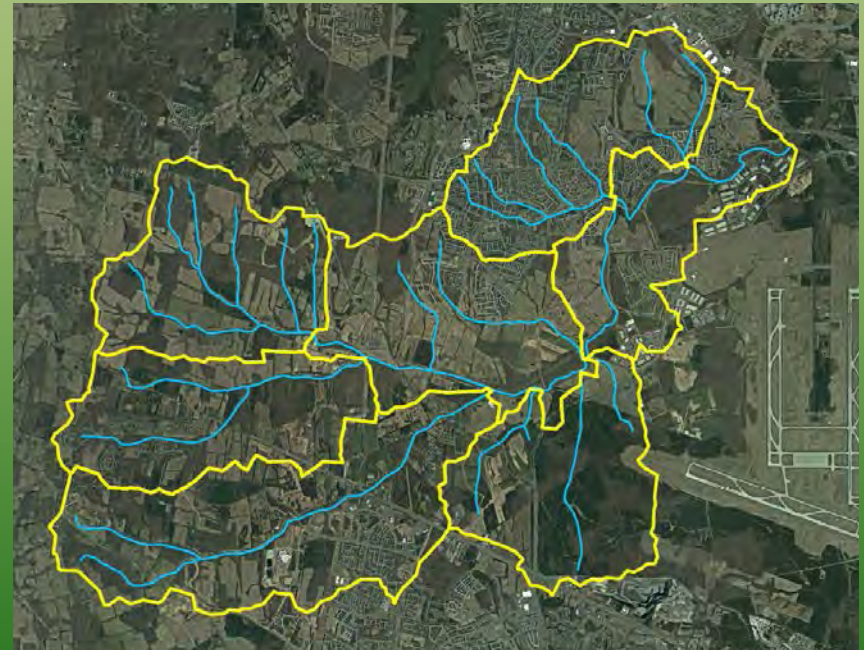




Upper Broad Run Watershed Management Plan

**Watershed Partnership Workgroup
Meeting #1**

**Nancy Roth, M.S., PMP
Alexi Boado, M.S., M.P.A.**

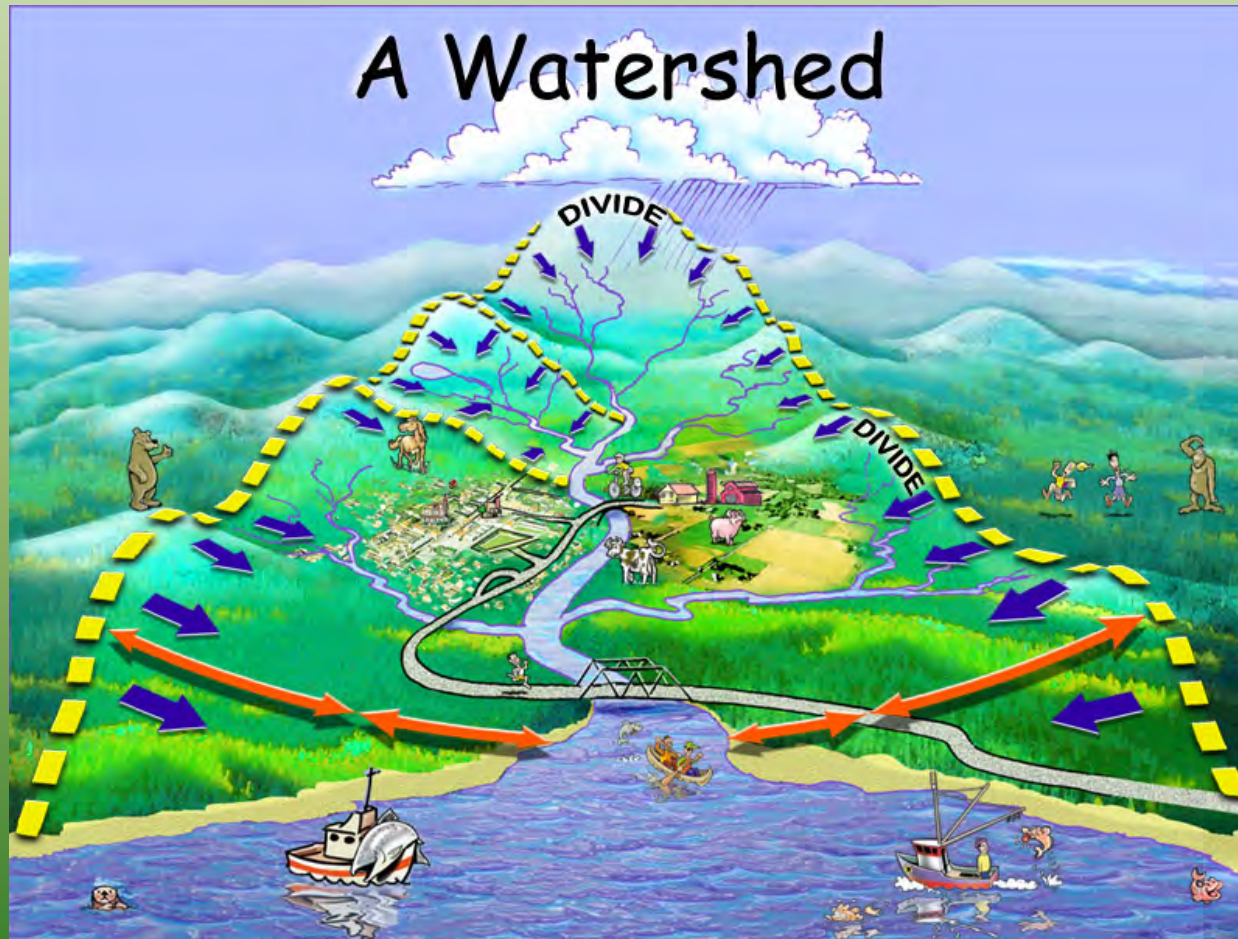


October 17th, 2013 – Brambleton Community Center

Agenda

- Introductions
- What is a watershed?
- What is a *Watershed Management Plan*?
- The Upper Broad Run watershed
- Role of the Watershed Partnership Workgroup (WPW)
- Results of first public meeting
- Help us identify areas of concern

What is a watershed?

