

# Grosvenor Stream Restoration

Virtual Public Meeting

June 9, 2021

Wildwood Manor  
(Rudyard Drive South of I-270)



DEPARTMENT OF  
**ENVIRONMENTAL  
PROTECTION**  
MONTGOMERY COUNTY • MARYLAND

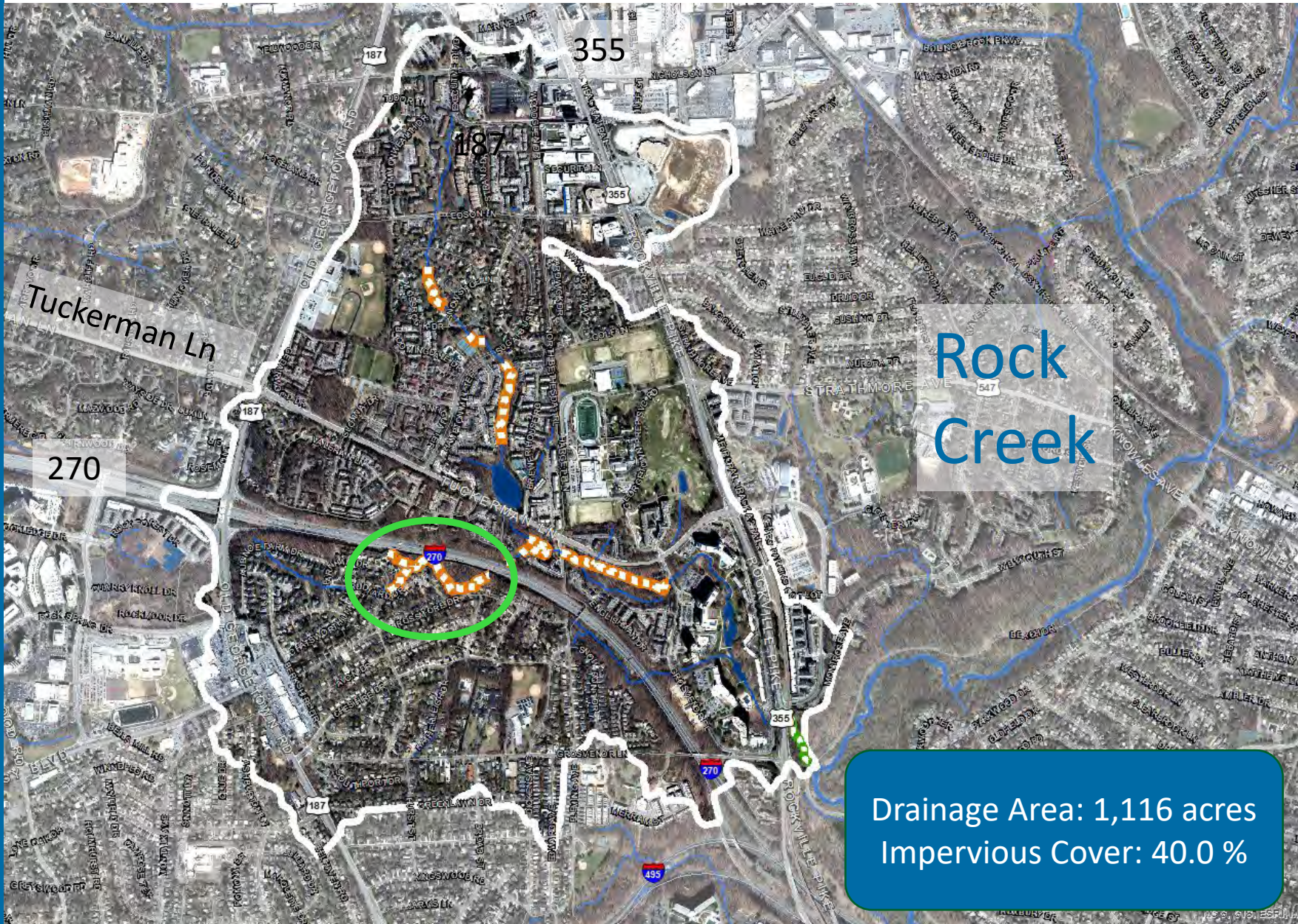
# Agenda

- Project Background
- New Stream Design
- What to Expect
- Questions





# Grosvenor Tributary – Rock Creek

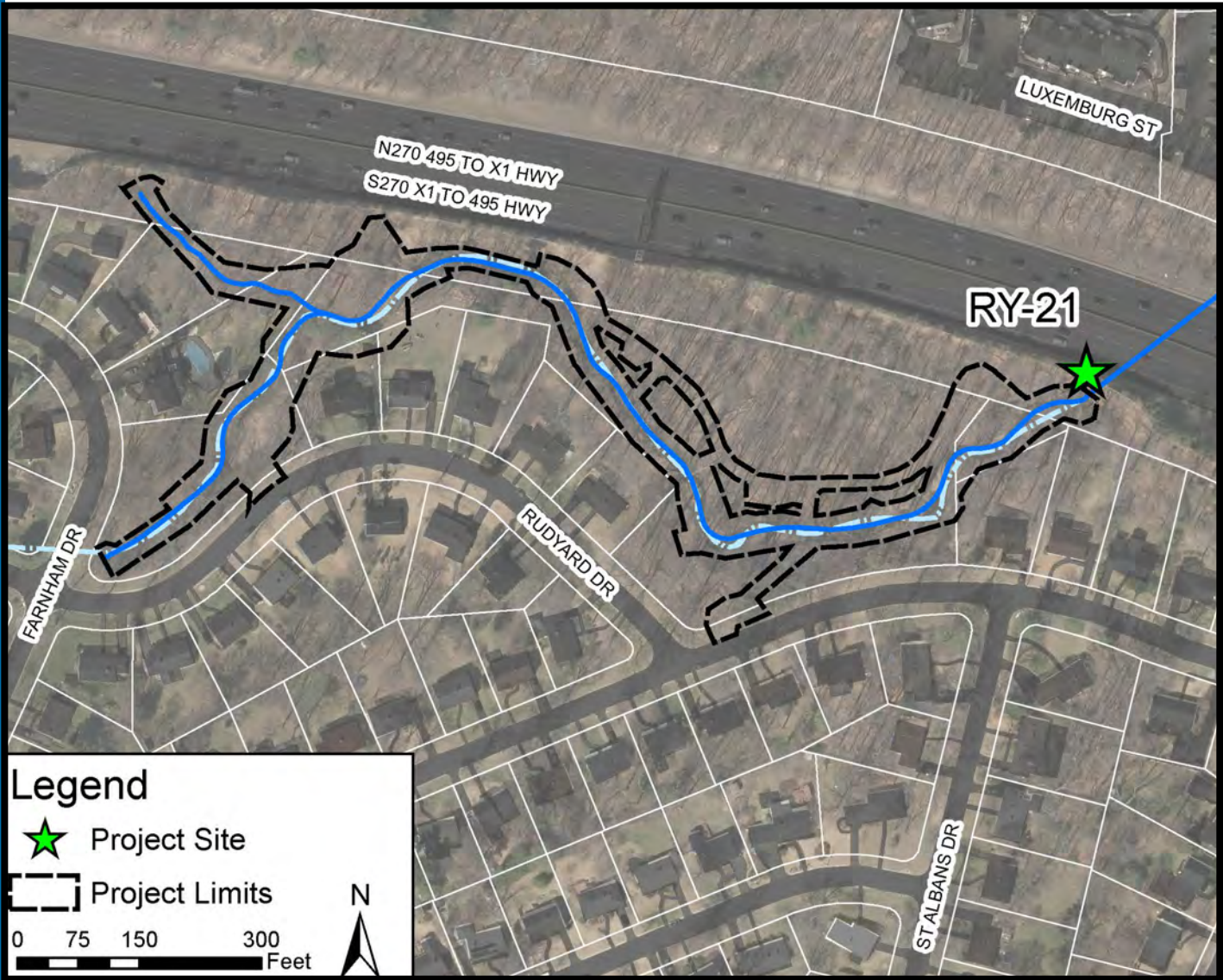


Rock  
Creek

Drainage Area: 1,116 acres  
Impervious Cover: 40.0 %



# Project Location



# Recognize This?





# Recognize Now?





# Watershed Changes – 70 years



# Why is stream restoration being done?

**Because increased impervious and uncontrolled/under-controlled stormwater is impacting our streams**



*Stream in a Watershed with 8% impervious cover.*



*Stream in a Watershed with 20% Impervious Cover*

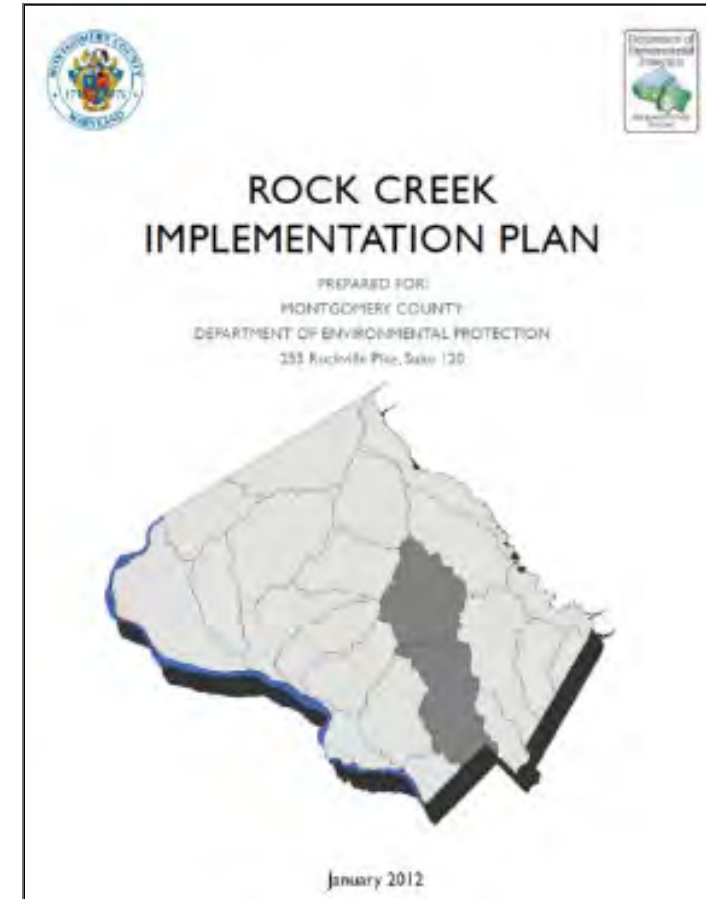


*Stream in a Watershed with 30% impervious Cover*



# Project Selection

- Constructed in the 1960-1980s
- Located in a key watershed (Rock Creek) for restoration
- Erosion of banks threatening utilities and natural resources
- Opportunity for water quality and ecological improvements





# Watershed Restoration



Pond Improvements



Bioretention/Raingarden



Tree Canopy



# Current Stream Condition





# Current Stream Condition





# Current Stream Condition





# Current Stream Condition





# Project Objectives

- Improve water quality
- Improve riparian buffer between stream and properties
- Stabilize stream banks to lessen future erosion





# Stream Restoration Approach

- In-Stream Structures (Cross Vane, Step Pool, etc.)
- Habitat enhancement
  - Riffle/pool system for aquatic habitat and fish passage
  - Diverse and native plant communities, forested wetlands
- Pollutant Reduction
  - Erosion prevention & Sediment trapping





