

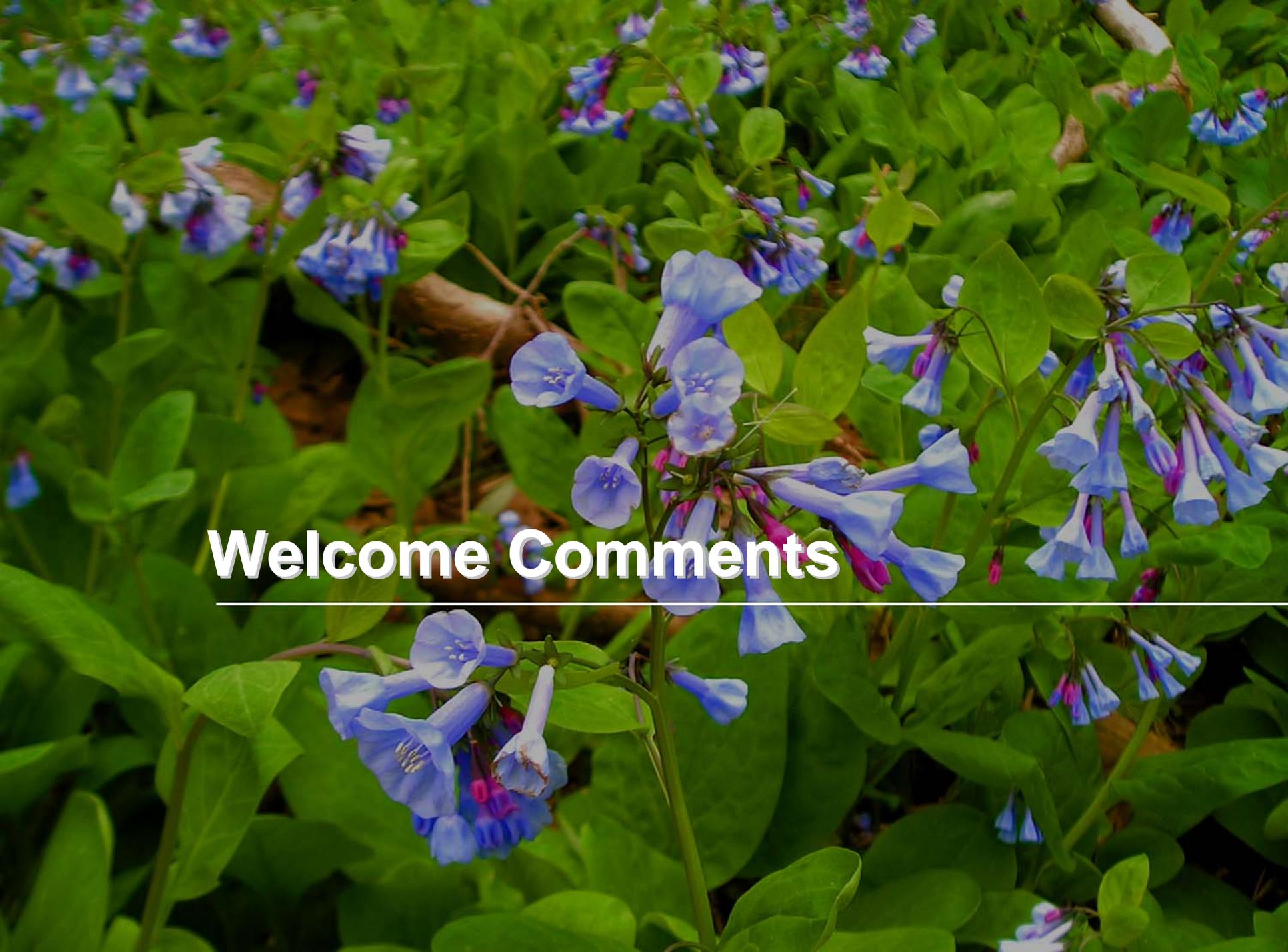
Accotink Creek Watershed Management Plan

Introductory & Issues Scoping Forum
October 7, 2008

**Fairfax County Department of Public Works
and Environmental Services**

Presented by Watershed Planning & Assessment Branch,
Stormwater Management



A close-up photograph of a dense field of blue and purple flowers, likely Salpiglossis, with vibrant green foliage. The flowers are bell-shaped and hang from thin stems. The background is filled with more of the same plants, creating a lush, textured appearance.

Welcome Comments

Agenda

- Watershed Primer (10 min.)
- Draft Watershed Workbook Summary (20 min.)
 - Chapter 1 – Compilation of Overall Watershed Condition Data
 - Chapter 2 – Subwatershed Characterization
- Public Involvement Process (5 min.)
- Open House (1 hr.)

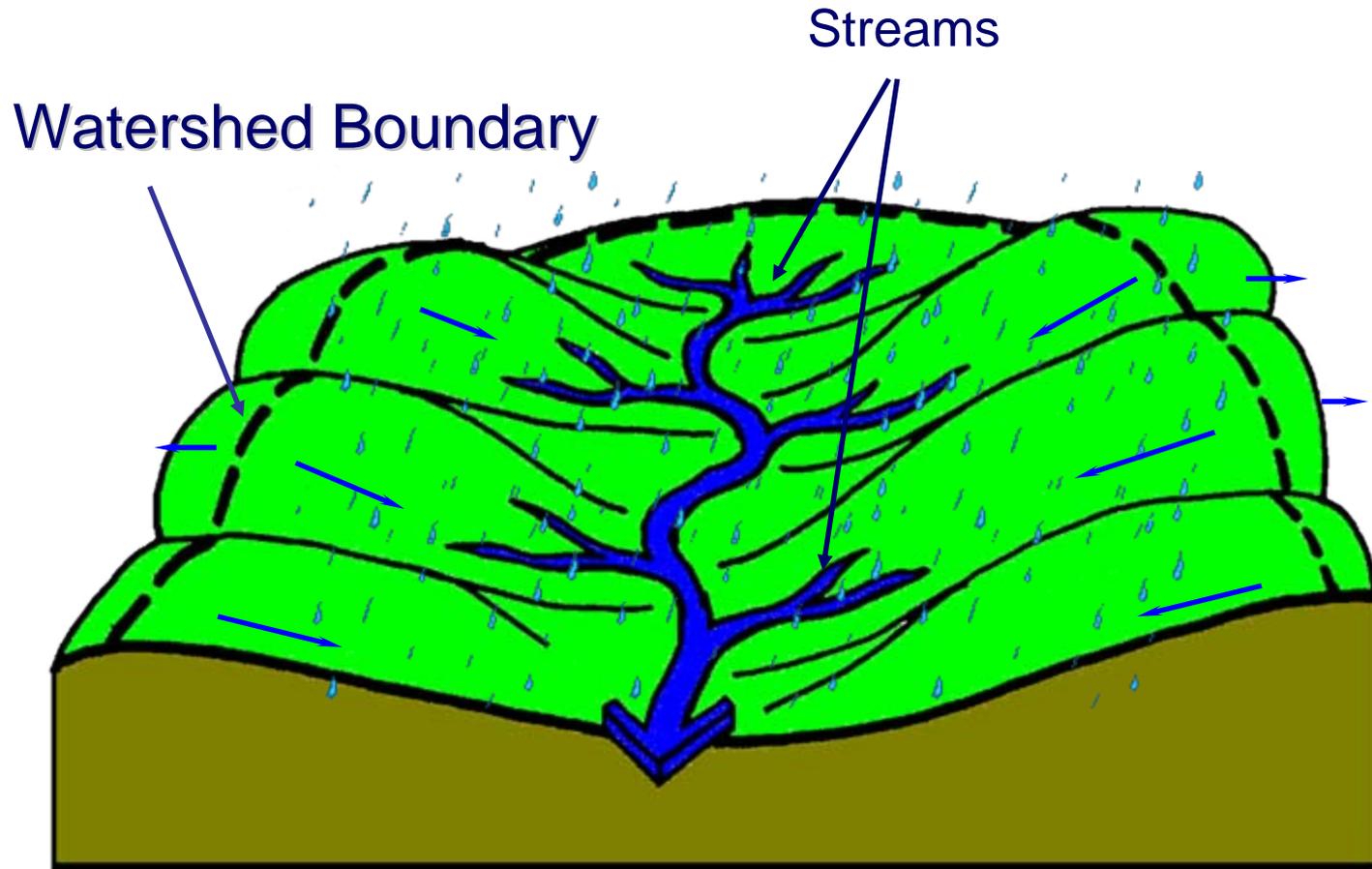
A close-up photograph of a dense field of blue and purple flowers, likely a species of primrose, with vibrant green foliage. The flowers are bell-shaped and clustered together. The background is filled with more of the same plants, creating a lush, textured appearance.

Watershed Primer

An Introduction



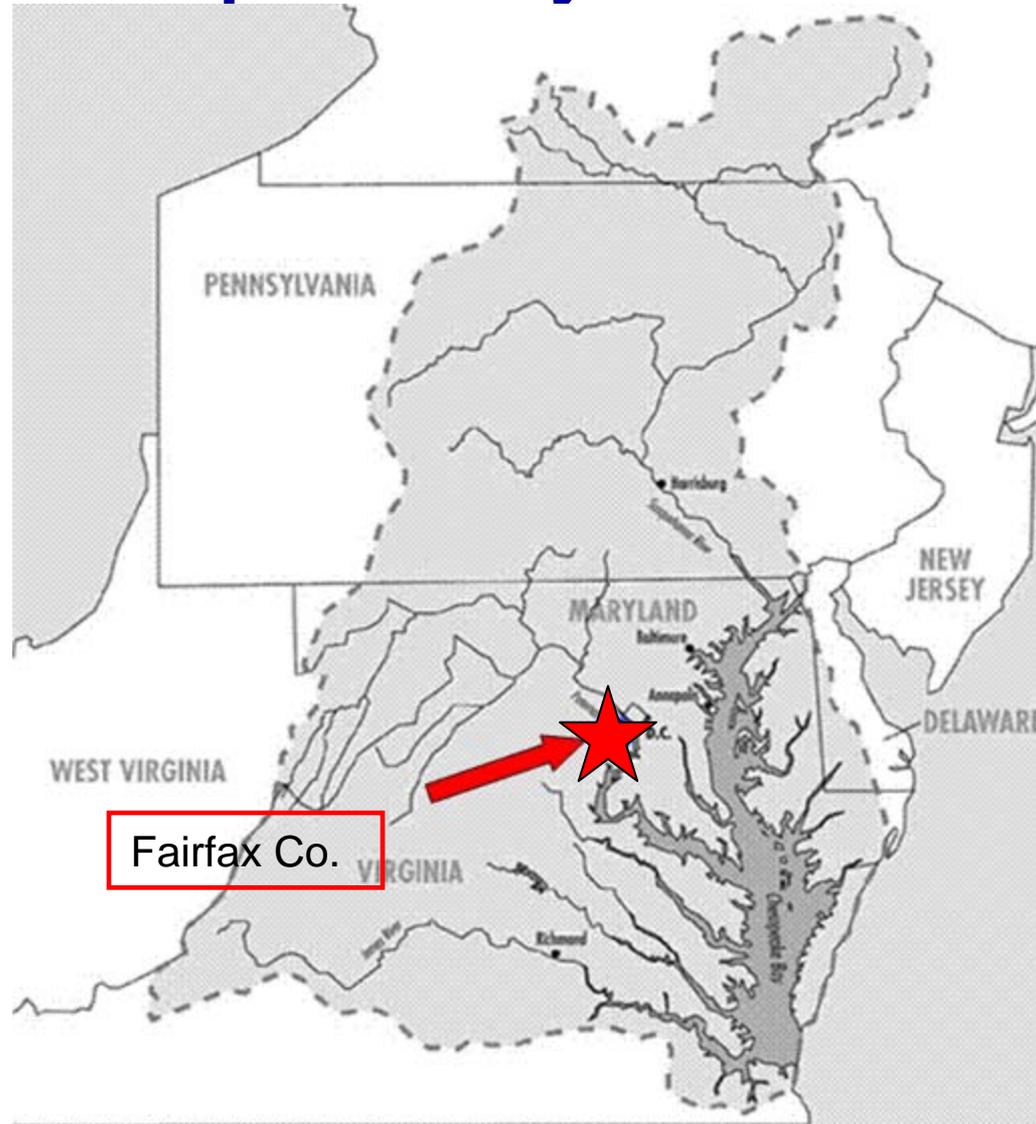
What is a Watershed?



