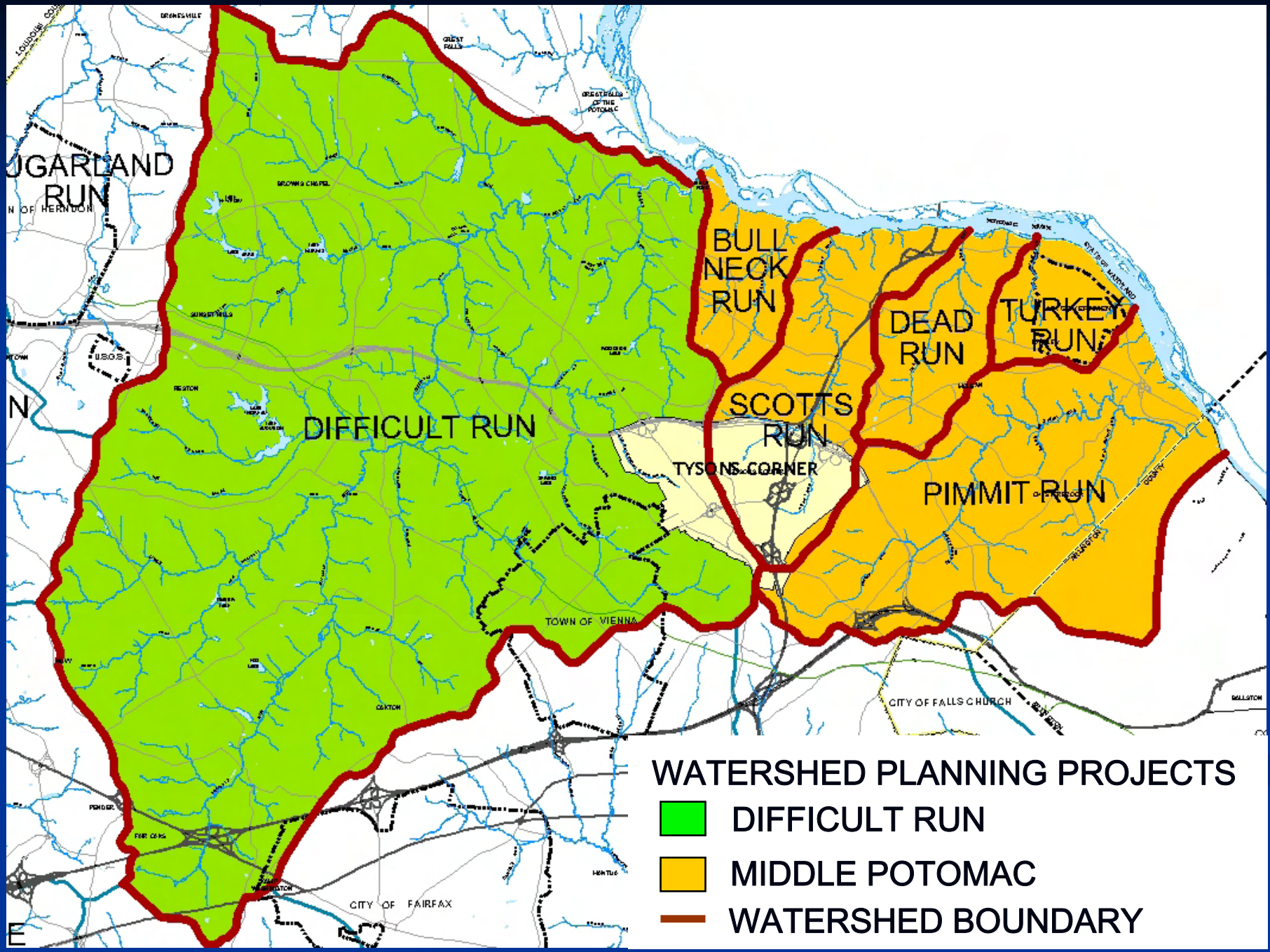
Middle Potomac and Difficult Run Watershed Management Plans

