PARTNER AGENCIES:
DEPARTMENT OF GENERAL SERVICES (DGS),
DEPARTMENT OF PARKS AND RECREATION (DPR),
DISTRICT DEPARTMENT OF TRANSPORTATION (DDOT),
OFFICE OF CONTRACTING AND PROCUREMENT (OCP),
DEPARTMENT OF HEALTH (DOH),
DISTRICT OF COLUMBIA PUBLIC SCHOOLS (DCPS)
OFFICE OF THE CITY ADMINISTRATOR (OCA)

SUSTAINABLE DC MAYOR’S ORDER
Cooperative Plant Management Task Force

LEAD AGENCY: DISTRICT DEPARTMENT OF THE ENVIRONMENT (DDOE)

PARTNER AGENCIES:
DEPARTMENT OF GENERAL SERVICES (DGS),
DEPARTMENT OF PARKS AND RECREATION (DPR),
DISTRICT DEPARTMENT OF TRANSPORTATION (DDOT),
OFFICE OF CONTRACTING AND PROCUREMENT (OCP),
DEPARTMENT OF HEALTH (DOH),
DISTRICT OF COLUMBIA PUBLIC SCHOOLS (DCPS)
OFFICE OF THE CITY ADMINISTRATOR (OCA)

12/10/2014

The Cooperative Plant Management Task Force has developed this report, which makes recommendations on standards for identifying, planting, and cultivating native plants on District government properties, as well as ways to educate the public about the benefits of native plants and the problems associated with invasive plant species, ensure long-term maintenance of areas planted with native species, and manage invasive plants.
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Executive Summary

The Cooperative Plant Management Task Force (“Task Force”), established by the 2013 Sustainable DC Mayor’s Order, is charged with developing standards for identifying, planting, and cultivating native plants on District government properties. These standards will impact how the District procures landscaping and landscape maintenance services, how projects on agency lands are designed and constructed, and how District staff oversee, install, and maintain projects.

This effort is important because landscaping with native plants can help improve the District’s natural and built environment. Areas that are landscaped with native plants will provide benefits to pollinators and other wildlife, and improve retention of stormwater. Selecting and planting native plants that are adapted to the local climate, weather, and soil conditions will result in reduced use of fertilizer and pesticides and will reduce the need to water landscaped areas.

This report includes recommendations relating to the management of both native plants and invasive plants. Invasive plants are non-native plants that cause economic harm, environmental harm, or harm to human health. Invasive plants often have traits such as high seed production, rapid vegetative growth, and the ability to thrive in disturbed areas. With these advantages invasive species out-compete native plants and negatively affect native wildlife, plant communities, and ecosystems.

The recommendations of the Cooperative Plant Management Task Force are grouped into the following goal areas:

**GOAL 1: Develop standards for identifying, planting, and cultivating native species on District properties and grounds.**

ACTION 1.1: Choose the reference texts from which all native plants will be selected.

ACTION 1.2: Develop native planting goals and guidelines for different landscape types.

ACTION 1.3: Embed landscaping specifications with native planting requirements into future District solicitations.
ACTION 1.4: Source the native plants utilized in District plantings from within the Chesapeake Bay watershed.

**GOAL 2: Educate the public about the benefits of native plants and the problems associated with invasive plant species**

ACTION 2.1: Develop outreach program to inform residents about landscaping with native plants.

ACTION 2.2: Develop a native plants webpage within DDOE’s website to disseminate information.

ACTION 2.3: Develop signage to install on-site to educate the public about the benefits of native plants.

**GOAL 3: Ensure long-term maintenance of areas planted with native species**

ACTION 3.1: Develop detailed maintenance plans for public spaces.

ACTION 3.2: Develop and implement yearly training for District employees performing landscape maintenance to familiarize them with the plants in the native plant guide for planting on District lands.

ACTION 3.3: Support development of the Chesapeake Bay Landscape Professional Certification and require landscaping contractors doing business with the District to have landscaping certifications.

**GOAL 4: Manage invasive plants**

ACTION 4.1: Develop a list of invasive plants that should not be accepted for planting on District properties/projects.

ACTION 4.2: Ban the sale and planting of highly invasive plants throughout the District (as listed and ranked by the District of Columbia Cooperative Weed Management Area).

ACTION 4.3: Manage and reduce invasive plants growing on District properties and restore wildlife habitat areas.
Background & Methodology

Background

Action 2.5 of the Sustainable DC Plan (Nature section) states that the District government should “require the use of native plant varieties for all landscaping and plantings on District owned property, including parks and public spaces.” The Cooperative Plant Management Task Force (“Task Force”), established by the 2013 Sustainable DC Mayor’s Order, is charged with developing standards for identifying, planting, and cultivating native plants on District government properties. These standards will impact how the District procures landscaping and landscape maintenance services, how projects on agency lands are designed and constructed, and how District workers oversee, install, and maintain projects. Accordingly, the Task Force created a number of goals toward reaching the ultimate objective of using native plants on District property. These goals are: (1) develop standards for identifying, planting, and cultivating native species; (2) educate the public about the benefits of native plants and the problems associated with invasive plant species; (3) ensure long-term maintenance of areas planted with native species; and (4) manage invasive plants.

Landscaping with native plants can help improve the District’s natural and built environment. Areas that are landscaped with native plants provide benefits to pollinators and other wildlife, and improved retention of stormwater. Native plants are adapted to local climate, weather and soil conditions. Once established, native plants do not need pesticides or fertilizers, and they require minimal watering, which reduces water consumption, pollutants, and stormwater run-off. Furthermore, utilizing native plants can save the District time and money because native landscaping can require less maintenance than beds planted with non-natives or conventional lawn. Most importantly, landscaping with native plants can aid in restoring healthy ecosystems to the District. Many types of animals, such as songbirds, reptiles and amphibians, depend on larval insects (e.g., caterpillars, grubs) for their food. These insects in turn rely on native plants for their food. Many larval insects are extremely limited in what plants they can eat and digest. These animals did not evolve with non-native plant species and cannot rely on them for their food. By extensively planting native plants, the District will accrue the benefits of increased
wildlife and wildlife habitat, improved stormwater retention, and will increase our residents’ connection to nature and provide beautiful, peaceful places to relax.

This report includes goals and recommendations relating to the planting and maintenance of native plants and the management of invasive plants. Invasive plants are non-native plants that cause economic harm, environmental harm, or harm to human health. The recommendations relating to invasive plants were included in this report because the management of invasive plants is complementary to the use of native plants on District lands. As mentioned above, many insects are limited in what plants they can eat and digest, and non-native invasive plants lack the natural predators or inter-specific competition that they encounter in their native ecosystems. Additionally, invasive plants often have traits such as high seed production, rapid vegetative growth, and the ability to thrive in disturbed areas. With these advantages, invasive species out-compete native plants and negatively affect native wildlife, plant communities, and ecosystems. Managing invasive plants and restoring the ecosystem in the forests and meadows of the District complements the use of native plants in landscaped areas.

