

**Joint Meeting  
Fairfax County Park Authority  
and  
Environmental Quality Advisory Council  
Herrity Building – Suite 941  
Fairfax, VA  
October 8, 2014**

**A G E N D A**

1. Natural Resource Management Plan Implementation
2. Potential for Stream Mitigation Funding for Restoration Projects in Parks
3. Update on FCPA Needs Assessment
4. Update on Invasive Management Area Program

Fairfax County Park Authority  
Natural Resource Management Plan



Adopted January 29, 2014

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



# Natural Resource Management Plan Update

Joint Meeting EQAC-FCPA  
October 8, 2014

## ***FY2014 Activities Accomplished***

Complete revision of NRMP

Continue ECLP Pilot Project and implement NRMP for OCPP

Implement 2008 Bond Expenditures at identified parks

Continue to implement non-native, invasive plant best management practices and treat high priority areas with contractors

Complete the Huntley Meadows wetland restoration project

Complete construction of the stream stabilization project in Wakefield Park

Expand and refine deer management methods

## ***FY2014 Activities Carried Forward to FY2015***

Refine deer management methods

Improve data collection methodologies and develop geodatabase model

Best practices: natural community identification and mapping, improved management practices for deer, forestry, and vernal pools

Continue ECLP Pilot Project and implement NRMP for OCPP

Continue to seek funding to manage natural capital

Continue to produce stewardship education materials including brochures and signage

# Inventory and Planning

6,000 acres surveyed using NNIAP protocol in FY2014; 15,000 acres total

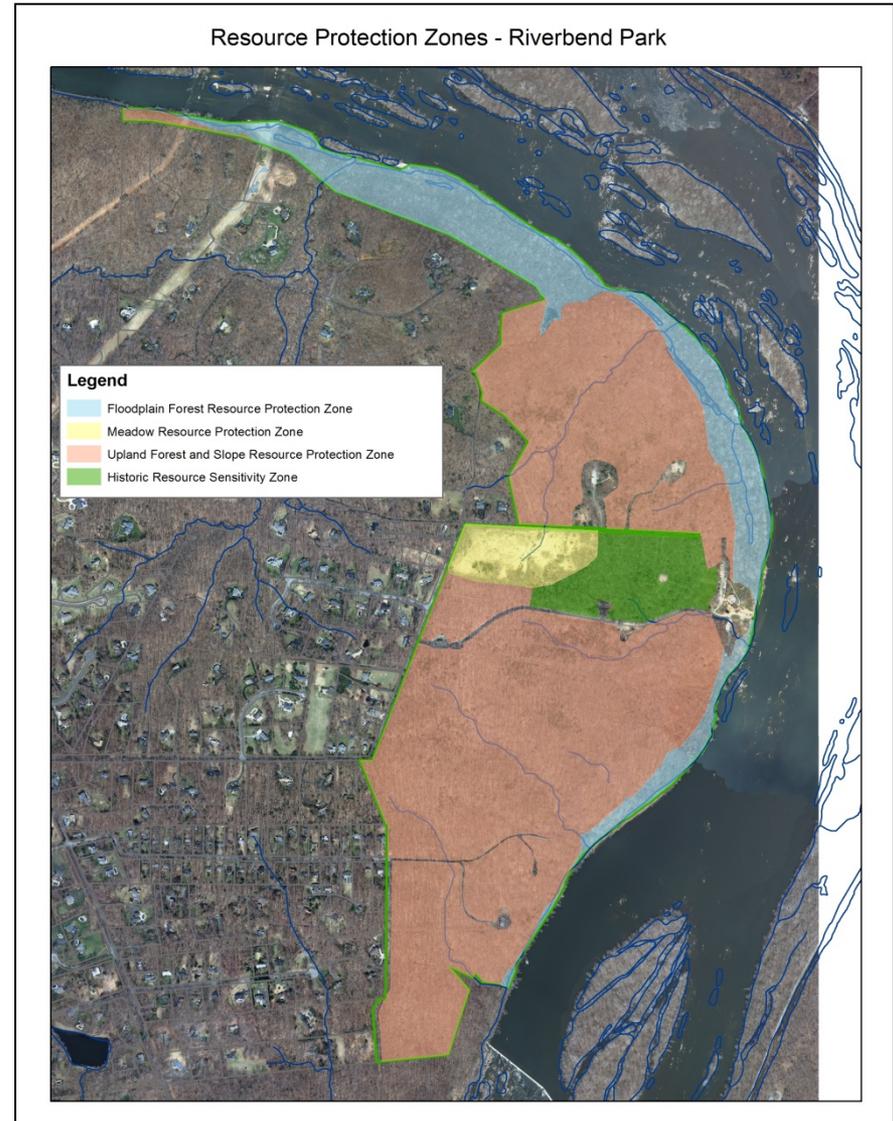
21 parks assessed for deer browse impacts

