



## Why Work at the Watershed Level?

April 12, 2016

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- Hydrologically defined
- Involves all stakeholders
- Strategically addresses priority water resource goals

# What is the importance of understanding watershed science in the planning and implementation process?

# What is the importance of understanding watershed science in the planning and implementation process?

- To understand causes, sources and impacts?
- To convince stakeholders to do the right thing?
- To be confident that if a management practice is put in place that it will show measureable results?

What do you think are the main drivers that move people to be involved, educate themselves and their constituents, and do their part in implementing management strategies?

# Watershed goals can be thought of in the context of:

- Ecological
- Community / social
- Programmatic / political

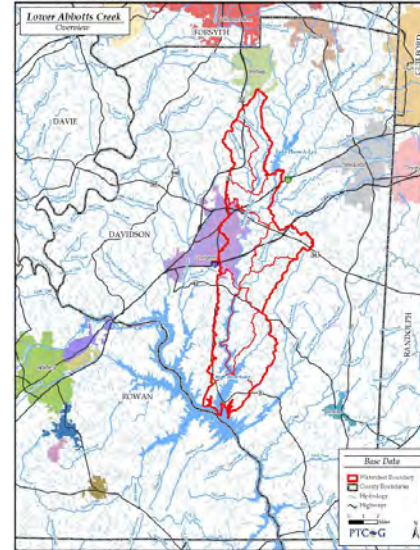
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# *What is a Watershed Plan?*

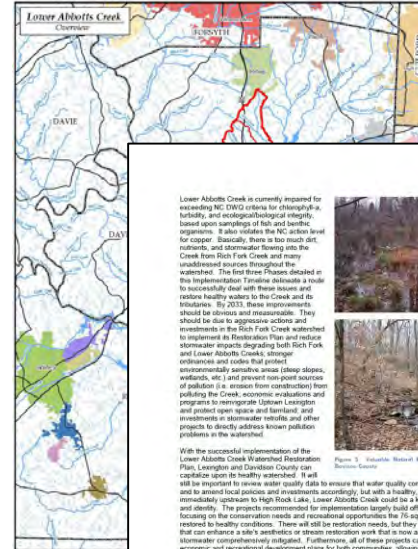
## Lower Abbotts Creek Watershed Restoration Plan Executive Summary





# What is a Watershed Plan?

## Lower Abbotts Creek Watershed Restoration Plan Executive Summary



Lower Abbotts Creek is currently impaired for exceeding NC DAWG criteria for chlorophyll-a, turbidity, and macroinvertebrate integrity, based upon samplings of fish and benthic organisms. It also violates the NC action level for copper. Basically, there is too much dirt, nutrients, and stormwater flowing into the Creek from Rich Fork Creek and many unaddressed sources throughout the watershed. The first three Phases detailed in the Implementation Timeline delineate a route to successfully deal with these issues and restore healthy waters to the Creek and its tributaries. By 2033, these improvements should be obvious and measurable. They should be due to aggressive actions and investments in the Rich Fork Creek watershed to implement its Restoration Plan and reduce stormwater impacts degrading both Rich Fork and Lower Abbotts Creeks, stronger ordinances and codes that protect environmentally sensitive areas (steep slopes, wetlands, etc.) and prevent non-point sources of pollution (i.e. erosion from construction) from polluting the Creek, economic evaluations and programs to reintegrate farmers, Lexington and protect open space and farmland, and investments in stormwater retrofits and other projects to directly address known pollution problems in the watershed.