What is a Watershed?



Chesapeake Bay Watershed



Fairfax County Watersheds

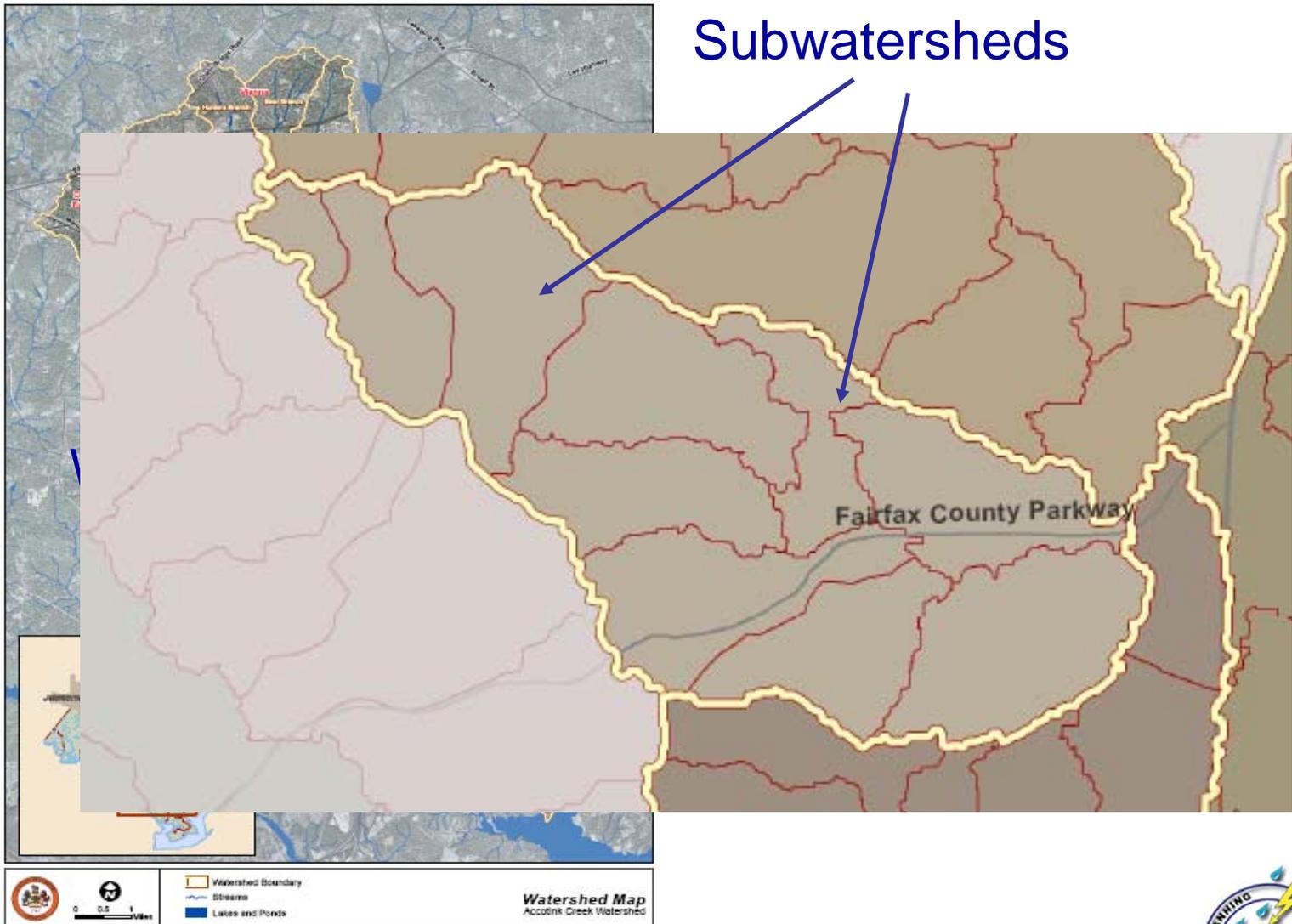


FAIRFAX COUNTY STORMWATER MANAGEMENT



Watershed Planning Study Units

Subwatersheds



Stormwater Management

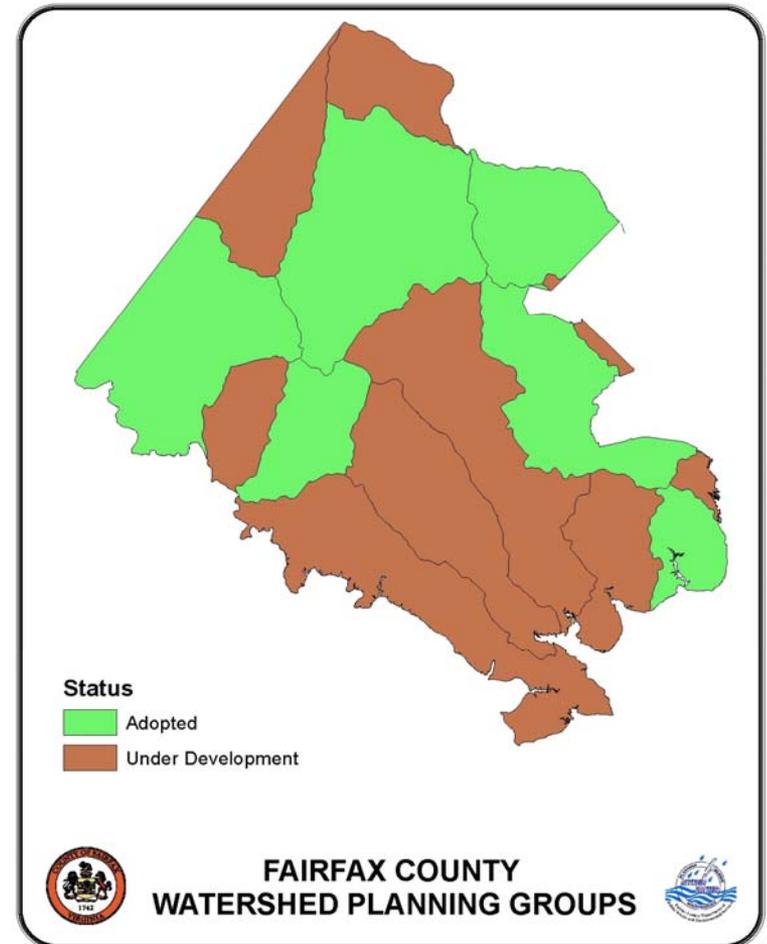
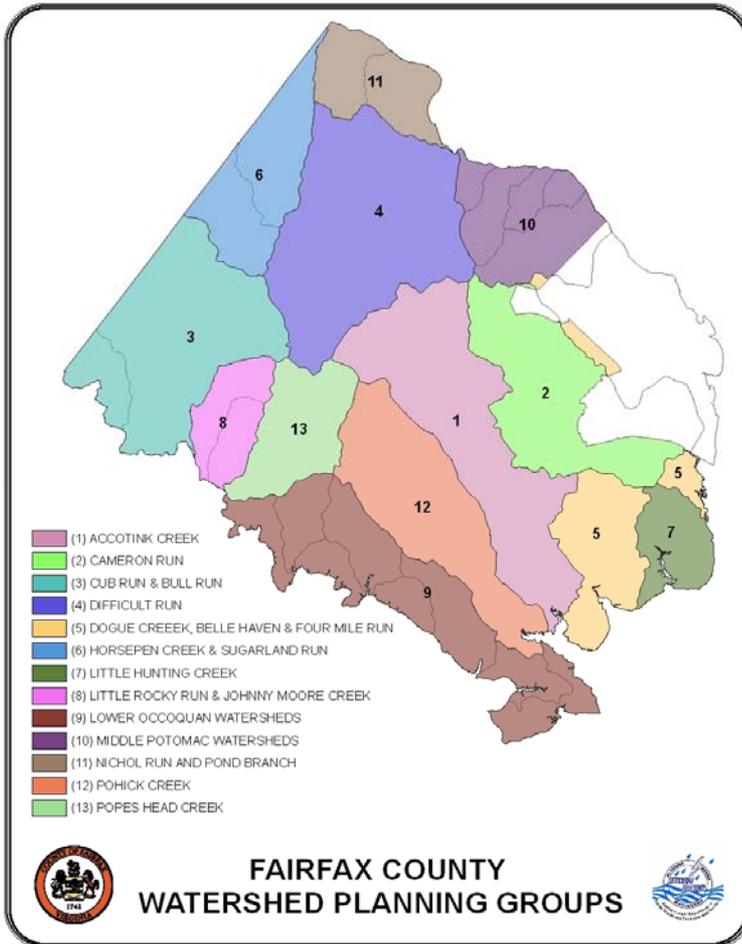
The process of controlling **stormwater runoff** that drains from rooftops, driveways, roads and other hard surfaces that do not allow water to permeate into the ground.



Stormwater Management



Watershed Plan Groups





The Watershed Planning Process

- Plan Development Review of previous studies and data compilation
 - Watershed characterization (workbook)
 - Issues Scoping Forum
- Draft Plan
 - Draft Plan Forum
- Final Plan
- Adoption by BOS



The Watershed Planning Process

Evaluate data to determine the state of the watersheds

Identify **issues** that the plan will address

Establish a **vision** for the watershed and goals that improve, enhance and protect watersheds

Develop specific **actions** to achieve the goals

Create a framework and timeframe for **implementation**



Common Watershed Issues

- ✓ Development and Land use
- ✓ Biological Conditions and Wildlife
- ✓ Nonpoint Source Pollution
- ✓ Litter and Physical Condition of Streams
- ✓ Landscaping Practices
- ✓ Public Involvement and Awareness

Why create watershed plans?

