

PLAN AMENDMENT
Natural Landscaping at County Facilities
Interagency Stakeholder Meeting
April 8, 2019
Herrity Building, Room 107
1:00 PM-3:00 PM

MEETING NOTES
(updated April 24, 2019)

1. Introductions of meeting participants:

- Joe Gorney, Ellen Alster (DPZ)
- Charles Smith, Hugh Whitehead, Suzanne Foster, Carey Needham, Brian Keightley, Eric Forbes (DPWES)
- Lisa Gossard (BDB)
- Eileen Gasteiger (BDCD DPWES)
- John Stokely, Andy Galusha (FCPA)
- Anne James, Greg Prelowicz (Fairfax Water)
- Laurie Stone, Kirsten Schenider (FRD)
- Kevin Brooks (Library)
- Tony Esse (HCD)
- Chris Caperton (OCR)
- Larry Magni (FCPD)
- Shane Flanigan (FMD)
- Chris Scales (NCS)
- Laura Grape, Maria Harwood (NVSWCD)
- Guy Mullinax (FCDOT)

2. Introduction to the Policy Plan Amendment (Joe Gorney)

- BOS authorization of the Plan Amendment
- Overview of the proposed Plan Amendment

3. Overview of the natural landscaping concept and the interagency natural landscaping committee review process leading to the development of the Plan Amendment (Hugh Whitehead & Charles Smith)

4. Open discussion: Opportunities, impediments, and concerns associated with implementation of natural landscaping at county facilities.

Discussion included the following topics. A more detailed list of comments is included as an attachment:

General Themes and Comments

Natural landscaping seeks to improve the ecological function of each site within the context of individual land uses and with consideration of a client's needs. While a natural

landscaping approach promotes a common set of principles, which can be applied across the county, the application of natural landscaping to individual sites may result in different approaches being applied to each site and different aesthetics for each. As an example, a community center may be designed to maximize immersion of its users into a garden while a landfill might provide a meadow habitat without public access. Both these facilities might be designed differently than a public safety facility, which would have special security and visibility requirements. Additionally, lawns and turf grass areas will continue to be desirable recreational amenities to be incorporated into public spaces across the county, as appropriate. However, the county should critically assess the extent of these turf areas to determine whether portions of turf could be converted into ecologically functional natural landscapes, while protecting and enhancing the viability of the turf areas.

As new landscapes are installed and existing landscapes replaced, designs and plantings should adhere to natural landscaping principles, while recognizing that thoughtful management of these areas will be needed. While native plants are generally tolerant of local weather conditions and adapted to local soils, temperatures, and rainfall, urban conditions might create harsh micro-climates that should be considered when choosing plants for an area.

The public may also consider natural landscaping as “weedy” and/or unkempt. One solution is to incorporate mowed grass strips or edging materials around natural landscape areas to clearly define them. Well-designed spaces with carefully chosen plants, informed site preparation, increased attention during site establishment, and continuing maintenance are all important to the success of natural landscaping.

The internal staff stakeholder group would allow people with diverse experiences to work together to find workable solutions for the creation and maintenance of ecologically-functional landscapes.

Applying Natural Landscaping to Current Landscapes

It would be helpful for the internal stakeholders to create a natural landscaping toolkit with templates that could be used by all Fairfax County agencies. Such a toolkit could include: (i) resources for seeding; (ii) a list of nurseries/suppliers of native plants and seed mixes; (iii) contracting resources. Staff could meet periodically to discuss the toolkit.

As plants die, they should be replaced with native species. Such a practice would greatly expand our native landscaping efforts to existing, previously-developed sites. Funds could be allocated to the Department of Facilities Management (DFM) and other departments for the removal of dead and risk trees and their replacement with native species. To facilitate these actions, a natural landscaping fund could be established for tree replacement and the conversion of selected turf grass areas into meadows.

The initial cost of installing plant materials is only one of the factors to be considered in the success of natural landscaping. Adequate funding of maintenance is also critical and should be incorporated into the county budget for each project. The county already incorporates maintenance expenses into budgeting for other CIP projects, such as buildings and solar

facilities. This practice should apply to natural landscaping measures, as well. Contracts could also consider invasive species management in mowing contracts. Finally, as county sites incorporate natural landscaping, some may require public comment.

Agencies also have the opportunity to apply for the funding for natural landscaping conversions through the county's Environmental Improvement Program (EIP). Annual awards of up to \$70,000 per application could be granted for tree replacements, the conversion of lawns into meadows, and/or the control of invasive plant species on County properties.

