Natural Landscaping at County Facilities
Planning Commission Environment Committee
September 26, 2019

Stakeholder Feedback & Staff Response

<u>Definitions</u>
- Traditional Landscaping
  - Aesthetics are primary concern, both in design and plants (colorful blooms)
  - Static aesthetic
  - Landscape to be viewed, often from a distance
  - Inputs are required, often synthetic (fertilizers)
  - Mowed grass as a default
  - Maintenance geared toward mowing, edging, and leaf-blowing
  - Resources shunted or taken off-site (grass clippings, water, leaves, branches)
- Natural Landscaping
  - Guiding principles: Preservation, conservation, and regeneration
  - Ecologically resilient landscapes
  - Protect, restore, and enhance ecosystem services
  - Use of locally-native plants for wildlife habitat and biological diversity (leaves, pollen, nectar)
  - Primacy of ecological processes (pollination); provides habitat and food for wildlife
  - Maintains/recreates healthy soil ecosystems
  - Seasonal variation (blooms, plant forms, color)
  - Reduced material inputs (water, fertilizers)
  - Retain resources on-site (grass clippings, rain water, leaves, branches)
  - Landscapes as extensions of the buildings; invite people into the landscapes; allow closer inspection (paths, shade, seating); provides health benefits to people (employees, community members)
  - Maintenance geared toward management of desired plants (weeding, burning)
  - Includes a management plan for the management of invasive plants

<u>Design considerations</u>
- Recognize the characteristics of human-dominated landscapes
  - Soils will be dramatically altered
    - Top layers removed; sub-soils compacted
    - Soils necessary for construction (compacted, stable sub-soils) do not match those necessary for planting purposes (which are aerated and contain organics)
- Connect planting areas; increase rooting areas
- Simplify planting plans; plant in masses (aids in maintenance)
- Preserve soils and avoid compaction
- Where soils are impacted, rebuild soils, to include aeration and the integration of organic matter into the soil profile

- Keep water on-site
- Requires knowledge of plant species – cultural requirements; heights; habits; bloom sequence

Landscape Functionality
- Uses locally native plants appropriate for site conditions
- Cleans and cools the air
- Conserves and cleans water
- Provides wildlife habitat and biological diversity
- Pollination
- Water storage and flood control
- Organics decomposition and soil fertility; promotes healthy soils
- Erosion and sediment control
- Conserves energy, reduces waste, minimizes/eliminates the use of pesticides and fertilizers
- Promotes human health and well-being

Planting Considerations
- Soil preparation
- Right plant, right place (provenance, growing conditions, (sun, heat, water, oxygen))
- Establishment phase is critical (watering)
- Appropriate planting season
- Bigger is not always better (smaller trees)
- Invasives/weed management/removal
- Diverse and dense collection of species
- Rough up the sub-soil; create an interface
- Clays – nutrients, stable, cation exchange
- Incorporate plants with a history within the place
- Use safe deicing products
- Take topsoil off and reuse it
- Use perennials
- Use regionally-appropriate plants
- Soils, waters, and plants are living systems – protect during construction
- Landscape provides ecosystem services
- Landscape improves and provides greater benefits with age
- Water is an expensive commodity
- Engage the public

STAFF COMMENTS
August 14, 2019

DPD: Joe Gorney, Ellen Alster, Ellen Huber, Yvonne Goh, Suzie Battista
DPWES: Alex Darr, Suzy Foster, Martha Sansaver
BDCP: Eileen Gasteiger
DCCS: Michael Liberman
FCPA: Samantha Wangsgard, Owen Williams, Kristen Sinclair
FMD: Shane Flanagan
MSMD: Karlee Copeland
NVSWCD: Maria Harwood
UFMD: Brian Keightley, Hugh Whitehead

Ecological Functionality
- Differentiate between traditional and natural landscaping
- Plant natives
- View the landscape as infrastructure rather than merely decoration/artifice
- Recognize that ours are human-dominated/impacted landscapes. The built environment contains various plant stressors not always experienced in a natural setting (reflected light, heated pavements, salt spray, excess nutrients, compaction, limited planting areas)
- Simplify the planting plans for ease of maintenance. Assume that installers do not have advanced plant knowledge
- Consider plant cultural requirements and habits, such as heights
- Specify straight species whenever feasible. Use only cultivars with demonstrated/researched ecological functionality
- Limit the use of lawn where reasonable. Use mowed grass as an edging to define planting beds