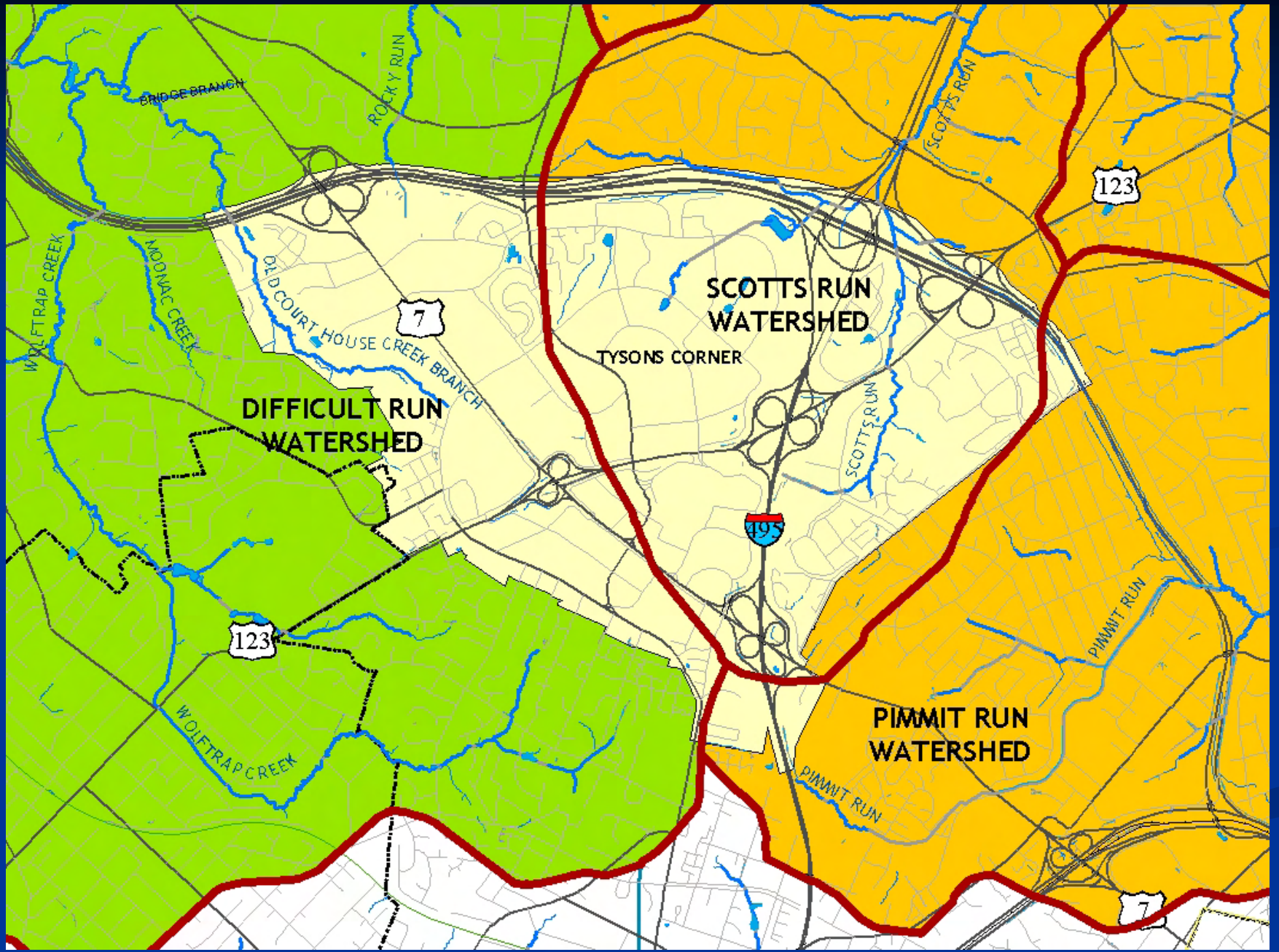
December 19, 2005

Presented to the Tysons Corner Coordinating Committee by
Fairfax County Stormwater Planning Division, Woolpert, Inc. and KCI

Overview

- Why Develop Watershed Plans?
- Watersheds Information
- Scotts Run Watershed Condition
- Proposed Watershed Plan Projects
- Opportunities to partner

