

# Update on the Anacostia Park Wetlands Management Plan with Resident Canada Goose Management Strategies



Photo by: Anacostia Watershed Society

Anacostia Park  
Washington, D.C.

National Park Service  
U.S. Department of the Interior



National Park Service  
U.S. Department of the Interior  
National Capital Parks - East  
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Washington, D.C. 20020

## Introduction and Background

Anacostia Park is preparing an Environmental Impact Statement in support of a Wetlands Management Plan which includes Resident Canada Goose Management Strategies (plan/EIS). The plan/EIS will outline management strategies for wetlands in Anacostia Park for the next 15 years and will address the management of the park's resident Canada goose population.

The Anacostia River was historically flanked with nearly 2,500 acres of tidal marsh. However, in the early 20<sup>th</sup> century the Army Corps of Engineers was charged with a major "reclamation" effort designed to improve navigation by channeling and containing the river within a stone seawall. Tidal flats and wetlands were also drained and filled to help rid the area of mosquito-borne diseases. Public and government interest in restoring wetlands in the Anacostia River Watershed grew in the 1980s and the National Park Service began working with others to restore nearly 100 acres of tidal marsh. Today, significant efforts have been made to restore wetlands in the

Anacostia River Watershed including Anacostia Park.

Over the past decade an increasing number of Canada geese have taken up residence in Anacostia Park. Normally a migratory species, these "resident" geese are the descendents of non-migratory subspecies and/or pinioned (flightless) individuals, many of which were originally brought in to enhance regional hunting interests. Because migration is a "learned" activity, the offspring of these individuals do not migrate, either. The abundance of food and lack of predators in urban areas have fostered a population of these non-migratory Canada geese. In recent years, invasive exotic plant species have also increased, and restored wetlands have proven to be especially vulnerable to both the invasion of exotic plants and significant herbivory by the non-native resident geese.

Additionally, soil elevations, hydrologic regimes and maintenance efforts may be impacting the successful establishment of the restored wetlands. This plan/EIS will address both wetland management considerations as well as resident Canada goose issues.

## Purpose of the Plan/ EIS

The purpose of this action is to develop and implement a wetlands management plan that facilitates the restoration and protection of natural resources within Anacostia Park.

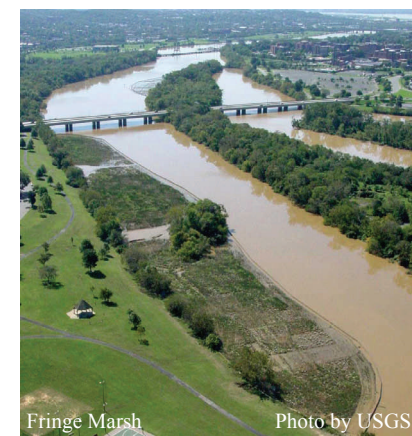
## Need for the Plan/ EIS

Action is needed at this time to address the restoration and protection of natural resources within Anacostia Park. The following statements further define the need for action:

- The resident Canada goose population has damaged wetland restoration areas and threatens future restoration efforts in the park.
- A plan is needed to identify wetland management tools which address factors affecting current and future restoration activities.

## Progress to Date

Last year we held several public meetings to solicit advice on the purpose, need, objectives and preliminary alternative elements of the plan/EIS. We also solicited comments on a Notice of Intent to Prepare an Environmental Impact Statement. Those comments are summarized and available online at: <http://parkplanning.nps.gov/anac>. During the fall 2007 and winter 2007-08, NPS staff and contractors collected information necessary to complete the environmental analysis for the plan/EIS including a literature review, analysis of hydrologic conditions in the park, baseline information about wetland elevations, and a wetland functions analysis. After considering these data, the park held an alternatives development meeting in May 2008 to document the range of actions the park could potentially take to manage wetlands and geese in the park. We are now asking the public for comments on those draft alternatives.



