

Curry's Fork Bacteria Water Quality Roundtable



Thursday

July 15, 2010

Stakeholder Meeting

Introductions

- **Beth Stuber**

- Oldham County Engineer

- **Paul Maron**

- Project Manager – Strand Associates

- **Andrea Rogers**

- Stakeholder Group Facilitator– Strand Associates

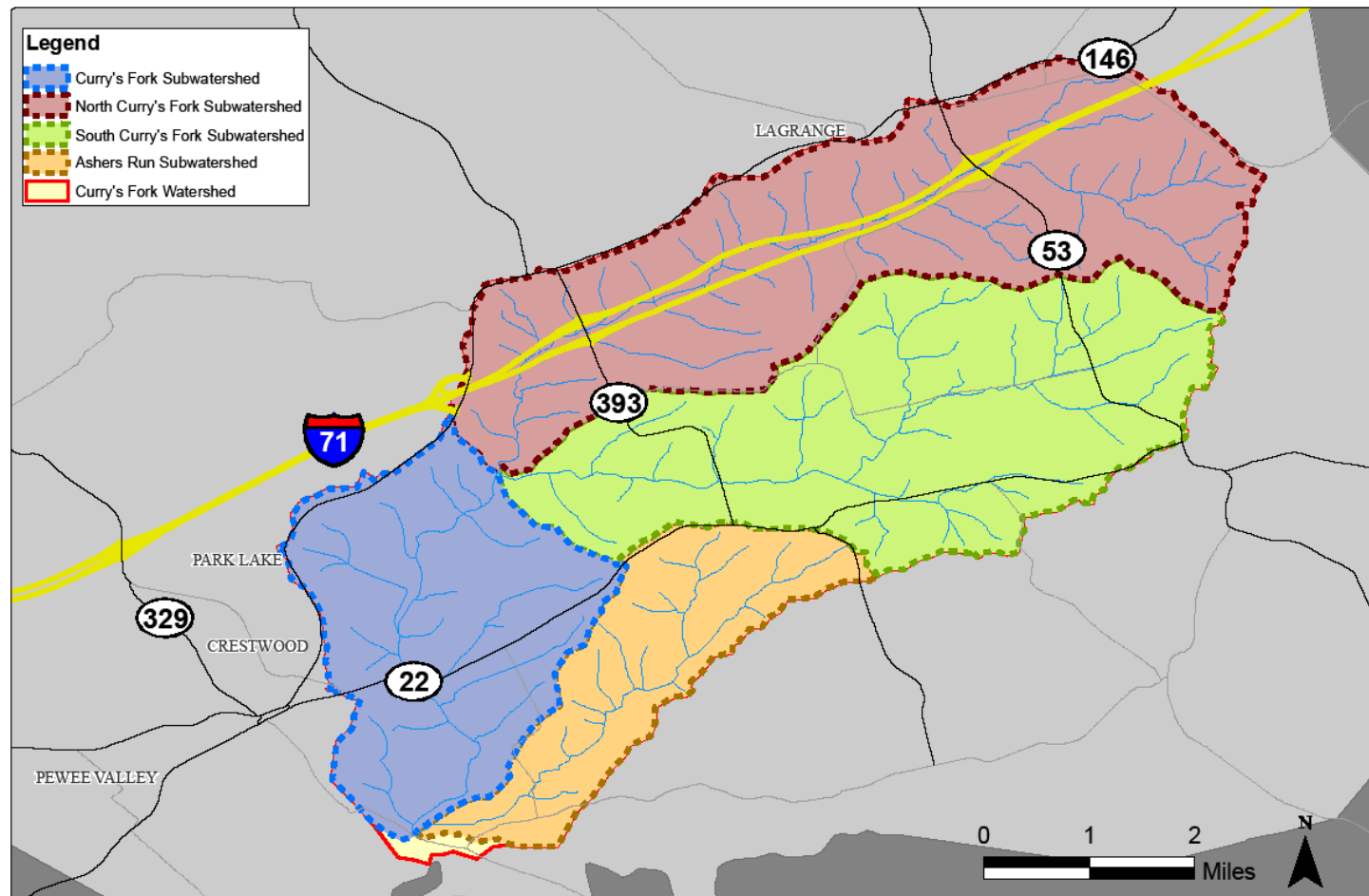
- **Corrine Mulberry**

- Watershed Technical Advisor

Presentation Overview

- ❑ Project Introduction
- ❑ Status of Project Activities
- ❑ Health Effects of Bacteria
- ❑ Bacteria Analysis
 - Monitoring Overview
 - Pollutant Sources Identification Process
 - Proposed Remediation Activities
 - Next Steps

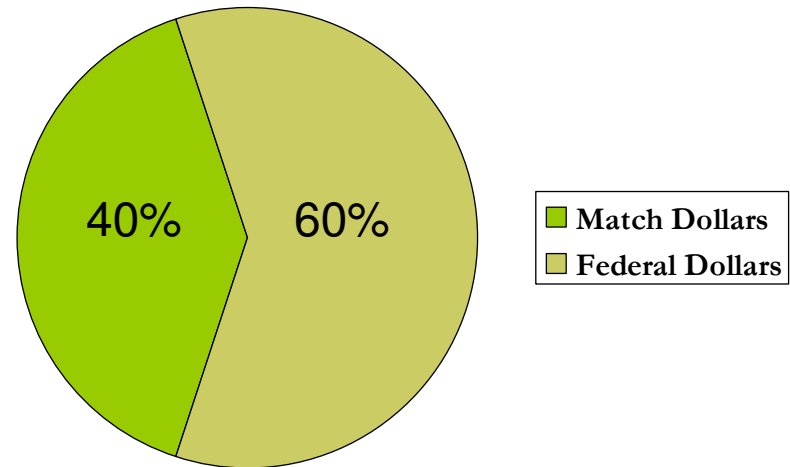
Curry's Fork Boundaries



Clean Water Act §319(h) Grant to Oldham County Fiscal Court

□ Budget

- Total of \$1.6 M
 - \$900,000 Federal Dollars
 - \$700,000 Oldham County Match Dollars



□ Contractors

- Strand Assoc. Inc
- UL
- Other

Project Goal & Objectives

The goal of the project is to improve the water quality of Curry's Fork.

