

CENTRAL VIRGINIA LONG-RANGE TRANSPORTATION PLAN – YEAR 2035











C. ENVIRONMENTAI





APPENDIX

OCTOBER 2010

Environmental Screening Overview

The environmental planning provisions of SAFETEA-LU require that community and environmental data are considered in the preparation of the Long Range Transportation Plan. A Geographic Information System (GIS) based environmental screening was completed to comply with the federal requirements. The identified proposed improvements included in the Constrained Funding Plan were incorporated into a GIS database to visualize and assess the potential effects to environmental and community resources, including threatened and endangered species, socio/cultural interests/resources, wetlands, land management areas, and hazardous materials sites. The results of this environmental screening can be used to inform and support the project prioritization process and assess initial "permitability" of proposed projects.

For each project a series graphics depicting environmental resources was created. The alignments of the proposed projects were digitized on top of digital orthophotogrammetry provided by VDOT and referenced to roadline data from the US TIGER database. Buffers for environmental screening purposes were established around the centerlines of the improvement recommendation areas. For road improvement recommendations a buffer of 1/4 mile on either side of the centerline was used.

Potential impacts and fatal flaws were identified for various resource areas and identified in the attached table. Fatal flaws were defined as potential impacts that would require excessive mitigation, construction costs, or may result in overall unacceptable or "un-permittable" levels of impacts. Environmental resources included in the screening were:

- environmental justice group (low-income and minority) impacts;
- community disruptions;
- community service impacts;
- land use/zoning conflicts;
- hazardous materials sites;
- impacts on historic sites and districts;
- impacts to wildlife refuges, critical habitats, and known locations of threatened and endangered species;
- proximity to wild and scenic rivers;
- encroachment on critical soil types (prime farmlands, erosive soils);
- proximity to managed forest lands, scenic routes, and parks/recreation areas;
- air quality impacts; impacts to noise sensitive receptors; and
- impacts to water quality, floodplains, and wetlands.

Up to date environmental data was provided to the consultant team by Region 2000. All data will be of a secondary data source nature.

Additional sources of data included:

- CERCLIS Superfund Sites U.S. Environmental Protection Agency (EPA)
 Superfund Query
- Q3 Flood Hazard Data Federal Emergency Management Agency (FEMA)
- National Wetlands Inventory (NWI) Wetlands U.S. Fish and Wildlife National Wetlands Inventory
- Soils (erosive soils, prime farmland soils) U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database
- Historic Districts and Points U.S. National Park Service National Register of Historic Places
- Geographic Features (political boundaries, open water, watercourses, roads, railroads, traffic analysis zones) – U.S. Census Bureau 2000 TIGER line data
- Wild and Scenic Rivers U.S. National Park Service Nationwide Rivers Inventory (NRI)
- Scenic Routes Virginia Department of Transportation Scenic Byways
- Threatened and Endangered Species locations and Critical Habitats U.S. Fish and Wildlife Service

No field assessments were conducted as part of this screening exercise.

This environmental overview serves as an initial checklist of potential impacts and environmental issues associated with transportation recommendations. More detailed assessments of impacts would be determined as part of the project development and design process.

Potential Mitigation Discussion

Potential Environmental Mitigation Activities and Areas

Metropolitan transportation planning is a regional process that is used to identify the transportation issues and needs in metropolitan areas. In metropolitan areas over 50,000 in population, the responsibility for transportation lies with designated Metropolitan Planning Organizations (MPO). The planning process is a collaborative effort between the member jurisdictions, the Virginia Department of Transportation, transit operators, and other modal representatives. During the plans development the MPO examines land development patterns, demographics, travel patterns and trends to identify existing and future transportation problems. The MPO then identifies alternatives to meet current and projected future demands that will provide a safe and efficient transportation system that meets the needs of the traveling public while limiting adverse impacts to the environment The region is designated as an MPO area and all the jurisdictions in this region work together to develop a constrained long range transportation plan.

The constrained long-range transportation plan (CLRP) for this region identifies and recommends a capital investment strategy to meet the existing and future transportation needs of the public over the next 20 years. The inclusion of a recommended improvement in the long range transportation plan represents preliminary regional support for that improvement. The CLRP is a decision-making tool to determine which projects should be implemented. Transportation improvements go through several steps from conception to implementation and take many years to successfully complete.

The considerations and recommendations made during the planning process are preliminary in nature. Detailed environmental analysis conducted through the National Environmental Policy Act (NEPA) does not apply to long range transportation plans. With the exceptions for regional ambient air quality, offsetting environmental impacts during the long range transportation planning process is not required. While detailed environmental analysis is not required, it is important to consult with environmental resource agencies during the development of a long range plan. This interagency consultation provides an opportunity to compare transportation plans with the environmental resource plans, develop a discussion on potential environmental mitigation activities, areas to provide the mitigation, and activities that may have the greatest potential to restore and maintain the environment.

Detailed environmental analysis of individual transportation projects occurs later in the project development process as the improvement approaches the preliminary engineering stage. At this stage, project features may be narrowed and refined, and the environmental impacts and environmental mitigation strategies can be appropriately ascertained. Virginia's State Environmental Review Process directs the project-by-project interagency review, study and identification of environmental concerns. Related

requirements that typically apply at this stage involve public hearings, environmental permit processing, and NEPA studies. Usually, a variety of environmental documentation, permit and mitigation needs are identified and environmental findings are closely considered and evaluated. Common project environmental mitigation measures (required silt-fence barriers, precautions to control dust, etc) are managed using Road and Bridge Standards that apply to all construction activities. Special environmental concerns, however, may differ widely by project and location. As environmental studies are conducted and undergo public and interagency review, needed mitigation plans are specified and committed to within the environmental documents on the particular transportation project or activity. Environmental management systems then are used to monitor, and ensure compliance with, the environmental mitigation commitments.

Potential environmental mitigation activities may include: avoiding impacts altogether, minimizing a proposed activity/project size or its involvement, rectifying impacts (restoring temporary impacts), precautionary and/or abatement measures to reduce construction impacts, employing special features or operational management measures to reduce impacts, and/or compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site. Where on-site mitigation areas are not reasonable or sufficient, relatively large off-site compensatory natural resource mitigation areas generally may be preferable, if available. These may offer greater mitigation potential with respect to planning, buffer protection and providing multiple environmental habitat value (example: wetland, plant and wildlife banks).

Mitigation activities and the mitigation areas will be consistent with legal and regulatory requirements relating to the human and natural environment. These may pertain to neighborhoods and communities, homes and businesses, cultural resources, parks and recreation areas, wetlands and other water sources, forested and other natural areas, agricultural areas, endangered and threatened species, and the ambient air. The following table illustrates some potential mitigation activities and potential mitigation areas for these resources.

Potential Mitigation Strategies

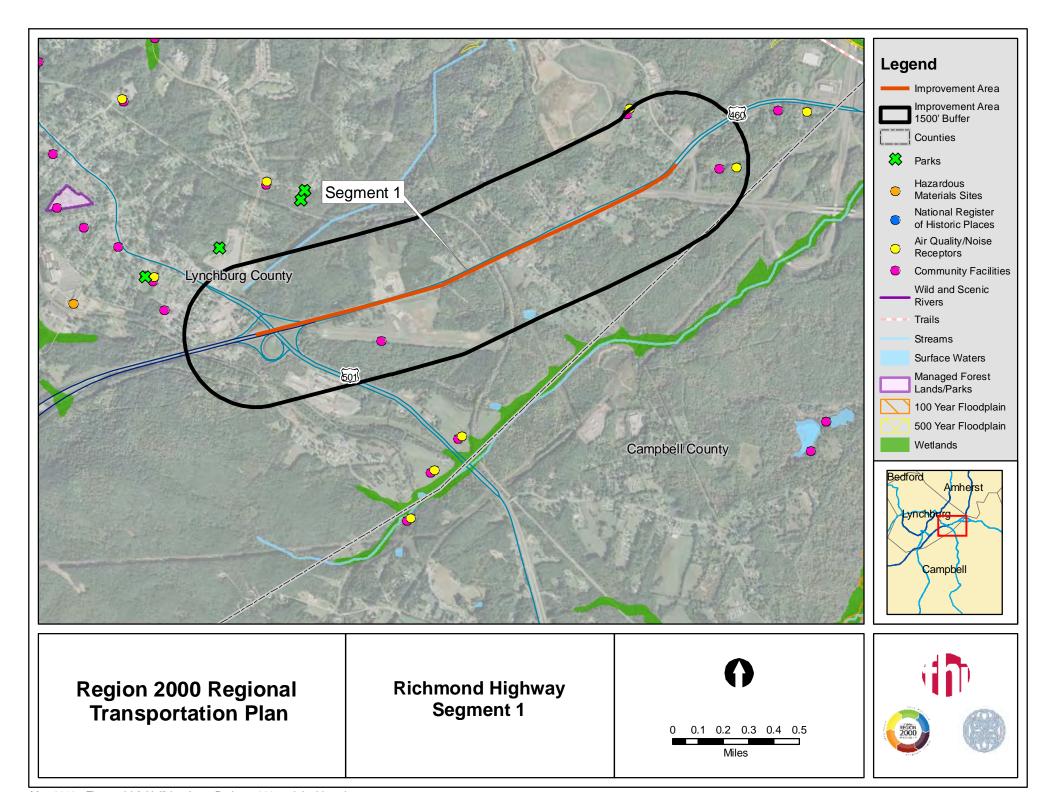
Resource	Key applicable requirements	Potential mitigation activities for project implementation	Potential mitigation for project implementation		
Neighborhoods and communities, and homes and businesses	Uniform Relocation Assistance and Real Property Acquisition Policy Act al 42 USC 4601 el seq.	Impact avoidance or minimization; context sensitive solutions for communities (appropriate functional and/or esthetic design features).	Mitigation on-sjte or in the general community. (Mitigation for homes and businesses Is in accord with 49 CFR 24)		
Cultural resources	Natural Historic Preservation Act at 16 USC 470	Avoidance, minimization; landscaping for historic properties; preservation in place or excavation for archeological sites; Memoranda of Agreement with the Department of Historic Resources; design exceptions and variances; environmental compliance monitoring.	On-site landscaping of historic properties, on-site mitigation of archeological sites; preservation in place		
Parks and recreation areas	Section 4(f) of the U,S. Department of Transportation Act at 49 USC 303	Avoidance, minimization, mitigation; design exceptions and variances; environmental compliance monitoring	On site screening or on-site replacement of facilities; in some cases, replacement of affected property adjacent to existing		
Wetlands and water resources	Clean Water Act at 33 USC 12511376; Rivers and Harbors Act at 33 USC 403	Mitigation sequencing requirements involving avoidance, minimization, compensation (could include preservation, creation, restoration, in lieu fees, riparian buffers); design exceptions and variances; environmental compliance monitoring	Based on on-site/off site and in-kind/out of kind sequencing requirements; private or publicly operated mitigation banks used in accordance with permit conditions		
Forested and other natural areas	Agricultural and Forest District Act (Code of VA Sections 15.2-4305; 15.2-4307-4309; 15.2-4313); Open space land act (Section 10.1-17001705,1800-1804)	Avoidance, minimization; Replacement property for open space easements to be of equal fair market value and of equivalent usefulness; design exceptions and variances; environmental compliance	Landscaping within existing rights of way; replacement property for open space easements to be contiguous with easement; replacement of forestry operation within existing agriculture/forestall district		

