

# WISE COUNTY, VA



Growth Readiness Report  
2007

# Project Sponsors

**The following agencies and organizations made this process possible through their expertise and support:**



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*Front Cover Photo: Guest River*

*Back Cover/GIS Map: Courtesy of Wise County Government*

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*Workshop participants in a small group discussion.*

Many communities in Southwest Virginia are experiencing changes due to urbanization, as residents move from more rural, outlying areas into larger communities. This population shift causes changes in land usage and in the character of those communities. Such changes can have significant positive effects for the communities in question, but also create a need to address the issues of urbanization, including stormwater runoff, flooding, increased costs for water supply treatment, and water quality related impacts on tourism and recreation.

To help community leaders address these issues, Wise County hosted four Growth Readiness Workshops over a six month period in 2006. Participants from a broad base of decision-makers and citizens learned about best practices for land use and development, and evaluated their capacity to successfully manage growth, provide flood control, and preserve water quality.

Over 50 community leaders participated, representing the jurisdictions of Big Stone Gap, Coeburn, Norton, Pound, St. Paul, Wise and Wise County and state and regional organizations. They compared existing codes and ordinances to Growth Readiness Model Principles, focusing on three designated areas: streets and parking, lot design, and open space. Over several months, work groups prepared recommendations for reducing the

negative impact of development on water quality and quantity.

There were several positive outcomes to this process. Participants from both public and private sectors learned about the need for stormwater management and low impact development. Several recommendations were made that can be carried forward for ordinance changes. The large turnout in all four workshops ensured that new and useful connections were formed. Completion of the Growth Readiness workshop series, which demonstrates grassroots interest in low impact practices, may also facilitate grant awards.

The workshops were conducted by the Tennessee Valley Authority, the Southeast Watershed Forum, the Virginia Department of Conservation and Recreation, and the Canaan Valley Institute.

They were based on the NEMO (Non-point Source Education for Municipal Officials) program of the University of Connecticut and the *Better Site Design Handbook* of the Center for Watershed Protection. The Southeast Watershed Forum and Tennessee Valley Authority sponsored and facilitated the Tazewell County Growth Readiness workshops and fostered the process of consensus-building. Funding was provided by the Tennessee Valley Authority through the Black Diamond RC&D.

## WORKSHOP SUMMARIES

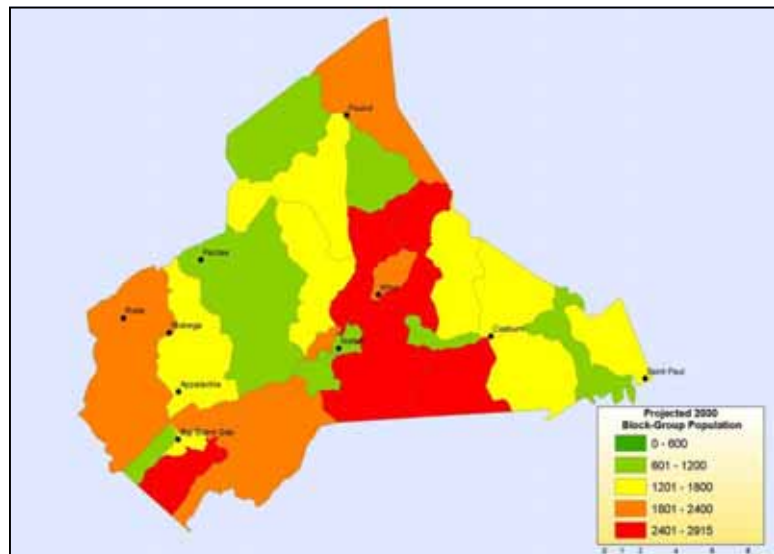
### **Workshop I February 28, 2006 Understanding the Impact of Growth on Water Resources**

Participants learned how urbanization affects water quality, and how water quality affects the economic, legal, and quality-of-life aspects of a community. They identified local water issues, and used maps and population data to make growth projections.



