

CITY OF VANCOUVER URBAN FORESTRY MANAGEMENT PLAN

DECEMBER 2007



"It is difficult to realize how great a part of all that is cheerful and delightful in the recollections of our own life is associated with trees." – Wilson Flagg

Vancouver Urban Forestry Management Plan

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A VISION FOR THE FUTURE

"Vancouver's urban forest is a healthy, dynamic, diverse, and cohesive ecosystem that is valued and cared for through community stewardship because it balances economic vitality with the conservation of natural resources now and for future generations."

This vision reflects the community's deep-rooted desire to live in a green and vibrant community. It reinforces our responsibility to manage our urban forest in order to preserve and enhance this valuable community resource for the good of the environment, the economy, and the health and well-being of current residents and future generations.

Vancouver is well-positioned to fully realize this vision...

... The city is uniquely situated in a landscape of uncommon beauty – the Columbia River, Vancouver Lake, Burnt Bridge Creek Greenway, Mt. Hood and Mt. St. Helens, and the surrounding National Forests create its landscape context within the coastal temperate rainforest. Mild climate, abundant water and fertile soil all contribute to a lush and verdant environment.

... The Pacific Northwest on the whole is a progressive, cutting-edge place to live, with a high level of environmental awareness. Vancouver residents recognize the value of nature and are becoming more and more focused on sustainability.

This vision will be achieved not just by public agencies, but by homeowners, neighborhoods and businesses, all looking not just near term, but 10, 20, 50 and even 100 years into the future and working together on multiple levels to improve the quality of life by starting, literally, from the ground up - by planting and taking care of their trees.

The urban forest: It's the nature of Vancouver





"A society grows great when old men plant trees whose shade they know they shall never sit in."

Greek Proverb



EXECUTIVE SUMMARY

Even in the bounty of the Northwest, America's Vancouver is blessed with an especially rich local history, a setting of great natural beauty, and intimate ties to its natural resources. Its urban forest, which has suffered significant declines in the recent past, is poised to rebound – expanding tree canopy coverage to provide shade for recreation, capturing financial savings in stormwater management, and fostering community empowerment and pride as city residents reconnect with the city's trees. To leverage these benefits, the City of Vancouver embarked on the development of its first Urban Forestry Management Plan, and while significant challenges lie ahead, this plan provides a framework for policy direction and realistic action steps to improve the health, well-being and extent of Vancouver's urban forest.

The reasons to act without delay are compelling.

In an increasingly urbanized nation, urban forests provide an essential balance to the built environment and directly influence the daily lives of nearly 80% of the country's population. The increasing extent and significance of urban influence across the United States call for resource policymakers, planners, and managers at national, regional, and local levels to focus their attention on forest resources in urban settings.¹ Improvements to the urban forest promote sustainability and can counteract local threats of poor air and water quality and the global threat of climate change.

Locally, Vancouver's urban forest canopy coverage has declined 26%, from 46% coverage in 1972 to 19.7% coverage today. A recognition of canopy loss was validated through public polling as part of this planning effort. A majority (77%) of respondents perceived a decline in canopy over the past 20 years, and 60% expect continued decline in the coming 20 years. This moderate pessimism about the future must be reversed and this energy rechanneled to engage new partnerships. Public education and outreach are the only means to seriously affect the expansion of the city's tree resources.

As the urban forest grows, so grows the community.

¹ Dwyer, et al.; 2000.

A healthy and extensive tree canopy provides a wide range of environmental, economic and social benefits, many of which can be monetized in terms of services rendered. The loss of canopy effectively has reduced the level of service provided for stormwater management, air and water quality control and climate moderation. As a response, this plan proposes the establishment of a city-wide goal of 28% for tree canopy coverage, which, through various specific actions, is intended to increase canopy coverage and reduce future hard infrastructure demands by realizing full potential of the myriad services offered by the city's trees.

For the community to fully appreciate its urban forest, residents must feel a sense of ownership and pride in its existence. Being able to learn about trees and use public parks and forest preserves in urban areas helps them bond to their space and recognize their role in making sure it is preserved and enhanced for future generations. The simple act of planting a tree at home can provide a critical link between citizens and their more distant forest resources. With close proximity to Gifford Pinchot National Forest's 1.3 million acres of forest land, the education and outreach provided to Vancouver's residents through the Urban Forestry program will undoubtedly affect how people perceive and interact with the region's trees and foster long-term community stewardship.

Building on a shared sense of common purpose and vision.

This Urban Forestry Management Plan is an outgrowth of personal discussions with city residents, conversations with city leadership across all major departments, a public survey and the interactions and oversight of the Urban Forestry Commission and Urban Forestry staff. The plan discusses in detail the benefits of trees in the urban environment, the current state of the urban forest and the urban forestry program, and the proposed goals and actions to protect and enhance Vancouver's urban forest. The overall action strategy of the plan relies on the following:

Protect : Expand : Educate – The foundation of this plan is summarized by these three words. The primary goals of the plan emphasize the need to protect or preserve the existing stands of tree canopy to prevent further loss, while aggressively expanding the number of trees planted throughout the city to attain or surpass the 28% canopy goal. Recognizing that 67% of the existing canopy coverage is located on private land, landowner education becomes the keystone to protecting against tree loss and aiding in long-term tree care.



"We have not inherited the earth from our parents, we are borrowing it from our children."

Native American saying (often attributed to Chief Seattle)

- Interagency Coordination The urban forest is a vital part of the city's infrastructure and interacts with many different disciplines in a complex manner. Transportation, Public Works, Parks and other departments have varying degrees of influence over and responsibility for the urban forest. The successful planning and implementation of proposed projects and policy modifications require constant, in-depth coordination across governmental and other agencies.
- Partnership Development There is incredible opportunity for companies, agencies, neighborhood organizations, business groups and individuals of all ages to step forward on behalf of efforts to support the urban forest. Public-private partnerships create an expanded "workforce" and build a powerful sense of community. Unique alliances with schools, civic organizations and others can maximize the city's investments in urban forestry and leverage the City's limited resources.

Strong public support exists for the betterment of Vancouver's urban forest and for the Urban Forestry program in general. For example, a significant majority (92%) of respondents to the survey favored expanding the city's tree planting program, 69% of whom indicated a willingness to pay for the added service. Separately, the growing enrollment in the NeighborWoods program illustrates the level of interest and enthusiasm residents of Vancouver and beyond have toward improving the quality of their neighborhoods through trees.

This plan articulates a vision and proposes reasonable actions to expand and restore the value and beauty of the urban forest for the benefit of future generations. As such, the health and vitality of Vancouver's urban forest will be measured over the long term—not just years or decades, but centuries. Vancouver's trees will indeed keep our population healthy and our economy strong.

Special Acknowledgments

Vancouver's Urban Forestry Division is made possible through a partnership between City of Vancouver Public Works and Vancouver-Clark Parks and Recreation.

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"He who plants a tree, plants a hope."

Lucy Larcom



INTRODUCTION

Purpose

The purpose of the Vancouver Urban Forestry Management Plan is to recommend direction and actions for Vancouver to optimize the benefits of trees by envisioning and enabling an integrated and sustainable approach to preserving and enhancing the city's urban forest resources in the next ten to twenty years.

What is Urban Forestry?

Urban forestry is the study and management of the city's urban forest, which is comprised of the trees, shrubs and other vegetation in parks, along streets, in yards, on unbuilt properties and in urban natural areas. The urban forest provides important benefits to all residents of the city. Trees within the city significantly improve the livability and vitality of our community and provide numerous environmental services including reductions in air pollution, greenhouse gases, and stormwater runoff.

A study of the tree canopy, or the total area covered by the leaves of trees, is a means to measure the extent of the urban forest. According to the 2005 Vancouver Tree Canopy Report, there are 5,425 acres of tree canopy coverage (about the size of two Vancouver Lakes) within the city limits of Vancouver, which equates to approximately 19.7% total tree canopy. At the current canopy level, Vancouver is not maximizing the potential benefits and services provided by urban trees. Indeed, the current canopy level is below state and national averages for urban areas (33.6% and 27.1%, respectively) and is still declining.

With recent media and political attention toward global warming issues and the rapid rise of the sustainability movement as a conservative, smart business model, the recognition of the importance of urban trees is at an all-time high. The numerous and varied benefits and services provided by trees in the urban landscape can be the unifying concepts to which new developments are measured and old patterns judged. The examples offered by the Firstenburg Community Center, where development plans thoughtfully preserved mature trees and felled trees were incorporated into the building design, and the Burnt Bridge Creek Greenway, which has been re-imagined and revegetated into a green jewel at the heart of the city, only begin to scratch the surface of the potential for Vancouver's urban forest. These projects can become the models for creative ways to preserve and enhance urban forest resources to benefit future generations.

Effective management of the urban forest requires recognition of the diversity of land uses and landowners within the urban area and the interactions of policies, programs and physical development. Whether connected by the logistics of managing urban infrastructure (for example, coordinating maintenance of urban trees and power lines, sewers, sidewalks, and roads), or by contributing to the overall character of the area, the urban forest links "landscape" with "architecture" and becomes an important component of urban planning. With the many benefits provided by urban trees, the management of the urban forest may be linked to an array of other urban initiatives, including community revitalization, economic development, community empowerment and environmental education, in addition to programs for improving air and water quality, stormwater control, energy conservation and recreational opportunities.²

Sustainability Model for Urban Forestry

Unlike timber forests which are managed primarily to produce wood products, urban forests are managed for the services, such as air and water quality improvement, they provide to city residents. The pressures on the urban forest are a direct result of their location in growing urban areas; without planning and management, much of the urban forest would be eliminated. Therefore, management intervention is necessary to keep city trees and urban forest lands sustainable and healthy in perpetuity. Diversity is the key to a sustainable urban forest. An urban forest diverse both in age and in species is more resilient and ensures that no single event, pest, or disease wipes out a significant proportion of the city's trees at any one time. Historical examples such as Dutch elm disease and chestnut blight, and modern insect infestations such as Emerald ash borer and the Asian long-horn beetle, illustrate the importance of diversity and the pitfalls of relying too heavily on any one species. As a rule of thumb, no more than 10% of the urban tree population should be of the same species, no more than 20% of any genus, and no more than 30% of any family. Some tree species such as Norway maples, sweetgums, flowering plums, and flowering pears tend to be over planted in Vancouver. The focus of future plantings should limit these species by favoring other quality species and cultivars and native species, which require less water and are better adapted to our climate. This plan proposes measures for the long-term, sustainable management of the urban forest, while recognizing



² Dwyer, et al.; 2000.

the challenges, benefits, and opportunities unique to city trees. Sustainability for urban forests exists when "naturally occurring and planted trees in cities ... are managed to provide the inhabitants with a continuing level of economic, social, environmental, and ecological benefits today and into the future."³

The Benefits of Trees

Cities are realizing that the urban forest is an essential part of a "livable" and economically-sound community. As such, urban forests are coming to be known as a component of "green infrastructure". Green infrastructure provides important ecological and social functions that translate into direct cost savings to local government and indirect stimulation of the local economy. Unlike traditional gray infrastructure capital improvements, such as transportation and water systems, which begin to depreciate as soon as they are installed, green infrastructure accrues value and provides greater services as time passes. Some of the primary benefits of the urban forest are as follows:

Stormwater Runoff Reductions

Pollutants carried in stormwater runoff are the primary cause of degradation of our streams and rivers. Through federal clean water laws and the local listing of salmon under the Endangered Species Act, stormwater management and clean water compliance have become important functions of municipal governments and have grown increasingly costly. Tree canopy reduces runoff and pollutants by intercepting and storing rainfall, increasing stormwater infiltration into the soil, transpiring back into atmosphere, and reducing the rate at which water reaches streams. The US Environmental Protection Agency issued a report, "Using Smart Growth Techniques as Stormwater Best Management Practices," which identified urban tree canopy as a innovative and sustainable means to dramatically reduce stormwater runoff and the costs associated with stormwater management.

<u>\$12.9 million</u>: The comparable annualized cost to taxpayers for the installation of stormwater retention structures to match the services provided by Vancouver's existing tree canopy.⁴

The deforestation of the region between 1972 and 2000 has resulted in an estimated loss of stormwater retention capacity of 963 million cubic feet per peak storm event. Building additional gray infrastructure to accommodate this runoff would cost <u>\$2.4 billion</u>. The same tree cover would currently be removing 63,000 metric tons of pollutants and particulates from the region's air. If technology were used to perform this service, it would require annual expenditures of <u>\$322 million</u> per year.

American Forests⁴

³ Seattle Urban Forestry Management Plan; 2006

⁴ American Forests; 2001

Air Quality Improvements

Trees absorb gaseous pollutants such as ozone, nitrogen oxides and sulfur dioxide; and they filter particulate matter such as dust, ash, pollen and smoke. Reductions in these pollutants results in improved public health and reduces the severity of ozoneinduced asthmatic responses and other respiratory illnesses. Urban trees absorb carbon dioxide, a major greenhouse gas, at an approximate rate of 230-lbs per year per tree. Also, an acre of trees can produce enough oxygen each day for 18 people.

<u>\$78.3 million</u>: The value of air pollution removal services by Vancouver's trees, which intercept 17,000 tons of air pollution each year based on models developed by the USDA Forest Service.⁴

Energy Savings

Trees shade buildings and pavement, reducing the urban heat island effect and thereby decreasing the demand for electricity. They also cool the air by releasing water vapor through transpiration. In Western Washington, trees strategically planted to shade buildings lower summertime air temperature between 5°-9° F and reduce cooling costs by approximately 4%.⁵

Public Safety & Health

Trees along transportation corridors narrow a driver's field of vision, reducing traffic speeds and increasing pedestrian safety by providing a natural, physical barrier. Studies have found that urban highways lined with trees decrease driver stress, resulting in fewer incidents of road rage.