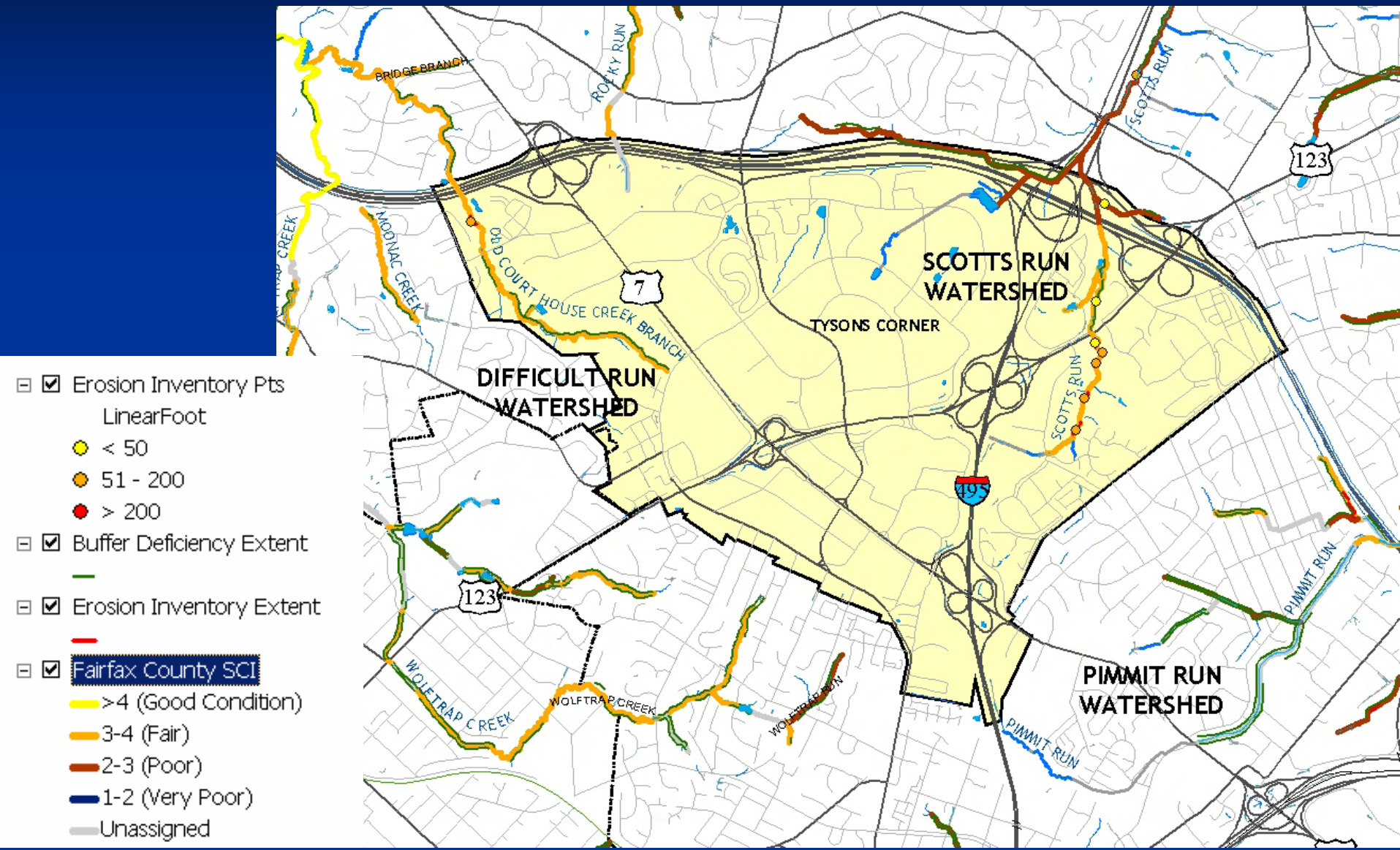

UGARLAND RUN
BULL NECK RUN
DEAD RUN
TURKEY RUN
DIFFICULT RUN
SCOTTS RUN
TYSONS CORNER
PIMMIT RUN
TOWN OF VIENNA
CITY OF FALLS CHURCH
CITY OF FAIRFAX
WATERSHED PLANNING PROJECTS
DIFFICULT RUN
MIDDLE POTOMAC
WATERSHED BOUNDARY


BRIDGE BRANCH
ROCKY RUN
SCOTTS RUN
123
WOLFTRAP CREEK
MOONAC CREEK
OLD COURT HOUSE CREEK BRANCH
7
SCOTTS RUN WATERSHED
TYSONS CORNER
DIFFICULT RUN WATERSHED
SCOTTS RUN
495
PIMMIT RUN
PIMMIT RUN WATERSHED
123
WOLFTRAP CREEK
PIMMIT RUN
7

