

## **New River Valley Green Infrastructure Initiative**

### **What is Green Infrastructure?**

When we think of infrastructure we think of built infrastructure, or gray infrastructure such as roads, electric power lines and water systems. Or we may think of social infrastructure such as schools, hospitals and libraries. However, it is becoming more common in planning efforts to consider components of the natural environment as infrastructure when they are providing valuable services to community. This environmental infrastructure is called Green Infrastructure.

### **Green Infrastructure Relationship to Planning**

The concept of Green Infrastructure recognizes that natural resources – air, land (open spaces/working farms/greenways/trails), and water – are equal in value to the built infrastructure in a community. By having a Green Infrastructure plan for a community or region, it helps guide development and growth - and integrates related gray infrastructure planning efforts- ensuring that developers, citizens, and communities capture the cost advantages of location in order to create and protect household and community amenities and resources. After gathering all stakeholders and interest groups in the community, the first step in developing a green infrastructure network is the identification and inventory of those resources that are important to the community. How it is implemented is also defined by that community.

### **New River Valley Green Infrastructure Project**

In 2006, the NRVPC and its partners began the first of a three stage process to implement a Green Infrastructure planning approach for the region. Those stages include: Stage 1) Education/Outreach/Needs Assessment/Capacity Building; Stage 2) Integration of existing natural resource and built infrastructure information for formal plan development and land prioritization by the localities and communities; and Stage 3) Adoption of Green Infrastructure plan/priorities and implementation process.

In order to create a plan that can stand the test of politics and interests at the local level, key stakeholder groups need to understand the value of Green Infrastructure and the benefits in relation to their interest. Additionally, those stakeholder concerns must be recognized and addressed in the planning process in order to make implementation a reality. Based upon this understanding, we have begun to build a network of public and private interests that will help guide the development of our green infrastructure planning process for the New River Valley. Our strategy is to build the capacity of our local stakeholders within this initiative by integrating and focusing on the issues that our stakeholders are ALREADY expending effort to address or those issues that have strong support to move forward within the realm of Green Infrastructure planning. Those issues that we are moving forward within the Green Infrastructure Initiative have strong support from ALL STAKEHOLDERS involved. Our current partners include:

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

*Advisory Committee:* USDA Resource Conservation and Development Area, Department of Transportation, 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 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.

Funding provided by the Department of Forestry and the Virginia Environmental Endowment Fund will be used for a community workshop in each of the 4 Counties and the City of Radford to identify current growth issues within the communities and begin to lay the education base for the value of Green Infrastructure planning (June-August 2007) (see website for details). In November of this year, participants will learn more on the process of creating a Green Infrastructure Network and ways to implement that Plan (Mountain Lake, October 2007). A leadership group will be formed in the Spring of 2008 to help guide future Green Infrastructure efforts.

Outside of the funded project, the working group has been identifying key partners and focus groups to target for additional outreach/education/needs assessment. These groups are critical in order to gain political support for a future plan and require additional meetings/workshops to achieve their “buy-in”.

### **Near-future Green Infrastructure Efforts**

The education and outreach phase (and current phase) will end in the spring 2008 with the development of a leadership group to guide the formation of a formal green infrastructure plan. There has been considerable momentum, support and excitement generated in the first stage of the process, although there is major concern in securing funding for the second stage of the project- the integration of natural and infrastructure plans at the regional level to create a Green Infrastructure Plan for the region.

There is a growing interest among Virginia's natural resource agencies to develop a process that would facilitate Green Infrastructure planning among the localities in the state. The goal of our next stage (Green Infrastructure Plan Development) is to provide the state with a model 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 for the state to implement the Green Infrastructure approach at the local level through the Planning District Commissions. The end product would be the creation of a “Green Infrastructure” plan that would identify and prioritize mitigation and conservation lands that have the greatest ecological and community value that could be potentially affected by future infrastructure projects. Additionally, it would help focus non-profit conservation efforts upon an agreed framework for implementation. The Green Infrastructure Plan development process is broken up into four stages:

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

At the state level, DCR will develop an interagency working group to foster cooperation among partners in order to develop a process that would support the integration of natural resource and other built infrastructure planning across the state. This project would serve as a pilot for implementing the planning process at the local and regional levels. The purpose of the working group is to develop MOU between state agencies to address GI planning;

At the regional level, the existing partnership developed would be further strengthened through targeted workshops of interest groups vital to acceptance of the plan at the local level as well as through the process of developing a Green Infrastructure plan that integrates local natural and built infrastructure plans/from the agencies/groups referenced below.

## **2. Identify Management Plans**

This proposal would integrate existing natural and built infrastructure plans in spatial format from the following government agencies and organizations (list is not all-inclusive):

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 (Jefferson National Forests), Department of Forestry, Department of Conservation and Recreation, 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, Appalachian Trail Conservancy, New River Land Trust , and Comprehensive Plans for localities.

## **3. Integrate Plans**

The NRVPDC with its partners and leadership group would identify and gather existing plans and overlay the proposed plans and GIS layers for evaluation by the stakeholders.

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

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 community, 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. Each of the participating parties providing data to the formal plan development will have a representative to explain that data layers relative importance to the locality in the plan development stage.

Once the Green Infrastructure base map is complete, lands will be prioritized for mitigation and conservation purposes by the localities and regional green infrastructure leadership group. Because of the sensitive nature of the prioritization process, the NRVPDC believes that it is important to use an outside unbiased facilitator for the prioritization phase. The Plan Development and Prioritization will take account of three spatial scales: 1) County Scale (including the towns); 2) Planning District Scale; and 3) State or Regional Scale.

## **5. Assess Effects**

Using proposed future development and growth corridors and road projects primarily within the Long Range Rural Transportation Plan and the Long Range MPO Transportation Plans, the ecological and cultural effects of the proposed projects can be assessed for the area.

## **Future Steps**

Once plan is created and prioritized, future steps include: Adopt into Comprehensive Plans; Design Projects Consistent with Green Infrastructure Plan; Balance Predictability and Adaptive Management