Healthy watersheds, healthier communities



A close-up photograph of a dense field of blue flowers, likely Virginia Bluebells, with vibrant green foliage. The flowers are bell-shaped and hang from thin stems. The background is filled with more of the same plants, creating a lush, textured appearance.

Watershed Workbook

- Chapter 1: Overall watershed characteristics
- Chapter 2: More detail on each Watershed Management Area

Watershed Goals

1. Improve and maintain watershed functions in Fairfax County, including water quality, habitat, and hydrology.
2. Protect human health, safety, and property by reducing stormwater impacts.
3. Involve stakeholders in the protection, maintenance and restoration of county watersheds.





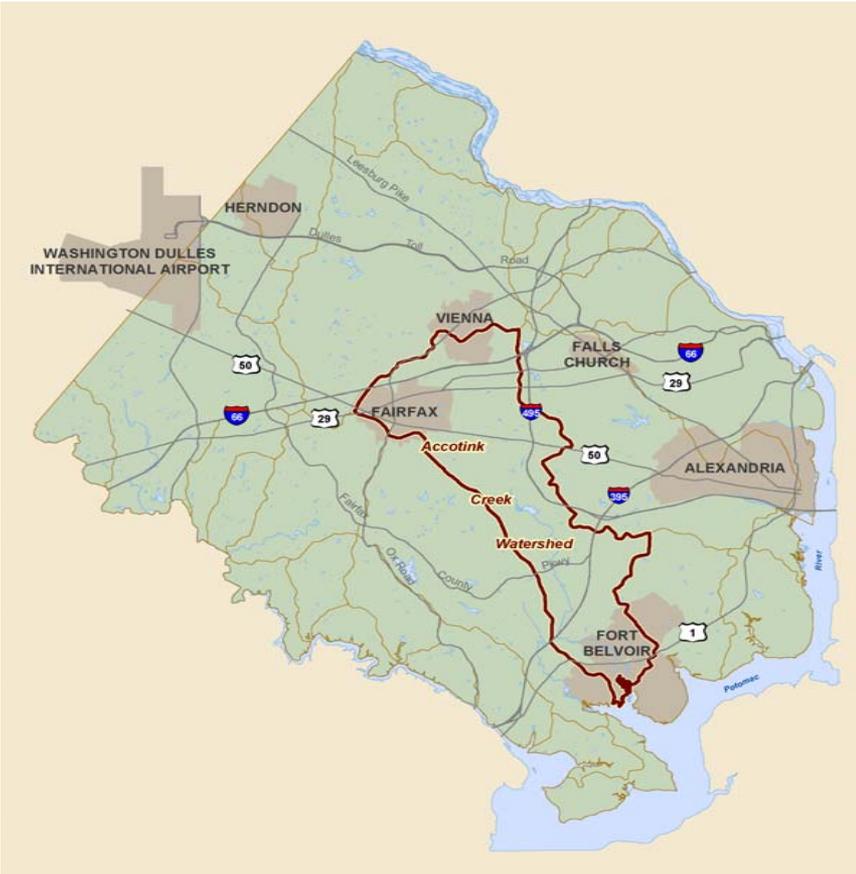
Watershed Characterization Data

- Mapping
- Field Assessment and Monitoring
- Computer Modeling

A close-up photograph of a dense field of small, bell-shaped flowers. The flowers are primarily light blue and purple, with some showing darker purple or pinkish hues. They are surrounded by lush green foliage, including large, rounded leaves and thin stems. The background is slightly blurred, emphasizing the foreground flowers.

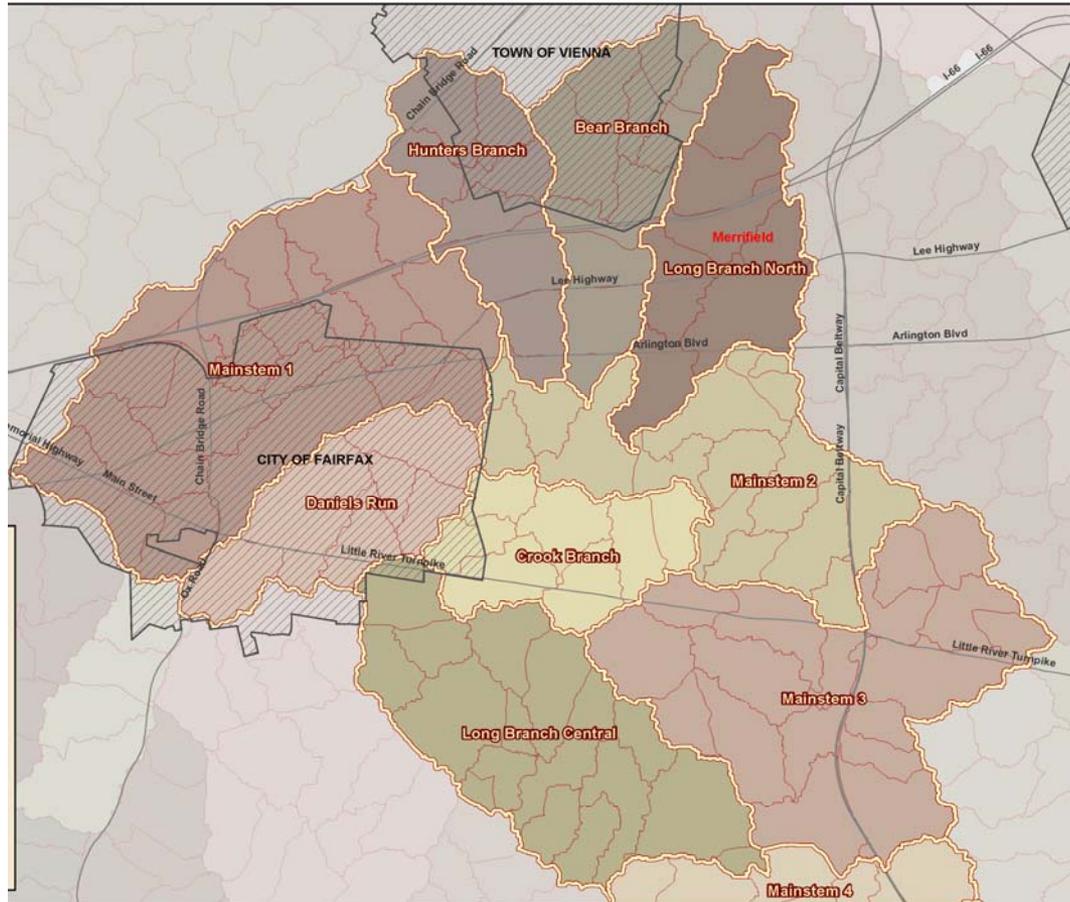
Mapping

Characteristics



- 51 square miles
- Second largest watershed in Fairfax County
- 111 miles of streams
- 25% in Vienna, City of Fairfax, Fort Belvoir

WMA and Tributaries

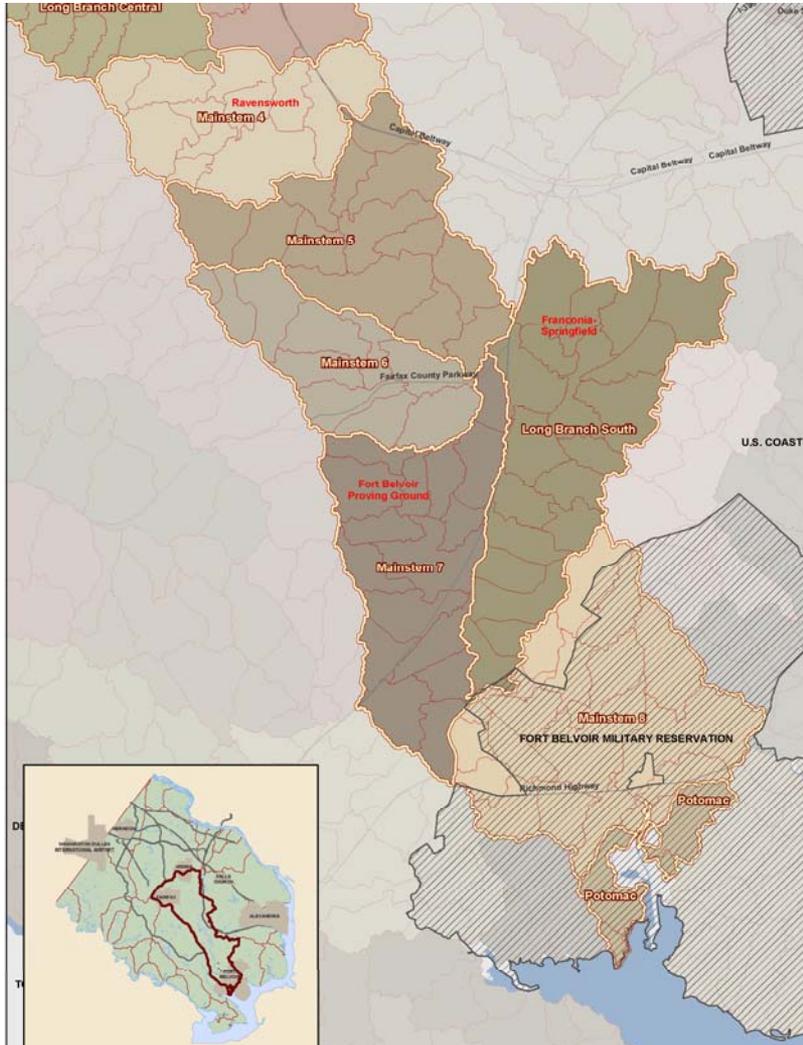


- Bear Branch
- Crook Branch
- Daniels Run
- Hunters Branch
- Long Branch Central
- Long Branch North
- Mainstem 1
- Mainstem 2
- Mainstem 3 (includes Coon Branch, Turkey Run)





WMA and Tributaries



Long Branch South

Mainstem 4 (includes
Flag Run)

Mainstem 5 (includes
Calamo Run)