### **Workshop II March 28, 2006 Having Growth and Water Quality Too**

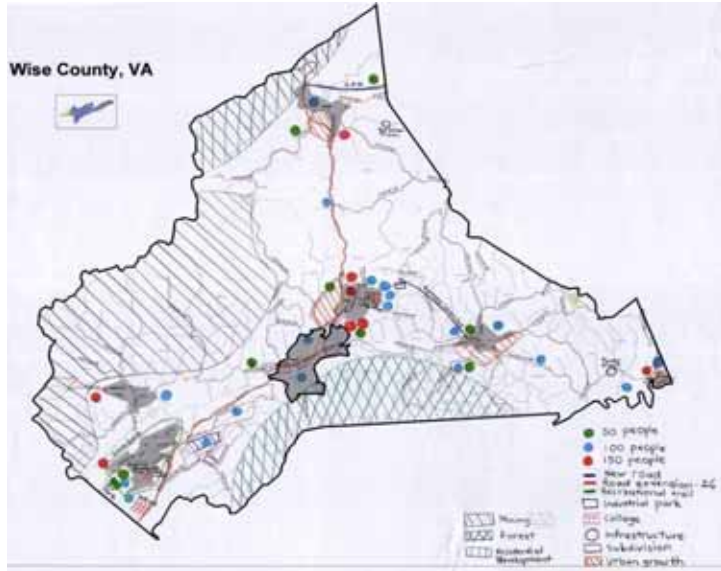
Participants compared existing population and impervious maps to the projected population and impervious maps from the first workshop and noted where growth-related water issues are likely to emerge. They recognized that water quality is not necessarily of primary concern to people and brainstormed other “hooks” to engage the community in addressing water issues. They learned about: the 22 Model Principles for Better Site Design developed by the Center for Watershed Protection and the Codes and Ordinances Worksheet (COW), a tool to help communities evaluate their existing ordinances against the model principles. They determined which principles might work in their communities and how to promote best practices. A representative from each jurisdiction agreed to complete the COW prior to the next workshop.



*(Top) Current Land Use map;*

*(Middle) Small group mapping exercise;*

*(Bottom) Projected Population 2030.*



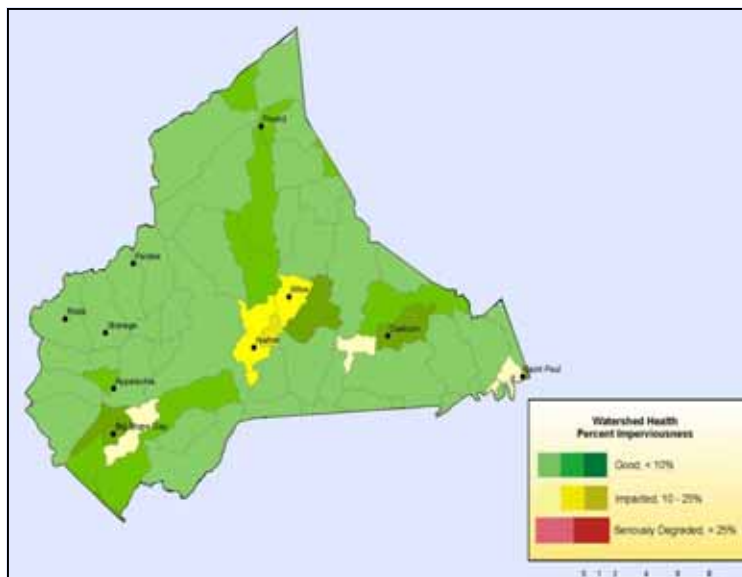
**Workshop III  
May 23, 2006  
Deciding What's Right  
For Our Community**

Participants learned about the importance of incorporating watershed planning into comprehensive planning, current examples of low impact development in Southwest Virginia, and the capacity of Wise County's GIS system to assist in community planning. (See map on back cover) Community representatives discussed the COW results. Participants divided into three work groups to start the process of recommending changes to streets and parking, lot design, and natural areas. They agreed to meet in their work groups to develop draft consensus recommendations for the full group to consider.