Public spaces with trees receive more visitors, increasing the frequency of casual social interactions and strengthening the sense of community. Trees foster safer, more sociable neighborhood environments and have been shown to reduce levels of crime, including domestic violence.⁶

Views of nature reduce the stress response of both body and mind when stressors of urban conditions are present.⁷ Also, hospital patients that see trees need less medication and have faster recovery times following surgery.⁸

Trees at Work

100 mature trees provide the following services:

- Remove 53 tons of CO₂ from the atmosphere per year
- Remove 430-lbs. of pollutants per year, including: 72-lbs of ozone 81-lbs of particulates
- Catch 538,000 gallons
- of rainfall per year

McPherson et. al., 2005



⁴ American Forests; 2001

⁵ McPherson, et al; 2002

⁶ Sullivan and Kuo; 1996

⁷ Parsons et. al.; 1998

⁸ Ulrich; 1985

"By means of trees, wildlife could be conserved, pollution decreased and the beauty of our landscapes enhanced. This is the way, or at least one of the ways, to spiritual, moral, and cultural regeneration."

E.F. Schumacher

Economic Benefits

Improving aesthetics of our community has tangible economic benefits. Systems of open space and bike trails give a community a reputation for being a good place to live and visit. Increased recreational and community activity attracts new businesses and stimulates tourism.⁹ Well-maintained trees improve residential "curb appeal" and increase potential buyers' willingness to pay a 3-7% premium for property. Trees in retail settings increase shoppers' willingness to pay for goods and services by 12%.¹⁰ Shoppers also indicate that they are willing to drive farther and stay longer if a retail district is well-landscaped with trees.

The graphic below illustrates the various benefits of and the integrated functions provided by the urban forest.



Overall, the service value of individual urban trees can be quantified as shown in the table below.

Average	annual	net	benefits	values	per	tree	hv	size
Average	annuai	net	Denenita	values	hei	1100	ωу	3120

\$1 - \$8 \$19 - \$25 \$48 - \$53

Source: Society of American Foresters: Western Forester, January 2007

In summary, the protection and expansion of Vancouver's urban forest will yield increased benefits and will aid in Clean Water Act, Clean Air Act and Endangered Species Act compliance. This plan specifies a number of actions the city can take to maximize both the environmental and infrastructure benefits of trees and to engender community participation and activism.

For every dollar spent on tree planting and establishment, a 250% return on investment is provided back to the city in terms of the total services provided at tree maturity.

⁹ Green Infrastructure: http://www.greeninfrastructure.net/?article=2064 ¹⁰ Wolf; 1999

Community Stewardship

Successful implementation of this plan will require broad support and participation from all sectors of the community. In addition to the comprehensive activities of government agencies and nongovernmental organizations, which will be described in detail, property owners, neighborhoods, and business owners can help achieve the goals of this plan by implementing the following:

Individual property owners

- Strategically plant new trees, in yards and street right-ofway, to maximize benefits
- Properly maintain trees, hiring a certified arborist when necessary
- Remove English ivy and other invasive species

Neighborhoods

- Coordinate neighborhood tree planting projects, encouraging local businesses to sponsor and residents to participate
- Educate residents about the benefits of trees and proper maintenance practices
- Include tree-related goals and actions in Neighborhood Action Plans

Business Owners

- Sponsor local tree planting projects
- Encourage employee participation in volunteer efforts

Organization of this Plan

This plan is organized into the following sections:

- Vancouver's Trees: History and Status
- Management of the Urban Forest
- Community Outreach
- Opportunities & Challenges
- Goals & Objectives
- Implementation & Performance

VANCOUVER'S TREES

History

Vancouver is the oldest permanent non-native settlement in the Pacific Northwest (circa 1825) and has had a long relationship with the wealth contained within its forests. While trapping, logging and aggregate extraction made room for the agricultural, residential and commercial development of the city, there is evidence of the community making the effort to nurture and preserve its trees going back to the Hudson Bay Company era with famed horticulturist David Douglas, then later with concerted attempts to save the Witness Tree and Old Apple Tree.

The Vancouver landscape that the early settlers knew was very different from that of today. Dense conifer forests with understory of salal, fern and vine maple comprised much of the uplands. Oak woodlands and prairie lands were actively managed by Native Americans throughout the numerous plains. Today, only small remnants of this rich and diverse landscape can be seen in scattered areas of the city.

Over the last 180 years, the city of Vancouver has grown to greater than 155,000 people, encompassing 46 square miles. In that time, its views on the forest resources have shifted. During and after WW-II, rapid growth physically changed the landscape of the city. Historic photos reveal the sudden conversion of farmlands to subdivisions, with the subsequent re-growth of trees along streets and in private lots.

After the severe Columbus Day storm of 1962, the city made a massive, concerted effort to replant and recover from the loss of its trees. The community joined together to plant thousands of trees throughout the city and spoke in a common language about the value of trees. Much of what was planted in the aftermath of the storm and as a result of residential development make up today's urban forest. The Columbus Day storm also provided the impetus to adopt the original street tree ordinance to prevent the unnecessary removal of otherwise healthy and safe street trees.

The best available information was used to replant Vancouver's trees, but the field of urban forestry had not yet emerged and limited understanding existed of the kinds of planning and maintenance needed to minimize conflict between utilities, built infrastructure and trees. Thus many unintended consequences—water and electric utility line conflicts, infrastructure (sidewalk) damage and heave, hazardous tree situations resulting from







improper tree care or pruning, and ongoing storm cleanup costs—arose as a result of that early reforestation effort. Proper planning and thoughtful tree species selection and location can minimize these conflicts in the future.

Recognizing the challenges of restoring and maintaining a healthy urban forest, the City of Vancouver has long invested staff and resources into urban forest management. Therefore, Vancouver has been annually recognized as a Tree City USA since 1989. The Tree City USA program is designed to recognize communities that effectively manage their urban forest and meet the four Tree City USA standards. Vancouver has continually been selected for this national recognition for effectively managing its urban trees as a valuable natural resource. Maintaining this national status shows that the city and its residents recognize that urban trees are closely linked to their quality of life and are actively working to preserve and enhance the urban forest.



Tree Protection

To provide tree protection and policy direction, Vancouver City Council has adopted a number of ordinances over the years, with its original street tree ordinance dating back to 1963. Specific urban forestry related regulations include the following:

Urban Forestry Commission (VMC 12.02): Establishes and defines the role of the Urban Forestry Commission, a citizen advisory group appointed by City Council. *Established in 1987*.

Street Tree Ordinance (VMC 12.04): Provides for the establishment of permit and competency requirements for the planting, pruning, and removal of trees within the right-of-way. This ordinance was recently revised and updated to provide greater protection of street trees, require tree replacement for no net loss, and strengthen permit requirements and enforcement ability. Extensive community outreach will be critical for the successful implementation of these revisions. *Adopted in 1963 and amended in 2006*.

<u>Tree Conservation Ordinance (VMC 20.770</u>): Provides for the protection, preservation, replacement, proper maintenance and use of trees, associated vegetation and woodlands, and established the Heritage Tree program. *Adopted in 1997 and amended in 2004*.









Additionally, the city of Vancouver adopted a Critical Areas Ordinance (VMC 20.740) in 2005 to designate and protect ecologically sensitive and hazardous areas and their functions; and to provide protection for critical areas, such as wetlands, fish and wildlife habitat conservation areas, geologically hazardous areas, and frequently flooded areas. Separately, a Minimum Property Maintenance Code (VMC 17.14) was adopted in 2003 to require property owners to manage uncontrolled or uncultivated noxious and invasive weeds and hazardous plant materials. Both of these ordinances support the mission of Urban Forestry by elevating and protecting the value of natural areas and helping to manage nuisances created by non-native and hazardous vegetation.

The existing suite of ordinances affecting the health and wellbeing of the urban forest is strong, but a number of improvements can still be made to further improve their efficacy. For example, the Tree Conservation Ordinance gives equal preference to preservation, mitigation, or payment into Tree Fund as site development options, without suggesting that tree preservation is preferred. Additionally the Tree Conservation Ordinance does not require post-development inspections to ensure that trees planted as mitigation have successfully established. Conversely, recent amendments to the Street Tree Ordinance feature improvements which will elevate the standard of street tree care and ultimately foster a healthier urban forest.

The State of the Urban Forest

In October of 2001, American Forests, a non-profit partner of the USDA Forest Service, released a report, "Regional Ecosystem Analysis for the Willamette/Lower Columbia Region of Northwestern Oregon and Southwestern Washington State", which quantified regional tree canopy loss and the resultant reduction in tree-related benefits and services. The study found that since 1972, heavy tree canopy cover in the region has dropped by 22%—the cumulative result of thousands of planning and management decisions made by local governments and

private landowners. To establish a scientific, local benchmark, the Urban Forestry Division, in cooperation with Clark County GIS, conducted a GIS-based tree canopy study in 2003 using high-resolution infra-red imagery and LiDAR (light detection and ranging) data. The study revealed that Vancouver's total tree canopy has declined to 19.7%, from approximately 46% in 1972. The study not only showed the current canopy coverage, but also revealed that the overall loss of canopy in Vancouver has been greater than the regional average. The canopy study provided baseline data for the city in terms of the location and extent of tree canopy, along with a quantification of canopy by ownership, land use, and other geographic variables; comparison with future canopy studies will enable managers to detect trends in urban forest structure. It is critical to note that 67% of Vancouver's current canopy exists on private property, as illustrated by the chart to the right. As a result, public education, outreach, incentive programs and regulation will all be important tools in the protection and replacement of Vancouver's urban trees.

The canopy study also showed a disparity in canopy coverage between high-income and poorer neighborhoods. Generally, lower income neighborhoods within the city have less canopy coverage because residents may not have the resources to plant and maintain trees. As Vancouver works to increase tree canopy, it will be important to improve equity in tree coverage and possibly focus planning, outreach and planting efforts in the lower canopy and lower income neighborhoods.

The annualized loss of tree canopy at the rate of approximately 1% per year continues to threaten the integrity of Vancouver's urban forest. Tree loss continues at an alarming rate due to new development, old age and disease, storm events, unnecessary removals, and improper pruning such as topping. As discussed in the previous section, this loss and continued decline of tree canopy equates to literally millions of dollars of lost benefits, especially those associated with stormwater abatement and air and water quality improvement, and weakens the fabric of the city's sense of place. As Vancouver continues to grow, tree canopy must be preserved and enhanced so that it can continue to play an important role in providing clean air and water and other benefits for future generations.

In a renewed effort to not only protect the dwindling urban forest but also significantly restore canopy coverage, City Council approved a funding program for Urban Forestry in 2004, utilizing a portion of its surface water management fees in recognition of the green infrastructure and stormwater management benefits of trees. As a result, the Urban Forestry Division grew from 0.75 full-time employees to 3.0 full-time employees, to include staff for expanded community outreach and canopy restoration via planting projects. A new canopy restoration program was established to begin to reverse the canopy decline and involves planting trees in parks, natural areas, and medians and encouraging neighborhoods to organize community-based tree



plantings. However, despite these efforts, the current rate of tree loss still far exceeds the rate of tree planting. Public opinion reveals that residents believe this trend will continue for the next 20 years unless more dramatic measures are taken.

Land use is a significant factor affecting existing and potential canopy coverage as shown by the table on the next page. Generally, maximum tree canopy for a given area is inversely related to both impervious surface and intensity of use.

Land Use Type	Current Average Canopy	Canopy Goal
Residential: Low Density	35.6%	52.0%
Residential: Medium Density	29.3%	36.0%
Residential: High Density	20.8%	26.0%
Commercial	11.2%	15.0%
Industrial	6.4%	14.0%
Right-of-Way	11.6%	14.0%
Public Lands	19.1%	38.0%

This plan recommends a composite canopy goal of 28%, which is a reasonable and achievable target since one quarter of Vancouver's neighborhood associations already meet or exceed this level. The map below and accompanying table illustrate the extent of canopy coverage by neighborhood association. By comparison, the average tree canopy for urban areas in Washington State is 33.6% and in the United States is 27.1%.¹¹



Existing Neighborhood Canopy Coverage

¹¹ Dwyer, et al.; 2000.

Neighborhood Association	Canopy Coverage	Neighborhood Asso	ciation Canopy Coverage
South Cliff	37.99%	Rosemere	20.74%
Dubois Park	37.74%	Father Blanchet Park	20.49%
Heartwood	37.35%	North Garrison Heigh	ts 20.39%
Wildwood	36.65%	Image	20.08%
First Place	35.65%	Landover-Sharmel	19.71%
Burton Evergreen	34.81%	Burnt Bridge Creek	19.12%
Northwest	34.39%	Parkway East	19.00%
Bella Vista	34.01%	Marrion	18.90%
Riveridge	30.08%	Kevanna Park	18.81%
Airport Green	29.78%	Cascade Highlands	17.52%
Oakbrook	29.38%	Mountain View	17.37%
Northwood	28.71%	VanMall	17.21%
Parkside	27.53%	Village at Fishers Lar	nding 17.20%
West Minnehaha	27.39%	Ogden	17.03%
North Heartwood	26.19%	Arnada	16.47%
Ellsworth Springs	25.91%	Shumway	16.22%
Forest Ridge	25.81%	North Image	16.06%
Edgewood park	25.68%	Cascade South East	15.83%
Countryside Woods	25.66%	Hough	15.40%
Evergreen Highlands	25.51%	Central Park	14.80%
Cimarron	24.54%	Meadow Homes	12.22%
Fourth Plain Village	23.37%	Hudsons Bay	11.64%
Northcrest	22.59%	Fishers Landing East	11.41%
Fircrest	21.98%	Fairway/164th Ave.	10.15%
Burton Ridge	21.61%	Carter Park	9.59%
Bagley Downs	21.27%	Riverview	8.92%
Harney Heights	21.21%	Fruit Valley	6.73%
Lincoln	20.90%	Columbia Way	5.51%
Fishers Creek	20.85%	Esther Short	5.35%
Vancouver Heights	20.76%	Bennington	3.86%

Recent actions by the City to expand outreach and tree plantings are steps in the right direction and will incrementally improve the extent of Vancouver's urban forest. However, the remaining canopy coverage is threatened by development pressures, age and disease. The establishment of a citywide canopy goal and targets for various land use classifications, along with more aggressive outreach, acquisition strategies and plantings, will minimize further decline and begin to grow additional canopy over time. Continued GIS studies using the 2003 baseline data will provide an ongoing measurement tool to assess progress of the program.