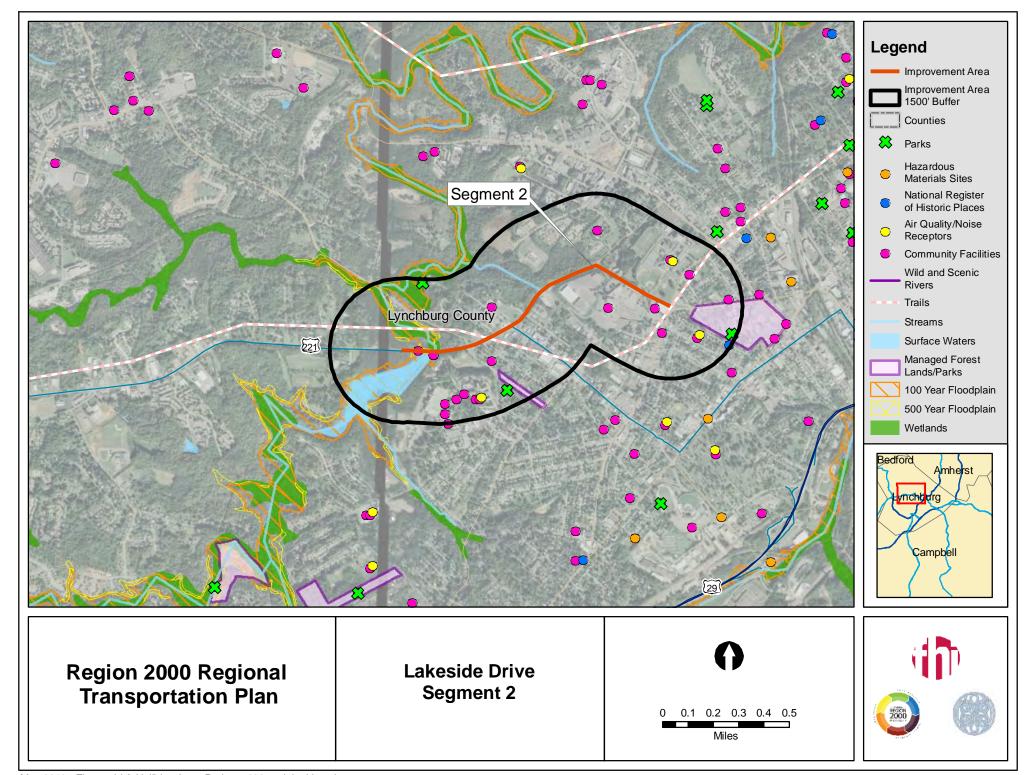
CVLRTP PLAN 2035

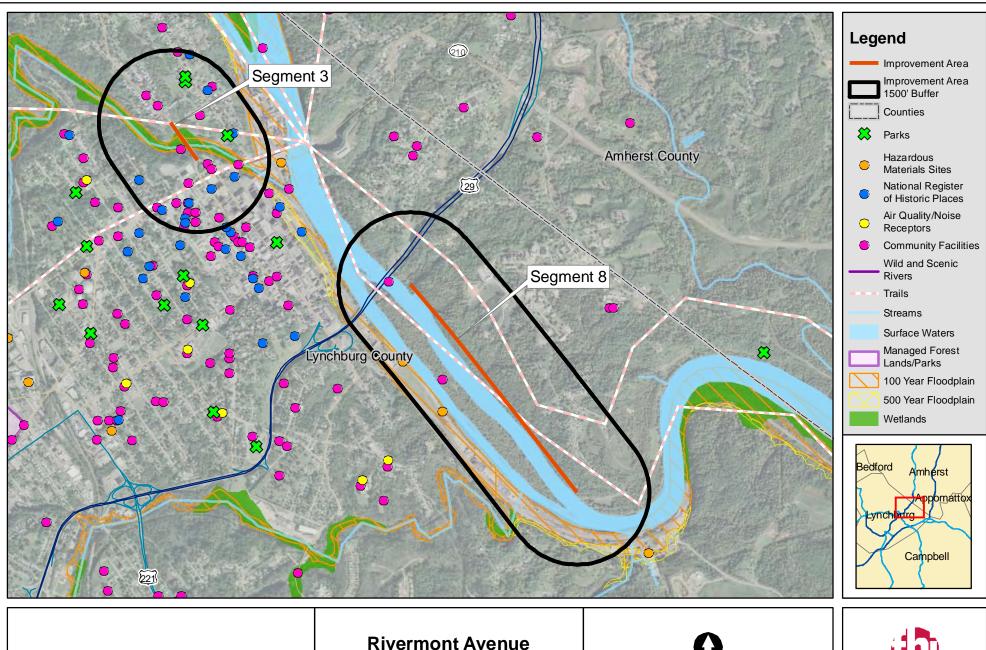
		monitoring	
Agricultural areas	Farmland Protection Policy Act of 1981 at 7 USC 4201-4209, Agricultural and Forest District Act (Code of VA Sections 15.2-4305; 15.2-4307-4309; 15-2-4313)	Avoidance, minimization; design exceptions and variances; environmental compliance monitoring	Replacement of agricultural operation within existing agriculture/forestall district
Endangered and threatened species	Endangered Species Act at 16 USC 1531-1544	Avoidance, minimization; time of year restrictions; construction sequencing; design exceptions and variances; species research; species fact sheets; Memoranda of Agreements for species management; environmental compliance monitoring	Relocation of species to suitable habitat adjacent to project limits
Ambient air quality	Clean Air Act @42 USC 7401-7671, and Conformity regulations at 40 CFR 93	Transportation control measures, transportation emission reduction measures	Within air quality non-attainment and maintenance areas

									ng Graphic Representation
Road Name	Richmond Highway	Lakeside Drive	Rivermont Ave	Mid-Town Connector	Greenveiw Drive	Rte 29 Buffalo River	Rte 60 Rutledge Creek	Greenway Extention	Rte 652
Road Description	Rt 460 / 29 (Richmond Highway) — From Rt 501 (Campbell Avenue) to Rt 29 (Monacan Parkway)	Rt 221 (Lakeside Dr) - Intersection Improvements	Route 501 Business (Rivermont Ave) Rehab Bridge over Blackwater Creek	MidTown Connector - Rte 29 Bus. to Int. Memorial/5th.	Greenview Drive (Hermitage Road to .22 MS Leesville Road	Rt 29 NBL Bridge Replacement & Approaches over Buffalo River	Route 60 Replace Bridge over Ruthledge Creek	River Walk Trail Extension - Amherst County Greenway - Rt 1005 and Park Entrance to 6,000' downstream	Rt 652 Reconstruction & Bridge over Graham Creek (Rte 1401 to Rte 6755.)
Resource	1	2	3	4	5	6	7	8	9
Zoning	Mostly openspace, airfield, norther area is residentia	65% residential, 30% commercial 5% other	Northern half is residential, south or river is mixed use commercia	residentia	north of Leesville Rd residential, south of Leesville Rd commercia	Rural/ residentia	commercial/ residentia	Open Space	Rural/ Residentia
Hazardous Materials	N	N	N	Υ	N	N	N	Y	N
National Register of Historic Places	N	Y	Y	Υ	N	N	N	N	N
Critical Habitats	Y	Y	Y	Υ	N	N	N	Y	Y
Wild/ Scenic Rivers	N	N	N	N	N	N	N	N	N
Farmland Soils	Y	Y	Y	Υ	Y	Y	Y	Y	Y
Managed Forest Lands/ Parks and Recreation	N	Y	N	N	N	Y	N	N	N
Air Quality/ Sensitive Noise Receptors	Y	Y	N	N	N	N	N	N	N
FEMA Floodplains	N	Y	Y	Υ	N	Y	Y	Y	Y
Wetlands	N	Y	Y	Y	Y	N	N	Y	N
Surface Water	Y	Y	Y	Y	Y	Y	Y	Y	Y
Trails	N	Y	Y	Y	N	N	N	Y	N
Parks	N	Y	Y	Y	N	N	N	N	N
Community Facilities	Y	Υ	Y	Υ	Υ	N	N	Y	Υ

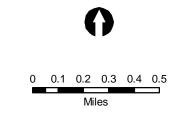
Union Hill Road	Lynbrook Road	Rte 221 Forest Rd	Coffee Road	Goode Road	Cedar Gate Road	Cotton Town Rd	Coffee Road	Cotton Town Road	Coffee Road
Rt 659 (Union Hill Road) bridge & approaches over Rutledge Creek (west of Norfolk Southern railroad crossing to Rt T-606)	Rt 622 (Lynbrook Road) Reconstruction/Realignment and new bridge over Flat Creek (Rt 683 to Rt 29)	Rte 221 (Forest Road) E. of Rte 663 to West of N&S RR Bridge	Route 644 (Coffee Road) Bridge & approaches over Elk Creek - Rte 665 S. to Rte 665 N.	Route 668 (Goode Road) Approaches & Bridge over N&S RR	Rt 652 (Cedar Gate Road) — Rt 657 to Rt 675	Rt 621 (Cottontown Road) Rt 662 to Rt 660	Route 644 (Coffee Road) Bridge & approaches over Elk Creek - Rte 665 S. to Rte 665 N.	Route 621 Approaches & Bridge over lvy Creek	Route 644 (Coffee Road) Bridge & approaches over Elk Creek - Rte 665 S. to Rte 665 N.
10	11	12	13	14	15	16	13A	16A	Notes
			Agricultural/ Residentia	Agricultural/ Residentia	Agricultural/ Residentia	Agricultural/ Residentia	Agricultural/ Residentia	Agricultural/ Residentia	
N	N	Y	Y	N	N	N	Y	N	EPA
N	N	Y	N	N	N	N	N	N	NRHP
N	N	N	N	N	Y	N	N	N	
N	N	N	N	N	N	N	N	N	
Y	Υ	Y	Y	Y	Y	Y	Y	Y	
N	N	Y	N	N	N	N	N	N	
Y	Y	N	Y	Y	N	N	N	N	Sensitive Receptors Used
Y	Y	N	Y	N	Y	Y	Y	Y	
N	Y	N	N	N	N	N	N	N	
Y	Υ	N	Y	Y	Y	Y	Y	Y	
N	N	Y	N	Y	N	Y	N	N	
N	N	N	N	N	N	N	N	N	
Y	Υ	Y	Y	Y	N	N	N	N	Institutions and other community related attributes



