



# Watershed Management Plans and Tysons Corner

January 22, 2007

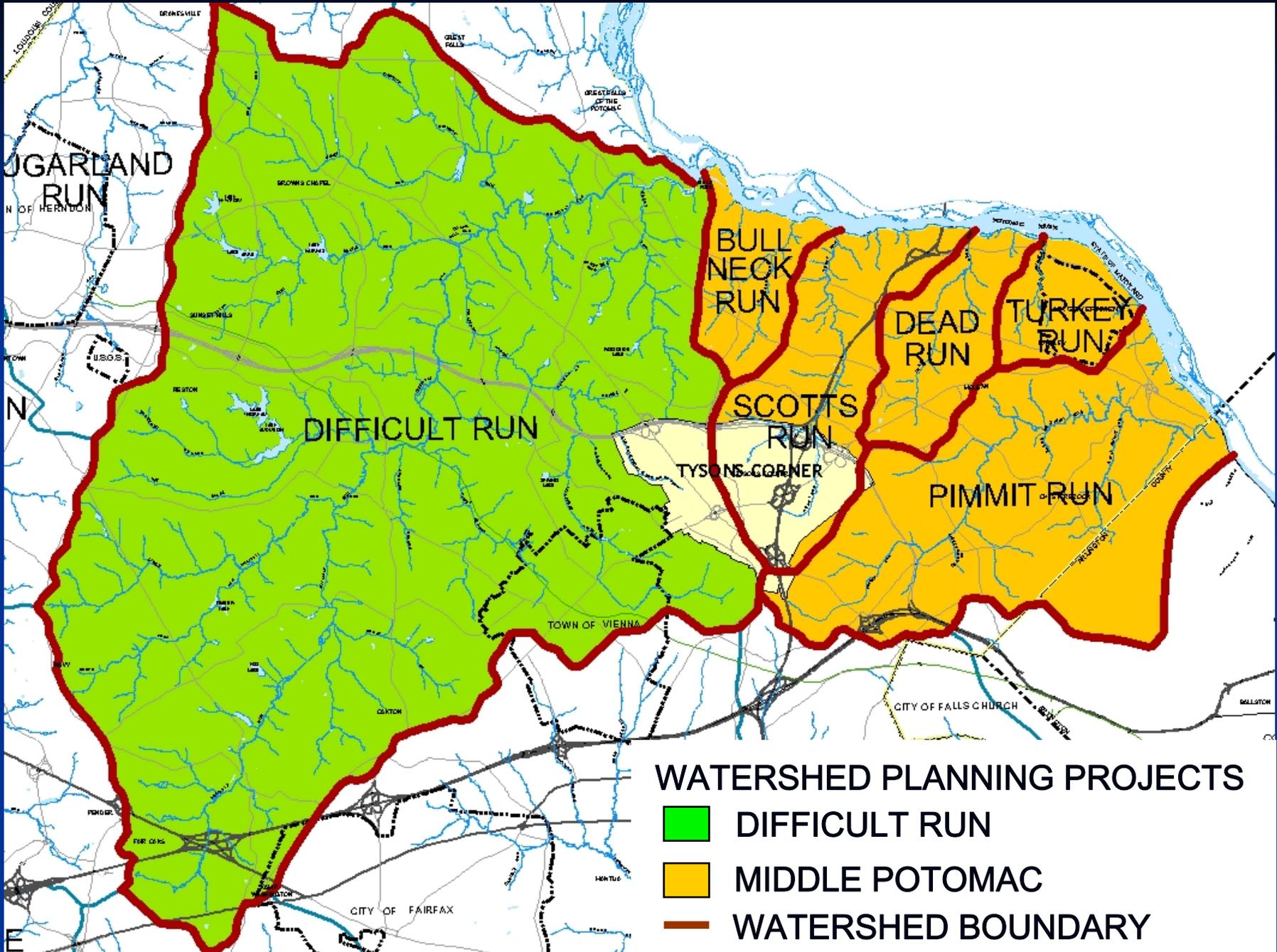
Presented to the Tysons Corner Coordinating Committee by  
Fairfax County Stormwater Planning Division and Woolpert, Inc.