**Workshop IV  
July 25, 2006  
Building Consensus For  
Change**

Work groups presented their recommendations for change. The entire group reviewed the recommendations and made revisions. The work groups then reconvened to determine an approach for finalizing the recommendations for Wise County. Participants also determined the steps needed to involve other stakeholders and implement the recommendations in their respective jurisdictions.



*(Top) Hand-drawn map from small group exercise; (Middle) Small group presentation; (Bottom) Projected Imperviousness 2030*

## GROWTH READINESS RECOMMENDATIONS

After reaching consensus, the group prepared the following recommendations for the 22 Model Principles for Better Site Design. These recommendations are provided for the County, the City and Towns to use as they update comprehensive plans, review existing ordinances, design new ordinances, and encourage new businesses to locate in their communities.

### Residential Streets and Parking Lots (Habitat for Cars)

#### **Principle 1. Street Width**

**Design residential streets for the minimum required pavement width needed to support travel lanes; on-street parking; and emergency, maintenance, and service vehicle access. These widths should be based on traffic volume.**

#### **Recommendations:**

The minimum pavement width allowed for streets in low density residential developments that have less than 500 average daily trips (ADT) should be 18 to 22 feet.

In high density residential developments, parking lanes should be allowed to also serve as traffic lanes (i.e., queuing streets).

#### **Additional considerations:**

- Some street width considerations are limited by VDOT standards. More information is needed in the VDOT waiver process.
- Street widths should be able to accommodate movement of mobile homes, coal/logging equipment and trucks, and SUVs where applicable
- VDOT requires different pavement widths for subdivisions (30'–towns/city; 22'/24' county).
- Wider, non-paved (pervious) shoulders should be considered in place of pavement to accommodate wider trucks, trailers, etc.

#### **Principle 2. Street Length**

**Reduce the total length of residential streets by examining alternative street layouts to determine the best option for increasing the number of homes per unit length.**

#### **Recommendations:**

The group chose not to consider this principle.

#### **Principle 3. Right-of-Way Width**

**Wherever possible, residential street right-of-way widths should reflect the minimum required to accommodate the travel-way, the sidewalk, and vegetated open channels. Utilities and storm drains should be located within the pavement section of the right-of-way wherever feasible.**

#### **Recommendations:**

The group chose not to consider this principle. They felt that more information is needed about the practicality of under-pavement utilities, including the effects on road surface maintenance.



Wise County neighborhood

**Residential Streets and Parking Lots (Habitat for Cars) Continued**

**Principle 4.  
Culs-De-Sac**

*Minimize the number of residential street culs-de-sac and incorporate landscaped areas to reduce their impervious cover. The radius of a cul-de-sac should be the minimum required to accommodate emergency and maintenance vehicles. Alternative turnarounds should be considered.*

**Recommendations:**

- The minimum radius allowed for cul-de-sacs should be less than 45 feet and preferably less than 36 feet.
- Landscaped islands may be created within the cul-de-sac.
- Alternative turnarounds such as "hammerheads" are allowed on short streets in low density residential developments.
- EMS, Schools, and Garbage Collection will need to be consulted before ordinances are finalized for each jurisdiction.

**Principle 5.  
Vegetated Open Channels**

*Where density, topography, soils, and slope permit, vegetated open channels should be used in the street right-of-way to convey and treat stormwater runoff.*

**Recommendations:**

- Curb and gutter is not a requirement of new subdivisions (residential streets). New ordinances should continue to allow the use of vegetated channels and swales.
- Ordinances allow the use of rain gardens in conjunction with vegetated channels.

**Principle 6.  
Parking Ratios**

*The required parking ratio governing a particular land use or activity should be enforced as both a maximum and a minimum in order to curb excess parking space construction. Existing parking ratios should be reviewed for conformance taking into account local and national experience to see if lower ratios are warranted and feasible.*

**Recommendations:**

The group thought that appropriate parking ratios should be set, but that usage studies are needed to set proper parking ratios.