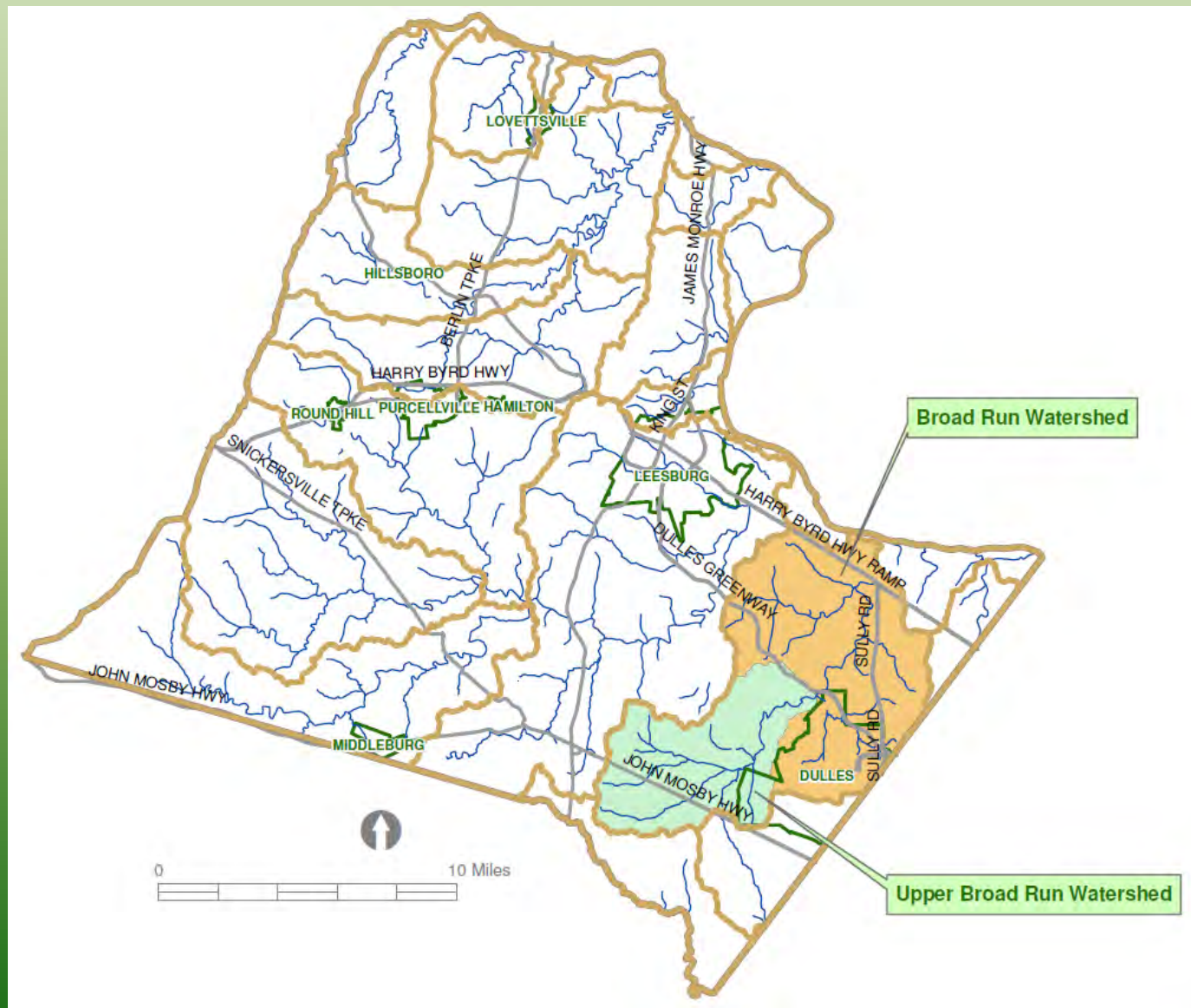


A watershed is the area of land where all of the water that is under it or drains off of it goes into the same water body

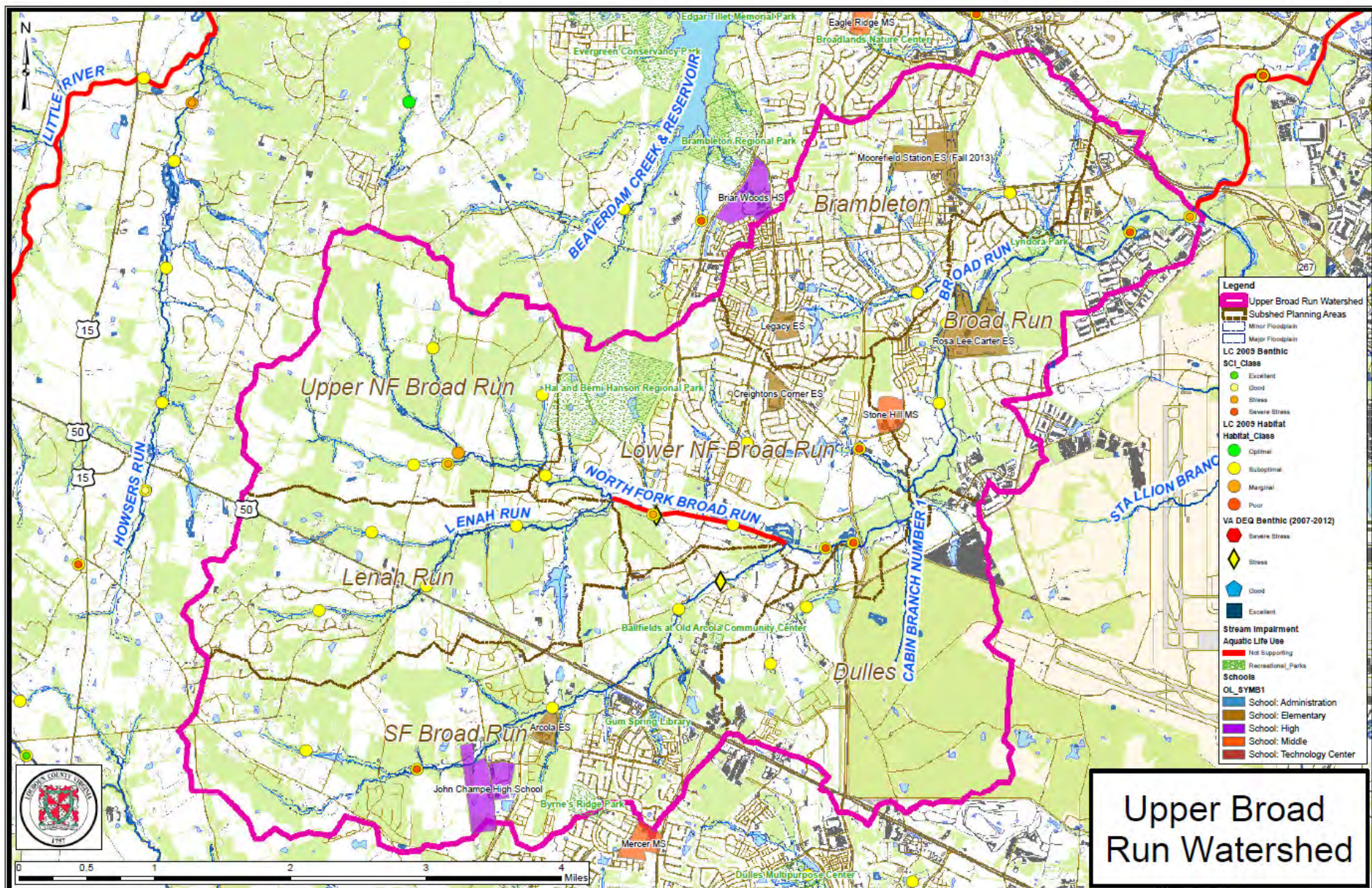
Why Create a Watershed Management Plan?