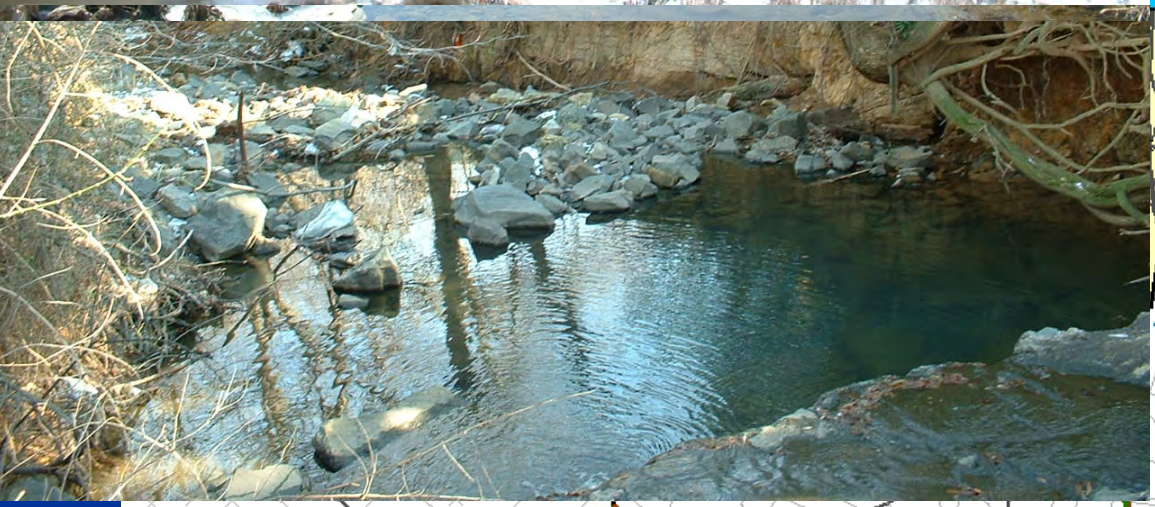
Why Develop Watershed Plans?

- To **restore and protect the county's streams**, 70% of which are in "fair" to "very poor" condition.
- To **meet state and federal water quality standards** by identifying strategies to prevent and remove pollution.
- To support **Virginia's commitment to 'Chesapeake 2000'** to clean up the Chesapeake Bay.
- To employ new technologies to **replace existing outdated watershed management plans**.
- To take a **comprehensive approach** to addressing multiple regulations, commitments and community needs.