2 natural resource plans completed in FY2014

4 Resource Protection Zones designated at Riverbend, Barron Cameron, Old Colchester Park, and Franconia

Implemented new NNIAP protocol method using web-based GIS

Geodatabase model development 90% complete



***“Knowing what we have”***

# Protecting Natural Capital

150 development plans reviewed

46 park project teams served

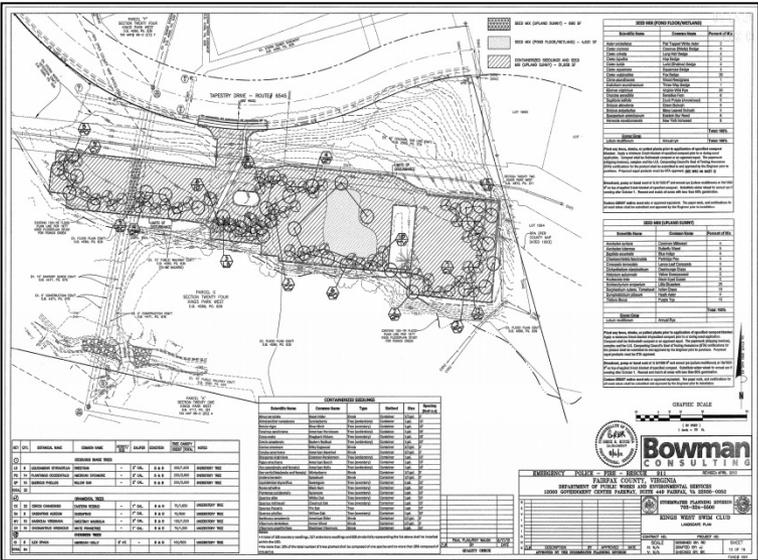
35 (estimated) encroachments where technical assistance was provided

30 (estimated) easement actions where technical assistance was provided

50 (estimated) trail projects where technical assistance was provided

6 (estimated) land acquisition reviews conducted

11 permit requests reviewed for restricted natural area activities



**“Do no harm”**

# Managing Wild Populations and Restoring Ecosystems

850 acres treated for invasive, non-native vegetation

900 white-tailed deer harvested from 48 parks

114 Canada goose nests oiled at lake front parks and golf courses

4 ecosystem restoration projects in progress or completed:

*Ellanor C. Lawrence Park forest management pilot project*

*Old Colchester Park natural resource management plan*

*Huntley Meadows wetland restoration*

*Wakefield Run Stream Restoration*



***“Helping our land heal”***



TAKE  
BACK  
THE  
FOREST

*“Spreading the word”*

## Fostering Stewardship and Expanding Natural Capital

1,800 (estimated) citizen inquires addressed

5,600 volunteer hours removing invasive, exotic vegetation in FY2014 at 40 sites, 32,000 total volunteer hours since IMA program inception

18,000 FCPD volunteer hours harvesting white-tailed deer in FY2014 among 27 hunt groups, 48,000 (estimated) total FCPD volunteer hours since archery program inception

12 partnerships fostered with state, regional, private, non-profit, and county organizations

“Take Back The Forest” campaign presented at the National Association of Government Communicators conference and wins 4<sup>th</sup> REI grant

## ***FY2015 Planned Activities***

Refine deer management methods

Improve data collection methodologies and develop geodatabase model

Best practices: natural community identification and mapping, improved management practices for deer, forestry, and vernal pools

Continue to seek funding to manage natural capital

Continue to produce stewardship education materials including brochures and signage

