

**WORK PLAN Submitted for :**

**Federal Agency Name:** U.S. Department of Transportation  
Federal Highway Administration  
**Funding Opportunity Title:** *“Integrating Transportation and Resource Planning to Develop Ecosystem Based Infrastructure Projects”*

The goal of the proposed project is to integrate government and non-government organizational plans and regulations for the natural and built environment at the Planning District Commission (PDC) level in Virginia. This project would serve as a pilot project to implement integrated planning among the state agencies at the local level through the Planning District Commissions. The end product would be the creation of a “Green Infrastructure” plan that integrates state, regional and local natural and built infrastructure plans on 6 major transportation corridors in the New River Valley. Those corridors are: 1) Interstate I-81; 2) Rt. 460 (Future I-73 Corridor); 3) Rt. 100 Corridor; 4) Rt. 8 Corridor; 5) Rt. 221 Corridor; and 6) Rt. 11 Corridor. The information could then be used for more informed transportation planning decision-making, including a hazard mitigation map for major freight corridors, the integration of natural resource considerations with transportation needs, and the identification of mitigation opportunities having the greatest potential to restore the environmental functions that may be affected by a proposed transportation project.

This proposal would integrate existing natural and built infrastructure plans in spatial format from the following government agencies and organizations (list not all-inclusive at this time): Blacksburg/Christiansburg Metropolitan Planning Organization , New River Valley Planning District Commission (NRVPDC), Virginia Department of Transportation, Department of Rail and Public Transportation, Virginia Tech, National Park Service, United States Forest Service, Department of Conservation and Recreation (includes Stormwater regulations), Department of Game and Inland Fisheries, Department of Environmental Quality, Department of Emergency Management, Department of Mines and Minerals, Virginia Tourism Corporation, New River Valley Historical Society/Department of Historical Resources, Virginia Cooperative Extension, US Department of Energy- Energy Efficiency and Renewable Energy, Comprehensive Plans for NRVPDC localities.

The Plan development would occur in two phases. The first phase would be the identification of lands for the Green Infrastructure network. This process would allow participants (localities and communities) to choose from a range of protected lands (i.e. federally protected/state protected lands only to all identified lands in agency and organization plans) to form the base of the green infrastructure plan. Please see methods used by Prince George County, Maryland in the creation of their green infrastructure plan.

An outside facilitator would work with the leadership group and localities to prioritize lands for mitigation and conservation for the second phase of the within the Green

Infrastructure Plan development. The planning effort will take place on three spatial scales-1) County (including the towns); 2) PDC regional level; and 3) State level.

## WORK PROGRAM

### **1. Build and Strengthen Collaborative Partnerships**

The collaborative nature of green infrastructure planning means that many state agencies are involved in gathering data for statewide models as well as independently providing technical assistance to local and region governmental organizations. The formation of a green infrastructure advisory group that integrates built infrastructure planning is essential to delivery of a consistent and successful implementation of natural resource and transportation planning throughout the Commonwealth.

The 2007 Virginia Outdoors plan proposes the following recommendation: “Green infrastructure planning needs to be coordinated between state agencies. A green infrastructure advisory group should develop a communications plan outlining ways to highlight economic and environmental benefits of green infrastructure, and identify proactive steps that ensure stakeholder input, boost public awareness, and expand citizen engagement in green infrastructure, watershed management and strategic conservation.”

The formation of a green infrastructure advisory group as a part of the project deliverables for this grant will initiate the development of mechanisms to link transportation planning with natural and cultural resources among Virginia’s state agencies. In order to coordinate planning efforts across agencies in the State of Virginia, a two pronged approach must be applied- Coordination at the state level and coordination at the regional and local levels. This planning group will work with Virginia’s regional governments- Planning District Commissions to coordinate planning efforts among the localities within their jurisdictions.

### **Development of a Inter-Agency State Level Advisory Group**

The development of the green infrastructure advisory group will build and strength existing partnership s with state agencies. The purpose of the group will be to identify and understand the individual missions of each organization relating to green infrastructure and transportation planning efforts. The initial focus will be how the individual agency goals overlap and identify shared objectives. The opportunity to integrate the partners’ work plans will be explored and memoranda of agreement drafted between organizations to facilitate long-term integration of green infrastructure planning and transportation planning to insure the maintenance and consistency of regional ecosystem framework throughout the Commonwealth.