Stream Conditions

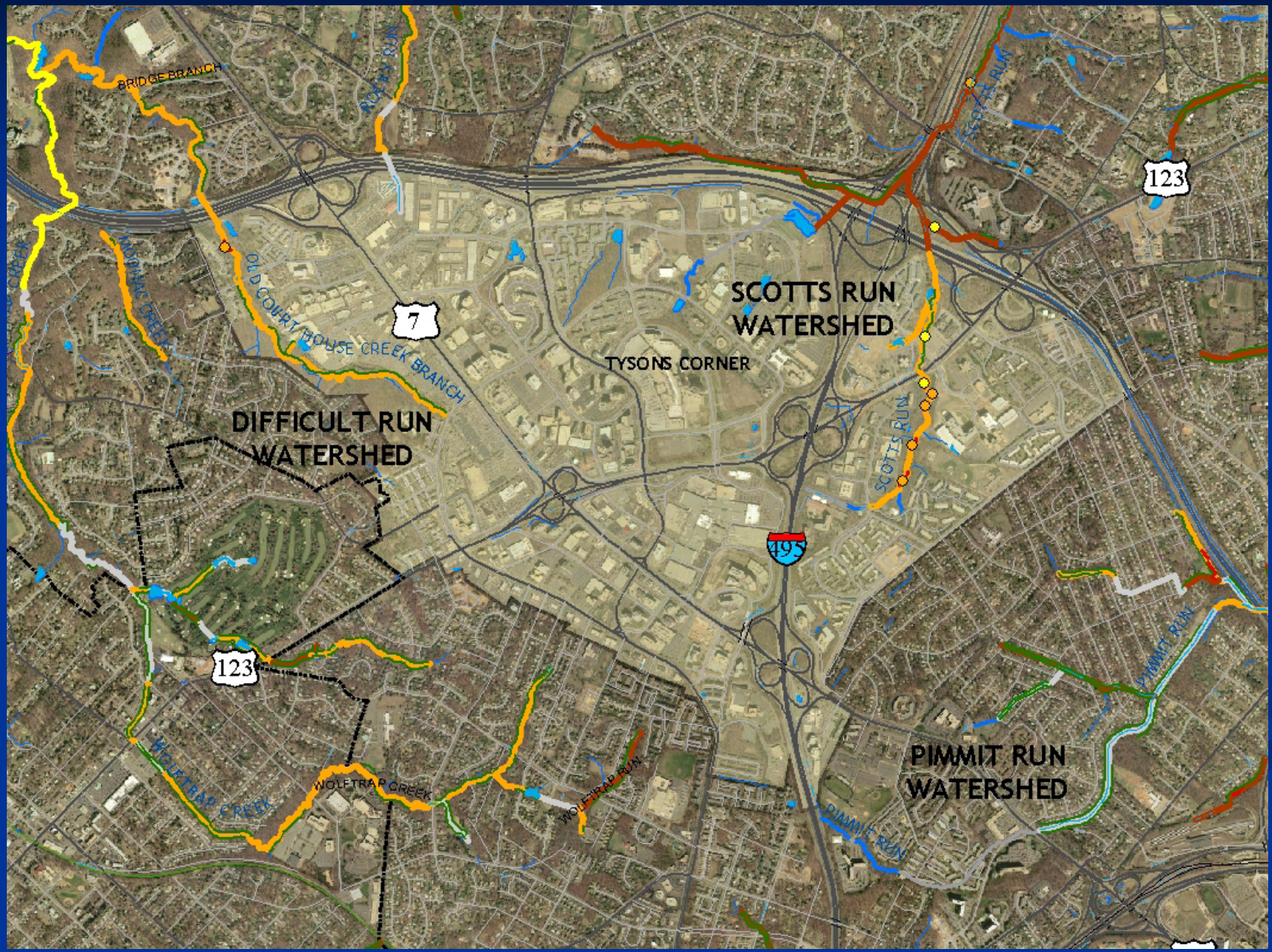


itions

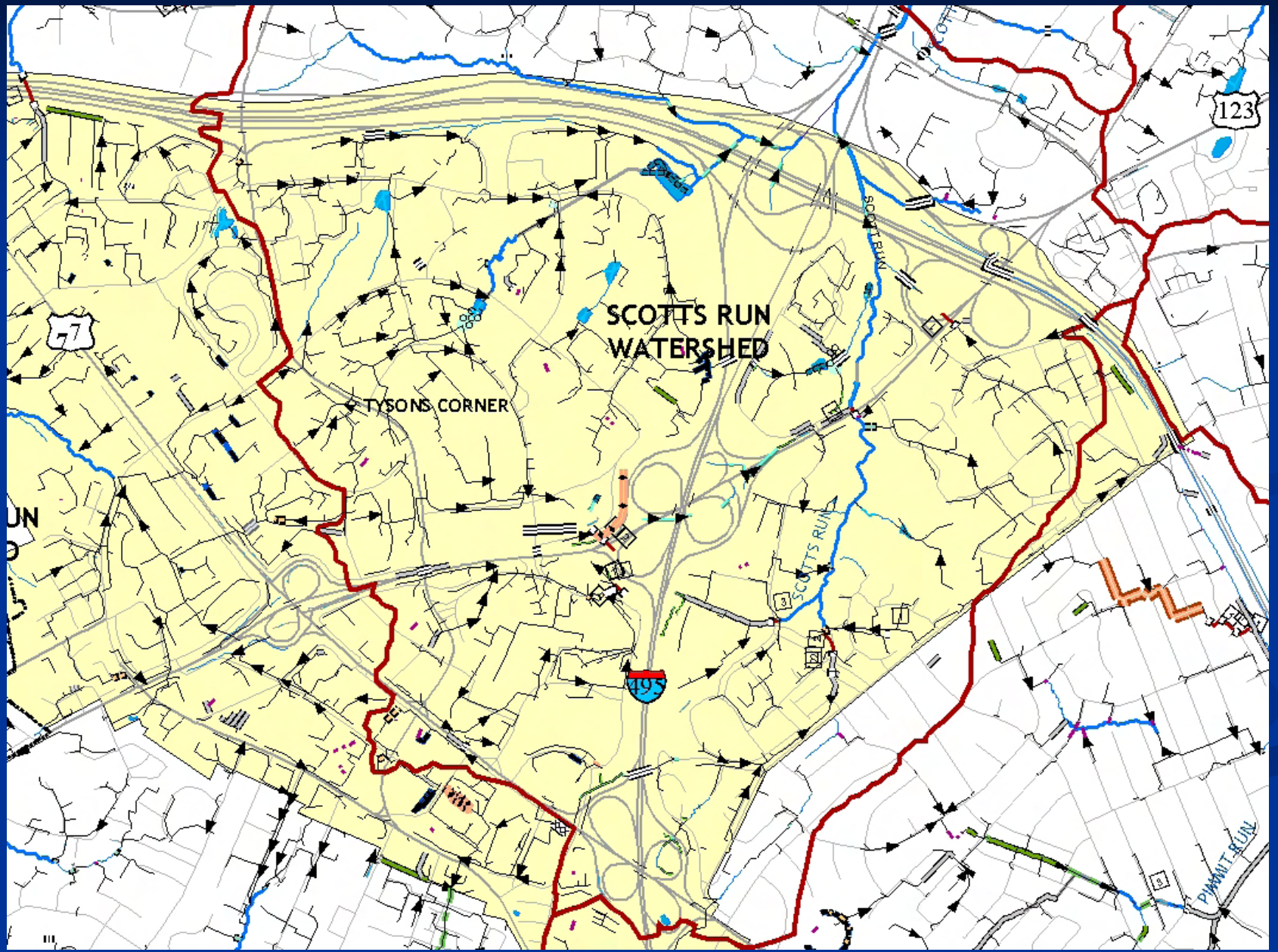



SCOTTS RUN
123
TTS RUN
TERSHED
SCOTTS RUN
PIMMIT RUN
PIMMIT RUN WATERSHED
PIMMIT RUN

Stream Conditions



Stormwater Infrastructure



Three Primary Issues of Concern

- Uncontrolled Stormwater Runoff
- Stream Corridor Degradation
- Instream Impairment

Uncontrolled Stormwater Runoff

- **Excessive impervious land cover:** roads, roofs, parking lots
- **Pollution:** oil, grease, animal feces, sediment
- **Inadequate stormwater infrastructure:** aging stormwater facilities, maintenance needs, prior focus was moving stormwater to streams as fast as possible.

Excessive Pavement

Deer and geese feces

Lack of capacity for stormwater

Stream Corridor Degradation and Instream Impairment

- Severely eroding banks
- Lack of vegetation
- Silting covers bottom, unstable gravel bars
- Large debris flows and flood debris on banks
- Lack of fish, amphibians and aquatic insects

Proposed Strategy for Scotts Run

Stormwater management strategy at Tysons Corner

- Area wide peak flow reduction target
  - On-site low impact development methods or mini regional BMPs
  - Existing BMP retrofits
- Buffer restoration

Downstream of Tysons Corner

- Streams/buffer restoration
- Existing BMP retrofits and new BMPs