To be accomplished through:

1. Development of a Watershed Based Plan
(based on EPA's nine required elements)
2. Targeted implementation of selected aspects of the plan

Clean Water Act Basics

- Fishing, Swimming, Drinking Goals
- Designated Uses
 - Primary Contact Recreation
 - Secondary Contact Recreation
 - Warmwater Aquatic Habitat
 - Coldwater Aquatic Habitat
 - Fish Consumption
- Narrative and Numeric Criteria

Why Curry's Fork?

- Segments in Curry's Fork identified on 303(d) list, considered impaired for intended use

Currys Fork into Floyds Fork

From River Mile 0.0 to 4.8

Oldham County

Segment Length: 4.8

Impaired Use(s): Aquatic Life (Partial Support), Primary Contact Recreation (Nonsupport)

Pollutant(s): Sedimentation/siltation; Pathogens

Suspected Sources: Highway/Road/Bridge Runoff (Non-Construction Related); Municipal (Urbanized High Density Area); Package Plant or Other Permitted Small Flows Discharges

The Oldham County Fiscal Court will be awarded \$970,500 in federal Section 319(h) Grant funds (FFY2006) to develop and implement a Watershed Based Plan for the Curry's Fork watershed.

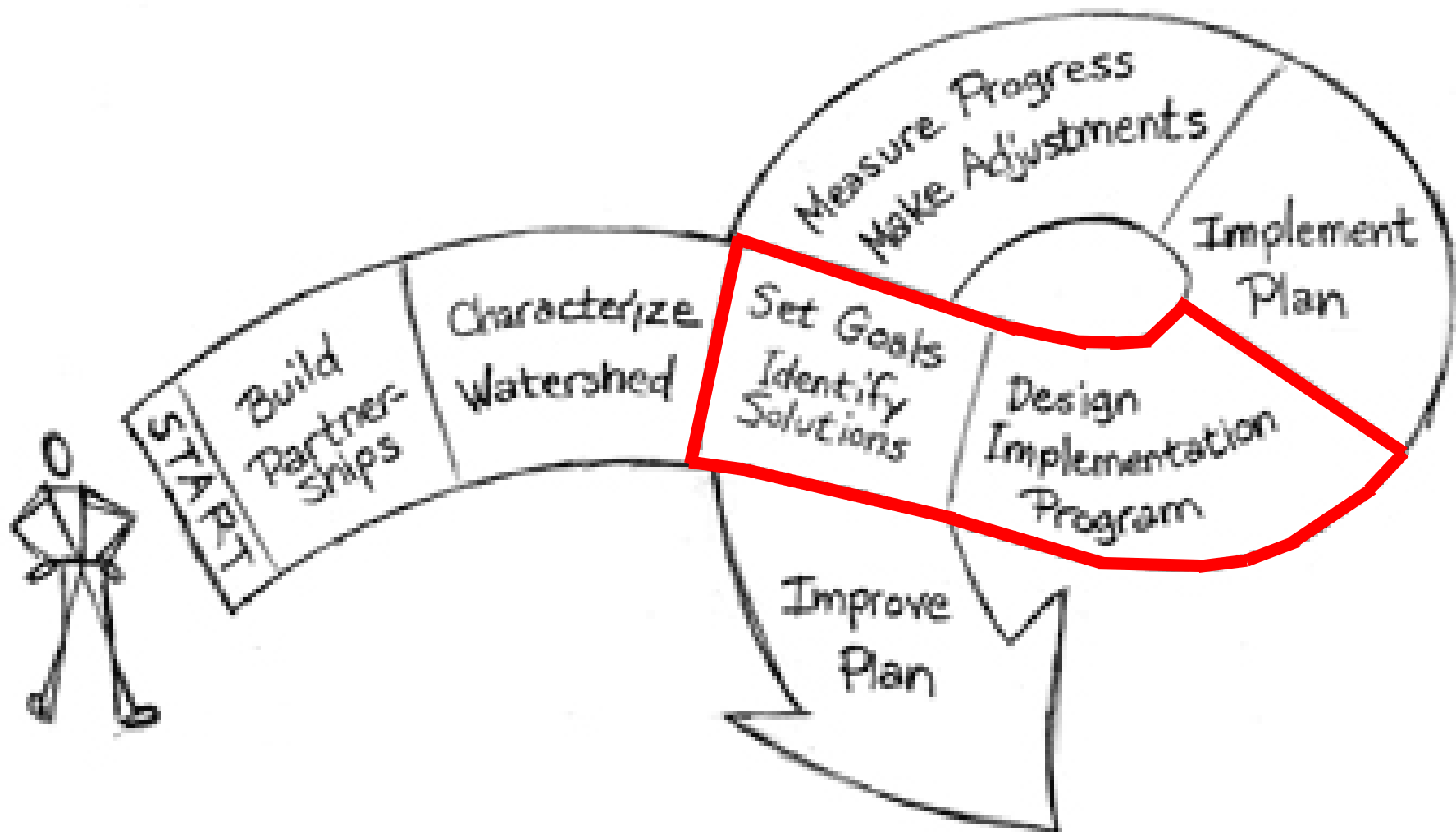
Source: Final 2006 Integrated Report to Congress on the Condition of Water Resources in Kentucky, 303(d) List

Why Plan?