# Riffle/ Pool Sequence





# Step Pool System





# Cross Vane





# Rock Sill





# Rock Toe with Soil Lifts





# Rock Toe





# Imbricated RipRap Wall



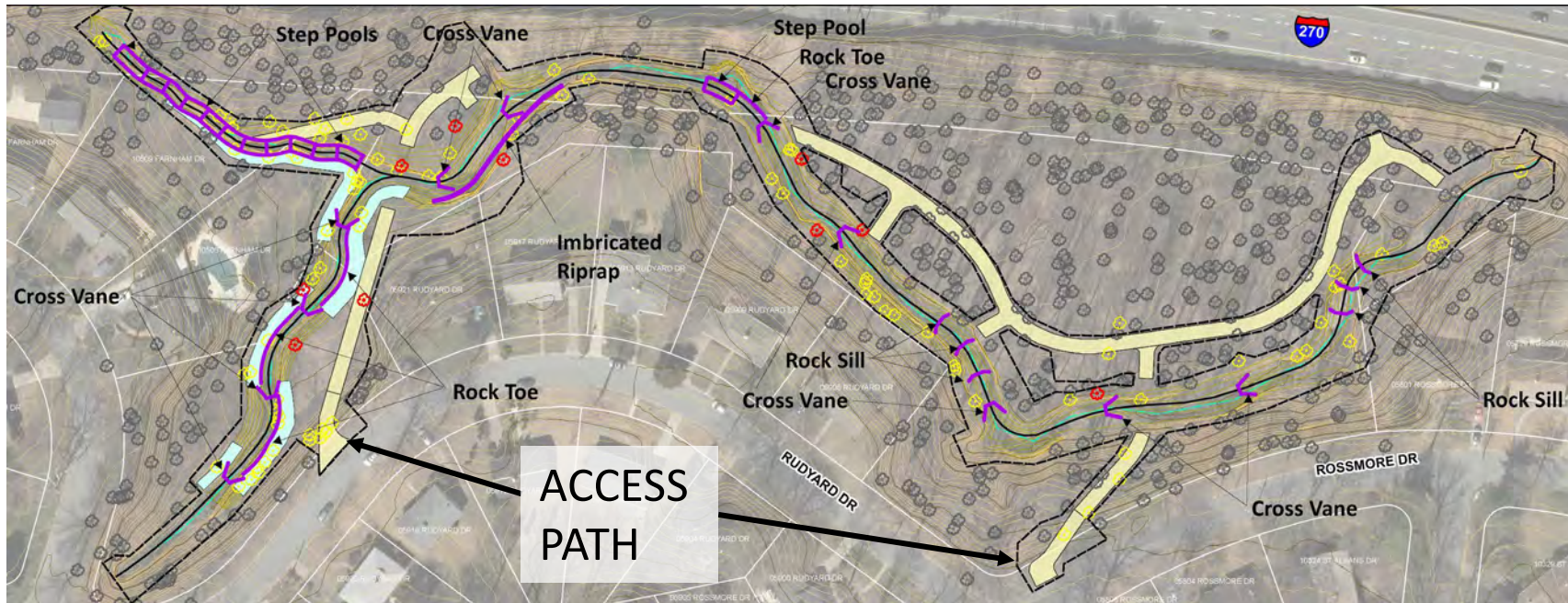


# Imbricated RipRap Wall








# Stream Restoration Design



- 0.32 miles of stream restored on this reach
- 1.13 miles of stream restored on this project
- Staging Areas will be located within the project limits

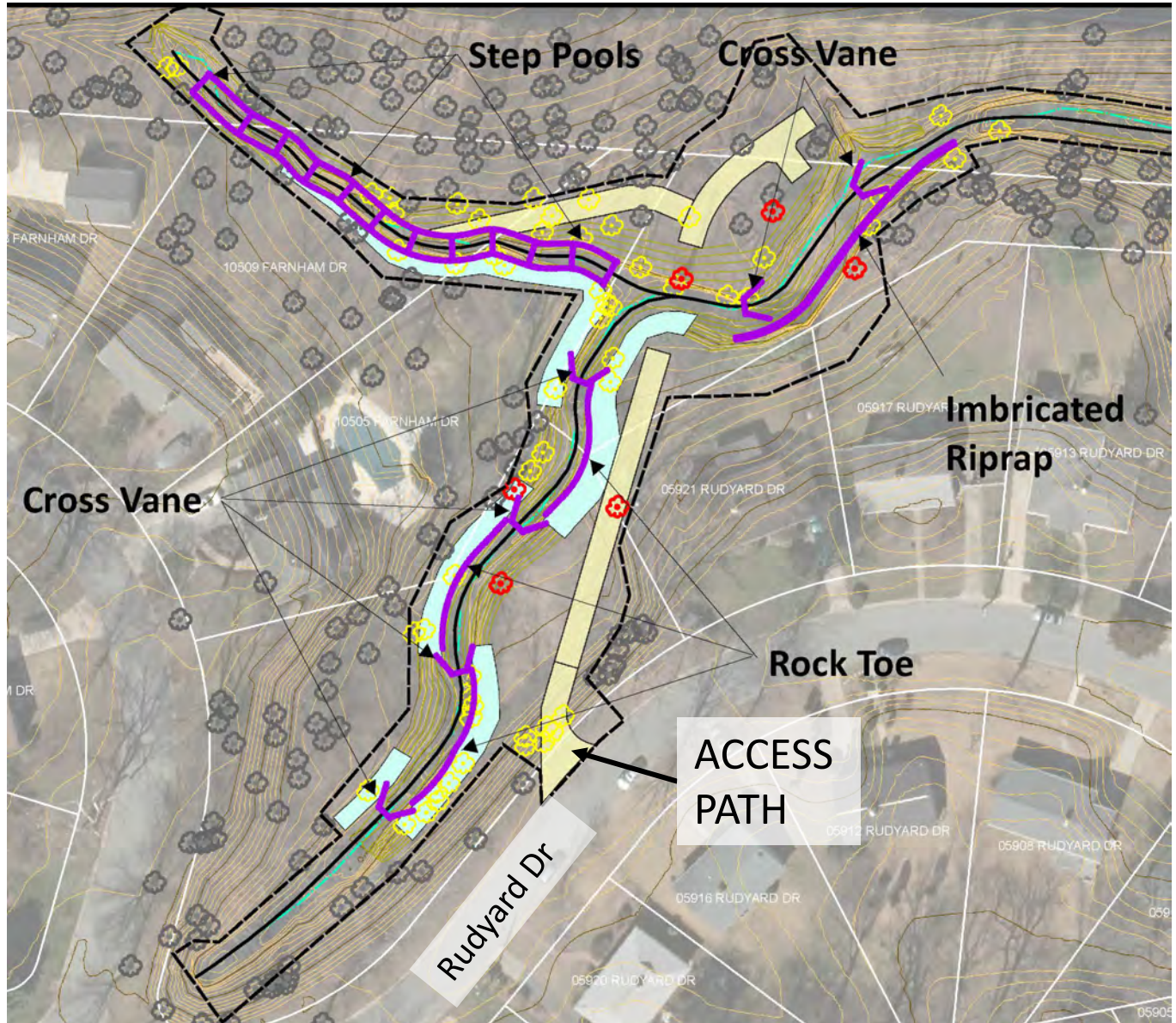
	Tree
	Tree to be Removed
	Tree to be Removed (diameter > 24")