Complete ECLP Pilot Project and implement NRMP for OCPP

## ***FY2015 Resources Strategy***

Draft implementation plan and funding strategy was completed

Sources:

*General Fund*

*Telecom Fund*

*Bond Fund*

*Vulcan Fund*

*Partnerships and Shared Resources*



## Acknowledgements

Park Authority Board

Environmental Quality Advisory Council

Fairfax County Police Department

Virginia Departments of Forestry, Game and  
Inland Fisheries, and Conservation and  
Recreation

Northern Virginia Soil and Water Conservation  
District

Earth Sangha

Fairfax Releaf

Fairfax County Departments of Public Works  
and Environmental Services, Health, Planning  
and Zoning, and Fire and Rescue

Fairfax County Park Foundation

Friends Groups

Volunteers and Citizen Stewards

REI

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# Stream Mitigation Banking

October 8, 2014

# Banking Options

- Public Mitigation Bank
- Public Private Mitigation Bank
- In-Lieu Fee Program

# Mitigation Banks

## 1. Public Bank

- Limited to municipal/governmental projects
- Requires up-front financial assurance
- May require perpetual easements to third party

## 2. Public/Private Bank

- Available to all entities
- Requires up-front financial assurance
- Likely require perpetual easements to third party
- Private entity is considered the Banker
- Potentially less control over program
- Can only sell advance credits after; program instrument and mitigation plan are approved, the mitigation site secured and financial assurances established
- Additional six to 12 months RFP and Public Private Education Act process requirements

# In-Lieu of Program

## 3. In-Lieu Program

- Does not typically require the extent of preliminary planning (Watershed Management Planning has been performed)
- Does not typically require large up-front financial investment
- Allowed to sell of 15% advance credits after program instrument is approved
- Greater control over program (No private partners)
- County funding could reduce credit cost
- Potential political opposition

# Potential Issues

- Perpetual Easements on FCPA property
- Third Party Easement holder
- Financial Assurances
- 10 Year Monitoring and maintenance requirements.
- Long-term program stewardship requirements
- Stream Mitigation Credit Demand

# Pros and Cons

## Advantage

- Repair of streams on Parkland at potentially\*\* little to no cost to FCPA  
(Ability to attract a private partner that will create a bank and restore streams at no cost to the FCPA will depend on market conditions)
- Potential Revenue source for FCPA

## Disadvantage:

- Restored streams within the Bank would not count towards meeting the county's Chesapeake Bay TMDL requirements.
- Will take dedicated resources to set-up and obtain necessary approvals

# Stream Restoration Banking Options

| Parameter                               | Option 1A<br>Public Bank              | Option 1B<br>Public/Private Bank      | Option 2<br>In-Lieu Fee Program                  | Option 3<br>MOA                                 |
|---|---------------------------------------|---------------------------------------|--|---|
| <b>1. Economics</b>                     |                                       |                                       |  |   |
| Advance Credits*                        | 15%                                   | 15%                                   | 15%  | 0%  |
| Market Size/ Shares                     | municipal only                        | unlimited                             | unlimited  | only if ecologically preferable to ILF or bank  |
| Service Area                            | see Figure 1                          | see Figure 1                          | see Figure 1                                     | difficult to provide for impacts outside County |
| <b>2. Legal/Regulatory Requirements</b> |                                       |                                       |  |   |
| Hierarchy                               | 1                                     | 1                                     | 1 for Released Credits;<br>2 for Advance Credits | 3   |
| Prospectus                              | required                              | required                              | required   | N/A   |
| Instrument                              | required                              | required                              | required   | N/A   |
| Mitigation Plan                         | required                              | required                              | required   | required  |
| Financial Assurances                    | high level required                   | high level required                   | some required<br>(discretion of dist. eng.)      | N/A   |
| <b>3. Approval Process</b>              |                                       |                                       |  |   |
| Review Process                          | IRT review process<br>(approx. 1 yr.) | IRT review process<br>(approx. 1 yr.) | IRT review process<br>(approx. 1 yr.)            | COE and DEQ review<br>(approx. 6 mo.)           |
| Partner Selection Process               | N/A                                   | RFP/PPEA process<br>(6-12 mo.)        | N/A  | N/A   |
| <b>4. Agency Concerns</b>               |                                       |                                       |  |   |
| Local                                   | TBD                                   | TBD                                   | TBD  | TBD   |
| State                                   | TBD                                   | TBD                                   | TBD  | TBD   |
| Federal                                 | TBD                                   | TBD                                   | TBD  | TBD   |
| <b>5. Politics</b>                      |                                       |                                       |  |   |
| Public vs. Private Sector Competition   | potential political resistance        | potential political resistance        | potential political resistance                   | little/no political resistance                  |
| Market Demand                           | very low                              | low                                   | low with potential                               | N/A   |

