



# **Invasive Plant Management and Tree Canopy in Fairfax County**

Update

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# What are invasive plants?

- Introduced plant species that cause or are likely to cause economic or environmental harm or harm to human health.

## What causes this issue?

- Commercial, residential, governmental, or agricultural introduction and spread
- Forest and habitat fragmentation
- Sunlight and edge habitat
- Deer and native plant pathogens





## What are the impacts to forests and wildlife?

- Loss of biodiversity
  - increased competition for resources
  - Loss/alteration of habitat
  - Loss of primary wildlife food sources
- Reduction in rare species
- Suppression of native plant growth
- Degradation of tree canopy

# 2021 Tree Canopy and Land Use Data

## Quantity of Tree Cover

**55%**  
URBAN  
TREE CANOPY

**18%**  
POSSIBLE  
PLANTING AREA

**27%**  
UNSUITABLE  
PLANTING AREA

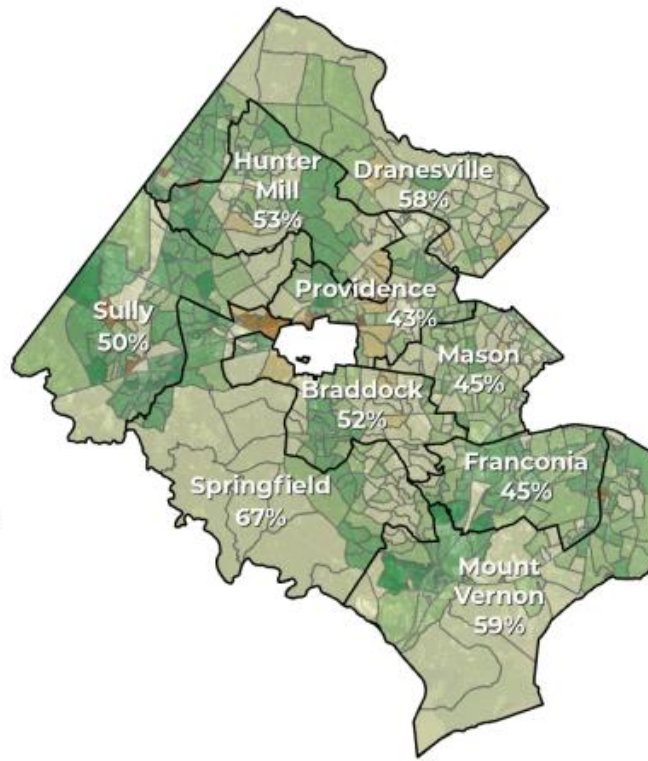


Table 1 – Percent tree canopy change by Supervisory District

| District              | 2012       | 2021       | Percent Change |
|-----------------------|------------|------------|----------------|
| Braddock              | 50%        | 52%        | +2%            |
| Dranesville           | 56%        | 58%        | +2%            |
| Franconia             | 41%        | 45%        | +4%            |
| Hunter Mill           | 50%        | 53%        | +3%            |
| Mason                 | 43%        | 45%        | +2%            |
| Mount Vernon          | 56%        | 59%        | +3%            |
| Providence            | 41%        | 43%        | +2%            |
| Springfield           | 65%        | 67%        | +2%            |
| Sully                 | 46%        | 50%        | +4%            |
| <b>FAIRFAX COUNTY</b> | <b>52%</b> | <b>55%</b> | <b>+3%</b>     |



# Where is the tree canopy gain from?

- **Growth from existing canopy**
- Land use conversion (e.g. abandoned agriculture fields become residential with trees)
- Invasive trees and vines overtaking abandoned fields and existing canopy



2018



2024



One year shoot growth

# Where is the tree canopy gain from?

- Growth from existing canopy
- **Land use conversion** (e.g. abandoned agriculture fields become residential with trees)
- Invasive trees and vines overtaking abandoned fields and existing canopy

Wolf Run Shoals Rd, Springfield District



2011



2023



# Where is the tree canopy gain from?

- Growth from existing canopy
- Land use conversion (e.g. abandoned agriculture fields become residential with trees)
- **Invasive trees and vines overtaking abandoned fields and existing canopy**



