

TRANSPORTATION SYSTEM PERFORMANCE AND RECOMMENDATIONS

Roadways

Roadway analysis focused on safety, geometry and structure, and congestion for the functionally classified roadway network. Recommendations for improvements to roadways are presented on the boards for your review. A more detailed discussion of all deficiencies and recommendations is located in the Plan document.

Public Transportation

The VRT has developed a long-range plan for transit services for the region and is pursuing expanded service with local jurisdictions. The transit development plan includes service and capital improvement recommendations. Changes in the service within the region could include expanded flexible (deviated) fixed route service in all of the counties. In addition, the Coordinated Human Services Mobility Plan for the NSVRC identified the needs and deficiencies of the region and also formulated strategies and projects to address these needs, which are summarized on the presentation boards.

Bicycle and Pedestrian Facilities

Walking and Wheeling the Northern Shenandoah Valley identified the types of facilities needed in the NSVRC and broke them down into three groups, regional projects, town to town projects, and local projects. Within the individual jurisdictions, including all of the counties and cities, expansion of bicycle and pedestrian facilities is being encouraged in development of new roadways or while upgrading existing

roadways. There is also a desire to coordinate facility development between the counties and the cities and towns that lie within them.

Airports

The *Virginia Air Transportation System Plan Update (2003)* contains future forecasts (2020) of operations and aircraft based at airports. In the NSV, the plan projects growth of 1.9% of based aircraft at Winchester Regional Airport, 0.5% growth at New Market, 0.9% at Front Royal-Warren County, and no growth at Luray Caverns.

Travel Demand Management

In rural areas, low residential densities and dispersed work destinations are generally not conducive to high public transportation use. However, the region does have concentration of work destinations in the cities within the region, as well as in Northern Virginia and Washington, DC. Decreases in single-occupant vehicle trips are possible within the valley and on heavily traveled commuter routes, particularly I-66, I-81, US 11, US 50, US 340, VA 7, and VA 55.

The individual services of RideSmart will be important tools for decreasing single-occupant vehicle trips, particularly during the peak hour. Park and ride lots in the region are also expected to maintain their importance to the commuting population.

PLAN ADOPTION

The 2035 Rural Long Range Transportation Plan for the Northern Shenandoah Valley will be adopted by the PDC in 2011. This Plan will serve as a long term strategy for the transportation network of the region and as a component of the 2035 Surface Transportation Plan. Projects can be prioritized for funding based on the identified recommendations.

NORTHERN SHENANDOAH VALLEY REGIONAL COMMISSION

2035 RURAL LONG RANGE TRANSPORTATION PLAN

WHAT IS THIS STUDY?

The Transportation and Mobility Planning Division (TMPD) of the Virginia Department of Transportation (VDOT) has worked with other transportation agencies to develop the 2035 Surface Transportation Plan, which is a part of VTrans 2035, the Commonwealth's long range plan for all modes of transportation. The highway element of the 2035 Surface Transportation Plan includes proposed improvements on Virginia's federal functionally classified roadways. The Rural Long Range Transportation Plan that you are looking at today is just one piece of the 2035 Plan. VDOT, Virginia's Planning District Commissions (PDCs), and your local governments are partners in the development of this new initiative to create regional transportation plans in rural areas that complement those in Virginia's metropolitan and small urban areas.

The transportation system within the Northern Shenandoah Valley was evaluated, and a range of transportation improvements for all modes are recommended. This Plan looks at improvements that can be made in the near-term and in the future, as far as the year 2035, in order to assess the effects of population and employment growth upon the transportation system.

Each rural plan was developed as a blueprint, or vision plan, to address all of the needs of the transportation system, regardless of anticipated funding availability. This regional plan can then be used by local, regional, and state agencies to identify transportation funding priorities. The Plan document for this region has more details on all of the analyses and recommendation.