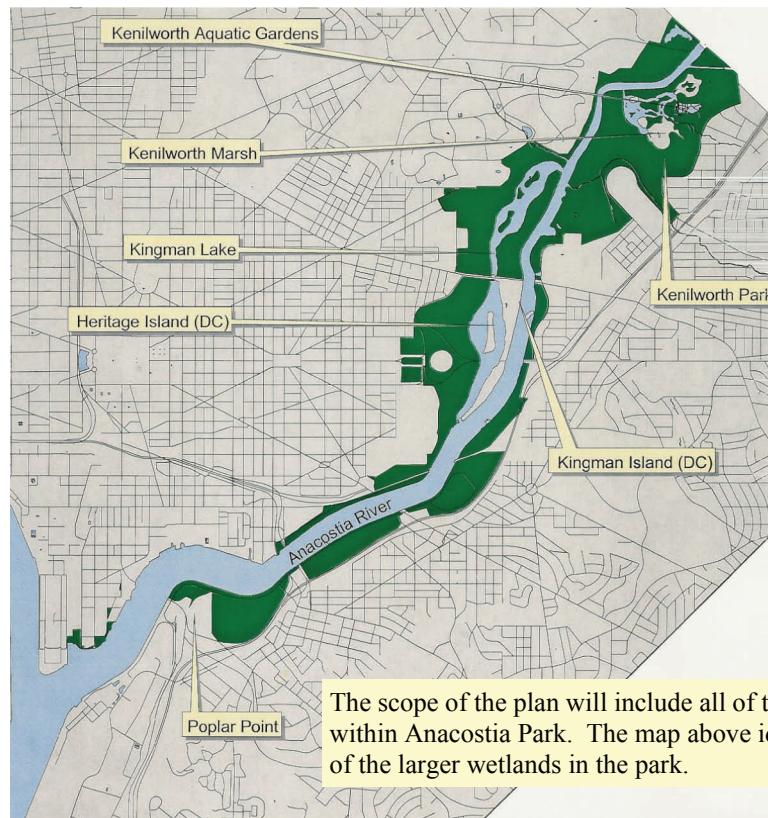
Fringe Marsh Photo by USGS



## Objectives of the Plan/EIS

Objectives are specific statements of purpose and state what must be achieved for the plan to be successful. Through scoping efforts, several draft objectives were outlined for the plan/EIS:

- ⇒ General—Ensure actions are consistent with the laws, policies, and regulations that guide the National Park Service.
- ⇒ Habitat and Vegetation—Restore, protect, and maintain wetlands for native fish and wildlife populations; maintain native wetlands vegetation and manage the encroachment of invasive and exotic plant species; and restore, protect, and maintain wetland functions.
- ⇒ Wildlife—Manage the resident Canada goose population to allow for the restoration and protection of park resources.
- ⇒ Visitor Experience—Enhance visitor experience by restoring, maintaining, protecting, and interpreting wetlands; and enhance public understanding of the value of wetland restoration and issues associated with the management of resident Canada geese.
- ⇒ Park Operations—Consider and plan for impacts of wetland restoration efforts and resident Canada goose management response activities on current park operations, including budget, workload, and visitor experience.
- ⇒ Cooperation and Coordination—Cooperate and coordinate with the District of Columbia, the Army Corps of Engineers, and other governmental agencies as well as other stakeholders in implementing a wetlands management plan and goose management strategy.



## Timeline

Internal Scoping (February 2007)

Agency Scoping (March 2007)

Public Scoping (January - February 2008)

Data Gathering (September 2007 - April 2008)

Alternative Development \*we are here (May - October 2008) *Comments are due October 3, 2008.*

Writing of the plan/EIS (environmental analysis) (Summer 2008 - Spring 2009)

Draft plan/EIS and Public comment period (Summer 2009)

Final plan/EIS (Spring/Summer 2010)

Record of Decision (Spring/Summer 2010)