Invasive vines overtaking trees – Blake Lane Park



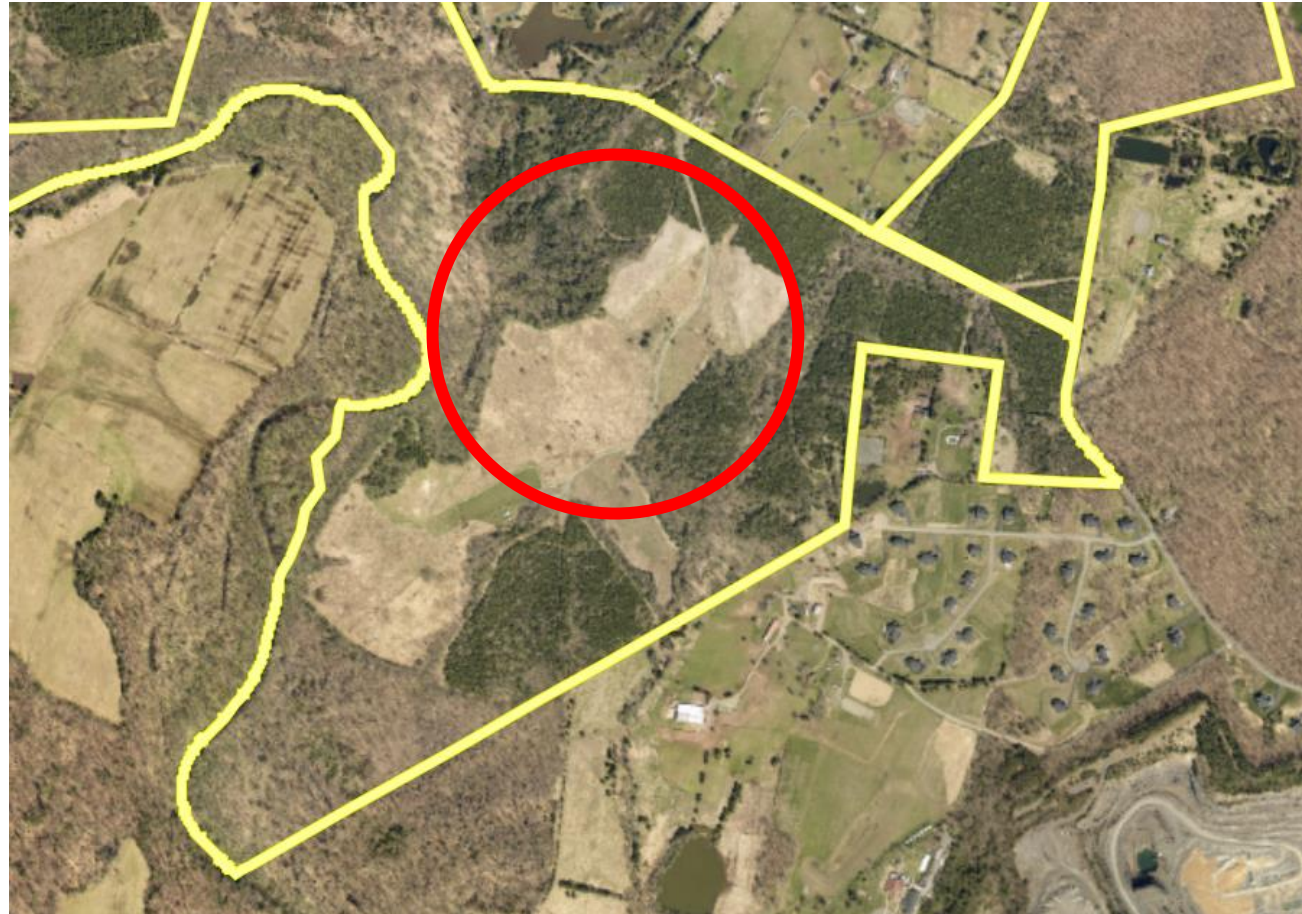
# Restoration: Poplar Ford Park



2015



# Restoration: Poplar Ford Park



2021







# Invasives Impact More Than Just Forest Ecology

- Environmental justice and reduction of social capital
- Access to open space
- Property lines and encroachment
- Concerns of lowered property values
- Climate resiliency concerns