\* Advance Credits for in-lieu fee projects are available when the program instrument is approved. Advance Credits for mitigation banks are available when the program instrument and mitigation plan have been approved, the mitigation site has been secured, and financial assurances have been established.

# Bay TMDL Requirements

- Projected County Load Reduction requirements
  - Phosphorous: 9,741#/year
  - Total Suspended Solids: 4,070 tons/year
  - Nitrogen: 81,900 #/year
- Stream Restoration is currently most cost effective technique to achieve Bay TMDL requirements
  - Estimate roughly 60 miles of stream restoration needed within 15 years for compliance

# Completed Stream Restoration Projects FY09-FY14

## Overall

23 Projects , 3.9 miles, Total Project Cost Over \$13 Million

## **Projects on Park Authority Land: (11 projects)**

- Big Rocky Run Ph II – Stream Restoration
- Rabbit Branch – Stream Restoration
- Flatlick Confluence – Stream Restoration
- Big Rocky Run Tributary – Outfall Restoration
- Miller Heights – Outfall Restoration
- Old Gate Court – Outfall Restoration
- Poplar Springs – Stream Restoration
- Sandy Run – Stream Restoration
- Wakefield Run – Stream Restoration
- Portions of:
  - Schneider Branch
  - Bridle Path

# Ongoing Stream and Outfall Restoration Projects on Park Property

**Fourteen projects, 5.2 miles, \$29 million**

Wakefield Park - (AC9210)

Wakefield Park - (AC9232)

Bull Neck at Spring Hill Rec Center

Paul Spring Branch at Gilbert McKutchen Park -

Accotink Tributary at Daventry

Flatlick Ph I

Flatlick Ph II

Flatlick Ph III

Dead Run at McLean Central Park

Inverchapel

Mount Vernon District Park – Quander Road Outfall

Colvin Run Phase I

Turkey Run at Langley High School

Banks Property (Construction)

# Questions

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# 2014 INVASIVE MANAGEMENT AREA PROGRAM UPDATE



# IMA Volunteer Accomplishments

- FY14 Statistics:

- 1,933 Volunteers
- 225 Workdays
- 5,932 Volunteer Hours
- 600 Plants

- YTD Statistics:

- 10,000 Volunteers
- 1,700 Workdays
- 32,000 Volunteer Hours
- 5,000 Plants



# Take Back the Forest 2014

- 78 Workdays
- 831 Volunteers
- 2,309 Volunteer Hours

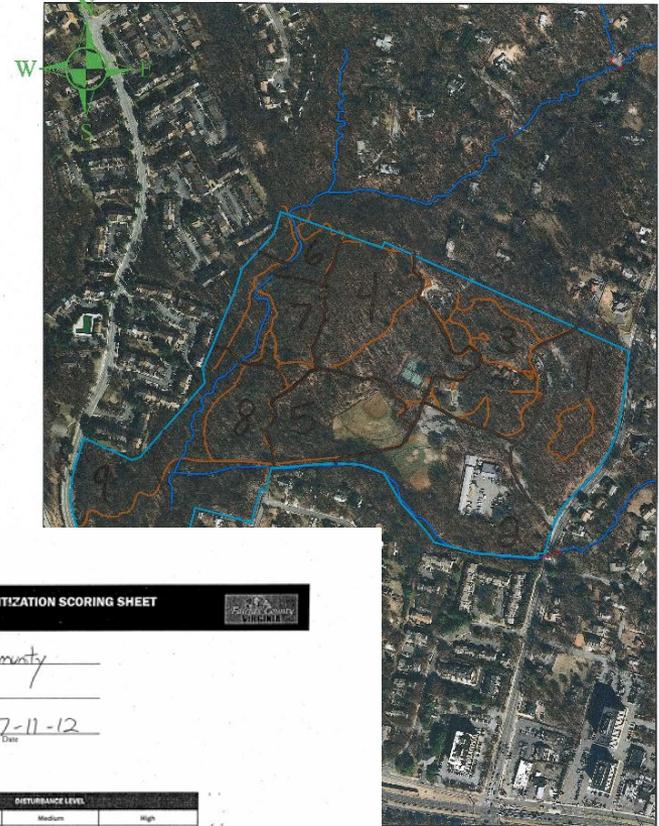
- TBTF took place in April and May
- Incorporated Earth Day, Arbor Day and Global Youth Service Day
- Boy scouts installed boot brush stations across the county