Maintenance and Monitoring

Once natural landscapes are established, they tend to require less maintenance and should ultimately cost less to maintain, since they would then require less watering, pruning, and weeding than a traditional landscape. Additionally, natural landscaping would encourage a community of plants in multiple layers, including groundcovers, shrubs, and trees. Less space between plants reduces the need for mulch and reduces the opportunities for invasive plants to become established and spread. Plants also reduce the energy of rainwater and trap sediment. Natural landscaping also considers the spaces below the surface of the ground. Roots can aerate the soil, keep soil in place, and crowd out weeds and invasives. Additionally, many natives can make use of the existing soils without the need for costly soil amendments. While control of invasive species may be required during a landscape's establishment, once established, landscapes designed using natural landscaping principles are less dependent on herbicides, such as glyphosate, to control invasives. However, while a natural landscape may ultimately be more resistant to invasives, such plants are expected to be a continual maintenance concern. Invasives can be spread by wind, by birds and other animals, by people, and from other plantings.

Overall, the biggest impediment to fully implementing natural landscaping is long-term, post-establishment maintenance. While an established natural landscape may ultimately require less maintenance, getting to the point that the landscape is stable may take several years and would require expertise, management, and resources. A cultural shift needs to occur in both maintenance managers and the public to both appreciate natural landscaping and to understand how to establish and maintain natural landscapes. Maintenance managers and the public are accustomed to basic tasks, such as mowing lawns and using leaf blowers to clear leaves and cut grass. Such limited functions would need to be expanded to manage natural landscapes.

Natural landscapes require intensive effort during the "grow-in" period. It may be instructive to compare our maintenance requirements to federally permitted projects, some of which require plant monitoring annually for the first three years. Subsequent monitoring reports are required 5 and 10 years afterwards. Such requirements help to ensure the successful establishment of natural landscapes.

The Maintenance and Stormwater Management Division (MSMD) of DPWES has taken steps to minimize confusion with complex planting plans for regulated stormwater management facilities by creating maintenance cards that delineate what is located where.

This is especially important during the dormant periods of maintenance. MSMD works to control invasive species at some locations. These stormwater management facilities can be very time consuming and costly to maintain due to mortality and invasive species infestation. Further, MSMD does not train maintenance contractors on implementation or maintenance of natural landscapes designs, or even landscaping in general.

The Facilities Management Department (FMD) is a key link in any discussion of natural landscaping. FMD evaluates contact performance, which may include penalties if maintenance is not done per specifications. New Requests for Proposal (RFPs) offer an opportunity to update practices to promote natural landscaping. Vendors are starting to adhere to practices of natural landscaping.

Maintenance should be approached holistically and adapted to a project's specific needs, which may vary among departments and sites. Natural landscaping maintenance practices could be taught to the Sherriff's labor force, who could be responsible for less specialized tasks. Additionally, less frequent landscape maintenance is desirable for secure areas associated with public safety facilities. Each time outside maintenance staff work in these areas, special security measures are necessary. Outdoor lighting is another maintenance consideration and should be checked periodically to ensure that plants do not obscure lighting. If so, adjustments may be necessary.

Fairfax County is "starting from behind" in regards to the establishment of natural landscapes due to the presence of non-native invasive plants, both in managed and unmanaged areas. VDOT's seed mixes formally contained invasive non-native plants. County properties might also be planted with non-native plants, some of which are invasive.

Recommendations Regarding Contractors and Contracts:

Contractors will need to become knowledgeable of natural landscaping practices. Some already are becoming knowledgeable. The county could also update its contracts in the contractor registry and increase the use of contractors who are knowledgeable in natural landscaping. The county might also take advantage of the MWCOG [rider clauses](#) in order to use contracts from other jurisdictions, such as Arlington's native plant contract. Finally, the county could develop and distribute a list of local nurseries growing native plants. The use of native plants has increased in the private sector in the last few years and nurseries are starting to meet this demand.

Landscaping should be installed at the appropriate time of year. Landscape failure is often caused by installation at inappropriate times, such as August (the hottest time of the year), in order to meet a ribbon-cutting deadline. Stormwater Planning Division (SWPD) specifies plant submittals three months in advance of installation. Plants must be obtained from nurseries within a 250-mile project radius. For each planting, it is also important to hold contractors to contract submittal dates regarding plant procurement. This is often poorly enforced, allowing contractors to delay procurement until close to the installation date and to then use whatever plants are available, which might not be the desired species.