- Concern for local streams and Potomac River
- 2008: Loudoun County developed Comprehensive Watershed Management Plan
- 2009: countywide assessment found about 75% of streams degraded
- Next step - work locally: Upper Broad Run selected as pilot project for watershed plan

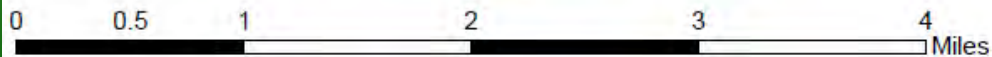
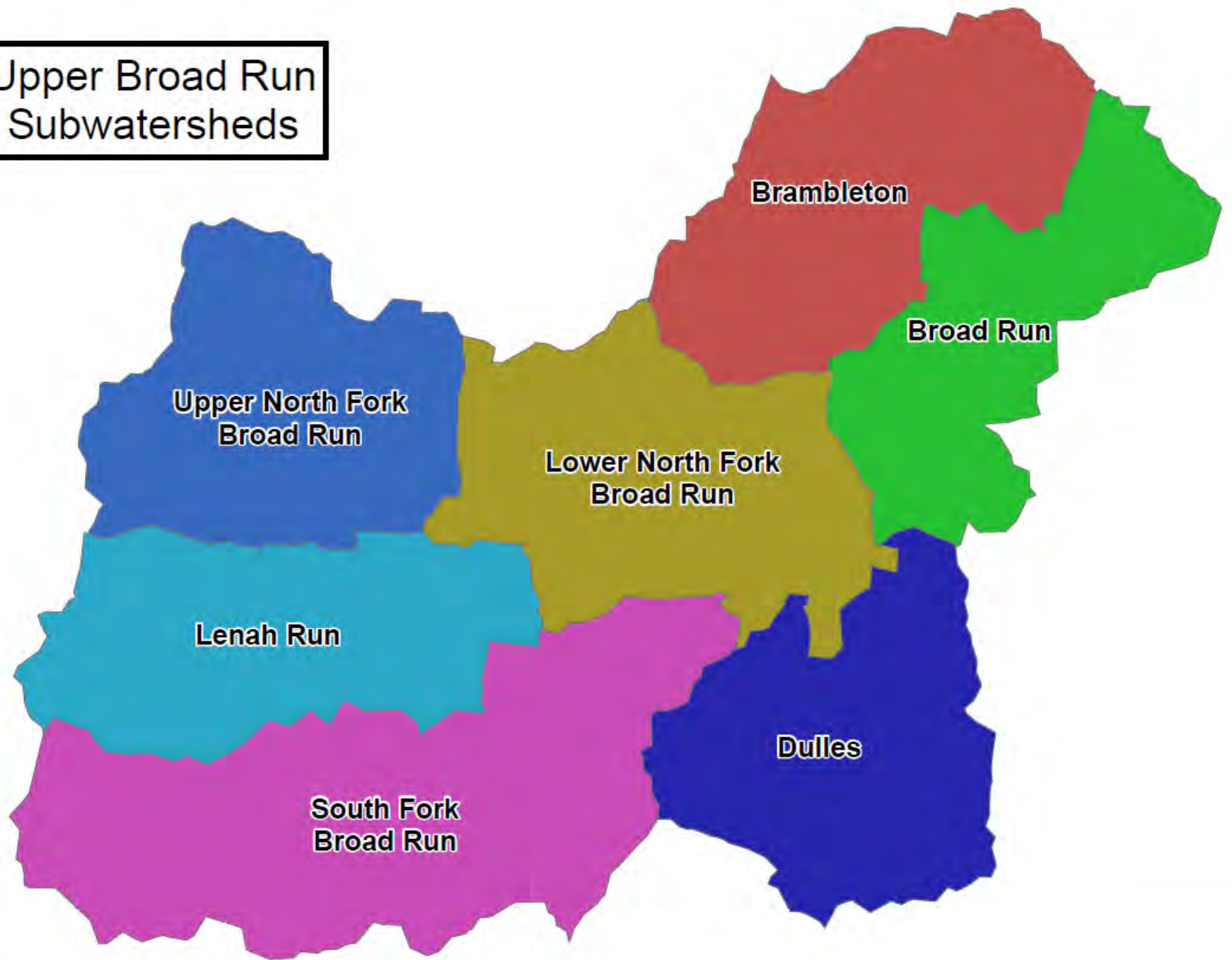
Upper Broad Run in Loudoun County