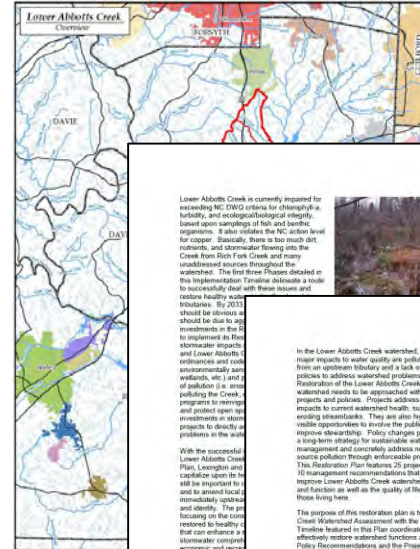
With the successful implementation of the Lower Abbotts Creek Watershed Restoration Plan, Lexington and Davidson County can capitalize upon its healthy watershed. It will still be important to assess water quality data to ensure that water quality conditions continue to improve, and to amend local policies and investments accordingly, but with a healthy, stable watershed immediately upstream to High Rock Lake, Lower Abbotts Creek could be a lifeline to the local economy and identity. The projects recommended for implementation largely build off of this concept, primarily focusing on the conservation needs and recreational opportunities the 75-square mile watershed holds if restored to healthy conditions. There will still be restoration needs, but they will largely be local retrofits that can enhance a city's aesthetics or stream restoration work that is now a smart investment with stormwater comprehensively mitigated. Furthermore, all of these projects can be integrated into economic and recreational development plans for both counties, allowing them to use multiple funding sources that address multiple interests to create projects that will benefit Lexington and Davidson County's economy, environment, and community. Continued investments that realize the value of Lower Abbotts Creek and protect its health and function will yield universal benefits to the residents of the Lower Abbotts Creek watershed long into the future.



Figure 2: Sustainable Watershed Restoration near High Rock Lake, Davidson County

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With the successful Lower Abbotts Creek Plan, Lexington and capitalizes upon the will be important to it and to amend local a non-negotiable option and identify. The plan focuses on the core restored to healthy a that can enhance a stormwater (compulsory) and recent funding sources that County's economy, Abbotts Creek and a Abbotts Creek water.

Lower Abbotts Creek Watershed  
Executive Summary



In the Lower Abbotts Creek watershed, the major impacts to water quality are pollution from an upstream tributary and a lack of local policies to address watershed problems. Restoration of the Lower Abbotts Creek watershed needs to be approached with both projects and policies. Projects address obvious impacts to current watershed health, such as eroding streambanks. They are also highly visible opportunities to involve the public and improve stewardship. Policy changes provide a long-term strategy for sustainable watershed management and conceptually address non-point source pollution through enforceable programs. This Restoration Plan features 25 projects and 10 management recommendations that can all improve Lower Abbotts Creek watershed health and function as well as the quality of life for all those living here.

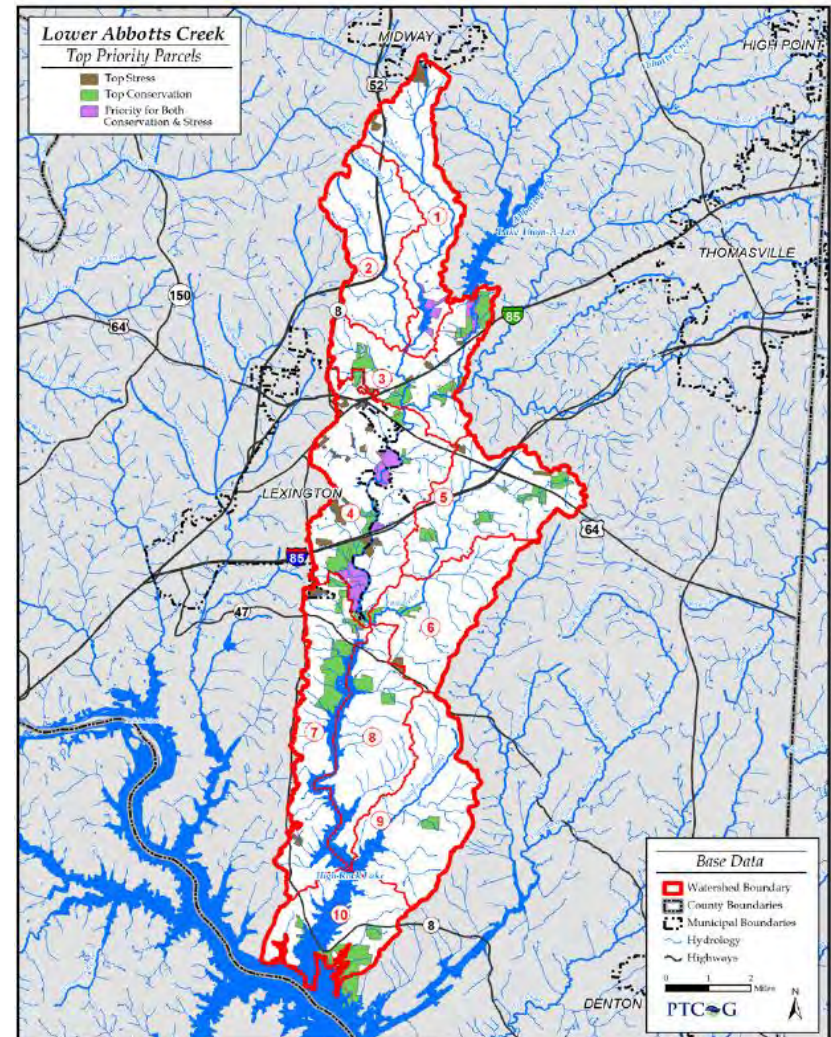
The purpose of this restoration plan is to coordinate watershed needs identified in the Lower Abbotts Creek Watershed Assessment with the feasibility to create new projects or programs. An Implementation Timeline included in this Plan coordinates management policies and project investments that will effectively restore watershed functions and health to the City of Lexington and Davidson County. The Policy Recommendations and the Project Plan priorities detail the goals and actions, and are summarized here. Full descriptions of all recommended policy initiatives and project investments are detailed in the Lower Abbotts Creek Watershed Restoration Plan, available for download at [www.lowerabbottscreekwatershed.org](http://www.lowerabbottscreekwatershed.org), or upon request.