## Design Board Website Link:

[https://www.montgomerycountymd.gov/water/Resources/Files/restoration/streams/Grov\\_PublicMtingBoards\\_2021\\_Meeting\\_Wildwood.pdf](https://www.montgomerycountymd.gov/water/Resources/Files/restoration/streams/Grov_PublicMtingBoards_2021_Meeting_Wildwood.pdf)



# Stream Restoration Design



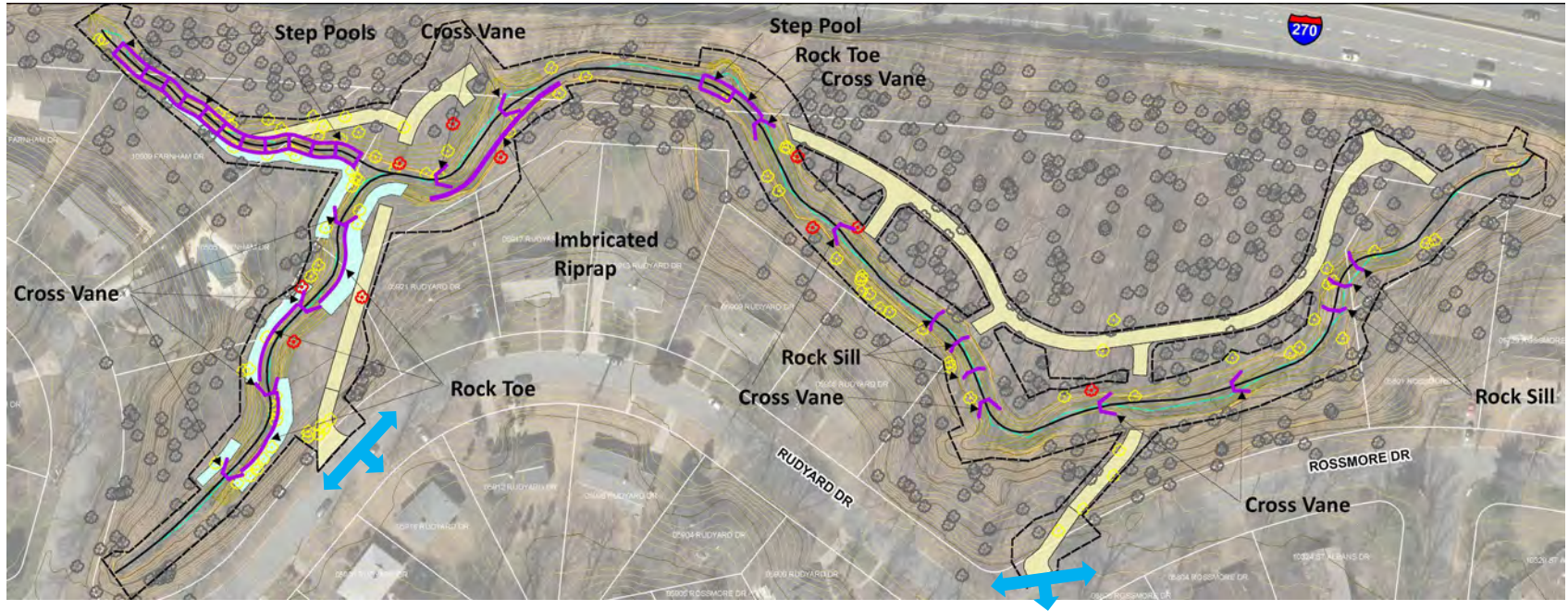


# Stream Restoration Design



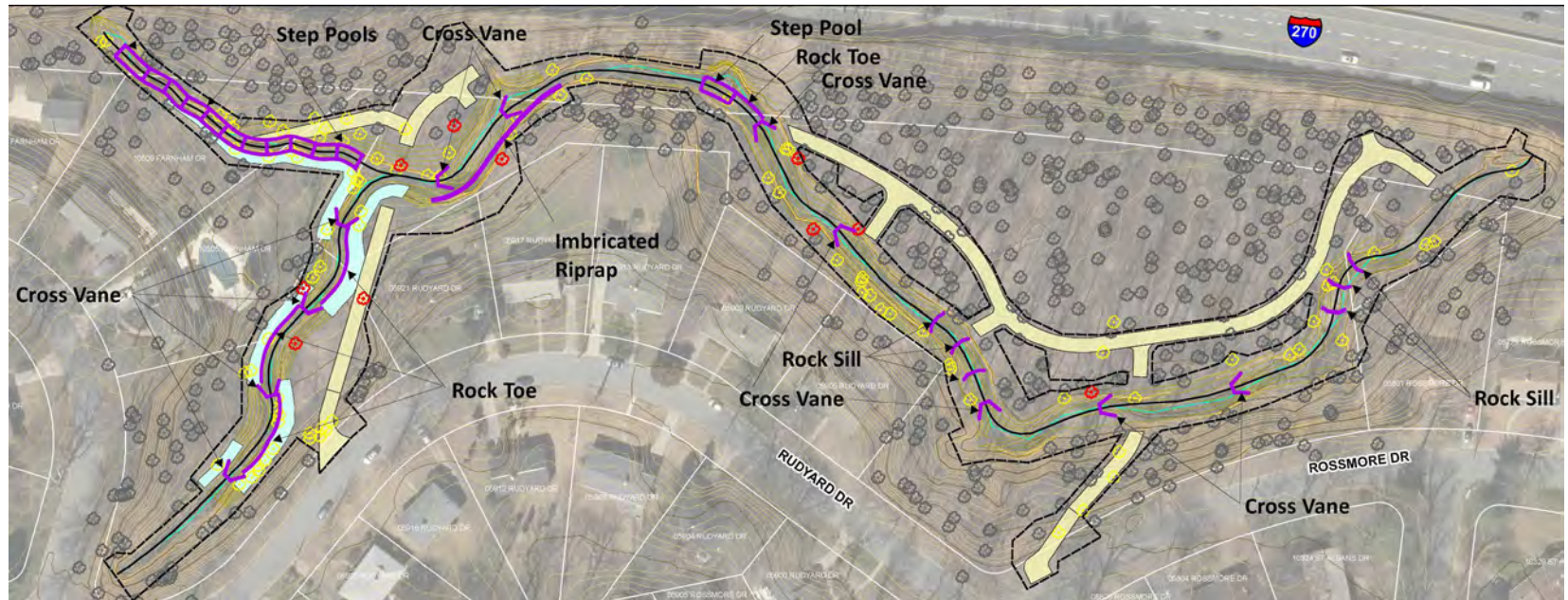


# Construction Access (RY-21)








# Tree Impacts (RY-21)



RY-21 TREES TO BE REMOVED (Diameter >= 24")	
COMMON NAME	CONDITION
26", 15" Black Walnut	Fair, vines, reduced canopy
31", 23" Green Ash	Dead, co-leader removed
24.5" Tuliptree	Fair, top broken off
28.5" Tuliptree	Good
28" Tuliptree	Good
26" Tuliptree	Fair, some trunk rot at base, undermined
24" Tuliptree	Fair, trunk damage/rot, dead leader
44" Red Maple	Hazard Tree - Fair, extensive vines, trunk rot
41" Tuliptree	Good
24" Tuliptree	Good, in yard, size estimated, dead branches

-  Tree
-  Tree to be Removed
-  Tree to be Removed (diameter > 24")

Additional Bankside Trees (Yellow) To Be Removed – majority eroded at roots







# Proposed Plantings

Live Staking



Silky dogwood



Spice Bush



Red Maple



Sycamore





# Streamside/ Riparian Planting

- Streamside Planting: Steeper slopes right against the stream banks
- Riparian Planting: Flatter slopes further away from the stream (larger overstory trees/ shrubs)





# Live Stake Planting

- Live Stake Planting: These plants are placed along the toe of the new stream edge and will remain wet from base-flow.