The following steps will be taken to develop the Green Infrastructure Advisory Group:

- 1) Identify all state agencies collaborative planning partners.
- 2) Identify facilitator for meetings (Institute for Environmental Negotiations)
- 3) Propose 3 initial meeting dates for advisory group formation.
- 4) Send out initial meeting invitations and purpose of advisory group.

- 5) Host Green Infrastructure Advisory Group Meeting 1 – Introduction to Green Infrastructure Planning (Meeting co-hosted by the New River Valley Planning District Commission)
- 6) Host Green Infrastructure Advisory Group Meeting 2 – Roundtable discussions of agency responsibilities. Identify partnership opportunities.
- 7) Host Green Infrastructure Advisory Group Meeting 3 – Identify mechanisms for ongoing communication and partnership. Detail potential memoranda of agreement to facilitate ongoing partnerships.

### **Capacity Building of Existing Regional Green Infrastructure Partnership in the New River Valley**

At the regional level, the existing partnership would be further strengthened through the process of developing an ecological framework or green infrastructure plan that integrates state, regional and local natural and built infrastructure plans on 6 major transportation corridors in the New River Valley. Those corridors are: 1) Interstate I-81; 2) Rt. 460 (Future I-73 Corridor); 3) Rt. 100 Corridor; 4) Rt. 8 Corridor; 5) Rt. 221 Corridor; and 6) Rt. 11 Corridor. A formal Green Infrastructure leadership group will be formed in the Spring of 2008 under our current initiative. This grant would move the initiative from its two-year education and outreach stage into a formal planning study guided by the newly formed leadership group.

Current Partners in the initiative are:

#### **Current New River Valley Green Infrastructure Initiative Partners:**

*Steering Team:* New River Valley Planning District Commission, City of Radford; Floyd County, Giles County, Pulaski County, Montgomery County, Town of Blacksburg and Town of Christiansburg, the Conservation Fund, National Park Service Rivers Trails and Conservation Assistance Program, Virginia Tech-Conservation Management Institute, New River Land Trust, Landcare, Department of Forestry, Department of Conservation and Recreation, Virginia Tourism Corporation, Virginia Cooperative Extension, Appalachian Trail Conservancy, Blue Ridge Foresters Cooperative.

*Advisory Committee:* Department of Transportation, USDA Resource Conservation and Development Area, Virginia Water Resource Center, Virginia Tech (includes: Department of Urban Affairs and Planning, Department of Forestry, Department of Geology, Department of Biology, Community Design Assistance Center and VT Facilities Management), US Forest Service, EPA-Environmental Finance Center, Town of Floyd, Town of Pearisburg, Town of Dublin, Town of Pulaski, Shirley Sellers- Real Estate Agent.

## **2. Identify Management Plans and other data**

The first three months of the project will be gathering and identifying the natural and built infrastructure plans/data along the transportation corridors. Much of the transportation planning work has been collected this year through the NRVPC and VDOT in the Long Range Rural Transportation Planning work that the state began last year.

(CMI/PDC working jointly on this. PDC will do majority of work in identification/70/30 split and both PDC/CMI will do a 50/50 split in gathering) Below is a sample list of plans from the following government agencies and organizations:

**Blacksburg/Christiansburg Metropolitan Planning Organization**

Long Range Transportation Plan  
Transportation Improvement Program  
Six-Year Improvement Plan

**New River Valley Planning District Commission (NRVPDC)\***

New River Valley Economic Development Plan  
Community First- New River Valley's Strategic Plan

**Rural Transportation Planning Organization (within NRVPDC)**

Long Range Rural Transportation Plan (Phase 1/2 Products)  
Central Pulaski Multimodal Transportation Plan  
Regional Bicycle and Pedestrian Plans

**Virginia Department of Transportation\***

Six Year Improvement Program  
I-81 Corridor Environmental Impact Statement  
I-73 Corridor Plan/Smart Road Plan  
Transportation and Land use Legislation  
(SB699- integrate with Rural Long Range Transportation Planning)  
Statewide Transportation Plan

**Department of Rail and Public Transportation**

Proposed and existing Rail Corridors

**Virginia Tech (Transportation plans fall under the MPO and the Town of Blacksburg Comprehensive Plan)**

Transportation Department

**National Park Service\***

**United States Forest Service (Jefferson National Forests)\***

Schedule of Proposed Actions  
Forest Management Plan

**Department of Forestry\***

Forestland Prioritization Plans

Forest Legacy Program

Ecosystem Service Mapping

**Department of Conservation and Recreation \***

Stormwater Management Regulations,

Virginia Outdoor Green Infrastructure and Recreational Plan

Watershed Management Plans

Heritage Mapping (VCLNA),

Karst Protection Mapping

TMDL Implementation Plans

Bird Conservation Plans (Partners in Flight)-Included in Heritage?