Upper Broad Run in Loudoun County



Upper Broad Run Subwatersheds



Planned Land Use

Total land area = 26.4 square miles

Total impervious surface (current) = 8% of watershed

Planned Land Use

Total Residential 16%

Transition 38%

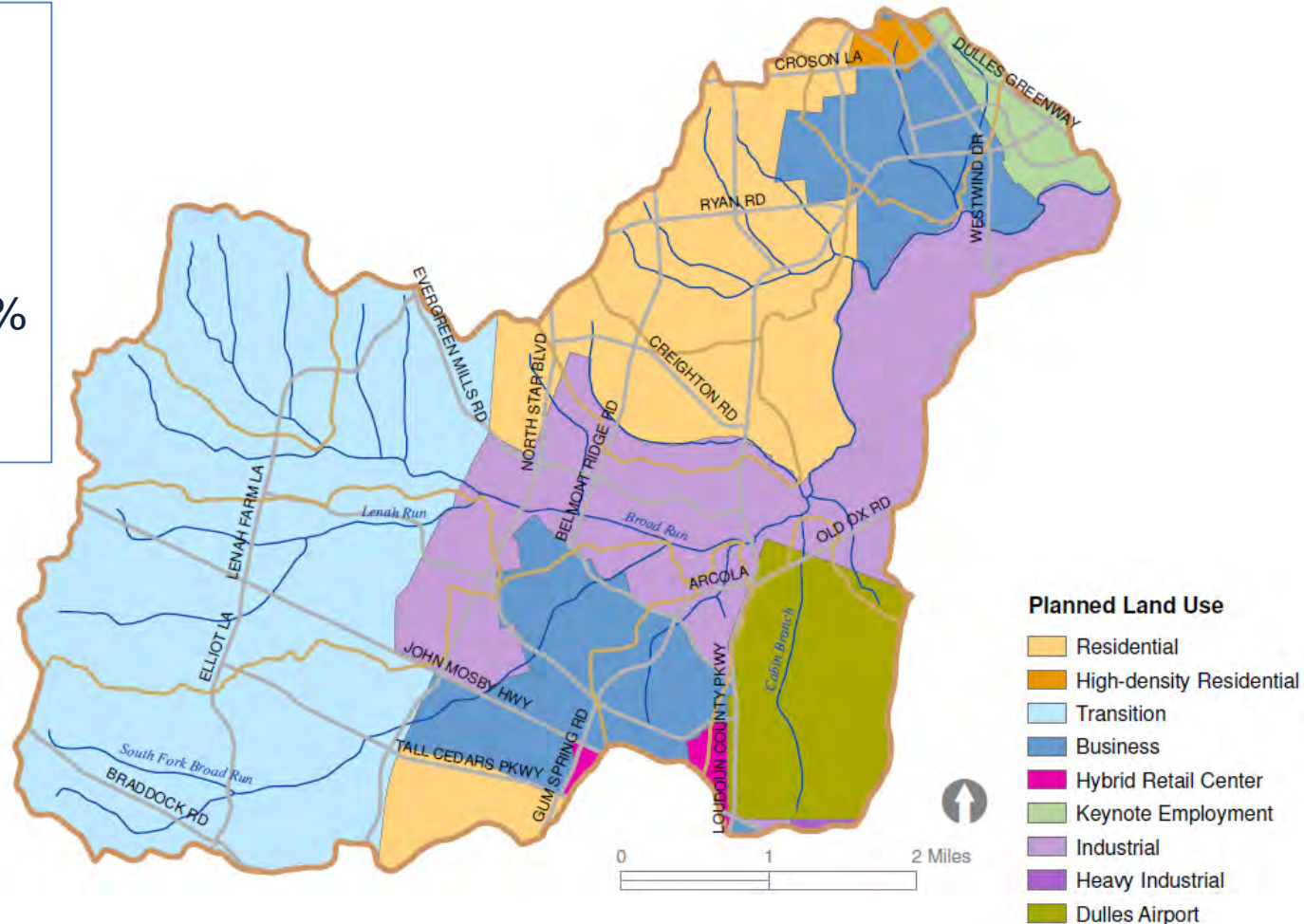
Business 13%

Hybrid Retail 0.6%

Keynote Employment 2%

Total Industrial 19%

Dulles Airport 8%



The Watershed Management Plan



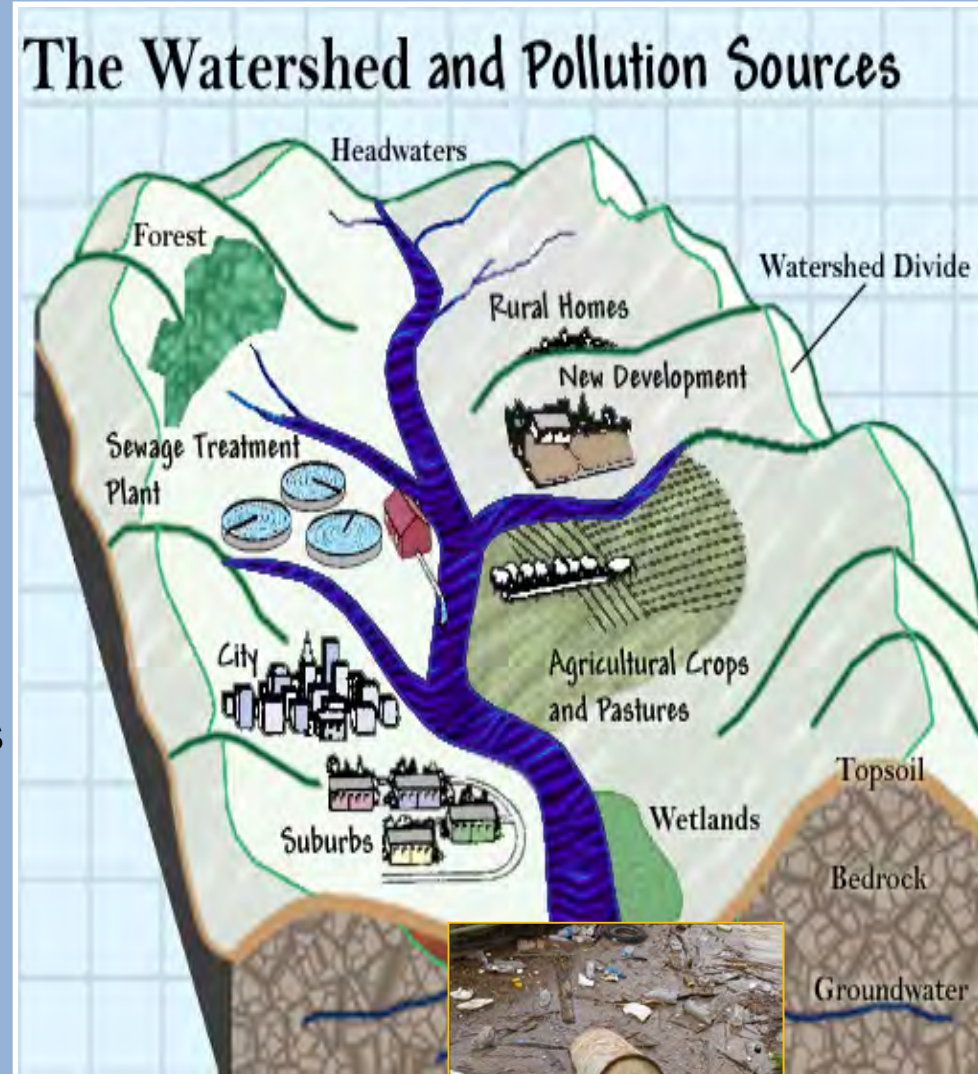
What is a Watershed Management Plan?