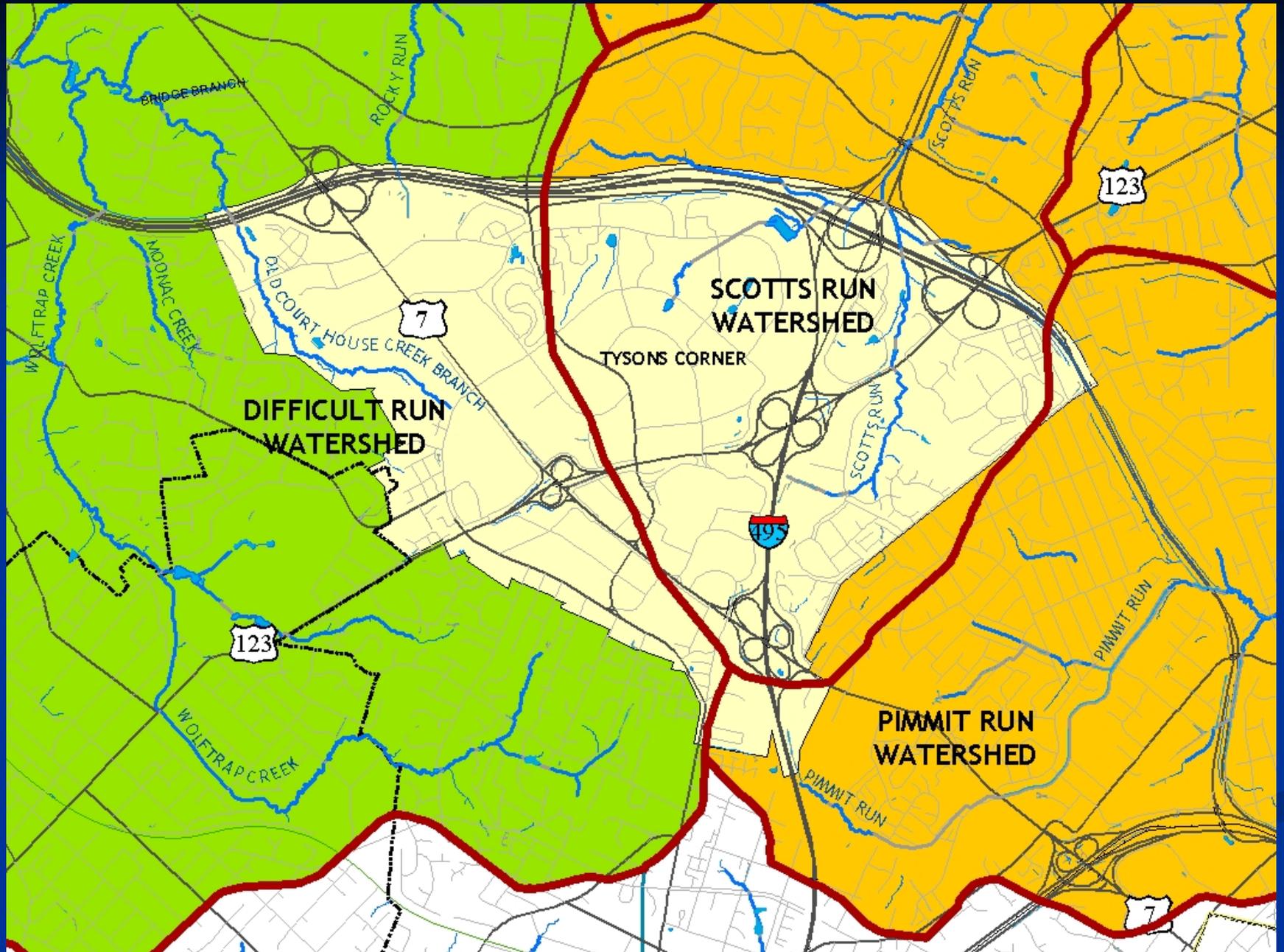


# Overview

- Status of Watershed Plans
- Watershed Condition
- Stormwater Management Ideas and Opportunities
- Opportunities to partner









# Watershed Plans Status

- Difficult Run Watershed Plan
  - Final Plan Complete
- Middle Potomac Watershed Plan
  - Final Draft Plan – available February 2007
  - Final Plan Workshop and Public Comment Period – February/March 2007