MANAGEMENT OF THE URBAN FOREST

Program Overview

The Vancouver Urban Forestry Division, housed within the Vancouver-Clark Parks & Recreation Department, provides three major services: planning, education, and management. Urban Forestry has strong ties to the Public Works, Transportation, and Development Review departments and ensures that the City's tree-related management is coordinated and cohesive. Currently, three full-time employees manage and operate the program that serves more than 155,000 residents. Additionally, a sevenmember citizen-based Urban Forestry Commission advises City Council and assists with outreach and education.

URBAN FORESTRY MISSION STATEMENT:

The mission of Vancouver's Urban Forestry Program is to maximize the aesthetic, environmental and economic benefits that trees provide to city residents and visitors by preserving, managing and enhancing existing trees and other vegetation and promoting the reforestation of the urban area, through an active integrated program with community support and participation.

<u>Planning</u>

- Reviewing site development applications for conformance to existing tree ordinances;
- Partnering with agencies, landowners, and business and industry professionals to grow the tree canopy;
- Assessing, inventorying and monitoring the health of the city's urban forest resources.

Community Outreach and Education

- Promoting learning about trees through natural area and street tree planting projects;
- Coordinating the NeighborWoods program to develop neighborhood-based stewards;
- Administering the Heritage Tree Program;
- Hosting community events, such as the Old Apple Tree Festival and Arbor Day;

"It is well that you should celebrate your Arbor Day thoughtfully, for within your lifetime the nation's need of trees will become serious. We of an older generation can get along with what we have, though with growing hardship; but in your full manhood and womanhood you will want what nature once so bountifully supplied and man so thoughtlessly destroyed; and because of that want you will reproach us, not for what we have used, but for what we have wasted."

Theodore Roosevelt, 1907

 Communicating with neighborhood associations and citizens; providing technical support via trainings, workshops, discussions, and publications.

Management

- Coordinating with city departments and state agencies regarding policy and program development, to include the implementation of urban forestry objectives;
- Enforcing and upholding policies and regulations throughout the city;
- Identifying and securing stable funding to maintain or expand the program;
- Providing quality customer service for residents, contractors and developers on tree installation, tree care, and tree planning.

Management and Policy Coordination

Responsibilities for the care and management of the urban forest fall to multiple city departments, with the Urban Forestry Division taking the lead role in coordination. The functional diagram on the following page shows the various interdepartmental relationships, along with policy oversight.

The management structure illustrates the importance of clear and constant communication for the protection and expansion of the urban forest. While the management of the urban forest involves a number of city departments, Vancouver's program is more vertically integrated than many urban forestry programs in larger cities in the Northwest (i.e. Seattle, Portland). This simplicity has benefited city residents through direct and timely customer service and outreach, efficiency across city departments, and the existence of a single point of contact for all inquiries and issues pertaining to urban forestry.

However, maintenance and care of most of the city's trees is the responsibility of private property owners; this reality illustrates a major limitation to the city's overall efficacy in protecting and expanding urban tree resources. Unless and until an alternative arrangement for tree management is developed, public outreach and education will remain as the most powerful tools available to Vancouver.



Urban Forestry Commission

Lastly, an Urban Forestry Commission has been appointed by and reports to the City Council. This seven-member commission was created by ordinance in 1987 for the purpose of:

"managing, conserving and enhancing trees located in the parks and public areas owned by the city of Vancouver and in public right-of-way, and thereby enhancing the appearance of the city and protecting an important environmental and economic resource for the benefit of the city's resident and visitors, and for the purpose of assisting property owners and public agencies to improve and maintain trees in a manner consistent with adopted city policies."

The Commission has been directed by Council to focus on the following:

- Consider changes to urban forestry policy and regulation as they are presented by city staff;
- Develop, renew and update periodically the urban forestry master plan for the city of Vancouver and submit to City Council approval and adoption.
- Prepare an annual report on its activities and submit the report to the parks and recreation commission and to the City Council.
- Provide the city manager with its analysis of the contents of the biennial forestry budget request.
- Administer the Heritage Tree Program;
- Coordinate community outreach activities and events for urban forestry.
- Review city plans and policies which contain matters relating to urban forestry and arboriculture.

Since its inception, the Urban Forestry Commission has served a critical role in advancing the concepts and benefits of urban forestry with city officials and the public at large. The Commission has successfully advocated for increased program funding, along with meaningful revisions to the Tree Conservation and Street Tree Ordinances.

OPPORTUNITIES & CHALLENGES



"The program has grown in the right direction. Excellent staff. Great mix of partnerships."

Survey Respondent

S.W.O.T. Analysis

A Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessment was completed as a means to organize input and comments provided by the public, agency and local organization staff, and Urban Forestry commissioners and staff. The tables that follow offer a synthesis of the range of insights, perspectives and opinions regarding the current and future state of Vancouver's Urban Forestry program; this information can inform decision making. Please note that it is not uncommon for a specific issue to be listed in multiple, even contradictory, sections of the SWOT matrix because different perspectives yield different perceptions.

Strengths

- Staff is strong, capable and energetic with complementary skill sets.
 - Pacific Northwest is good climate for tree growth.
- Urban Forestry enjoys support from other City departments.
- Program receives significant funding support from Public Works (Surface Water Management).
- Existing ordinances are good basis for tree protection.
- Urban Forestry has cultivated a strong relationship with Friends of Trees.
- Clark Public Utilities and several local tree care firms are strong partners and cooperators.
- Tree issues receive consistent, positive media exposure.
- NeighborWoods program is a good conduit to reach residents and educate them on tree care and tree health issues. Real opportunities exist to access these volunteers to be program advocates.
- City's proximity to Gifford Pinchot National Forest allows exposure to 1.3 million acres of forest land.
- Vancouver residents exhibit a passion for trees.
- Vancouver Urban Forestry is seen as one of the strongest and most progressive programs in the region.

	Weakness	ses
	•	Cyclical budget uncertainty exists regarding General Fund
		support for General Fund program obligations.
	•	There is limited and inconsistent coordination with other
		city departments involved in urban forestry matters.
	-	Tree and urban forest management falls within the scope
		of multiple City departments.
	-	Public trees are not pruned or maintained for structure or
		health, resulting in reactive tree care and management.
	•	Tree canopy and tree care inequity exists between
		neighborhoods based on income: lower income areas
		have fewer trees and fewer resources to maintain trees.
	-	Public has limited awareness of and exposure to Urban
		Forestry—its functions, purpose or goals—and its
		programs including Heritage Trees NeighborWoods and
		volunteer planting programs
	-	Staff is stretched too thin to complete all the work
		assigned to them:
		- delayed responses on Development Review
		applications
		- insufficient resources to fully enforce ordinances
		- limited ability to expand workload at current level
	-	NeighborWoods program and workshop presentations
		tend to draw from small group of individuals already
		aware of or and informed about urban forestry issues:
		issues and participation are not vet mainstream
	-	Overall program has limited marketing and exposure
		especially the Witness Tree and Heritage Tree programs
	-	Urban Forestry has limited City Council and Planning
		Commission interactions
	-	Marketing materials are not straight forward clear or
		readily accessible
	-	Canopy goals need to be more clearly articulated and
		simplified for easy public understanding and support
		Benchmarking the progress and repeating the analysis are
		ongoing commitments that may require new funds or the
		re-direction of funds from other activities for certain
		neriods
	-	Limited public understanding of how trees are "valued"
		(i.e. appraised) in cases of tree violations, resulting in
		nearly automatic and reactionary appeals
		No geographic requirement is placed on membership for
	-	the Urban Forestry Commission
		No goals are stated or identified for raising outside funds
	-	via grants or donations
		Via granis of donations. Drivate property owners are responsible for street tree
	-	are and management, but often lock the knowledge
		experience or resources to properly maintain them
- 1		enperiorice, or resources to property mannant menn.

"It would be hard for me to say that the management of trees is a pressing issue. There are far more pressing issues than trees that are not being addressed."

Survey Respondent







Opportunities

- Positive survey responses regarding the care and interest in trees and tree benefits reflect broad public support.
 - Open areas are still available within parks and other public lands for additional planting projects.
 - Churches, schools and other quasi-public landowners can be partners to increase canopy.
 - Urban unincorporated area has developable land and existing higher level of canopy that could be preserved, presenting an opportunity to modify development patterns through street standards and tree protection ordinances.
 - Building Industry Association of Clark County offers a vehicle for expanded communication and coordination with developers regarding information sharing and training opportunities, as well as implementing a recognition program specific to urban forestry practices.
 - Public passion for trees may indicate viability of alternative funding options such as bond, levy, or special district.
 - Cooperation between City departments (Parks, Transportation, and Public Works) could finance maintenance program and tree crew.
 - Washington Forestry Council and Washington Recreation and Parks Association can be advocates for state-level, legislative changes.
 - Annual or semi-annual sessions with City Council and the Planning Commission could increase program visibility.
 - Incentives, certifications or awards can be developed and used to recognize developers and residents who are working to improve the health and well-being of the urban forest. Recognition could be in partnership with existing award programs, such as the BIA Building Excellence Award.
 - Interdepartmental communication with Transportation, Development Review, Parks and Public Works could increase program exposure and engender potential partnership or demonstration projects.
 - A school-based curriculum, akin to recycling education, could be used to teach children of the benefits of trees and proper pruning techniques.
 - Local partnerships with Friends of Trees and the National Forest Service can be leveraged.
 - Local college programs can be a source for demonstration projects and internship opportunities.
 - Outside funding sources, such as federal, state, and private foundation grants, corporate sponsorships, and donations, are available for urban forestry uses.
 - Public Works has strong interest in projects that maximize tree canopy while meeting needs for surface water management in greenways and riparian areas.

Threats	
•	Further reductions in General Fund support could
	undermine Urban Forestry's ability to meet program
	goals.
-	Tendency to plant smaller canopy trees with new
	development will reduce the canopy potential and long
	term benefits of new trees.
-	Small lot and infill development leaves no room for
	substantial tree re-planting, thereby limiting future canopy
	expansion.
•	Conflicting policy mandates exist between residential
	densification, economic development and tree protection
	and preservation.
•	Invasive plant species threaten and compete with natives.
•	Pests and limited pest management threaten the health of
	the urban forest.
•	Public fear or ignorance regarding hazard trees, tree care,
	wildfire risks and storm damage concerns often results in
	unnecessary tree removal or reluctance to plant new trees.
•	Narrow tree species selection via new development
	covenant, conditions & restrictions (CC&Rs) may result
	in homogenization of canopy, loss of biodiversity, and
	increased susceptibility to pests or disease.
•	Widespread incidence of tree topping creates hazardous
	tree situations, increases long-term maintenance needs,
	and reduces aesthetic appeal of trees.
•	Annexation of new lands by City will increase demands
	on staff.
•	Several Urban Forestry commissioners are likely to leave
	the Commission in the near future. This creates needs for
	Commission recruitment, along with training and skill
	building of remaining commissioners. Commissioners
	need to be more engaged with elected officials and
	business representatives for future and ongoing program
	support.
•	Risk liabilities exist within parks and greenways due to
	lack of pruning program or regimen.
•	Retention of key staff will be critical as overall program
	matures.
•	The sense of urgency and accomplishment might wane
	due to the long timeframe of tree growth.

Through the SWOT analysis, a wide range of issues and opportunities surfaced, and the significant findings can be summarized as follows. The program is led by a capable and energetic staff, which relies heavily on strong existing tree protection ordinances. While uncertainty exists over future funding levels, the apparent public passion for trees is favorable to the successful implementation of this plan. Focused and strenuous marketing and outreach efforts must be made to "The care and provision of street trees [and sidewalks] with in the public right of way should be handled by the city... Another way of financing this activity might be either an increase in the utility tax (due to power and phone lines) or energy tax (trees minimizing the heat island effect)."

Survey Respondent





connect with and educate private property owners of the value in managing their tree resources and to heighten the level of awareness of and care for Vancouver's urban forest.

Lessons Learned from Other Jurisdictions

Vancouver has benefited in the development of this plan by the planning for and management of urban forests by other jurisdictions. While a limited number of Northwest cities have adopted urban forestry management plans, jurisdictions in the Midwest and East, such as Cincinnati and Atlanta, offer vivid experiences from which to draw.

With regard to implementing an urban forestry management plan, the two primary ingredients are momentum and funding, which are intrinsically linked. Working with a dedicated group of residents or a civic organization will enable immediate action toward the completion of a few small projects. These first projects are critical not for their scope or scale, but for the success that breeds a growing momentum for the program. Additionally, as momentum and awareness for the program grow, opportunities for alternative funding may become ripe. Many other jurisdictions rely on voterapproved measures in the form of bonds and levies to finance critical components of their programs. Also, Seattle has identified trees as city infrastructure assets that, as such, make planting and restoration an eligible capital expense. With local relationships with the Parks Foundation and other regional community foundations, the Vancouver Urban Forestry program is poised to foster greater private support and partnerships.

Dr. Joe Poracsky of Portland State University recently released a tree canopy analysis for the city of Portland. The study revealed a "slight but consistent" increase in Portland's urban tree canopy between 1972 and 2002. Additionally, Dr. Poracsky identified what he termed the "Friends of Trees effect"— canopy increases were greatest in those neighborhoods where the non-profit Friends of Trees had been most active for the longest period of time; this finding demonstrates the importance of encouraging residents to implement community-based volunteer tree plantings on private property and in rights-of-way.¹²

Overall, the goals and actions items in this plan build upon the work from other cities and identify reasonable measures to improve the city's forest resources. Through continued public outreach and partnership development, much of this plan can be implemented in the coming years.

¹² Poracsky and Lackner, 2004

COMMUNITY OUTREACH



Community outreach is a vital element of this plan. Comments and opinion from residents, along with forestry and business stakeholders, shaped the direction of goals and strategy for the future of Vancouver's Urban Forestry program. Four primary methods of outreach were used in the development of this plan: 1) review of two citizen-based planning efforts conducted between 2004 and 2006; 2) a public opinion survey completed in November 2006; 3) stakeholder interviews; and 4) community meetings conducted during October 2006 and February 2007. Additionally, an electronic version of the draft plan was posted on the city's website between February and March, and residents submitted comments via email.