- Identifies threats to health of Upper Broad Run
- Offers specific solutions to those threats, ranked by cost effectiveness
- Helps County meet the “pollution diet” requirements set by EPA



Plan components

- Identifying types/sources of water **quality** impairments (pollutants)
 - Sediment
 - Nutrients
 - Bacteria
 - Oil/grease (petroleum, food)
 - Pesticides
 - Garbage
 - Dirty runoff from industrial facilities
 - “Dumpster juice”
 - Detergents (car washes etc.)
 - Antifreeze (glycols)
 - Salt



Plan components

- Identifying sources of **quantity (volume)** impairments
 - Sources of heavy stormflows causing stream erosion and flooding



Goals Of The Plan

1. Improve local watershed/stream conditions
 - Fishable, swimmable...
2. Meet the requirements for “Pollution Diet” for:
 - Nitrogen
 - Phosphorus
 - Sediment
3. Create a **template** for managing the remaining watersheds in Loudoun County



Steps To Create Watershed Management Plan

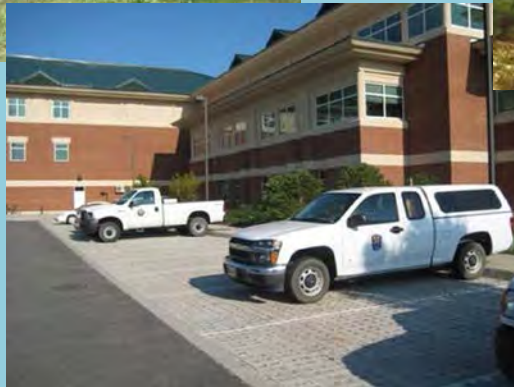
1. Community involvement
2. Understand the watershed
 - Analyze existing data
 - Gather field data
3. Estimate amounts of pollutants using modeling
4. Propose strategies for improvements



Proposing Solutions

Physical Solutions

- Raingardens, plant tree buffers, “Bayscaping” instead of turf, rainbarrels and cisterns, pervious surfaces, drywells, upgrade existing old stormwater management ponds, stream restoration



Proposing Solutions

Behavioral Solutions

- Proper pet waste disposal
- Use fertilizer without phosphorus
- More efficient use of deicing salts in winter
- Community trash pick up campaigns
- Stormdrain stencils for awareness
- Convince businesses and industrial facilities to prevent pollutants from being exposed to rain



The WPW's Role

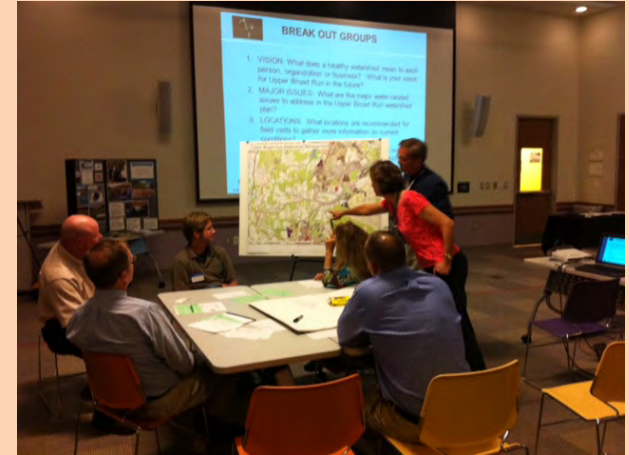
1. Each of you represent a subset of the watershed community.
 2. Advisors on management plan development
 3. You have local knowledge
 4. You bring new perspectives
 5. Beyond the Plan...
 - Helping organize future actions
- 4 meetings (one down, 3 to go)



September Community Meeting

5 questions asked:

1. What is your VISION for Upper Broad Run?
2. What are the major water-related ISSUES to address in the Management Plan?
3. Which locations are recommended for field visit by field teams to gather more information on current conditions?
4. What will be needed to implement an effective management plan to achieve goals and overcome constraints?
5. What GOALS do you propose for the watershed?



Feedback: 1st Community Meeting

1. What is your **vision**?:

- “*Broad Run becomes a **noticeable asset** to the community. Areas adjacent to Broad Run and its tributaries are places to be enjoyed and preserved rather than ‘managed’ and made to be out of sight and out of mind.*”
- “*...protecting **forest cover**, using conservation design, developing with **LID practices**”*
- “*...children can **play in streams** without fear of contamination.*”
- “*...residents...care about the watershed.*”
- “*Same water quality today in the future*”



Feedback: 1st Community Meeting

2. What are the **major issues**?:

- “Can new residents enjoy natural recreation near streams”
- “Increased imperviousness”
- “Change in hydrology”
- “Loss of forests”
- “Loss of [agriculture]”
- “Sprawl”
- “Keep rain where it lands when cover has changed to impervious”



Feedback: 1st Community Meeting

3. What **locations** recommended for field visits...?:

- *Sod farms next to streams*

4. What will be needed to **implement**...?:

- *“Rain reduction regs without grandfathering”*
- *“Trail network” [for recreation]*
- *“Community involvement and partnerships (HOA, Businesses, Residents, Organizations)”*

5. Proposed Goals:

- *Public database for watershed modeling to be used for other watersheds*
- *“Access for boats”*



Let's talk...