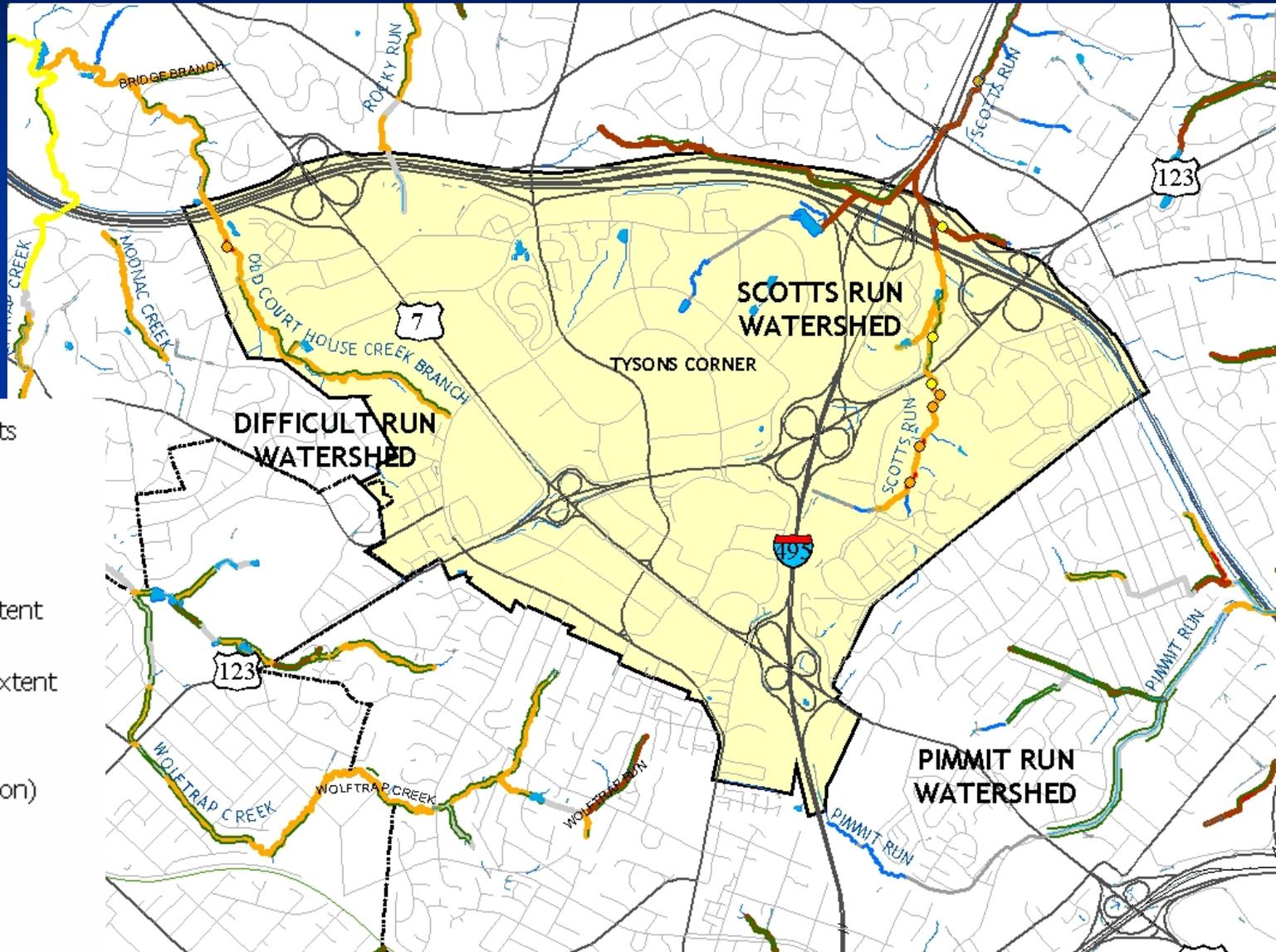
<http://www.fairfaxcounty-watersheds.net/>

# Three Primary Issues of Concern

- Uncontrolled Stormwater Runoff
- Stream Corridor Degradation
- Instream Impairment

