

**Improving Tree Canopy and Natural Spaces on APS Properties:
White Paper Assessment by the Forestry and Natural Resources Commission
4/1/25**

*The following analysis was developed by the Forestry and Natural Resources Commission after in-person consultations with staff members of Arlington Public Schools (APS) and the Arlington Department of Parks and Recreation (DPR). This analysis was undertaken to address **Strategic Direction # 1.1.7 in the Forestry and Natural Resources Plan (FNRP)**. The FNRP was adopted in December 2023 as a critical element of the Arlington County Comprehensive Plan that sets forth the defining vision for the county's land use and environmental sustainability. The purpose of this analysis is to provide an accurate description of current responsibilities and practices, and to convey ideas for improvements that were identified by staff.*

The Current Situation

APS properties have significant natural areas, green space and mature trees that require ongoing maintenance to ensure the health of these natural resources, as well as student safety. Maintenance needs include management of invasive plants in natural areas of APS properties. In addition, many school properties have locations where new trees could be planted and natural settings enhanced, particularly for schools in south Arlington. There seems to be broad recognition among both school and county leaders and staff that having more trees that are better maintained and natural areas that are free of invasive plants would provide many benefits, including improved storm water retention, carbon capture and cooling effects, habitat enhancement, major educational opportunities for students, and reduced collateral impacts from invasives on adjacent residential and park properties.

Arlington has an administrative separation between school properties and county lands, with parallel but separate management and budget structures to oversee and maintain the tree stock within their purview. The APS budget and staff allocation for tree and natural resource management is extremely small and is tied in with other non-tree responsibilities. An estimated 90% of the 30 acres of natural land on APS properties, crucial areas with high natural resource value, is unused by the schools and not maintained at all. There are no formal mechanisms in place to promote collaborative maintenance and tree planting initiatives. APS staff responsible for these duties (operational maintenance staff, which often is the janitorial staff) lack formal training in tree care and landscape maintenance in general. Given the breadth of issues that schools deal with on a daily basis, the maintenance and improvement of the large natural areas on each property are not a priority.

Despite these organizational barriers, staff for both APS and DPR recognize the great value of trees and natural spaces on school lands. Staff expresses enthusiasm for the opportunities that exist to plant more trees, create more natural spaces that would have learning benefits for students and parents, and greatly improve the maintenance of existing natural resources – trees, gardens, landscaping, and woods.

APS operations staff (primarily Steven Bernheisel) and DPR urban forest and natural resources staff (primarily Vincent Verweij and Jennifer Soles) collaborate as much as they can, given the lack of a formal

structure and relatively limited resources to do so. Higher level management coordination takes place biweekly and tends to focus on recreation areas (playing fields), schedule coordination, nature centers, and programs, but not so much on trees and natural spaces. APS staff expresses great appreciation for DPR's expertise and assistance, noting that APS staff with many duties simply cannot match DPR's capabilities. DPR staff expresses recognition of APS's efforts to do the right thing with the expertise and resources they have at their disposal.

DPR does not plant and maintain trees on APS properties regularly, except for limited exceptions. Examples of current DPR support for APS maintenance of natural resource assets on school properties include: risk assessment consultations on specific tree health and safety issues, land disturbance permits reviews, advice and guidance on invasives management, assistance with volunteer efforts to remove invasive infestations, and planting of new trees (with APS having responsibility for watering). A recent example of this ad hoc coordination is the recent procurement by DPR of a grant to plant 100 trees on school properties in south Arlington.

Barriers to Efficiency and Tree Canopy Restoration

APS and DPR staff members are justifiably proud of their cooperative working relationship and the many successful accomplishments of their ad hoc collaboration. However, staff also notes that their joint progress will continue to be limited by the following institutional and logistical barriers:

- 1) APS space limitations: Schools struggle with capacity issues on grounds that must be used to address a broad array of community needs (e.g., athletic fields and facilities used for APS and county needs). The space available for tree planting is therefore limited.
- 2) Competing APS priorities: Given many competing interests and priorities of the school system, the maintenance and enhancement of natural areas and tree canopy on APS properties is a relatively low priority, to the detriment of this valuable natural resource. Also, some school leaders may not support a greater DPR role in managing school properties.
- 3) Tree planting standards: Trees sometimes are planted where the soil has not been properly amended and prepared, resulting in a much lower rate of young tree survival. Staff characterized this problem as "throwing away money" on new tree planting.
- 4) Lack of funding for tree and natural area maintenance: APS allocates an annual budget for facility maintenance and capital projects, of which only a small amount (around \$25K) is earmarked for grounds maintenance across the entire system. Tree and natural resource improvements, plus related priorities for improved stormwater management, are "unfunded mandates" from the county that APS strives to meet but lacks the empowerment and resources to do so.
- 5) Lack of APS staff: There simply are not enough staff persons on the APS operations and maintenance staff to address landscape issues like tree maintenance, watering, planting, invasive removal, etc. APS operations and maintenance staffers have many non-nature duties

involving school facilities and properties. APS crews can deal with emergency tree issues, with advice from the Urban Forester. But APS often relies on a citizen volunteer tree steward to do essential tree pruning of small trees across all properties and a recent retiree volunteer to refill tree water bags on APS grounds.