Qualified Consultants
- Design for implementation and maintenance
  - Consider access, use, lines of sight
  - Solicit feedback regarding maintenance during design
  - Design so that plantings can be easily maintained by contractors
- Select design consultants with experience in natural design and applicable certifications

Design Standards
- Use existing on-site resources. Conserve ecological resources during design
- Use a design standard, such as the Sustainable Sites Initiative (SITES)
- Include green roofs
- Consider plant heights and habitats near sidewalks, rights-of-way, & trails
- Build in flexibility in plant palette
- Design landscape both vertically and horizontally. Consider rooftop and side areas, particularly with high-density, tall, mixed-use projects,

<u>User Needs</u>
- Consider landscape functionality in facility design
- Understanding user needs and maintenance practices. View site holistically and incorporate context-sensitive designs
- Recognize that user needs and site use may change over time

<u>Expectations</u>
- Consider differences between new facilities and retrofits
- Integrate methods, such as mowed edges, to give natural landscaping a well-managed appearance.
- The public's input on landscapes is often to plant more flowers. What might convince them to accept a possibly-new aesthetic? However, clients are seeking natural landscaping.
- If planted at smaller sizes, plants often will outperform larger-size plantings.
- Trees and large shrubs should be planted for their ultimate size.
- Densely planted groundcover plants will require less mulch.
- Would like to see design as an iterative process, with multiple opportunities to review plans (i.e., 35% or earlier). Do we have this capacity? Otherwise, plans may be difficult to implement.
- Use a holistic interagency design process with feedback loops with appropriate consideration of design, implementation, and maintenance.
- Adhere to an environmental review process early in the planning and/or pre-concept phases to preserve existing natural areas as much as possible. Consider an environmental impact process for government facilities. Follow county policies and regulations.
- Address natural landscaping at planning and pre-concept phases to reduce impacts to greenfields and maximize preservation.
- Incentivize the performance of private firms that accurately submit plans through quicker approvals.
- How do we write specifications to get contractors to give us the design we want? Programs like Envision (for infrastructure) or SITES (for landscapes) could be used. Environmental committee comprised of representatives from multiple agencies could be formed to provide comments on public projects.
- Develop contract specifications so that we achieve the desired design objectives.
- Consider designing in-house.
- Ensure erosion control seed mixes do not contain invasive species (VDOT).
- Failure in design often results from a failure to communicate with other agencies and/or to factor in outside design constraints.

<u>Implementation</u>
- Regulatory guidance
  - Public Facilities Manual (PFM) and Zoning Ordinance (ZO)
  - Evaluate current standards
  - Define criteria for trees, shrubs, and soils. LDS and UFMD will use these to evaluate plans
  - Create a separate landscape manual
- Native species – 90% or more with 100% regionally-appropriate (i.e., no invasives)

- Ensure plantings occur during the appropriate season. Do not base planting time and stock size decisions on ribbon-cuttings.
- Soils should be graded to keep water on site and require less supplemental irrigation.
- Take the proper steps to aerate soil prior to planting.
- On important sites, use our own experts or hire landscape specialists to manage projects and inspect. Use county staff with in the implementation phase. Hire a horticulturist with specialized education to oversee implementation.
- Do we have sufficient staff to inspect? Do we need new staff to apply environmental review to Fairfax County projects in order to assure excellence in public projects?
- Inspect stock in nursery; enforce transportation specifications. Ensure appropriate manager is at the site to accept plants. Oversee installations. Specifications could require the inspection of plant material and soils etc. by a licensed professional under the jurisdiction of the general contractor.
- Break off the landscape contract from the general contract to have greater control.
- Support county projects as demonstrations to provide inspiration to the private sector.
- Ensure proper care during the establishment phase, which may be over several years. Consider 2-year bond for landscaping.
- 90 days before planting, or 30 days after notice to proceed, provide proof of plant sourcing