The group recommends establishing review committees to set ratios. Possible items for these committees to consider include:

- Allowing parking ratios appropriate for the specific use of the building, i.e. different ratios for different types of products in buildings of the same square footage.
- Basing commercial spaces on number of patrons per day instead of square feet of floor space.

***Impervious surfaces like asphalt, cement and roofing prevent infiltration of rainfall into the soil, disrupting the water cycle and affecting both the quantity and quality of our water resources.***

*- NEMO (Nonpoint Education for Municipal Officials)*

### Residential Streets and Parking Lots (Habitat for Cars) Continued

#### **Principle 7. Parking Codes**

***Parking Codes should be revised to lower parking requirements where mass transit is available or enforceable shared parking arrangements are made.***

#### **Recommendations:**

The group does not recommend implementing this principle since mass transit is not currently a consideration in Wise County. In addition, they were concerned that localities would have difficulty enforcing shared parking arrangements between private businesses. However, they did suggest requiring shared parking where possible (large businesses adjacent to each other).

#### **Principle 8. Parking Lots**

***Reduce the overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in spillover parking areas.***

#### **Recommendations:**

- The minimum stall width for a standard parking space should be maintained at 9 ft.
- The minimum stall length for a standard parking space should be maintained at 18 ft.
- Compact car spaces are not recommended. However this was not unanimous in later discussion with the larger group.
- Use of pervious material for spillover parking should be allowed in local ordinances.
- Reclamation of parking lots should be encouraged after big box retailers leave and / or land uses change – parking needs to be reassessed over time.
- Open space design should be encouraged in parking lots – including use vegetated islands and rain gardens.
- Tax incentives should be allowed for pervious spillover parking.

#### **Principle 9. Structured Parking**

***Provide meaningful incentives to encourage structured and shared parking to make it more economically viable.***

#### **Recommendations:**

Parking garages are needed at specific sites in the county. The group recommended pursuing the development of these structures.



*Pervious surface is ideal for overflow parking  
- Center for Watershed Protection*

**Lot Development (Habitat for People)**

**Principle 10.  
Parking Lot Runoff**

*Wherever possible, provide stormwater treatment for parking lot runoff using bio-retention areas, filter strips, and/or other practices that can be integrated into required landscaping areas and traffic islands.*

**Recommendations:**

A minimum percentage of a parking lot must be landscaped.

The group recommended landscaping requirements for parking lots including bioretention areas and filter strips. The following locations may be useful examples for big-box retailers:

- Wytheville Wal-Mart – trees
- Elizabethton Wal-Mart–filters

*Because of impervious surfaces, a city block creates nine times more runoff than a woodland area of the same size.*

*- EPA, Office of Wetlands, Oceans & Watersheds*

**Principle 11.  
Open Space Development**

*Advocate open space development that incorporates smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space, and promote watershed protection.*

**Recommendations:**

- Address open space and cluster development in subdivision regulations and allow them to be “by-right” in future changes.
- Create incentives for preservation of open space in new developments consistent with the goals of creating desirable living environments and protecting and enhancing the natural environment and community features.
- Common open space shall be included as an integral part of the overall development design and shall constitute a minimum percentage of the gross land area of the development.
- The land designated as common open space shall be included in the Final Plat.
- Common open space may be improved for active or passive recreation uses with space containing natural features worthy of preservation or environmentally sensitive areas left unimproved.
- All land shown on the approved Concept Plan as common open space shall be conveyed to a property owner’s association for ownership and maintenance in perpetuity. (Currently there isn’t a required association.)

**Principle 12.  
Setbacks and Frontages**

*Relax side yard setbacks and allow narrower frontages to reduce total road length in the community and overall site imperviousness. Relax front setback requirements to minimize driveway lengths and reduce overall lot imperviousness.*

**Recommendations:**

- The following standards are met in part by various communities' ordinances. The group recommended that the minimums be standardized county-wide.
- Irregular lot shapes (e.g. pie-shaped, flag lots) are allowed.
- The following are minimum requirements for a one half (1/2) acre residential lot:
  - ◊ front setbacks of 20 ft. or less
  - ◊ rear setbacks of 25 ft. or less
  - ◊ side setbacks of 8 ft. or less
  - ◊ frontage is less than 80 ft.
- Ordinances need to be made more flexible and user-friendly.