Green Roofs

Green roofs incorporate natural landscaping when landscape approaches replicating native ecosystems are used. Both extensive green roofs (roofs with shallow growing mediums of 3-6 inches) and intensive green roofs (roofs with deeper planting mediums of 6 inches or more) can incorporate natural landscaping. Intensive green roofs may include all plant types and sizes; extensive green roofs generally include only shallow-rooted plants. The majority of the green roofs that MSMD maintains are not planted with native species, but do provide an opportunity for retrofit.

Community Gardens/Edible Plants in the Landscape

Community gardens and Natural Landscaping can co-exist and complement each other. Natural landscaping does not seek to preclude these community amenities. Food security is a growing concern and edible landscapes can help address this issue. Community gardens can be tailored to a group's objectives. Such gardens are often sponsored by Master Gardeners, 4H, and other non-profit organizations. Natural landscaping, such as a meadow, located adjacent to a community garden would help to form a natural pest barrier, as parasitoid insects and their indigenous host plants form a system of natural pest control for the nearby edible plants.

Another option is a permaculture, which seeks to create an agriculturally productive system with the diversity, stability, and resilience of a natural ecosystem. Woodlawn Manor, located within the Route 1 Corridor, is working to establish such a system, including fruiting trees as part of a native food forest.

Recommendations Regarding Volunteers

Volunteers are often used to maintain landscapes. However, volunteers are not "free" but require management by the county. Garden clubs, similar to contractors, require clear guidance. Volunteer groups should be included as stakeholders in discussions regarding natural landscaping. Fairfax County Parks Authority (FCPA) already has programs and procedures in place for volunteers.

While volunteer help is invaluable, participation might be inconsistent or unreliable and can wax and wane from year to year. A decline in participation is typical for gardens and landscaped areas following installation. Finding ongoing participants is important for the long-term success of these endeavors. Coordination with volunteers/garden clubs and contractors on a site-by-site basis is necessary along with the clear delineation of areas that volunteers will maintain. The default is that an area will be maintained by a contractor. Too much volunteer activity can also become a problem if plantings are modified or planting areas expanded without coordination with the county.

Liability/insurance is an issue for projects that make use of volunteers. A memorandum of understanding (MOU) should be developed for volunteers working on county properties.

Education/Partnerships

Natural Landscaping can be made more successful through building and strengthening partnerships with local groups, including the Chesapeake Bay Landscape Professionals, the

Virginia Cooperative Extension, and the Virginia Nursery and Landscape Association (VNLA). (The “Chesapeake Bay Landscape Professional (CBLP) Program is a system of materials and consistent instruction across the region, creating a community of certified professionals to be better stormwater partners and environmental stewards.” (<https://cblpro.org/>)).

Education can include the marketing of natural landscaping among constituents using placards and other means and the highlighting/promotion of projects where natural landscaping was used, such as the Northern Virginia Soil and Water Conservation District (NVSWCD) annual Sustainable Garden Tour (Sunday, June 9, 2019, 1:00-5:00 PM).

Natural Landscaping Examples

A variety of sites throughout the county have been converted from traditional to natural landscapes:

- Through the Virginia Conservation Assistance Program (VCAP), NVSWCD has facilitated over 100 natural landscaping projects in Fairfax County. VCAP is an urban cost-share program that provides financial incentives and technical and educational assistance to property owners installing eligible Best Management Practices (BMPs) in Virginia’s Chesapeake Bay watershed.
- Claudia West, a co-founder of Phyto Studio and landscape designer (formerly with North Creek Nurseries in Landenberg, PA), designed a meadow at the Oakton Library with plants 12-15 inches on-center. No mulch was needed. The initial planting cost was higher because more plants were required, but less maintenance was required afterward.
- The I-95 landfill was previously mowed like a lawn. Staff are converting portions of the landfill site to a meadow habitat and have partnered with George Mason University to host honey bees.
- Select areas of the Fairfax County Government Center offer examples of natural landscaping and the Mount Vernon Government Center grounds are being renovated to incorporate natural landscaping features.
- The Reston Association has established a demonstration garden for the Comprehensive Plan’s Reston Specific Streetscape at its Central Services Facility on Sunset Hills Road.

5. Closing

- Next steps:
 - Planning Commission Environment Committee meeting:
 - Thursday, April 25, 2019, 7:30 PM
 - Board of Supervisors Conference Room, Government Center
 - Discussion of spin-off topics at future meetings.
 - Inclusion of volunteer groups in future discussions.
 - Inclusion of Suzie Battista (OCR), Adria Bordas (Cooperative Extension), and Chad Crawford (DPWES) in future group emails.