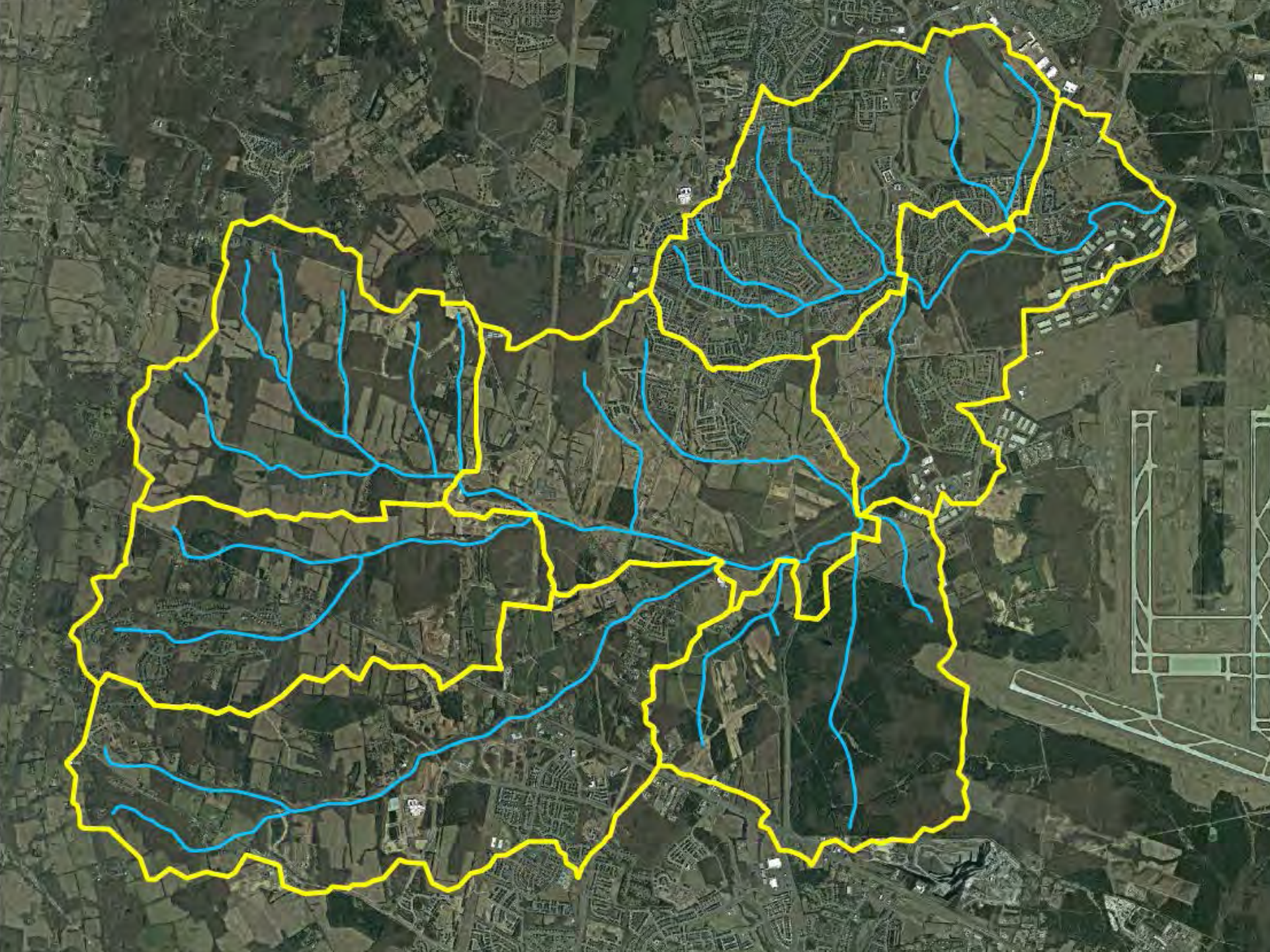
1. Your thoughts on vision, goals, issues, and plan implementation
2. Suggestions for sites to investigate
3. Digital mapping exercise (WeTable)



**Thanks for your participation!
...it means a lot to us.**

www.loudoun.gov/upperbroadrunwatershed





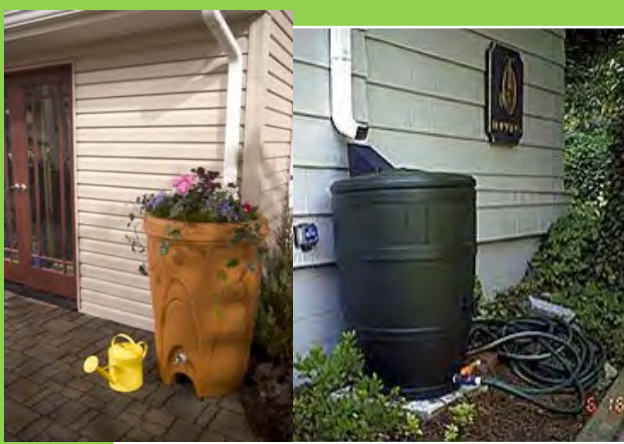


Community Meeting Questions for Breakout Discussion

1. **VISION:** What does a healthy watershed mean to each person, organization or business? What is your vision for Upper Broad Run in the future?
2. **MAJOR ISSUES:** What are the major water-related issues to address in the Upper Broad Run watershed plan?
3. **LOCATIONS:** What locations are recommended for field visits to gather more information on current conditions?
4. **IMPLEMENTATION:** What will be needed to implement an effective watershed management plan, which will achieve goals and overcome constraints?
5. What **GOALS** should be added, if any?



What You Can Do To Help



Install a rain barrel



Plant native meadow -type plants as substitute for turf



Capture and filter water from roof downspouts



Pick up after your pet

What You Can Do To Help

Plant a tree!



VERSAR

What You Can Do To Help

Join a watershed group

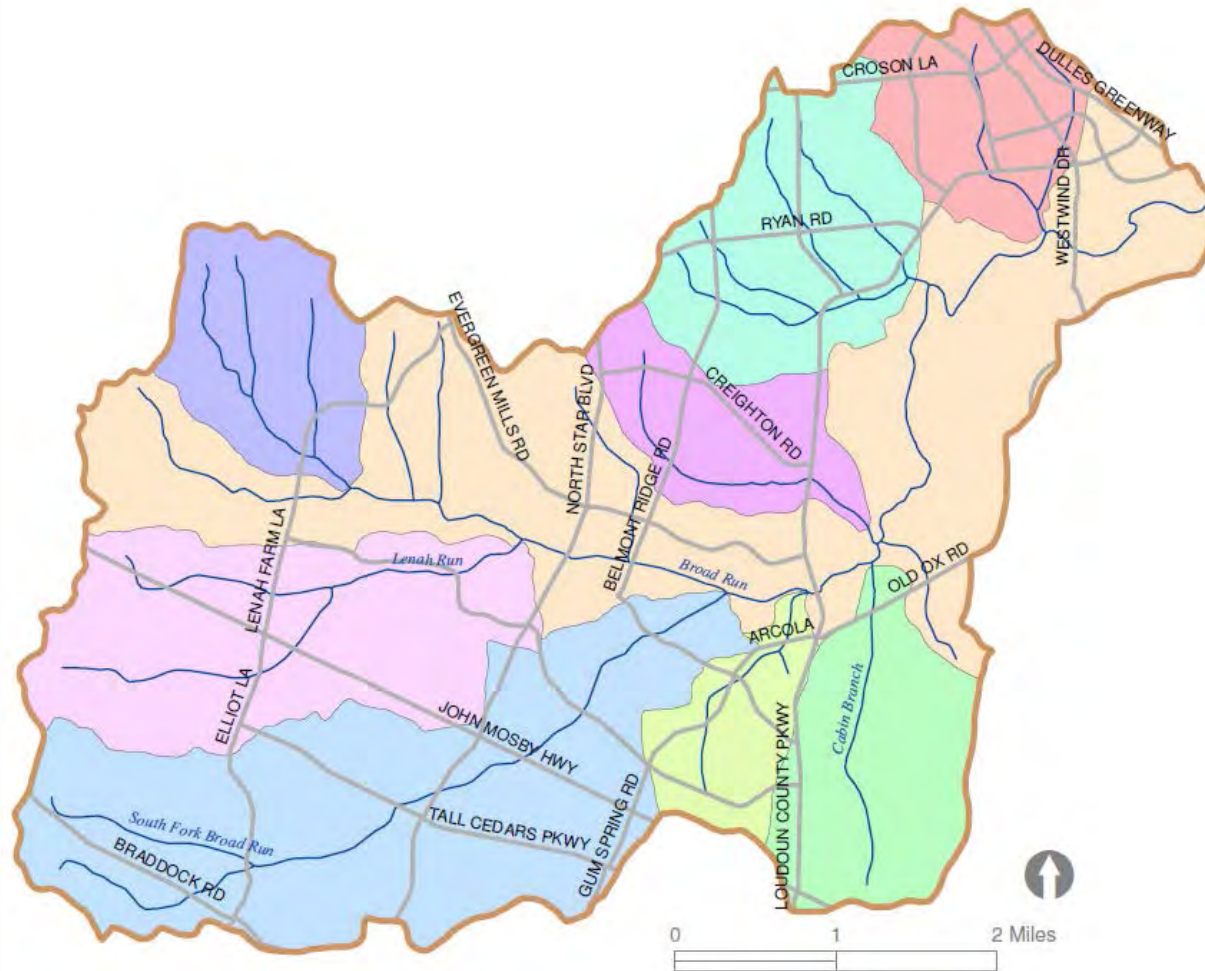
Join your neighbors: plant trees or a community rain garden

