12. Urban Forestry

Proposal

Add policies to recognize the importance of preserving and growing the urban forest through the establishment of long-term goals and implementation of strategic planning for a vital resource that is continually threatened by increasing urban density. Specifically:

- *PN3.2. Measure the tree canopy and set a city-wide target for increasing it through tree preservation and planting.*
- *PN3.4. Evaluate the environmental, ecologic, health, social and economic benefits of the urban forest.*
- *PN3.5. Provide new trees with the necessary soil, water, space, and nutrients to grow to maturity, and plant the right size tree where there are conflicts, such as overhead utility wires or sidewalks.*

Background

The City of Olympia has had an established Urban Forestry Program since 1991, and has been a 'Tree City USA' for over 16 years. Urban Forestry has long been a valued program in Olympia; residents have come to know and value trees through such education and planting programs as NeighborWoods, which provided free street trees to Olympia residents for over ten years. Community members recognize that trees contribute greatly to the livability of the City and provide a multitude of important environmental benefits.

Chapter 16.60 of the Olympia Municipal Code regulates tree protection and removal in the City. New land development sites are required to retain existing trees, and plant new ones. Existing properties are required to maintain a minimum number of trees. While these regulations have been very effective in bringing attention to the need for mature tree preservation, and have retained hundreds of acres of mature trees that might otherwise have been removed, the City is still experiencing an overall loss of tree canopy. Reasons for this vary, but include new land development, removal of mature trees in residential areas, removal of trees in downtown or dense commercial areas that have "outgrown" their planting locations, removal of trees that have became hazardous to people or property, and competition from invasive species, such as English ivy.

Tree canopy coverage goals have been successful nationwide as catalysts for tree planting campaigns and other kinds of community involvement in urban forest management. To date, the City has completed an initial tree canopy cover measurement, but has not used the data to determine an appropriate tree canopy coverage goal. When last measured in 2010, Olympia had approximately 30% City-wide tree canopy coverage. Many communities strive for 30% overall tree canopy. Further analysis could identify how that percentage may be preserved or increased by examining where tree coverage is minimal, where there are potential locations for planting more trees, and where it can be anticipated we

will see future tree canopy losses due to new land development. A detailed canopy cover analysis, or an on-the-ground tree inventory, can also provide the information needed to calculate precisely the amount of environmental benefits trees provide and associated savings. For example, trees intercept water, store some of it, and potentially reduce the need for urban flood control or stormwater treatment.

Trees need a large amount of uncompacted soil to allow for oxygen exchange and the water percolation necessary for long-term growth. A large tree, such as an American elm, needs more than 1,000 cubic feet of soil to reach the size where it significantly contributes to a healthy urban ecosystem. Existing standards for planting trees are very limiting in the amount of soil and growing space available to an urban tree, in particular street trees. Some new street tree spaces are only 4' by 4' and may include only two feet of uncompacted, nutrient-rich soil.

At the moment, there are very few options for community members who wish to participate in organized tree planting. The City still hosts planting opportunities with native vegetation in wetlands and near streams, and the Park Stewardship Program provides some restoration planting opportunities. The local non-profit Native Plant Salvage salvages native plants from land slated for development and also hosts local planting opportunities; sometimes in partnership with City programs.

Options

Option 1. The proposed policy could lead to measuring the tree canopy, evaluating the environmental benefits of the urban forest, and providing new trees with the necessary soil, water, and space to grow to maturity.

Option 2. No action: Continue administration of the tree ordinance.

Option 3. Alternative to the proposal: Reduce the amount of urban forestry planning and management; and shift decisions regarding the planting and preservation of trees to private parties.

Analysis

The existing Comprehensive Plan includes goals and policies that recognize trees as a defining characteristic of the City but focus on an urban forest made-up of street trees. Option 1 recognizes that the urban forest should be more broadly defined as all the trees in the City: those along streets, in parks, and on private property. The proposed policies would provide direction for establishing a tree canopy goal, determining the environmental and community benefits realized from the urban forest, and intentionally creating the space needed in an urban environment for trees to be preserved or grown to maturity.

The urban forest is a community asset with a value that can be quantified. Research has demonstrated the environmental benefits of the urban forest: how much carbon dioxide is being captured, how much stormwater runoff diverted, and how much energy saved through natural shading. By measuring

changes in canopy coverage over time, one can visually assess and demonstrate success or not in the retention of existing trees and planting of new trees. This kind of information could provide the basis for either maintaining or improving upon the existing tree preservation and protection regulation and standards.

Option 2 recognizes that long-term urban forestry management requires an investment in technical expertise. Long-term urban forest management requires an understanding of trees and how they respond and grow in urban conditions. Providing new trees with the necessary soil, water, space, and nutrients to grow to maturity means planning for and installing infrastructure that accommodates larger soil volumes in dense urban areas. This may mean evaluating and investing in new design standards, or potentially more costly tree installation techniques, such as structural soil, silva soils, or something as simple as larger tree planter strips or larger tree wells and tree grates. Trees are a community asset, and City involvement ensures that that asset is preserved and available equally to all members of the community.

While traditionally a role of the City, Option 3 notes that urban forest management can be turned over to the community; this typically means the responsibility of homeowners adjacent to street trees, neighborhood associations or homeowners' associations, or local non-profit groups. This is largely the state of new tree planting in Olympia; however, overall urban forest management is still under the purview of the City. Not all community members have an incentive or belief that more trees or larger trees are beneficial. A majority of the new trees being planted now are due to City requirements, and often commercial business owners would rather forgo trees in exchange for more business signage and visibility, combined with reduced maintenance costs.

The proposed approach is primarily intended to mitigate the impacts of urbanization by ensuring a viable urban forest. Possible adverse impacts include localized risks of property damage due to tree failures or flooding caused by leaves clogging drainage systems, and secondary impacts from slightly less urban density.

Original Staff Proposal

Option 1. Option 1 is a commitment to trees providing an essential environmental contribution to Olympia.

Planning Commission Recommendation

Option 1.