In addition to review and discussion with the Vancouver Urban Forestry Commission, a State Environmental Policy Act (SEPA) and Community, Trade, and Economic Development (CTED) review processes will be initiated to allow the public and other governmental agencies time to comment on the draft plan. Also, work sessions and public hearings will be held with the Vancouver Planning Commission and City Council to solicit additional feedback on and support for the proposed plan.

Public Opinion

Web Survey

In collaboration with staff and the Urban Forestry Commission, the project team developed a survey instrument to gauge residents' opinions and insights about urban forestry, the program's mission, and general awareness. The survey was designed specifically for the internet and was available to residents through a link provided on the Urban Forestry program's webpage. The survey was "live" online from September 28th through November 9th. An October 9th newspaper article on the front page of the Columbian highlighted the various aspects of the Urban Forestry program and the survey. A total of 116 respondents completed the online survey, and an analysis of the data reveals a survey sample that is representative of the city in terms of general demographics: age, gender and income. The survey instrument and a complete summary of data are provided in Appendix B. Highlighted responses are discussed below.



"I am so impressed with the staff of Urban Forestry and their commitment to their jobs, trees, and this community. Kudos to them for doing so much with just three of them!!! I have loved trees since I was a child and it is such an encouragement to have such a program in our city."

Survey Respondent

Survey respondents identified an <u>overall decrease in the number</u> and health of trees throughout Vancouver in the past 20 years, and they are <u>anticipating a further decrease</u> in the number of trees in the coming 20 years. These results suggest that residents are aware of the general landscape conditions of the city, as well as the rate of development impacting the natural environment.

Overall, respondents seem <u>well versed in the benefits of trees</u>. When asked to rate the importance of tree benefits, respondents noted air and water quality, shading and reduced energy consumption, and wildlife habitat. While more 'scientific' benefits rated high, respondents also identified aesthetics and quality of life as the most important reason for protecting the community's trees. This suggests that there is an innate, yet powerful, connection to the natural environment within respondents and may be in reaction to an urbanizing and densifying city.

The survey asked about the importance of a variety of tree planting projects; respondents rated plantings in <u>parks and along</u> <u>streets as the most important</u> (1-10 scale, with "10" as "very important"), as noted in the table below.

Tree plantings within existing city parks and open spaces.	9.15
Tree plantings along major roads and center lane medians.	8.59
Tree plantings in neighborhoods along residential street frontage.	8.48
Tree planting seminars and tree-related workshops.	7.46

Separately, respondents identified most strongly with a statement in support of aggressive planning and replanting of trees throughout the city. The following table illustrates the responses regarding overall support for <u>expanding</u> the city's tree planting program to realize the air and water quality benefits.

Strongly Support	81.1%	02.5%		
Somewhat Support	11.3%	92.3%		
Neutral	4.7%			
Limited Support	2.8%	7.5%		
No Support	0.0%			

Subsequently, the survey asked a question about financing such a program. A majority of respondents (69%) voiced favor for an increase in taxes to fund an expanded, city-based tree planting program.

"There should be more priority on saving older trees rather than replanting. Many trees are being killed on private property that are older than 40 years. That's a long time to wait for a sapling to grow."

Survey Respondent

"The tree canopy for Vancouver is much lower than the current goal. Any money put towards increasing the canopy will be a huge benefit for Vancouver."

Survey Respondent

"I don't want to intrude on landowners' ability to use their property, but tree cover is very important. Any program which helps landowners keep or increase tree cover and/or mitigate reasonably for development - I would support, even if it meant a small tax increase. I am often saddened to see established trees torn down, seemingly unnecessarily, for new development"

Survey Respondent

Stakeholder Interviews

To more broadly assess the opportunities and challenges of urban forest management, a series of internal and external stakeholder interviews were conducted.

The following city departments provided comments:

- Public Works: Engineering
- Public Works: Operations
- Risk Management
- Development Review Services
- Long Range Planning
- Transportation
- Vancouver-Clark Parks & Recreation
- Office of Neighborhoods
- Urban Forestry Commission
- Urban Forestry staff

The following local organizations also provided comments:

- Friends of Trees
- Building Industry Association of SW WA
- Greater Vancouver Chamber of Commerce (*pending*)
- Clark County Association of Realtors (*pending*)

Comments were often specific to the particular program area or perspective of the stakeholder. But overall, comments were favorable toward the Urban Forestry Division, its staff, and its quality of services and offerings. Specific comments were geared toward the need to search for and secure new, stable funding and partnership arrangements to expand programming and management, along with specific suggestions on improving coordination between departments and agencies, with neighborhood associations, and among other programs with similar or complementary missions.

Public Meetings

Two public meetings were held during the planning process. Both meetings were hosted in open house format with display materials to elicit important feedback from residents about the strengths and challenges of the overall Urban Forestry program. The first session was held on October 24, 2006 at King Elementary School and the second on February 15, 2007 at McLoughlin Middle School. Public notices, website postings and newspaper articles were used to publicize the events. Summary responses from both meetings are provided in Appendix C.

"The creation of a thousand forests is in one acorn."

Ralph Waldo Emerson

Community-Based Plans

The city of Vancouver has a history of long-range planning to identify community-based goals and establish a supporting policy framework. Two existing plans complement the direction of this urban forestry management plan and provide additional support and resources to the urban forestry program.

Vancouver-Clark Parks, Recreation and Open Space Plan (2006-07)

The Comprehensive Parks, Recreation, and Open Space Plan update, initiated in the fall of 2005, establishes a communitysupported road map for the provision of high quality parks, trails, recreation facilities, and open spaces throughout Vancouver and Clark County. The Comprehensive Plan identifies current and future recreation needs within the Vancouver-Clark Parks and Recreation Department service area. The plan entails nine broad goals with 128 specific objectives to improve park, recreation and natural area management services for the City of Vancouver and Clark County. Six objectives are specific to the Urban Forestry program. The plan also identifies natural area acquisition and management as public priorities. Additionally, a random sample telephone survey of 614 residents was conducted in March 2006 and included two questions pertaining to urban forestry in Vancouver. The results illustrated a significant lack of awareness about the Urban Forestry program (74% were unaware the city had such a program); however, when made aware of the program and it's potential benefits, 83% of respondents voiced support for an expansion of the Urban Forestry program beyond the city limits in recognition of the environmental, economic, and aesthetic values of trees.



City of Vancouver Comprehensive Plan (2004)

The Vancouver Comprehensive Plan 2003-2023, is an update of Vancouver's 1994 comprehensive plan, and was developed through an extensive public process involving Clark County, local cities, stakeholders, and the community at large. The plan contains 11 environmental policies dealing with trees and vegetation, ecosystem restoration, air and water quality, stewardship, and sustainability. While not specifically identified, the role and benefit of trees, along with an integrated urban forestry program, can buttress these planning policies and provide a unifying framework to enable long-term environmental progress.


Other Outreach

As was mentioned in the overview of this section, the Urban Forestry Management Plan will follow a series of advisory commission and administrative reviews prior to final adoption by City Council. Specifically, the Urban Forestry Commission will review and discuss the drafts and final version of the plan in open sessions and will seek public comment prior to making a recommendation for approval to City Council. Through an Urban Forestry Commission liaison, the Vancouver-Clark Parks and Recreation Advisory Commission will also review and comment on the plan.

With the intent to incorporate this plan into the broader Vancouver Comprehensive Plan, the Vancouver Planning Commission will review and approve the document prior to consideration by City Council. Public work sessions and a hearing will facilitate additional public comment and discussion on the plan. Similarly, the City Council will hold a public work session and hearing prior to formally adopting the plan. Upon approval by City Council, the plan will be included in the Annual Review Docket for incorporation into the comprehensive land use plan. Annual review amendments to the comprehensive plan will occur at the end of 2007.



Based on analysis of regional

GOALS & POLICIES

Based on analysis of regional and national trends and local community needs, the Urban Forestry Division has established the following goals to guide the direction of the program:

- Preserve existing trees and institutionalize planning, maintenance, and operating principles that improve canopy health.
- Restore canopy-deficient areas through tree planting to provide equitable distribution of urban forest benefits to all Vancouver residents.
- Promote an urban forest stewardship ethic within the community.
- Adhere to City of Vancouver's Operating Principles and establish Vancouver Urban Forestry as a leader in Pacific Northwest municipal forest management.

The following objectives, some of which have been previously adopted and are already implemented, are organized by the various critical themes that underlie the broader Urban Forestry Division goals.

1. Tree Resource Protection

- **1.1** Develop an approach to protect larger tracts of privately held forest lands via conservation easements and acquisition, current use designation, property tax reduction, or other means.
- **1.2** Recognize and protect significant trees through Heritage Tree and Witness Tree programs.
- **1.3** Promote tree-friendly development and land use practices, such as preserving mature trees and planning for appropriate replanting.
- **1.4** Promote stewardship of native plant communities on private and public property. Provide education about the benefits of native plants and the negative effects of invasive and non-native species.
- **1.5** Promote proper tree care to increase tree health and longevity, reduce hazard potential, and minimize storm damage.
- **1.6** Prevent unnecessary tree removal on single-family residential lots through property owner education.

"No town can fail of beauty, though its walks were gutters and its houses hovels, if venerable trees make magnificent colonnades along its streets."

Henry Ward Beecher



"What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and to one another."

Mahatma Gandhi

2. Tree Resource Expansion

- **2.1** Establish a goal of 28% average citywide tree canopy coverage, with accompanying targets by land use type.
- **2.2** Increase tree and shrub planting on public property, including parks and natural areas.
- **2.3** Promote street tree plantings to maximize future tree canopy coverage, while considering existing infrastructure (i.e., utility) limitations.
- **2.4** Encourage tree planting and preservation on private property regardless of land use type; partner with property owners on project design and implementation.
- **2.5** Review new development project proposals to maximize tree planting, as well as preservation, opportunities.
- **2.6** Explore options for protecting extant canopy and altering development policy in the urban unincorporated area of Vancouver; consider the viability of expanding certain aspects of an urban forestry program into the unincorporated urban area.
- **2.7** Expand memorial tree plantings through the Witness Tree program.

3. Management, Maintenance & Care

- **3.1** Implement a tree inventory and GIS canopy analyses to better understand the composition, character and health of the urban forest.
- **3.2** Establish a long-term tree care and management program, to include scheduled tree pruning, removal and replanting efforts and hazard identification.
- **3.3** Establish industry-appropriate storm and hazard tree response protocols.
- **3.4** Manage City-owned natural areas to enhance ecosystem health and function.
- **3.5** Update the Urban Forestry Management Plan on a 5-year cycle or as needed to adjust to changing circumstances.





"The tree is more than first a seed, then a stem, then a living trunk, and then dead timber. The tree is a slow, enduring force straining to win the sky."

Antoine de Saint-Exupéry

If you are thinking a year ahead, sow a seed. If you are thinking ten years ahead, plant a tree. If you are thinking one hundred years ahead, educate the people.

Chinese Poet, 500 BC

4. Education & Outreach

- **4.1** Maintain, update and develop promotional and technical information about urban forestry and the Urban Forestry Division.
- **4.2** Host events and festivals to promote the benefits of trees and recognize forestry advocates.
- **4.3** Coordinate with neighborhood associations, schools and other organizations to develop urban forestry related projects and programs and distribute relevant materials.

5. Citywide & Agency Coordination and Support

- **5.1** Increase communication with City of Vancouver decision makers.
- **5.2** Ensure consistency of forestry practices and commitment to mission across all City departments.

6. Volunteer, Commission & Staff Development

6.1 Promote professional development opportunities to strengthen the core skills and engender greater retention and commitment from volunteers, commissioners and staff.

IMPLEMENTATION & PERFORMANCE

This urban forestry management plan identifies a broad range of goals and objectives that, if fully realized, will put Vancouver on the path to a healthy, sustainable urban forest that will improve the quality of life for residents in generations to come. However, this plan and its recommended goals are not the end of the process but merely a continuation of a process already underway.

On the basis of the plan's findings and recommendations, the City of Vancouver will develop and implement specific management plans and policies to attain the stated goals. Such plans will necessarily be developed within the political and managerial structures of the City and should include items such as budget, staffing, timelines, specific objectives and performance measures.

A key element in managing the urban forest is to coordinate activities among different landowners and agency managers across jurisdictional and operational boundaries. Collaborative stewardship requires the participation of multiple direct stakeholders (landowners, users, and managers of natural resources), in addition to individuals and groups involved in the management of other urban components, such as commercial developers, city planners, nonprofit groups, utilities, and residents.¹³ Creating and sustaining varied partnerships will facilitate the implementation and success of this planning effort.

The following pages list proposed action steps that support or fulfill the goals identified in this plan. Each action step is assigned a priority level and one to many potential partners.

Priority	<u>Timeline</u> (approx.)
High	immediately to 3 years
Medium	within next 3 to 10 years
Low	as budget, staffing and other resources allow

The Urban Forestry Division primarily will be responsible for implementing this plan; however, other stakeholders must also play significant roles to ensure success. Therefore, each action step is assigned to one or more project partners; *the partner with the greatest responsibility is listed first and in boldface*.





¹³ Dwyer, et al. 2000.