FCPA park access obstructed by invasive vines





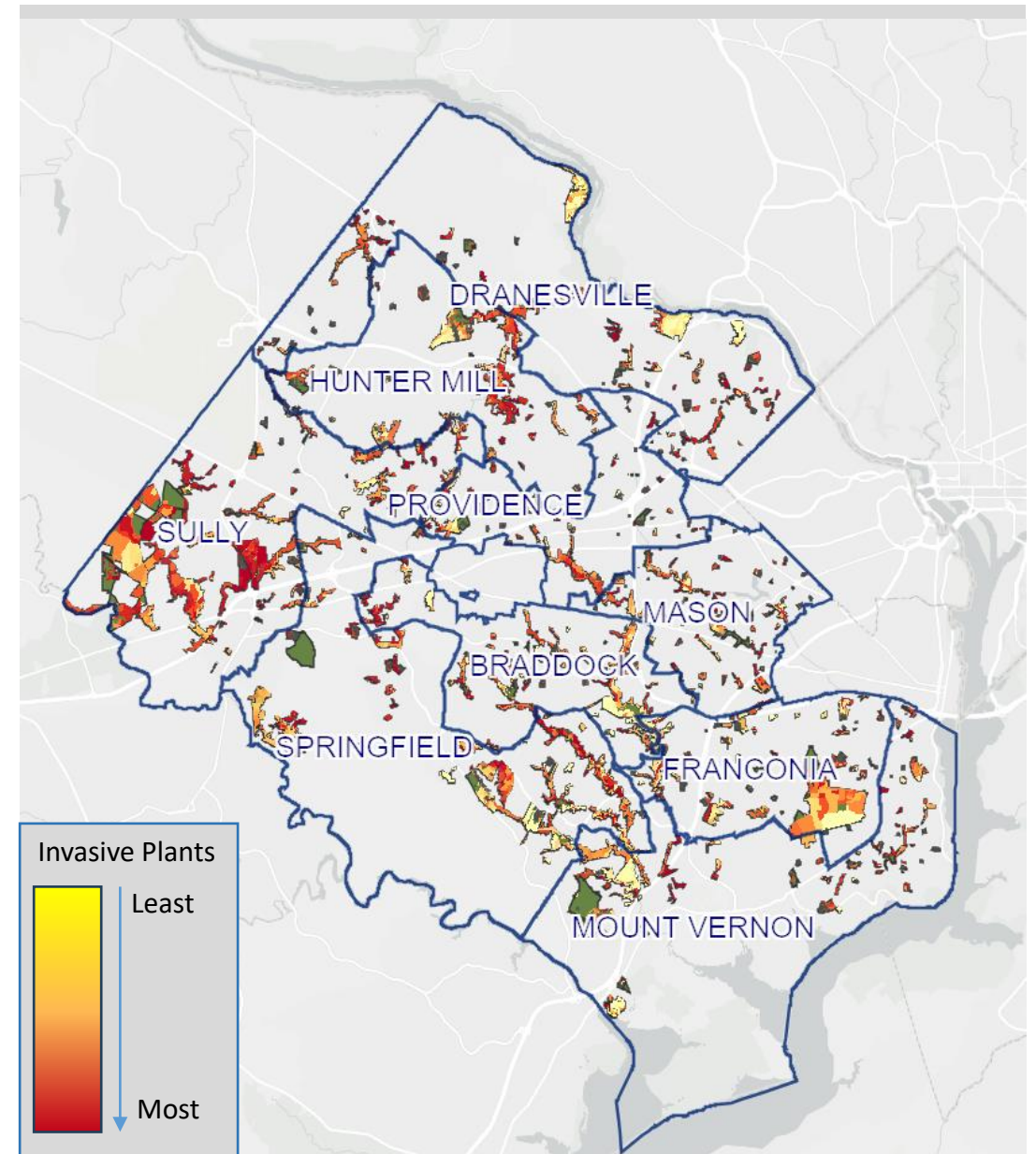






# Invasives and Parkland

- Largest county landowner
- Most data on invasive plant management
- Largest focus on invasive plant management
- ~17,000 acres open space
- 1,871 miles of edge habitat vulnerable to invasive plants





# Current Fairfax County Management Efforts

## **Fairfax County Park Authority**

- Invasive Management Area (IMA) volunteer program
- Restoration and Prescribed Fire programs
- The Landscape Legacy and Sustainability program
- Running bamboo management
- Early Detection Rapid Response (EDRR)

## **Fairfax County Deer Management**

## **EQAC and the Tree Commission**

## **DPWES**

- Stormwater Planning Restorations
- UFMD Forest Pest Management and Canopy Studies
- Operation Stream Shield (OSS)
- The Fairfax County Invasive Species Website

