

Fairfax County Stormwater Planning

Brookfield Park Wet Pond Dam Reconstruction and Basin Retrofit

Community Information Meeting – May 21, 2013



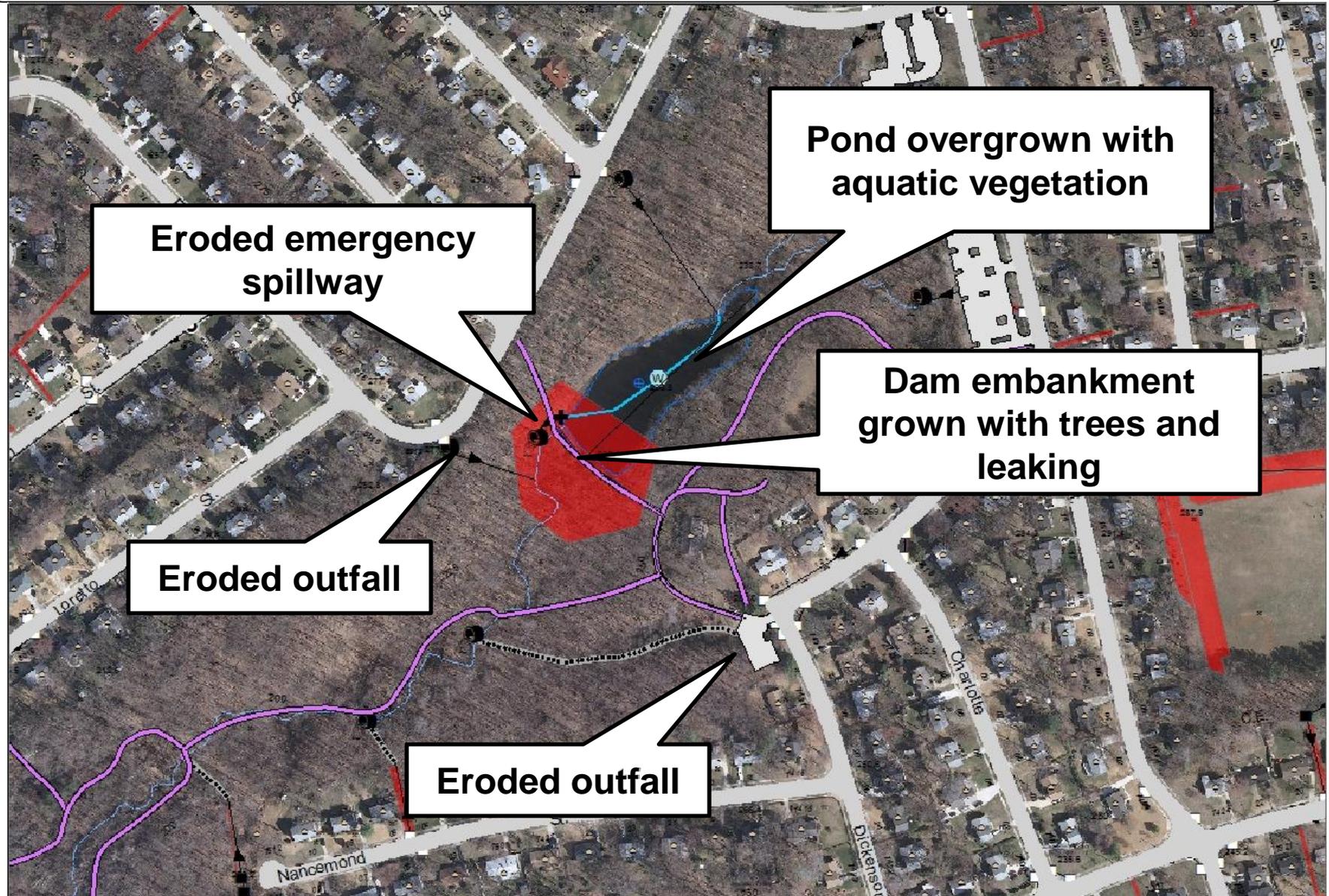
Meeting Agenda

- Background
- Existing Conditions
- Project Objectives
- Key Project Elements
- Next Steps

Background

- **Farm pond constructed ~1950's**
- **Dam rehabilitation ~1982**
 - ❖ Old drop inlet plugged and abandoned
 - ❖ Concrete chute spillway constructed
- **Dam Structure**
 - Overgrown with trees and has seepage through the dam
 - Existing concrete chute eroding and undermining the dam
 - Does not meet current design standards
 - ❖ Dam safety
 - ❖ Water quality
 - ❖ Flood control

Existing Conditions



Existing Conditions (Contd.)



Closed pipe and leaking dam

Existing Conditions (Contd.)



Trees over the dam

Existing Conditions (Contd.)



**Concrete chute emergency spillway
undermining**

Existing Conditions (Contd.)



Eroded outfall next to the parking lot



Atteentee Rd

Existing Conditions (Contd.)



Overgrown with aquatic vegetation during summer due to high levels of nutrients.