Plan Recommendations
Stormwater BMPs

A stormwater best management practice (BMP) is a measure that manages the quantity and improves the quality of stormwater runoff.

Low impact development techniques are types of BMPs that manage runoff at the source with many small-scale controls that infiltrate, filter, store, evaporate and detain runoff.

Water quality inlet

Rain garden

Wet pond with vegetated banks

Plan Recommendations
Existing BMP Retrofits

Example of a potential BMP retrofit site.

Plan Recommendations
Stream Restoration

Stream restoration is reestablishment of the structure and function of ecosystems as closely as possible to pre-disturbance conditions.

Eroded stream bank

Channel obstruction and sedimentation

Watersheds Management Plan Schedule

Middle Potomac

- ✓Draft Plan Review Workshop (November 05)
- ✓**Final Plan Review Workshop (Spring 06)**
- ✓Final Plan (Early Summer 06)

Difficult Run

- ✓Draft Plan Review Workshop (November 05)
- ✓**Final Plan Review Workshop (Spring 06)**
- ✓Final Plan (Early Summer 06)

Contact Information

Stormwater Planning Division
Watershed Planning and Assessment Branch
703-324-5500

- Stormwater Web Page
  - https://www.fairfaxcounty.gov/dpwes/stormwater/
- Watershed Web Page
  - http://www.fairfaxcounty-watersheds.net/

The End