Mainstem 6

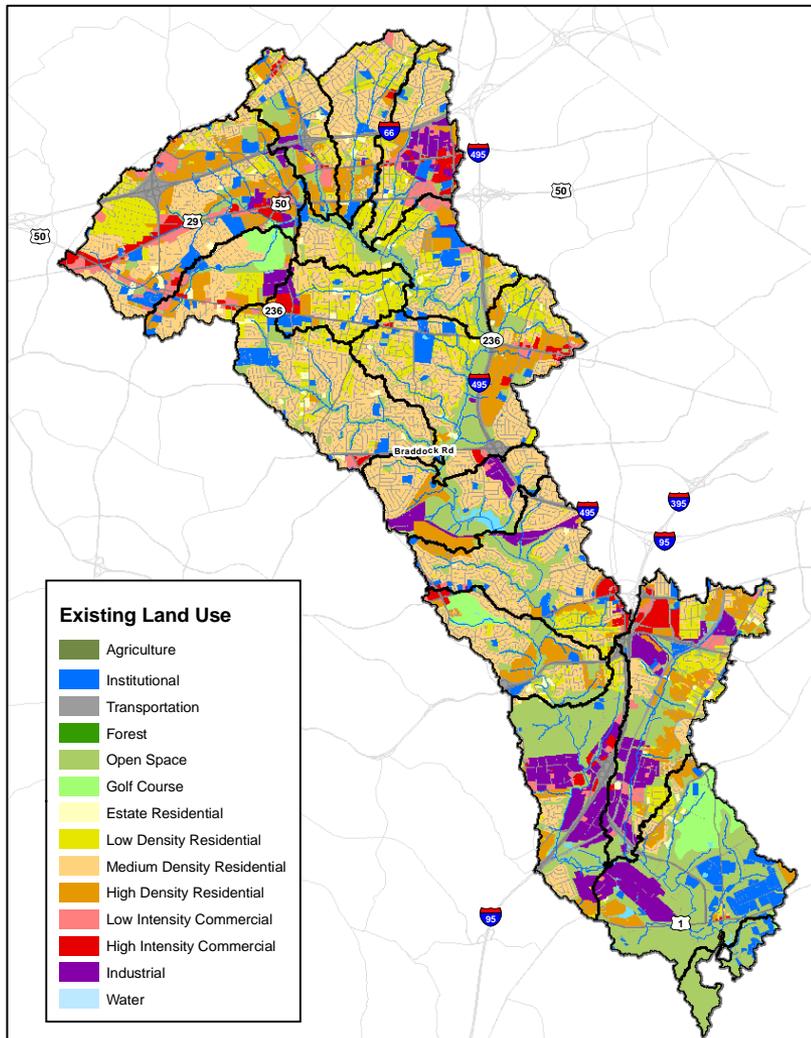
Mainstem 7 (includes
Fieldlark Branch)

Mainstem 8 (includes
Kernan Run,
Mason's Run)

Potomac

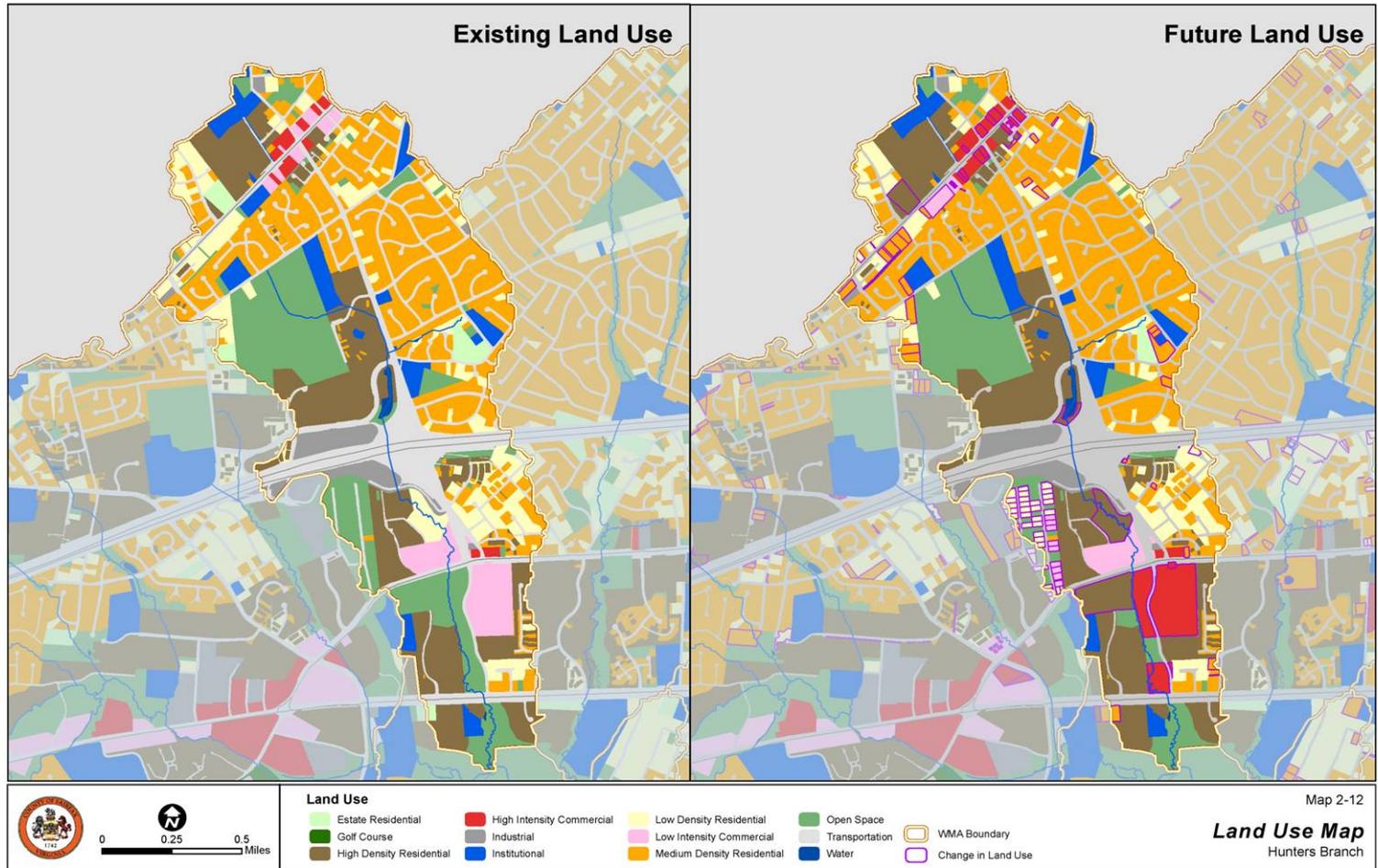


Land Use



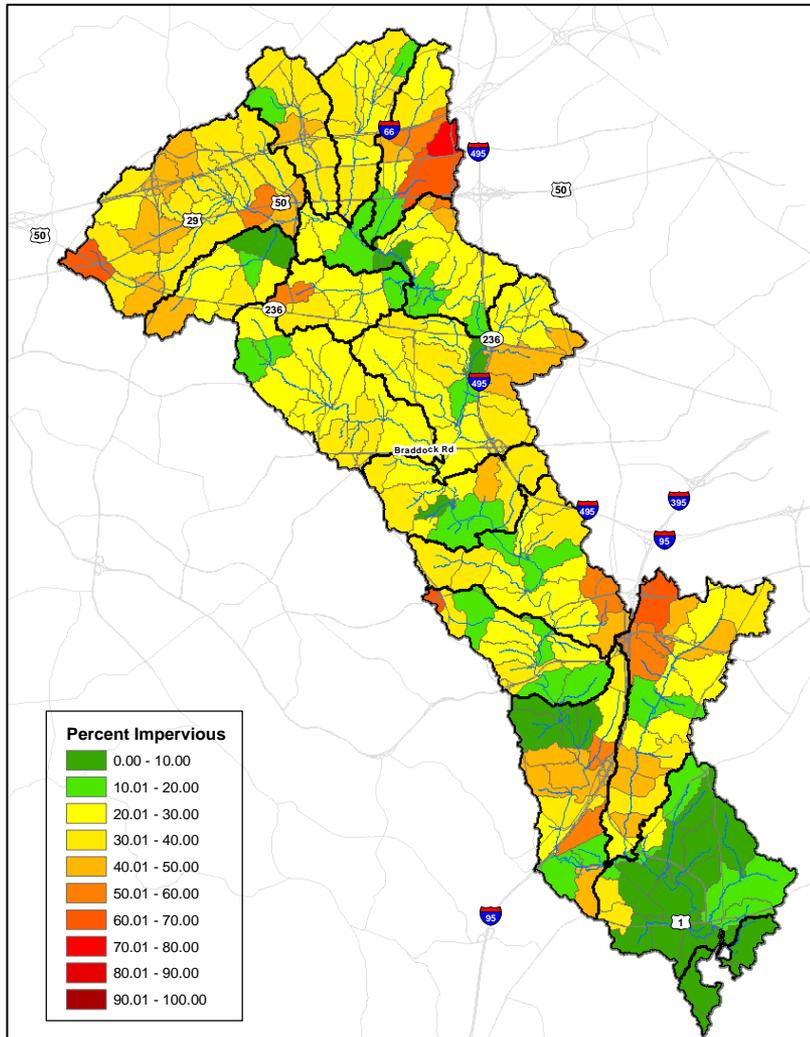
- Development History
 - 60% before 1970
 - 80% before 1980
- 87% Developed
 - 39% Residential
 - 21% Industrial, Commercial, Transportation
 - 14% Institutional
 - 11% City of Fairfax
- Built Out
 - 4% forecast new development
 - Redevelopment

Land Use



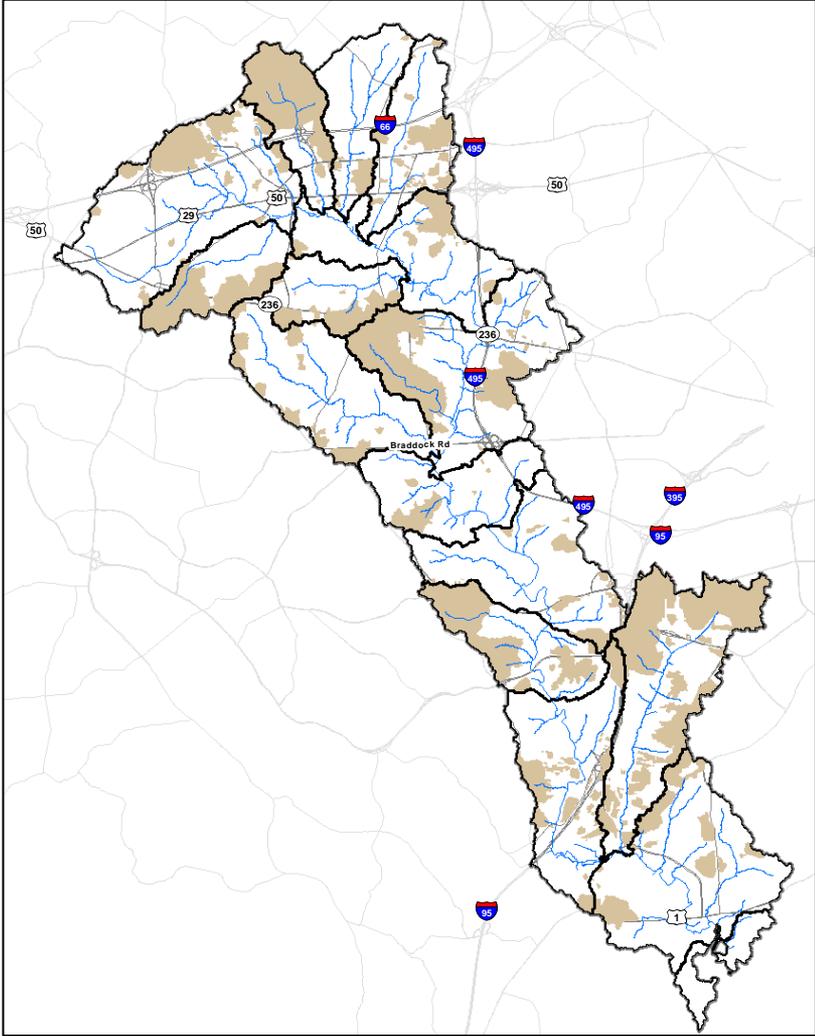


Impervious Area



- Average 27%
 - Highest 41% (Long Branch North)
 - Lowest 3% (Potomac)

Stormwater Management



Treated Areas



A close-up photograph of a dense field of blue flowers, likely a species of Salpiglossis, with vibrant green foliage. The flowers are bell-shaped and arranged in clusters. The text "Field Assessment" is overlaid in white, bold font, underlined, across the middle of the image.