Project Objectives

- Proactively address a failing wet pond
- Bring the wet pond up to current standards
 - Safety
 - Design
 - Technology
- Retrofit the 49 acre watershed
 - Water quality
 - Channel protection
 - Flood control

Key Project Elements

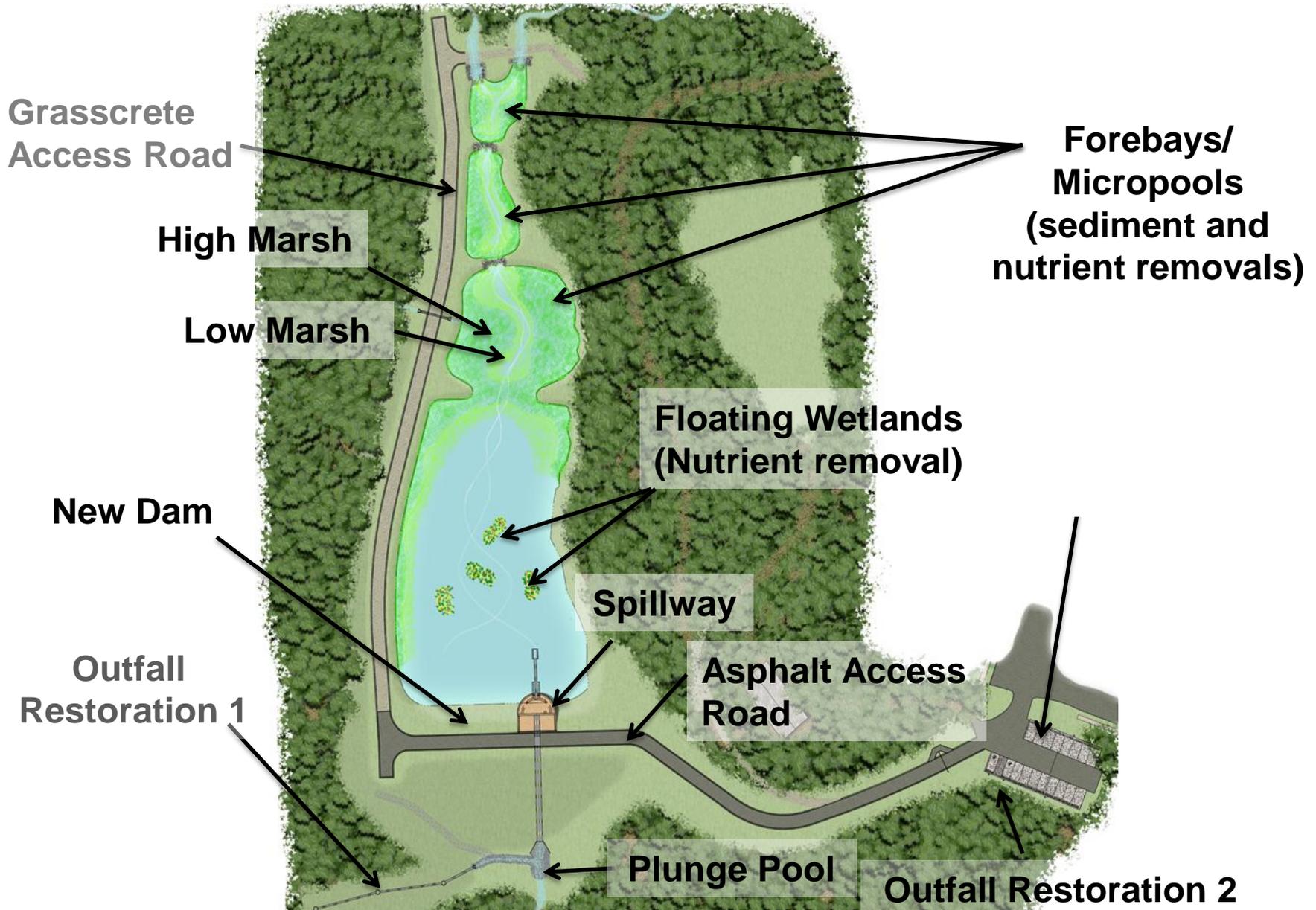
Wet Pond

- Dam reconstruction
- New outlet structure
- Forebay cells with high/low marsh planting
- Floating wetlands
- Access road
- Tree and shrub planting

Others

- Two pipe outfall restorations
- Porous pavement at the parking lot

Proposed Improvements for Brookfield Pond



Benefits

- Drainage area: 49 acres
- Phosphorus removal ~ 31 lbs/yr
- Nitrogen removal ~ 145 lbs/yr
- Sediment removal ~ 3 tons/yr
- Meets Accotink Creek Watershed

TMDL (total maximum daily load): **original goal**

Next Steps and Timelines...

Final Design and Permitting

The design is complete - waiting for permits

Construction

- Fish Relocation: May 21, 2013 (to lake Accotink)
- Bid Advertisement: Scheduled early June
- Construction: Late summer/early fall
- During construction main trail will be open and all other trails will be closed.

Fish Relocation May 21, 2013



Resources

Brookfield Park Project Website

http://www.fairfaxcounty.gov/dpwes/stormwater/projects/brookfield_pond.htm

(under construction)

Stormwater Planning Division Website

<http://www.fairfaxcounty.gov/dpwes/stormwater/>

Fairfax County Park Authority Website

<http://www.fairfaxcounty.gov/parks/>

Accotink Creek Watershed Plan

<http://www.fairfaxcounty.gov/dpwes/watersheds/accotinkcreek.htm>

EPA Water Quality Laws and Regulations

<http://www.epa.gov/water/laws.html>

Contact Information

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To request this information in an alternate format, call the
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