Maintenance
- Warranties are typically for one year. Vendors often wait until the end of the warranty period to replant. Contracts should stipulate that plants are to be replaced when they fail, not merely prior to the final inspection.
- Track the cost and benefits of natural landscaping versus traditional practices over time.
- Pictorial operations and maintenance manuals, including videos, would be helpful. When a HVAC system is handed over, it goes through a formal hand-off process to county staff. The same should be done for landscapes.
- We use third-party inspectors for LIDs. Landscapes should consider the same.
- Consider the integration of all site needs and requirements.
- Salt is an issue. Landscapes should have a winterization program. Protective fencing, sweeping of unused salt, and designs that funnel runoff away from planting beds are possible measures to protect soils and plants.
- Partner organizations: Audubon at Home, Plant NOVA Natives. Volunteers could maintain and inspect plantings, perhaps adopt a BMP or landscape bed. Educate community groups and volunteers in proper maintenance. Encourage "ownership" of landscape by community members.
- Training and information are critical. Expand maintenance contracts to include maps of responsibility areas, planting patterns, species of interest, and plant identification.
- Clearly define responsibilities for maintenance between agencies.
- Choose contractors with Chesapeake Bay Landscape Professional (CBLP) certification or MSMD training to ensure knowledge of maintenance practices.
- Create hard boundaries between areas that receive different maintenance treatments.

COMMUNITY COMMENTS
August 20, 2019

Community Members:
Glenda Booth - ASNV, Friends of Dyke Marsh
Diana Carter - VNPS/AAH
Susan Demsko - FMN
Suzanne DoRick - FMN
Alan Ford - VNPS
Renee Grebe - EQAC
Jeanne Kadet - Tree Commission, FMN
Cathy Ledec - FMN
Betsy Martin - AAH
Donna Murphy - VNPS
Mark Murphy - VNPS
Jerry Peters - NVSWCD, FMN
Barbara Ryan - FMN

Staff:
Joe Gorney - DPD
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Clarification
The Natural Landscape Plan Amendment will be a part of the Public Facilities element of the
Policy Plan portion of the Comprehensive Plan:
- Several community members thought the Plan Amendment was too limited in scope and
  should be applied universally. However, Objective 6 is intended to be added on page 4 of the
  Public Facilities element of the Policy Plan:
  - https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/policy/pubfacilities.pdf
- County-wide environmental goals are included in the Environment element of the Policy
  Plan:
  - https://www.fairfaxcounty.gov/planning-development/sites/planning-development/files/assets/compplan/policy/environment.pdf
- Previous work was accomplished on the Natural Landscaping plan amendment in 2007. A
  landscape manual was written at that time, but never adopted or released. Stakeholders
  expressed interest in seeing that document.
- It was explained that the policy plan provides guidance, but is not regulatory.

<u>Suggested Edits</u>
- Restating the objective as "Design, retrofit, and maintain public facilities and sites using the principles of natural landscaping in a sustainable and resilient manner."
- Mention the following:
  o Biodiversity
  o Reducing heat around buildings
  o Long-lived plant communities
  o Aesthetics
  o Watersheds
  o Improvement of water and air quality
- Link this objective to the Chesapeake Bay Ordinance
- Add "to the greatest extent possible" to the directives
- In the definition of natural landscaping, replace "removing invasive species" to "controlling invasive species."
- Revise "grass" to "turf grass"
- "Natural" is a 1990s term and is dated.

<u>Questions</u>
- How have other jurisdictions, such as Arlington County and Montgomery County, defined and talked about the natural landscaping topic? They are ahead of Fairfax County in this regard. We should talk to Brian Keightley, who came to Fairfax County from Arlington County. We should build on what others have done if it works for us, rather than start from scratch.
- Is there a difference between native and natural?
- Is there a difference between sustainable and natural?
- Is there an industry-wide definition for natural landscaping? If so, what is it?
- How is the success of natural landscaping measured? Is there any data?
- Should this be linked to LEED or Earthcraft? Is there a measurable and already accepted standard for natural landscaping that we can refer to?

<u>Final Comment</u>
"Conceptually it's all there in the current version of Objective 6. We can debate every word and comma for another 15 years."