# Monitoring

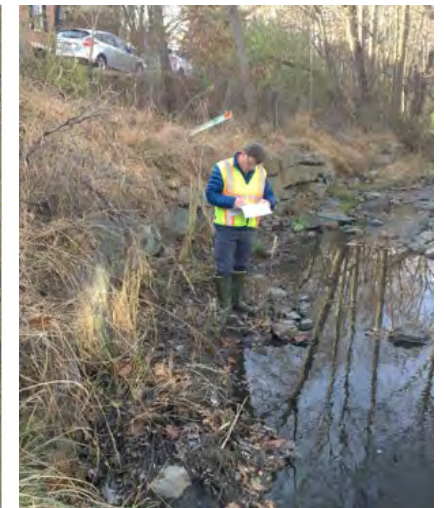
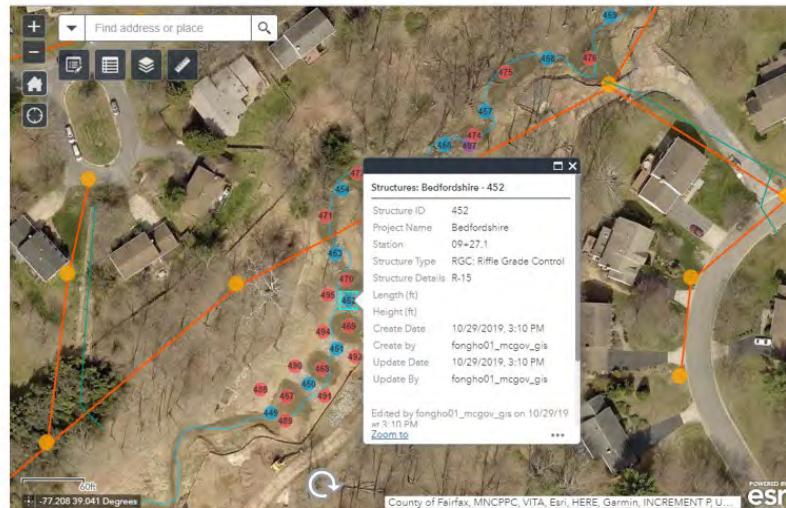
- After proposed planting, invasive species will be monitored and managed by Montgomery County for 5 years to support forest establishment.