**Lot Development (Habitat for People) Continued**

**Principle 13.  
Sidewalks**

*Promote more flexible design standards for residential subdivisions sidewalks. Where practical, consider locating sidewalks on only one side of the street and providing common walkways linking pedestrians.*

**Recommendations:**

- In residential areas, alternate pedestrian networks may be substituted for sidewalks (e.g., trails through common areas).
- In residential areas, sidewalks shall be generally sloped to drain towards the front yard rather than towards the road or street.
- Encourage the use of pervious types of paving systems, keeping in mind the need for ADA compliance.

***Owners of small companies ranked recreation, parks, and open space as the highest priority in choosing a new location for their business.***

*- Journal of Parks and Recreation Administration, 1997*

**Principle 14.  
Driveways**

*Reduce overall lot imperviousness by promoting alternative driveway surfaces and shared driveways that connect two or more homes together.*

**Recommendations:**

- Minimum driveway width is 9 feet or less for one lane or 18 feet or less for two lanes.
- Allow the use of pervious materials for single family home driveways (e.g., grass, gravel, porous pavers, etc).
- Allow the use of a "two track" design for single family driveways.
- Allow the use of shared driveways in residential developments. Include some type of legal language in the plat that indicates the use of the shared driveway and maintenance thereof.
- Encourage the developer in the concept plan and final plan subdivision submittal to utilize impervious / alternative driveway designs and surfaces.
- Provide manufacturer name / samples/specifications to assist the homeowner. Encourage manufacturer to have an "open house" to showcase their products.
- Provide economic incentives for both the developer and homeowner when they choose pervious surfaces.
- Encourage front setbacks to be shorter in length, i.e. driveway is shorter and does not have as much surface area.

**Principle 15.  
Open Space Management**

*Clearly specify how community open space will be managed and designate a sustainable legal entity responsible for managing both natural and recreational open space.*

**Recommendations:**

The group chose to not address this principle.

**Principle 16.  
Rooftop Runoff**

*Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas and avoid routing rooftop runoff to the roadway and the storm water conveyance system.*

**Recommendations:**

The group chose to not address this principle.

**Conservation of Natural Areas (Habitat for Nature)**

**Principle 17.  
Buffer Systems**

*Create a variable width, naturally vegetated buffer system along all perennial streams that also encompasses critical environment features such as the 100-year floodplain, steep slopes and freshwater wetlands.*

AND

**Principle 18.  
Buffer Maintenance**

*The riparian stream buffer should be preserved or restored with native vegetation that can be maintained throughout the plan review, delineation, construction, and occupancy stages of development.*

**Recommendations:**

Encourage the creation or preservation of riparian buffers through a voluntary, county-wide tax-incentive program. Landowners would receive an adjustable percent real estate tax reduction based on amount of riparian buffer created and maintained, with the burden of proof placed on the resident requesting the tax reduction. The buffer would be preserved or restored with native vegetation. While land use tax revenues might decrease somewhat based on this scheme, that decrease would be offset by an increase in tax revenues from increased property values having the amenity of more open space.

**Principle 19.  
Clearing and Grading**

*Clearing and grading of forests and native vegetation at a site should be limited to the minimum amount needed to build lots, allow access, and provide fire protection. A fixed portion of any community open space should be managed as a protected green space in a consolidated manner.*

**Recommendations:**

The group passed on recommending action on this Principle at this time.