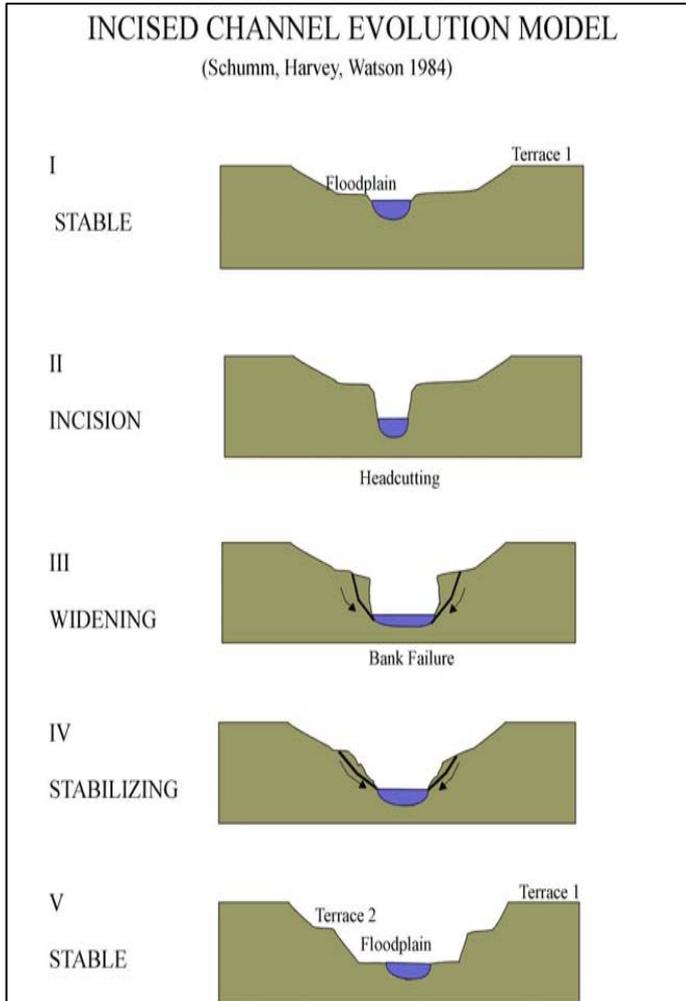
Field Assessment

Stream Condition

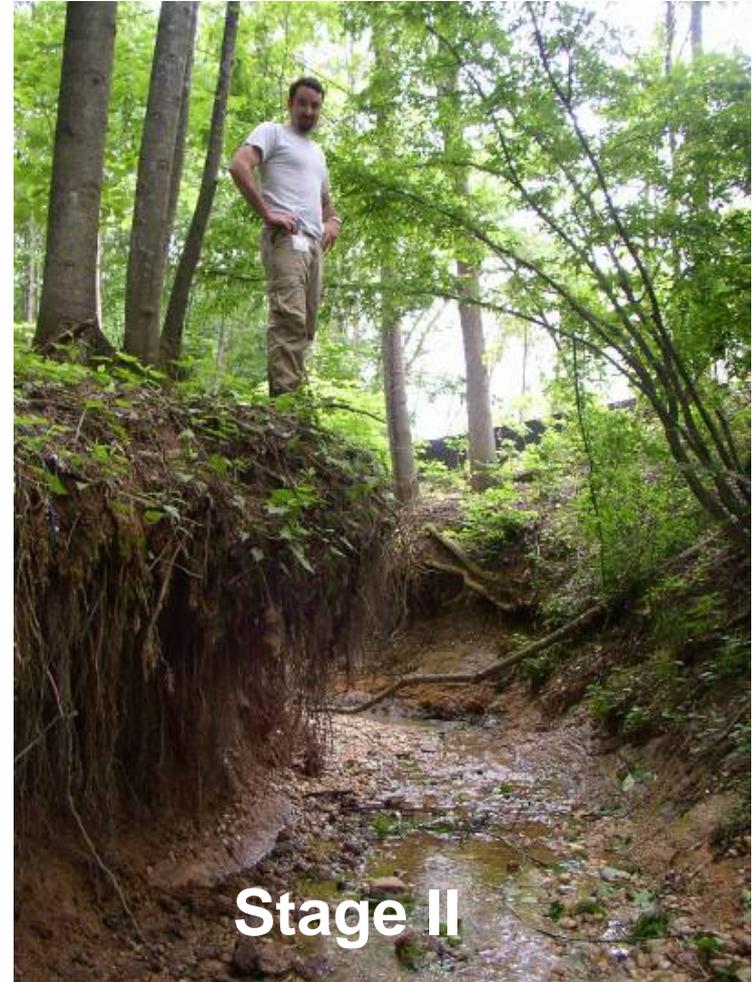
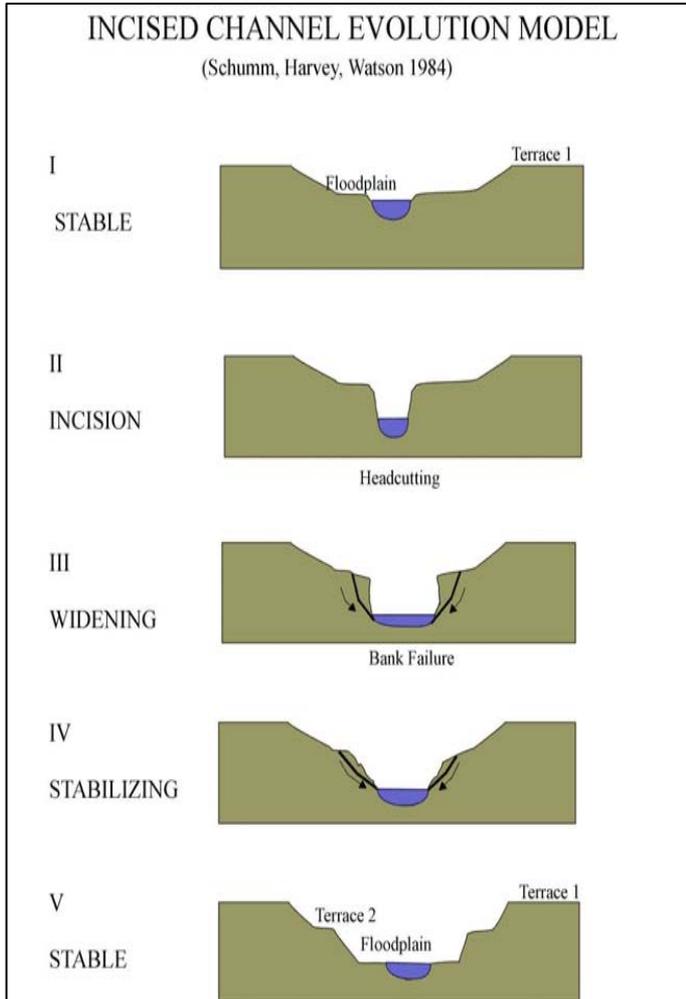


- Physical
 - Stream Physical Assessment (SPA)
- Chemical
 - VDEQ Water Quality Monitoring
 - Impaired Waters List
 - TMDL
- Biological
 - Stream Protection Strategy (SPS)

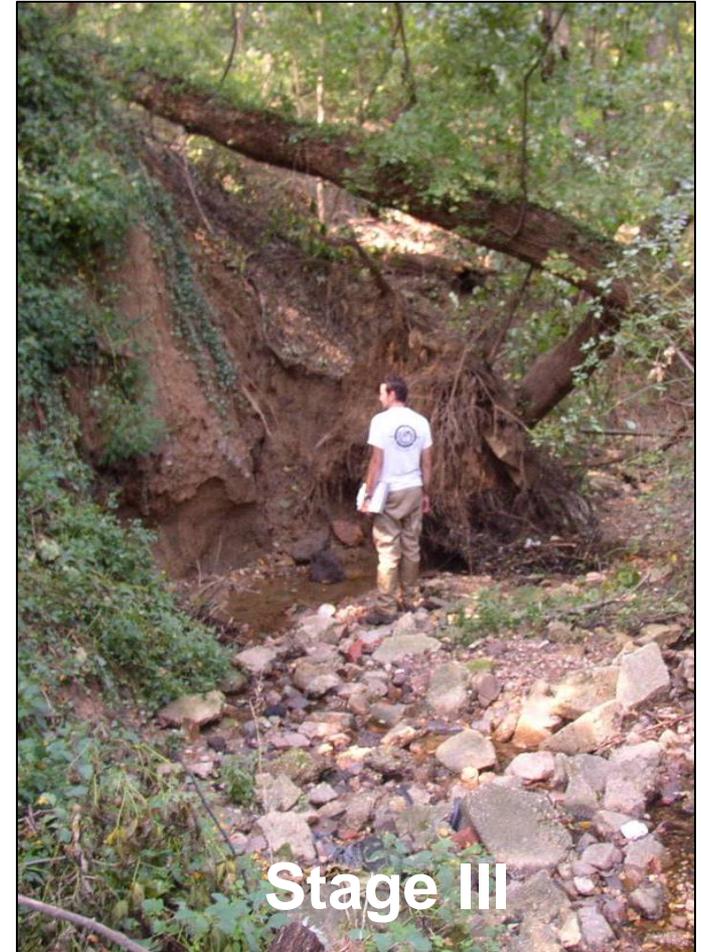
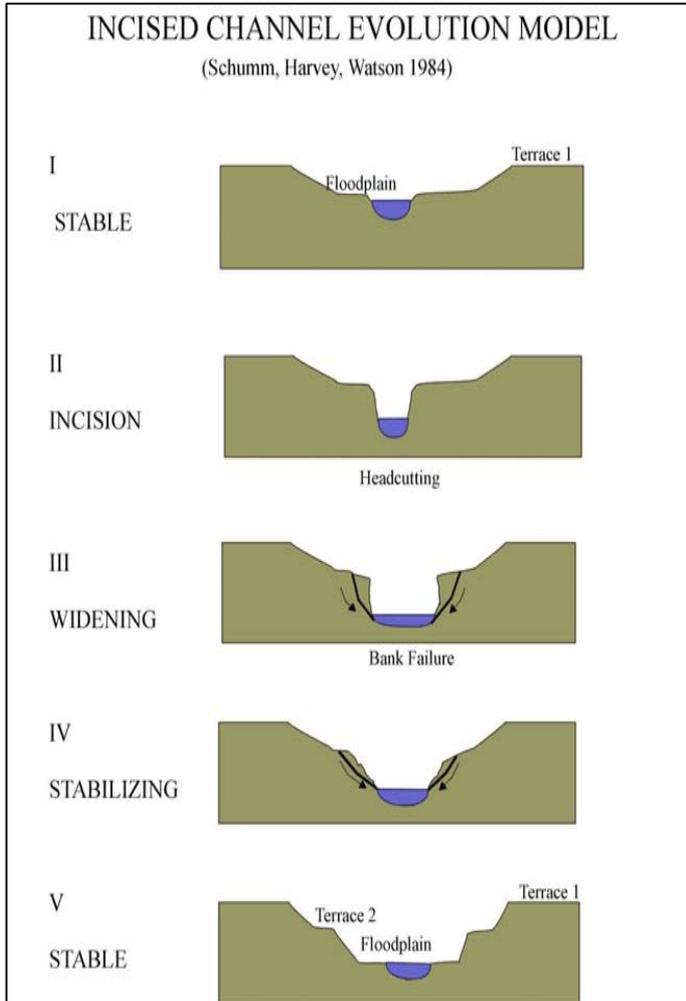
Stream Physical Assessment



