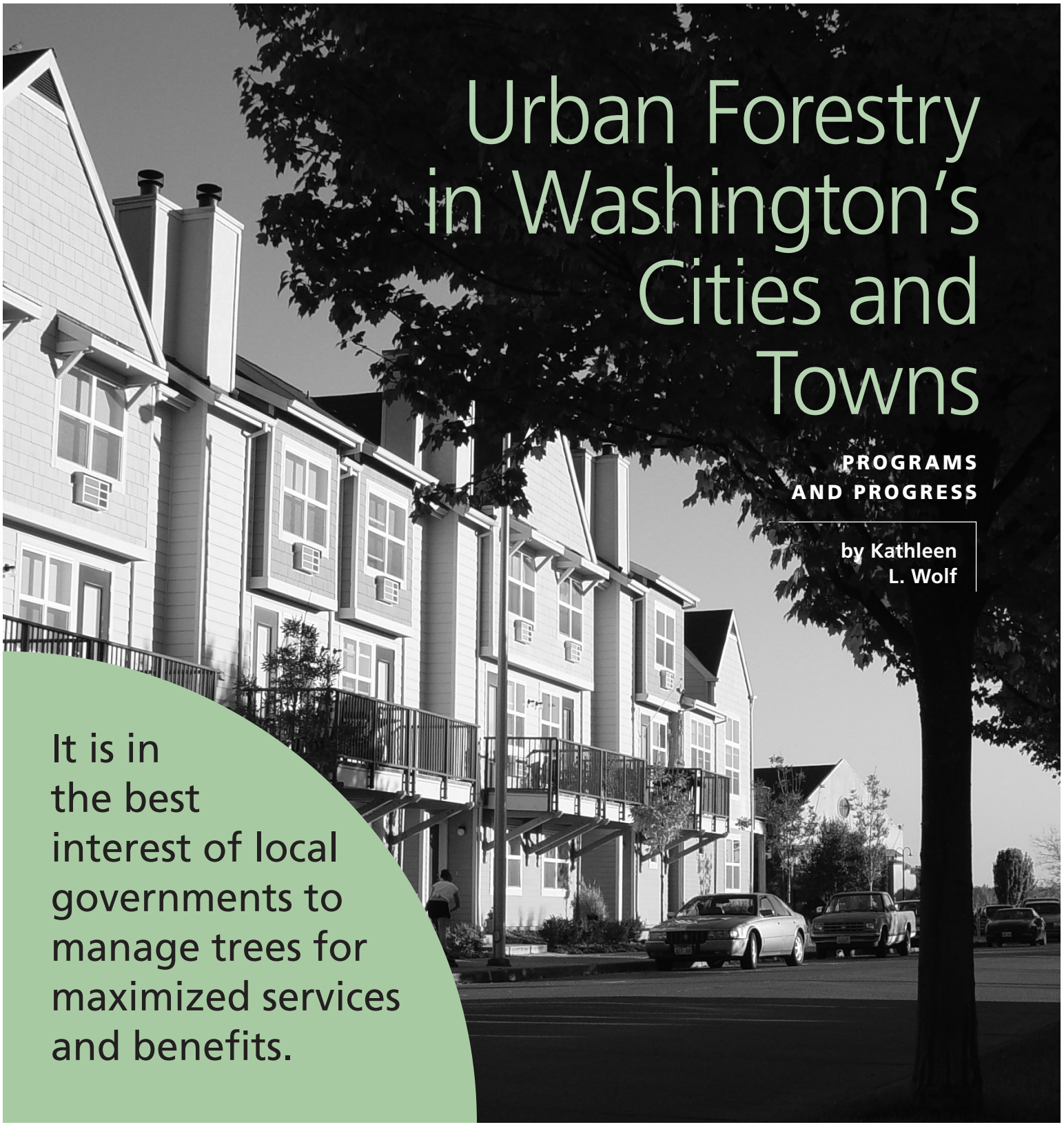
WASHINGTON STATE DEPARTMENT OF
Natural Resources