EXECUTIVE SUMMARY

NORTHERN SHENANDOAH VALLEY PLANNING DISTRICT COMMISSION

The Northern Shenandoah Valley region contains the valley around the Shenandoah River and the Allegheny Mountains west of the valley to West Virginia and the Blue Ridge Mountains to the east. The Northern Shenandoah Valley Regional Commission (NSVRC) serves the Counties of Clarke, Frederick, Page, Shenandoah, and Warren, the City of Winchester and the Towns of Berryville, Boyce, Edinburg, Front Royal, Luray, Middletown, Mount Jackson, New Market, Shenandoah, Stanley, Stephens City, Strasburg, Toms Brook, and Woodstock. The majority of the cities and the towns lie within the Shenandoah Valley along the tributaries and north and south forks of the Shenandoah River. The surrounding rural areas are very mountainous with narrow valleys. The Valley has been a major transportation corridor and agricultural region for hundreds of years.

The Winchester-Frederick Metropolitan Planning Organization (Win-Fred MPO) conducts the transportation planning for the City of Winchester, Stephens City, and the immediately adjacent urbanized areas of Frederick County. The Win-Fred MPO is responsible for developing a long-range transportation plan for the MPO area: the 2035 Fiscally Constrained Long Range Transportation Plan, which is a separate component of the 2035 Surface Transportation Plan.



WHAT DO YOU THINK?

We would like to hear your comments on the information you have seen here today: in particular, the proposed recommendations. Please fill out the accompanying comment form and leave it with the study team.

For more information on this and other studies, browse to the following web sites:

www.vdot.virginia.gov

www.virginiadot.org/projects/2035_state_highway_plan.asp

www.vtrans.org

www.vdot.virginia.gov/projects



STUDY APPROACH

A standard study approach was developed to formulate the rural regional long range plans for each PDC in the Commonwealth. Each PDC developed transportation goals and objectives that were used to guide the development of the Rural Long Range Transportation Plan for their area (please see the display boards).

These local goals and objectives were a part of the entire plan development process. The study team then reviewed existing transportation inventories and planning documents. The team also identified the needs and deficiencies in the regional transportation network. A previous public meeting was held to present these deficiencies for review and to have the public identify any additional issues or concerns in the network.

The study team then analyzed the entire rural network including the deficiencies that were identified. Recommendations for these deficiencies are presented at this meeting for your review. In addition, the team compiled recommendations from previous studies and projects and existing traffic impact analyses from private developers in order to provide as comprehensive a list as possible.