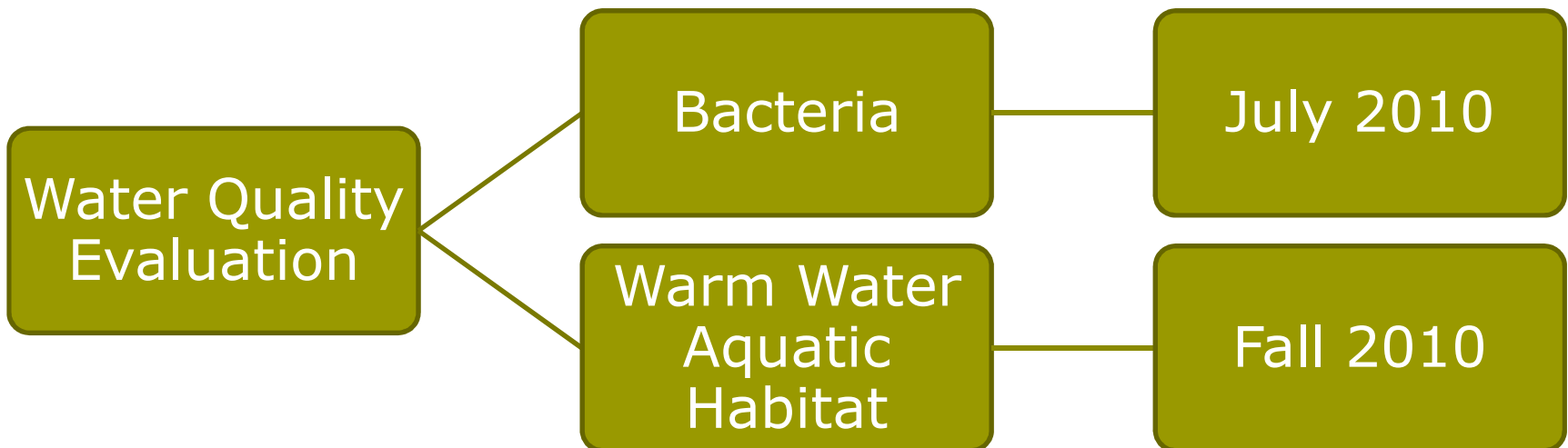
To Be Effective

Clean Water Act Section 319(h) Nonpoint Source Pollution Control Grants require the development of a comprehensive watershed plan prior to implementing solutions/controls with 319(h) Grant funds.

Watershed Plan Components



Project Approach Evaluation Split



Collaboration

□ **Technical Committee**

- Formed August 2008
- 14 Meetings (to date)

□ **Water Quality Data Analysis Team**

- Formed September 2009
- 2 meetings (to date)

□ **Stakeholder Group**

- First Meeting : December 2007
- 4 Meetings (to date)
- Roundtable Meeting September 2009 with 100 +/- participants

Technical Committee

(PARTIAL LIST)

Oldham Co. Fiscal Court

KY Division of Water

Oldham Co. Health Dept.

Local Residents

Oldham Co. Board of Edu.

Oldham Co. Planning &
Zoning

County Magistrates

Homebuilders Association

Parks and Recreation

Local Farmers

University of Louisville

Mayor of LaGrange

Oldham Co. Conservation District

LaGrange Utilities

Oldham Co. Sewer District

Oldham Co. Stormwater

Third Rock Consultants

Strand Associates, Inc.

Oldham County Water District

USDA Natural Resources &
Conservation Service

US Geological Survey

Project Activities

❑ Documenting the Watershed

- Physical Characteristics
- Ongoing and Planned Activities

❑ Public Outreach

- Technical Committee/Water Quality Data Team
- School Presentations/Information

❑ Evaluating the Streams

- Chemical Sampling
- Habitat Assessments
- Biological Assessments

Project Timeline

- ❑ **Complete Primary Contact (Bacteria) Analysis and Recommendations**
 - September 2010
- ❑ **Complete Warm-Water Aquatic Habitat Analysis and Recommendations**
 - December 2010
- ❑ **Finalize Report and Submit to State**
 - March 2011

What Have We Learned?

- All of Curry's Fork's sub-watersheds have higher than allowable levels of bacteria – just barely
- Curry's Fork is very close to meeting water quality standards for bacteria
- There are no major sources for bacteria i.e. no “smoking guns”
- The bacteria is coming from lots of little sources through-out the watershed
- Curry's Fork is not safe for frequent swimming or fishing