TreeLink

DNR COMMUNITY FORESTRY PROGRAM ✦ NUMBER 20 ✦ FALL 2007



Urban Forestry in Washington's Cities and Towns

PROGRAMS AND PROGRESS

by Kathleen L. Wolf

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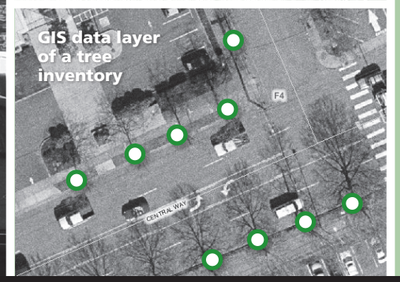

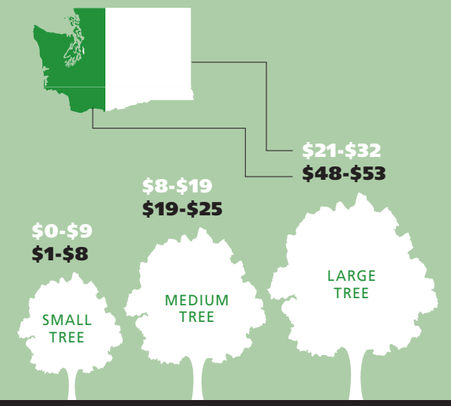

An assessment of our municipal forestry programs in Washington was done by the University of Washington in three phases from 2001 to 2004. Surveys and city records were used to collect data on these topics: tree inventories (Corletta 2001), management practices (Studer 2003), and codes and ordinances (Dugan 2004). The reasons for the assessment were to:

1. Obtain baseline data to enable program tracking and monitor progress,

2. Guide policy at local and state levels,

3. Develop a community tree tool box, and

4. Develop reporting tools that municipal foresters can use to better communicate with their supervisors and decision-makers.

The urban forest can be thought of as an infrastructure system. Investment in trees provides aesthetic benefits and much more. A well planned and managed forest can partially replace built infrastructure systems, such as stormwater drain systems.

Cost savings are possible! Benefit/cost analysis has been done using data from Pacific Northwest cities that have an extensive urban forest (McPherson et al. 2002, McPherson et al. 2003). Costs of urban street trees, such as planting, pruning, removal, pest and disease control, and irrigation were compared with benefit values, including energy savings, reduced atmospheric carbon dioxide, improved air quality, reduced stormwater runoff, and amenity benefits. Individual trees generate positive net values (see chart on top right) over a forty-year life cycle.

Green infrastructure management and administration should be integrated with other urban systems – such as transportation, utilities, housing and open space. Public administration practices of budgeting, personnel, strategic planning, and performance measures are needed to effectively manage urban forests.

It is in a local government's best interest to manage trees for maximized services and benefits. The urban forest is a resource with a life cycle extending over many decades, and current actions (or lack thereof) will impact the quality of life of a city's citizens for generations.

These six components, according to the research, are highly important for urban forest management in Washington State.

Tree Inventory

A tree inventory is a database that enables city staff to record, then plan for, the health and character of the forest. It may contain data on each tree (on public lands), or data about canopy cover across all properties (usually derived from remote sensing materials such as aerial photography). Most cities now record an inventory as a data layer in a GIS system for use in planning or public works. Inventory data is usually collected by city staff or by contract, though trained volunteers can assist. Inventory data can be linked to work plans so that urban forestry actions are efficient and effective.

Forest or Tree Management Plan

A tree or forest management plan provides policy guidance for the use of the inventory and other tools, as it directs resources to the greatest forest needs. A good plan considers that full scope of a community's forest, communicates mission and goals, and takes a long-range view of forest health. Plans are often a joint effort of community stakeholders and city staff, making them responsive to the diverse needs and concerns of a community. Fiscal and staff needs are established by the plan, and priorities are given for fieldwork.

Routine Tree Care

Routine tree care gives greatest returns for public spending on trees. Scheduled fieldwork should include tree planting and removal, pruning, mulching, disease treatments, mitigation of infrastructure conflicts, and hazard tree assessment. For instance, young trees need more attention to shape and form them for optimal growth in later decades. Tree care in many cities is done on-demand in response to citizen complaints, or in response to emergencies (such as wind storms). On-demand tree work means that crews will move among scattered sites, resulting in greater travel times and personnel downtime per tree pruned.