Figure 1. Streambank, 3. Restoration Model, September 2010.



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# *What is a Watershed Plan?*

## Eden Area Watershed Restoration Plan



February 2014

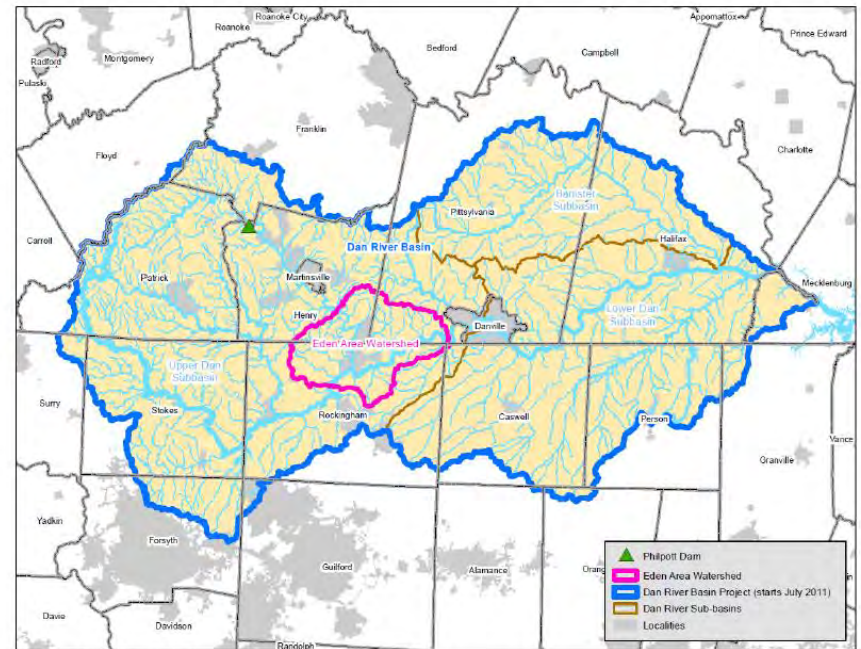
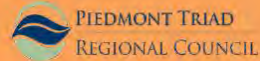