Health Affects of Bacteria Exposure

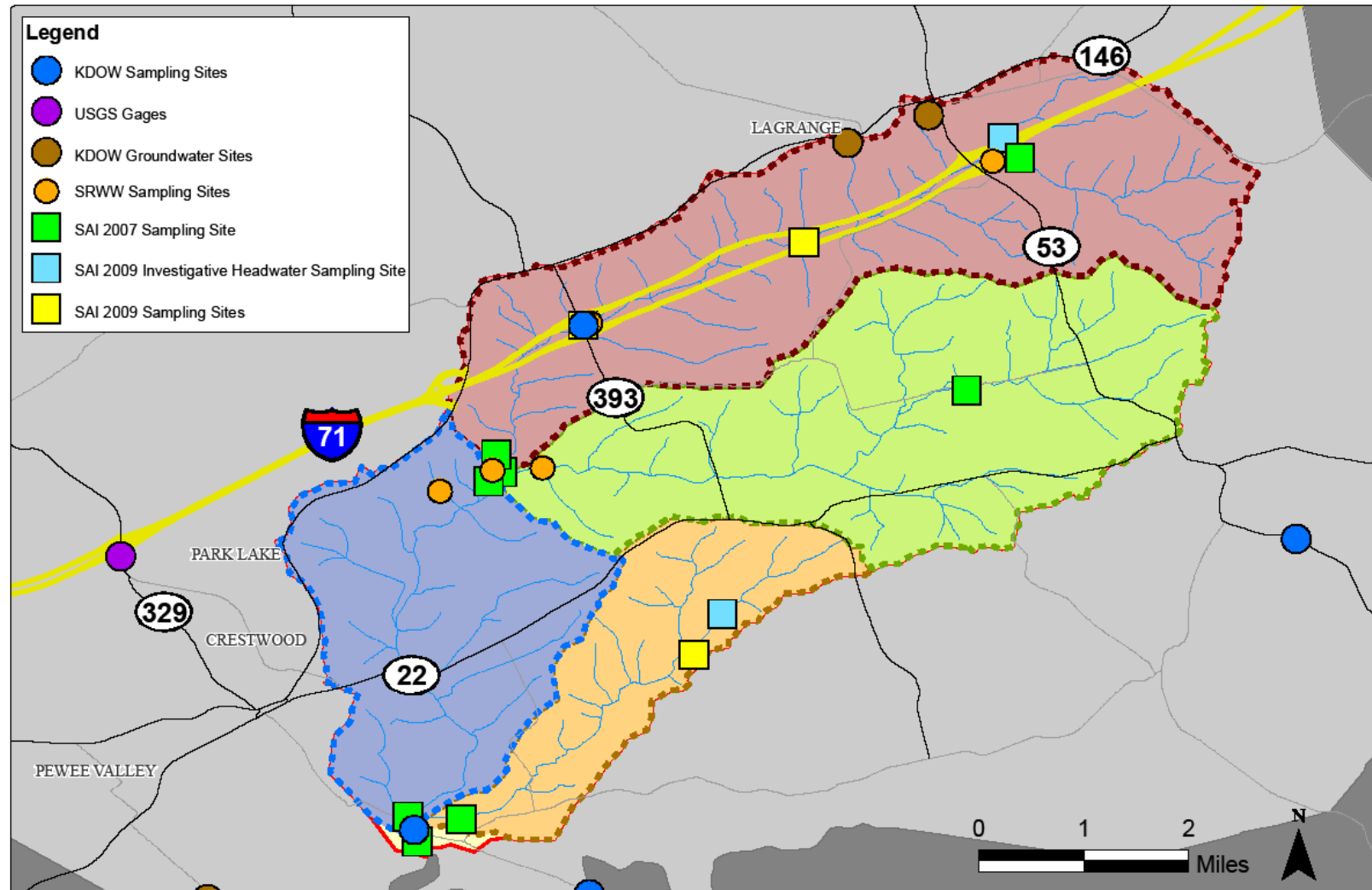
▣ **Dr. Ashlie Collins**

Bacteria Water Quality Assessment

- Extensive sampling of Water Quality Condition
- Convened WQDAT to review sampling results and prioritized remediation activities
- Identify More and Less Probably Pollutant Sources
- Propose Solutions/Remediation Activities
- Conduct Feasibility analysis with pollutant reductions and cost estimates
- Finalize implementation plan
- Repeat analysis for WAH
- Incorporate into watershed based plan

We are HERE.

Total Sampling Site Locations



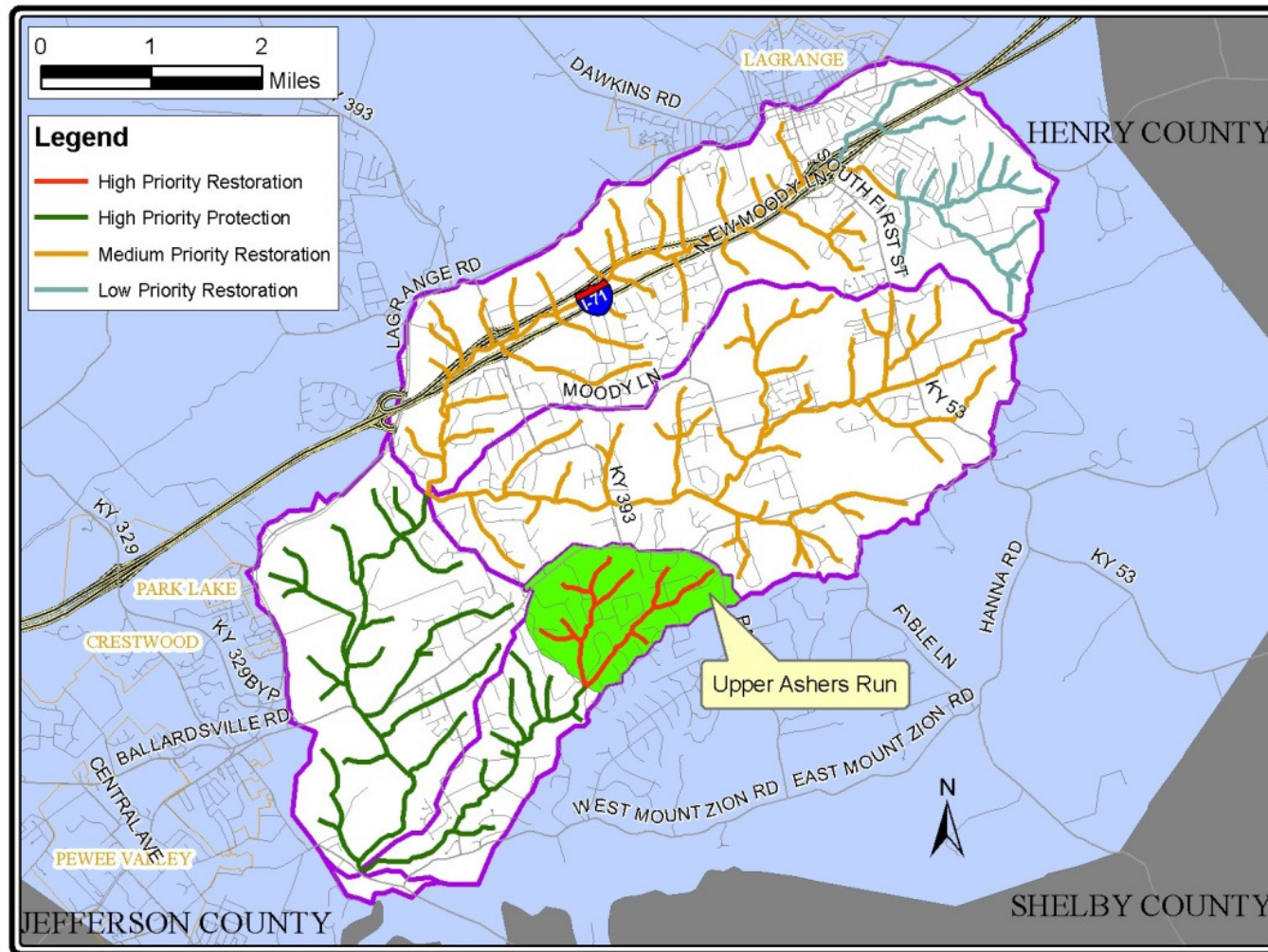
Identifying Pollutant Sources

- ❑ Compare bacteria levels through-out each sub-watershed
- ❑ Overlay characteristics of the sub-watershed
 - Permitted discharges
 - Age and density of development
 - Land-use and practices
- ❑ Evaluate potential sources with local expertise (Technical Committee)
- ❑ Determine which sources are more or less probable