Standards for using native plants vary at the federal, state and local levels. In 1969, Congress passed the National Environmental Policy Act (NEPA) that provides statutory protection of natural ecosystems on federal lands, and also requires consideration of the environmental implications of re-vegetating federal landscapes with non-native versus native plants. As a response to Executive Order No. 13148, nine federal agencies and 53 organizations created the Native Plant Conservation Initiative National Strategy in 1995 for the protection of native plants. ¹ All federal projects and federally-funded projects are bound by this executive order to landscape using locally native plants and to manage invasive plants to restore the ecosystem. Very few states have fleshed-out policies regarding the use of native plants on their land. Several cities have developed policies on the use of native plants on their land. Seattle, WA has set a goal that 80% of plantings in managed parks should be native and 100% of plants used in natural areas should be native. In the wake of Hurricane Sandy, New York City passed legislation aimed at making the city more resilient to the impacts of climate change. ² One aspect of that legislation was a requirement to update their park design manual to “maximize native planting.”

¹ E.O. 13148
http://www.epa.gov/greenacres/EO13148.pdf
² New York City Local Law 11 of 2013
There are several previous District efforts that touch on the use of native plants in landscaping District-owned lands. These include:

- The District Wildlife Action Plan (DDOE, adopted in 2006)
- The Urban Tree Canopy Plan (DDOE and DDOT/UFA, adopted in 2009)
- The Green Construction Code (DDOE and DCRA, adopted in 2013)
- Green Infrastructure Standards (DDOT, adopted in 2014)

An example of a native plant requirement from the efforts above is the Green Construction Code, which calls for the use of native plants in future development or redevelopment projects and sets a minimum requirement of 50% native planting in these projects.

Although some District agencies have developed policies regarding the use of native plants in carrying out their respective missions, there is currently no unified District policy on the use of native plants on District lands. District government agencies maintain a number of different landscape types including natural areas (wetlands, woodlands, and meadows), low impact development (rain gardens and bioretention cells), planted beds and other landscaped areas around public buildings and in park areas, turf fields (stand-alone and in park areas), green roofs, and roadway tree space and trees in park areas. The Task Force has created a unified District policy on native plants that will help District agencies manage such a variety of planted landscapes in a consistent, coherent manner.

**Methodology**

The following agencies participated in the Cooperative Plant Management Task Force: DDOE, DGS, DPR, DDOT, OCP, DOH and DCPS. Task Force members participated in the Task Force public meetings and considered input received from residents.

The Task Force’s first goal was to develop standards for the use of native plants. The first task was to define what a native plant is and to select a reference text to use as guidance. With the reference text selected the Task Force developed native planting goals and guidelines for a variety of District-owned landscape types, and created landscaping specifications with native planting requirements to be embedded into future District solicitations. Another standard included sourcing the native plants utilized in District plantings from within the Chesapeake Bay watershed.
The second goal was to ensure long-term maintenance of areas planted with native species by developing detailed maintenance plans for public spaces and by developing and implementing yearly training for District employees who perform landscape maintenance. This training will familiarize them with the plants in the native plant guide for planting on District lands. The Task Force also examined development of professional certification of conservation landscaping and a requirement that landscaping contractors doing business with the District have such certifications.

The third goal was to educate the public about the benefits of native plants and the problems associated with invasive plant species by developing an outreach program of workshops to inform residents about landscaping with native plants, and developing a native plant webpage within DDOE’s website to disseminate information. The Task Force also discussed the need for signage at native plant sites to educate the public about the benefits of native plants.

Finally, the Task Force developed actions relating to the management of invasive plants on District property. The Task Force considered how to ban invasive plants from planting on District properties/projects and banning the sale and planting of invasive plants throughout the District. Finally, the Task Force examined how to manage and reduce invasive plants growing on District properties.

Recommendations were decided upon by consensus of the participating members of the Task Force. Recommendations are based upon the expert opinion of the members of the Task Force, and comments from the public. The Task Force defined its recommendations as “short term” if they can be achieved in one year or less and “medium term” for recommendations that will take between one and three years to complete. “Long term” recommendations are those actions that will take over three years to complete.
Findings & Recommendations

GOAL 1: Develop standards for identifying, planting, and cultivating native species on District properties and grounds.

ACTION 1.1: Choose the reference texts from which all native plants will be selected.

a. **Summary:** The Task Force reviewed several existing plant lists and guidebooks for regional native plants that could be used as a reference text of native plants. The Task Force selected *Native Plants for Wildlife Habitat and Conservation Landscaping Chesapeake Bay Watershed*\(^4\). The expert opinion of the members of the Task Force considers this book a well-referenced and useful guide and recommends it to be the definitive list of native plants that are acceptable for planting on District property.

b. **Expected Benefits:** Taking advantage of an existing reference text (instead of developing a new list of native plants from scratch) can save the District resources.

c. **Completion Date:** Short-term.

d. **Fiscal Impact:** N/A

e. **Political/Citizen Impacts:** N/A

f. **Legislative/Regulatory Impacts:** Mayor’s Order selecting or granting authority to select an authoritative text.

g. **Recommendations:** The Task Force’s working definition of native plant is a plant species "that occurs naturally in a particular region, state, ecosystem, and habitat without direct or indirect human actions."\(^3\) In the mid-Atlantic region, this includes plant species that existed prior to European contact, or any plant species that have since been established in the region through natural processes uninfluenced by human activity.


\(^{4}\) Nepstad and Billing, 2002.
Lists of regional native plants are available from several sources. The *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* is the regional reference for all plants, and the authors differentiate between native and non-native plants. Other authoritative and scientifically verified sources include the Smithsonian’s DC Herbarium and the Flora of Virginia. Local governments such as Prince George’s County and Montgomery County, Maryland, and conservation organizations such as the Maryland Native Plant Society have also produced lists of native plants that are commercially available. Other resources include booklets like “Native Plants for Wildlife Habitats and Conservation Landscaping; Chesapeake Bay Watershed” which was created by the U.S. Fish & Wildlife Service.

The Task Force recommends using the book *Native Plants for Wildlife Habitat and Conservation Landscaping Chesapeake Bay Watershed* to be the definitive list of native plants that are acceptable for planting on District property. This book is an existing, well-referenced, and useful native plant list. This book was created by the Chesapeake Bay Field Office of the U.S. Fish & Wildlife Service with the input of twelve state and regional botanists. It contains approximately 490 native plant species that were vetted for their native range, appropriateness for inclusion in the many states and the District that make up the Chesapeake Bay watershed, and for their availability in the commercial nursery trade.

This guide is well-researched, readily available, and generally accepted by land managers, habitat restoration experts and wildlife gardeners as a good reference guide. For practical reasons, the guide limits the number of plant species that it lists as compared to the number of plant species that exist in this region. Although many more plant species exist and more may be commercially available, the species listed in this guide were selected for their hardiness in non-ideal conditions and cultivated landscapes, and for their aesthetic value.

