



# FAIRFAX COUNTY PARK AUTHORITY

## M E M O R A N D U M

**TO:** Chairman and Members  
Park Authority Board

**VIA:** Jai Cole, Executive Director

**FROM:** Laura Grape, Division Director, Resource Management

**DATE:** May 31, 2024

### *Agenda*

**Resource Management Committee  
(Committee of the Whole)  
Wednesday, June 5, 2024 – 6:30 pm  
Boardroom, Herrity Building  
Chairman: Maggie Godbold  
Vice Chair: Abena Aidoo Hewton**

1. Scope Approval – Helping Our Land Heal Forest Restoration Projects: Cub Run Stream Valley Park, Pohick Stream Valley Park, Difficult Run Stream Valley Park (with presentation) – Action\*

\*Enclosures



If accommodations and/or alternative formats are needed, please call (703) 324-8563. TTY (703) 803-3354

Board Agenda Item  
June 5, 2024

## **ACTION**

Scope Approval – Helping Our Land Heal Forest Restoration Projects: Cub Run Stream Valley Park (Sully District), Pohick Stream Valley Park (Springfield District), Difficult Run Stream Valley Park (Providence District)

### ISSUE:

Approval of the project scope to plan and implement Helping Our Land Heal (ecosystem restoration) projects at Cub Run Stream Valley Park, Pohick Stream Valley Park and Difficult Run Stream Valley Park.

### RECOMMENDATION:

The Park Authority Executive Director recommends approval of the project scope to plan and implement ecosystem restoration projects at Cub Run Stream Valley Park, Pohick Stream Valley Park and Difficult Run Stream Valley Park to restore forest communities.

### TIMING:

Board approval of the project scope is requested on June 5, 2024.

### BACKGROUND:

The Helping Our Land Heal Program was developed based on the successful work from the Ellanor C. Lawrence Forest Management Pilot Project. The scope encompasses three separate forest restoration projects with one project occurring at each of the three parks. It also works towards achieving the following Recommended Actions in the agency-wide Natural Resource Management Plan:

- Recommended Action 16 – Manage natural resources adaptively and holistically on a landscape scale with the ultimate goal of having naturally regenerating native plant systems and healthy native wildlife populations.
- Recommended Action 17 – Control overabundant and invasive species that negatively impact natural resources to include, but not limited to, white-tailed deer, non-native invasive species, resident Canada geese, feral animals, and forest pests.
- Recommended Action 18 – Ensure the health of existing forested areas. Where possible ensure native biodiversity and sustainable regeneration; elsewhere restore to the highest ecosystem function practicable.
- Recommended Action 19 – Enhance connectivity of parkland to provide natural corridors that allow for the movement of populations over time and preserve ecosystem function and biodiversity.



Board Agenda Item  
June 5, 2024

The goals of the projects are to restore a total of 31 acres of native forest ecosystems at three parks:

- 15 acres of forest at Cub Run Stream Valley Park
- 11 acres of forest at Pohick Stream Valley Park
- 5 acres of forest at Difficult Run Stream Valley Park

Specific forest community types will be determined through site analysis during the project design phase.

The project areas proposed for restoration are identified in the Ecological Restoration Project Map, enclosed as Attachment 2.

The projects will commence in the first quarter of fiscal year 2025 with an approximate duration of 60 months and anticipated completion date of June 30, 2029. Any surplus funds will be reinvested in one or more of the proposed ecological restoration projects or returned for reallocation to other projects.

FISCAL IMPACT:

Based on the scope cost estimate, funding in the amount of \$850,000 is necessary to conduct the project (Attachment 1). Funding is available in the amount of \$850,000 is available in PR-000148, Natural and Cultural Resource Stewardship-2020, Natural Capital Renovation/Natural Resource Management in Fund 30400, Park Bond Construction Fund.

ENCLOSED DOCUMENTS:

Attachment 1: Cost Estimate for Helping Our Land Heal Forest Restoration Projects

Attachment 2: Map of Helping Our Land Heal Forest Restoration Projects

Attachment 3: Helping Our Land Heal Forest Restoration Projects Existing and Desired Conditions Photos

STAFF:

Jai Cole, Executive Director

Sara Baldwin, Deputy Director/COO

Aimee L. Vosper, Deputy Director/CBD

Kimberly Eckert, Director, Park Operations Division

Daidria Grayson, Director Marketing and Communications Division

Brendon Hanafin, Director, Planning and Development Division

Michael Peter, Director, Business Administration Division

Laura Grape, Director, Resource Management and Interpretation Division

John Burke, Manager, Natural Resources Branch

Nicole Mitchell, Manager, Waterfront Sites and Nature Centers Branch Manager

Nicole Varnes, Financial Management Branch

## Helping Our Land Heal Forest Restoration Projects Scope Cost Estimates

### **Cub Run Stream Valley Park**

Project Administration	\$45,000
Site Design and Planning	\$45,000
Archaeology	\$22,500
Implementation, Establishment and Close-out	<u>\$337,500</u>

Cub Run Stream Valley Park Subtotal: \$450,000

### **Pohick Stream Valley Park**

Project Administration	\$27,500
Site Design and Planning	\$27,500
Archaeology	\$13,750
Implementation, Establishment and Close-out	<u>\$206,250</u>

Pohick Stream Valley Park Subtotal: \$275,000

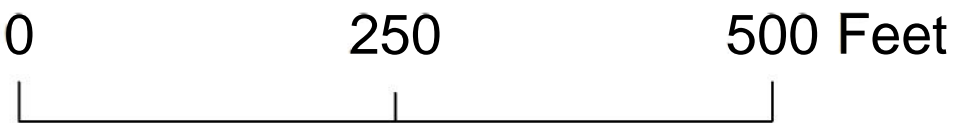
### **Difficult Run Stream Valley Park**

Project Administration	\$12,500
Site Design and Planning	\$12,500
Archaeology	\$6,250
Implementation, Establishment and Close-out	<u>\$93,750</u>

Difficult Run Stream Valley Park Subtotal: \$125,000

**Total** **\$850,000**





# Cub Run Stream Valley Park Forest Restoration Project





Hidden Pond  
Nature Center



0

500

1,000 Feet



Forest Restoration Project Area

Local Trails (Park Authority)

Parks (Park Authority)

# Pohick Stream Valley Forest Restoration Project





0 250 500 Feet

# Difficult Run Stream Valley Park Forest Restoration Project



**Forest Restoration Projects:  
Existing and Desired Conditions Photos**

Cub Run Stream Valley Park

Existing Conditions: Forest canopy has collapsed and invasive plants such as honeysuckle and autumn olive are preventing the regeneration of native Virginia forest trees.





Pohick Stream Valley Park

Existing Conditions: Invasive shrubs (multiflora rose) preventing tree regeneration and excluding native forest shrubs and herbaceous plants.





Difficult Run Stream Valley Park

Existing Conditions: Invasive shrubs (multiflora rose) filling canopy openings and preventing tree regeneration and altering wetland habitat.





Desired Conditions: Cub Run Stream Valley Park:

Regenerating hardwood forest free of invasive vines, shrubs, trees or bamboo.





Desired Conditions: Pohick Stream Valley Park and Difficult Run Stream Valley Park

Small stream floodplain forest community that is has layered forest structure and diverse native plants



# Helping Our Land Heal Forest Restorations

## Cub Run, Pohick and Difficult Run Stream Valley Parks

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FAIRFAX COUNTY PARK AUTHORITY BOARD MEETING

JUNE 5, 2024





# How We Treat the Land Has Lasting Impacts



Illustration by David A. Seariff





# What Causes Forest Degradation?

Damage to forest health from:

- Invasive plants and vines
- Overabundance of deer
- Forest clearing for urban development
- Former agricultural use
- Draining wetlands
- Forest pests
- Trash and pollution