BD	Builders and developers (private)
BIA	Building Industry Association of Clark County
CCR	Clark County Association of Realtors
CLK	Clark County
COL	Local colleges (Clark, WSU-Van., PSU, etc.)
CPU	Clark Public Utilities
CSEEC	Columbia Springs Enviro. Ed. Center
ENG	Engineers (private)
FOT	Friends of Trees
LA	Landscape architects (private)
LC	Landscape contractors (private)
MEDIA	Local media: newspapers, television, radio
NAS	Neighborhood Associations
NS	Nurseries (private)
NWD	NeighborWoods Stewards (VUF volunteers)
PO	Property owners
SD	School districts (Evergreen & Vancouver)
ТСР	Tree care providers / Arborists (private)
UFVOL	VUF general volunteers
VCE	City of Vancouver, Code Enforcement
VCPRD	Vancouver-Clark Parks & Recreation Department
VDRS	City of Vancouver, Development Review Services
VLAW	City of Vancouver, Law Department
VON	City of Vancouver, Office of Neighborhoods
VOPS	City of Vancouver, Public Works - Operations
VPW	City of Vancouver, Public Works
VTD	City of Vancouver, Transportation Department
VUF	City of Vancouver, Urban Forestry Division
VUFC	Vancouver Urban Forestry Commission
WSDOT	Washington Department of Transportation

Potential Project Partners (listed alphabetically by abbreviation)

1. Tree Resource Protection		
1.1 Develop an approach to protect larger tracts of privately held forest lands via const current use designation, or other means.	rvation easeme	ents and acquisition,
Action	Priority	Project Partners
Use existing GIS canopy data and local knowledge to target resource protection on and acquisition of large and/or contiguous tracts with a high percentage of canopy coverage.	High	VUF , VCPRD, VPW, NAS
Coordinate the acquisition and/or protection of parcels through existing open space acquisition programs within the Public Works and Parks departments.	High	VUF , VCPRD, VPW, NAS
Develop informational materials for landowners stressing the benefits of forest and tree protection and describing options for private open space protection.	Medium	VUF , VDRS
1.2 Recognize and protect significant trees through Heritage Tree and Witness Tree $_{ m F}$	rograms.	
Action	Priority	Project Partners
Increase awareness of programs through targeted outreach, tours, publications and events.	High	VUF , VUFC, VON, TCP, MEDIA
Actively solicit nominations through an existing base of volunteers (e.g., NeighborWoods Stewards and Urban Forestry Commission).	High	VUF , VUFC, NWD, TCP
Consider and designate new Heritage Trees annually and Witness Trees as appropriate; announce newly recognized trees at existing festivals or community events.	High	VUFC , VUF
Establish a donor-friendly mechanism to accept private donations for the Witness Tree program; utilize cash donations for tree plantings within public parks and greenways.	High	VUF , VUFC
Develop a GIS-based inventory and record relevant historical and arboricultural information about each tree; compile information into Heritage Tree Inventory and install signs at each tree.	Medium	VUF
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y development and land use practices, such as preserving ma	ure trees and p	olanning for appropriate
	<u>Priority</u>	Project Partners
ent community to design for tree preservation, as opposed to on-site or preferred alternative. Explore the use of development credits or itate tree preservation.	High	VDRS , VUF, ENG, LA, BD, BIA
on Ordinance standards and enforcement protocols explore opportunities and compliance consistent with the ordinance's intent.	High	VDRS, VUF, VCE, VLAW
ee preservation on construction sites using the most current research and hniques with developers through workshops and publications.	High	VUF , VDRS, BIA, BD, LA
andards for developers and contractors as a means to protect trees from	High	VUF, VDRS
a recognition program for developers and contractors who have created the preservation and longevity of the urban forest in mind.	High	VUF, BIA, BD, CCR
lopers for the retention or planting of canopy corridors, or tree tracts, to nts and function as buffers and wildlife corridors; utilize these corridors to ld a cohesive forest ecosystem.	Medium	VDRS , VUF, BD, LA, ENG, BIA
ntives to preserve and protect mature trees and groupings of trees.	Medium	VUF, VDRS, BIA
up of native plant communities on private and public property. egative effects of invasive and non-native species.	Provide educa	tion about the benefits of
	<u>Priority</u>	Project Partners
nsive and creative "No Ivy" campaign, centered on "No Ivy Day" in early ess, inspire removal efforts and promote landscape alternatives.	High	VUF , VCPRD, VPW
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Encourage planting of native trees and shrubs, where appropriate, through outreach materials, trainings, events and other media exposure.	Medium	VUF , VDRS, FOT, LA, LC, NWD
Work with volunteers to remove and control invasive species, such as English ivy and Himalayan blackberry, which threaten native plant communities on public lands.	Medium	VUF , VCPRD, NAS, UFVOL
	-	
1.5 Promote proper tree care to increase tree health and longevity, reduce hazard pote	ential, and mini	mize storm damage.
Action	Priority	Project Partners
Implement a comprehensive and creative "No Topping" campaign targeting two main audiences (tree care & landscape companies and property owners) to reduce the incidence of improper and detrimental tree care. Partner with other cities (e.g., Portland and Olympia) to increase effectiveness.	High	VUF , CPU, TCP, LC, NS, NWD, MEDIA, SD, other regional partners
Update and distribute "No Topping" and proper tree care materials via the website and printed publications.	High	VUF , NWD, VON, NAS
Reduce incidence of girdling and premature tree failure by reminding property owners and property managers to prevent mechanical damage to tree trunk (i.e., mower or string trimmer damage) and to remove stakes and ties from newly-planted trees after one growing season.	Medium	VUF , TCP, LC, NWD
1.6 Prevent unnecessary tree removal on single-family residential lots through prop-	erty owner educ	ation.
Action	<u>Priority</u>	Project Partners
Highlight benefits of trees, especially direct financial benefits to property owner.	High	VUF , VUFC, NWD, VON, NAS, TCP, LC
Provide information about hazard tree identification, assessment, prevention, and mitigation.	High	VUF , NWD, TCP

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2. Tree Resource Expansion		
2.1 Establish a goal of 28% average citywide tree canopy coverage, with accompanyin	g targets by lane	d use type.
Action	Priority	Project Partners
Adopt citywide goal through adoption of this plan via resolution. Establish canopy coverage targets by land use classification as identified on page 15 of this plan.	High	Vancouver City Council
2.2 Increase tree and shrub planting on public property, including parks and natural a	reas.	
Action	Priority	Project Partners
Assess park properties and other public lands to prioritize tree planting sites in terms of greatest demand, least canopy coverage.	High	VUF , VCPRD, VPW, VOPS, VTD, SD, WSDOT
For new park design projects, include canopy targets in the park master planning process; encourage incorporation of tree planting as a funded element in first phase park construction.	High	VCPRD, VUF
Retrofit existing parks and public spaces by planting trees and shrubs, using native vegetation where appropriate, in hard to mow or underutilized grassy areas.	High	VUF , VOPS, VCPRD, VPW, VTD, SD, WSDOT
Seek additional funding from private sponsors and government agency partners to increase tree planting project capacity.	High	VUF , VUFC, NAS
Maximize the use of low-VOC emitting trees as a means to reduce ozone and carbon monoxide production.	High	VUF , VTD, LA
Select appropriate tree and shrub species for greenway and riparian restoration projects.	Medium	VPW, VOPS, VUF
Improve tree succession and manage tree replacement on existing sites by implementing inter- planting projects with appropriate species selection.	Low	VUF, VCPRD, VPW, VOPS
Conduct Green Street demonstration project to explore the maximum potential vegetation in swale conditions and to provide public education opportunities.	Low	VPW, VTD, VUF, VOPS
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2.3 Promote street tree plantings to maximize future tree canopy coverage, while conutility) limitations.	idering existin	g infrastructure (i.e.,
Action	<u>Priority</u>	Project Partners
Enforce the street tree replacement component of the revised Street Tree Ordinance; assist landowners in the selection and location of replacement trees.	High	VUF, PO
Update and distribute the Street Tree Selection guide annually.	High	VUF , VTD, CPU, FOT, TCP, NS, LA
Consider options for a City-operated neighborhood street tree planting program and implement a pilot project.	High	VUF , VON, NAS, NWD
Review all proposed street tree planting sites prior to installation to minimize future infrastructure conflicts.	High	VUF , VTD, VOPS
Conduct volunteer neighborhood tree plantings; encourage low-canopy neighborhoods to implement projects.	High	FOT , VUF, NAS, NWD, UFVOL, PO
Secure AmeriCorps team or member to increase neighborhood participation in tree planting projects.	High	VUF, FOT
Focus limited street tree planting resources toward low- and moderate-income neighborhoods, accessing CDBG funds if appropriate. Identify other funding sources to reduce the cost of trees for these neighborhoods.	Medium	VUF , FOT, VON, VON
Develop database and GIS tools to identify street corridors with minimal or marginal canopy; prioritize neighborhood outreach for street tree plantings.	Medium	VUF , VTD, NAS, NWD
Plant and maintain trees along local highway corridors, especially at significant gateways to the city of Vancouver.	Medium	VUF , WSDOT, VTD, VPW, NAS
Develop street profiles that create more opportunities for tree planting in the public right-of-way; include innovative standards for adequate tree planting facilities so that root systems neither fail nor interfere with utilities.	Medium	VUF , VTD, VOPS, ENG, LA
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2.4 Encourage tree planting on private property regardless of land use type; partner w implementation.	ith property ow	ners on project design and
Action	Priority	Project Partners
Provide assistance to NeighborWoods Stewards in coordination of canopy restoration projects.	High	VUF, VUFC, NWD, FOT
Partner with churches, schools, and other quasi-public landowners to increase canopy on their properties.	High	VUF , SD, Churches, PO
Identify barriers to tree canopy expansion on industrial property. Develop best management practices to mitigate for these barriers. Implement pilot projects.	Medium	VUF , Port of Vancouver
2.5 Review new development project proposals to maximize tree planting, as well as I	reservation, op	portunities.
Action	Priority	Project Partners
Increase frequency and thoroughness of tree plan reviews.	High	VDRS, VUF, ENG, LA, BD
Conduct outreach and develop informational material regarding tree valuation (i.e., appraisal) to be provided during site development pre-application to minimize the number of tree violations and subsequent appeals.	High	VUF , VDRS, ENG, TCP, LA, BIA
Improve plant species selection by reviewing plans to ensure that the planting plan is biologically- diverse, includes native species where appropriate, and uses the largest species appropriate for the planting location.	High	VUF , VDRS, LA

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2.6 Explore options for protecting existing higher level of canopy and consider the viuurban forestry program to the urban unincorporated area of Vancouver.	ability of expan	ling certain aspects of an
Action	<u>Priority</u>	Project Partners
Continue to offer tree-related educational opportunities to all Vancouver-area residents.	High	VUF
Open lines of communication with the County Commission and County departments (Public Works, Community Development, Public Information Office) regarding tree preservation and development best management practices, tree planting efforts, and other urban forestry issues with regional impact.	Medium	VUF , VCPRD, CLK
Include information about trees and Vancouver Urban Forestry program in a "welcome packet" for property owners, business owners and residents in newly-annexed areas.	Medium	VUF , Vancouver Annexation Team
2.7 Expand memorial tree plantings through the Witness Tree program.		
Action	<u>Priority</u>	Project Partners
Promote the Witness Tree program through events, neighborhood association meetings, other engagements, and targeted outreach to hospitals, funeral homes and other care facilities.	High	VUF, VUFC, NWD
Create GIS map and program website as promised in program brochure.	High	VUF
Plant and maintain new Witness Trees as needed.	High	VUF

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3. Management, Maintenance & Care		
3.1 Implement a tree inventory and GIS canopy analyses to better understand the conurban forest.	position, chara	cter and health of the
Action	Priority	Project Partners
Implement TreeWorks inventory software and develop data collection protocol to maximize efficiency and accuracy.	High	VUF
Build TreeWorks inventory gradually over time, beginning with service requests and canopy restoration projects. Update street tree inventory with removal requests and new planting projects.	High	VUF
Conduct a GIS-based canopy coverage study on a 5-year cycle, using the 2003 study as baseline, to study and understand changes in the urban forest.	Medium	VUF
3.2 Establish a long-term tree care and management program, to include scheduled trefforts and hazard identification.	ee pruning, rer	noval and replanting
Action	<u>Priority</u>	Project Partners
Provide training for all appropriate City staff on proper pruning and tree care to improve health of City vegetation; encourage City staff to contact Urban Forestry personnel for further assistance.	High	VUF, VOPS
Create a summer tree maintenance (i.e., watering) program involving AmeriCorps, youths as interns, or temporary seasonal employees.	High	VUF
Manage all tree pruning and planting contracts to ensure contractor compliance with specifications.	High	VUF, VOPS
Study the feasibility of establishing and funding a permanent City tree pruning crew that can work across departments and on all City-owned real estate assets.	Medium	VUF , VOPS,VPW, VTD, VCPRD
BD Builders and developers (private) CSEEC Columbia Springs Enviro. E.d. Center NAS Neighborhood Associations UFVOL VUF gene BD Building industry Association of Clark County ENG Engineers (private) CSEEC Columbia Springs Enviro. E.d. Center NAS Neighborhood Associations UFVOL VUF gene BD Building industry Association of Clark County ENG Engineers (private) NS Nusceies (private) VCE CI vol vol VCE Viro vol Viro vol Viro vol VCE Viro vol VCE VCE Viro vol VCE VCE Viro vol VCE VCE VCE Viro vol VCE Viro vol Viro vol <t< td=""><td>al volunteers couver, Code Enforcement Clark Parks & Recreation Departmen couver, Development Review Service couver, Law Department couver, diffe of Neighborhoods</td><td>VOPS City of Vancouver, Public Works - Operations VPM VPM City of Vancouver, Public Works - Operations VPM City of Vancouver, Uban Cover, Uban Covers, VUE City of Vancouver, Uban Coverty Vancouver, Uban Forestry Division VUEC VME Vancouver, Uban Forestry Division Washington Department of Transportation</td></t<>	al volunteers couver, Code Enforcement Clark Parks & Recreation Departmen couver, Development Review Service couver, Law Department couver, diffe of Neighborhoods	VOPS City of Vancouver, Public Works - Operations VPM VPM City of Vancouver, Public Works - Operations VPM City of Vancouver, Uban Cover, Uban Covers, VUE City of Vancouver, Uban Coverty Vancouver, Uban Forestry Division VUEC VME Vancouver, Uban Forestry Division Washington Department of Transportation

VON City of Vancouver, Office of Neighborhoods

3.3 Establish industry-appropriate storm and hazard tree response protocols.		
Action	Priority	Project Partners
Proactively manage trees on City property for safety and to minimize storm damage costs through hazard tree identification and removal.	High	VUF , VOPS, VPW, VTD, VPRD
Establish protocols for post-storm clean-up efforts, outreach to property owners, and restoration pruning.	High	VUF , VOPS, VPW
3.4 Manage City-owned natural areas to enhance ecosystem health and function.		
Action	Priority	Project Partners
Develop natural area management plans for community and regional parks and public greenways, accessing existing funding sources.	Medium	VCPRD, VPW, VUF
Encourage local college programs specializing in landscape architecture, resource management, and/or horticulture to conduct site assessments and inventories of natural areas.	Medium	VUF, COL
Minimize negative impacts of invasive species through strategic removal and control efforts.	Medium	VUF , VCPRD, VPW
Improve care and health of riparian forests through newly-formed Eco-team.	Medium	VOPS, VPW, VUF
3.5 Update the Urban Forestry Management Plan on a 5-year cycle or as needed to ad	just to changir	ıg circumstances.
Action	Priority	Project Partners
Coordinate and facilitate periodic plan updates.	Medium	VUF, VUFC