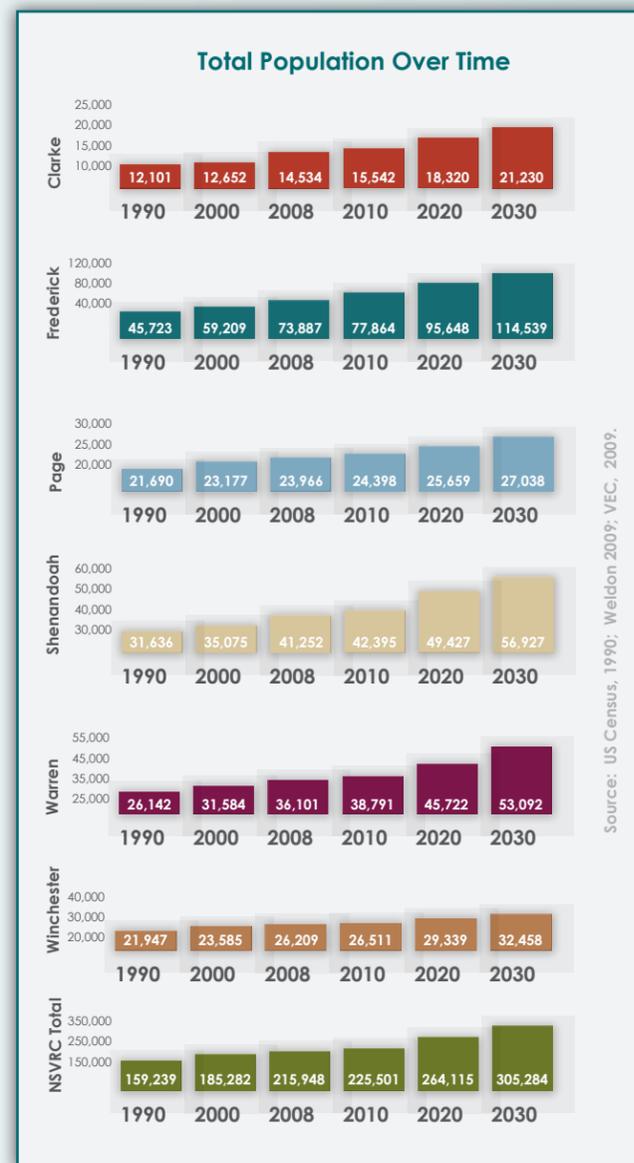
RELATIONSHIP OF LAND USE AND DEVELOPMENT TO TRANSPORTATION

Rural counties throughout the Commonwealth are working to balance growth or to seek new economic growth and diversification - while striving to preserve the rural character of the landscape. Land use and development changes that particularly affect transportation in rural areas include, but are not limited to, school consolidation, loss or gain of a major employer, movement of younger sectors of the population to more urban areas, retirement community development, and growth of bedroom-community type developments for nearby urban areas.

Several factors have affected land use in the Northern Shenandoah Valley: changes in population within the region itself, and the location of two interstate corridors within the region, I-66 and I-81. Frederick and Warren Counties have experienced the most growth in the region; this trend is projected to continue. This growth has already affected land use, which is expected to continue and to affect future travel demand on the regional roadway network. In addition, due to the steep slopes in some parts of the region, development has almost exclusively concentrated in these areas in the valleys. This trend could affect future land use in these areas and could intensify travel demand on the roadway network.

Population Trends

The Northern Shenandoah Valley had an estimated population of almost 216,000 in 2008. Population in



most of the region has increased steadily in the last twenty years, with Frederick County experiencing the greatest increase. Population in the Northern Shenandoah Valley is projected to grow by over 40% by 2030.

Population trends have implications for the transportation network of any geographic area.

Land Use and Future Growth

A review of the jurisdictions' comprehensive plans, zoning, and proposed future land use determined the areas of future growth. These are the locations where the individual jurisdictions wish to direct future growth in order to best serve the needs of the public. Freight generators, major employers, and other sources of travel demand were also identified to help determine traffic patterns.

REGIONAL TRANSPORTATION SYSTEM

Each mode of travel – roadways, public transportation, rail, bicycle and pedestrian facilities, and airports – has been independently analyzed for both current and future conditions. Each mode is described briefly below, with additional information presented on the display boards.

For the **roadway network**, all proposed improvements are for federal functionally classified roadways. 326 recommendations have been compiled for the Northern Shenandoah Valley, including large and small scale projects.

Public transportation includes: public transit, specialized services, volunteer transportation, and private providers, including taxi and medical transport companies. **Fixed-route service** is provided by Winchester Transit and Virginia Regional Transit (VRT). VRT operates within Clarke, Frederick and Warren Counties. VRT operates fixed-route service as Front Royal Area Transit.

Demand-responsive transit is provided by social service agencies in the region, including the Northwestern Community Service Board (CSB) and the Shenandoah Area Agency on Aging (AAA). VRT also provides demand-responsive service in Clarke and Frederick Counties.

Designated **bicycle routes and pedestrian facilities** are located throughout the region.



Hiking trails are also located within the large tracts of the George Washington and Jefferson National Forests in the area and national and state parks throughout the region. *Walking and Wheeling the Northern Shenandoah Valley* was completed for the NSVRC and the Shenandoah Valley Battlefields Foundation in 2004.

The Class I **freight rail lines** in the region are owned by CSX and Norfolk Southern. There is one Class III or shortline railroad in the region, the Winchester and Western, the oldest in the Commonwealth.

There are four **general aviation airports** that serve the area.

Travel demand management (TDM) is a technique used by transportation planners to manage or plan for the demand that drivers place on the road network. Strategies to reduce vehicular demand include carpooling and vanpooling programs, expanded peak hour public transit, commuter buses, park and ride lots, as well as better coordination between services to facilitate transfers between modes. TDM measures, with other improvements, have been shown to greatly aid in reducing single-occupant vehicle trips.

The NSVRC administers the RideSmart Program that works to promote carpools, van pools, and commuter bus services through ride-sharing promotion, matching services, and outreach. The service includes carpool matching through the Metropolitan Washington Council of Governments (MWCOC). Valley Connector is a system of commuter routes that include motor coaches that run from Strasburg and Front Royal to multiple locations within Northern Virginia. Van service operates from Front Royal, Winchester, and Berryville. In addition, there are ten VDOT maintained park and ride lots in the region.