# Restoration Monitoring

- Biological Monitoring
- Stream Cross Sections
- Stream Restoration Structures





# Hollywood Stream Restoration



Stream Before



Stream After



# Woodlawn Stream Restoration



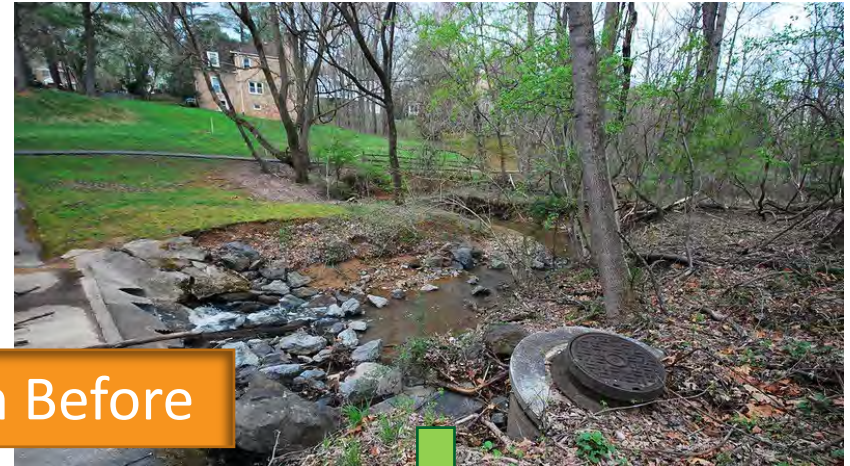
Stream Before



Stream After



# Falls Reach Stream Restoration



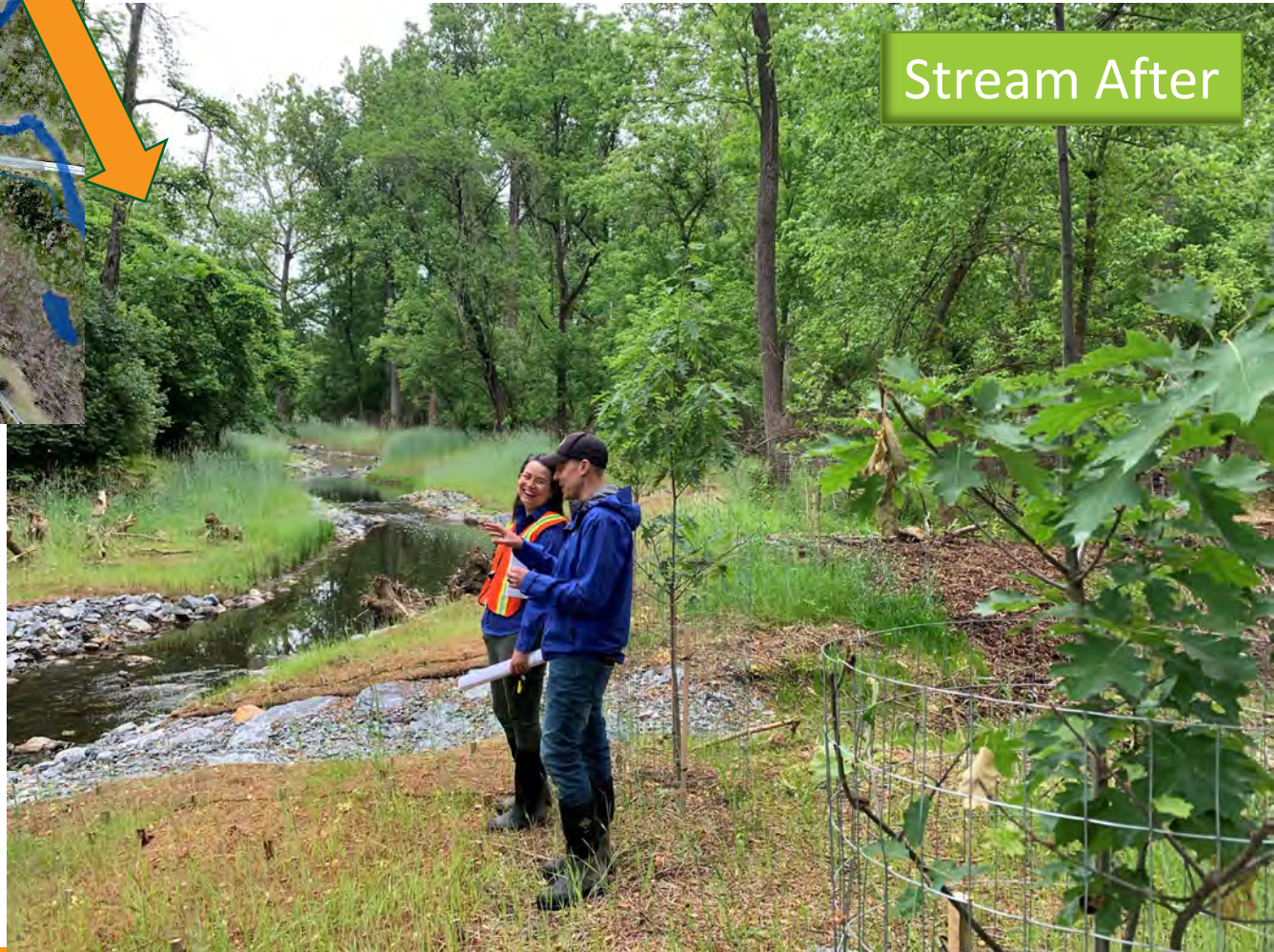
Stream Before



Stream After



# Grosvenor - Parks Stream Restoration





# Stream Restoration Easements

Montgomery County Department of Environmental Protection 2425 Reedie Drive, 4 <sup>th</sup> Floor Wheaton, MD 20902	<b>GRANT OF STREAM RESTORATION EASEMENT</b>	Parcel ID # _____
<b>TO</b>		
<b>Montgomery County, Maryland</b>		
THIS GRANT OF STREAM RESTORATION EASEMENT (the "Easement"), made this day of _____, 20____, is by and between _____, its successors and assigns (the "Grantor") and MONTGOMERY COUNTY, MARYLAND, its successors and assigns (the "County"), (the Grantor and the County together "the Parties").		

- Grants County legal access to construct and maintain project
- **Temporary, Permanent, or Both**
- No Change to Property Ownership
- Permanent Easements are in Land Records
- Required Prior to Construction



# Retrofit Schedule

- Easement Signatures Summer 2021
- Design and Permitting Ongoing - Fall 2021
- Permits Secured Fall 2021
- Construction Bidding Winter – Early 2022
- Construction Begins Spring 2022 (6-8 months)  
*for Part of Project Area*