# What is Forest Restoration?

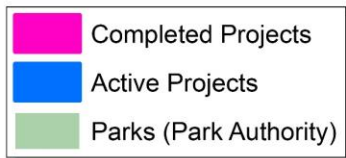
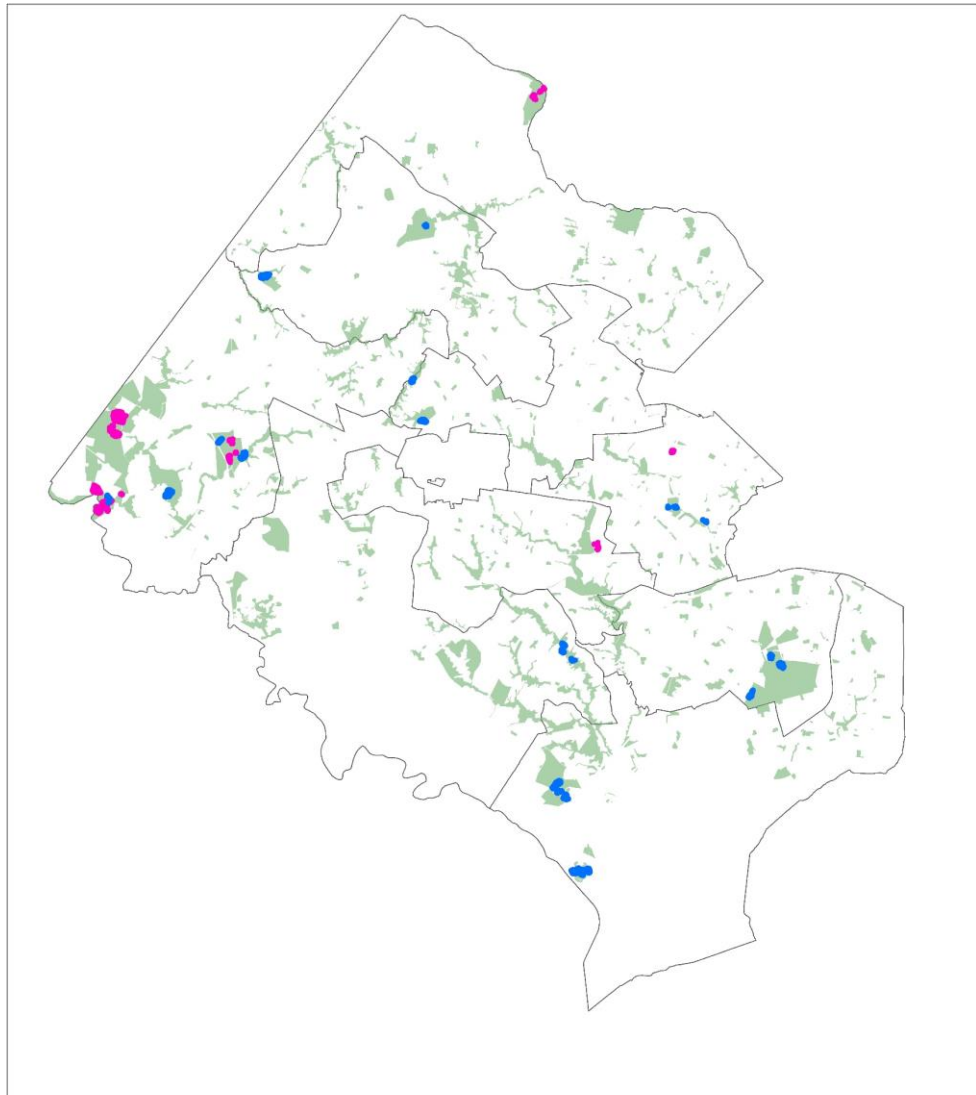
- Repairing a forest ecosystem that has been irrevocably damaged by a human driven force





# Helping Our Land Heal Ecological Restoration Program

- Goal: Restoration of degraded ecosystems
- 300 acres of treatments (forest, meadow, wetland)
- 2012 to the present
- Total portfolio \$7M+
- Funding
  - Bonds (2008, 2012, 2016, 2020)
  - Proffers
  - Environmental Improvement Program
  - Vulcan
  - Donations
  - Grants