ATTACHMENT STAKEHOLDER COMMENTS

- **General Themes and Comments:**
 - Natural landscaping cannot be done with a cookie cutter approach but should take into account the client's needs. A community center would be designed much differently than a landfill. Landscapes around public safety facilities have special security and visibility requirements.
 - Natural landscaping can occur anywhere. Lawns and turf grass areas will continue to be recognized as desirable recreational amenities to be preserved and maintained. However, Fairfax County has more turf grass areas than needed with the potential for these areas to be converted to natural landscapes.
 - As new landscaping is installed and existing landscaping is replaced, it should adhere to natural landscaping principles.
 - A healthy forest is a managed forest.
 - Native plants are generally tolerant of local weather conditions.
 - The purpose of this group is to bring diverse experiences together.

- **Recommendations for Converting Current Landscapes to Natural Landscaping:**
 - Create a natural landscape toolkit with templates that can be used by all Fairfax County agencies. Include resources for seeding and a list of nurseries growing native plants. Include contracting that all agencies can use. Meet periodically to discuss the toolkit.
 - As trees die, replace them with native species. FCPA removed 1,100 risk trees last year, many of them ash.
 - Allocate funds in FMD's and other departments' budgets to do remove dead and risk trees and replace them with native species. Establish a tree replacement fund.
 - Consider multiple factors besides the initial cost of installing a new tree as replacement tree budgets are established.
 - Establish a maintenance fund for meadows as areas are converted from turf grass to meadow.
 - Incorporate invasive species management into mowing contracts.
 - As County sites are converted to natural landscaping, some, but not all, will require public comment.
 - Advocate for adequate funds for maintenance of natural landscaping in County budgets. The County incorporates maintenance expenses into budgeting for other CIP projects, such as solar.
 - Apply for funding through Fairfax County's Environmental Improvement Program (EIP) for natural landscaping conversions. Yearly awards of up to \$70,000 per application could be granted for replacing trees, converting lawns to meadows, and controlling invasive species on County properties.

- **Natural Landscaping Examples:**
 - NVSWCD through the Conservation Landscaping Program implemented over 100 natural landscaping projects in Fairfax County. These were mostly done by HOAs and places of worship. It was funded through the state through a cost share program.

- Claudia West designed a meadow with plants 12-15” on center at the Oakton Library. No mulch was needed. The initial planting cost was higher because more plants were required, but less maintenance was required afterward.
 - The I-95 landfill was mowed like a golf course in the past. Seeding has now been changed to a more natural type for select areas.
 - Portions of the Fairfax County and Mount Vernon Government Centers contain examples of natural landscaping prototypes.
 - The Reston Specific Streetscape planting is a private sector example of natural landscaping on a Reston Association property.
- **Maintenance and Monitoring:**
 - The biggest impediment to fully implementing natural landscaping is long-term, post-establishment maintenance.
 - Maintenance should be adapted to a project’s specific needs and may vary within County departments. It should be approached holistically. Landscape maintenance on government-owned properties is typically the responsibility of FMD, FCPA, or FCPS, as applicable. Facilities Maintenance Department (FMD) is a key link.
 - The target audience for the Maintenance and Stormwater Management Division’s (MSMD) Contractor Awareness Training program are stormwater facility maintenance companies responsible for maintaining regulated stormwater management facilities. However, the effort has never promoted natural landscaping or other techniques.
 - Natural landscaping should cost less to maintain, since it requires less watering and pruning. Less space between plants reduces the need for mulch and the chance of invasive species occurring. Once natural landscapes are established, they tend to require less maintenance.
 - A cultural shift needs to occur in both maintenance managers and the public. Maintenance managers are accustomed to mowing grass and using leaf blowers. The public is also accustomed to these traditional maintenance practices and often considers natural landscaping weedy and unkempt in appearance. Mixing in grass strips to define and delineate natural landscape areas is a solution and compromise.
 - Natural landscapes require intensive effort during the “grow-in” period. Federally permitted projects require plant monitoring annually for the first three years. Subsequent monitoring reports are required 5 and 10 years afterwards.
 - Ponds within Fairfax County facilities have maintenance cards that provide maintenance instructions. Annual inspections require invasive species to be noted and treated. Photographs are taken at monitoring points to observe year-to-year changes. Documentation is key to long term project success. This information is critical in maintaining consistent practices if a change in maintenance contractor were to occur.
 - FMD evaluates contact performance, which may include penalties if maintenance is not being done per specifications. New RFPs provide an opportunity for updating practices that promote natural landscaping. Vendors are starting to adhere to newer practices of natural landscaping.
 - Covering the ground with layers of plants knits the space together and forms a continuous landscape.