Implementation

Alternative C – High level of wetlands management combined with moderate level of goose management	Alternative D – Moderate level of wetlands management with high level of goose management	Alternative E – Low level of wetlands management with low level of goose management	Alternative F – No Wetlands management and no goose management
<p>Same as Alternative B, except:</p> <ul style="list-style-type: none"> <li>• No tidal gut creation.</li> <li>• No wetland altering of wetland elevations.</li> <li>• More limited removal of structures eroding shorelines.</li> <li>• More limited (select areas) investigate extreme water level changes that may be impacting vegetation.</li> </ul>	<p>Same as Alternative C, except</p> <ul style="list-style-type: none"> <li>• Limited erosion and sediment control: installation of least invasive flow deflectors at limited locations, eliminate management efforts where wetland is affected heavily by wave action and installation of bog mats with root mat forming plant species at select locations.</li> <li>• No investigation of extreme water level changes that may be impacting vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>• Removal of structures/obstacles that are resulting in significant erosion of the shoreline/wetland.</li> <li>• Yearly clean-ups for items clogging openings in marshes.</li> <li>• Address surface runoff from upland areas that cause wetland erosion.</li> </ul>	<p>No wetland hydrology related management activities.</p>
<p>Same as Alternative B, except</p> <ul style="list-style-type: none"> <li>• Only mechanical and passive seedbank regeneration.</li> <li>• Planting effort with native species that are persistent throughout the year and planted at a lower density.</li> </ul>	<p>Same as Alternative C, except</p> <ul style="list-style-type: none"> <li>• Only passive seedbank regeneration.</li> <li>• Minor planting efforts in select locations.</li> <li>• No buffering of the shoreline.</li> </ul>	<ul style="list-style-type: none"> <li>• Minor level of invasives management.</li> <li>• Passive level of seedbank regeneration.</li> <li>• No buffering shoreline.</li> <li>• No Planting effort.</li> </ul>	<p>No vegetation wetland management activities.</p>
<p>Same as Alt B., except</p> <ul style="list-style-type: none"> <li>• No new boardwalks or trails.</li> </ul>	<ul style="list-style-type: none"> <li>• Education and interpretation (minor).</li> <li>• Trash management (work w/ volunteers).</li> </ul>	<p>No cultural/ education efforts.</p>	<p>Same as Alternative D</p>
<ul style="list-style-type: none"> <li>• Only complete the least invasive stream/stormwater outfall energy dissipation modifications.</li> </ul>	<p>No new wetland restoration efforts.</p>	<p>Same as Alternative D</p>	<p>Same as Alternative D</p>

### How To Comment on Draft Alternatives—COMMENTS ARE DUE SEPTEMBER 29, 2008

To comment on the Anacostia Park Wetlands Management Plan/EIS with Resident Canada Goose Management Strategies draft alternatives,

**GO TO:** <http://parkplanning.nps.gov/anac>

⇒ Then click “Wetlands Restoration Plan with Resident Canada Goose Management Strategies Environ. Impact Statement”

⇒ Then click “Open For Public Comment”

⇒ Then click “Comment on Document.” You can also download this brochure at this screen

Written comments can be sent to:

**Chief of Resource Management  
National Capital Parks—East  
1900 Anacostia Drive, SE  
Washington D.C. , 20020-6722**

### IMPORTANT

Before including you personal identifying information, please be aware that we will make comments, including personal identifying information, available for public review. Individual respondents may request their names and/or home addresses, etc., be withheld by stating this request prominently at the beginning of your comments. We make submissions from organizations or businesses, and from their representatives or officials, available for public inspection in their entirety.