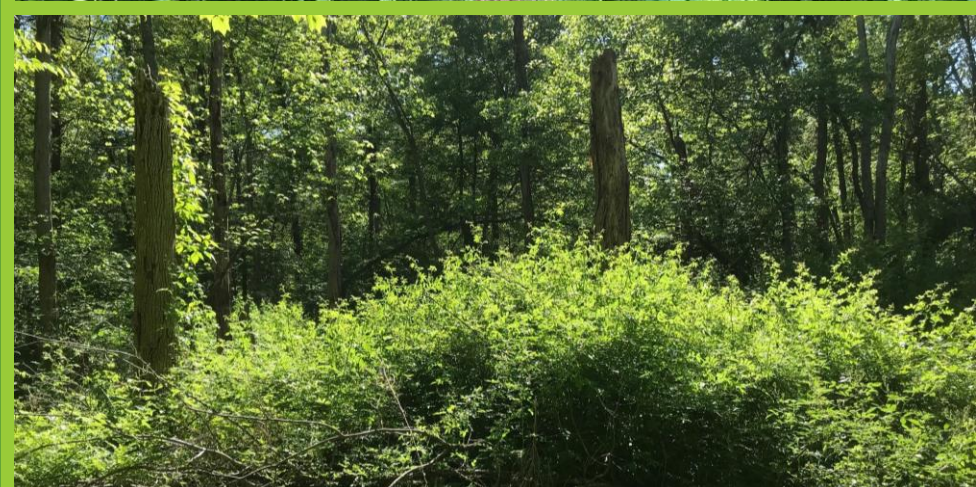
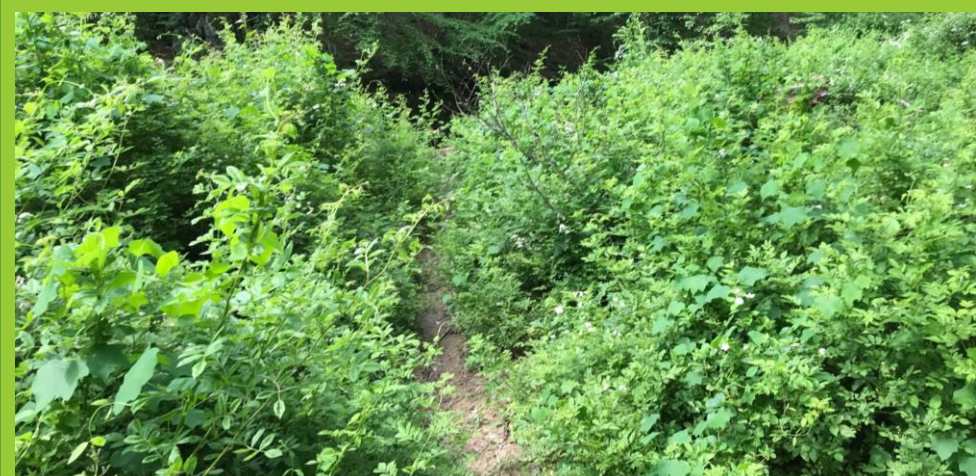
# Three Parks - Three Forest Restorations

31 Acres total

- Cub Run Stream Valley: 15 acres
- Pohick Stream Valley: 11 acres
- Difficult Run Stream Valley: 5 acres

Treatments include activities such as:

- Invasive plant removal
- Deer exclusion fencing
- Tree plantings





# Background – Cub Run Stream Valley

900 acres of forest, field, wetlands, streams

FCPA natural resource management plan (2018)

NVCC – ecosystem mapping (2018)

EIP meadow restoration project (2023)



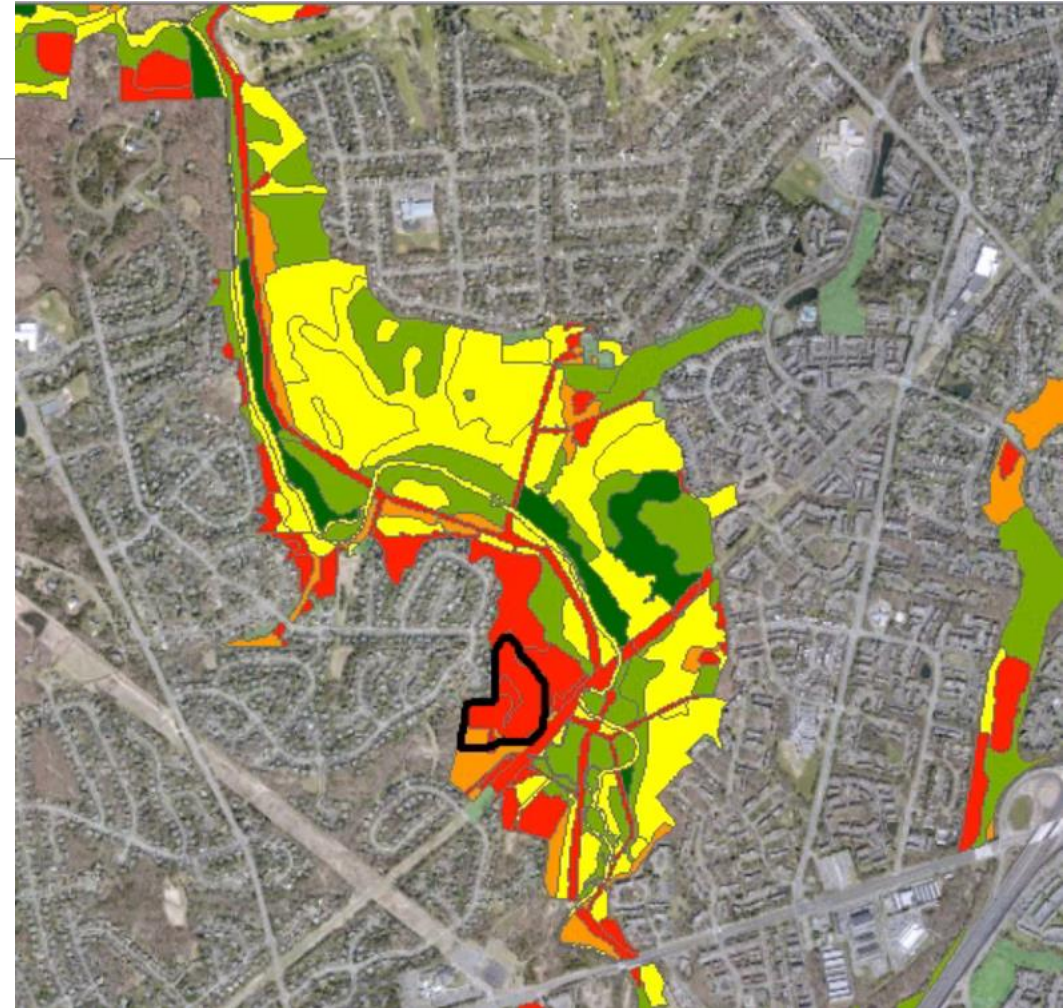
Fairfax County  
Park Authority  
Natural Resource  
Management Plan