Keep in touch! Stay tuned as the Upper Broad Run watershed plan develops

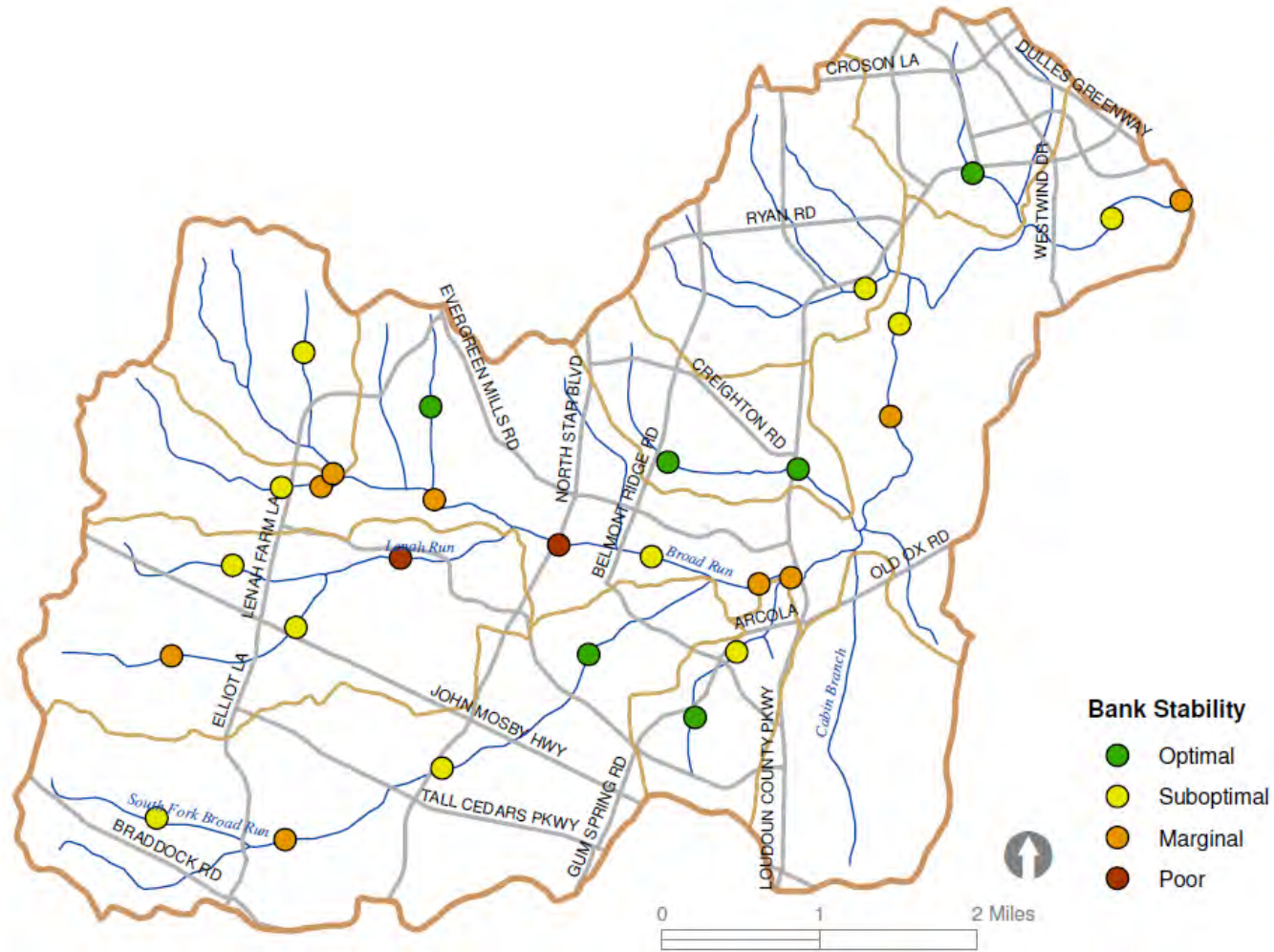


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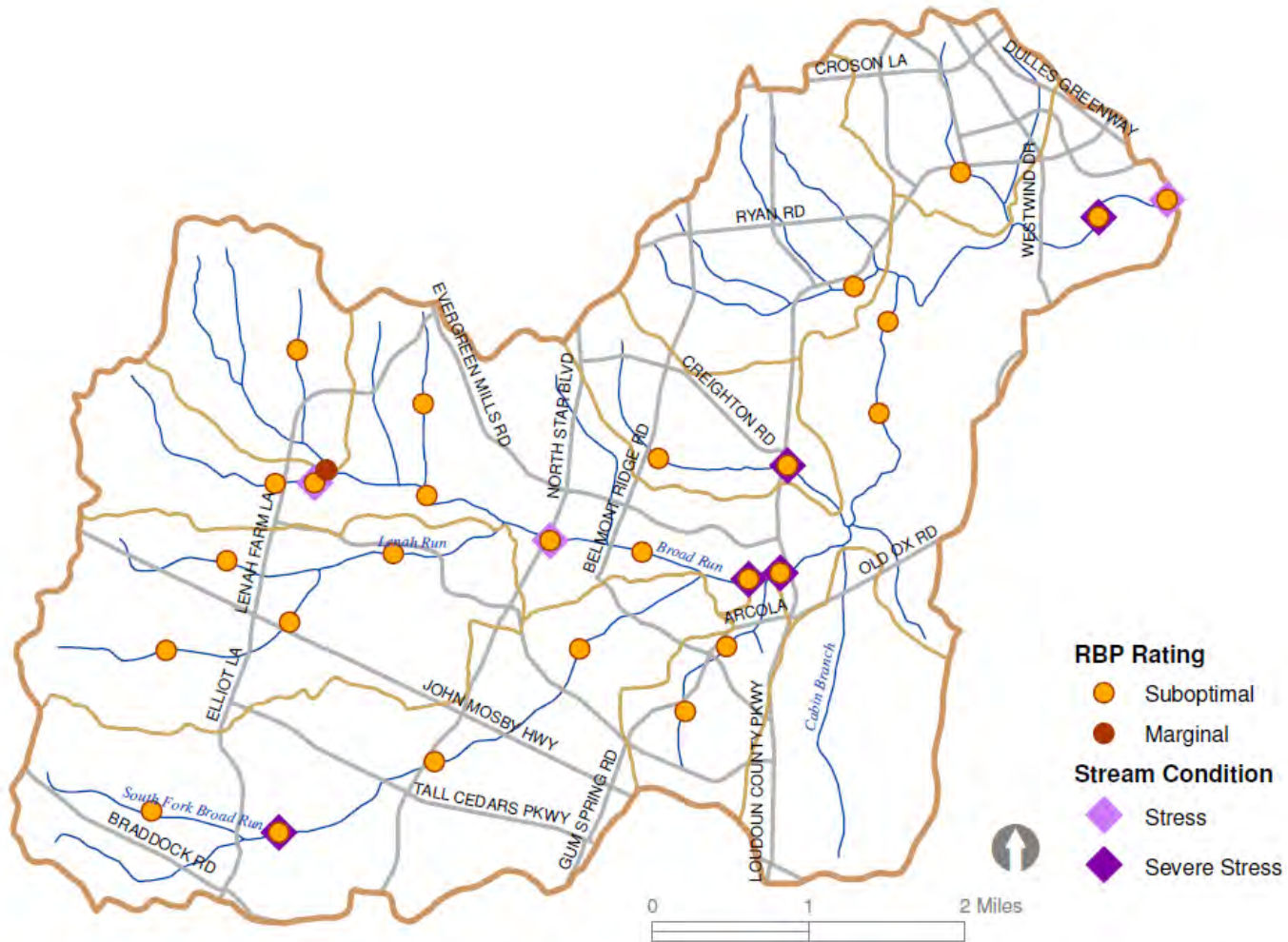