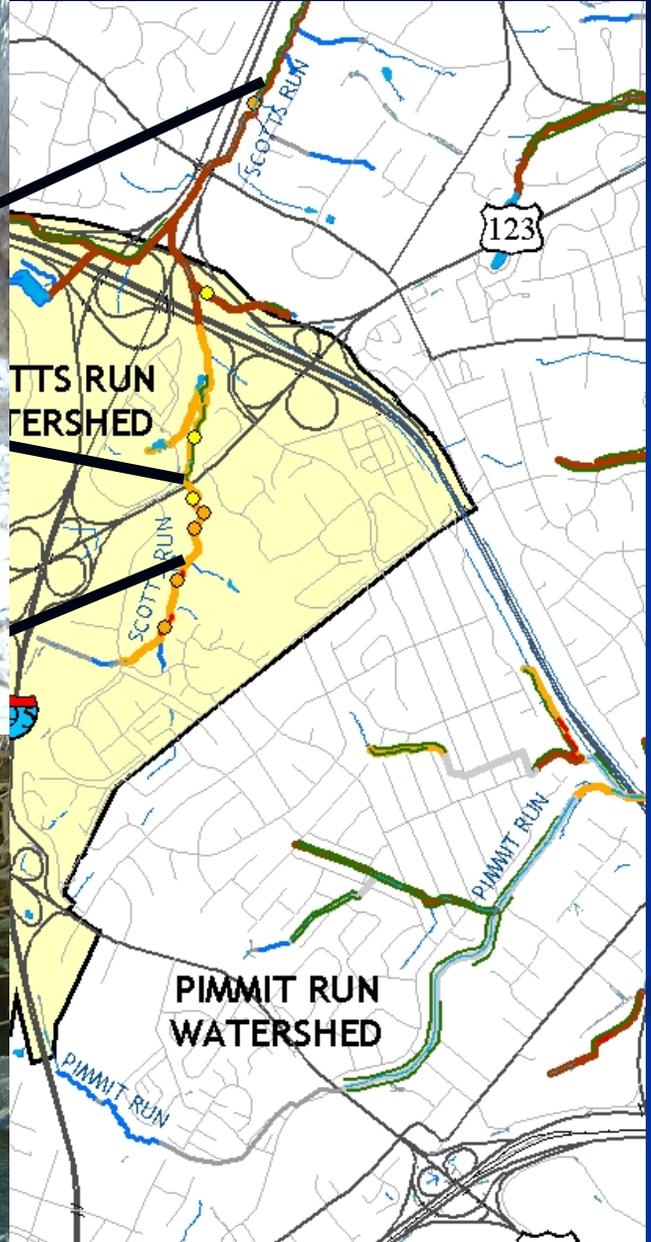


# Stream Conditions



- Erosion Inventory Pts  
LinearFoot
  - < 50
  - 51 - 200
  - > 200
- Buffer Deficiency Extent
  -
- Erosion Inventory Extent
  -
- Fairfax County SCI
  - >4 (Good Condition)
  - 3-4 (Fair)
  - 2-3 (Poor)
  - 1-2 (Very Poor)
  - Unassigned

# itions





# Existing Stormwater Management in Tysons Corner

- Approximately 60 existing stormwater management facilities
  - Quantity
  - Quality



Watershed	Drainage Area within Tysons (acres)	Existing Percent Imperviousness	Percent Parcel Area Served by		
			Quantity Control	Quantity & Quality Control	Uncontrolled
Scotts Run	1,412	49%	33%	10%	57%
Pimmit Run	115	50%	84%	0%	16%

# Stormwater Management Strategy

## Existing Stormwater Regulations

- Quantity of stormwater
- Quality of Stormwater
- Impacts to downstream receiving waters (adequate outfall)
- Drainage diversions
- Floodplains

# Stormwater Management Strategy

Redevelopment stormwater challenges:

- Redevelopment projects must reduce phosphorous runoff from subject properties by 10 percent from existing conditions. New development projects must reduce phosphorous runoff by 40 percent from postdevelopment conditions.
- Development projects must have no increase in peak flow for the two-year and ten -year storm events, but if a site is developed from a parking lot to a building, the runoff difference between predevelopment and postdevelopment conditions is small or potentially the same, resulting in no net reduction in peak flows;

# Stormwater Management Strategy

Redevelopment stormwater challenges (continued):

- Adequate outfall requirements also apply to all development, requiring a downstream assessment. However, in some cases the assessment area may end in a pipe if the existing storm drainage system is long enough. If the assessment area ends in a pipe, the outfall is considered adequate and no additional controls are needed.