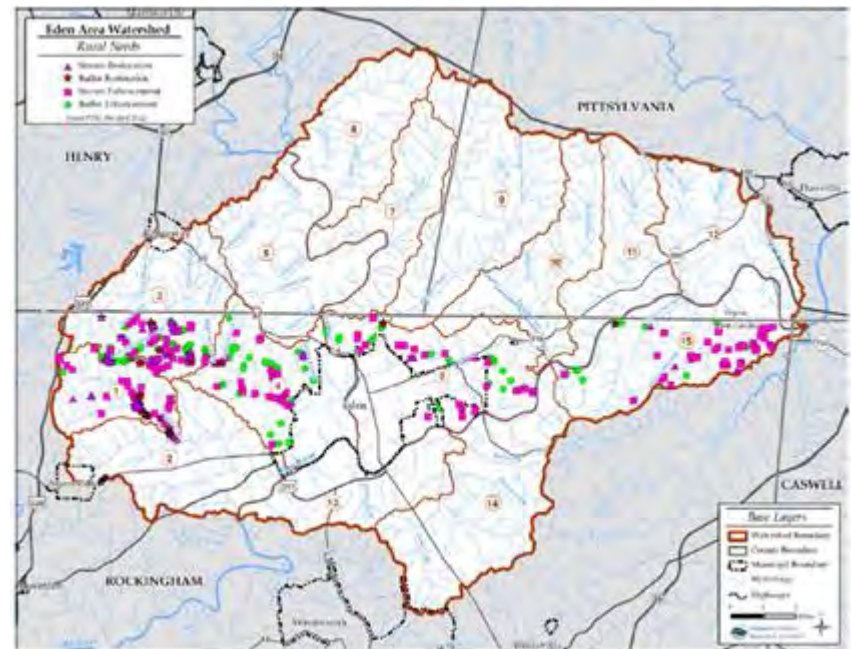
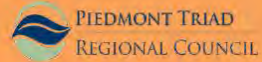
Figure 3: The Project Area in the Upper Dan River Subbasin

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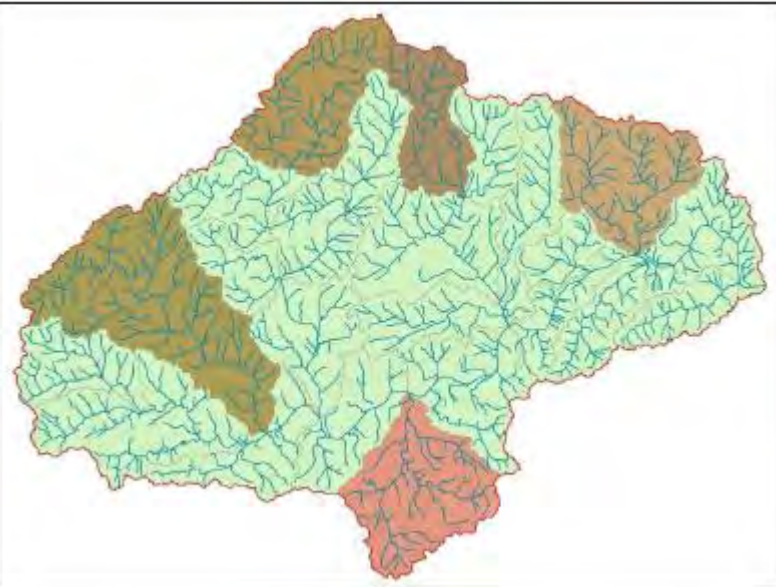
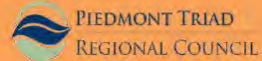


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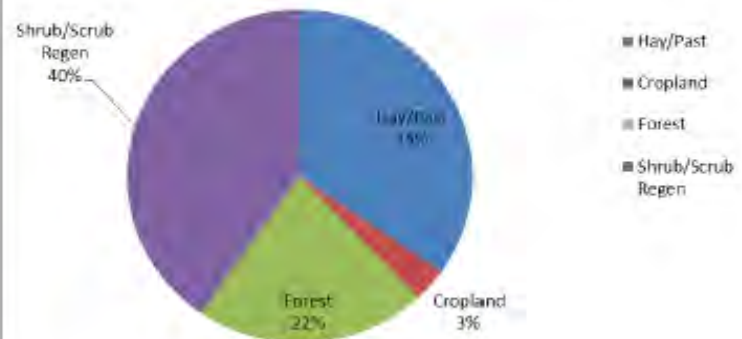
## Eden Area Watershed Restoration Plan