- Natural landscaping maintenance practices could be incorporated into the Sheriff's labor force. They could be used for less specialized tasks.
 - Reduced use of mulch lessens fire risk. Mulch is highly flammable. A cigarette butt dropped in mulch can cause a fire.
 - With glyphosate currently in the news, reducing its use seems prudent. While control of invasive species is required during the grow-in period, once established, landscapes designed using natural landscaping principles are much less dependent on glyphosate.
 - Fairfax County is "starting from behind" in establishing natural landscaping due to the presence of non-native invasive plants. VDOT's seed mixes formally contained invasive non-native plants.
 - Less frequent landscape maintenance is desirable for secure areas associated with public safety facilities. Each time outside maintenance staff works in these areas, special security measures are necessary.
 - Outdoor lighting should be periodically checked in regard to plants. As plants grow, they often obscure lighting, and adjustments may be necessary.
- **Recommendations Regarding Contractors and Contracts:**
 - Educate contractors in natural landscaping practices. Some already are becoming knowledgeable.
 - Update contracts in the contractor registry. Increase use of contractors in the contract registry.
 - Install landscaping at the appropriate time of year. Landscape failure is often caused by installation at inappropriate times, such as August, in order to meet a ribbon cutting deadline.
 - Hold contractors to contract submittal dates regarding plant procurement. This is often poorly enforced, allowing contractors to wait until the last minute and to then use whatever is available.
 - SWP specifies plant submittals three months in advance of installation. Plants must be obtained from nurseries within a 250-mile project radius.
 - Increase use of the [rider clause](#) in order to use Arlington's native plant contract.
 - Develop and distribute a list of local nurseries growing native plants. The use of native plants has increased in private sector the last few years and nurseries are beginning to meet this demand.
- **Green Roofs:**
 - Green roofs incorporate natural landscaping when landscape approaches replicating native ecosystems are used.
 - Both extensive green roofs (roofs with shallow growing mediums) and intensive green roofs (roofs with deep planting mediums) can incorporate natural landscaping. Intensive green roofs include all plant types and sizes; extensive green roofs include only shallow-rooted plants.
- **Community Gardens/Edible Plants in the Landscape:**
 - Community gardens/edible plants can co-exist and complement each other. Natural landscaping does not seek to preclude these community amenities.
 - Food security is a growing concern.

- Community gardens can be whatever a group wants them to be. They often are sponsored by Master Gardeners, 4H, and others.
 - A decline in participation often occurs for gardens and landscaped areas. Finding ongoing participants can be difficult.
 - A community garden in Greenbelt harvested the fruit of mulberry trees.
 - Parasitoid insects and their indigenous host plants are good for edible plants.
 - Woodlawn Manor is an example of fruiting trees in a native food forest.
 - Meadows located adjacent to a community garden form a natural pest barrier.
- **Recommendations Regarding Volunteers:**
 - Develop a memorandum of understanding (MOU) for volunteers working on County properties. Garden clubs currently work independently from one another. Currently there are no MOUs for garden clubs.
 - Garden Clubs, similar to contractors, require guidance. Too much activity can become a problem – it can seem like the “wild west.” Some libraries have been overplanted by volunteers.
 - Coordinate with volunteers/garden clubs and contractors on a site-by-site basis. Clearly delineate areas that volunteers maintain. The default is that an area will be maintained by a contractor.
 - Garden club and volunteer participation is not consistent or reliable and can wax and wane from year to year.
 - Volunteers are not “free” but require management by the County.
 - Fairfax County Parks Authority (FCPA) has programs and procedures already in place for volunteers.
 - Include volunteer groups as stakeholders in this discussion.
 - Liability/insurance is an issue with volunteers.
- **Education/Partnerships:**
 - Build/strengthen partnerships with local groups including the Chesapeake Bay Landscape Professionals, the Virginia Cooperative Extension, and Virginia Nursery and Landscape Professionals Association (VNLA).
 - Improve marketing of natural landscaping among constituents using placards and other means.
 - Highlight and promote past examples where natural landscaping was used.