# Non-Native Invasive Assessment Prioritization (NNIAP)

- Determines where to spend limited funding
- Old Way
  - Paper Map & Score Sheet
  - Hand draw boundaries
  - Create GIS data back at the office
    - Time spent manually entering the information and creating polygons
- 2013
  - Almost 5,000 acres surveyed

Annandale Community



**INVASIVE PLANT SITE PRIORITIZATION SCORING SHEET**  
Fairfax County Park Authority

Park name: Annandale Community  
 Site location: 6  
 Inspector name: SS Date: 7-11-12

**ECOSYSTEM SCORE**

| BIOGEOGRAPHY LEVEL | DISTURBANCE LEVEL |        |      |
|--------------------|-------------------|--------|------|
|                    | Low               | Medium | High |
| High               | 5                 | 4      | 3    |
| Medium             | 4                 | 3      | 2    |
| Low                | 3                 | 2      | 1    |

SUBTOTAL: 2

**NON-NATIVE INVASIVE SPECIES SCORE**

| INFESTATION LEVEL                    | CONTROL DIFFICULTY            |                                   |  |
|--------------------------------------|-------------------------------|-----------------------------------|--|
|                                      | Highly Susceptible to Control | Requires Repeated Control Efforts | Difficult/Poor Response to Control Efforts |
| Less than 20% of Vegetative cover    | 5                             | 4                                 | 3  |
| 25% - 50% of Vegetative cover        | 4                             | 3                                 | 2  |
| Greater than 50% of Vegetative cover | 3                             | 2                                 | 1  |

ADD 1 if site was managed in the last 12 months

SUBTOTAL: 3

**CULTURAL VALUE SCORE**

| VISITATION LEVEL | DIVERSITY                |                            |                                |
|------------------|--------------------------|----------------------------|--------------------------------|
|                  | Formal Volunteer Program | Informal Volunteer Program | No Apparent Public Involvement |
| High             | 5                        | 4                          | 3                              |
| Medium           | 4                        | 3                          | 2                              |
| Low              | 3                        | 2                          | 1                              |