WETLAND MANAGEMENT ELEMENTS	Alternative A – No Action (Current Management)	Alternative B—Very high level of wetland management and very high level of goose management
<b>Hydrology</b>	No Actions currently taken to impact hydrology	<ul style="list-style-type: none"> <li>• Use erosion control techniques including: installation of coir fiber logs; installation of natural or manmade flow deflectors; reductions to steepness of wetland shoreline; increased protection in areas with greatest wave action; installation of pre-seeded bog mats; and shoreline bank erosion control.</li> <li>• Remove or modify structures/obstacles resulting in moderate/significant erosion of the shoreline/wetland.</li> <li>• Remove items that clog marshes and negatively impact hydrology.</li> <li>• Tidal gut creation w/dredging.</li> <li>• Address surface runoff from upland areas that cause wetland erosion.</li> <li>• Inform DC Harbormaster the importance of enforcing no wake zones in areas where wetland edge may be affected.</li> <li>• For nontidal wetlands, investigate possible extreme water level changes affecting vegetation establishment and fix the problem.</li> <li>• Consider altering wetland elevations to provide habitat.</li> </ul>
<b>Vegetation</b>	Some management of invasive species	<ul style="list-style-type: none"> <li>• Manage invasive species.</li> <li>• Seedbank regeneration (mechanical).</li> <li>• Buffer shoreline with herbaceous materials closer to the banks and woody material further away.</li> <li>• Planting effort with native species of high root mat formation, variable height, persistent throughout the year, and high density.</li> </ul>
<b>Cultural/ Education</b>	<ul style="list-style-type: none"> <li>• Continue limited trash removal</li> <li>• Continue some education through park programs</li> <li>• Maintain existing trails at the park</li> </ul>	<ul style="list-style-type: none"> <li>• Increased education and interpretation</li> <li>• Trash management</li> <li>• Reduce impervious areas</li> <li>• Construct new boardwalks and trails</li> </ul>
<b>WETLAND RESTORATION ELEMENTS</b>	No new restoration efforts currently considered	<ul style="list-style-type: none"> <li>• Consider areas for stream day-lighting with natural channel design techniques.</li> <li>• Stream/stormwater outfall energy dissipation modifications .</li> <li>• Consider seawall breaks to re-water wetland or former wetland areas.</li> <li>• Consider new rain garden areas.</li> </ul>

**Guiding Questions for Comment**

1. Which alternative or alternatives best address the objective statements on page 2?
2. What other alternatives or measures should be addressed that are not already in the alternatives presented?
3. What additional information, concerns, or other comments about the draft alternatives do you have?

**Alternatives Summary**

For the details of these alternatives, see pages 4 - 7.

**Alternative A – No Action (Current Management)**

⇒ This alternative continues wetland and goose management at current levels of activity. The park currently manages for invasive species in the wetland areas and addles eggs and uses fencing to address resident Canada goose issues.

**Alternative B – Very high level of wetland management and very high level of goose management**

⇒ This alternative combines the most aggressive wetlands management techniques with aggressive goose management (lethal control combined with other techniques). This alternative considers new wetland restoration options as well.

**Alternative C – High level of wetlands management combined with moderate level of goose management**

⇒ Alternative C combines aggressive wetlands management options with a moderate level of lethal and non-lethal goose management techniques. This alternative assumes that more intense wetland management would be needed to counteract the resident goose population that would still remain.

**Alternative D– Moderate level of wetlands management with high level of goose management**

⇒ This alternative retains the aggressive goose management techniques, both lethal and non-lethal, and combines it with a less intensive wetlands management plan. This alternative assumes that less aggressive wetland management would be needed if the resident goose population is highly controlled.

**Alternative E – Low level of wetlands management combined with low level of goose management**

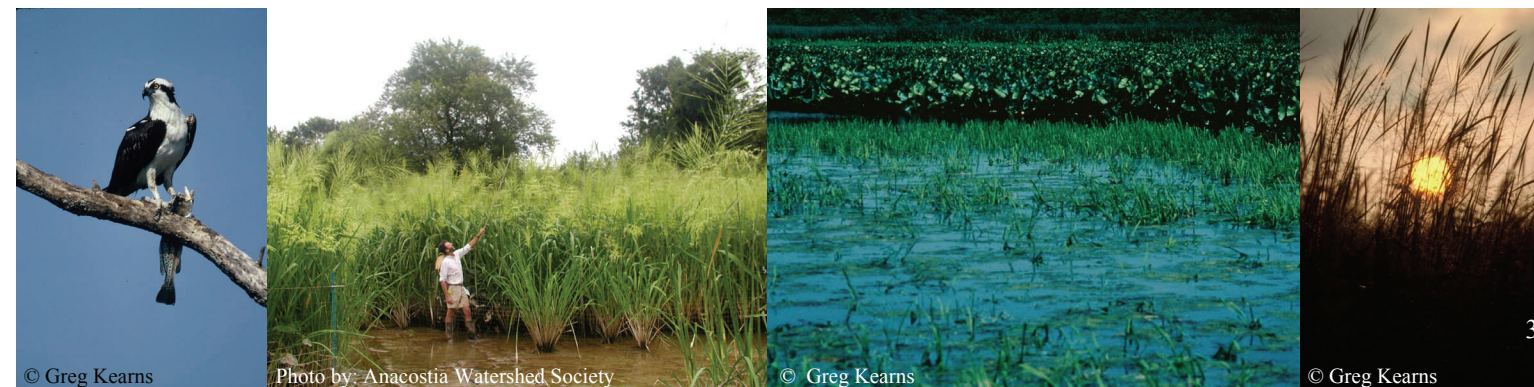
⇒ This alternative combines less aggressive wetlands management options with primarily non-lethal goose management options. This offers the lowest management effort for both wetlands and resident geese.