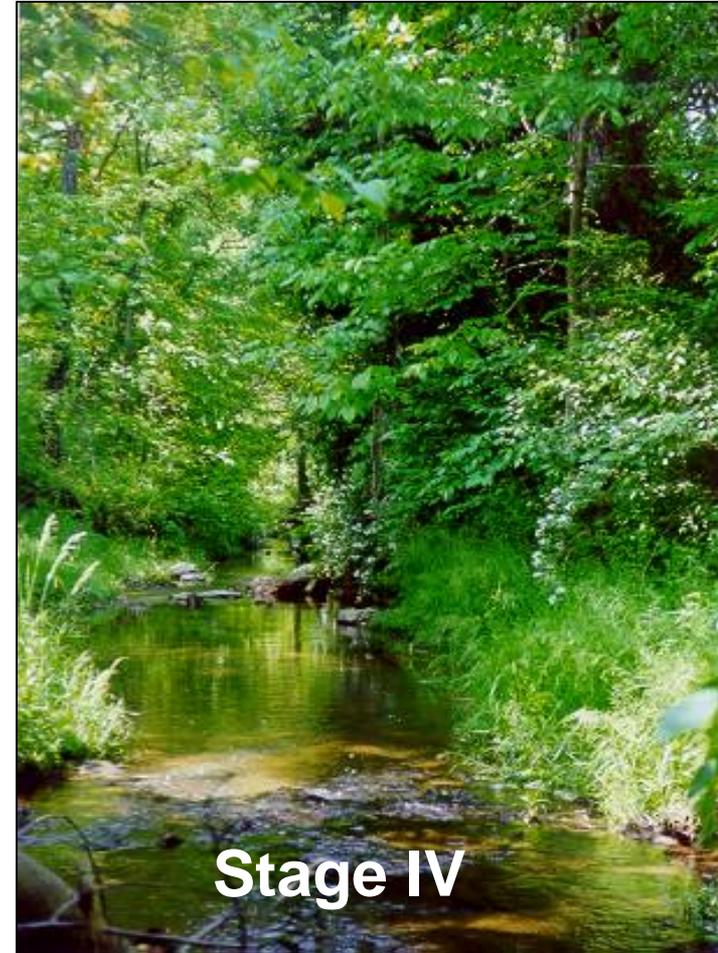
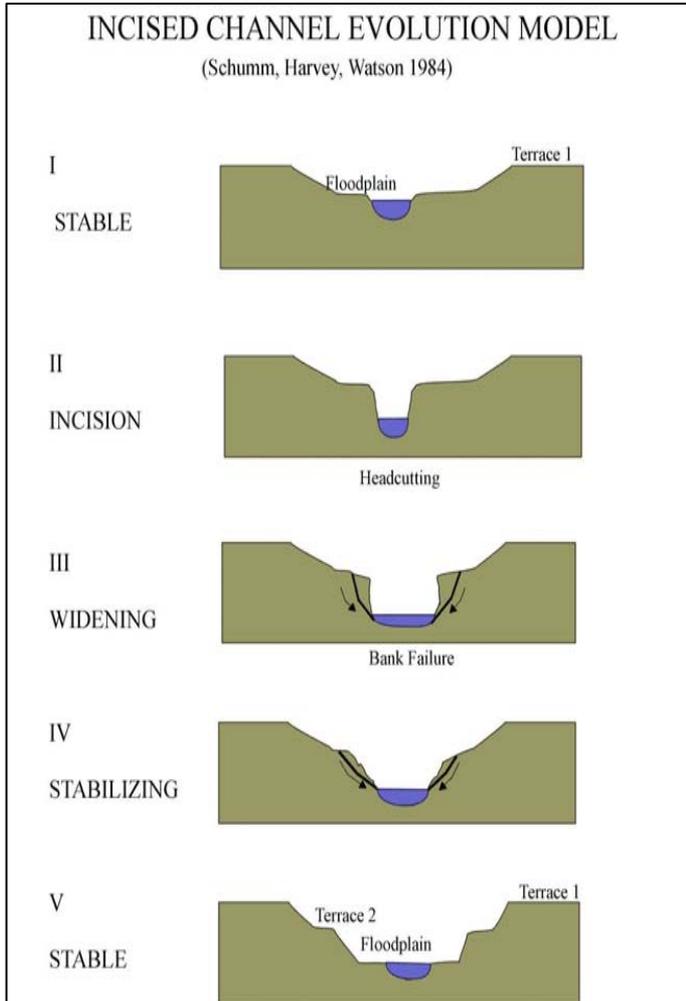
Stream Physical Assessment