# Stormwater Management Strategy

## Targeted endpoints and goals:

- Reduce peak flows
  - Evaluate adequate outfall in stream.
  - Reduce frequency and duration of smaller storms (1 to 2-year) which impact streams.
- Reduce pollutant loading
  - Countywide baseline imperviousness of 18%
  - Tributary strategies for nutrient and sediment loads
  - TMDL loadings for local streams

# Stormwater Management Strategy

Targeted endpoints and goals:

- Reduce litter



Scotts Run



Old Court House Branch

# Stormwater Management Strategy

Stream Valleys and Stormwater Management as Amenities:



# Old Court House Branch



# Scotts Run



# Scotts Run



# Integrated Stormwater Management



**Buckman Heights courtyard infiltration basins (430 NE 16th Ave.)**

# Integrated Stormwater Management



# Integrated Stormwater Management



# 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.



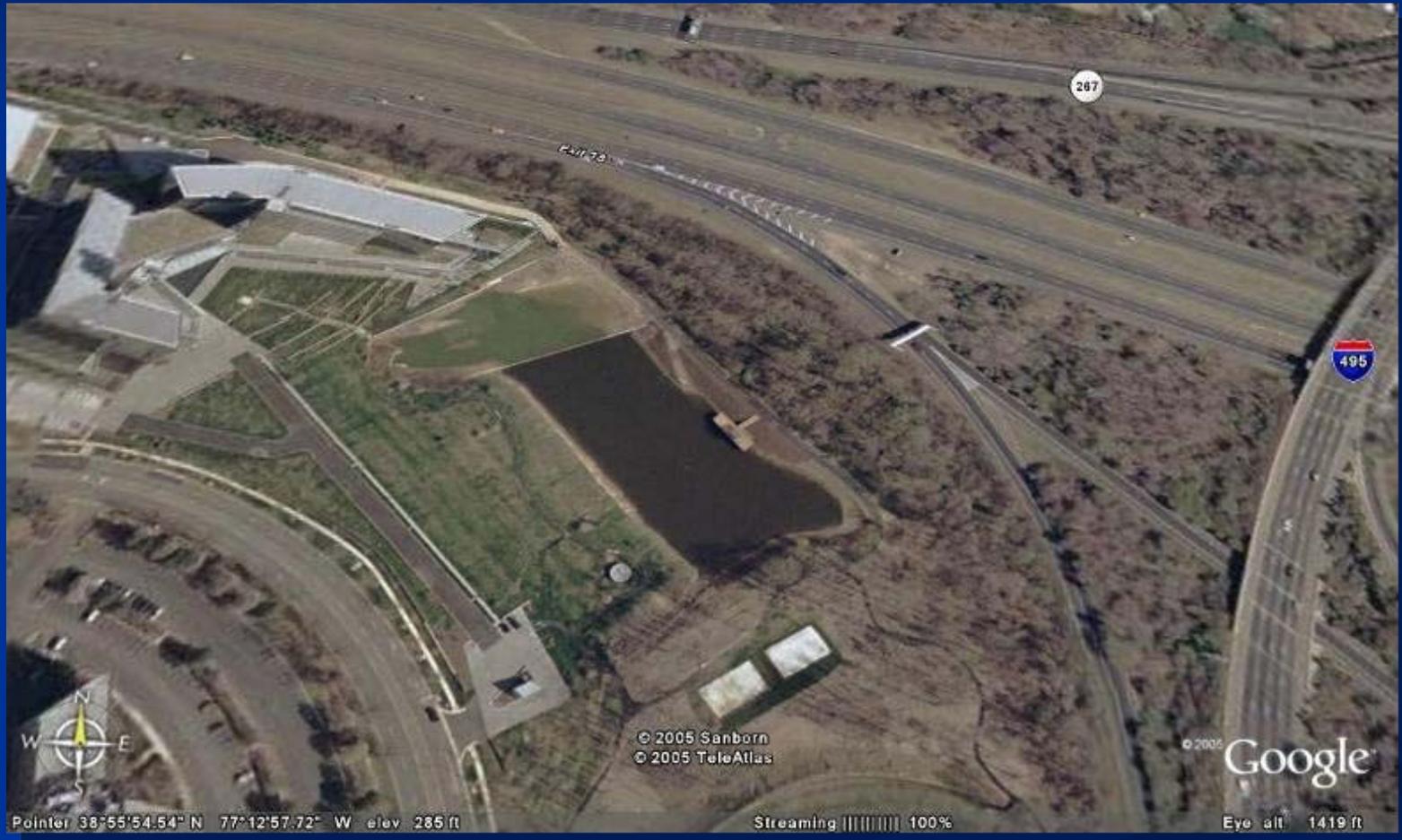
**Water quality inlet**

**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**

# Contact Information

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

- Stormwater Web Page
  - <https://www.fairfaxcounty.gov/dpwes/stormwater/>
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