Tree Code and Ordinances

Management plans may recommend a combination of incentives, education and regulations to implement forest goals. Tree and forest ordinances, just as with code that is applied to buildings or streets, are used to assure that certain practices are adopted uniformly across the community. Tree ordinances most often address public trees, such as street and park trees, and establish limits of removal and pruning. Some communities extend such precautions to trees on private property that are deemed significant due to age, size, or historic or cultural criteria. Private property code is particularly important in order to detect and provide treatment for pest and disease outbreaks, before all forest areas of a community are invaded.

Tree Protection and Retention Ordinance

The greatest hazard to trees is their removal for new development. Large, mature trees offer the greatest levels of services and benefits. If designed and constructed carefully, a new development can include beautiful stands of large trees. Retention and preservation ordinances are directed largely to private property, particularly parcels that are in review for development, in order to optimize tree retention and health in new built environments.

Arbor Day Celebration

An Arbor Day event is an example of an educational or outreach event that can elevate public awareness of the values of trees, celebrate annual achievements, and involve and recognize public officials. Other outreach activities can include workshops, starting a NeighborWoods program, and involving schools in planting projects.

Annual Arbor Day observance is a requirement for Tree City USA designation, as specified by the National Arbor Day Foundation. Tree City USA status draws public attention to a city's urban forestry efforts and can become a source of civic pride.

A candidate city must meet four requirements, having a:

1. Tree board or committee
2. Tree care ordinance
3. Community forestry program having annual expenditures of at least $2 per capita for trees and tree care
4. Annual Arbor Day proclamation and event

As of 2006, sixty-six local governments (out of 281 incorporated) attained Tree City USA status in Washington State in 2007.

COVER PHOTO AND TOP TWO IMAGES ON LEFT BY GUY KRAMER

ISSUES AND CONCERNS

The core elements have been measured across other states and are compared with the Washington assessment results. Washington State is in the lower range of cities having tree inventories and management plans. Fewer cities in Washington are doing routine tree care compared to other states, as well. Many of the state's cities do have tree code and ordinances, including provisions to protect and retain mature trees. A majority of Washington cities celebrate Arbor Day, and this is consistent with the reputation of the Pacific Northwest for citizen involvement in environmental programs.

There are a number of concerns, in addition to the low program percentages. The organizational, administrative, and technical capacity for managing community trees in Washington is low. Most communities lack clear goals and objectives for tree care, and are not readily able to state the purposes of their work (Studer 2003). Having a management plan helps a local government communicate goals to the public and provide for consistent actions across city departments. Washington cities have adopted code and ordinances that address trees, but inadequate or unknowledgeable staff limits enforcement (Dugan 2004). Few communities have up-to-date tree inventories. Local managers note poor pruning and insufficient planting space issues, and struggle to address challenges of hazard trees, pests and disease, loss of trees, and low species diversity (Corletta 2001). However, participation in Arbor Day suggests a high level of citizen support for trees and could be the starting point for improved local programs.

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ACKNOWLEDGEMENTS

This research was supported by grants from the Washington State Department of Natural Resources and USDA Forest Service. We thank staff of all participating communities of Washington State for their assistance in conducting this research.

WASHINGTON COMMUNITY FORESTRY

The Washington Community Forestry Council was organized by the Washington State Department of Natural Resources (DNR) in 1991. Its goal is to provide leadership and vision to help citizens preserve, plant and maintain community trees and forests. The Council consists of a general membership and an Executive Advisory Committee to the State Forester. Join by calling **1-800-523-TREE.**

"TreeLink" is a quarterly publication of the DNR Community Forestry Program. The program's purpose is to educate citizens and decision-makers about the economic, environmental, psychological and aesthetic benefits of trees and to assist local governments, citizen groups and volunteers in planting and sustaining healthy trees and vegetation wherever people live and work in Washington State.

Editors: Ben Thompson and Sarah Griffith, Resource Protection/DNR.
Contributing Editor: Janet Pearce, DNR.
Graphic Design: Luis Prado, Communications/DNR.
Funding provided by DNR and the USDA-Forest Service.

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