**Department of Game and Inland Fisheries \***

State Wildlife Action Plan

Wildlife Driving Trails (Ecotourism)

**Department of Environmental Quality \***

New River Valley Water Supply Plan

Impaired Waters

TMDL Plans

**Department of Emergency Management\***

Hazard Mitigation Plan

**Department of Mines and Minerals \***

Geohazard mapping

Geologic Mapping on the I-81 Corridor for groundwater and hazard mitigation on transportation corridors

**Virginia Tourism Corporation\***

Ecotourism and Agritourism Plans for Southwest Virginia

Heritage Driving Trail (Wilderness Road Trail)

**New River Valley Historical Society/Department of Historical Resources\***

Documentation of historical sites not on the national or state registries, but hold community importance.

**Virginia Cooperative Extension\***

Working farmland initiatives and Agritourism

**US Department of Energy- Energy Efficiency and Renewable Energy\***

Virginia Wind Resource Map

Potential Hydropower Sites  
Biomass

**Appalachian Trail Conservancy**  
Corridor Protection Plan

**New River Land Trust**  
Land Conservation Prioritization Map

**Comprehensive Plans for the following localities:**

Town of Blacksburg  
Town of Christiansburg  
Montgomery County  
Floyd County  
Town of Floyd  
Pulaski County  
Town of Dublin  
Town of Pulaski  
Giles County  
Town of Pearisburg  
City of Radford

**3. Integrate Plans**

Once plans and data are collected, the integration of those data and plans will take place over the next six months. A generous amount of time has been given to accommodate any unforeseen issues with the spatial data and questions of scale in relation to the final product. (CMI/PDC- working jointly together on this)

**4. Establish and Prioritize Opportunities for mitigation and conservation sites in the New River Valley**

The development of the green infrastructure corridor plan would occur in two phases. The first phase would be the identification of important lands for the green infrastructure network. This process would allow participants (localities and communities) to choose from a range of protected lands (i.e. federally protected/state protected lands only to all identified lands in agency and organization plans) to form the base of the green infrastructure corridor plan.

This process will include not only environmental, fisheries/ wildlife and hazard mitigation considerations for the transportation corridors, but additionally incorporate regional economic development transportation goals of the plans. The study would address the following:

- 1) How do transportation goals such as increased tourism, economic development, and safety/efficiency of the transportation system for the region translated to how the I-81 Corridor is developed?

- 2) What does the land use along the major transportation corridors say about the New River Valley to drivers utilizing that corridor?
- 3) Are localities and communities interested in maintaining the viewshed? If so where? Why?
- 4) Do localities want to promote cluster development on the corridor?
- 5) Use freight traffic information to identify potential businesses that could be recruited to locate on the corridor?
- 6) Do localities want to minimize residential development in the corridor to decrease odds for the need of sound walls? Zoning for signs?
- 7) What areas along the corridor are environmentally sensitive given the Karst terrain and ground water resources that are connected to it?
- 8) Given the I-81 improvements underway, how can this plan supplement the state's planning efforts for relieving congestion along the corridor within the New River Valley?

We will look at those questions with the localities and communities and work to interpret those goals into a future green infrastructure transportation corridor plan.