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4. Education & Outreach		
4.1 Maintain, update and develop promotional and technical information about urban	forestry and the	the Strip Urban Forestry Division.
Action	Priority	Project Partners
Highlight Urban Forestry program accomplishments in Annual Report and provide quarterly updates to City Council and City managers.	High	VUF , VUFC, VCPRD, VPW, MEDIA
Maintain Urban Forestry website as a comprehensive and dynamic source for urban forestry information.	High	VUF
Release periodic media advisories to promote continued media coverage; explore option of weekly or monthly urban forestry column in the <i>Columbian</i> .	High	VUF , MEDIA, Clark County Master Gardeners
Utilize available free and low-cost media such as Clark-Vancouver Television, public service announcements, and newsletter articles to deliver marketing messages and promote Urban Forestry activities.	High	VUF
Develop simplified promotional materials to tell the story of the urban forest, its benefits, and how residents can help.	High	VUF
Promote financial benefits of trees, such as real estate value increase and energy conservation.	High	VUF , VUFC, BIA, BD, CCR, LA, ENG, LC, TCP
Amend existing marketing strategy to deliver key messages to priority audiences on a seasonally- appropriate timeframe.	High	VUF , VUFC, TCP, LC, NS
Increase visibility of Urban Forestry by attending local community events, such as the Home & Garden Idea Fair, and offering presentations to various civic, service, or community organizations.	High	VUF , VUFC, NWD
Repeat the program survey on 3-5 year cycle to establish trends of awareness.	Medium	VUF , City Performance Analyst
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4.2 Host events and festivals to promote the benefits of trees and recognize forestry a	lvocates.	
Action	Priority	Project Partners
Celebrate Vancouver's Heritage Trees at the Old Apple Tree Festival in October.	High	VUFC, VUF
Celebrate the benefits of trees at the Arbor Day Festival in April.	High	VUFC, VUF
Apply for "Tree City USA" annually and prestigious "Tree City Growth Award" when applicable; promote receipt of awards at Arbor Day celebration.	High	VUF , VUFC, Vancouver City Council
Recognize extraordinary contributions to Urban Forestry through Silva Bolds Whitfield Award.	Medium	VUFC, VUF
Recognize neighborhood associations and individuals who have provided commitment and support to the mission of the urban forestry program.	Medium	VUFC , VUF, NAS, NWD
4.3 Coordinate with neighborhood associations, schools and other organizations to d programs and distribute relevant materials.	velop urban for	estry related projects and
Action	<u>Priority</u>	Project Partners
Encourage neighborhood associations to incorporate urban forestry elements and planting projects in Neighborhood Action Plans; assist neighborhoods with development and implementation of urban forestry projects.	High	VUF , VON, NAS, VUFC, NWD
Partner with the school districts or local college program to develop a school curriculum for young children to teach, explore and experience the benefits of the urban forest. Use and build on existing programs (e.g., Project Learning Tree, City Among the Trees).	Medium	VUF , SD, COL, CSEEC, VPW
Encourage neighborhoods to apply for grants and seek sponsors to implement urban forestry projects; provide assistance if necessary.	Medium	VUF , VON, NAS, VUFC, NWD
Seek opportunities for Urban Forestry staff to speak at regional and national arboriculture events and submit articles for publication in industry magazines and journals.	Medium	VUF , VUFC
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5. Citywide & Agency Coordination and Support		
5.1 Increase communication with City of Vancouver decision makers.		
Action	Priority	Project Partners
Schedule and present urban forestry updates to City Council	High	VUF, VUFC, VCPRD, VPW
Hold annual or semi-annual joint work sessions of City commissions as a means to promote communication and overall issue understanding.	Medium	VUF , VUFC, VCPRD, VDRS, Vancouver Planning Commission, Vancouver-Clark Parks & Rec. Advisory Commission
5.2 Ensure consistency of forestry practices and commitment to mission across all Ci	y departments.	
Action	<u>Priority</u>	Project Partners
Critically review all development tree plans and enforce all violations of the Tree Conservation Ordinance.	High	VDRS, VUF, LA, BD, ENG
Enforce the hazard tree component of the Minimum Property Maintenance Ordinance; assess the hazard potential of trees on private property and ensure that trees that are not hazardous are not unnecessarily removed.	High	VCE, VUF
Review all street plans for tree species selection and planting locations to maximize planting of site appropriate trees, to ensure establishment, and to minimize future hardscape infrastructure and utility damage.	High	VTD , VOPS, VUF, LA, ENG
Encourage proper tree placement and pruning to reduce conflicts between trees and transportation and safety elements (e.g., street lights, traffic signs, and vehicle visibility sight lines).	High	VUF , VTD, VOPS, VPW

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BIA	Building Industry Association of Clark County	ENG
CCR	Clark County Association of Realtors	FOT
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 Vancouver, Urban Foresto Division

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 VUF
 Vancouver Urban Foresto Commission

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6. Volunteer, Commission & Staff Development		
6.1 Promote human development opportunities to strengthen the core skills and enge from volunteers, commissioners and staff.	nder greater ret	ention and commitment
Action	Priority	Project Partners
Encourage staff to seek training opportunities beyond International Society of Arboriculture certification and requisite Continuing Education Units.	High	VUF , VCPRD, VPW
Conduct periodic Urban Forestry Commission trainings on relevant forestry topics, meeting management, partnership development skills, etc.	Medium	VUFC , VUF
Develop additional training opportunities for volunteers, based on feedback from volunteer participants.	Medium	VUF
Coordinate topic-specific workshops for targeted stakeholder groups (e.g., a low-impact development workshop for developers or a proper tree pruning workshop for landscape laborers).	Medium	VUF with relevant partners

BD	Builders and developers (private)	CSEEC	Columbia Springs Enviro. Ed. Center	NAS P	Veighborhood Associations	- TOV	vUF general volunteers	VOPS	City of Vancouver, Public Works - Operations
BIA	Building Industry Association of Clark County	ENG	Engineers (private)	SN	Vurseries (private)	VCE	City of Vancouver, Code Enforcement	VPW	City of Vancouver, Public Works
CCR	Clark County Association of Realtors	FOT	Friends of Trees	UWD 1	VeighborWoods Stewards (VUF volunteers)	/CPRD	Vancouver-Clark Parks & Recreation Department	ΔTD	City of Vancouver, Transportation Department
CLK	Clark County	P	Landscape architects (private)	8	Property owners	VDRS	City of Vancouver, Development Review Services	VUF	City of Vancouver, Urban Forestry Division
СОГ	Local colleges	Ч	Landscape contractors (private)	SD	School districts (Evergreen & Vancouver)	VLAW	City of Vancouver, Law Department	VUFC	Vancouver Urban Forestry Commission
СРU	Clark Public Utilities	MEDIA	Local media: newspapers, television, radio	TCP	Tree care providers / Arborists (private)	NON	City of Vancouver, Office of Neighborhoods	NSDOT	Washington Department of Transportation

CONCLUSION

Vancouver's urban forest is an important and valuable resource that has unfortunately suffered many decades of decline. However, proper planning and management can reverse this decline and ensure that the city's trees will provide significant benefits for city residents that will increase in the future.

This plan contains an extensive review of Vancouver's urban forest, current management of that resource, public attitudes and desires related to it, and opportunities whereby management can be improved. These data can be used to help preserve and enhance Vancouver's urban forest and sustain this resource through the 21st century.

This plan provides only the framework by which Vancouver can begin to improve its forest environment. Many specific details and new ideas can be developed and fostered in the future through public involvement and interaction among agencies. This plan will help guide the future discussions and interactions that will, because of the benefits provided by urban trees, ultimately make Vancouver a more healthy, sustainable, and vibrant community.

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APPENDIX B: Survey Results

The following represent the summary results of the Urban Forestry Management Plan online survey. At the close of the survey on November 9, 2006, a total of 116 respondents completed the survey. All ranked responses appear in descending order.

1.) Overall, do you think things in Vancouver are headed in the right direction or are things on the wrong track?

- 61% Right direction
- **26%** Wrong track
- 13% Don't know

2.) How would you rate the overall quality of Vancouver's landscape?

- 47% Average
- **33%** Good
- 12% Poor
- 8% Very good
- **1%** Very poor

3.) Do you think the number of trees in Vancouver has increased, decreased or stayed the same in the last 20 years?

- 77% Decreased
- **10%** Don't Know
- 8% Increased
- **5%** Stayed the Same

4.) The urban forest with Vancouver consists of the trees, shrubs and other vegetation in parks, along streets, in yards, on empty lots and in urban natural areas. Do you think the overall health of Vancouver's urban forest has increased, decreased or stayed the same in the last 20 years?

- 67% Decreased
- 13% Don't Know
- **10%** Increased
- **10%** Stayed the Same

5.) Looking forward 20 years into the future, do you expect the number of trees in Vancouver to increase, decrease or stay the same given the rate of urban development in Vancouver?

- 60% Decrease
- 33% Increase
- 5% Stay the Same
- 2% Don't Know

6.) Urban trees provide a number of local benefits. How would you rate your familiarity with each of the following:

	Response Average	Very Familiar + Familiar
Urban trees make it more enjoyable to walk or ride bicycles in neighborhoods.	1.20	97.0%
Urban trees improve the aesthetics of the city by blocking unsightly views and softening the edges of buildings.	1.21	97.0%
Urban trees improve air quality by filtering and absorbing airborne pollutants and dust.	1.24	95.0%
Urban trees keep the city cooler in the summer.	1.28	97.0%
Urban trees improve water quality by controlling pollution erosion and flooding from stormwater runoff.	1.29	96.0%
Urban trees reduce noise pollution by blocking and muffling sound.	1.34	95.0%
Urban trees are critical to maintaining urban wildlife populations.	1.37	93.0%
Urban trees help conserve energy by reducing energy consumption for heating and cooling.	1.40	91.0%
Urban trees significantly increase residential and commercial real estate values.	1.44	93.0%
Urban trees in commercial districts help attract shoppers and can influence consumers to shop longer and to pay more for goods and services.	1.88	78.0%

7.) Below is the same list again. How would your rate each of the following in importance?

	Response	Very Imp +
Urban trees improve air quality by filtering and absorbing airborne pollutants and dust.	1.11	100.0%
Urban trees improve water quality by controlling pollution erosion and flooding from stormwater runoff.	1.12	98.0%
Urban trees help conserve energy by reducing energy consumption for heating and cooling.	1.20	99.0%
Urban trees are critical to maintaining urban wildlife populations.	1.24	96.0%
Urban trees keep the city cooler in the summer.	1.26	98.0%
Urban trees make it more enjoyable to walk or ride bicycles in neighborhoods.	1.31	96.0%
Urban trees improve the aesthetics of the city by blocking unsightly views and softening the edges of buildings.	1.35	99.0%
Urban trees reduce noise pollution by blocking and muffling sound.	1.35	98.0%
Urban trees significantly increase residential and commercial real estate values.	1.56	94.0%
Urban trees in commercial districts help attract shoppers and can influence consumers to shop longer and to pay more for goods and services.	1.93	79.0%

8.) How would you prioritize in importance the following as reasons for protecting trees within your community?

(1st - Highest Priority 5th - Lowest Priority)

Quality of life / aesthetics	1 (2.28)
Air quality improvement benefits	2 (2.23)
Stormwater management benefits	3 (2.85)
Energy conservation benefits	4 (2.94)
Financial savings	5 (4.71)

9.) What are the most pressing challenges facing the management of urban trees in Vancouver? *(see attached sheet)*

10.) Where do you get tree care advice (mark all that apply)?

books and/or magazines	69.6%
the nursery or garden center	63.4%
the internet	62.5%
Vancouver Urban Forestry	39.3%
Master Gardeners	30.4%
an arborist certified by the International Society of Arboriculture	27.7%
the Clark County / WSU Extension Agent	24.1%
Other	17.0%
a non-certified tree worker or landscape contractor	10.7%

11.) Who do you believe is responsible for the maintenance of street trees (including planting, pruning, watering, insect and disease treatment, and removal when necessary)?

the private property owner with the street frontage	60.4%
the City's Public Works department	18.0%
the City's Urban Forestry program	11.7%
Other (please specify)	9.0%
Clark Public Utilities	0.9%

12.) Do you have street trees along your road frontage? (N=111)

- 50% Yes
- 50% No
- 12B.) Was this tree planted within the last five years? (N=56)
 - 57% No 43% Yes

12C.) Did you contact Urban Forestry and/or consult the City's Street Tree Selection List before planting a street tree(s)? (N=23)

61% Yes 39% No

12D.) Where did you purchase your tree? (N=13)

- **31%** Wholesale nursery
- 23% Retail garden center
- **23%** Through a Friends of Trees community tree planting project.
- 23% Other
- **0%** Plant show or garden fair

13.) Who performs pruning and other tree maintenance on your street tree(s)? (N=54)

- 47% Myself or a friend, neighbor, or family member
- **19%** An arborist certified by the International Society of Arboriculture
- 17% Nobody
- 13% Other
- 9% A non-certified tree worker or landscape contractor

14.) If you do not have street trees along your road frontage, which factors affect your decision about planting street trees (mark all that apply). (N=78)

There is not enough planting space because of sidewalks, utilities and other conflicts	44.9%
Other	28.2%
I want a tree but I haven't gotten around to planting one yet	9.0%
I think trees are too expensive to purchase	6.4%
I don't want to block my view	5.1%
I think trees are difficult to prune and maintain	2.6%
I don't want to rake leaves	2.6%
I'm concerned that trees might cause property	1.3%

15.) Would you be more likely to plant a street tree, or yard tree, if the tree was offered at a reduced price and planted as part of a community-based volunteer tree planting project in your neighborhood?

83% Yes

17% No

16.) Would you be willing to volunteer on a tree planting project in your neighborhood?

- 63% Yes
- 27% Maybe
- 10% No

17.) Which <u>ONE</u> of the following three statements comes closest to the way you feel about the management of urban trees in your community.

