

To: Town of Vienna Mayor and Town Council
From: Scott Diffenderfer
CC: Leslie Herman, Jeremy Edwards, Christina Caplan
Date: 10/20/2022
Re: Urban Tree Canopy Report Recommendations

Tree Canopy Assessment for the Town of Vienna - October 2022

A. Project Discussion

To follow up on the presentation made at the Town Council Conference Session on October 17, 2022. As time was limited we did not get a chance to review our recommendations and maybe completely answer all the questions so, I will try to provide additional details.

The main purpose of the Urban Tree Canopy Assessment (UTC) was to simply establish a baseline for implementing an Urban Forestry Management Plan (UFMP) for Vienna. The UTC is the first step of several and, will be developed based on the baseline data obtained by the assessment and the information we will receive by doing the next step which is the Town's tree inventory. As evidenced by discussion Monday's meeting, there are many facets to this and many factors that influence what ultimately becomes the Urban Forestry Management Plan.

Council members Somers, Brill and Anderson mentioned we should identify our top two or three prime objectives and that is reasonable. Below, a list of recommendations resulting from our review of the UTC analysis is provided in order of priority. Please note, priority is different from importance because the level of importance is uniform. Priorities however deal with the realities of time, budget, and necessity.

B. Project Recommendations (*in order of priority*) - Staff recommends that Council discuss the study results, review staff recommendations, and provide guidance on supporting the staff goals.

1. Determine the canopy coverage percent goal for the Town of Vienna. Currently it is 38.7%. Staff recommends a goal of 50% to match Fairfax County's existing canopy coverage.
2. Establish bonding for new landscape plantings (trees) used to satisfy the minimum tree canopy coverage requirement – ensures the landscape planting survives the first year.
3. Restructure the Parks and Recreation Department to include a Tree Care Division, (details of the benefits to the Town by doing this will be provided upon completion of the tree inventory).
4. Recommend conducting another Tree Canopy Assessment Study in 5 years. This will provide accurate data to determine if the Town's 20% minimum tree canopy requirement and other initiatives are effective at increasing the Town's overall canopy percentage.
5. Develop a Vienna Tree Citizen Involvement Program led by the Conservation and Sustainability Commission – would generate public engagement and encourage residents to plant on their private property.
6. Establish a minimum 20% tree canopy coverage in 10 years. Currently the Town's policy is 20% tree canopy coverage in 20 years. The Town has sent this item to Richmond through our state legislators a number of times with no success.
7. Adopt a Tree Bank Program – if builders are unable to plant sufficient quantity of trees on their lot to meet the minimum canopy coverage requirement. Funds can be collected to plant trees on public property thereby helping to meet the 20% tree canopy coverage just not completely on their lot.
8. Establish an Urban Forestry Management Plan – (a brief description about the benefits of doing this is forthcoming).

C. Discussion

1. ***How many trees?*** Councilwoman Patel discussed the idea of the benefits of planting and Councilman Potter discussed how many trees to plant in order to achieve canopy coverage goals and if each house planted one tree. The math I used to determine the increase in canopy value we talked about was based on 1) the total number of homes in Vienna is 5532 (taken from Census data); 2) each house would plant a tree that we typically give a canopy coverage value of 300 ft², in 20 years. That planting scenario yields 38 acres of canopy coverage credit and that ups the total canopy to 40% which is 1.3% greater than current coverage (I said 2% in the meeting but upon checking my notes I found the value to be less). Another way to put this is 1 tree per house yields a little more than 1% in canopy increase. That equates to planting 50,000 trees if we want to achieve a 50% canopy goal. Keep in mind, this does not account for existing tree growth, tree loss, or development pressures. Nor does it account for the effort by the Town to increase canopy coverage along streets, rights of ways, parks, facilities, etc.
2. ***Canopy Coverage.*** In 2011, Vienna had a canopy coverage value of 44.5%. The loss in canopy is attributable to development pressure (particularly in the southwest quadrant of town), tree mortality, and possibly limited planting activities town wide. Due to several limiting factors, the Town did not maintain planting efforts at a level that would contribute markedly to the canopy as well. The derecho in June 2012 may also have had an impact on the Town's tree canopy but there are no records available to substantiate this. Once the tree inventory is in place, we will be able to track the maintenance and history of any tree within our database, then we will know where and why canopy coverage changes. To improve the canopy coverage for Vienna, just planting trees may not be the entire answer. Tree preservation needs to be considered also. We are limited to maintaining a 20% canopy coverage on all single-family zoned development sites where the planned project exceeds 2500 ft² and that is typically done by one of three ways. The developer maintains enough existing tree canopy and meets the required 20%, the developer removes some of the existing canopy and plants enough trees to get canopy credit for the difference so that the post-construction site has at least 20% credit with the combination of preserved trees and planted trees, or all the trees are removed, and the entire canopy credit comes from newly planted trees. In rare instances, a lot may not have any trees to begin with so it will still be necessary to plant the required amount of trees to get to the 20% credit. If we can keep a

larger portion of existing trees (medium to large sized trees), the long-term benefits will provide greater canopy enhancement, assuming the retained trees survive. Also, we should look at the landscape and tree preservation requirements for commercial, multi-family low density, and townhouse zones that have lower canopy coverage requirements. These zones account for at least 10% of the Town's land area (7.3% of which is commercial).

3. **Public Engagement.** Councilman Brill's suggestion to have regular tree-related article in the "Voice" is a good start to this. But there should be a concerted effort to engage the community about the importance and care of our Town's trees. The Conservation and Sustainability committee does a wonderful job of this, but their efforts are also limited. A separate Tree Commission may be the avenue to bring forth significant action towards community awareness and involvement with tree issues in Vienna.
4. **The 20-20 or 20-10 rule.** If we are able to enact legislation that allows Vienna to use the 20-10 rule for canopy preservation, it will require us to put some thought into how to implement a reasonable procedure. The easy answer is to plant more trees. The reality is that many of Vienna's lots sizes are quite small. Most new homes are built to the setback limits and that leaves little room for more trees. Establishment of a tree bank is a way to offset this issue. We will not always be able to plant the trees that are "banked" at or near the site that created the "banking" however. May be or not be a problem but it should be considered. Trees benefit the homeowner, but they also provide benefit to the Town as a whole and to the general location they were removed from. We will do an analysis on how best to deal with this and hopefully address this in the most feasible way. Currently, the Town does not require street planting as part of the plan approval process, and we are missing a terrific opportunity to plant trees. The number of trees to plant will be determined by road frontage with at least 1 tree being planted on each new site.



There are many variables to consider when developing an Urban Forestry Management Plan. Council support is at the top of these considerations. I left Monday's meeting feeling support from Council is in place. I got the sense that all of us agree we need to move forward with improving Vienna's tree canopy, now we need to figure out how to do it and do it in a way that provides the residents of Vienna with a viable and healthy environment. As Vienna's canopy grows, the ecological and environmental benefits of improved canopy coverage grow and improves too. Thank you all for your support and interest, please reach out to us with any questions. I can be reached at scott.diffenderfer@viennava.gov or 703/255-6358.

Respectfully submitted,

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Urban Arborist

Town of Vienna