonstrate this primarily because of improvements in vehicle controls and technology and cleaner burning fuels which offset the increases in VMT. There is nothing to suggest that the experience in Roanoke would be any different if it were subject to the transportation conformity requirements. It is also important to point out that the increase in VMT is for the entire study area. While much of this increase can be expected to occur in and around the urbanized area of Roanoke where violations have been recorded, some of it will occur in the rural areas where air quality is not an issue. Finally, VMT shouldn't be viewed in a vacuum. Table 4.1-13 of the DEIS compares the daily vehicle hours traveled (VHT) between the build and no-build alternatives. This table shows that despite the increases in VMT, the daily VHT for the build alternatives will be approximately 4,000 hours less than the no-build. Just like VMT, it can be reasonably concluded that most of this reduction in VHT would be expected to occur in and around the urbanized area of Roanoke.*

Secondary and Cumulative Impacts:

Page 4.12-1: Please include the existing and future land use maps in the FEIS. And explain how this magnitude of growth can be supported at these locations without I-73. This should be explained for each interchange where this growth is expected to occur.

**Response:** *Existing and future land use mapping will be included in the FEIS. The existing and future land use scenarios are the province of local government and the comprehensive planning process inherent in each locality. The land use decisions, policies and infrastructure required to support the future land uses evaluated with and without I-73 are strictly local initiatives. FHWA and VDOT have no standing in the local land use planning process and cannot interpret nor explain the support mechanisms necessary to realize community-planning objectives.*

Page 4.12-3: It is stated in the DEIS that between 24% and 39% of the land within one mile of the proposed interchanges is already planned for growth. This raises several questions that need to be addressed in FEIS. Which interchanges make up this total and what is the break down at each interchange or existing and future development? The remainder of the land between 61% and 76% of the area is not already planned for development then this is the area that needs to be focused on for secondary development potential. A break down of the existing land use/land cover types and the impacts within one mile of these interchanges should be given. The potential non-point and point source pollutant loadings from the expected or predicted growth scenarios should be determined.

**Response:** *It should be clarified that although between 24% and 39% of the land within one mile of the proposed interchanges is already planned for growth, this does not indicate that between 61% and 76% is undeveloped. Portions of the remainder of land are not planned for development because it is already developed. For some proposed interchanges (example Route 117 interchange with segment 374), no land (0%) is planned for development because 100% of the land is already developed. The land use break down by proposed interchange was developed for this analysis and has been included in the FEIS.*

Define the acronym BRP.

**Response:** *BRP is an acronym for "Blue Ridge Parkway". The acronym is defined in the Glossary of Common Used Acronyms at the beginning of the FEIS document and on page 3.5-8 where the term is first introduced.*



**COMMONWEALTH of VIRGINIA**

Department of  
Mental Health, Mental Retardation and Substance Abuse Services  
Post Office Box 1797  
Richmond, Virginia 23218-1797

RICHARD E. KELLOGG  
COMMISSIONER

Telephone (804) 786-3921  
Voice/TDD (804) 371-8977

January 5, 2001

Mr. J. Mark Wittkofski  
Environmental Specialist II  
Department of Transportation  
1401 East Broad Street  
Richmond, Virginia 23219-2000

RE: I-73 Location Study  
Draft Environmental Impact Statement

Dear Mr. Wittkofski:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the I-73 Location Study dated November 14, 2000. Based on the information in the study, there appears to be no possible impact to mental health, mental retardation and substance abuse facilities operated by the Commonwealth of Virginia. The proposed routes in the study are not near any of our present facilities and will provide little to no enhancement for travel between facility locations.

Thank you for the opportunity to review this draft. If any further assessment becomes necessary, please advise.

Sincerely,

Richard E. Kellogg

**Response:** *Comment noted.*