The guide includes photos and information about each plant, such as growth form, flowering period, and the plant’s moisture, soil and sunlight requirements. This

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5 http://botany.si.edu/dcflora/dcherbarium.htm
6 http://floraofvirginia.org/
7 http://www.pgplanning.org/Resources/Publications/Native_Plants_1998.htm
8 http://www.montgomeryparks.org/PPSD/Natural_Resources_Stewardship/documents/nativeplants.pdf
9 http://www.mdflora.org/Resources/Publications/SurveyData/mdchecklist.pdf
information would be valuable to a variety of users: planners, contract specialists, landscape architects, landscapers, and maintenance staff. This information was compiled by a number of experts. Re-creating this information specific to the District would be a large and costly undertaking.

The selected list and guide book was created in 2003 and updated in 2010. The US Fish & Wildlife Service periodically updates the guidebook. The fact that the guide has not been updated since 2010 was not a concern for the Task Force. A list of appropriate native plants such as this is fairly static, and will not change appreciably in the timeframe of the Sustainable DC Plan. The Green Construction Code also references this guide; it defines native plants as plants identified as native to the Chesapeake Bay region in the U.S. Fish and Wildlife Service guide.

The Task Force recommends the use and planting of “straight species”—plants that have not been bred to bring out certain characteristics—in projects that are being installed to improve habitat for wildlife and in natural areas. The Task Force recommends that cultivars be used only in projects that are neither in natural areas nor being installed for habitat. Cultivars are plants that have been selected and bred to maintain or improve a specific characteristic. Cultivars can be noted by the presence of a name in quotations appended to the scientific name. For example, a cultivar of Black-eyed Susan is *Rudbeckia fulgida* ‘Goldstrum’. Allowing the use of cultivars of native plants can provide flexibility in landscaped areas and planting beds because the built environment necessitates planting design that is more responsive to site limitations.

**h. Incentives (if applicable): N/A**

**ACTION 1.2: Develop native planting goals and guidelines for different landscape types.**

**a. Summary:** District government agencies maintain a number of different landscape types. These include:
- Restoration areas (wetlands, woodlands, meadows)
- low impact development (rain gardens and bioretention cells)
- Planted beds and landscaped areas around public buildings and in park areas
- Green roofs
– Streetscapes (road right-of-way tree space)
– Turf fields (stand-alone and in park areas)

Although some District agencies, such as DDOT, have developed policies regarding the use of native plants in carrying out their respective missions, there is currently no unified District policy on the use of native plants on District lands. DDOT’s existing guidelines include a recommended plant list for projects within the right of way which can be found in its Green Infrastructure Standards. Where such policies existed, the Task Force sought to incorporate those policies into the unified policy. A unified District policy on native planting will help District agencies manage District government landscapes in a consistent, coherent manner that proliferates sustainable landscape practices across the government’s many agencies and landscape types. The District policy outlines landscape-specific native planting guidelines and lists the appropriate reference texts.

b. **Expected Benefits:** A unified District policy that will significantly increase the use of native plants on District government lands and will accrue the environmental and aesthetic values described above in the Background section.

c. **Completion Date:** Short-term effort.

d. **Fiscal Impact:** N/A

e. **Political/Citizen Impacts:** N/A

f. **Legislative/Regulatory Impacts:** None anticipated because the action refers only to District lands. All of this can be done by Mayor’s order without legislative or regulatory work. Collectively, these planting goals and guidelines should become the District’s unified policy on native planting. This policy should follow a similar format to DDOT’s Green Infrastructure Standards\(^{11}\) and Greening DC Streets\(^{12}\). The policy should be shared with relevant agencies, and posted on dc.gov.


g. **Recommendations:** The Task Force recommends that the District adopt native planting goals and guidelines based on the type of landscape where planting will occur and the type of landscape desired after planting. Specifically, the Task Force recommends the guidelines on Table 1.

h. **Incentives (if applicable):** N/A
<table>
<thead>
<tr>
<th>Landscape Type</th>
<th>Required Native Planting Usage</th>
<th>Cultivar use</th>
<th>Non-native species usage</th>
<th>Reference Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Areas &amp; Habitat Restoration Areas</td>
<td>100% native species</td>
<td>No cultivars</td>
<td>None allowed</td>
<td>Native Plants for Wildlife Habitat and Conservation Landscaping; Chesapeake Bay Watershed</td>
</tr>
<tr>
<td>Planted or Landscaped Beds</td>
<td>Minimum of 80% native species</td>
<td>Cultivars allowed</td>
<td>Maximum of 20% non-native species</td>
<td>Native Plants for Wildlife Habitat and Conservation Landscaping; Chesapeake Bay Watershed</td>
</tr>
<tr>
<td>Bioretention &amp; Low-impact Development sites</td>
<td>100% native species</td>
<td>No cultivars</td>
<td>None allowed</td>
<td>Prince George’s County Bioretention Manual(^\text{13}); District Department of Transportation Green Infrastructure Standards(^\text{14})</td>
</tr>
<tr>
<td>Green Roofs</td>
<td>Native species should be prioritized</td>
<td>Cultivars allowed</td>
<td>Non-native species allowed. No invasive species allowed</td>
<td>Guide developed by Cooperative Plant Management Task Force (see Appendix)</td>
</tr>
<tr>
<td>Street trees (right-of-way tree planting)</td>
<td>Native species should be prioritized</td>
<td>Cultivars allowed</td>
<td>Non-native species allowed. No invasive species allowed</td>
<td>District Department of Transportation Green Infrastructure Standards</td>
</tr>
<tr>
<td>Turfgrass (athletic fields, picnic areas, other mowed areas)</td>
<td>The use of native species is not required</td>
<td>Cultivars allowed</td>
<td>Non-native species allowed. No invasive species allowed</td>
<td>N/A</td>
</tr>
</tbody>
</table>

\(^{13}\) [http://www.lowimpactdevelopment.org/raingarden_design/downloads/PlantListPGDEP.pdf](http://www.lowimpactdevelopment.org/raingarden_design/downloads/PlantListPGDEP.pdf)  
ACTION 1.3: Embed landscaping specifications with native planting requirements into future District solicitations.

a. **Summary:** The Task Force worked closely with OCP and other procurement stakeholders across the District to identify best-practice guidance on landscaping activities. Ongoing Task Force research will inform solicitation language used in future landscaping procurements. Potential areas being researched and slated for inclusion in sustainable landscaping solicitation language include:
   - Guidance on the use of invasive and native plants when installing and maintaining District properties;
   - Guidance on certification requirements for landscaping contractors;
   - Guidance on native planting maintenance documents that need to be developed for new installation projects;
   - Local sourcing requirements;
   - Guidance on utilizing Integrated Pest Management techniques;
   - Guidance on fertilizer application and storage, and;
   - Waste disposal.

b. **Expected Benefits:** Coordinating the development of landscaping guidance with the development of landscaping specification language makes abundant sense, as contracts can serve as an effective delivery vehicle for policy initiatives. Further, the effort dovetails with OCP efforts to develop “Sustainable Specifications” for a variety of product categories, including landscaping.

c. **Completion Date:** Short-term (first quarter of FY15).

d. **Fiscal Impact:** None anticipated. The process of creating and maintaining the sustainable specifications is already being dealt with in terms of personnel costs.

e. **Political/Citizen Impacts:** N/A

f. **Legislative/Regulatory Impacts:** None anticipated. The new specifications are being developed in accordance with Sustainable Purchasing Program operating procedures, and under the authority of the existing PPRA Green Procurement
Section. Many of the areas that will be covered by the specifications (as listed in the Summary above) will be formalized via Mayor’s Orders.

g. **Recommendations:** OCP and DGS, in collaboration with the Task Force agencies, should develop contract language for grounds maintenance landscaping and for construction focused installation projects that references preferred native plant lists, prohibited invasive plant lists, and minimum requirements for contractor expertise.