Adopted January 29, 2014  
Administrative revision August 2019  
[fairfaxcounty.gov/parks](http://fairfaxcounty.gov/parks)



A Fairfax County, Va.  
publication







## Cub Run: Existing Conditions

- Canopy collapse
- Invasive plant understory
- Minimal tree regeneration



# Interim Conditions







## Desired Conditions

- Native tree dominated canopy
- Diverse understory, mixed age trees
- Active regeneration



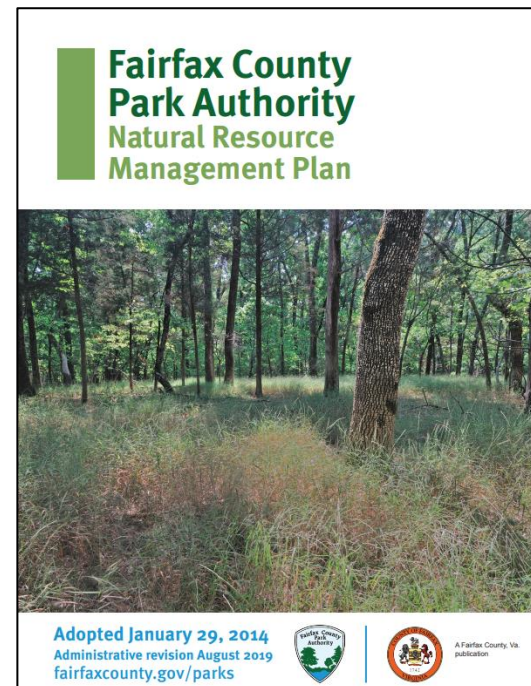
# Background – Pohick Stream Valley Park

FCPA Natural Resource Management Plan (2018)

