

Rocky Branch @ Hickory Hollow Lane Stream Restoration Project

65% Design Review

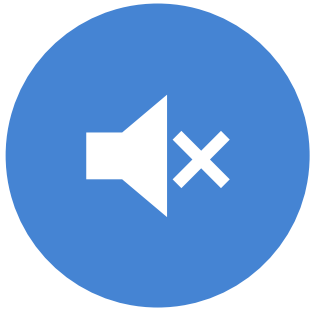
Community Meeting
November 17, 2022

Department of Public Works and Environmental Services
Working for You!



A Fairfax County, VA, publication
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Housekeeping and Logistics



PLEASE MUTE YOURSELF



ASK QUESTIONS FOR US IN
THE CHAT



Q/A WILL BE AT THE END



SLIDES WILL BE POSTED TO
THE PROJECT SITE AFTER
THE MEETING



Introductions

- Providence District Supervisor Office
- Department of Public Works and Environmental Services (DPWES)
 - Stormwater Planning Division (SWPD)
 - Utilities Design and Construction Division (UDCD)
- Wetland Studies and Solutions Inc (WSSI)



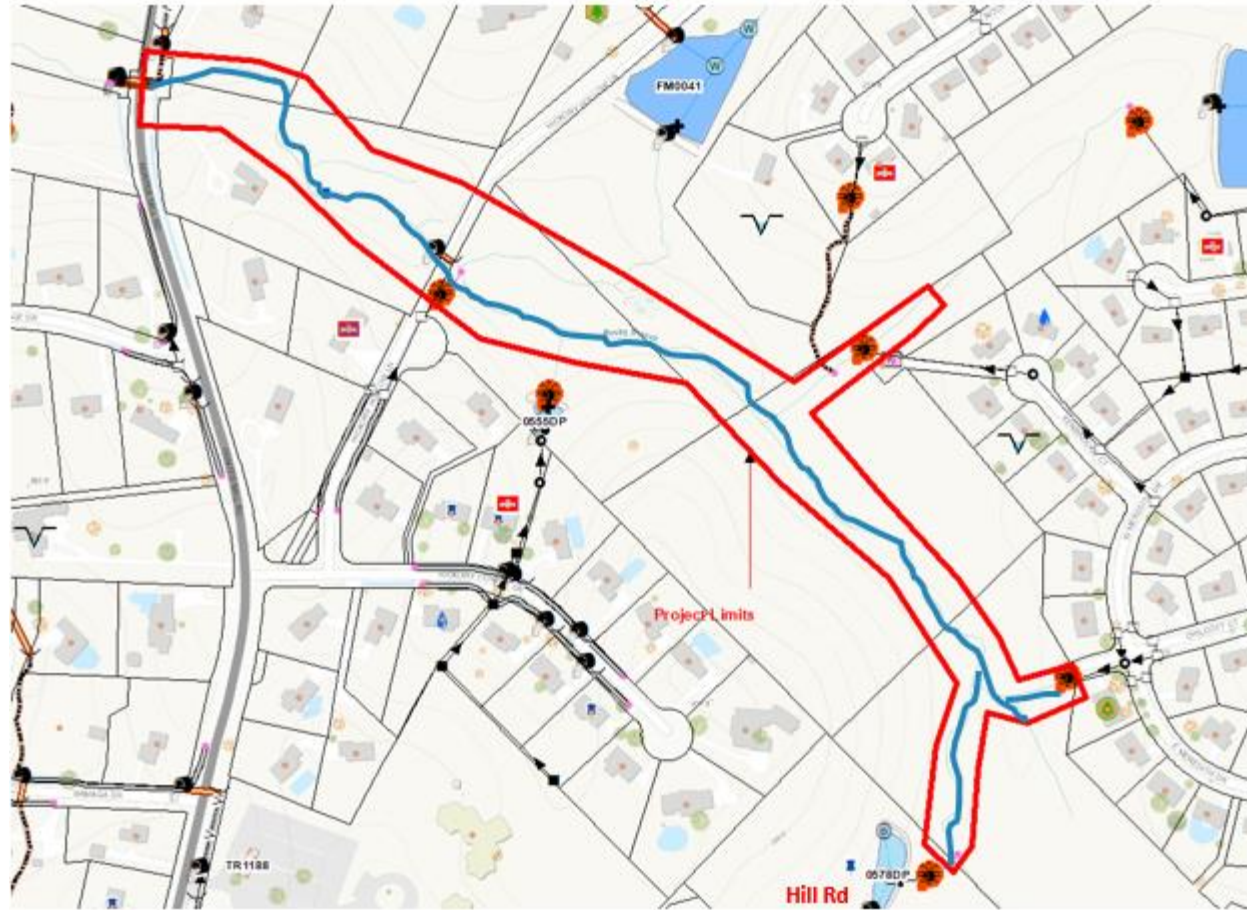
Agenda

- Project Updates
 - Project Overview/Maps
 - Proposed Improvement
 - Project Area/Limits
 - 65% Design Layout
 - Construction Access/Staging
 - Pedestrian Trails
 - Floodplain
 - Tree Impacts
 - Restoration Approach and Strategies
- Project Schedule and Next Steps