The planning effort will take place on three spatial scales- 1) the Counties scale (Towns and County would plan together); 2) regional, southwest region (include neighboring jurisdictions (Roanoke-Alleghany PDC, Mount Rogers PDC)), and 3) The local scale. The NRVPDC has been awarded a Multimodal Landuse Planning Grant from VDOT whose work will coincide with this grant cycle. The Grant addresses future multimodal transportation planning for the Central Pulaski area along the I-81 Corridor. The study area includes a strong mix of Industrial traffic with access issues to I-81, a regional airport that needs improved access to I-81, a regional trail that will link the New River Trail State Park to Virginia Tech, railroad corridors, and an increase in residential growth. The area has an impaired creek, Karst topography and other environmental issues associated with industrial manufacturing and population growth. We propose to take a closer look of the plan created in the first phase and identify how to implement it at the local scale in conjunction with the VDOT planning grant. The local scale analysis will include a process to identify and prioritize lands for mitigation and conservation within the Central Pulaski Corridor with the localities (Town of Pulaski, Town of Dublin and Pulaski County) and members of those communities.

Because of the sensitive nature of the development of a Green Infrastructure Plan, the NRVPDC believes that it is important to bring an outside unbiased facilitator (i.e. UVA's Institute for Environmental Negotiation (IEN) during potentially highly sensitive points of the plan development process.

The process was adapted from Prince George County Green Infrastructure Plan Development and is as follows:

1. Hold a series of meetings with GI Regional Leadership Group and locality Planning Board Representatives to Develop Goals, Concept Guidelines and to

- agree on a final Public Participation Process that at a **minimum** meets the Blacksburg-Christiansburg Metropolitan Planning Organization's (MPO) and/or the New River Valley Rural Planning Organizations (RPO) (Rural Long Range Transportation Plan) Public Participation Plan (both are compliant with SAFTEA-LU legislation). See Appendix A. (PDC-support/logistics; IEN-facilitation)
2. Hold Public Forum with GI Leadership Group and Planning Boards of all localities within each of the corridors (Total of 5 meetings) to obtain testimony on issues to be included in the plans. This also includes testimony from agency representatives and other stakeholders submitting planning documents for integration. This is the opportunity for those stakeholders to explain why those landscape features (or priority lands) are incorporated into their planning documents. (PDC-support/data summary/logistics; IEN-Facilitation)
  3. Brief the Blacksburg-Christiansburg MPO, New River Valley RPO, VDOT and locality elected officials on the status and upcoming issues. (PDC/GI Leadership Group)
  4. Work with GI Leadership Group to formulate and meet with the following focus groups: 1) Transportation and other Gray Infrastructure Interest Groups; 2) Municipalities and Large Civic Associations; 3) Interagency and Public Land Managers Focus Group; 4) Agriculture and Forestry Interests; 5) Citizens and Environmental Advocacy Groups; 6) Building Industry, Businesses and Chamber of Commerce; and 7) Historic and Cultural Groups. GI Leadership Group-help in formulation/networking; PDC-formulation/support/logistics; IEN-formulation/facilitation)
  5. Prepare Focus Group Input Summary- Includes collection and translation of data into spatial format. (PDC/CMI)
  6. Preparation of Plan Scenarios for each of the 6 corridors(integration of agency plans as well as public input into 5-7 GI scenarios ranging from federally protected to all lands identified in the process). Include layer for importance on regional scale/state scale (See below) (CMI-scenario preparation; IEN/PDC comment and process/Overall Guidance)
  7. Prepare for Plan Review Group Meeting (IEN-facilitation/CMI-data and maps/PDC-logistics and support).
  8. Plan Review Group Meeting (IEN-facilitate/CMI-PDC attend)
  9. Brief MPO, RPO, Agency Partners, and Planning Boards/Elected Officials on results of Plan Review Group Meeting. (PDC/GI Leadership Group)
  10. Develop Draft Preliminary Plan (CMI/PDC/IEN)
  11. Obtain participating localities planning board permission to print and distribute plan for comments (PDC/Leadership Group)
  12. Joint Public Hearing (PDC/IEN, CMI time for attendance)

Stage Two- Land prioritization and implementation strategy development. This stage is slated to be a three month process. Hold up to 3 meetings with the localities and community groups in the Central Pulaski Process. Facilitator costs will be covered by this grant for prioritization meetings.

## 5. Assess Effects

Using the Multimodal study, the ecological and cultural effects of the current and potential growth can be assessed at the Central Pulaski Scale. (PDC/VDOT)

Once the plan is created and prioritized, future steps include:

6. **Develop financing strategy to implement plan**
7. **Adopt corridor and financing strategy into Comprehensive Plans**
8. **Design Projects Consistent with Regional Ecological Framework**
9. **Balance Predictability and Adaptive Management**