Once acceptable language is developed, as determined by OCP in consultation with Task Force members, OCP will integrate sustainable landscaping guidance specifications into its broader Sustainable Purchasing Program (SSP), in accordance with timelines outlined in this report.

Whereas OCP will be able to coordinate the development of grounds maintenance landscaping contracts, it will be incumbent upon DGS and other Independent procurement agencies to develop contract language for construction focused installation projects.

h. **Incentives (if applicable):** N/A

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15 For more information about how specifications are developed, please visit the OCP Sustainable Purchasing Program webpage on the intranet: [http://ocp.in.dc.gov/ocp/cwp/view.asp?a=3&q=502029](http://ocp.in.dc.gov/ocp/cwp/view.asp?a=3&q=502029)
ACTION 1.4: Source the native plants utilized in District plantings from within the Chesapeake Bay watershed.

a. **Summary:** Using native plant species whose genetic material is from the local region, and grown locally, is preferable to sourcing native plants that are shipped from across the country. The Task Force defines “local” as plants that are grown within the Chesapeake Watershed (roughly a 300 mile boundary from north to south surrounding the District). The 300 mile radius includes the Chesapeake Bay watershed while also allowing some flexibility in utilizing growers in other nearby states with similar climatic conditions. States that fall within the boundary include PA, OH, MD, VA, WV, DE, and NJ. Native plants sourced from any of these states would be considered “local” for the purposes of this action. There are many local nurseries that sell native plant species. The UDC native plant nursery (being implemented with SDC innovation grant funding) will also help with supply once it becomes operational in the next year or so.

b. **Expected Benefits:** Sourcing plants locally would ensure that the District obtains plants that are adapted to this area’s climate, and can help keep pests from other parts of the country from coming to the area. Sourcing plants locally also reduces the environmental footprint of shipping trees long-distance.

c. **Completion Date:** Short-term.

d. **Fiscal Impact:** N/A

e. **Political/Citizen Impacts:** None anticipated. Commercial nurseries with natives and native-specific plant nurseries within 300 miles radius are sufficiently numerous to provide contractors with competitive pricing.

f. **Legislative/Regulatory Impacts:** This will be integrated into a Mayor’s Order to implement the native plant guidelines.

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16 It is generally accepted that plants native to the District are a part of the Chesapeake Bay or mid-Atlantic eco-region. The 300 mile boundary was utilized to approximate this region while allowing some additional flexibility by including some states not located in the Chesapeake Bay watershed (OH, NJ, much of DE, WV).
g. **Recommendations:** The Task Force recommends that the requirement for local sourcing of native plants be added to future District landscaping solicitations. Each solicitation should include a list of local wholesale nurseries vendors. Implementing agencies would be responsible for monitoring this action, by verifying that plants purchased for installation projects are locally sourced.

h. **Incentives (if applicable):** N/A

**GOAL 2: Educate the public about the benefits of native plants and the problems associated with invasive plant species**

**ACTION 2.1: Develop outreach program to inform residents about landscaping with native plants.**

a. **Summary:** DDOE recently ended a grant-funded outreach program that included a series of conservation gardening workshops for District residents. Through the workshops, participants learned to create backyard wildlife habitats using native plants. The workshops included two hours of classroom instruction, planting a demonstration garden, and a variety of literature and other materials. The Task Force recommends re-starting this program with 6-8 workshops per year.

There may also be an opportunity to provide subsidies for the installation of native plant gardens under the RiverSmart Homes program, and to create a backyard habitat certification scheme for a variety of yards, gardens and schoolyards.

b. **Expected Benefits:** The creation of more backyard wildlife habitats in the District that utilize native plants.

c. **Completion Date:** Short-term.

d. **Fiscal Impact:** 0.25 FTE + $5,000 annually for supplies. 0.25 FTE is the estimated amount of time needed for a staff person to provide outreach and education to property owners and other interested residents at 6-8 workshops or outreach
events annually; this is based on the amount of time that DDOE staff spent on this previously grant-funded effort.

### Estimated Fiscal Impact: Overview

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Implementation Costs</th>
<th>Operational Costs</th>
<th>Total Costs</th>
<th>FTE Increase</th>
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<tr>
<td>2014</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>2015</td>
<td>N/A</td>
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<td>2016</td>
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<td>2017</td>
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<td>$30,000</td>
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<td>2018</td>
<td>N/A</td>
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<td>TOTAL</td>
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<td>$95,000</td>
<td>$95,000</td>
<td>0.25 recurring</td>
</tr>
</tbody>
</table>

**e. Political/Citizen Impacts:** Residents who are more informed about native plants.

**f. Legislative/Regulatory Impacts:** N/A

**g. Recommendations:** The Task Force recommends re-starting the backyard habitat/conservation gardening program within DDOE to help educate homeowners, landscapers, and developers. The Task Force recommends that DDOE plan and implement 6-8 workshops or outreach events per year. These events should include planting demonstration gardens. There is considerable opportunity to partner with community gardens, conservation organizations, landscape architects, and other programs to implement these outreach activities. Additionally, there is an opportunity for this program to partner with DDOE’s RiverSmart Communities program by coordinating the outreach workshops with the installation of gardens at schools and other sites under RiverSmart Communities.

**h. Incentives (if applicable):** N/A
ACTION 2.2: Develop a native plants webpage within DDOE’s website to disseminate information.

a. Summary: There is currently no webpage within dc.gov that is dedicated to native plants. There is a need to develop a dedicated page that will serve as a portal for property owners, landscapers, and District government staff wishing to obtain more information about native plants.

b. Expected Benefits: Residents, landscapers, and District government staff who are more informed about native plants, and thereby more likely to plant them and maintain them properly.

c. Completion Date: Short-term.

d. Fiscal Impact: N/A

e. Political/Citizen Impacts: Residents, landscapers, and District government staff who are more informed about native plants.

f. Legislative/Regulatory impacts: N/A

g. Recommendation: The Task Force recommends developing a native plants webpage within DDOE’s website that will serve as a portal for homeowners, landscapers, and District government staff on this subject matter. Content should include links to: native plant guides, Mayor’s Orders and legislation related to native planting, sustainable landscaping specifications, upcoming workshops, events and trainings, and relevant photos and maps. DDOE will produce and manage the website content, with input from sister agencies represented in the Task Force.

h. Incentives (if applicable): N/A
ACTION 2.3: Develop signage to install on-site to educate the public about the benefits of native plants.

a. **Summary**: Interpretive signage for native, habitat, and bioretention gardens can be used to raise public awareness of the environmental benefits of these sites. There are a number of signs already installed in the District and surrounding jurisdictions (examples below). Interpretive signs should utilize environmentally friendly materials and simple construction methods, provide legible graphics and text that meet ADA guidelines, explain how the garden works, and provide contact information.