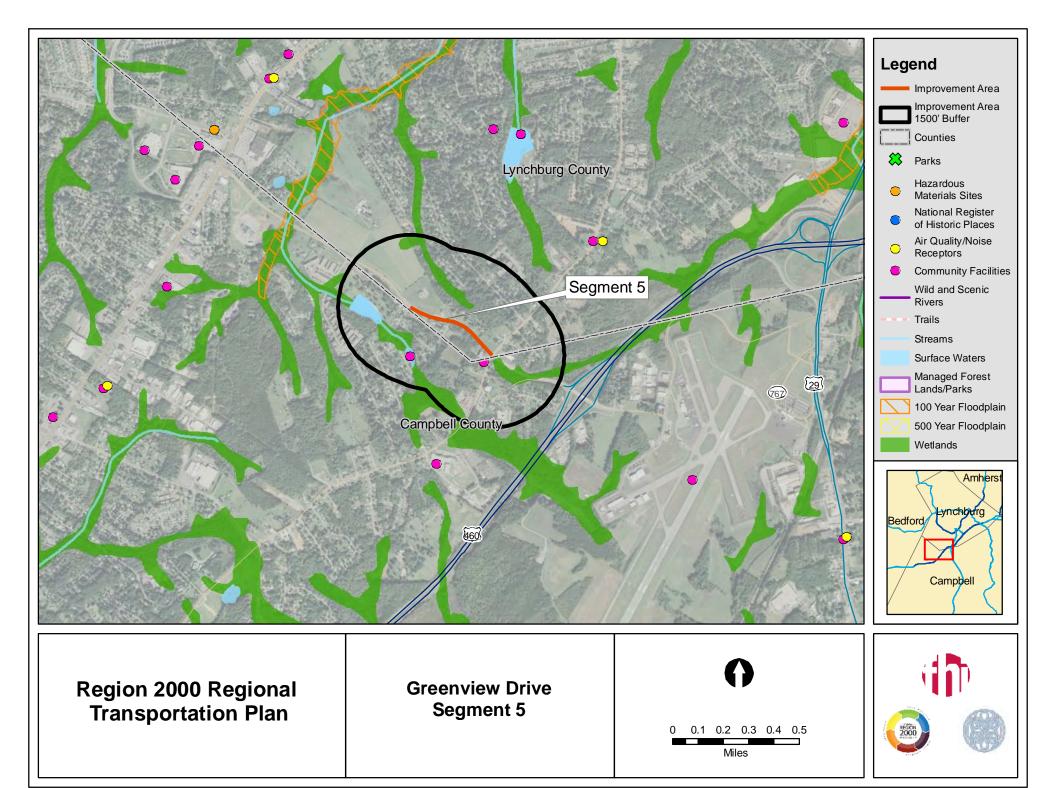


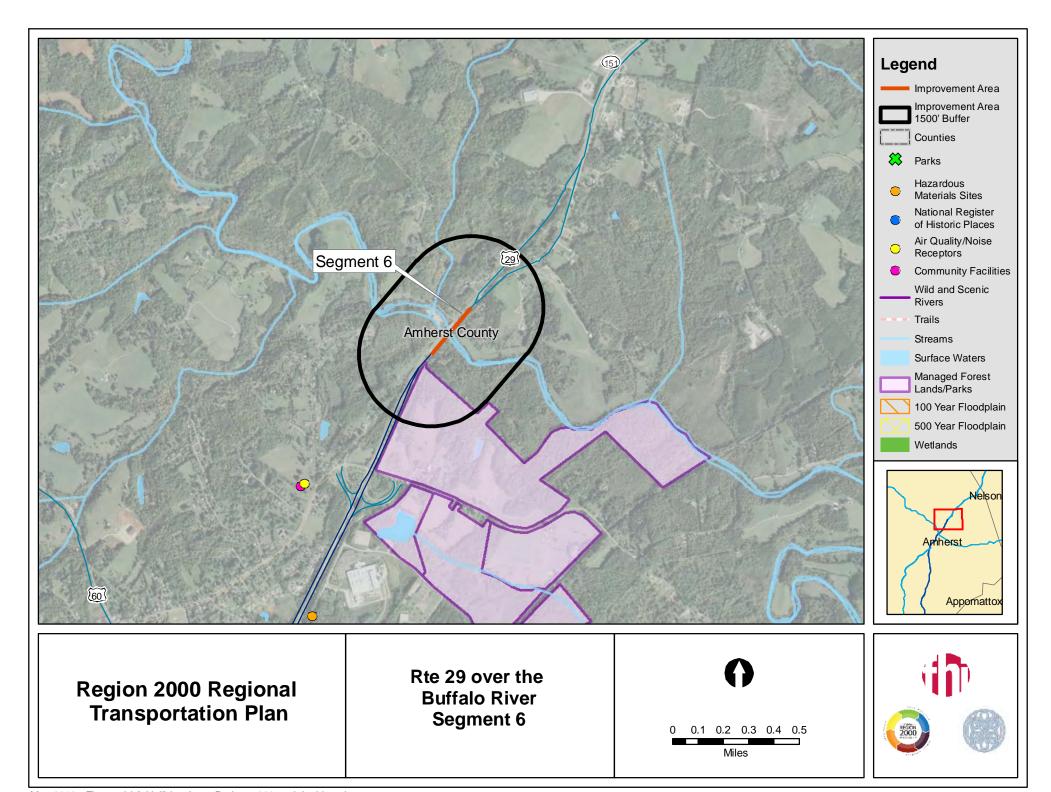


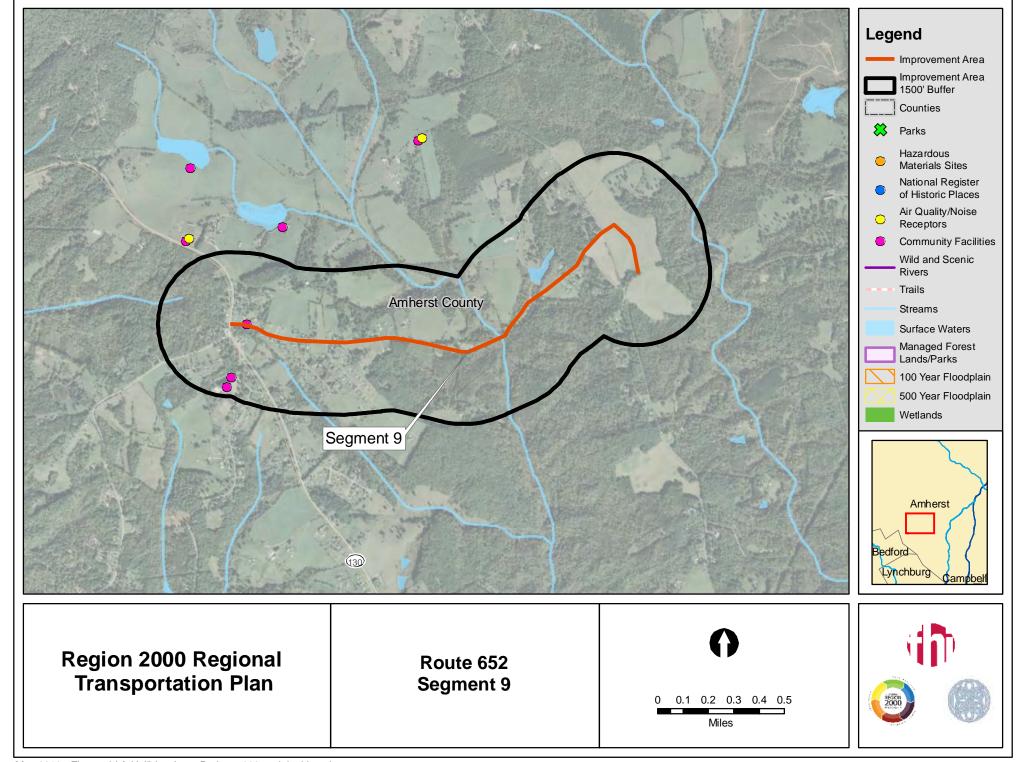
Segment 3
Greenway Extention
Segment 8

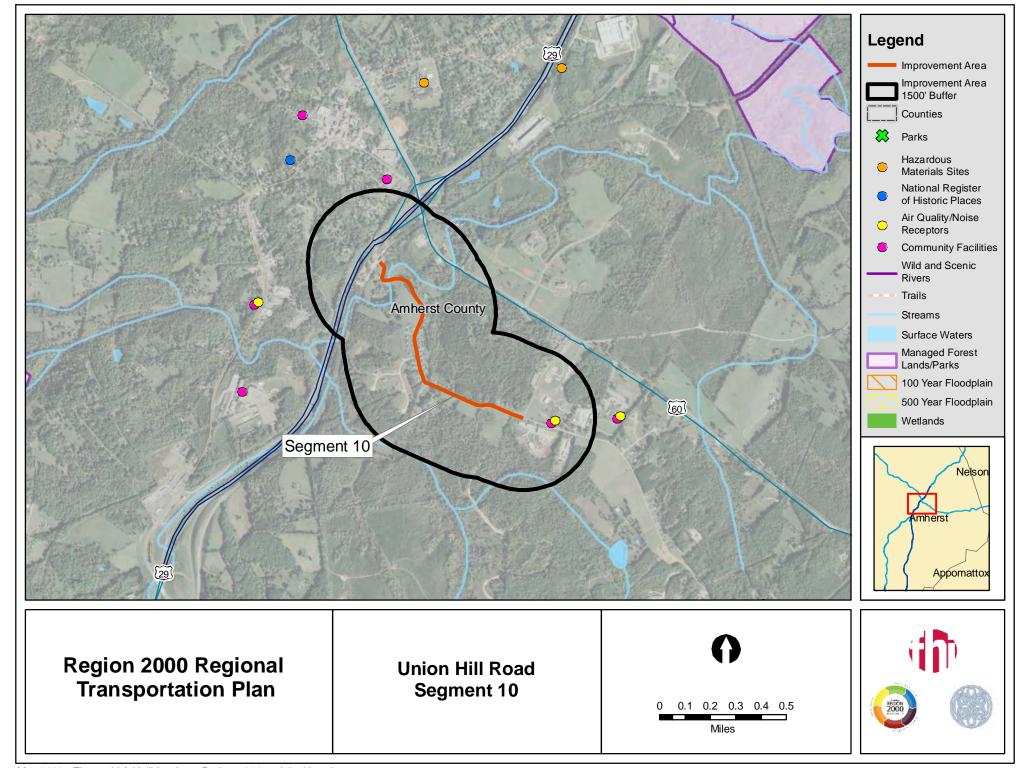


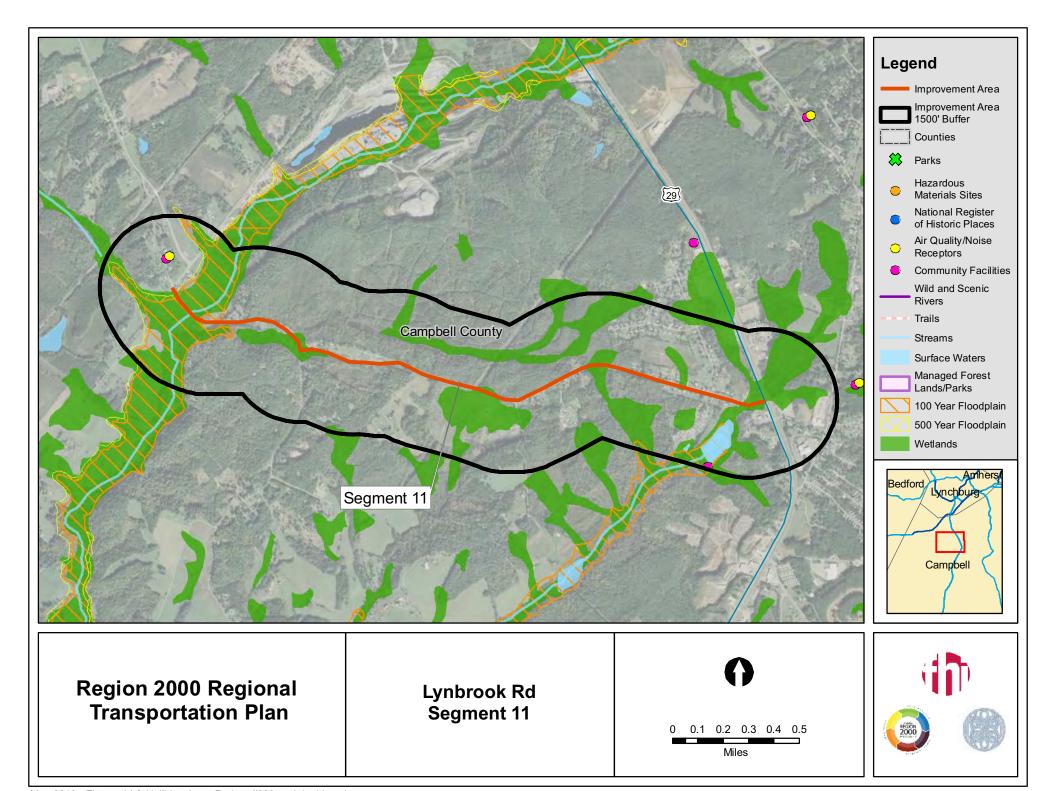


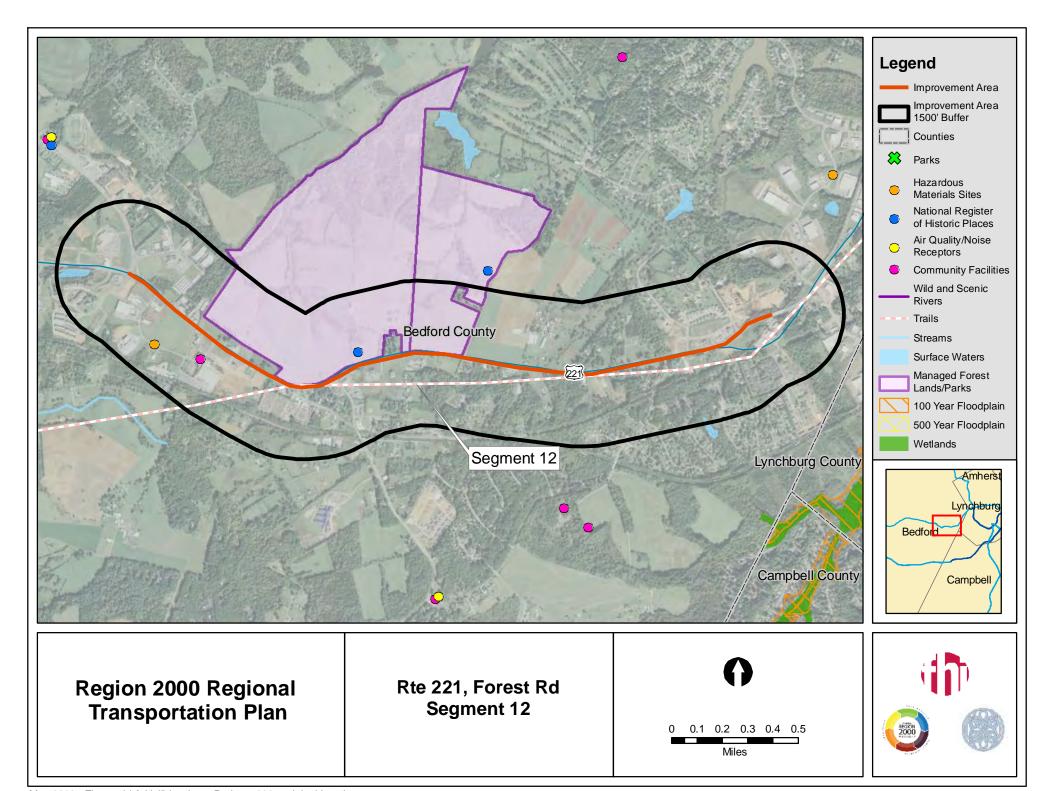