- 6) Lack of APS staff expertise: In addition to the lack of available APS staff, the current staffers are not trained arborists and, in fact, usually do not have training that enables them to address tree and natural resource issues at all.
- 7) Lack of consideration for the Forestry and Natural Resources Plan (FNRP): With the relative newness of the FNRP (December 2023), there is an apparent lack of awareness or appreciation for the Plan's content and status as an element of the Arlington Comprehensive Plan. As a result, the mandates and recommendations regarding the role and value of natural capital have not been prioritized in APS operations or resource allocation.

Opportunities for Improvement

APS and DPR staff members have identified a number of actions that could build upon the current cooperative relationship between the two organizations to improve the efficiency and effectiveness of tree and natural resource management of APS properties. Several ideas address opportunities to enhance Arlington's tree canopy through more aggressive and systematic tree planting throughout the county, including on APS properties (as called for in the FNRP). There are ideas for improving the overall quality of natural areas (including invasives management) as well. All of the suggested actions below can be done within the county's existing legislative and legal framework.

- 1) Tree inventory: Conduct a plantable space inventory of specific locations on all APS properties where trees can be planted without impinging upon playing fields and other facility needs (e.g., Kenmore and Carlin Spring field conversions). This can be done relatively quickly and at low cost, since staff already has maps of school properties and have a good idea of where tree planting opportunities exist.
- 2) Invasives inventory: Conduct an inventory of the level of invasives infiltration on all APS properties using DPR's existing rubric for prioritizing park land for invasives management.
- 3) Tree planting and invasives management plan: Create a systematic plan for planting trees on APS properties in locations identified in the property inventory exercise and for removal and ongoing management of invasive plants in natural areas of APS properties. The plan should address resource, timing, and ongoing maintenance responsibilities. Creation of a tangible plan will provide a stronger rationale for increased funding for both a proactive APS tree canopy restoration program and a regular invasives management program. The plan could include contracted management by DPR of relatively small natural areas on APS properties.
- 4) Land conveyance: Convey forested land on select APS properties that will not be used for future construction or playing fields back to the county. APS already has done this, with very positive

outcomes (e.g., at Taylor). Several additional locations already are known to be good candidates for such a land swap (e.g., at Randolph, Oakridge, Jamestown, Gunston and Claremont). Conveyance of small natural areas to the county would enable much more efficient property management, including consideration of enhancement opportunities beyond simple maintenance as is the current practice on park lands.

- 5) Planting protocols: Establish protocols for major soil improvement where trees will be planted. One way to ensure proper planting is to require APS contractors (in procurement requests) to follow the county's established tree planting best management practice standards.`
- 6) Staff training: Set up a basic "how to" training program for APS field crews and contractors, providing them with simple but essential information on how to recognize problems and apply fixes themselves or to notify the proper DPR contacts for expert handling.
- 7) Early collaboration opportunities: Proactively find and empower areas of "easy" collaboration and sharing of expertise between DPR and APS, similar to what is done to ensure efficient vehicle maintenance and operation.
- 8) DPR lead for trees and natural areas: DPR assumes tree and natural resource management on APS properties, with a well-defined process established to ensure joint communication, coordination, strategic planning, budgeting, and operational management. With this operational change, APS properties would be incorporated into DPR's overall tree planting and maintenance plans. This approach is supported by APS staff as a viable option.
- 9) Allocate adequate resources: Provide resources to APS and/or DPR in both capital and operational budgets to support modest expansion of tree and natural resource management, particularly if DPR takes on a leadership role. This requires recognition of the multiple benefits to APS of enhancing the size and health of its tree canopy, as called for in the Forestry and Natural Resources Plan. Explore how the stormwater fund could provide resources, given the significant green infrastructure role that mature trees provide on all APS properties. *See recommendation 15, below.*
- 10) Mobilize volunteers: Proactively create and empower a program to foster organized volunteer involvement through such organizations as the Tree Stewards, Master Naturalists, PTAs, and high school students. Program creation would be led by APS. Oversight of these efforts, including guidance on tree protection "do's and don'ts", would be provided by DPR. Volunteer efforts should focus first on invasives management. DPR already works with students and many other volunteers at a smaller scale.
- 11) Share mulch: Allow APS to obtain mulch from county supplies instead of spending commercial rates to purchase mulch from Merrifield or other commercial vendors. This collaboration could be extended to leaf pick-up as well in the fall, so that APS can contribute organic material to the county's mulch supply.

- 12) Maintenance cycle: Address elements of the FNRP for APS properties in the same way that they are being applied to county properties. A prime example is the creation of a rotating DPR maintenance cycle for trees on APS properties (e.g., 5 years).
- 13) Single point-of-contact: Designate and empower a single POC within APS with the responsibility and sufficient resources to oversee the management of natural spaces on the grounds of all APS properties, and to serve as the primary staff liaison between the county's Urban Forester, natural resource specialist, and primary operations and maintenance managers in APS.
- 14) Trees and natural spaces only: Limit joint programs to just tree planting and tree and natural land maintenance, not gardens, because the amount of available lands for improved tree canopy is limited and because of limited resources. Landscaping and gardening initiatives can be taken on by volunteer groups.
- 15) School Board endorsement: Raise these recommendations as a priority issue for the School Board. The FNRC has recommended a stronger recognition of nature as an important feature in education with actions that address the enhancement of biophilic spaces, places, and activities as part of the daily experience of every student and employee in the APS system.

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