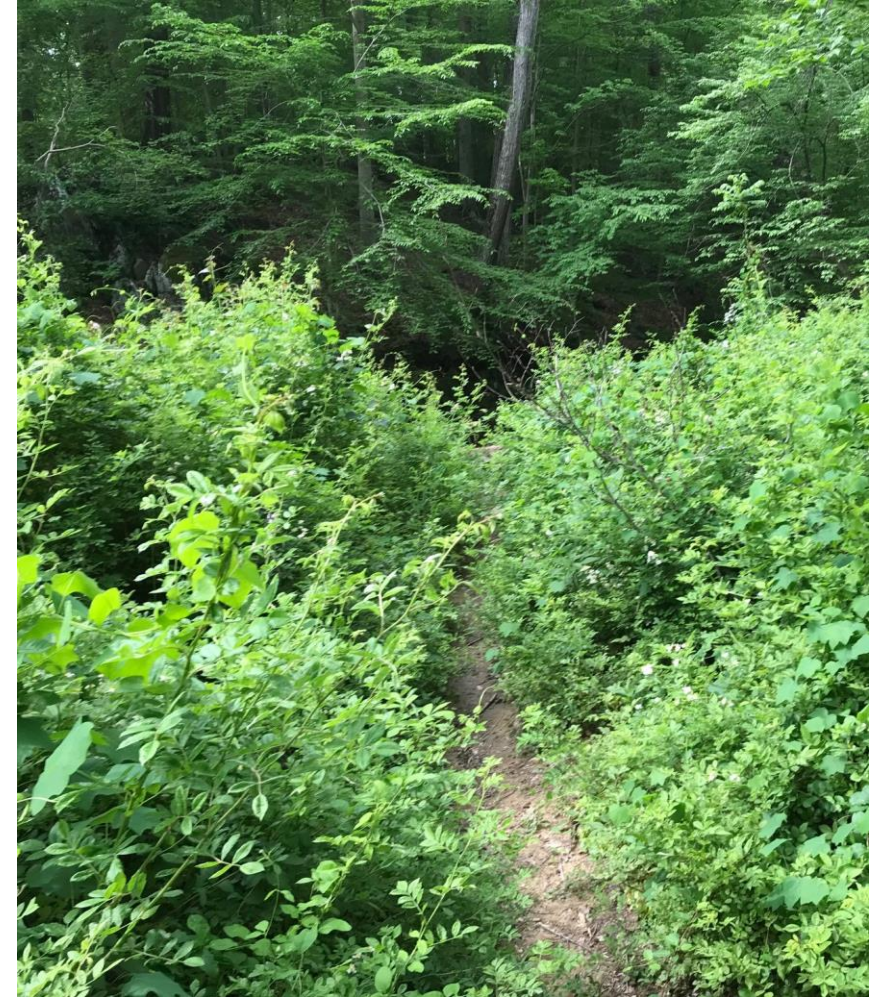
Adjacent to Hidden Pond Nature Center

NVCC data collection in-progress

Beech leaf disease present







## Pohick Stream Valley: Need for restoration

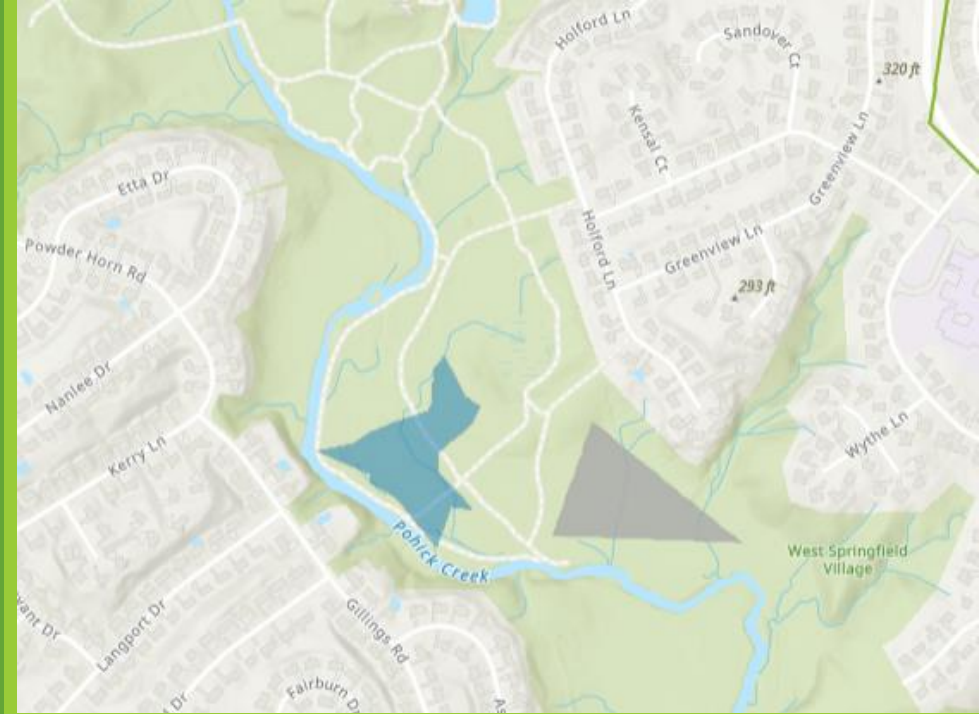
- Invasive shrub dominance (multiflora rose)
- Lack of tree regeneration
- Opportunity for vulnerable tree population support (Butternut: G3, S3?)
- Opportunity for education and interpretive nature programming from Hidden Pond NC staff



## Pohick Stream Valley: Need for restoration

- Beech Leaf Disease
- Forest resilience

Potential partner: FC Urban Forest Management Division







Desired Conditions:  
Northern Piedmont Small-Stream  
Floodplain Forest





# Background – Difficult Run Stream Valley Park

FCPA Natural Resource Management Plan (2018)