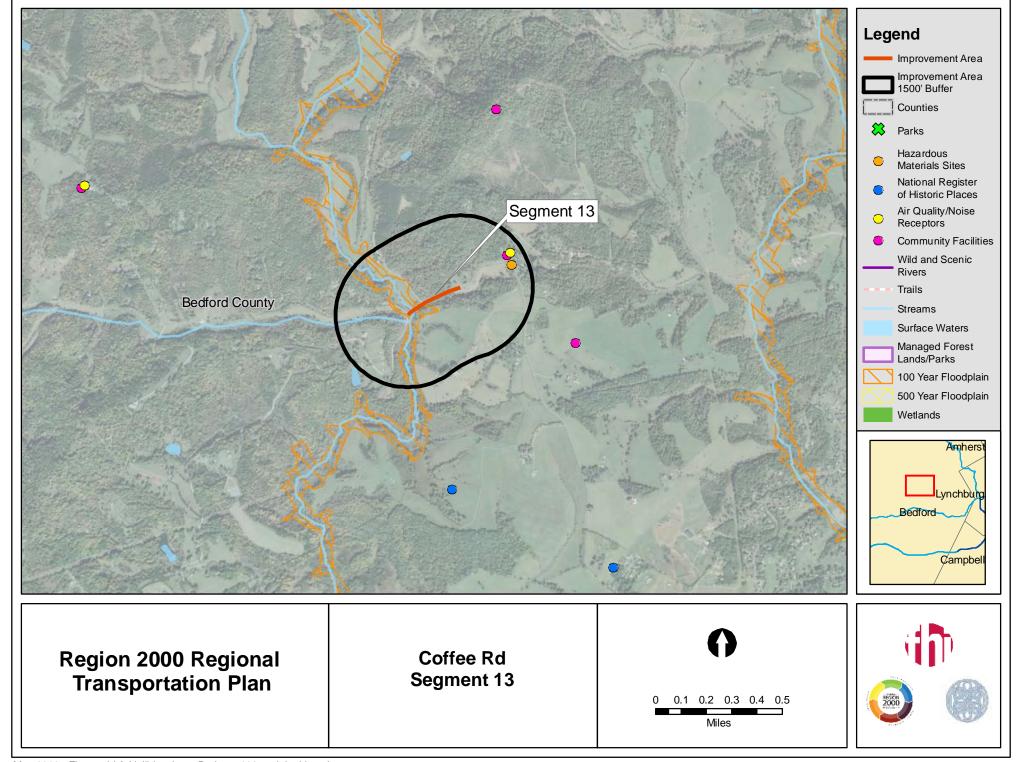


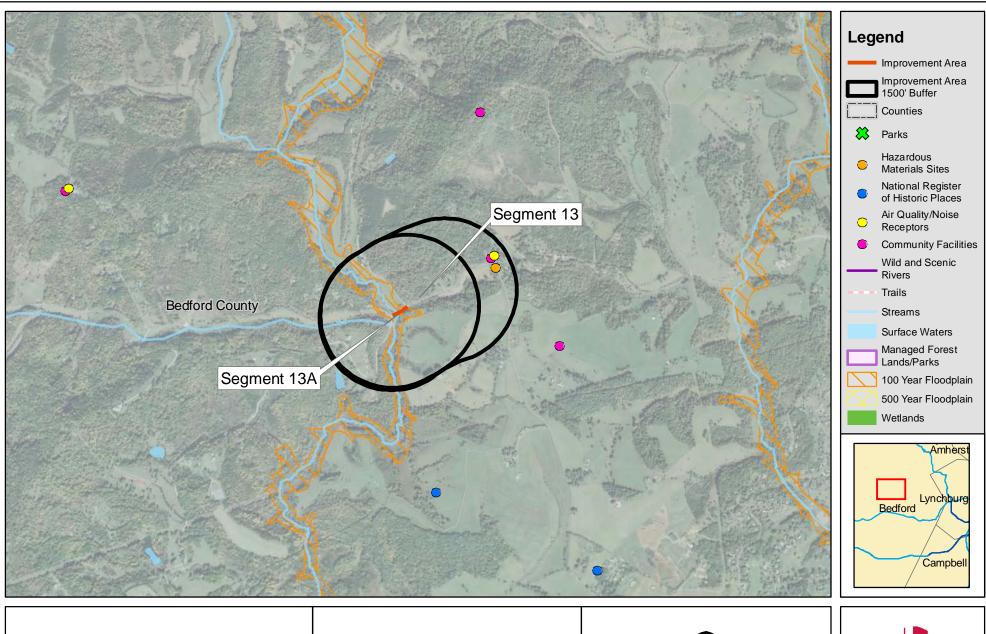




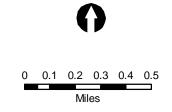




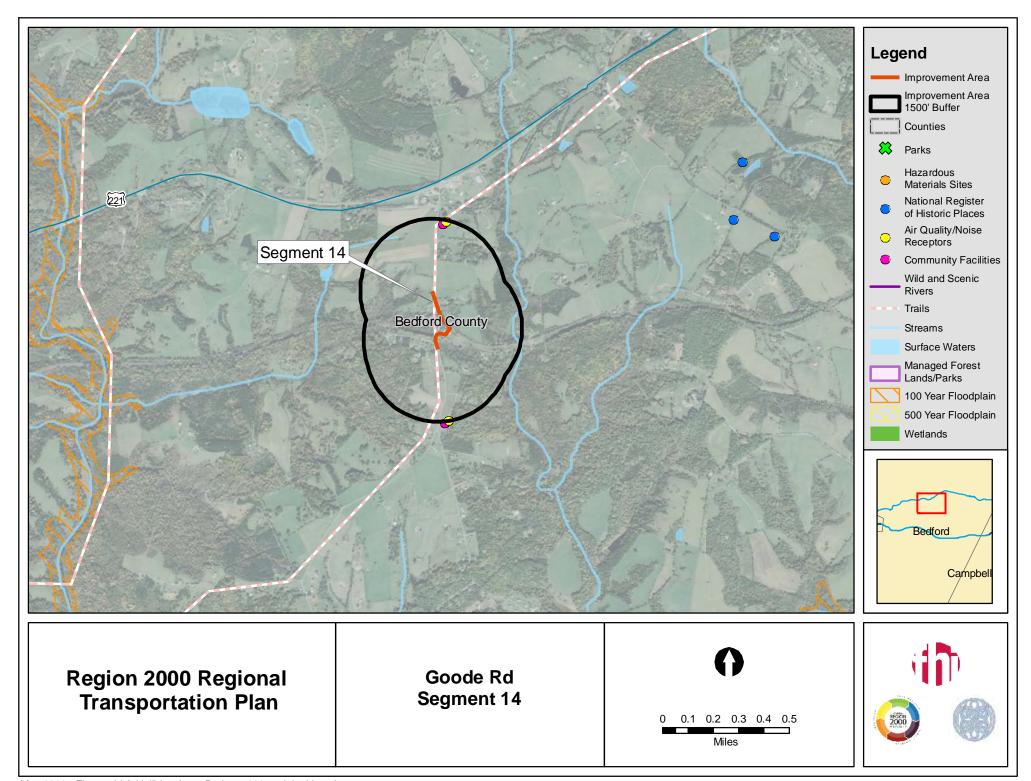


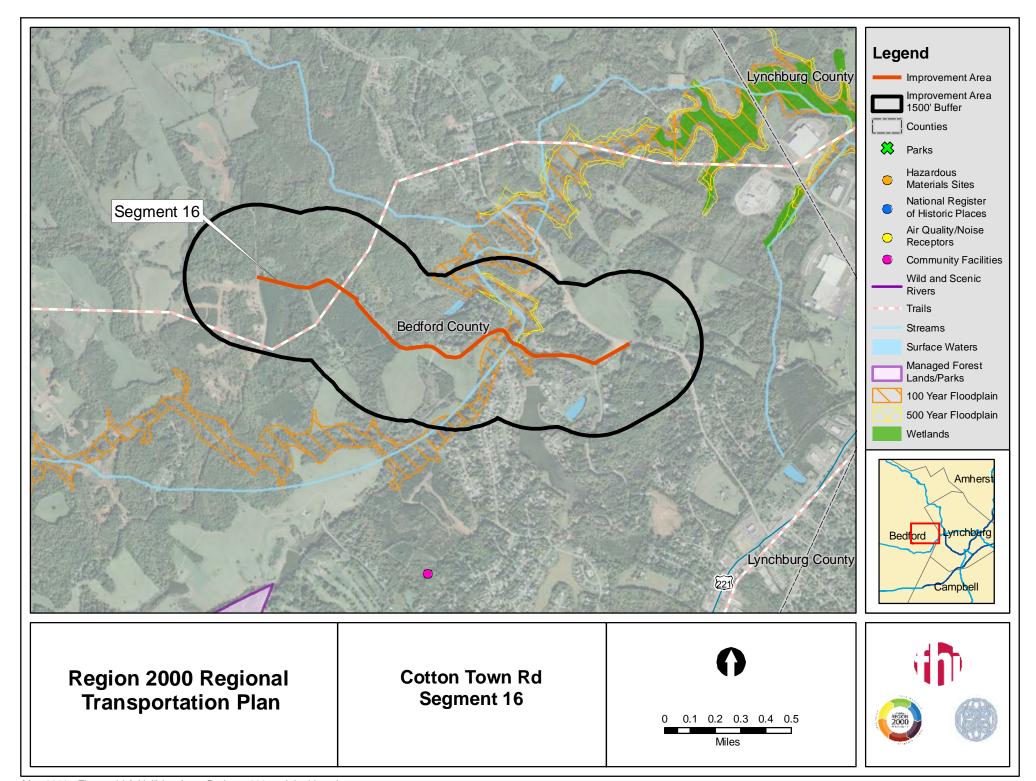


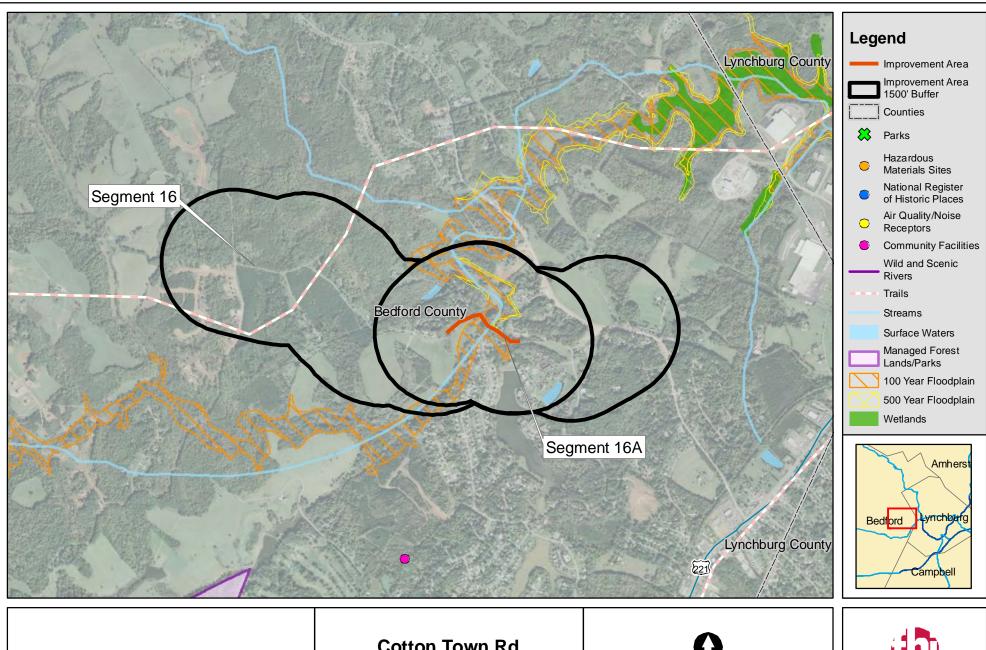