![Figure 1 Source: DDOE](image)
Figure 2 Source: DDOE.

This bioretention area captures and cleans stormwater runoff.

Esta área de retención biológica captura y limpia el agua de lluvia.

For inquiries, contact DC Water at (202) 354-3600 or custserv@dcwater.com

Figure 3 Source: DC Water. This type of sign would be useful in meadows and restoration sites.
b. **Expected Benefits**: Residents and visitors who are more informed about the benefits of native plants.

c. **Completion Date**: Short to medium-term.

d. **Fiscal Impact**: Estimate is for 80 signs installed (10 signs per Ward), using $200 estimated cost per sign. Estimate is based on the cost to design and manufacture signs for a DDOE rain garden project. An additional $10,000 for 80 hours of installation work (assuming $125 an hour) will be added for any contractual installation costs.
### Estimated Fiscal Impact: Overview

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Implementation Costs</th>
<th>Operational Costs</th>
<th>Total Costs</th>
<th>FTE Increase</th>
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</table>

**e. Political/Citizen Impacts:** Residents and visitors who are more informed about the benefits of native plants.

**f. Legislative/Regulatory Impacts:** N/A

**g. Recommendations:** The Task Force recommends that there be a signage requirement for new landscaped sites, such as bioretention areas. For existing sites, the Task Force recommends that each agency identify a list of priority sites that should receive signage. For example, DPR is interested in having signage at the bioretention areas in DPR sites.

The Task Force recommends that funding be made available to enable 80 signs to be placed on existing sites around the city. 80 signs is the equivalent of 10 sites in each Ward, which would allow the best, most visible locations across the city to receive signage.

DGS would coordinate this effort. In FY15, tasks would include working with sister agencies to identify a list of priority sites, and designing the content and format for the signage. In FY16, signage design would be completed and installation would take place.

**h. Incentives (if applicable):** N/A
GOAL 3: Ensure long-term maintenance of areas planted with native species

ACTION 3.1: Develop detailed maintenance plans for public spaces.

a. **Summary:** DGS is responsible for constructing and maintaining District government properties for sister agencies. DDOT’s Urban Forestry Administration designs, builds and maintains the public right of way. DDOE approves landscape maintenance plans for some development projects through its Green Area Ratio and Stormwater Management Plan reviews for associated building permit approvals.

Landscape maintenance plans for District public spaces can help to ensure that the native plants in these spaces are properly maintained. For example, maintenance plans can help landscaping personnel unfamiliar with native species to determine which plants should stay or be removed from the site. In order to ensure that landscape maintenance plans are useful tools for maintenance staff, it is important to coordinate landscape maintenance plan development with the agencies that maintain the landscapes. Landscape maintenance plans should reflect the needs of the landscape as well as the capacities of the agency maintaining the property.

Landscape maintenance plans should also be compatible with other District legislation that requires an Integrated Pest Management (IPM) approach. Responsible agencies have to comply with the Pesticide Education and Control Amendment Act of 2012 and Anacostia River Clean Up and Protection Fertilizer Act of 2012 by following an IPM approach. Stormwater plan submissions for District owned/financed properties in the Anacostia Waterfront Development Zone also require IPM plan submission.

b. **Expected benefits:** In the short-term, there will be aesthetic benefits from healthy vegetation due to proper maintenance. In the long term, less plant replacement will be needed due to proper care of existing plant stock. In addition, landscape maintenance plans using native species will generally require less maintenance than ornamental (non-native) plantings.

c. **Completion date:** Medium term.
d. **Fiscal impact:** One-time cost to hire a consultant to inventory sites, develop a site-specific planting and maintenance plan, and add GIS layer. Source for cost estimate: DDOE’s BMP database cost approximately $250,000, including site visits.

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<thead>
<tr>
<th>Fiscal Year</th>
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<th>Operational Costs</th>
<th>Total Costs</th>
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e. **Political/Citizen Impacts:** N/A

f. **Legislative/Regulatory Impacts:** N/A

g. **Recommendations:** The Task Force makes the following recommendations associated with this action:

- Create a detailed landscape maintenance plan, in binder form as well as GIS, for prioritized landscaped sites that are maintained by the District government. Selected prioritized sites will benefit from a site-specific inventory of plants and maintenance plan. For other sites, a catalog of standard guidelines by landscape type/condition is preferred. All sites should have a physical/digital file with planting plan, standard/custom maintenance guidelines, and other relevant documentation.

- For existing landscapes: agencies should develop maintenance plans for prioritized landscapes. Each agency should develop a list of prioritized landscapes where maintenance plans are most needed. For example, for DDOE, the stream restoration sites would be among the prioritized sites.

- For new construction projects: agencies which maintain the landscape should be required to review the submitted landscape maintenance plan prior to building permit approval. The development of maintenance plans should be a
requirement included in the project solicitation. This review shall be done by staff with horticultural expertise.
Integrated Pest Management (IPM) strategies must be integrated into District landscape maintenance activities through inclusion within new and existing landscape maintenance plans.

h. Incentives (if applicable): N/A

ACTION 3.2: Develop and implement yearly training for District employees performing landscape maintenance to familiarize them with the plants in the native plant guide for planting on District lands.

a. Summary: Numerous organizations in the area can provide training on native plant maintenance and invasive removal. Most of these organizations belong to the District of Columbia Cooperative Weed Management Area, which has many possible instructors and potential curricula. These organizations include DDOE, Anacostia Watershed Society, Student Conservation Association, NPS, UDC, Rock Creek Park Conservancy, and the US Forest Service.

The target audience for the course is the DGS in-house landscaping crew. There is potential for more class participants with public partner groups (friends of, environmental groups, etc.) and the general public.

The curriculum should consist of two full days of training that include the following: classroom presentation with focus on invasive/native plants identification; field class participating in an invasive removal event; field class participating in managing and restoring an overgrown bio retention garden; tree pruning. Training would be provided annually.

b. Expected Benefits: Vegetated areas on District properties that are better maintained.

c. Completion Date: Short-term.
d. **Fiscal Impact:** Estimated cost of $5,000 per training, covering trainer fees and class supplies.

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Implementation Costs</th>
<th>Operational Costs</th>
<th>Total Costs</th>
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</tbody>
</table>

e. **Political/Citizen Impacts:** Greater public enjoyment of public spaces due to better maintained landscapes.

f. **Legislative/Regulatory Impacts:** Depending on how DPR decides to roll out the training, an MOU with UDC may be needed.

g. **Recommendations:** DPR, partnering with UDC, should develop and lead this annual training for District employees who perform landscape maintenance. Tasks include: identify potential partners and instructors, coordinate on curriculum development, solicit participants, determine timing and location of training, purchasing of supplies and equipment. The training should incorporate the reference texts for native species and prohibited invasive species discussed in Actions 1, 2, 11, and 13.

h. **Incentives (if applicable):** N/A
ACTION 3.3: Support development of the Chesapeake Bay Landscape Professional Certification and require landscaping contractors doing business with the District to have landscaping certifications.

a. Summary: The Task Force recommends that the District require that landscaping contractors doing business with the District have minimum landscaping certifications.