SUBTOTAL: 3

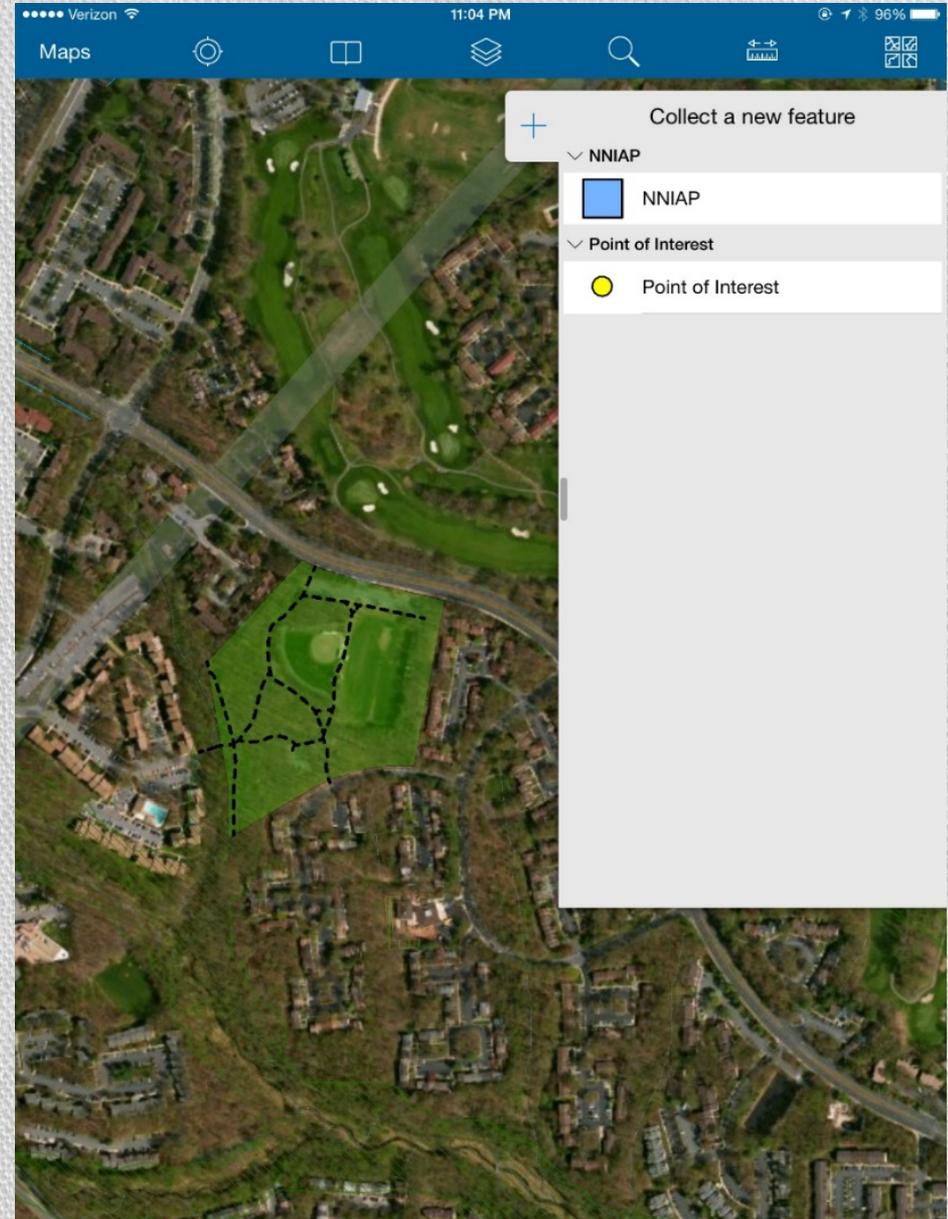
small amount of blackberry, waxberry, bitterweed

TOTAL SITE SCORE: 8

# NNIAP

## Using Online GIS

- ArcGIS Collector
  - New Technology using iPads
  - Syncs w/ Remote Server
    - No need to transfer or convert data
- Advantages
  - Enter data once!
  - Form reduces incorrect data entry
  - Surveyor actually knows where they are in a park
  - Polygon boundaries more accurate
  - Easy to use
- 2014
  - Over 6,000 acres surveyed including photos
- Total
  - Over 15,000 acres surveyed to date



# Contracted Herbicide Support



- Calendar Year 2013
  - 36 Different Parks
  - Over 1000 Acres Treated
- Calendar Year 2014
  - 29 Different Parks
  - Over 800 Acres Treated
  - Many re-treatments to ensure success of previous treatments
- Goals for Calendar Year 2015
  - More post treatment data collection
  - Refinement of treatment areas
  - Begin to fully implement prioritization using NNIAP data

# Recent IMA Funding History

- Environmental Improvement Program
  - \$100,000 in funding as part of FY14 Budget
  - \$150,000 in funding at FY15 Carryover Budget
- Grants
  - \$10,000 in Market Grant from REI during calendar year 2014 for activities in 2015
- Donations
  - Miscellaneous donations through Park Foundation to IMA from Friends groups and other IMA supporters



# Acknowledgements

- Park Authority Board
- Fairfax County Board of Supervisors
- Environmental Advisory Council
- Friends of Nottoway Park
- Friends of Lake Accotink Park
- Friends of Accotink Creek
- REI
- Earth Sangha Native Plant Nursery
- Northern Virginia Soil and Water Conservation District
- Mount Vernon Council of Citizens Associations Environment and Recreation Committee
- Fairfax County Park Foundation
- Fairfax County Public Schools
- IMA Volunteer Site Leaders and Supporters