Coffee Rd Segment 13 Bridge Approach Segment 13A



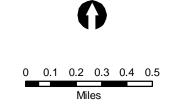




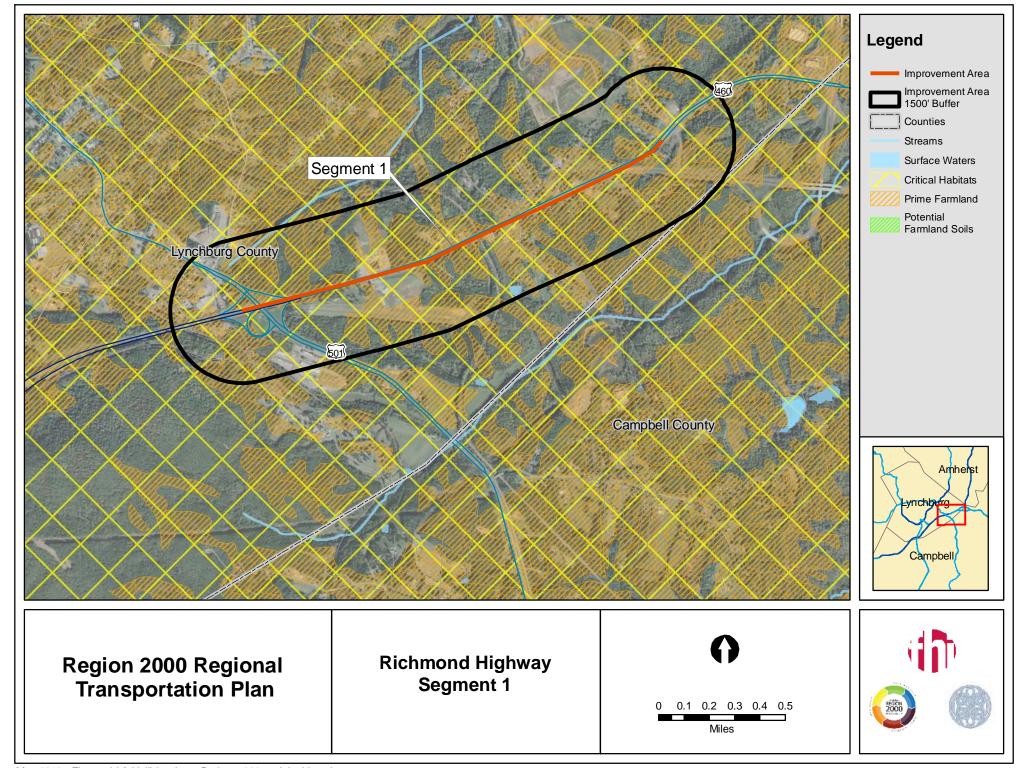


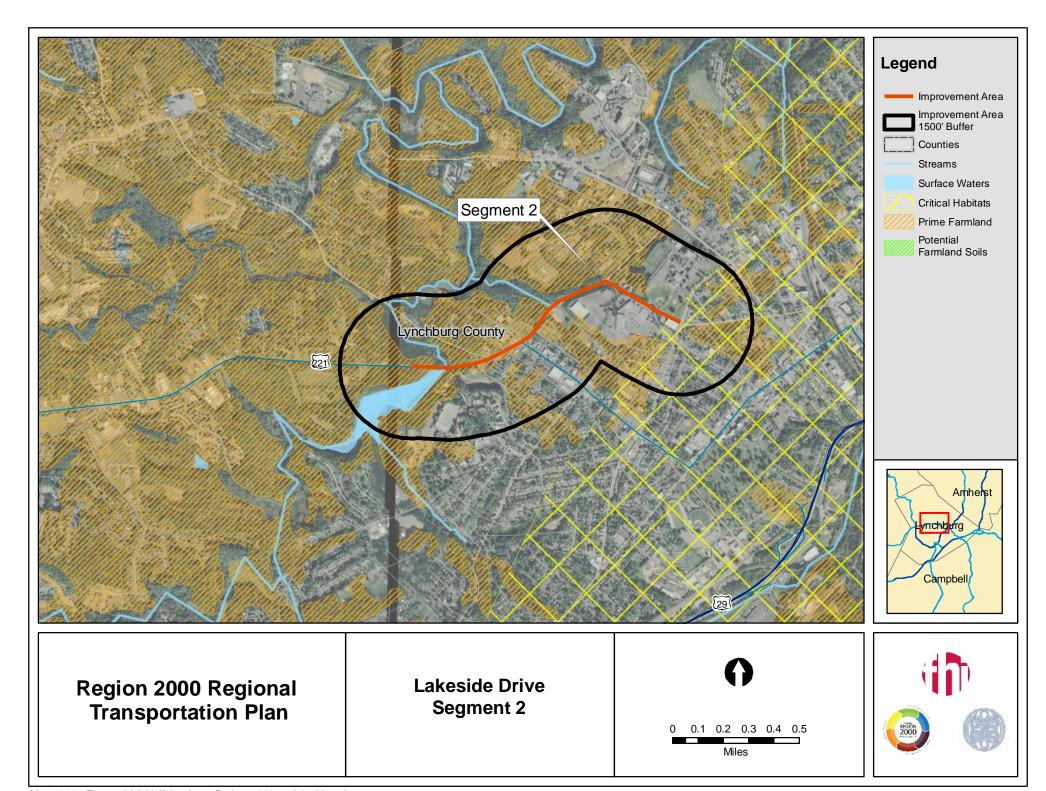


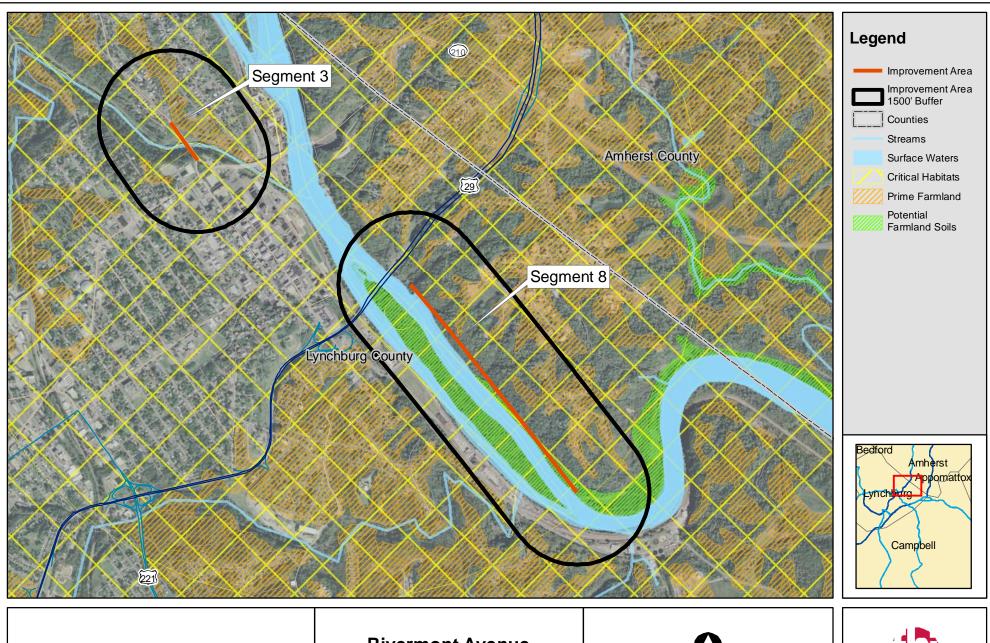
Cotton Town Rd Segment 16 Bridge Approach Segment 16A