- 44% Trees in the urban area should be aggressively planted wherever possible and replanted as new development and natural tree decline occurs
- 35% Urban tree loss should be minimized through development regulations, review and enforcement
- **21%** Urban tree protection and care should be accomplished through education outreach and technical support to landowners

18.) Using a scale of 1 to 10, with 1 being 'not important at all' and 10 being 'very important', please rate the importance of each of the following types of tree planting projects in the City of Vancouver:

Tree plantings within existing city parks and open spaces.	9.15
Tree plantings along major roads and center lane medians.	8.59
Tree plantings in neighborhoods along residential street frontage of 6	8.48
Tree planting seminars and tree-related workshops.	7.46

19.) Below is a list of programs and services provided by the city's Urban Forestry Program. Using a scale of 1 to 10, where 1 means that program or service should be a very low priority and a 10 means that program or service should be a very high priority, please rate each of the following. What priority should be given to:

Review of development projects for tree retention and re-planting if necessary to ensure compliance with the Tree Conservation Ordinance.	8.71
Coordination of tree planting projects using volunteers and volunteer organizations.	8.16
Hazard tree assessment for street trees and for private trees when requested by Code Enforcement.	7.88
Review of street tree removal permit applications to ensure compliance with the Street Tree Ordinance.	7.69
Consultation on street tree issues.	7.61
Administering the Heritage Tree program to recognize and protect significant trees.	7.61
Coordination of tree planting projects using hired contractors and city staff.	7.44
Coordination of NeighborWoods Stewards a six-week urban forestry volunteer training and education program.	7.17
Hosting Arbor Day and other tree-related events.	6.90

20.) Studies have demonstrated that urban trees improve air and water quality and improve wildlife habitat. Using a scale of 1 (strongly support) to 5 (no support), how would you rate your support for a tree planting program throughout the city to realize these benefits?

Strongly Support	81.1%	02 5%
Somewhat Support	11.3%	92.J /0
Neutral	4.7%	
Limited Support	2.8%	7.5%
No Support	0.0%	

21.) How would you respond if a tree planting program throughout the city required an increase in taxes?

Strongly Support	45.3%	68.0%
Somewhat Support	23.6%	00.97
Neutral	10.4%	
Limited Support	10.4%	31.1%
No Support	10.4%	

22.) Long-term tree care (ie, pruning and removal) and tree health monitoring services for public trees in parks and street medians currently are not provided by the city. Using a scale of 1 (strongly support) to 5 (no support), how would you rate your support for establishing such a program?

Strongly Support	55.7%	70.2%
Somewhat Support	23.6%	1 3.2 /0
Neutral	11.3%	
Limited Support	5.7%	20.8%
No Support	3.8%	

23.) Using a scale of 1 (strongly support) to 5 (no support), how would you respond if a city-sponsored tree care and health monitoring program required an increase in taxes?

Strongly Support	40.6%	67.0%
Somewhat Support	26.4%	07.0%
Neutral	12.3%	
Limited Support	7.5%	33.0%
No Support	13.2%	

24.) Currently, individual property owners are responsible for the care, maintenance and removal of street trees along their road frontage. Using a scale of 1 (strongly support) to 5 (no support), how would you rate your support for establishing a tree care and maintenance program that transfers street tree care responsibility to the city?

Strongly Support	31.1%	E2 99/
Somewhat Support	21.7%	JZ.0 %
Neutral	14.2%	
Limited Support	24.5%	47.2%
No Support	8.5%	

25.) Using a scale of 1 (strongly support) to 5 (no support), how would you respond if a city-sponsored tree care and health monitoring program required an increase in taxes?

Strongly Support	26.4%	EA 70/
Somewhat Support	28.3%	J4.7 /0
Neutral	12.3%	
Limited Support	17.0%	45.3%
No Support	16.0%	

26.) Please share any general thoughts about trees or Urban Forestry that were not addressed as part of this survey.

(see attached sheet)

DEMOGRAPHICS

Age		
8*	Younger than 18	0.0%
	18 to 34	19.4%
	35 to 44	20.4%
	45 to 54	28.6%
	55 to 64	26.5%
	65 and older	5.1%

Residency?	85% Own	13% Rent
Gender:	40% Male	58% Female

Income		
111001110	Under \$20,000	7.1%
	\$20,000 - \$34,999	10.2%
	\$35,000 - \$49,999	13.3%
	\$50,000 - \$74,999	24.5%
	\$75,000 or more	44.9%

Years in the Vancouver area?

Less than 1 year	6.1%
1 - 5 years	19.4%
6 - 10 years	15.3%
More than 10 years	59.2%

Q9: Most Pressing Challenges

- Keeping trees properly maintain, especially privately owned. Keeping trees free of disease, once again privately owned. Public awareness, and approval. 1
- 2 A policy for new developments
- 3 The inability of the City to set (and enforce) appropriate requirements of developers, i.e., removal of trees, or replacement with smaller trees. 1. Poorly planned development or "urban sprawl". 2. Unequal emphasis placed on development at any cost to the quality of life and real estate investments of the current residents of Vancouver. 3. Not enough scenic and safe walking and bike paths to get from residential areas to waterfront areas or parks--must
- drive which increases congestion and pollution 4
- 5 Development and lack of clear tree retention policies
- Increased development, indifference of the population, increased density of population, ignorance, developers looking for the quickest, easiest, and 6 cheapest way to develop their land
- It would be hard for me to say that the management of trees is a pressing issue. There are far more pressing issues than trees that are not being 7 addressed.
- Developers removing more trees than needed for building. Selection of the correct species of trees planted in the urban landscape is critical to assure 8 sustainability of mature trees (so they don't get too large for their setting).
- Funds for tree planting. Use of land for non-greenspace use 9
- reduction of urban sprawl 10
- No comment. I don't really know. 11
- One of the most pressing problems is to keep trees/bushes/plantings back from intersections so that drivers can see oncoming traffic. I'm sure numerous accidents happen because visibility is limited. Also, street signs and traffic controls are sometimes blocked by overhanging trees, etc. 12
- 13 invasive plants lack of community investment
- 14 Educating the people on what works best for our city.

New Construction and the current housing density requirements. Too many homes in too small an area. Contractors/developers not including trees as part of their new housing development plans. The destruction of beautiful mature trees, such as chestnut and walnut trees for new development.

- 16 Disease control; leaves; erratic drivers.
- Replacing canopy lost over the last 20 years. 17
- 18 Maintenance that trees create.

Native Douglas Firs have no special status nor do stands of trees. All trees are reduced to tree units, which allows for easy calculations in tree plans, but ignores reality. Tree conservation ordinance is fatally flawed by this stupid metric, which does nothing to differentially conserve mature trees. It takes a slice of the tree as the measurement, and ignores relative biomass, age, habitat value, and ecosystem services. It provides no incentive to retain mature trees -

just the opposite. 19

15

When a parcel is less than an acre there is always the potential of loss of trees without permits. The cost to developers who cut without permits are charged a minimal fine per tree and per day, with the equipment available it only takes a day to destroy a grove or forest of mature trees. The minimal fine does not impact the developers decisions. There are many areas that replanting has not occurred and it should be the developers that foot the bill and they are not held accountable. 20

- Maintenance issues and development 21
- 22 Getting people, especially developers to understand the value of trees. Making tree conservation and planting a priority for developers and residents.
- Many greenbelt areas are very unhealthy and overgrown creating a disease and fire risk. 23
- 24 residents lack of education on the importance

The prevailing reality that the City of Vancouver talks a good game but does not follow up with severe financial consequences to those landowners, homeowners or developers who disregard the rules and regulations of the City of Vancouver in regards to the conservation and preservation of trees. The regulations are there but there is no teeth in them and the homeowners, landowners and developers are very aware that they can do pretty much what they

- 25 want with no significant consequences.
- 26 To provide good care for existing trees and to continue to have tree plantings to increase the number of trees we have.
- 27 Balance between growth and nature.

Having the city and public offices fairly represent the views of the residence instead of facilitating uncontrolled development for the benefit of the developers. The city has greased the skids to approve all development regardless of the of the regulations and published neighborhood plans. We need to change the economics of development. So that cutting down a tree cost more that leaving it up. This idea of replacement of a 36" dbh fir being "mitigated" by a couple saplings is crazy. There needs to be costs that are far greater to remove the tree than: 1)the timber value when sold and 2) the increased ease of development minus 3) the few cents to replant with a sapling. If the economics of keeping trees are altered through tough laws that are enforce the whole

- canopy problem will take care of itself. Otherwise, conservation of trees will remain the sham it is today in Vancouver. 28 Planting and maintaining trees effectively that will form large and effective canopy vs. the [modern] trees that seem to be planted as an after thought in tiny planter strips along out roads - more similar to bushes than street trees that our great grand parents planted. Then there is the vast redevelopment of our
- last green areas and the inability of our UGB (politicians) to allow for green belts vs. ever expanding development limits. 29
- 30 New developments strip the land of mature trees to build new houses and then plant smaller, immature trees in their place.
- define who's tree it is so home owners feel more ownership or know it's not theirs 31 With all the new housing developments, the trees are being removed and the replaced plantings are not thriving. New residences should be required to provide a minimum of 2 trees with a minimum 3" or greater diameter trunk. Trees and shrubs should be setback from traffic corners a minimum of 15-30 feet to allow a clear view for oncoming traffic. There should be a list of the trees allowed to plant to meet the above requirements, and when additions are done on private property, the site plans should show the existing trees. If a tree is being removed, the homeowner should be required to replace it with a tree
- 32 elsewhere on the property that meets the urban forestry requirements.
- 33 New Development
- 34 maintenance, e.g., pruning
- Getting information on which trees are best suited near powerlines, water/sewer pipes, and sidewalks. Also making sure that there is variety in the trees 35 chosen.

- Improving our urban canopy without restricting private land owners from doing what they want with the vegetation on their property 36
- 37 Urban growth.
- How to control removal 38
- 39 Repair of root damaged sidewalks from trees.

Development and the lack of commitment by developers to protect mature trees, it is cheaper for them to pay a fine than to save mature trees. Homeowners lack of "tree knowledge" on how to care for trees and why it is a benefit for them to care. 40

- Housing growth pushing out trees and older growth. 41 Too much development where all the vegetation is removed and not enough replanting of large trees to replace the ones taken down because they were in
- the wrong place. I live in the county north of Battle Ground, but notice the cooling effect of trees. It is generally 5-10 degrees cooler in the country than in 42 the city.

Encouraging residents to plant appropriate trees and bushes that enhance their lots considering the amount of space that's usually available in newer 43 homes/subdivisions.

- saving trees being lost to new construction ΔΔ
- Stop letting the infill (dense pack) housing take all the trees down so they can jam as many houses / condo's in as little ground as possible. 45 (1) Educating city dwellers in Vancouver. (2) Seeking the proper balance with regard to the Street Tree Ordinance enforcement. (3) Canopy Restoration. (4)
- Forging Partnerships. 46
- 47 The public doesn't realize how many purposes plants can serve.
- Topping by homeowners and unqualified tree care workers. Loss of net tree canopy. Lack of understanding by Vancouver citizens, of the importance of 48 trees in our city.
- Removing viable trees for development and getting people to buy off on replanting juvenile trees. Also feel that it is a "reach" to tie in the urban forest into drainage. I've seen no indication that the benefit outways the flooding caused by root infiltration as well as leaves in the street (clogged drains). Canopies do little to aid in drainage. Great for stream stabilization. 49
- I believe it's probably urban growth, and the use of fossil fuels for heating and transportation. I think with a managed, disciplined approach, we can improve what appears to be (but I guess really isn't) an already-healthy urban forest. No doubt, the fact that we APPEAR to have so many trees will make it harder to "sell" the idea of sustaining and managing the existing urban forest (to say nothing of improving and increasing it!), but it is a critical issue, environmentally, 50 and aesthetically. Involving the community (both citizens and businesses)is, and will be, critical to success.
- How to plant appropriate trees in all areas of the city and have a plan on how to pay for them and who is to maintain them. I would like to have the city plant some very large trees on public land so that we have a variety of trees. Also what is the possibility of encouraging the white oak trees that used to be found 51 in many areas in the Pacific NW.
- Having neighbors cut fir tree in their yards, because of the mess. The hundred year old trees were here before they moved in. They shouldn't move into a wooded neighborhood and then decide to clear cut. 52
- Loss of land to commercial and residential development. 53
- Constant expansion of development and infill; cutting down the existing trees on lots to build new homes, and homeowners' puzzling love of vast expanses 54 of lawn
- Just planting them. Many city parks are bare, they should be a public priority. Using trees in the storm water detention basins and keeping healthy trees, and proper maintenance and replacement of exiting trees or damaged trees. 55
- Lower income property owners don't have the necessary funds to keep their trees healthy. Trees affect the whole neighborhood, yet the responsibility for their health and preservation is up to the property owner. It they can't afford the work or don't care, the trees will suffer. 56
- People 1) plant inappropriate trees 2) top them mercilessly 3) don't water them sufficiently when young i.e. ignorance or lack of caring Developers who only care about a buck, not about quality of life. I want to make a small complaint about the question regarding trees muffling sound. They're no where near as 57
- effective as a sound wall. (sad to say)

- Infill development doesn't allow any room to save trees; should require tree "pockets" in developments - Tree removal violators seem unconcerned about 58 fines...is there another way to deter?