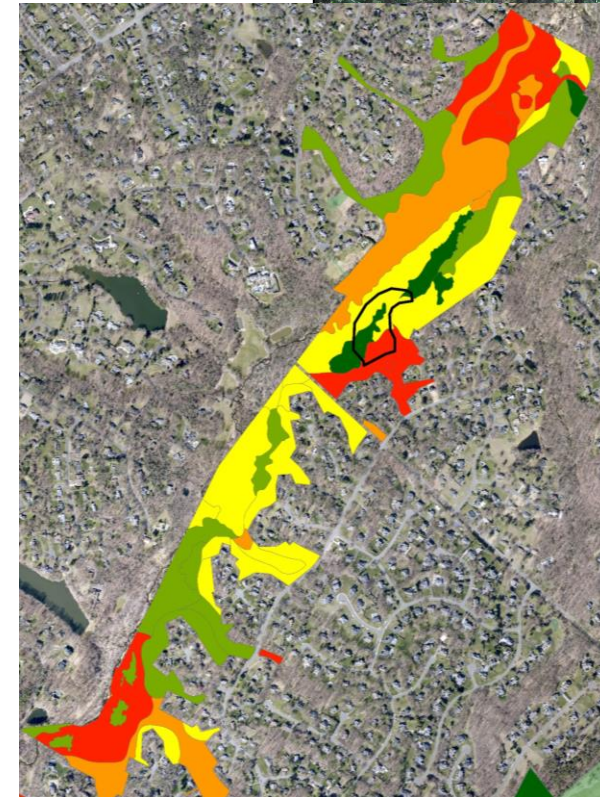
Northern Area NRMP (forthcoming)

IMA program

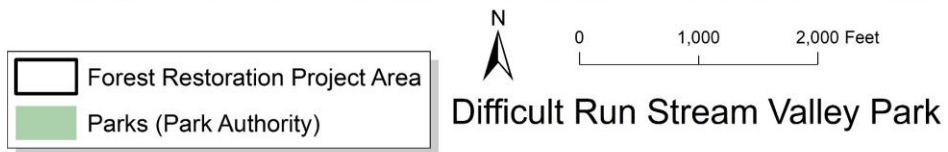
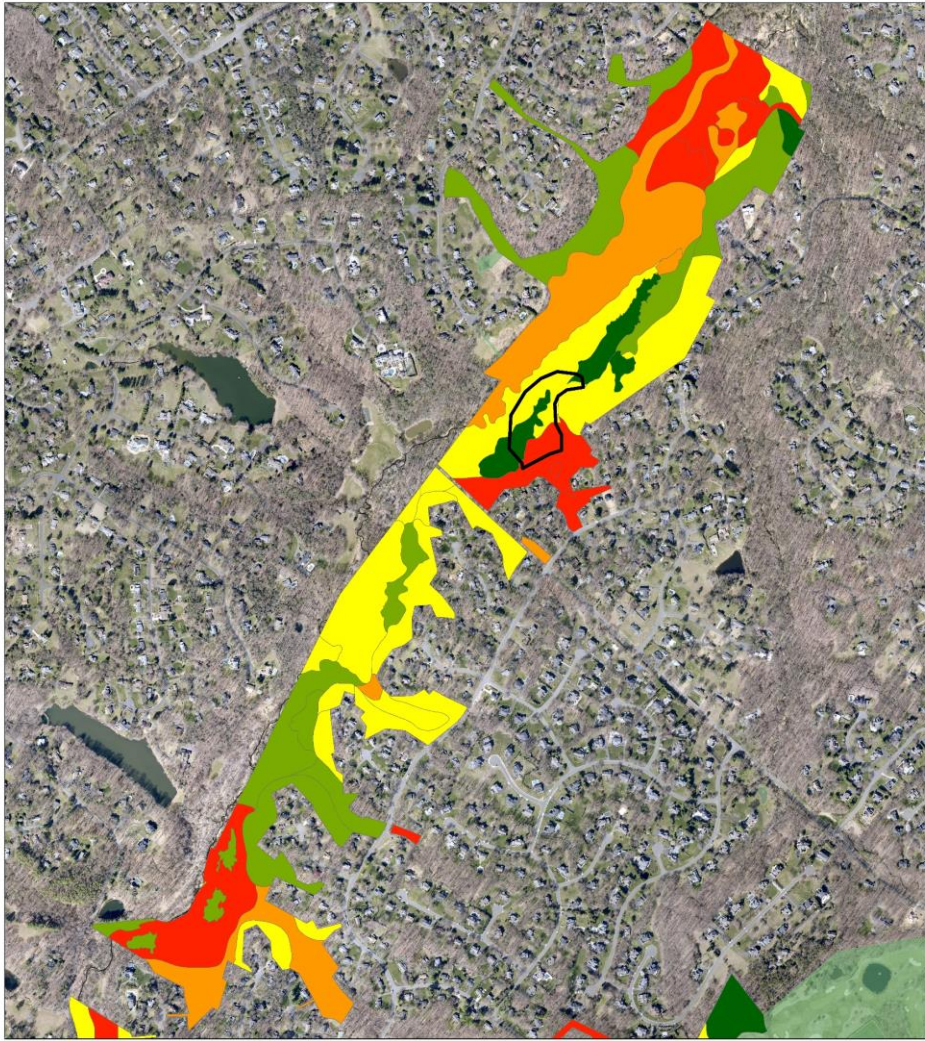
NVCC data (2021)