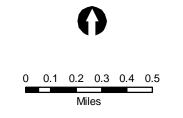




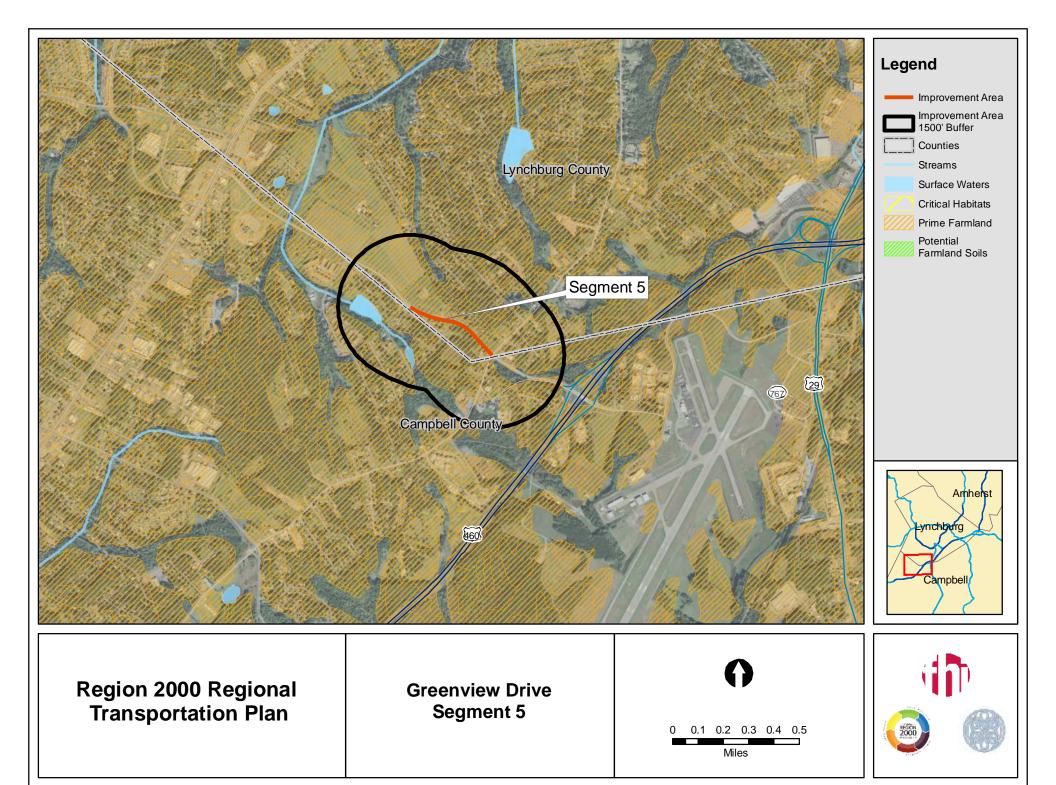


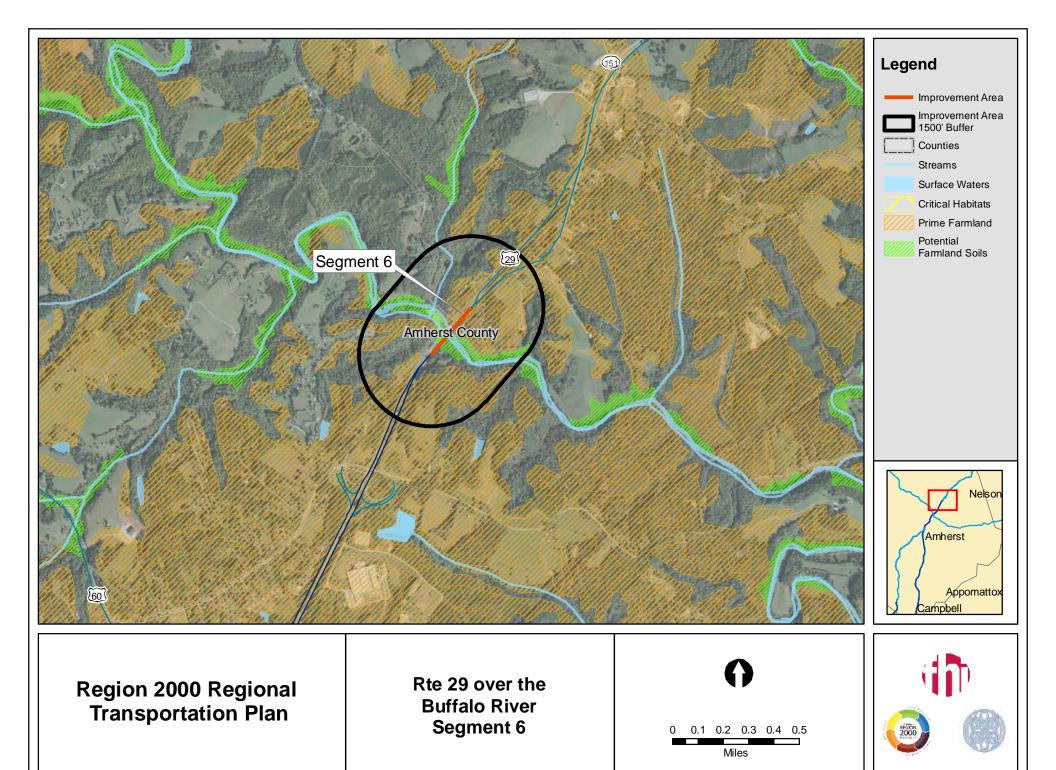


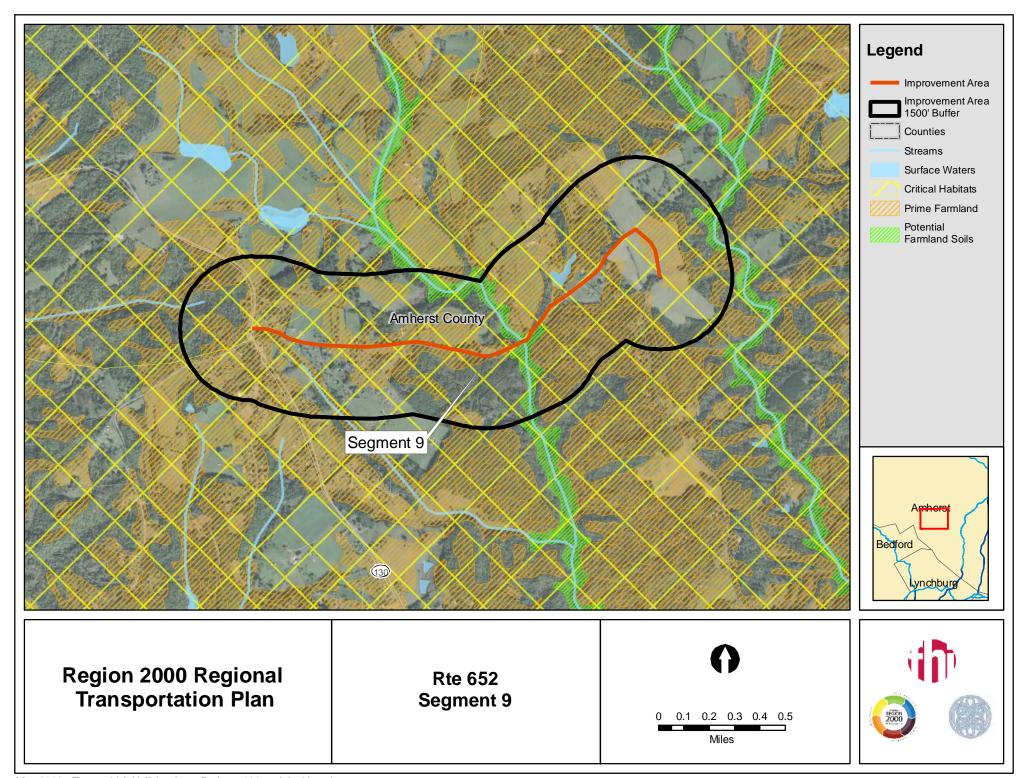
Rivermont Avenue Segment 3 Greenway Extention Segment 8