Specifically, the Task Force recommends that the District adopt the same certification standards required by the District of Columbia Zoning Commission in the 2013 Zoning Code update that includes the Green Area Ratio. These certifications do not directly address native plants but ensure contractors have competency in general plant care (including natives) through setting minimum standards of competency in landscape maintenance.¹⁷

Additionally, there is a growing need in the District for landscapers trained in Low Impact Development (LID) design, installation and maintenance services but currently there is no local certification for this type of work. A training program is needed to give landscape professionals the skills and knowledge to design, install, and maintain LID practices such as rain gardens, BayScaping (conservation landscaping using plants native to the Chesapeake Bay region), rain barrels and cisterns, bioswales, green roofs, and shade trees.

Currently the Chesapeake Conservation Landscaping Council (CCLC) is in the process of developing a certification scheme. The Chesapeake Bay Landscape Professional Certification will provide a standardized evaluation of the skills and knowledge of landscape contractors that will give local governments the quality assurance they need to report these practices for regulatory purposes. CCLC has secured funds through the University of Maryland SeaGrant for a part time coordinator for the certification and is looking to the Chesapeake Funders Network, National Fish and Wildlife Federation, and the Chesapeake Bay Program for additional funding. The Task Force recommends supporting CCLC’s efforts in developing this certification

¹⁷ For GAR these certifications apply to sign-off of landscape maintenance plans and construction associated with building permit applications. These certifications are also appropriate for determining contractor qualifications for landscape maintenance.
and once it is finalized requiring that contractors working on District lands designing, installing, or maintaining LID green infrastructure have this certification.

b. **Expected Benefits:** Requiring certifications will protect the District’s investments in landscaping and green infrastructure and will help fill an existing gap by developing a landscaper certification for LID practices.

c. **Completion Date:** Short to medium term.

- **Short term:** Adopt landscaper certification requirements as laid out in the Green Area Ratio for the District of Columbia for all landscapers contracted with the District.
- **Short term:** Aid CCLC in developing their Chesapeake Bay Landscape Professional Certification by providing feedback on the development of course curriculum and certification standards.
- **Medium term:** Adopt the CCLC Chesapeake Bay Landscape Professional Certification for all landscapers contracted with the District who perform LID design, installation or maintenance.

d. **Fiscal Impact:** TBD. DDOE staff time would need to be devoted to coordinating the development of design standards and certification scheme curriculum.

e. **Political/Citizen Impacts:** Some pushback possible from landscaping contractors who do not want to pursue the certification.

f. **Legislative/Regulatory Impacts:** No legislative/regulatory impacts anticipated. Certification requirements would be embedded into the landscaping specifications.

g. **Recommendations:** As per the District of Columbia Zoning Commission in the 2013 Zoning Code update that includes the Green Area Ratio, landscaping contractors should be required to have at least one of the following certifications. The specific certifications required would depend on the type of work being performed:
• State of Maryland Certified Professional Horticulturist (ornamental landscapes)\(^{18}\)
• State of Virginia Certified Horticulturist (ornamental landscapes)\(^{19}\)
• Landscape Contractors Association MD-DC-VA Certified Landscape Technician (Turf Maintenance / Ornamental Maintenance)\(^{20}\)
• CCLC Chesapeake Bay Landscape Professional Certification (once established)
• ISA Certified Arborist (shrub and tree maintenance)\(^{21}\)

OCP and DGS should add language to their contracting documents to include landscaping specifications (Action 3) that require landscaping contractors doing business with the District to obtain the relevant certification(s).

Additionally, the Task Force supports the development of the Chesapeake Bay Landscape Professional Certification. DDOE staff would need to meet with the meet with CCLC Training and Standards Committee to determine how the District can best support efforts to develop the certification.

h. **Incentives (if applicable):** N/A

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\(^{19}\) [http://www.vnla.org/Certification](http://www.vnla.org/Certification)
\(^{20}\) [http://www.lcamamdcvaa.org/certification/certifications.cfm](http://www.lcamamdcvaa.org/certification/certifications.cfm)
GOAL 4: Manage invasive plants

ACTION 4.1: Develop a list of invasive plants that should not be accepted for planting on District government properties/projects.

a. **Summary:** Lists of invasive plants have been compiled by a number of regional authorities. These lists have been the Task Force’s starting point, given that they have sufficient backing research and citations. The *Plant Invaders of Mid-Atlantic Natural Areas*\(^{22}\) has a list of 80 common invasive plants. The Mid-Atlantic Invasive Plant Council (MAIPC) has a more extensive list of 280 species\(^{23}\). Other local governments have compiled lists based on local data: Alexandria, VA\(^{24}\), Arlington County, VA\(^{25}\), and Montgomery County, MD.\(^{26}\) The District of Columbia Cooperative Weed Management Area, which includes federal and local government partners (National Park Service, DDOT, DPR, DDOE, and UDC) and regional conservation organizations, is compiling a list for the District. The list will be completed by December 2014, and will be shared with members of the Task Force prior to being finalized.

Many invasive plants are still commercially available, and there is a growing number of common landscaping plants that are becoming invasive in parks and on other forested land. Invasive plant biologists refer to the process of finding and eradicating newly emerging invasive plants as “Early Detection/Rapid Response” (ED/RR). Many of these ED/RR plants appear on the MAIPC list and others are listed by the NPS\(^{27}\). These species are considered important for early detection, so that they can be prevented from becoming pervasive in natural areas.

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\(^{23}\) [http://www.invasive.org/miscweeds.cfm](http://www.invasive.org/miscweeds.cfm)


\(^{26}\) [http://www.montgomeryparks.org/PPSD/Natural_Resources_Stewardship/documents/nativeplants.pdf](http://www.montgomeryparks.org/PPSD/Natural_Resources_Stewardship/documents/nativeplants.pdf)

\(^{27}\) [http://www.nps.gov/cue/epmt/](http://www.nps.gov/cue/epmt/)
b. **Expected Benefits:** Eradication and management efforts can be minimized if these plants are removed from landscaping plant lists so that they are much less commonly planted.

c. **Completion Date:** Development of the District of Columbia Cooperative Weed Management Area’s list is a short-term endeavor.

d. **Fiscal Impact:** None anticipated.

e. **Political/Citizen Impacts:** None anticipated; this action is focused on District government properties.

f. **Legislative/Regulatory Impacts:** A Mayor’s Order banning the use of highly invasive plants (as listed and ranked by the District of Columbia Cooperative Weed Management Area) on District government properties. A Mayor’s Order is sufficient because the scope of this action is limited to government properties/sites.

g. **Recommendations:** The Task Force recommends using the *Plant Invaders of Mid-Atlantic Natural Areas* as the list of banned plants, with additional ED/RR plants to be added by the District of Columbia Cooperative Weed Management Area by December 2014. Once a list for the District is compiled, DDOE would share it with Task Force members prior to being finalized. It would then be disseminated to all government agencies that perform landscaping and planting of any kind. The list should be included in all future District government landscaping contracts and incorporated into training and materials related to the use, planting and procurement of native plants.

h. **Incentives (if applicable):** N/A
ACTION 4.2: Ban the sale, transport, and planting of highly invasive plants throughout the District.

a. **Summary:** Invasive plants are widely recognized as a difficult and imminent threat to wildlife and natural areas. In the District, invasive plants are considered one of the greatest threats to wildlife and wildlife habitat. The effects of invasive plants are reflected in society in the loss or reduction of ecosystem function, aesthetic quality, and economic value. Ecosystem functions such as water quality and wildlife habitat may be degraded by invasive plants. Aesthetic value may be reduced when invasive vines overgrow trees and shrubs or when invasive plants impact the recreational experience by fouling trails, overgrowing native plants and trees or blocking views. Economic value is lost when recreation and tourism diminishes, when agricultural yields are lower, and when land managers must spend time and money controlling invasive plants.