**Principle 20.  
Tree Conservation**

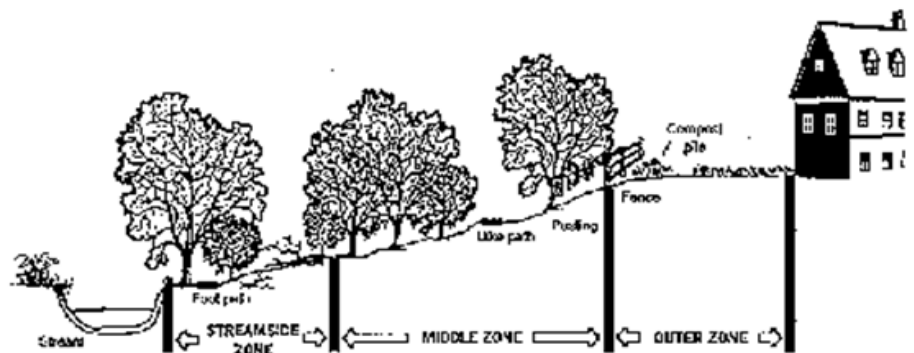
*Conserve trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native plants. Wherever practical, manage community open space, street rights-of-way, parking lot islands, and other landscaped areas to promote natural vegetation.*

**Recommendations:**

- If forests or specimen trees are present at residential development sites, it should be encouraged that some of the stand be preserved.
- Delineation of limits of disturbance shown on construction plans is adequate to prevent clearing of natural vegetative cover during construction.

*Property values of homes with trees in the landscape are 5 - 20% higher than equivalent properties without trees.*

- Trees Atlanta



Three Zone Buffer System, Center for Watershed Protection

**Conservation of Natural Areas (Habitat for Nature) Continued**

**Principle 21.  
Land Conservation  
Incentives**

*Incentives and flexibility in the form of density compensation, buffer averaging, property tax reduction, stormwater credits, and by-right open space development should be encouraged to promote conservation of stream buffers, forests, meadows and other areas of environmental value. In addition, off-site mitigation consistent with locally adopted watershed plans should be encouraged.*

**Recommendations:**

The group agreed that these measures are important over the long term, but that they should be re-evaluated after a riparian buffer program has been put into place.

**Principle 22.  
Storm Water Outfalls**

*New storm water outfalls should not discharge unmanaged storm water into jurisdictional wetlands, sole-source aquifers, or other water bodies.*

**Recommendations:**

The group does not recommend adding new regulations to those which already exist.



*Powell River*

Several preliminary plans were made to carry forward Growth Readiness recommendations. There was general agreement from the Natural Areas group and general group to propose and explain the incentive programs (Principle 18, 21) to the Wise County Board of Supervisors. Other recommendations might be prepared and presented, as well to the Board or an approach made to other County departments. Also, an initial meeting took place last summer to investigate forming a volunteer committee for tree management in Big Stone Gap.

Additionally, there was consensus that many of the specific ideas promoting Growth Readiness in Wise County would take time that participants simply didn't have. The suggestion was made that a VISTA volunteer to be recruited for the Upper Powell watershed, which includes parts of Wise and Lee Counties, could push these plans forward and report on progress made. A VISTA for the Upper Powell is now in place whose responsibilities include promoting Growth Readiness objectives.

Since the Workshops ended, there has been at least one direct outgrowth of the process: the Wise County Low-Impact Development Workshop sponsored by the Upper Tennessee River Roundtable (UTRR) on March 28, 2007. At the March meeting, state and regional agencies and local schools presented information on the importance of water quality and of managing stormwater runoff. Using that information, participants made recommendations for improving runoff on their own school grounds. They were also offered the opportunity to apply for a \$14,000 grant to implement low-impact development techniques on a school campus, with assistance of UTRR. This workshop was particularly timely because Wise County is now planning school renovations throughout the County. UTRR has now selected a proposal and received approval to build two bioretention ponds that filter parking lot runoff at the J.J. Kelly High School in Wise.