**Alternative F – No Wetlands management and no goose management**

⇒ This has the same less aggressive wetlands management techniques as Alternatives C & E, but calls for all goose management activities within Anacostia Park to halt.

**Next Steps**

After considering all comments received on the draft alternatives, the park will finalize the draft alternatives and begin to analyze the impacts of the alternatives. After the impact analysis is complete, a draft plan/EIS will be available for public comment.



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GOOSE ELEMENTS	Alternative A – No Action (Current Management)	Alternative B—Very high level of wetland management and very high level of goose management	Alternative C – High level of wetlands management combined with moderate level of goose management	Alternative D – Moderate level of wetlands management with high level of goose management	Alternative E – Low level of wetlands management with low goose management	Alternative F – No Wetlands management and no goose management
<b>Lethal control</b>	Continue goose management activities at same level as current with no lethal controls.	<ul style="list-style-type: none"> <li>Aggressive population reduction by likely killing over 50% of the current resident Canada goose population during first year by: round-up, capture, and euthanasia, and sharp-shooting. Monitor population numbers annually through the life of the plan.</li> <li>Maintain population at sustainable threshold level using similar lethal methods, but likely on a smaller scale, on a regular basis throughout the life of the plan.</li> </ul>	<ul style="list-style-type: none"> <li>Less aggressive population reduction by likely killing under 50% of the current resident Canada goose population during the first year using round-up, capture and euthanasia techniques only.</li> <li>Monitor population numbers annually through the life of the plan.</li> <li>Maintain population at sustainable threshold level using similar lethal methods a maximum of two times if the population is exceeding the threshold.</li> </ul>	<ul style="list-style-type: none"> <li>Moderately aggressive population reduction by likely killing over 50% of the current resident Canada goose population during the first year by round-up, capture, euthanasia and sharp-shooting.</li> <li>Monitor population numbers annually through the life of the plan.</li> <li>Maintain population at sustainable threshold level using similar lethal methods only if the population exceeds the threshold level for two consecutive years.</li> </ul>	<ul style="list-style-type: none"> <li>No initial lethal resident Canada goose population reduction activities.</li> <li>Monitor population numbers annually through the life of the plan.</li> <li>Only resort to likely killing under 50% of the resident Canada goose population using round-up, capture, and euthanasia techniques, one time during the life of the plan if other control methods below do not keep population at sustainable threshold level.</li> </ul>	<ul style="list-style-type: none"> <li>No initial or follow-up lethal resident Canada goose population reduction activities.</li> <li>Halt monitoring of resident Canada goose populations.</li> </ul>
<b>Safety (Management techniques affecting goose safety or preference)</b>	No safety techniques used.	<ul style="list-style-type: none"> <li>Plant 25-50 foot vegetation buffer along shoreline to reduce goose access to wetlands.</li> <li>Install/implement an aggressive program of scare and harassment techniques. Possibly including visual and/or auditory deterrents.</li> <li>Obtain Federal permits and perform nest destruction and removal throughout the park, and especially within the wetlands continuously through the nesting season.</li> </ul>	Same as Alternative B, except <ul style="list-style-type: none"> <li>Buffers only on Kingman Lake and the fringe marshes.</li> <li>Install/implement a less aggressive scare and harassment technique program than Alternative B (minimize the rotation of the techniques to two times per year.)</li> <li>Perform nest destruction only within and adjacent to the wetlands once at start of nesting season.</li> </ul>	Same as Alternative B.	<ul style="list-style-type: none"> <li>Shoreline buffer enhancements are the same as Alternative C, but exclude any areas along the shoreline of Langston Golf Course.</li> <li>Use scare techniques that require limited maintenance in areas near restored wetlands year round.</li> <li>No nest destruction.</li> </ul>	<ul style="list-style-type: none"> <li>Halt ALL current goose management activities, remove all existing goose exclusion fencing,</li> </ul>