Subwatersheds of the Upper Broad Run



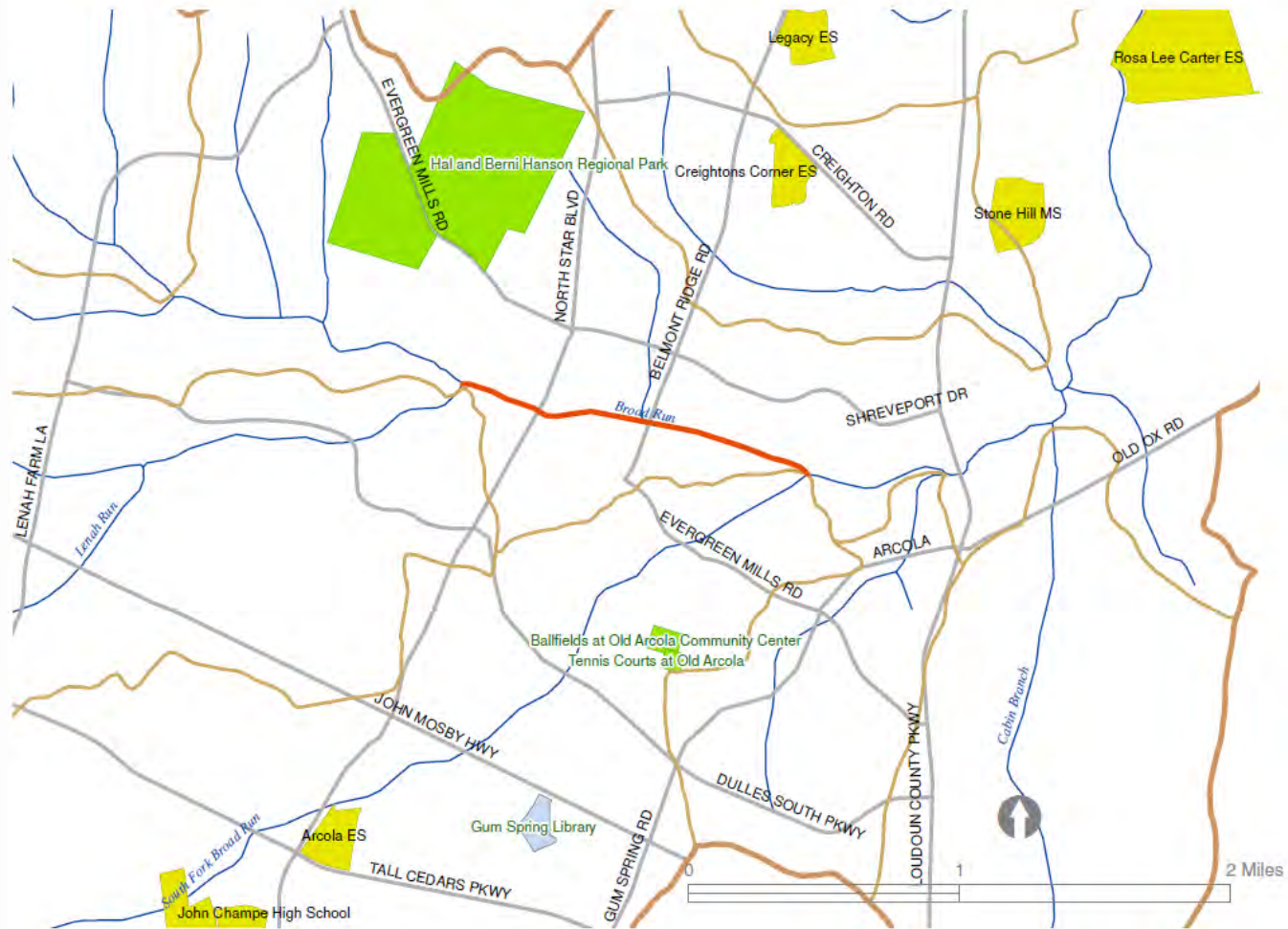
Stream Bank Stability



Biological and Habitat Condition



Impaired Streams



Existing Stormwater Management Sites