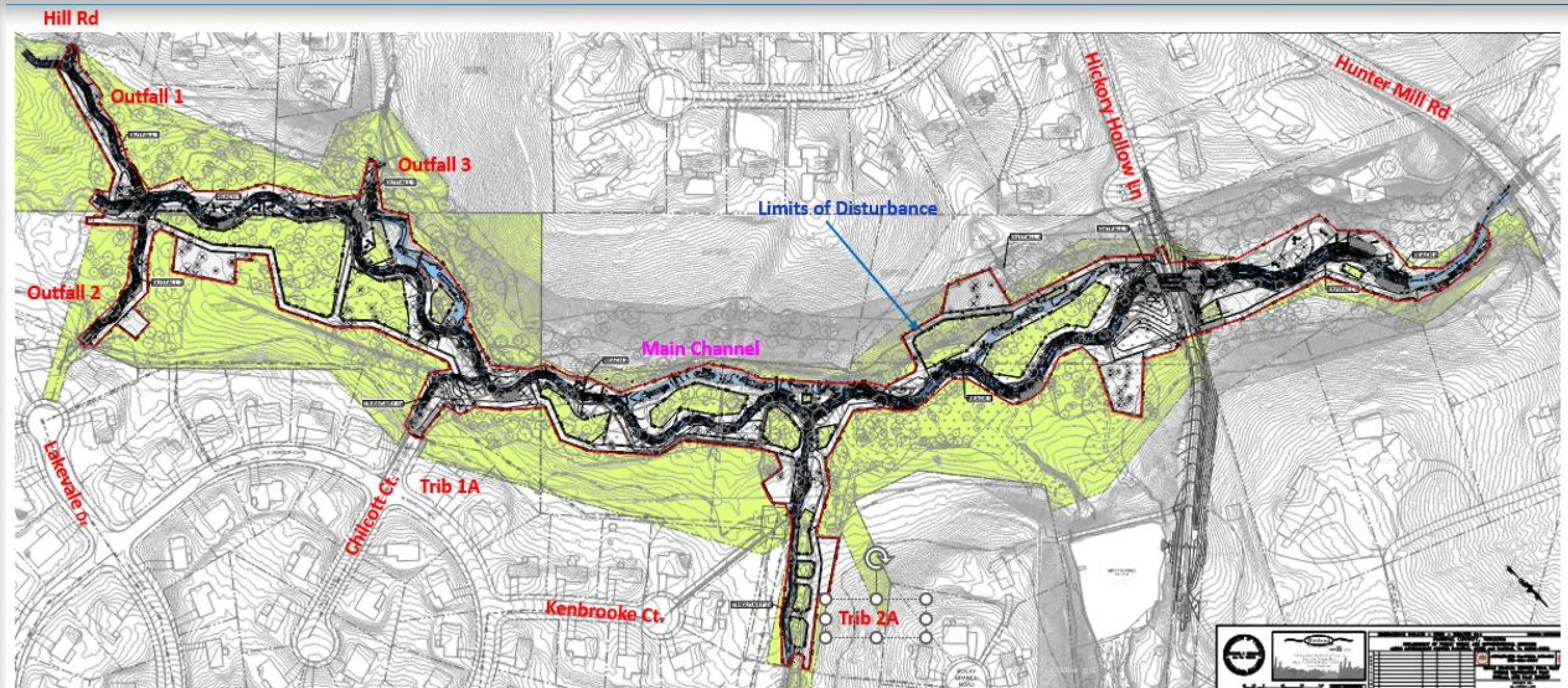


Project Overview

- Restoration of about 3,300 linear feet of main Rocky Branch and three outfall channels totaling ~3,800 ft
- Project Limits:



Summary of 65% Design: Stream Layout



Summary of 65% Design : Pedestrian Trails

- No mulched or asphalt trail within project limits
- Stream alignment changes at several locations
- Connectivity of existing trail to be maintained on each side
- Trail area will not be planted to keep it as natural ground



Summary of 65% Design: 100 Year Floodplain

- Floodplain rise:
 - Within existing floodplain easement limits
- Impact:
 - No impact to private properties



Design – Tree impacts

Tree Impact Considerations

Ecological / Habitat Value

- Size / Diameter
- Higher - Climax species: Oaks, Hickory, Holly (*mast producers, long-lived*).
- Lower – Early successional species: Maples, Poplar (*fast-growing, short-lived*).