<b>Food (Modifications to resident Canada goose food supply and water accessibility to potential wetland plant food sources)</b>	Fence some areas to keep resident Canada geese out.	Alter the existing habitat used for feeding, including: <ul style="list-style-type: none"> <li>Installing and regularly maintaining newly installed and existing goose exclusion fencing throughout all of the restored wetlands where vegetation has not established.</li> <li>Installing soft armoring around the perimeter of all planted areas in the restored wetlands.</li> <li>Increasing the width of low maintenance native vegetated buffers</li> <li>New plantings: use plants that are less desirable to geese.</li> <li>No repellent applications on turf feeding zones.</li> </ul>	Same as Alternative B, except: <ul style="list-style-type: none"> <li>Do not add fencing while regularly maintaining the existing fencing.</li> <li>Only install soft armoring along the edge of the fringe wetlands.</li> <li>Apply approved goose repellants to turf feeding areas yearly. Halt if feeding increases on the wetland vegetation.</li> </ul>	Same as Alternative B, except: <ul style="list-style-type: none"> <li>Install soft armoring only in select wetland areas where geese are gaining easy access to the restored wetlands.</li> <li>Apply approved goose repellants to turf feeding areas during years when the goose population is beginning to increase towards the threshold level to reduce need for lethal controls.</li> </ul>	Same as Alternative C, except: <ul style="list-style-type: none"> <li>Do not install soft armoring techniques.</li> </ul>	<ul style="list-style-type: none"> <li>Halt ALL current goose management activities.</li> </ul>
<b>Reproduction (Modifications that affect nesting and ability to successfully reproduce)</b>	Yearly egg addling.	<ul style="list-style-type: none"> <li>If resident Canada goose populations increase significantly following initial reduction of the population using lethal controls, then increase the egg addling the following year including oiling with corn oil; egg replacement with dummy eggs; and nest destruction.</li> <li>Apply approved goose hatch control materials only during years following a population increase of &gt;20%.</li> <li>Implement use of scare tactics prior to and during nesting season.</li> <li>Following initial reduction in population from lethal techniques, establish resident goose nesting tolerance and no tolerance zones.</li> </ul>	<ul style="list-style-type: none"> <li>Following initial reduction in using lethal techniques, increase egg addling program.</li> <li>Apply approved goose hatch control materials annually</li> <li>No additional scare tactics other than those described above.</li> <li>Establish tolerance and no tolerance zones for nesting.</li> </ul>	Same as Alternative B.	<ul style="list-style-type: none"> <li>Continue egg addling at levels under Alternative A.</li> <li>Do not apply goose hatch control materials.</li> <li>No additional scare tactics.</li> <li>Do not establish tolerance and no tolerance zones for nesting activities.</li> </ul>	<ul style="list-style-type: none"> <li>Halt ALL current goose management activities.</li> </ul>
<b>Cultural/ Education (related to goose management)</b>	Park rangers education when possible.	<ul style="list-style-type: none"> <li>Install and maintain signage to deter park visitors from feeding geese and other wildlife.</li> <li>Change NPS policy to issue fines for feeding waterfowl on park property.</li> <li>NPS partner with Center for Urban Ecology to prepare and provide the public with a more technical brochure that covers lethal controls.</li> </ul>	Same as Alternative B.	Same as Alternative B.	<ul style="list-style-type: none"> <li>All items the same as Alternative B, with the following exception: A technical brochure for lethal control will only be prepared if lethal controls need to be used during later years of the plan.</li> </ul>	<ul style="list-style-type: none"> <li>Halt ALL current goose management activities.</li> </ul>