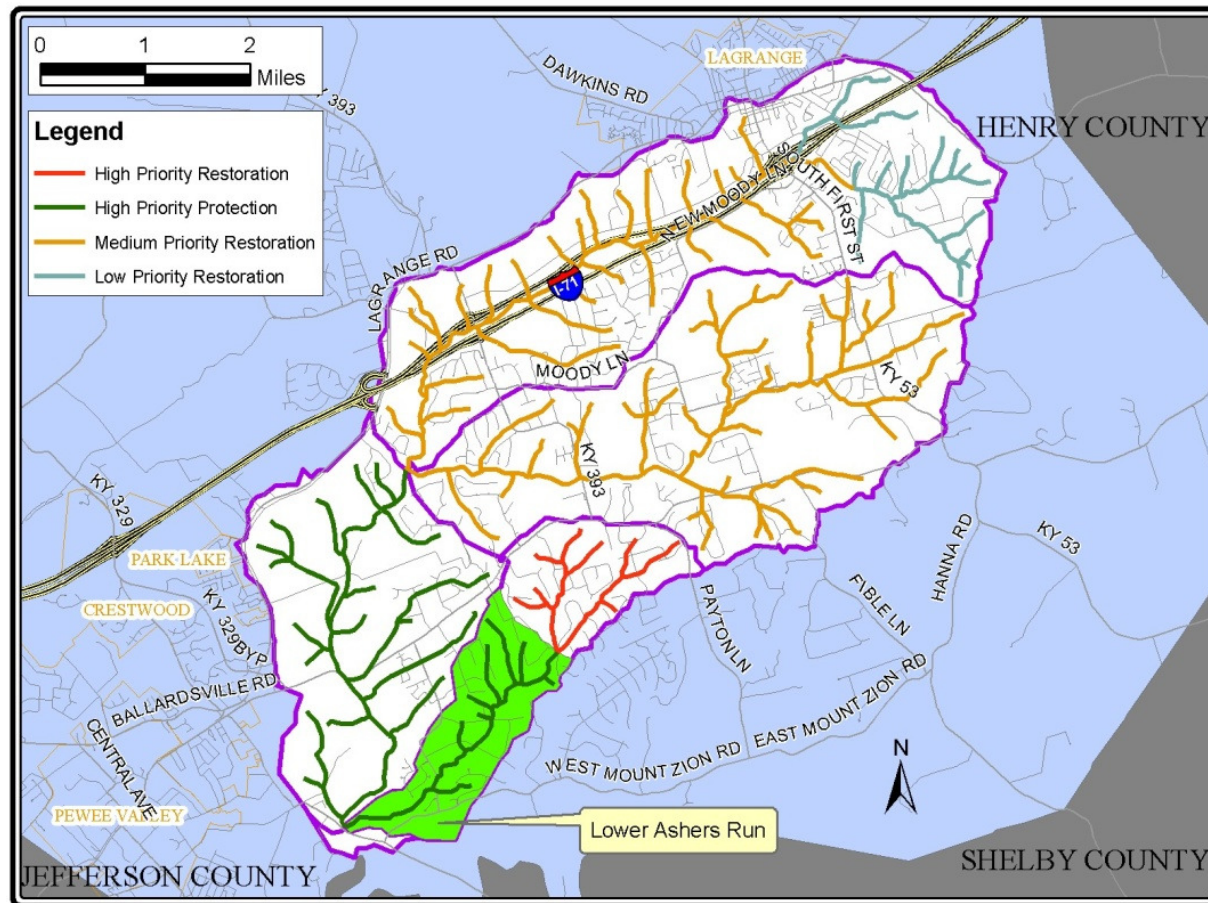
Roundtable Input

- ❑ **We need your input, knowledge and expertise**
- ❑ **Break-Out into Small Groups**
 - Review each sub-watershed's characteristics
 - Evaluate each potential solutions based on what YOU think
- ❑ **Logistics**
 - Materials will be distributed to each table
 - Discuss at your table!