Existing Condition

- Undercut by stream, high proportion of exposed roots, short life expectancy
- Dead, dying, diseased or damaged trees that pose a human safety hazard
- Impacting or pending impact to infrastructure (*utilities, roads, trails, etc.*)

Proposed Condition

- Long-living, healthy, native species that help to stabilize the banks and floodplain
- Increased bio-diversity



Most of the trees in project areas rated as fair/poor health conditions

Design – Tree impacts (Contd.)

TREE INVENTORY SUMMARY - ROCKY BRANCH AT HICKORY HOLLOW LANE				
DIAMETER	STATUS			TST
	TBR		DND	
(INCHES)	(LIVE)	(DEAD)		
10-17" (Small)*	107	42	347	496
18-29" (Medium)	97	20	434	551
30"+ (Large)	27	2	145	174
	231	64		
TOTAL	295		926	1221

ABBREVIATION KEY

TBR - To Be Removed

DND - Do Not Disturb

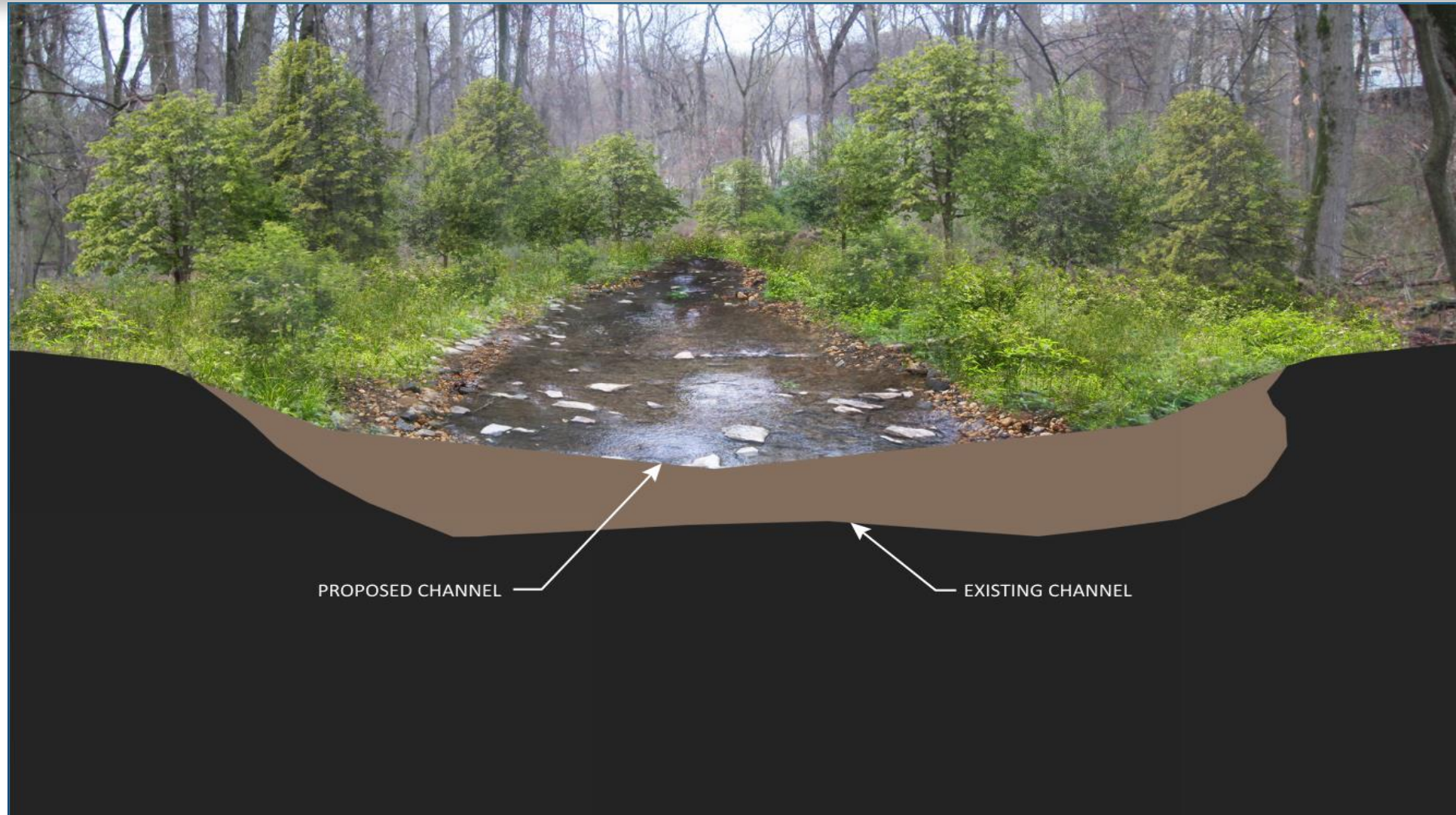
TST - Total Surveyed Trees

- Trees to be removed considers those which are already in danger of falling due to erosion
- It also considers preserving trees which are good value and have potential for longer survivability