Gerry Connolly Cross County Trail

**Fairfax County  
Park Authority**  
Natural Resource  
Management Plan



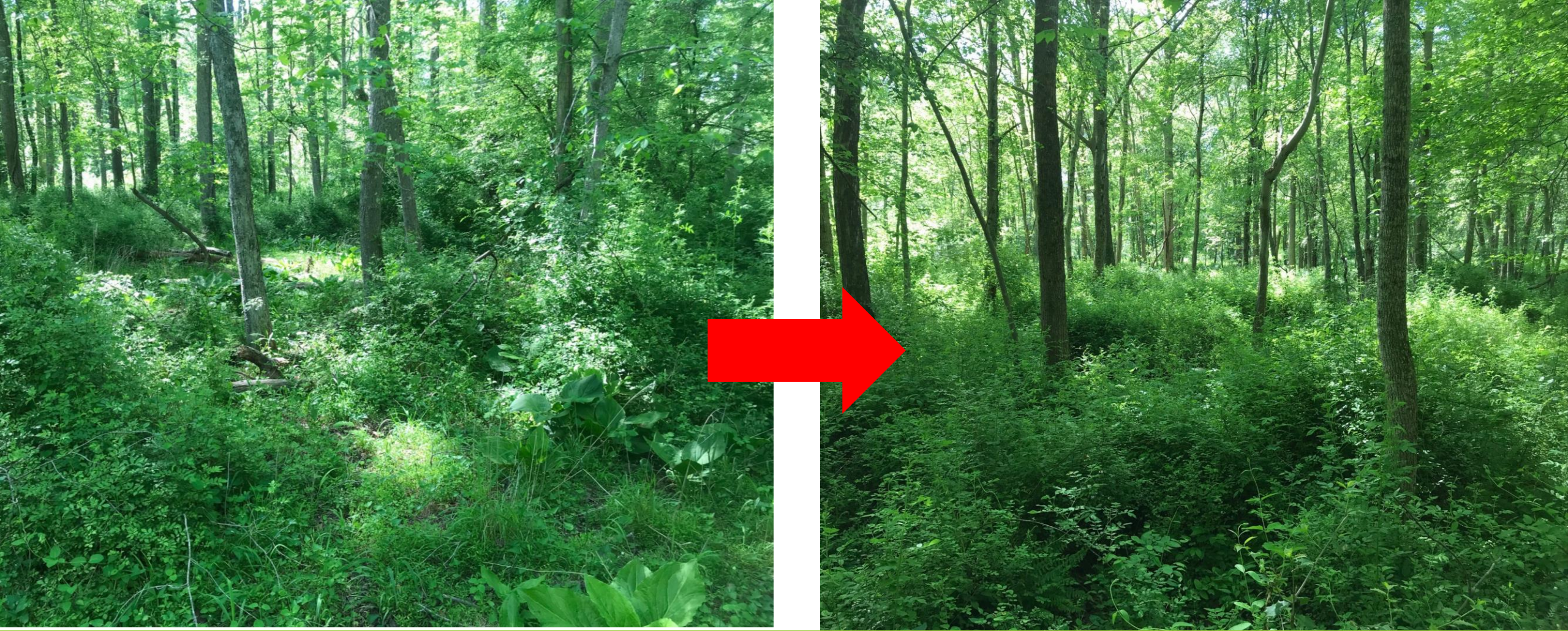




## Difficult Run SV: Need for Restoration

- Control Infestation of invasive shrub (multiflora rose)
- Protect two rare swamps of excellent quality
- Protect rare plant populations (S1)
- Restore forest understory and regeneration





## Difficult Run: Existing Conditions

- Transition of healthy swamp and floodplain to invasive shrub domination
- Minimal tree regeneration



## Difficult Run: Existing Conditions

- Canopy gaps become infested
- Forest sustainability is compromised
- Rare species may be lost











## Acknowledgements

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- Park Authority Board
- Fairfax County Board of Supervisors

# Questions?