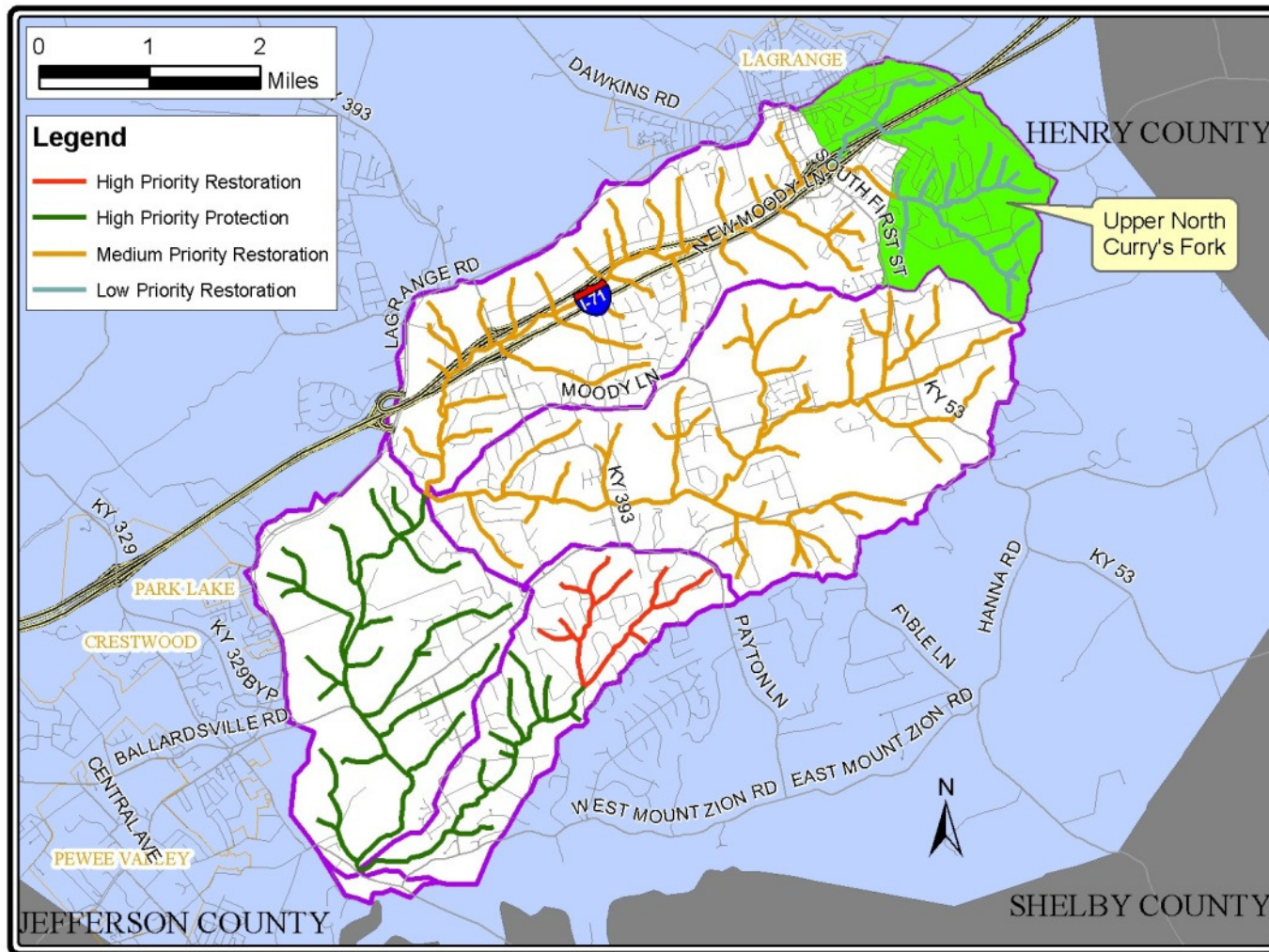
Ashers Run, Upper Area



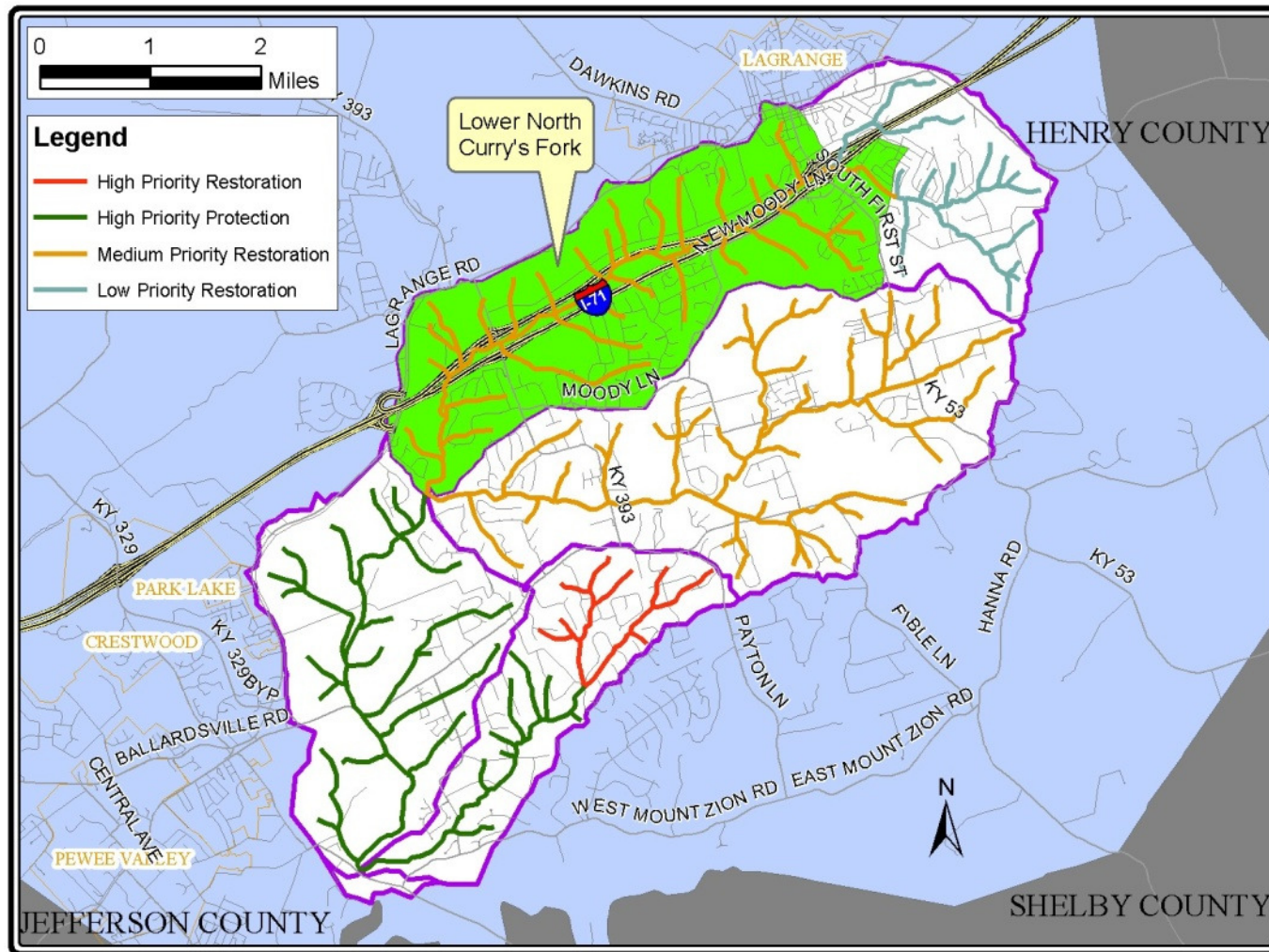
Ashers Run, Lower Area



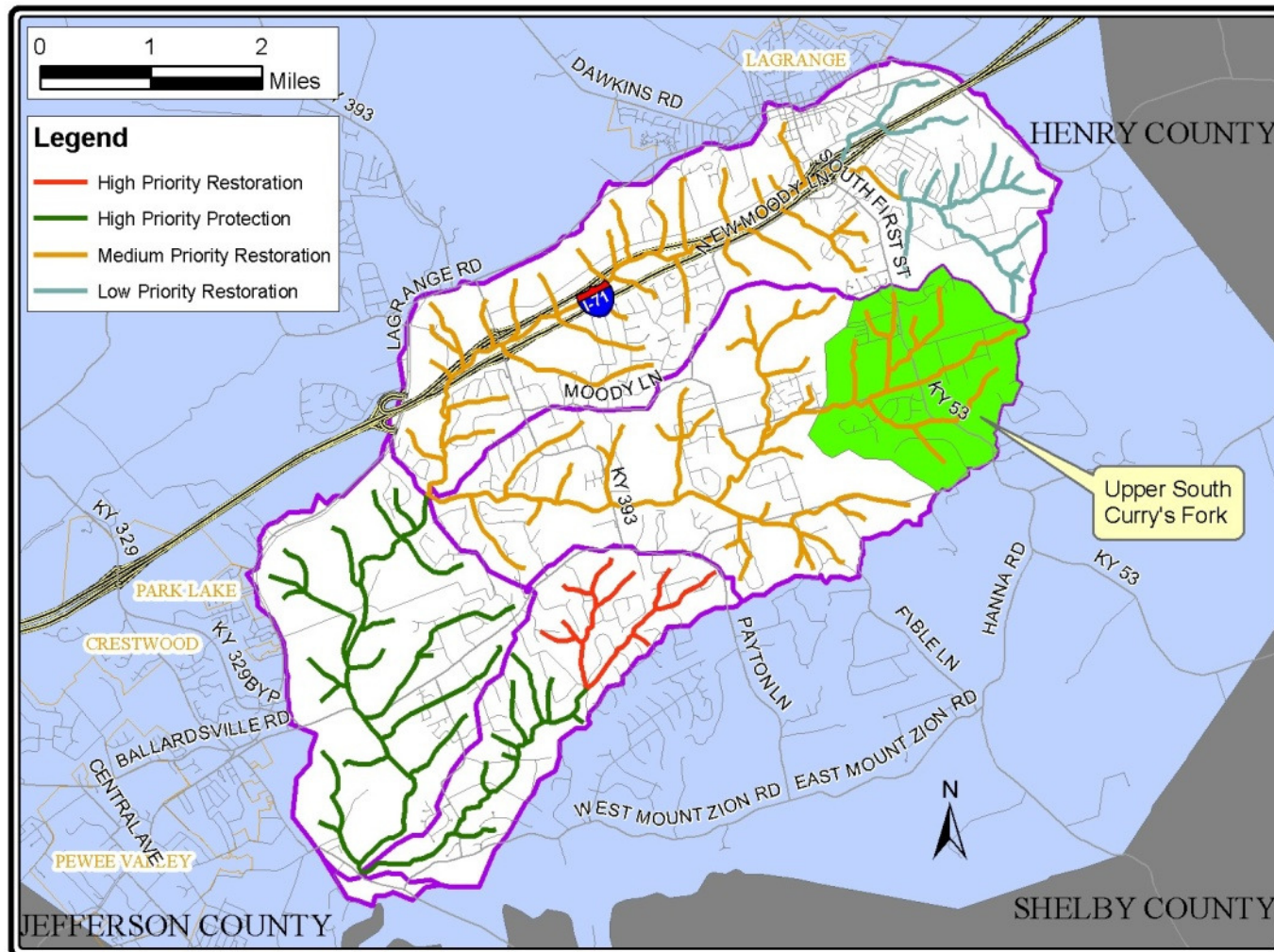
North Currys, Upper Area



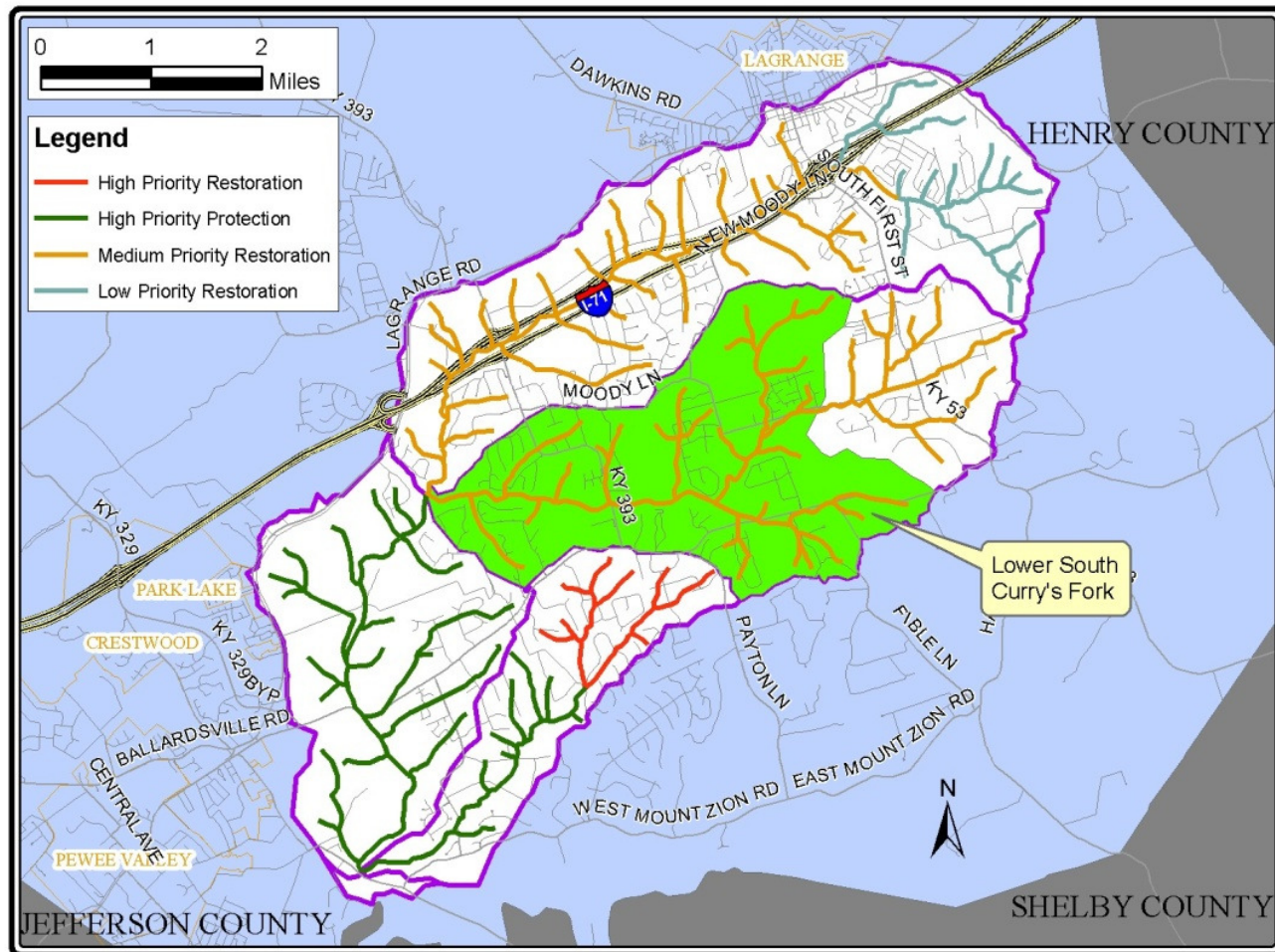