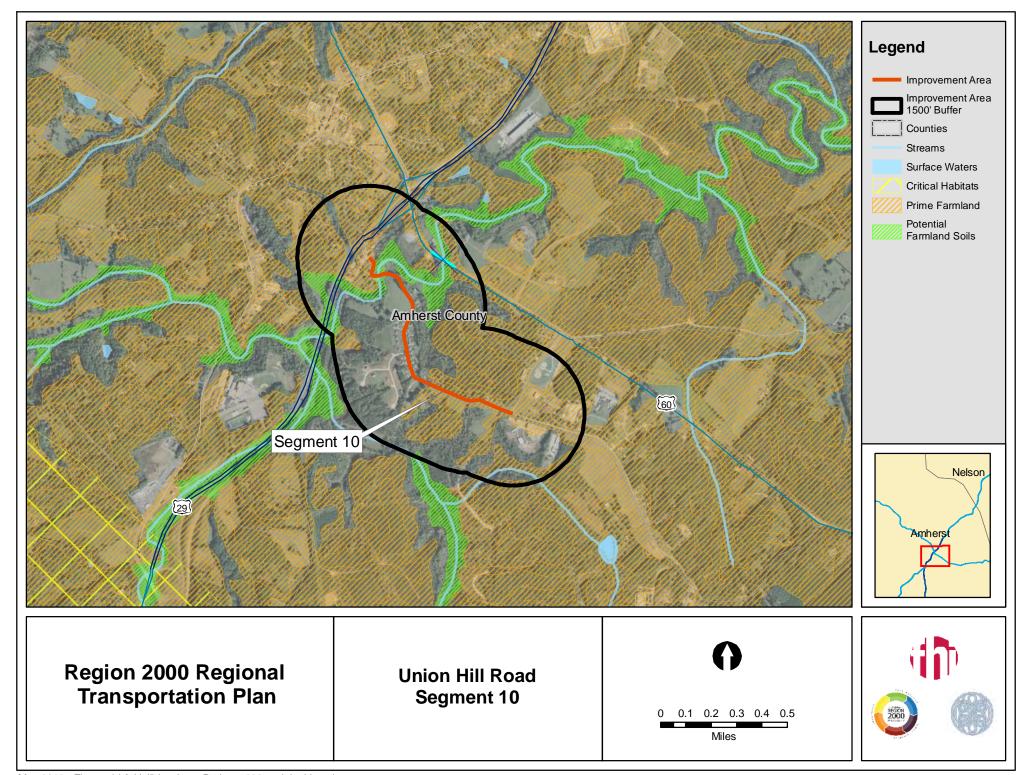


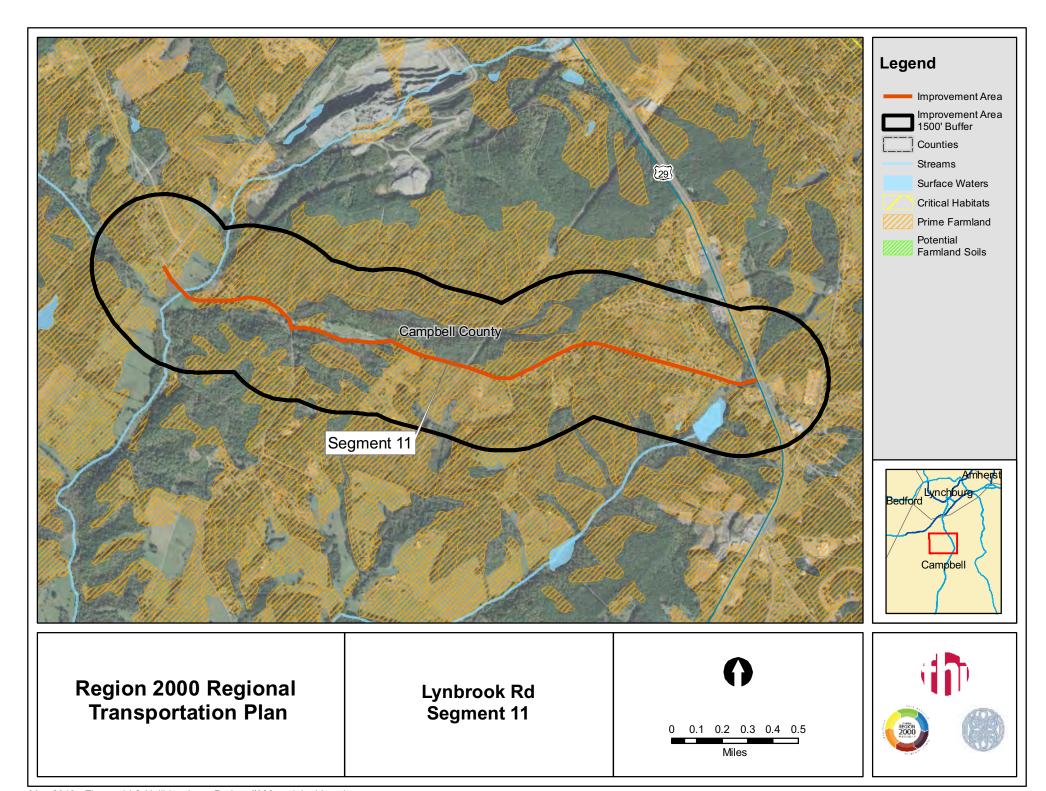


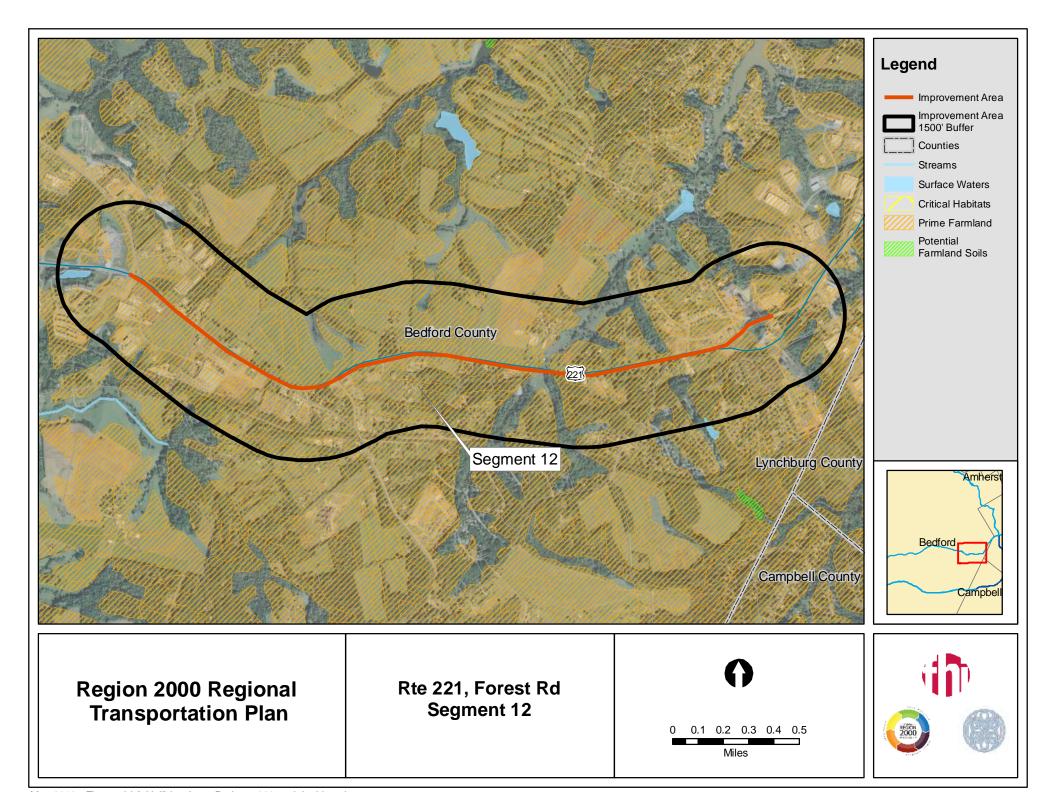


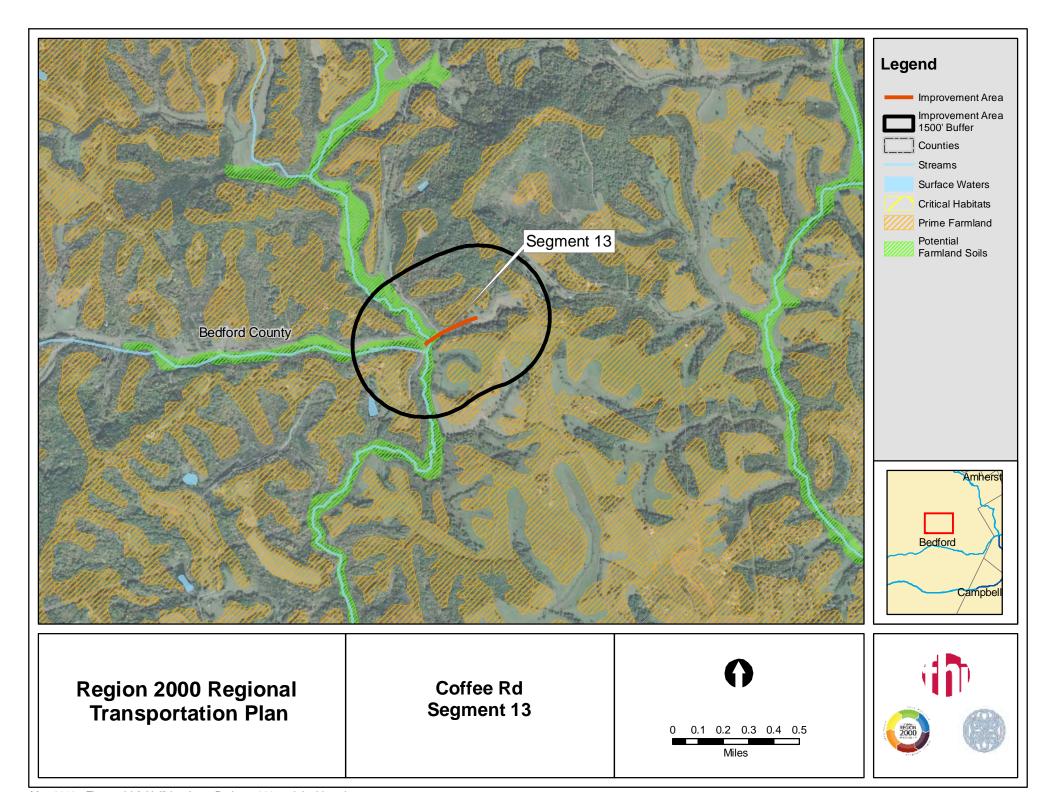


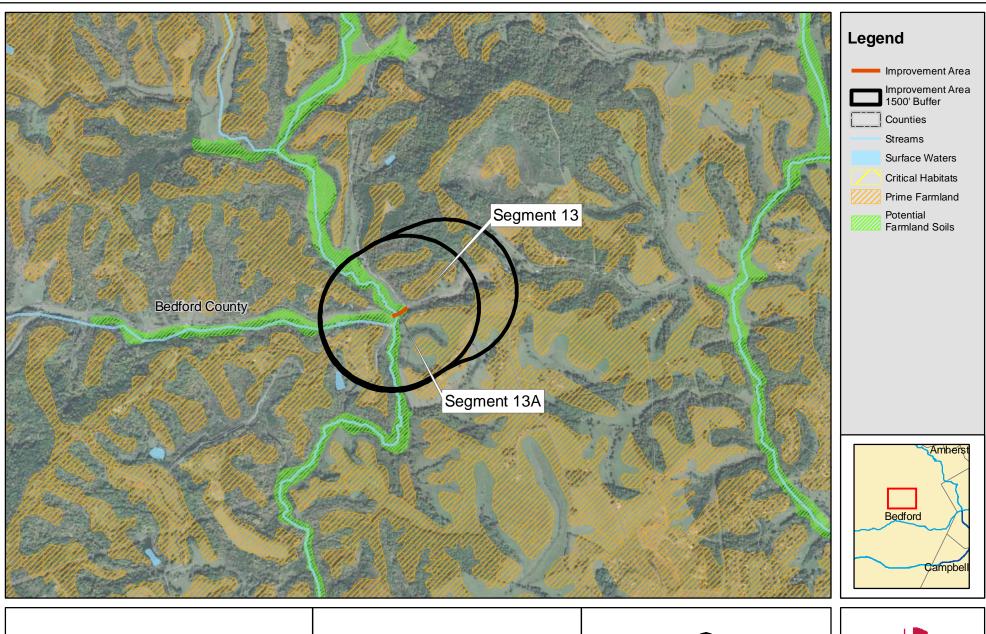




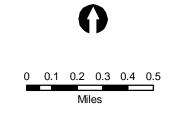




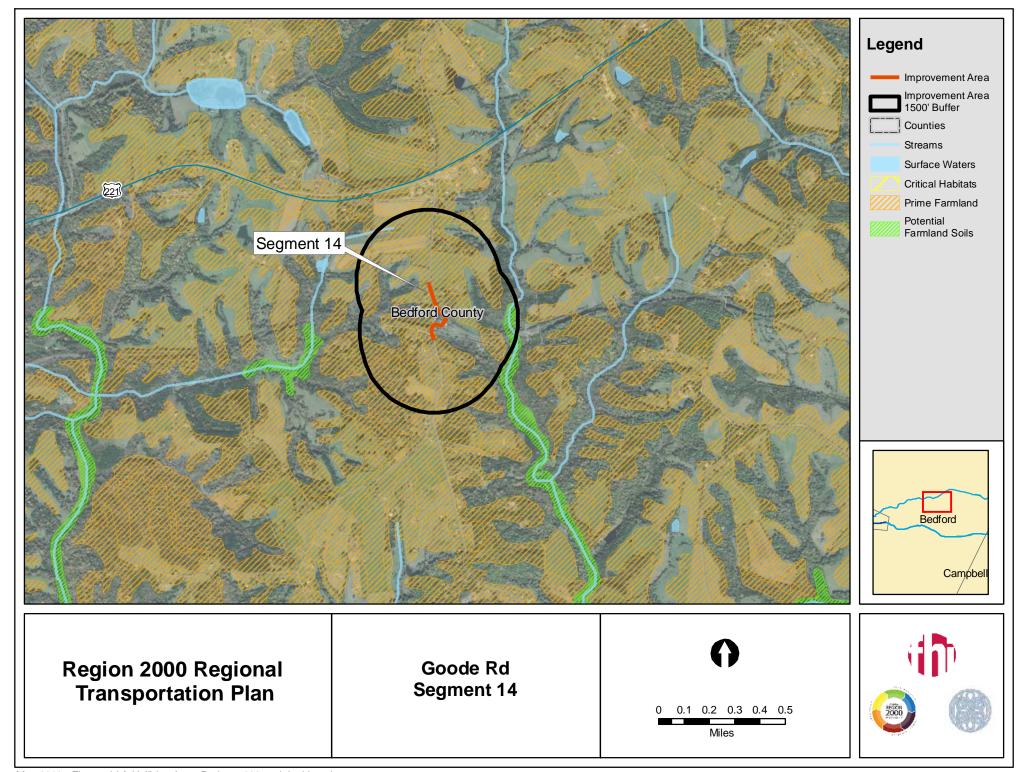


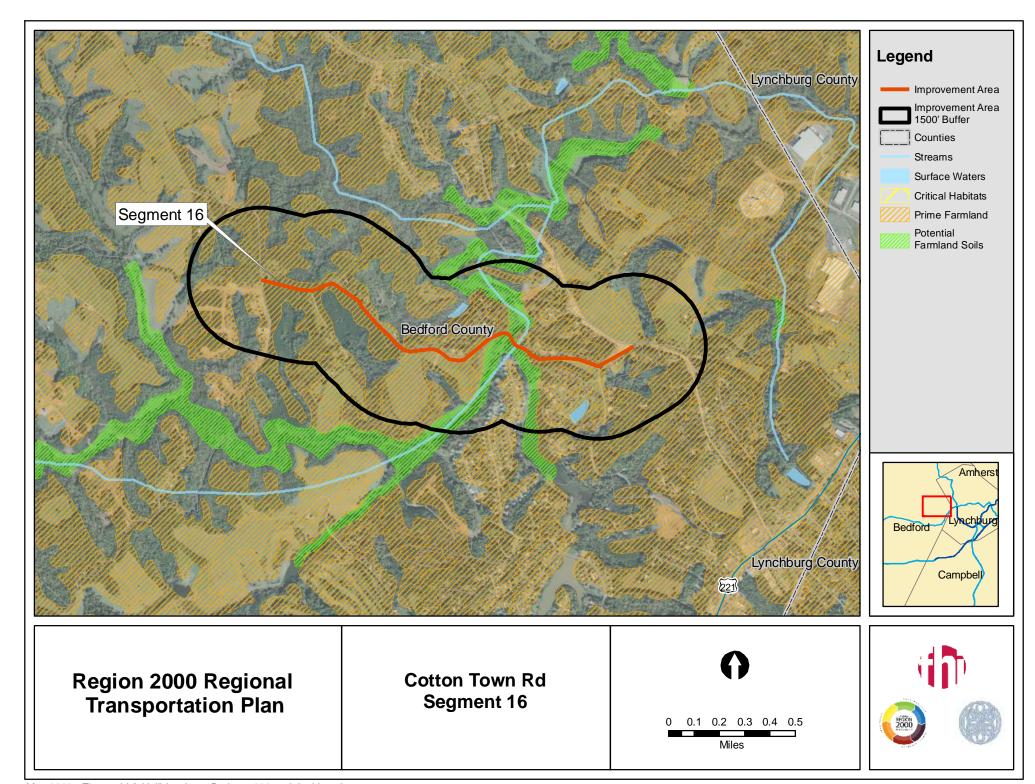


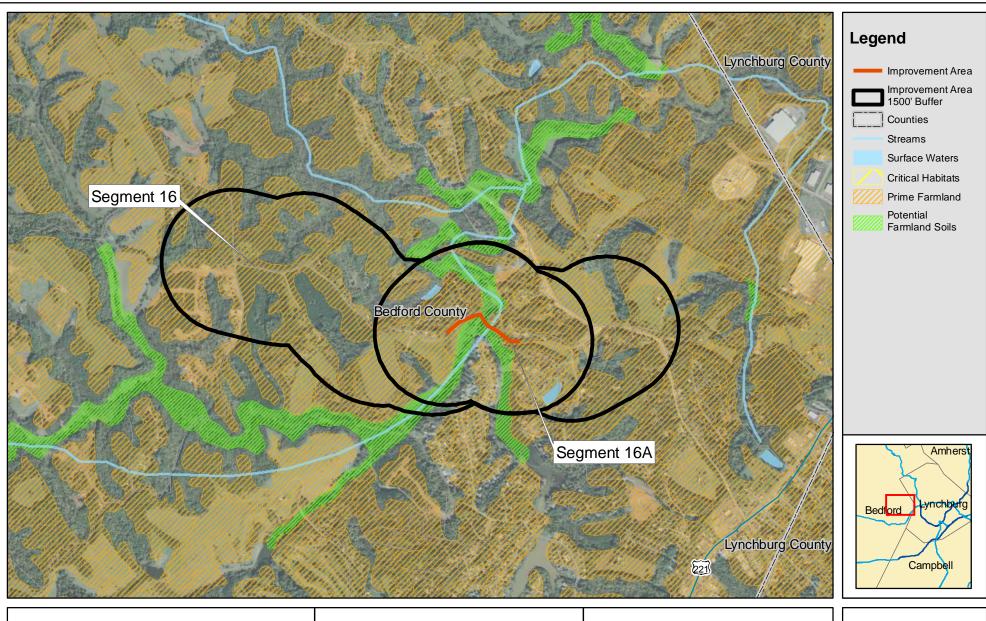
Coffee Rd Segment 13 Bridge Approach Segment 13A



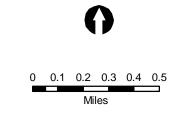








Cotton Town Rd Segment 16 Bridge Approach Segment 16A







COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street, Suite 326 Richmond, Virginia 23219-2010 (804) 786-2556 FAX (804) 371-7899

September 15, 2010

Bill Wuensch, Renaissance Planning Group 455 2ns Street, SE Suite 300 Charlottesville, VA 22902

RE:

DCR 10-079; CENTRAL VIRGINIA LONG RANGE PLAN

Dear Mr. Wuensch:

The Department of Conservation and Recreation (DCR), Division of Planning and Recreational Resources (PRR), develops the *Virginia Outdoors Plan* and coordinates a broad range of recreational and environmental programs throughout Virginia. These include the Virginia Scenic Rivers program; Trails, Greenways, and Blueways; Virginia State Park Master Planning and State Park Design and Construction.

The proposed projects have the potential to impact scenic, natural and recreational sites. All existing or proposed sites along each project corridor need to be identified and located. The 2007 VOP lists a number of projects in the region [See page 455 for the region's recommendations]. All impacts the proposed routes will have on the sites, especially visual and noise impacts need to be clearly defined. Specifically there are several existing and proposed Virginia Byways corridors and State Scenic River corridors. There is also a strong effort to identify and locate the James River Heritage trail through the region. For more information, contact the trails coordinator at DCR, Jennifer Wampler 804-786-9240, Jennifer.Wampler@dcr.virginia.gov for the most up to date information on this effort.

Several of the proposed improvements cross or are adjacent to proposed or existing trail corridors, please insure that provisions are made to provide safe crossings and corridors for trail users. We recommend that whenever there is a bridge that crosses a river opportunities for trails on and under the bridge be provided. Also, if the river is a proposed or existing scenic river, the bridge needs to provide opportunities for visual access to the river. Bridge sites should be considered for development of river access as access to water is the number one need of Virginians as identified in the 2007 VOP.

According to the 2007 VOP, walking opportunities are the second most needed facility in Virginia and walking is the number one activity. Needs exist for all types of trails, including multi-modal ones, and as such with all corridor improvements it is critical to provide trial opportunities to meet the future needs and demands of Virginia's citizens. See the following website for more information on trails in Virginia: http://www.dcr.virginia.gov/recreational_planning/trails.shtml

Please be aware that projects involving land-disturbing activities equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in all areas subject to the Chesapeake Bay Preservation Act, must comply with the Virginia Erosion and Sediment Control Law and all applicable regulations adopted in accordance with that law. Projects involving land-disturbing activities equal to or greater than one acre, or equal to or greater than 2,500 square feet in all areas of the jurisdictions designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act, must comply with the Virginia Stormwater Management Act and the Virginia Stormwater Management Program (VSMP) Permit Regulations adopted in accordance with the Act. If you have project specific questions please contact the Virginia Department of Conservation and Recreation Richmond Regional Office.

http://www.dcr.virginia.gov/soil & water/swintro.shtml

Virginia Erosion and Sediment Control Law and Regulations: http://www.dcr.virginia.gov/soil_&_water/documents/eslawrgs.pdf

Virginia Stormwater Management Act: http://www.dcr.virginia.gov/soil & water/documents/vaswmlaw.pdf

Virginia Stormwater Management Program (VSMP) Permit Regulations: http://www.dcr.virginia.gov/soil_&_water/documents/vaswnrregs.pdf

Virginia Stormwater Program Permits http://www.dcr.virginia.gov/soil & water/ysmp.shtml

Thank you for the opportunity to comment.

Sincerely,

Roberta Rhur Environmental Impact Review Coordinator



COMMONWEALTH of VIRGINIA

Douglas W. Domenech Secretary of Natural Resources

Lynchburg Office

(434) 582-5120

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7705 Timberlake Road

Lynchburg, Virginia 24502

DEPARTMENT OF ENVIRONMENTAL QUALITY