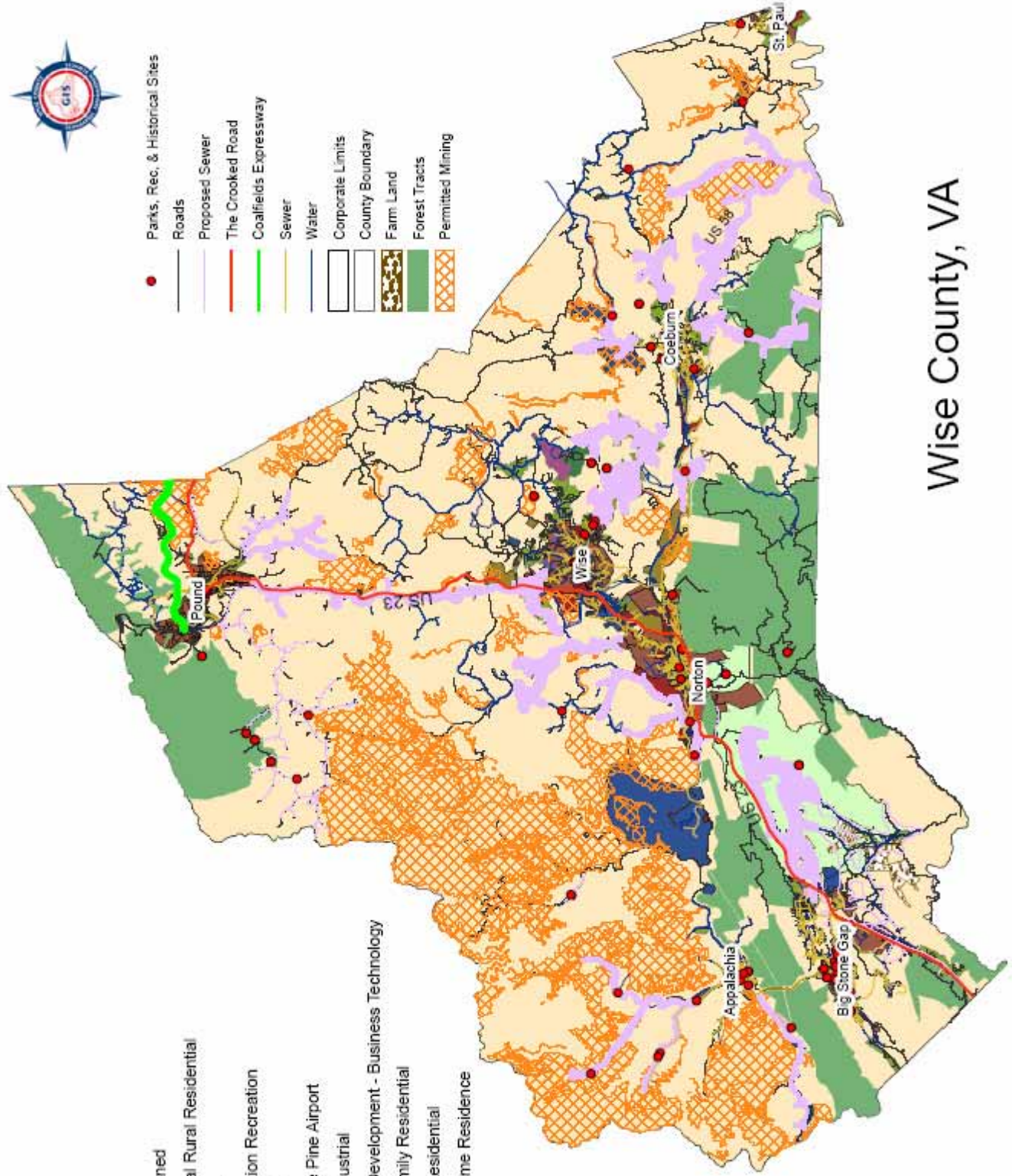
*Participants at Guest River Clean-up*



### Zoning

- Not yet zoned
- Agricultural Rural Residential
- Business
- Conservation Recreation
- Industrial
- Lonesome Pine Airport
- Heavy Industrial
- Planned Development - Business Technology
- Single Family Residential
- General Residential
- Mobile Home Residence

- Parks, Rec. & Historical Sites
- Roads
- Proposed Sewer
- The Crooked Road
- Coalfields Expressway
- Sewer
- Water
- Corporate Limits
- County Boundary
- Farm Land
- Forest Tracts
- Permitted Mining



## Wise County, VA