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## Erosion Sources - Primary contributors

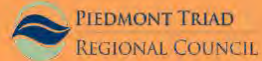


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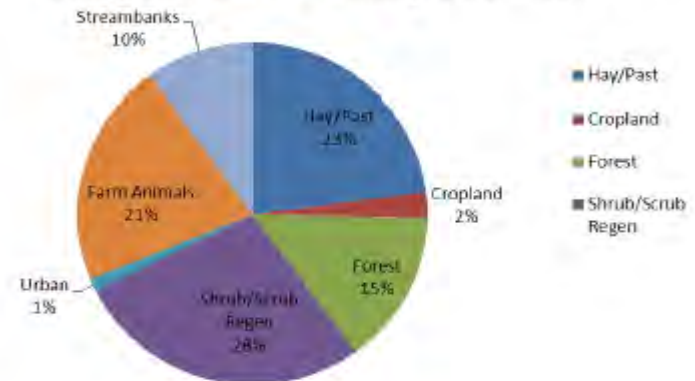
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# What is a Watershed Plan?

## ELKIN WATER SUPPLY

### PROTECTION & RESTORATION PLAN



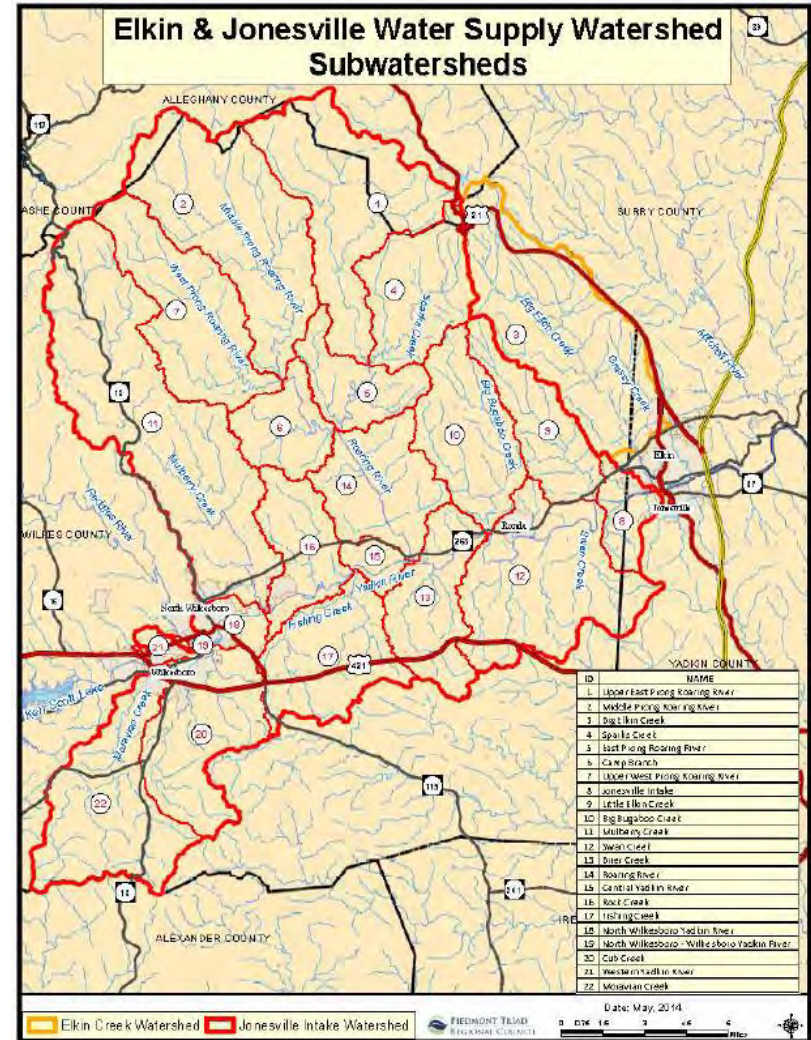
#### Executive Summary



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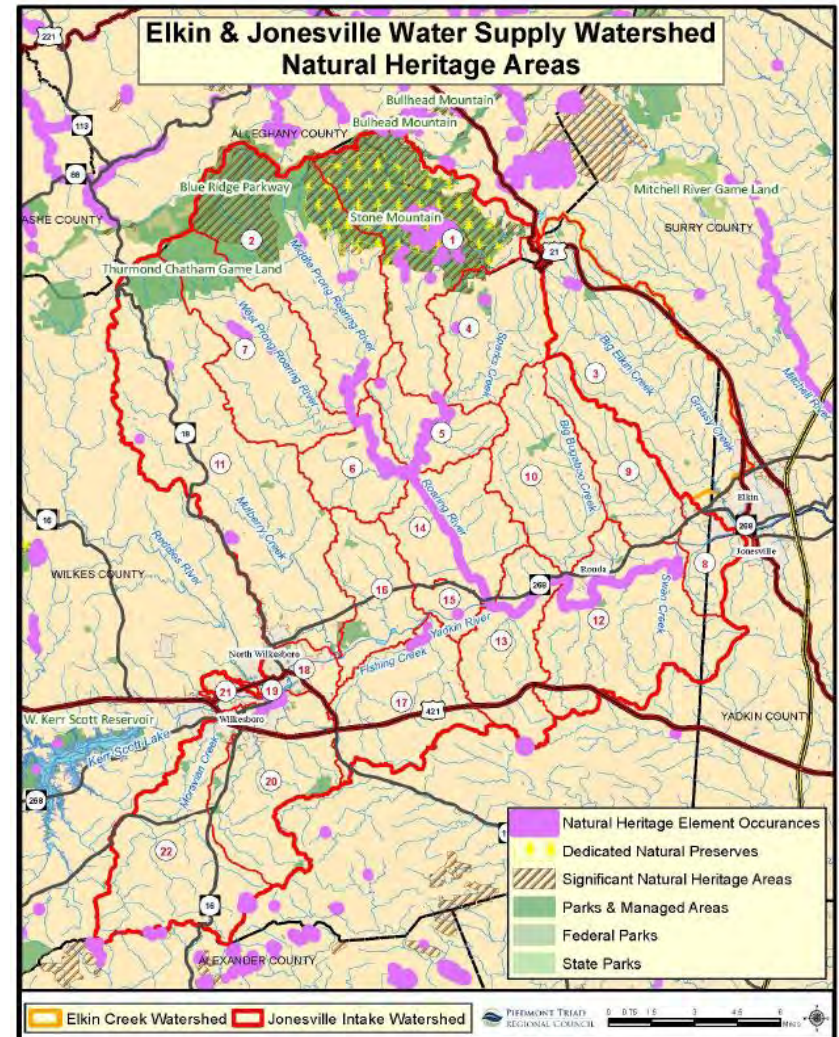