# What to Expect During Construction

- **Resident Notification**

- Project Website
- Project Sign

- **Duration**

- About 6-8 months

- **Construction Hours**

- Monday through Friday, 7AM – 4PM

- **Safety**

- Fencing around construction
- Follow applicable COVID-19 precautions at time

- **Traffic**

- Normal entering and exiting construction traffic and contractor parking during the day





# Project Completion



Donnybrook – 2015 Celebration



# Other DEP Programs for Residents

- RainScapes – [rainscapes.org](http://rainscapes.org)



- Tree Montgomery – [treemontgomery.org](http://treemontgomery.org)



- Organic Lawn Care

- [www.montgomerycountymd.gov/lawns](http://www.montgomerycountymd.gov/lawns)

- Residential Energy Program

- [www.montgomerycountymd.gov/green/energy/home](http://www.montgomerycountymd.gov/green/energy/home)

- Volunteer

- [www.montgomerycountymd.gov/water/volunteer](http://www.montgomerycountymd.gov/water/volunteer)





# Questions?

Contact: Christy Ciarametaro

Watershed Project Planner

Christy.Ciarametaro@montgomerycountymd.gov

240-777-7720

Project Website:

<https://www.montgomerycountymd.gov/water/restoration/grosvenor-luxmanor-stream.html>

OR

Google “Grosvenor Stream Restoration”



DEPARTMENT OF  
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MONTGOMERY COUNTY • MARYLAND

Working together for a cleaner, greener,  
economically vibrant community