In urban areas where large and suitable wildlife habitats are limited to park land, invasive plants threaten to reduce local biodiversity by overgrowing native plant communities. Many states and cities regulate or restrict invasive plants to varying degrees to combat their social and environmental impacts.

The Task Force proposes the development of legislation that would ban the sale, transport, and planting of highly invasive plant species in the District. A list of invasive plants is currently being analyzed and ranked by the District of Columbia Cooperative Weed Management Area, and will be completed by December 2014. This list will inform the species to be banned through the legislative process. Enforcement and compliance assistance would be targeted at landscapers who install plants on residential and commercial properties throughout the District.

b. **Expected Benefits:** Reduce the spread of highly invasive plant species in the District.

c. **Completion Date:** Medium term (legislation drafted in FY15, and regulations drafted in FY16).

---

d. Fiscal Impact: One FTE (Environmental Protection Specialist) dedicated to enforcing the ban. Depending on the ultimate position description, it may be possible to overlap these duties with the duties of the FTE (Invasive Plant Liaison) described in the next Action item.

<table>
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<th>Fiscal Year</th>
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<th>Operational Costs</th>
<th>Total Costs</th>
<th>FTE Increase</th>
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</table>

- **Political/Citizen Impacts:** Outreach would be needed to homeowners, landscapers, and plant retailers to help them understand the scope of the law and how to comply.

- **Legislative/Regulatory Impacts:** Legislation would need to be drafted. The City of Chicago’s invasive species ordinance[^29] and regulations[^30] can serve as a model ordinance from a city. The state of Maryland has an invasive plant law which can also serve as a model[^31], and the Environmental Law Institute[^32] has developed a model invasive plant law for states. This can be used as reference for a District law.

- **Recommendations:** The Task Force recommends that DDOE take the lead in drafting proposed legislation to ban the sale and planting of invasive plants throughout the District. The proposed legislation would include the following elements:

[^29]: http://www.cityofchicago.org/dam/city/depts/doe/general/NaturalResourcesAndWaterConservation_PDFs/InvasiveSpecies/InvasiveSpeciesOrdinanceArticleXXII.pdf
[^31]: http://mlis.state.md.us/2011rs/chapters_noln/Ch_142_hb0831T.pdf
• Require the Mayor to maintain a list of regulated plant species (i.e., highly invasive plant species);
• Ban anyone in the District from importing, selling, transporting, keeping or otherwise possessing live regulated plant species, as well as releasing or introducing these species into the environment, anywhere within the city;
• Provide exemptions to be considered for zoological, educational, medical or scientific purpose; and
• Authorize the Mayor to promulgate regulations to administer and enforce the legislation, and set fine amounts for violations.

h. Incentives (if applicable): N/A
ACTION 4.3: Manage and reduce invasive plants growing on District properties and restore wildlife habitat areas.

a. **Summary:** DDOE’s Fisheries and Wildlife Division leads invasive plant management in many important wildlife habitat areas in the District, and partners with many other agencies and conservation organizations to do the same on federal and non-federal land throughout the District. Invasive plants are one of the greatest threats to wildlife, wildlife habitat and natural areas in the District. DDOE works to manage invasive plants on District land by performing inventories of invasive and native plants in critical habitats, planning and implementing invasive plant management, and restoring habitats using native plants.

DDOE has also formed and leads the District of Columbia Cooperative Weed Management Area (DC-CWMA). The DC-CWMA is a partnership of local and federal government agencies and local conservation organizations that are working together to manage invasive plants across administrative boundaries in the District. Through the DC-CWMA, DDOE wildlife biologists are aware of, directly involved in, or planning and leading most invasive plant management activities in the District. For instance, the NPS Exotic Plant Management Team does invasive plant management on National Park property, with assistance from partners such as DDOE, the Anacostia Watershed Society, the Nature Conservancy, and the Student Conservation Association.

As mentioned in the background section, invasive plants are non-native plants that lack natural predators and pathogens that are present in the ecosystem where they evolved. These advantages let them out-compete, overgrow and strangle native plants. Invasive plants can reduce biodiversity by growing in large monocultures and out-competing native plants. This results in less available habitat for native plants and the animals that rely on them. They can alter the local soil chemistry and can be inedible or provide little nutrition to native animals. They may change local ecosystems, fire cycles, biogeochemical cycles and local hydrology.

The District is unique in that it has more wildlife habitat than most U.S. cities. This is a result of having approximately 10,500 acres of forests, meadows and wetlands. There is also little heavy industry in the city and many suburban neighborhoods.
Unfortunately, the qualities that give the city good wildlife habitat can also provide a vector for invasive plants to enter the environment.

Invasive plants have moved into many of these parks and natural areas, especially on forest edges and along stream valleys. Most of the large parks in the District are multi-use parks that contain natural areas and recreation areas. These parks may contain forests, shrublands, wetlands and meadows adjacent to picnic areas, ballparks and trails. People using the parks may introduce invasive plant seeds from other locations or may spread the seeds of existing plants. Over-browsing by deer and geese also contributes to the spread of invasive plants into forests and wetlands.

The less dense, suburban areas of the city can contribute to this problem when residents plant non-native plants, especially when those areas are near parks and natural areas. Many of the plants from nurseries and landscapers are exotic plants that have become invasive. Currently, many known invasive plants are still sold at nurseries and are planted in local yards. There is an unknown potential for many exotic plants sold at nurseries to become invasive when the escape into natural areas.

Maintenance and restoration in urban natural areas such as meadows, forests, and wetlands can be challenging because they can require variety of maintenance regimes, such as semi-annual mowing, invasive plant management, extensive planting or seeding, and prescribed fire. These activities require skilled labor and extensive pre-planning, and are difficult to execute in an urban environment.

There is a need for this work to be expanded, in order to reduce invasive plants growing on District properties and restore habitats in an ecologically sound manner.

b. **Expected Benefits:** Greater restoration of wildlife habitat areas.

c. **Completion Date:** Short to medium term (on-going effort).

d. **Fiscal Impact:** Approximately 0.75 FTE is currently dedicated to invasive plant management in the District. The incumbent plans and conducts invasive plant
management projects in natural areas on District land under the US Fish and Wildlife Service’s State Wildlife Grants and other grant programs. One new FTE (Invasive Plant Liaison) is requested to oversee invasive species management citywide. Additionally, 4 seasonal employees (1.0 FTE) are needed to perform invasive plant management and habitat restoration. An estimated $50,000 is needed in one-time funding for equipment and an ongoing $7,500 for supplies.