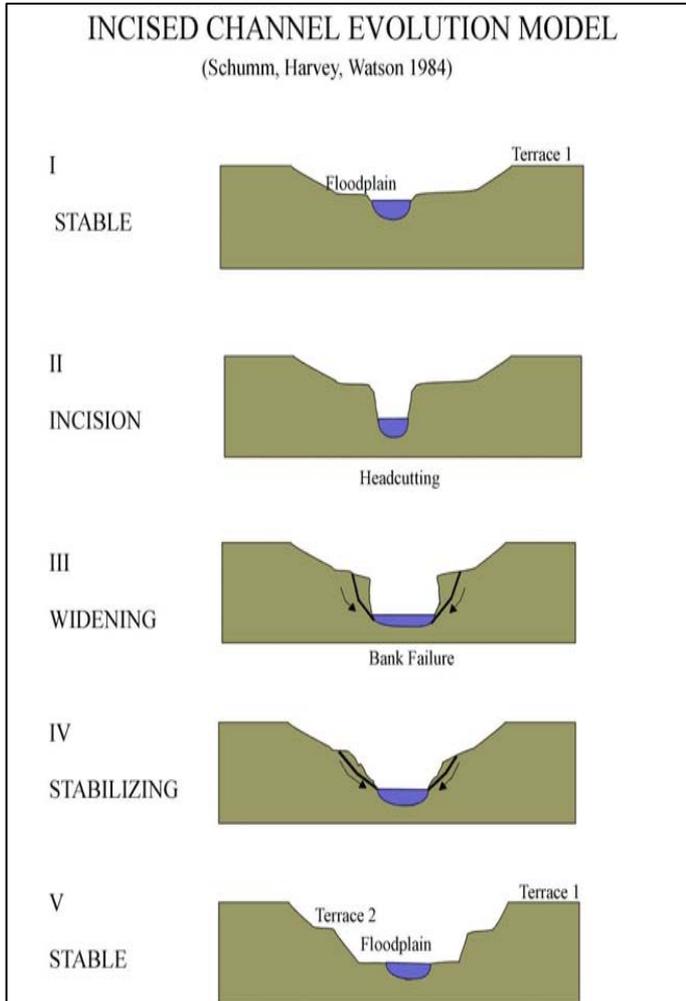
Stream Physical Assessment



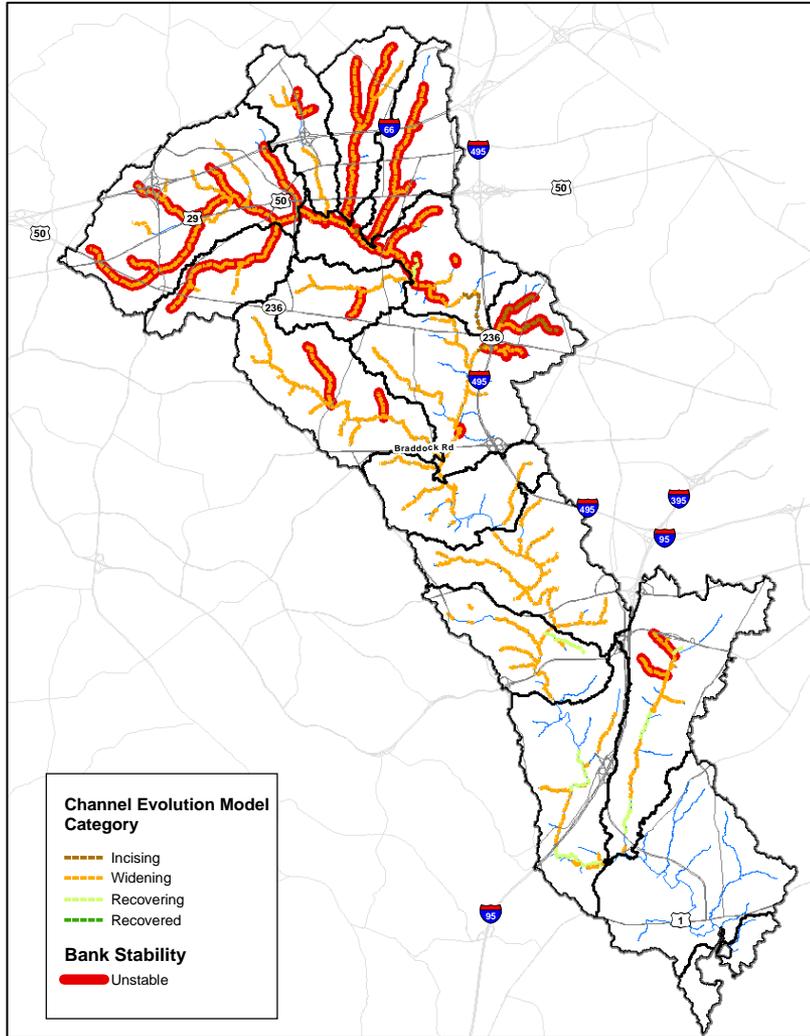
Stream Physical Assessment



Stream Physical Assessment



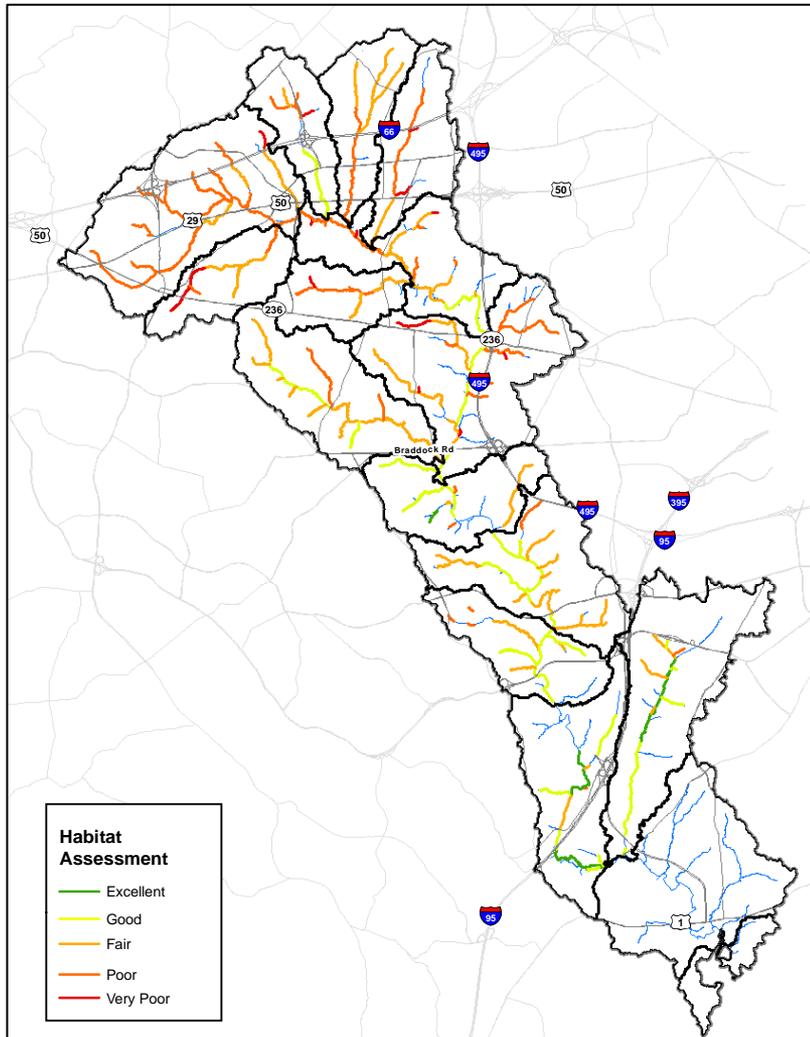
Stream Physical Assessment



- Channel Evolution Model
- Bank Stability

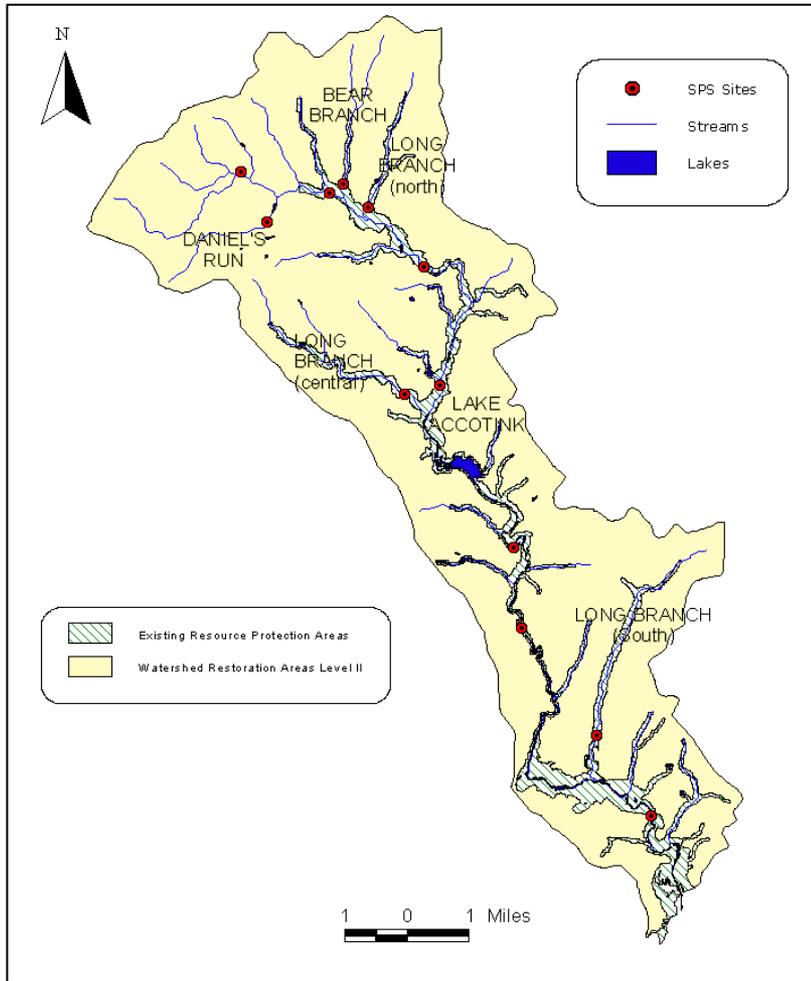


Stream Physical Assessment



- Habitat Assessment
 - Stream health
 - Bank stability
 - Riparian buffer
- In-stream Features
 - Obstructions
 - Road crossings
 - Utility crossings
 - Erosion
 - Outfalls

Stream Protection Strategy

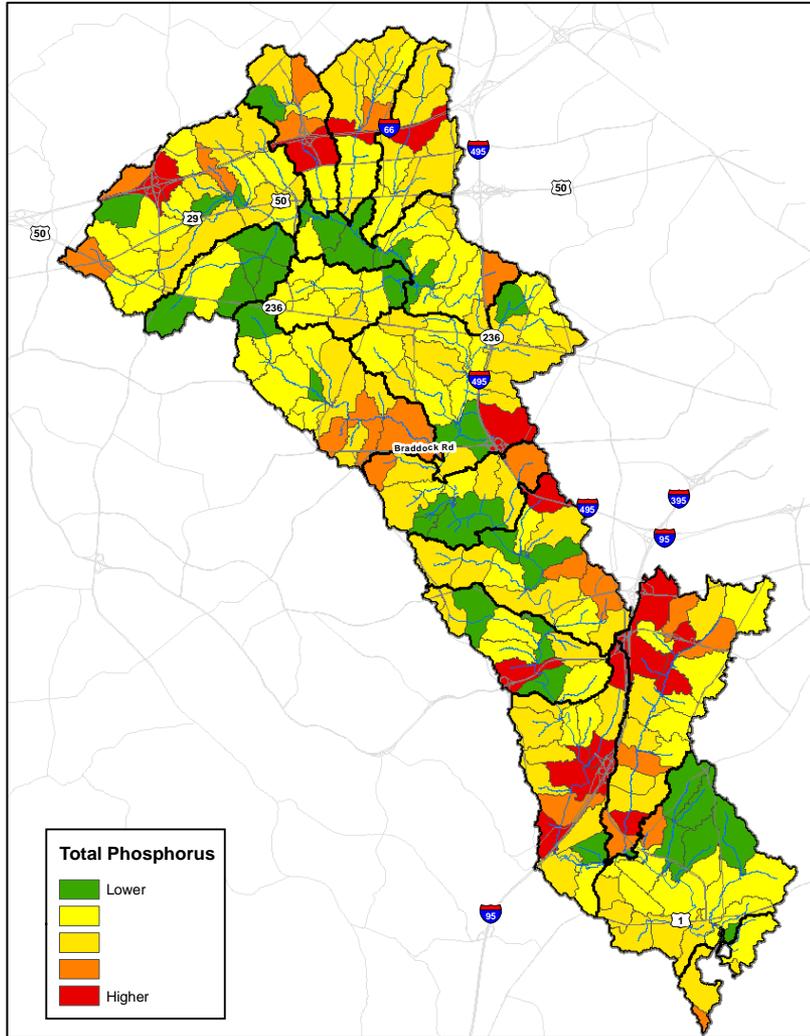


- Procedure
 - Macroinvertebrate Assessment
 - Fish Sampling
 - Water Quality Measurements
 - Habitat Assessment
- Results
 - Substantially Degraded
 - Poor or Very Poor Rating



Pollutant Loading

- Phosphorus



A close-up photograph of a dense field of blue flowers, likely Salpiglossis, with vibrant green foliage. The flowers are bell-shaped and have a light blue color with darker blue or purple markings on the throat. The background is filled with more of the same plants, creating a lush, textured appearance.

Identifying Problems

Watershed Ranking

- Indicators of Watershed Impacts
 - Water quality
 - Habitat health
 - Biotic integrity
- Indicators of Problem Sources
 - Stressors
 - Pollutant sources
- Weighting and Scoring