North Currys, Lower Area



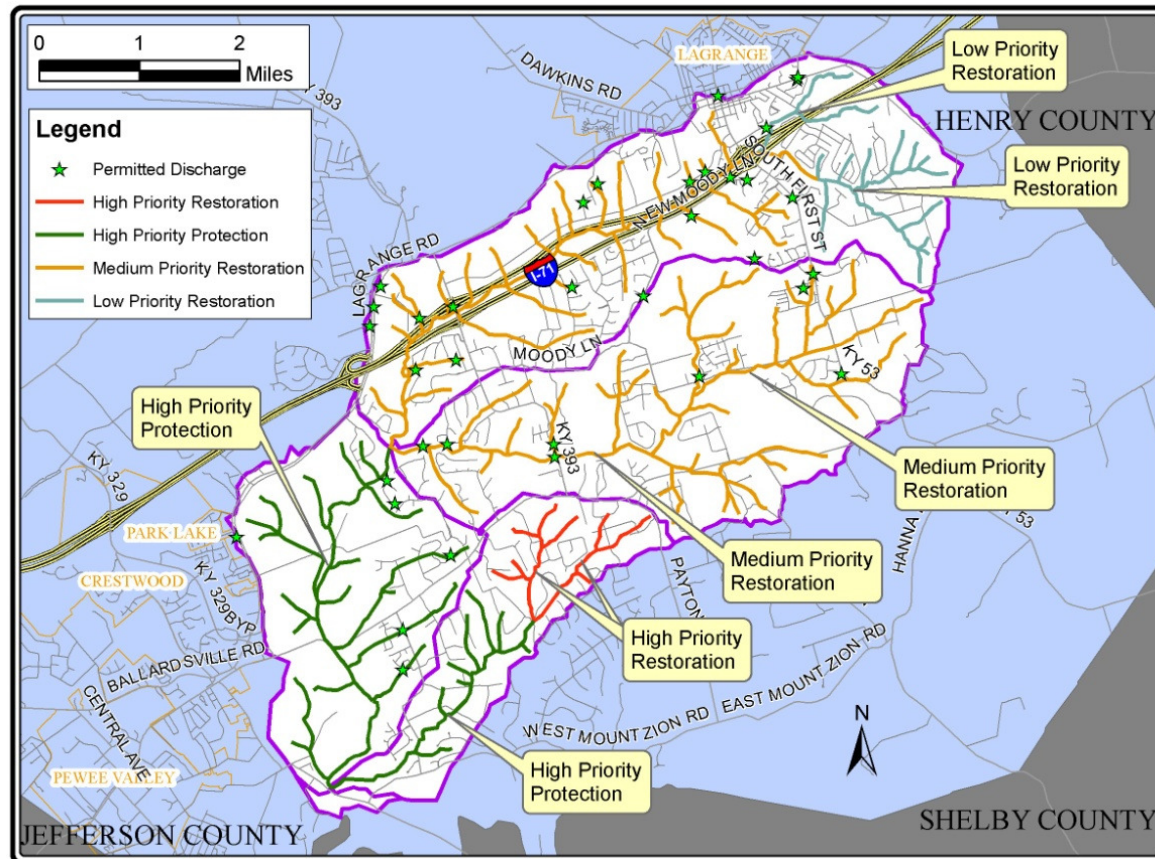
South Currys, Upper Area



South Currys, Lower Area



Entire Curry's Fork Watershed



Next Steps

- ❑ Incorporate Community Feedback
- ❑ Evaluate Bacteria Recommendations
- ❑ Complete WAH Analysis
- ❑ Gather Roundtable Feedback Fall 2010

Thank You for Listening!

- ❑ Remember: There is no one source of pollution.
- ❑ For updates, Visit us on the Web at http://www.oldhamcounty.net/Curry_Fork/index.htm