Restoration Approach—Proposed Section Rendering

Raising stream to
reconnect with
floodplain



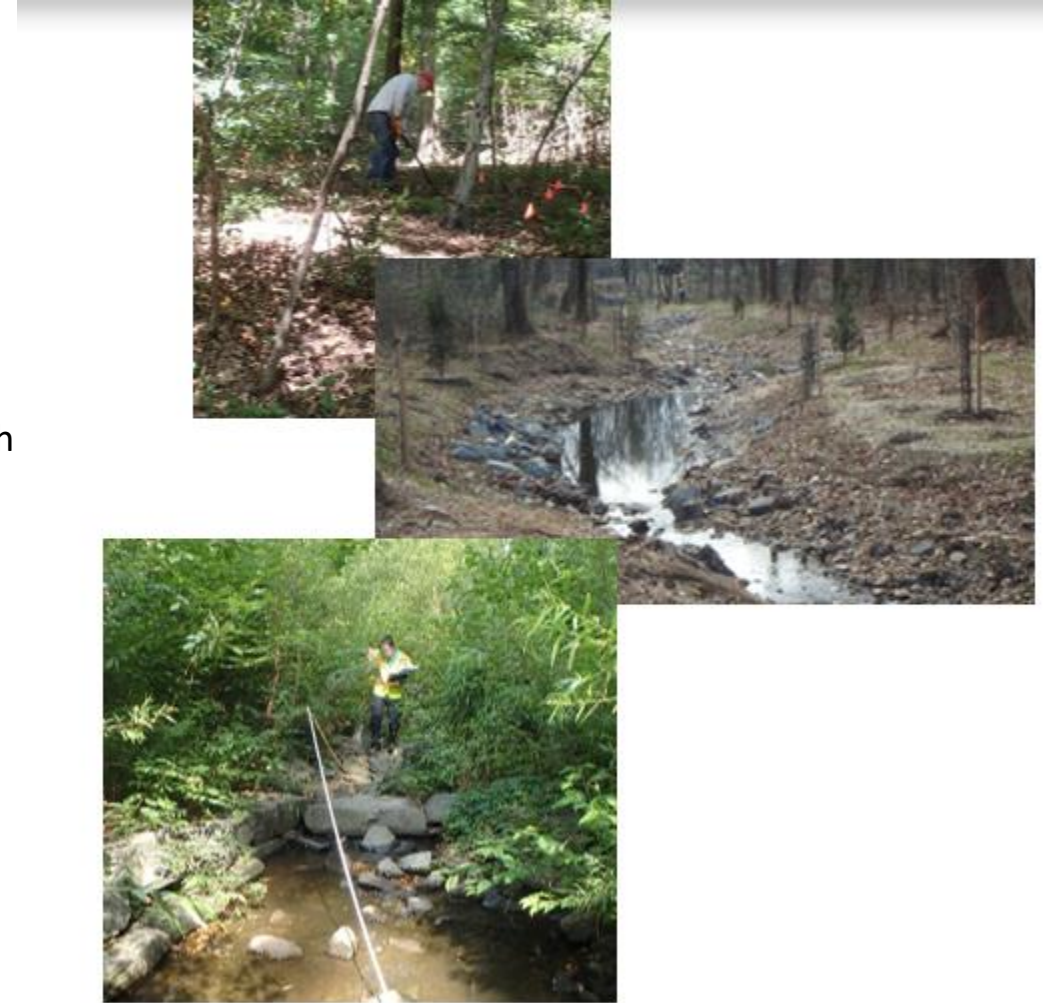
Restoration Approach– Wetland Area and Proposed Section Rendering

Old channel converted to wetland area



Strategies for Successful Restoration & Revegetation

- **Stream Restoration Design Goals**
 - Structural:
 - Including grading and rock structures
 - AND Biological:
 - Soils and Plants support
 - Insects, Reptiles, Birds and Mammals
- **Pre-Construction**
 - Non-Native Invasive Plant Management
 - Establish clear zone so that natives can re-establish
 - Native plant rescues
- **Final Phase of Construction**
 - Stabilize with native seed
 - Plant native shrubs and trees
 - Minimum 1-year warranty
- **Minimum 3-year monitoring**
 - For native vegetative cover
 - Less than 20% invasive
 - Zero % highly invasive



Example: Construction



Example: Growing Season Following Construction Completion



One Year After Construction Completion



Project Schedule & Next Steps

- Easement Acquisition: complete
- 65% design: complete
- 95% Design: March 2023
- Final Design and Permitting: Summer, 2023
- Construction (\pm 18 months) - TBD
 - Contingent on future funding



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www.fairfaxcounty.gov/publicworks/stormwater