<table>
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e. **Political/Citizen Impacts:** N/A

f. **Legislative/Regulatory Impacts:** Mayor’s Order or MOU may be required to give DDOE the authority to manage invasive plants in natural areas on District land.

g. **Recommendations:** The Task Force recommends the creation of a dedicated FTE to oversee invasive plant management citywide. The incumbent would serve as a liaison within the District government for agencies that perform invasive plant management and habitat restoration and for agencies that hold land. The incumbent would also serve as a liaison between the district government, federal land managers and conservation organizations to coordinate invasive plant activities in all habitats in the District.

The Task Force also recommends the creation of an annual seasonal (12 weeks per year) team of four persons to manage invasive plants in the District (1.0 FTE per
year. This team can be modeled on the National Park Service’s Exotic Plant Management Teams\(^{33}\).

The Task Force recommends close coordination with the District of Columbia Cooperative Weed Management Area. It recommends that DDOE expand its efforts to survey natural areas for areas impacted by non-native invasive species and over-browsing by herbivores, undertake invasive plant control and herbivore management in areas found to be heavily impacted. The task force recommends that additional resources be identified for staff (or grants) to perform management and restoration in critical habitats.

h. **Incentives (if applicable):** N/A

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\(^{33}\) [http://www.nature.nps.gov/biology/invasivespecies/EPMT_teams.cfm](http://www.nature.nps.gov/biology/invasivespecies/EPMT_teams.cfm)
### Timeline

<table>
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<tr>
<th>Fiscal Year</th>
<th>Event/Action</th>
<th>Notes</th>
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</table>
| 2014        | • Choose the reference texts from which all native plants will be selected (Action 1.1)  
               • Develop native planting goals and guidelines for different landscape types (Action 1.2) | • Actions 1.1 and 1.2 have been completed by the Task Force |
| 2015        | • Q1: Meet with Chesapeake Conservation Landscaping Council to determine how to best support the certification effort (Action 3.3)  
               • End of Q1: DC Cooperative Weed Management Area completes prioritized list of highly invasive plants (Action 4.1)  
               • Q2: Embed landscaping specifications with native planting requirements into future District solicitations. (Action 1.3)  
               • Q2-Q3: Mayor’s Order is drafted and signed (for Actions 1.1, 1.2, 1.4, 4.1, 4.3)  
               • Q3: Draft and introduce legislation to ban the sale and planting of highly invasive plants (Action 4.2)  
               • Q3: Develop and launch native plants webpage (Action 2.2)  
               • Q3: Begin sourcing the native plants utilized in District plantings from | N/A |
<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Event/Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>within the Chesapeake Bay watershed (Action 1.4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Q3: Begin requiring landscaping contractors doing business with the District to have landscaping certifications (Action 3.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Q4: Develop signage designs (Action 2.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Q4: Write RFP for consultant to develop maintenance plans (Action 3.1)</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>• Q1-Q3: Develop and launch outreach program to inform residents about landscaping with native plants. (Action 2.1)</td>
<td>• Actions 2.1, 2.3, 3.1, 3.2, 4.2, and 4.3 are dependent on funds being made available for these efforts starting in FY 16</td>
</tr>
<tr>
<td></td>
<td>• Q1-Q3: Complete signage design and install signs (Action 2.3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Q1-Q4: Develop detailed maintenance plans for public spaces (Action 3.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Q2-Q3: Develop and implement training for District employees performing landscape maintenance (Action 3.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manage and reduce invasive plants growing on District properties (Action 4.3)</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>• Ban of sale and planting of highly invasive plants begins (Action 4.2)</td>
<td>• Action 4.2 is dependent on legislation and funding</td>
</tr>
</tbody>
</table>
Appendix

Recommended Plant List for Extensive Green Roofs – District of Columbia

Extensive green roofs, those with soil depths less than 6-inches, require use of hardy succulents (ex: *Sedum*, *Delosperma*) and drought tolerant accent species. Green roof plant species must be capable of surviving in soils of limited depth and additionally be adaptable to stresses such as wind, heat, high building reflectivity, and fluctuating moisture conditions. Ideal green roof plants are low to the ground, have fibrous root systems, spread quickly, and are tolerant of drought and inundation.

Groundcovers provide the dominant vegetative coverage on extensive roofs. Choose a minimum of 5-6 groundcover species to allow adaptation to various roof microclimates. Accent plants are slow to spread and may have limited longevity so they should be used as a minor component of the planting plan.

The plant list below includes a sampling of species suitable to District green roofs however this list is not exhaustive.

**Extensive green roofs – Hardy selections**

<table>
<thead>
<tr>
<th>Scientific Name (and Common Name)</th>
<th>Sun Exposure</th>
<th>Moisture</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allium schoenoprasum (Chives)</td>
<td>Sun/Partial</td>
<td>Dry</td>
<td>Accent</td>
</tr>
<tr>
<td>Delosperma nubigenum &quot;Basutoland&quot; (Ice Plant)</td>
<td>Sun</td>
<td>Dry/Medium</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum album (White Stonecrop)</td>
<td>Sun</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum album ‘Murale’</td>
<td>Sun</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum hybridum ‘Immergrunchen’</td>
<td>Sun</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum kamtschaticum ‘Weihenstephaner Gold’</td>
<td>Sun/Partial/Shade</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum reflexum ‘Blue Spruce’</td>
<td>Sun</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum sexangulare (Tasteless Stonecrop)</td>
<td>Sun/Partial/Shade</td>
<td>Dry/Medium</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Sedum spurium ‘Fuldaglut’</td>
<td>Sun/Partial</td>
<td>Dry</td>
<td>Groundcover</td>
</tr>
</tbody>
</table>
Few native plant options exist for use on extensive green roofs. To ensure long-lasting and viable vegetation, only use natives in combination with hardy species that provide proven green roof coverage.

### Extensive green roofs – Native species¹ ²

<table>
<thead>
<tr>
<th>Scientific Name (and Common Name)</th>
<th>Sun Exposure</th>
<th>Moisture</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allium cernuum (Wild Nodding Onion)</td>
<td>Sun/Partial</td>
<td>Dry/Medium</td>
<td>Accent</td>
</tr>
<tr>
<td>Sedum telephioides (Allegheny Stonecrop)</td>
<td>Sun/Partial</td>
<td>Dry</td>
<td>Groundcover/Accent</td>
</tr>
<tr>
<td>Sedum ternatum (Mountain Stonecrop)</td>
<td>Shade</td>
<td>Medium</td>
<td>Groundcover</td>
</tr>
<tr>
<td>Opuntia humifusa (Prickly Pear)</td>
<td>Sun</td>
<td>Dry</td>
<td>Accent</td>
</tr>
<tr>
<td>Talinum teretifolium (Fameflower)</td>
<td>Sun</td>
<td>Dry</td>
<td>Accent</td>
</tr>
</tbody>
</table>

**Sources:**