Blue Ridge Regional Office

www.deq.virginia.gov

September 16, 2010

David K. Paylor Director

Robert J. Weld Regional Director

Roanoke Office 3019 Peters Creek Road Roanoke, Virginia 24019 (540) 562-6700 Fax (540) 562-6725

Mr. Bill Wuensch, P.E. Renaissance Planning Group 455 2nd Street SE Suite 300 Charlottesville, VA 22902

RE: Central Virginia's Long Range Transportation Plan Projects -

Update to year 2035 / Agency Review of Environmental Documentation

Dear Mr. Wuensch:

This is to acknowledge the Department of Environmental Quality's (DEQ) receipt of the Central Virginia Metropolitan Planning Organization's (MPO) update to the Long Range Transportation Plan through 2035. Staff evaluation and comments are based on limited scope of information provided in the update. Issues may arise when more stringent environmental screening occurs as individual projects are finalized.

The following project segments have elements of potential concern at the present time: Segment 6 (Amherst County) – Route 29 Bridge replacement and approaches over Buffalo River. Concerns – Erosion & sediment control; stream impacts; VWP and construction storm water permits.

Segment 10 (Amherst County) – Route 659 (Union Hill Road) Bridge replacement and approaches over Rutledge Creek. Concerns - Erosion & sediment control; stream impacts; VWP and construction storm water permits.

Segment 11 (Campbell County) – Route 622 (Lynbrook Road) Reconstruction/realignment/new bridge over Flat Creek. Concerns – Wetlands and stream impacts; VWP and construction storm water permits; Erosion & sediment control.

Segment 13 (Bedford County) – Route 644 (Coffee Road) Bridge and approaches over Elk Creek. Concerns - Stream impacts; VWP and construction storm water permits; Erosion & sediment control.

Segment 16 (Bedford County) – Route 621 Bridge and approaches over Ivy Creek. Concerns - Stream impacts; VWP and construction storm water permits; Erosion & sediment control.

Thank you for your inquiry. We appreciate your interest in complying with Virginia's environmental legislation. If you have any further questions please do not hesitate to call me at (434) 582-6236.

Sincerely,

Michael F. Cholko EIR Coordinator

DEQ - Blue Ridge Regional Office - Lynchburg

Cc. Valerie Fulcher, DEQ-CO



COMMONWEALTH of VIRGINIA

Department of Historic Resources

Douglas W. Domenech Secretary of Natural Resources 2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick Director

Tcl: (804) 367-2323 Fax: (804) 367-2391 TDD: (804) 367-2386 www.dhr.virginia.gov

15 September 2010

Mr. Bill Wuensch Renaissance Planning Group 455 2nd Street SE, Suite 300 Charlottesville, Virginia 22902

Re:

Central Virginia's Long Range Transportation Plan Projects up to year 2035

DHR File # 2010-1602

Dear Mr. Wuensch:

We have received your request for our review and comment regarding the Central Virginia's Long-Range Transportation Plan to year 2035. The recently approved federal transportation bill, SAFETEA-LU, requires regional transportation authorities to consult with the appropriate local, state, and federal agencies regarding land use management, natural resource, environmental protection, conservation, and historic property issues. Although the Long-Range Plan includes specific projects, SAFETEA-LU requires only that the Plan be reviewed by agencies at a general policy level to address potential environmental mitigation activities and potential mitigation areas.

The information provided correctly identifies a variety of potential mitigation activities and areas. However, as the qualities of each affected historic property and the circumstances surrounding individual projects are unique, there may be many more mitigation options available that no one can now anticipate. We request that the regional transportation authority maintain open all possibilities for mitigation that will address the characteristics of the historic property being impacted and produce the greatest public benefit achievable. A cursory review of the proposed transportation activities included in the Plan indicates that many of them have the potential to affect historic

properties. Therefore, it is important that the regional transportation authority coordinate the planned undertakings with the Department of Historic Resources (DHR) early in the process. When the regional transportation authority is prepared to consult with DHR on individual undertakings in its Plan pursuant to applicable state and federal environmental laws, we request that it references our website at http://www.dhr.virginia.gov/review/section_106.htm for guidance on what materials are necessary for our review.

If you have any questions regarding our comments, please contact me at (804) 367-2323, Ext. 114.

Sincerely,

Marc Holma, Architectural Historian Office of Review and Compliance