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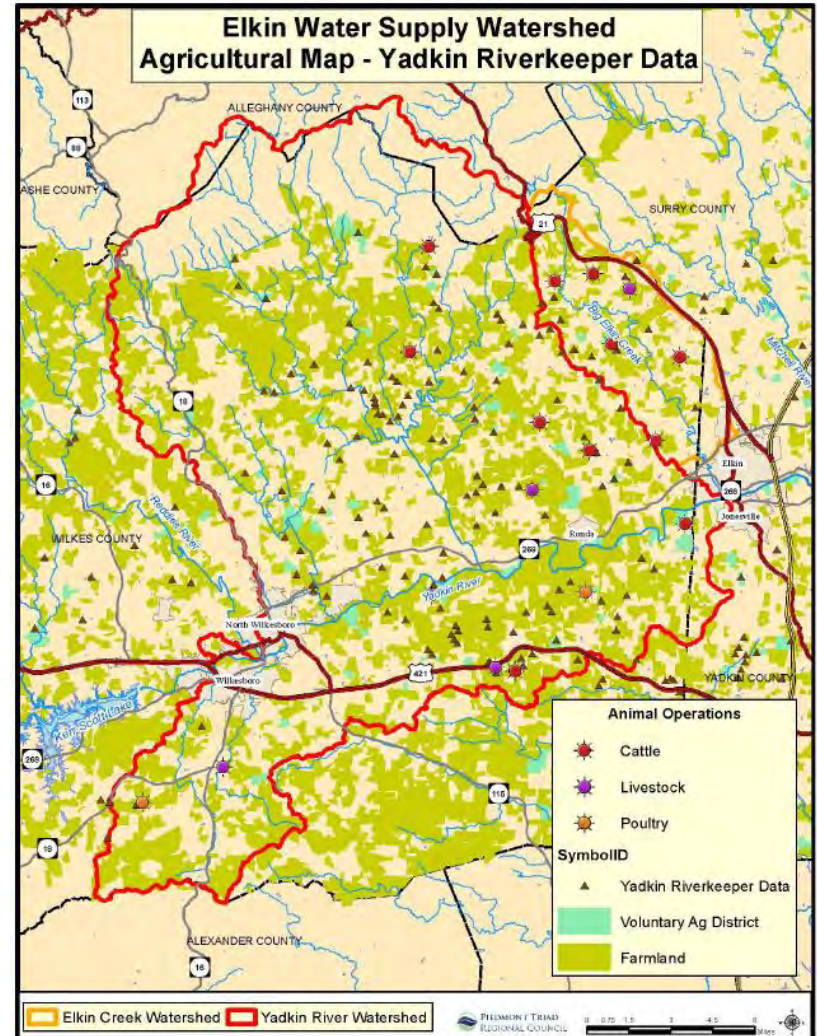
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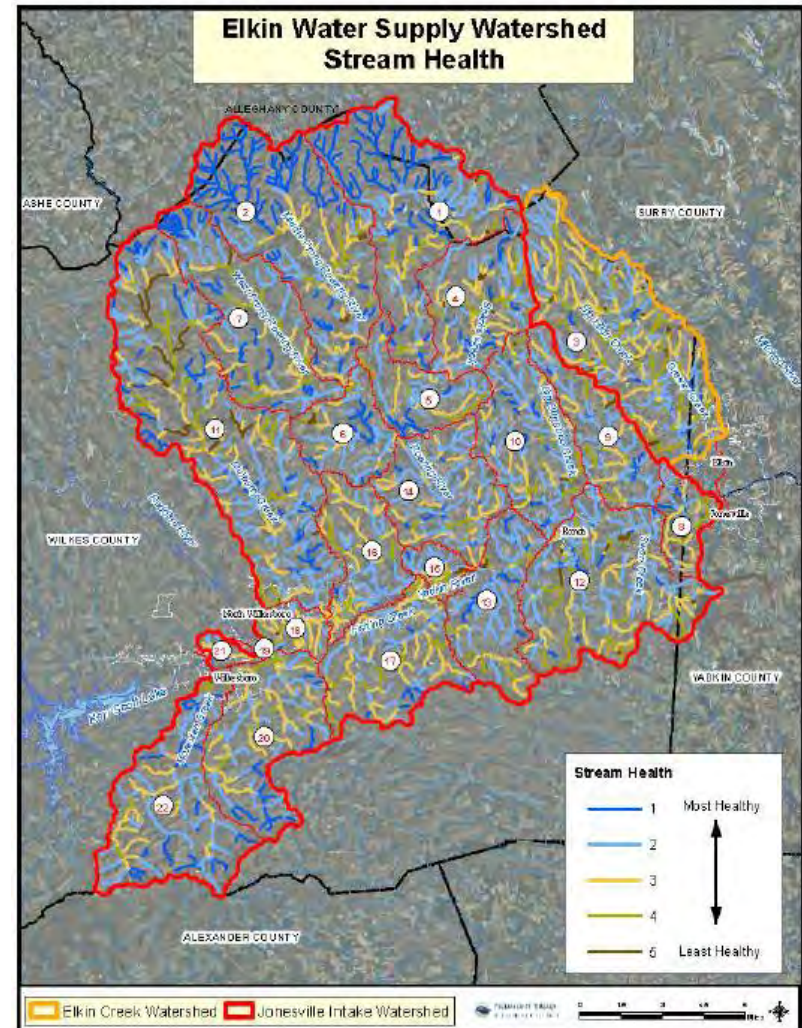
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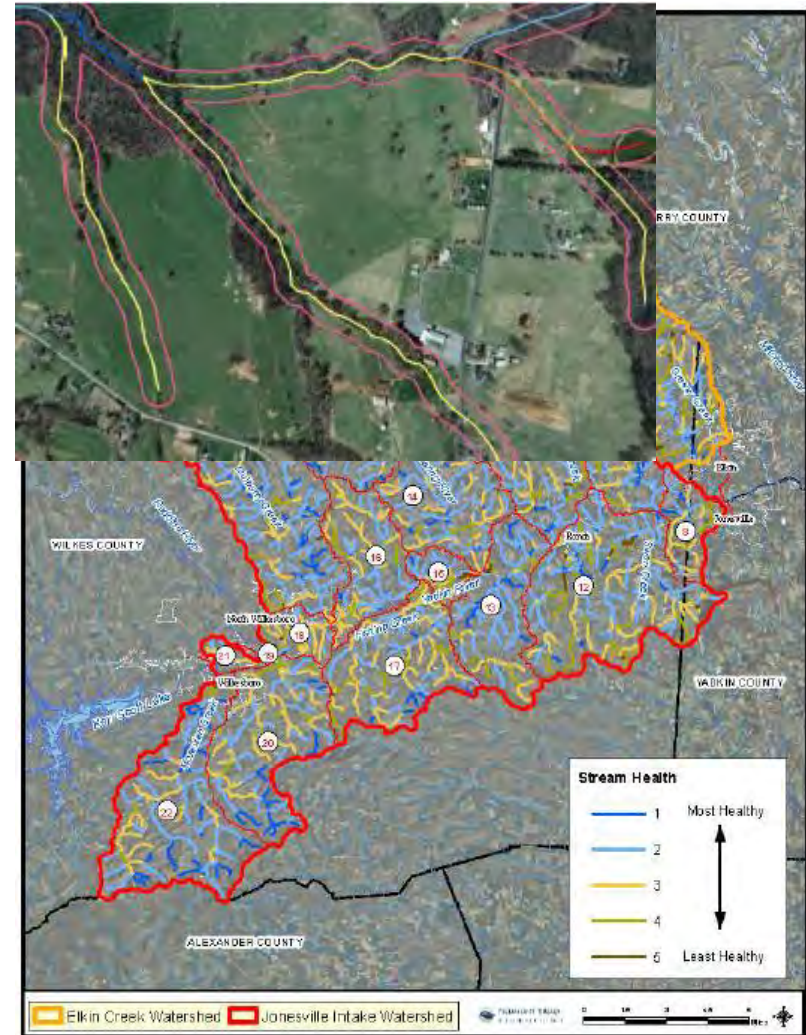
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## *What is a Watershed Plan?*

- A watershed plan is a work plan for achieving water resource goals.
- Planning is a process that educates, builds relationships, and sets the stage for informed and focused actions.
- Watershed plan goals and management strategies will vary depending on local and regional priorities, and the management tools available to achieve those goals.
- A watershed plan is only successful if it is implemented.
- A watershed process is iterative, holistic, and collaborative.

# *What makes a successful watershed planning and implementation process?*

- Clear goals and management strategies
- Effective leadership
- Human and social capital – have participation and all levels
- Full representation of the watershed
- Environmental, economic and social values are compatible.
- Strong education and outreach.
- Ability to measure and communicate progress.
- Build on small successes.

*EPA, 1991 and Oregon watershed enhancement board, 2013*

*Department of Environmental Quality  
Division of Water Resources*







*Department of Environmental Quality  
Division of Water Resources*







Thank You!

Questions?

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