## **Virginia Cooperative Extension**

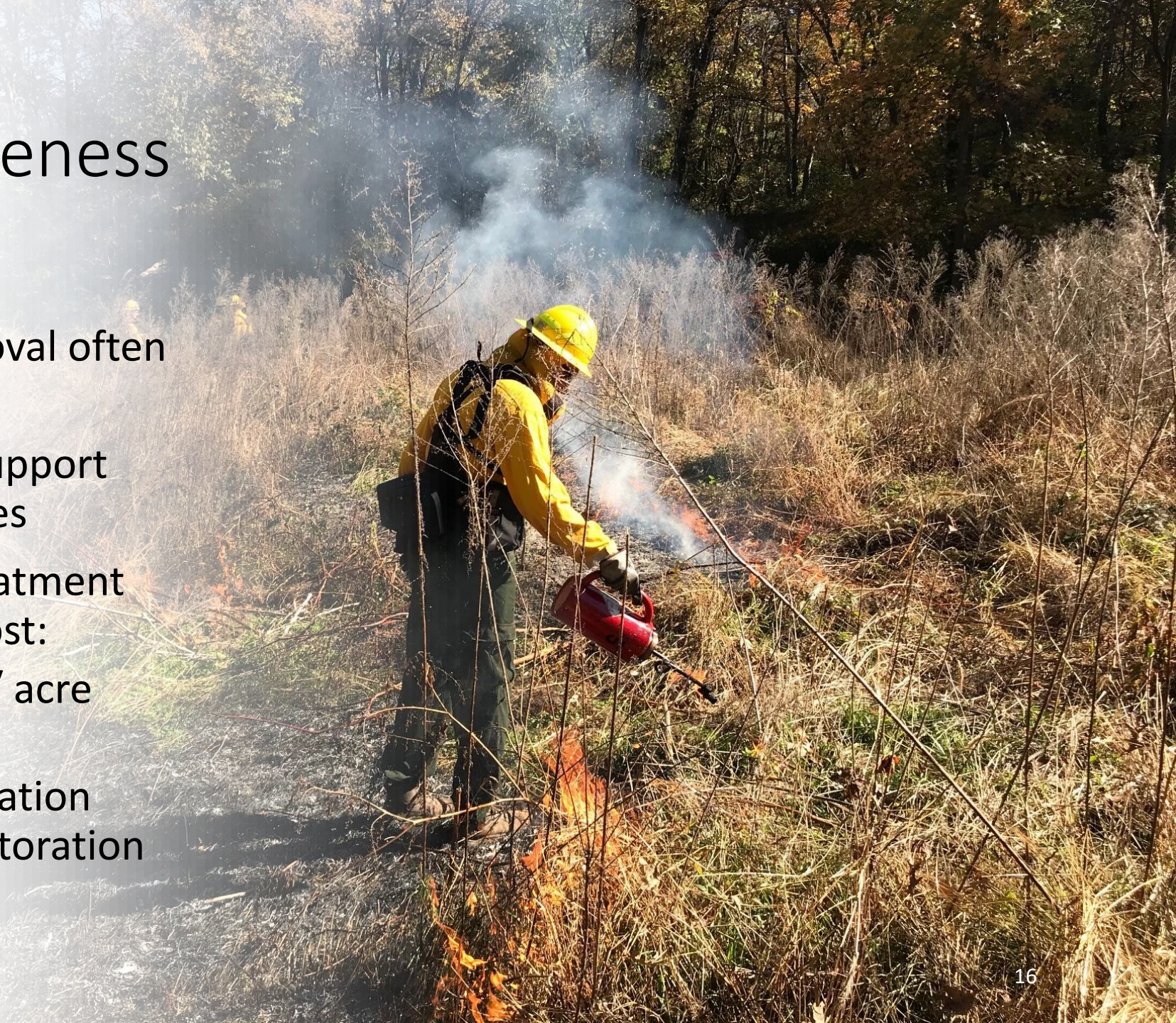
## **Fairfax Releaf**

## **Northern Virginia Soil and Water Conservation District**



# Cost and Effectiveness of Management

- Mechanical/manual removal often insufficient
- Prescribed burning can support fire-adapted native species
- One acre of herbicide treatment has a high variability in cost:
  - Honeysuckle = \$1.2k / acre
  - Bamboo: \$37k / acre
- ~\$25k/acre: forest restoration
- ~\$18k/acre: meadow restoration





# Regional Concerns and Initiatives

## **Regional Concerns:**

- Management of VDOT controlled areas
- Invasive introductions from commercial sales
- Agricultural production
- Invasive drift across jurisdictional boundaries

## **Regional Initiatives:**

- The Capital Region Partnership for Invasive Species Management (CR-PRISM)
- Virginia State Invasive Plant Work Group 2021
- Efforts promoting native plant sale and planting
- Volunteer invasive management

Issues with invasive plants  
are not Isolated to Fairfax  
County.





# Next Steps Future Opportunities and Investment

- Additional canopy studies
- Unified strategy to guide further investment:
  - **Ecological Priorities**
    - Restoration, rare species protection, and ecological maintenance and upkeep
  - **Canopy Loss**
    - Invasive vine management and control
  - **Equity and encroachment issues**
    - Targeted management of high vulnerability index areas
    - Reduction of invasive plant encroachment on open space