Microsoft Excel - Overall and Objective Composite Scores Template 06-26-08.xls

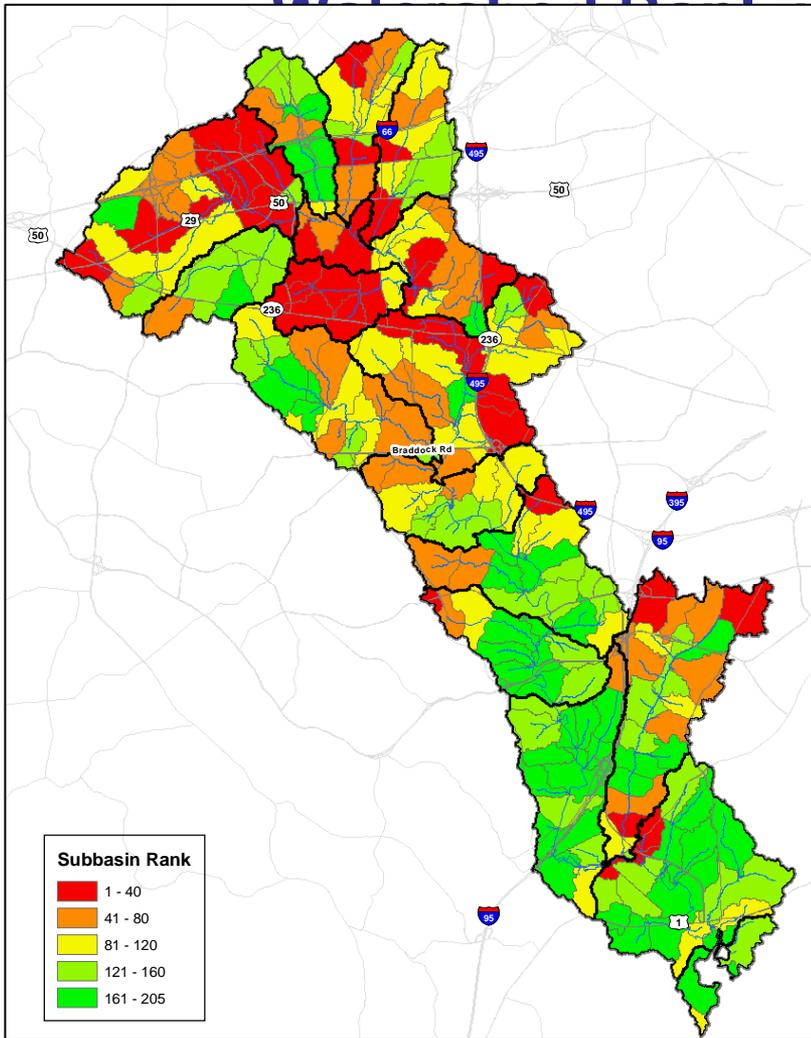
10/6/2008

Record ID	WMA	Site Code	Objective Composite Score						Overall Composite Score	Rank	
			Stormwater Runoff	Flooding Hazards	Habitat Health	Habitat Diversity	Stream Water Quality	Drinking Water Quality			Storage Capacity
1	Accotink - Mainstem 8	AC-AC-0000	3.80	9.90	4.00	4.00	4.36	4.38	5.00	5.38	193
2	Accotink - Mainstem 8	AC-AC-0005	3.80	9.90	3.60	4.00	4.36	4.38	5.00	5.33	189
3	Accotink - Mainstem 8	AC-AC-0010	3.80	6.60	3.20	4.00	4.00	3.75	3.75	4.92	103
4	Accotink - Mainstem 8	AC-AC-0015	3.80	7.43	3.20	4.00	3.64	3.13	3.75	4.35	107
5	Accotink - Mainstem 8	AC-AC-0020	3.80	9.90	3.20	4.00	3.64	3.13	3.75	4.85	159
6	Accotink - Mainstem 8	AC-AC-0025	4.60	9.90	3.20	6.00	4.21	3.13	3.75	5.30	186
7	Accotink - Mainstem 8	AC-AC-0030	3.80	7.43	3.60	4.00	4.36	4.38	5.00	4.84	158
8	Accotink - Mainstem 8	AC-AC-0035	3.40	9.90	3.20	3.00	5.14	6.25	5.00	5.45	196
9	Accotink - Mainstem 8	AC-AC-0040	3.80	6.60	3.20	4.00	4.36	4.38	5.00	4.62	128
10	Accotink - Mainstem 8	AC-AC-0045	4.60	8.58	2.40	6.00	4.21	3.13	3.75	4.93	167
11	Accotink - Mainstem 8	AC-AC-0050	4.60	6.60	3.20	6.00	4.21	3.13	3.75	4.64	130
12	Accotink - Mainstem 8	AC-AC-0055	3.40	7.43	3.20	3.00	4.07	4.38	5.00	4.56	123
13	Accotink - Mainstem 8	AC-AC-0060	3.40	5.28	2.80	3.00	3.36	3.13	3.75	3.65	23
14	Accotink - Mainstem 8	AC-AC-0065	3.40	6.60	2.40	3.00	3.00	2.50	3.75	3.73	28
15	Accotink - Mainstem 7	AC-AC-0070	5.90	3.30	3.60	6.00	4.21	2.50	5.00	4.29	100
16	Accotink - Mainstem 7	AC-AC-0075	4.60	7.43	4.40	4.00	4.00	3.75	3.75	4.75	148
17	Accotink - Mainstem 7	AC-AC-0080	5.40	7.43	3.60	8.00	4.43	2.50	3.75	5.18	176
18	Accotink - Mainstem 7	AC-AC-0085	7.10	6.60	4.00	7.00	4.50	2.50	5.00	5.33	190
19	Accotink - Mainstem 7	AC-AC-0090	5.90	7.59	4.00	6.00	3.86	1.88	5.00	5.07	173
20	Accotink - Mainstem 7	AC-AC-0095	5.40	5.45	3.60	7.00	3.79	1.88	3.75	4.48	118
21	Accotink - Mainstem 7	AC-AC-0100	5.90	9.24	3.20	6.00	4.21	2.50	5.00	5.42	194
22	Accotink - Mainstem 7	AC-AC-0105	6.30	9.90	3.60	8.00	4.43	1.88	5.00	5.87	205
23	Accotink - Mainstem 7	AC-AC-0110	5.40	9.24	2.80	8.00	4.43	2.50	3.75	5.43	195
24	Accotink - Mainstem 7	AC-AC-0115	4.60	9.90	2.80	6.00	4.57	3.75	5.00	5.54	200
25	Accotink - Mainstem 7	AC-AC-0120	3.80	9.90	3.60	4.00	4.00	3.75	5.00	5.20	181
26	Accotink - Mainstem 7	AC-AC-0125	3.80	9.90	3.20	4.00	3.29	2.50	3.75	4.72	141
27	Accotink - Mainstem 7	AC-AC-0130	3.80	9.90	3.20	4.00	3.29	2.50	3.75	4.72	141
28	Accotink - Mainstem 6	AC-AC-0135	3.80	8.58	3.20	4.00	3.29	2.50	3.75	4.45	115
29	Accotink - Mainstem 6	AC-AC-0140	5.10	7.59	4.00	4.00	4.36	3.75	6.25	5.18	177
30	Accotink - Mainstem 6	AC-AC-0145	5.90	9.90	4.00	6.00	4.21	2.50	5.00	5.66	202
31	Accotink - Mainstem 6	AC-AC-0150	5.90	9.24	4.00	6.00	4.21	2.50	5.00	5.53	199
32	Accotink - Mainstem 6	AC-AC-0155	5.90	9.90	4.40	6.00	4.57	3.13	5.00	5.85	204
33	Accotink - Mainstem 6	AC-AC-0160	5.80	7.92	2.80	6.00	3.86	2.50	3.75	4.88	162
34	Accotink - Mainstem 6	AC-AC-0165	4.10	8.58	2.80	3.00	3.00	3.13	2.50	4.19	84
35	Accotink - Mainstem 6	AC-AC-0170	4.60	6.60	2.80	3.00	3.00	2.50	3.75	3.94	51
36	Accotink - Mainstem 6	AC-AC-0175	3.00	8.58	2.00	2.00	2.71	2.50	3.75	3.84	40
37	Accotink - Mainstem 6	AC-AC-0180	5.50	6.60	4.00	5.00	3.93	2.50	5.00	4.78	151





WMA and Subwatershed Ranking Results



WMA and subwatershed condition

Comparison Countywide Use in WMP

- Priority areas for retrofits
- Evaluating potential improvements

A close-up photograph of a dense field of blue and purple flowers, likely Virginia Bluebells, with vibrant green foliage. The flowers are in various stages of bloom, some fully open and others as buds. The background is a soft-focus expanse of similar flowers and leaves.

Accotink Creek Public Involvement Process

Public Involvement Team
Juliana E. Birkhoff
Debbie Lee
Jennifer Hicks

Public Involvement

- Public forum-learn about watershed issues, learn about Accotink Creek conditions, provide ideas and share concerns
- Provide comments tonight
- Web site – public comments
www.fairfaxcounty.gov/dpwes/watersheds
- E-mail comments to watersheds@fairfaxcounty.gov
- Phone Fairfax County: 703-324-5500 TTY 711 or
- Watershed Advisory Groups- broad based group gives specific advice on problems and possible solutions
- Public forum-learn about draft plan and suggest improvements



Watershed Advisory Group (WAG)

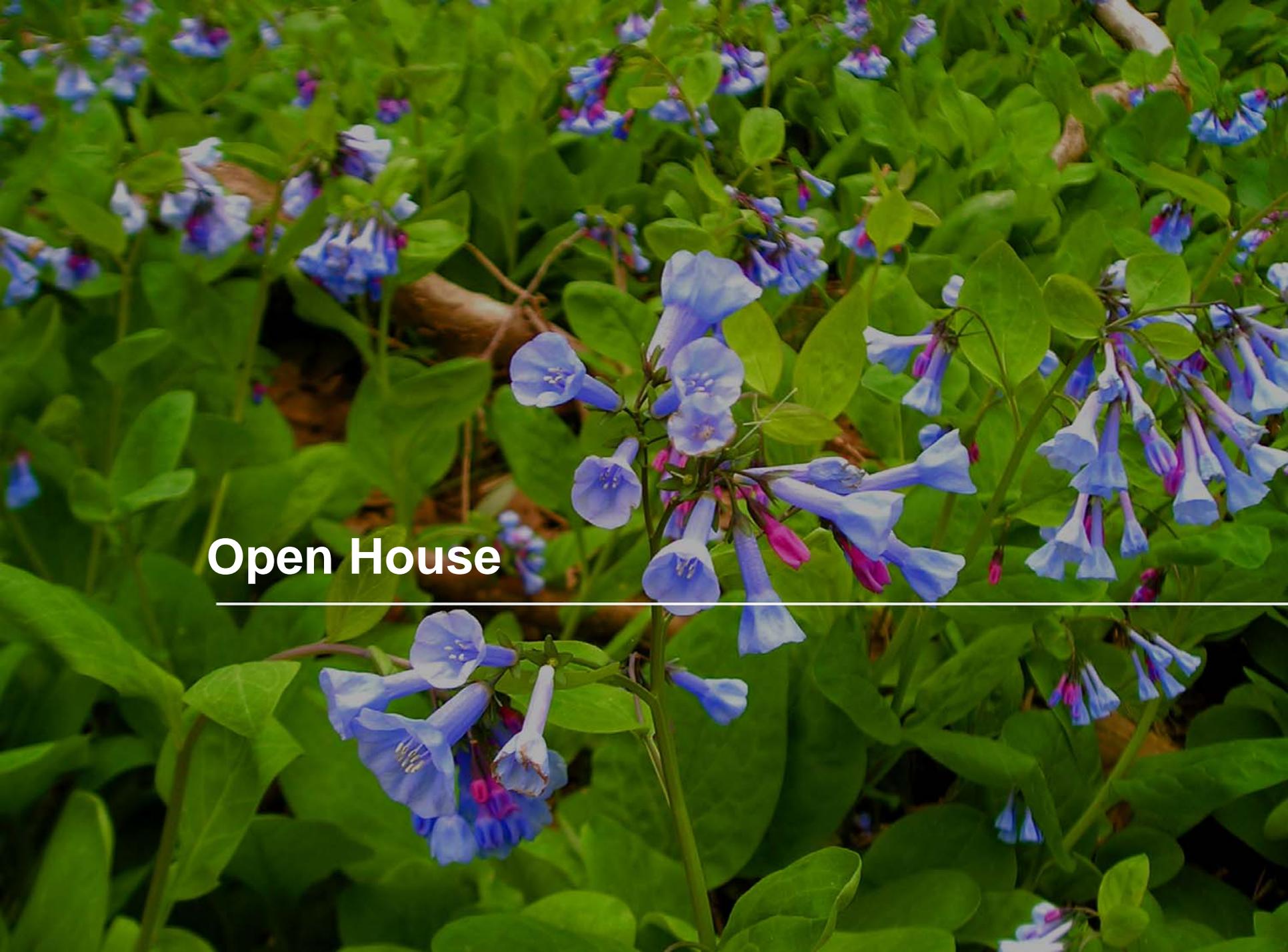
Following the workshop, an advisory group of 12 to 20 members will be formed. It will:

Include representative watershed interests: businesses and resident organizations, such as HOAs.

Review plan ideas and projects: highlight other problem areas or review locations for solutions.

Serve as a liaison to the community: share ideas with groups and solicit input for the plan.

If interested in serving on the WAG, tell us tonight or contact watersheds@fairfaxcounty.gov

A close-up photograph of a dense field of flowers. The flowers are primarily light blue and purple, with some showing darker purple or pinkish hues. They are arranged in clusters on thin stems. The foliage is lush green, with many leaves visible. The background is slightly blurred, emphasizing the foreground flowers.

Open House