- Stopping property owners from destroying tall, older healthy trees for purposes that are for personal profit and not community minded. 59
- Finding space for evergreen trees like Doug Fir. All the re-planting is done with "leaf" trees. Doug Fir only grow in the NW so we should focus on replanting 60 with them.
- Getting developers to make an effort to save trees when building new housing. 61
- Leaving space of the trees in our community 62
- I think public opinion is a challenge. I don't think people understand that trees are important and consequently don't necessarily support any effort to increase the number of trees in the urban area and care for the trees that are already growing. 63
- Retaining the trees we have. Noise pollution is on the increase with tree removal allowing traffic noise where it was only slightly heard before. 64
- Developers are allowed to cut down old, large existing trees and replant new small decorative trees. Same number of trees, but NOT the same quality!!!
- 65 Vancouver values development, not the environment. The development benefits some people right now, but we will ALL lose in the future!
- Developers cutting trees down to clear a lot for residential and commercial development. We need to increase the fines for tree cutting without permits. 66 I'm not entirely sure what the most pressing problems are for the urban forestry management right now... But I have noticed that although there have been some positive changes in West Vancouver and the downtown area, the surrounding areas (such as the Hazel dell, Evergreen, or Fishers landing) have
- 67 become more and more barren as the residential landscape expands.
- 68 Development.
- 69 preservation of existing trees and planting of new ones.
- Increasing development and the removal of existing vegetation. 70 Educating residents on the benefits of urban forestry will always be a challenge, but I think the Urban Forestry Department and the folks who work there are doing a fantastic job with their limited resources. I have been involved in several of their projects and they really help the communities. I especially enjoy the Heritage Tree guide and shared several copies with my neighborhood association. I think that book should get more widespread distribution than it has. Its very well done. As a neighborhood leader, explaining the responsibility differences between property owners and The City for trees and bushes in parking strips and common areas is difficult for me. Streamline guidance and a clear understanding of who is responsible for what would help me, help them, when
- 71 residents have "tree questions."
- Developers not trying hard enough to save trees in their projects. Cost of new trees for commercial and private properties. 72
- Too many trees being cut down to make way for development. People removing trees in parking strips without permits. 73

education-many are not educated in proper tree placement (given growth patterns) or maintenance that enable the trees to grow properly without harming the surroundings and/or the trees

- 75 Preserving what we have & planting much much more, including by developers that build hideous shopping centers.
- 76 Loss due to development, loss due to poor judgment by private property owners.
- Residents and business people indiscriminately topping and/or removing safe, healthy trees for reasons such as "its too big", "it blocks my view". "I don't like squirrels", "I'm afraid it will blow over", "its too costly to maintain", etc.
- 78 Keeping developers from cutting them down.
- 79 DEVELOPERS

74

- 80 Getting Developers' cooperation in adhering to ordinances requiring replacement of plant material and not just planting junk and letting it die. Loss of existing large trees. Development that removes all of the trees from an area and then doesn't replant enough large trees to take their place. Dense
- 81 development that leaves little room for trees in yards and on streets.
- 82 Ivy. Disease and blight. Ignorance.
- 83 Development must be done in tree houses or we will loose all of our trees.
- 84 Overcoming the thinking that by planting new trees we are making up for the old growth that is being plowed under in mass droves by new development. Developing development criteria for preservation and re-establishing the tree canopy in the city. I think the new neighborhoods need to be advised in the early stages of development as to the best varieties of trees and shrubs to get established in there new neighborhoods so we develop a canopy that has the
- 85 greatest opportunity for survival and which will benefit the quality of life and the environment.
 86 Street trees that are not compatible with sidewalks ie. vaulting, homeowners' lack of responsibility for st
- 86 Street trees that are not compatible with sidewalks ie. vaulting, homeowners' lack of responsibility for street trees, strips, etc.
 Weak tree conservation ordinance combined with aggressive development. Too few restrictions and/or incentives to retain mature trees. Lack of rational
 87 prioritization for open spaces and conservation. Ignoring cost savings of tree ecosystem services in development planning decisions.
- To keep developers from cutting down old growth in established neighborhoods. Unfortunately there are little or no enforcement or fines collected for cutting down old growth by developers. Guidelines should be established and explained to developers and then enforced to protect trees that are considered old growth.
- 89 In-fill rules/laws allow trees to be removed so more buildings can be put on a lot.
- 90 Continued growth but I do think an effort is being made to be aware of how that growth affects the environment.
- 91 PUD or legislation vs community
- 92 Types of trees lack diversity and are generally wimpy. Hard to mandate a change in this.
- 93 Getting people to realize the benefits of tree management in our urban areas.
- Stopping land owners from cutting them down willy nilly. For any tree to be cut down, there should be a permit required. Trees should not be considered personal property, but public property even on private land.
- Need for stronger enforcement in tree ordinance. Site plans with development/developers need to include preservation of existing site trees. Preserve 95 mature trees instead of cutting and replacing with younger immature trees. No dicker with fines in regards to tree offenses
- 96 topping; lack of citizen involvement; apathy; lack of tree care knowledge; invasive species; global climate change
- 97 proper care of trees and topping.
Q30: Other Comments

- It is important to save heritage trees (old grow) in new developments 1 I would support a tax increase if I could be ensured the city and state would actually spend the money to deliver programs which enhanced the quality of life. Just pruning trees is not enough. We need to protect our current trees, parks and the critical habitat areas better than we have in the past. This will take 2 courage and change. If this doesn't happen, Vancouver will always be the poor stepsister to Portland.
- The reason I would not help in tree planting is because I have physical limitations. I don't want any more trees because I have a mini-forest in my yard right 3 now.
- I beleive that the number of trees in Vancouver is much higher than it was years ago. I feel that the city spends to much time and money on this issue and restricts the rights of home owners in many ways. The city should be a support service for homeowners and not focus on fines and requiring permits for 4
- tree related issues.
- The tree canopy for Vancouver is much lower than the current goal. Any money put towards increasing the canopy will be a huge benefit for Vancouver. 5 Taxes, taxes, taxes!!! While trees are extremely important to the environment, and lovely to look at, I personally would buy a tree or two to add to the tree's
- in my neighborhood, but I would NOT be willing to have my taxes raised to pay for trees in other places. 6 This is great stuff. My only issue is with the survey itself- it could be construed as being too focused on homeowners while ignoring everyone else. The 7 viewpoint of renters (in apts. especially) are just as important.
- No one likes to hear "more taxes"; however, any new program comes with additional costs. I would be concerned about being forced to plant a certain type 8 of tree in my front yard, etc.
- There should be a yearly analysis of the tree canopy. The goal for canopy coverage is too low. Urban Forestry needs more influence in approval process 9 for development.
- Any mature tree that is vulnerable to developement or removal by private or public land owners should be assessed and fines should be extremely higher to all who cut trees without permits. Replanting should required within a timely manner and fines issued for every day after the timely manner expires to replace the tree or trees or vegetation. 10
- I didn't know there was an urban forestry department or any tree ordinances until recently. I think it is terrible that developers continue to clear cut our big 11 Doug firs especially when they start to build.
- We also need to develop guidelines for use of fruit trees in parks urban areas. 12
- The City of Vancouver has been in an advisory stage about tree issues and needs to step up and aggressively enforce the tree ordinances and conservation plans and support the efforts of neighbors to conserve and protect the remaining trees in their neighborhood as well as provide programs for 13 replacement and ehancement of trees.
- We need to develop tough tree conservation laws and enforce the existing ones to prevent developers from destroying the little mature canope we have left (~17% now). We need to conserve all remaining mature trees and make preparation to raise the canope level to the optimal 40%.. with trees like Doug Fir and other indiginous species... not just "pretty ornamentals". 14
- The care and provision of street trees [and sidewalks] with in the public right of way should be handled by the city along all arterials and school walking routes/ bikeways, just as the city now sweeps/ plows/ paves the streets for car drivers. Another way of financing this activity might be either an increase in
- 15 the utility tax (due to power and phone lines) or energy tax (trees minimizing the heat island effect).
- 16 when it's time for a tree to be removed do it and replant do not make a huge ordeal out of it
 - I would think that the review process for new construction could include urban forestry review and that the plan review fee for that review should reduce the amount of taxes required from the public. I know there are grants available for cities who are improving thier environment, so I would hope that city staff would research this avenue first. The acorns all over the downtown area make it very hard for pedestrians to navigate the sidewalks.
- 17 3 Questions about raising taxes? What could that mean? :) I prefer volunteer programs, incentives and education to let the community care for the community wherever possible. After that, then we can look at government intervention. Just my thoughts. 18
- I would like to see a coordinated effort with city and county so all of Clark County would benefit with the drive for tree health and development of public space trees. Also a standard for developers that protected existing high quality trees in both the city and the county and fines that did not make it easier and cheaper to pay the fine than save the tree. 19
- At this point i believe the forestry program is a joke. The developers took down all the big trees across the street from me when the the new houses / streets were laid out. the remaining trees tehn blew over leaving NONE !!!! Everyone knew this would happen but joke of a "certified" specialist said tehy 20 would be fine. Do we remove his license now????
- I believe the grounds department does a good job with the trees in the parks and medians (question 26?) Why is it stated that the city currently has no long term tree care or tree monitoring? Also find it a curiosity of how urban forestry is funded (storm water fees?) 21
- I live in a neighborhood where virtually nobody owns the property on which they live. So a lot of these questions are hard to answer. Fortunately, my apartment complex has several trees, and our road frontage does, also. They appear to be well-maintained. But issues of responsibility -- or the permission 22 to do anything with those trees -- sorta don't work out for apartment dwellers... unfortunately.
- Ther are some areas in the Cascade East housing area which are part of a watershed that could and I think should be planted with large trees. Also the 23 area between Cascade Park Dr and Hwy 14 needs more evergreen and largish trees to damping the growing noise.
- Like most people, I assume, I don't want to intrude on landowners' ability to use their property, but tree cover is very important. Any program which helps landowners keep or increase tree cover and/or mitigate reasonably for development - I would support, even if it meant a small tax increase. I am often 24 saddened to see established trees torn down, seemingly unnecessarily, for new development. Thanks for the opportunity to contribute!
- 25 Thanks for all the work you do. You're making a difference!!!!!!!!
- There should be more priority on saving older trees rather than replanting. Many trees are being killed on private property that are older than 40 years.
- 26 That's a long time to wait for a sapling to grow.
- We can not live with out trees 27 I admit to a lack of knowledge about how the city deals with its trees, so it's kind of impossible to express an opinion about how the city is doing or where it is going. But I do think it's important to have some municipal focus on what's happening with the city's trees and an effort to consistently require tree
- 28 planting in conjunction with development.

In the area I live in (18th St and 136th) trees are coming down to widen roads and to make room for huge apartment developments. The land is being leveled, paved, and built on, and it's sad to see. They take down 100 year old trees and replace them with new, small decorative trees and call it even?! I gr to pacific park 4 times a week to walk with my kids. Right now it's undeveloped and we look for rabbits, owls and other birds, grasshoppers, ladybugs, differents types of flowers, and we pick blackberries, etc. It's so nice to walk on an unpaved path! Soon it will be developed into a "community park" and I wonder how many trees will come down, and whether the fields will be plowed up to make room for parking, paved bike paths, etc. To some I guess it just looks like wasted space waiting to be transformed into something usable by people (organized sports fields, etc) It's sad...

- As a neighborhood leader one of the most difficult issues we deal with is maintaining street trees especially for lower income residents. Currently we have street trees that damaged sidewalks and bushes so overgrown they make the sidewalk unuseable. Unfortunately the residents cannot afford or otherwise dont have the resources to take care of these problems. Planting new street trees is not a problem, previous neighborhood plantings have shown to be successful staffed by volunteers. If resources are going to be dedicated to Urban Forestry they'd be more helpful in maintenance program.

1. Question 29 is confusing because it doesn't specify "street trees," thereby making the question identical to # 27. 2. I've often said if I were in charge of the world, I'd require new owners of property along major streets to leave 1/2 block, or at least 1/4, as it is. So for instance, forest and farmland would still border SE 164th and 192nd Avenues. Along the old pit where Home Depot and WalMart are, there'd be new tree plantings at least 1/4 block deep. The

- 31 same with East Mill Plain. I certainly would make sure that what remains along SE 192nd and SE 34th would be preserved. Alas, I'm not in charge. the programs should provide assistance for private property owners to become educated on tree maintenance and low cost tree issues. The property 32 owners and city should work together-not be the burden of one party alone.
- Housing developments & shopping centers should not get away with planting skinny tiny trees to comply with whatever minimal extant requirements. 33 Current huge ugly parking lots should be required to have trees.
- 34 The program has grown in the right direction. Excellent staff. Great mix of partnerships.
- 35 It is a great program worth supporting

29

- 36 Street trees are a worthwhile investment. The city is also entitled to regulate which trees are grown if they are the ones caring for them
- I am so impressed with the staff of Urban Forestry and their commitment to their jobs, trees, and this community. Kudos to them for doing so much with just three of them!!! I have loved trees since I was a child and it is such an encouragement to have such a program in our city.
- Urban Forestry appears to be understaffed, with many responsibilities. They also have too little influence in development policies and decisions. The ongoing loss of canopy cover is critical to reverse to avoid a decline in our quality of life and environment, and deter an increase in infrastructure costs, due stormwater and energy impacts.
- Stop unneeded tree removal by developers first. If the public sees this leadership from Urban Forestry they would respond in kind. Then you would have the support you are seeking.
- Trees are very important, but trees on individual property should NOT be cared for by local government. Local government should take care of trees on public property. We have too many fees and taxes in Vancouver now and projects like sidewalks and road repair are not being done. We don't need more government oversight.
- I have taken the tree steward program, and am an advocate for trees. I am encouraged at the commitment by the city for the urban forrestly program. I am 41 also dissapointed that there is so much city property that could have trees, but doesn't.
- 42 As a good friend once said, "trees are the lungs of the earth" Have business "adopt" a tree or trees in their vacinity to help
- 43 need to preserve native oaks

APPENDIX C: Public Meeting Summaries



Urban Forestry Management Plan Public Open House Summary Notes Martin Luther King Elementary, Media Center October 24, 6:30-8:00PM

<u>Overview</u>

Approximately 15 people attended the Urban Forestry Management Plan open house. Five display stations provided graphic and narrative information for residents to review, comment, and discuss. The stations included the following:

- Urban Forestry Program Overview
- Vision for the Future
- Tree Canopy
- Street Trees
- Other Needs and Wrap-up

The information below is a summary of comments recorded during the open house. Additionally, comment forms were provided at the sign-in table, and comments received are also documented below.

Vision

- Get it back to what it looked like 50 years ago.... 40% canopy with evergreens
- Native plants
- Every neighborhood association provides significant support to managing the urban forest with:
 - o Expertise
 - o Financial resources
 - o Advocacy for expanded canopy with residents and businesses
- A larger Urban Forestry Department
- Conduct more partnership projects; involve the Scouts, Cascade Pacific Council, and others
- Look to the Seattle Plan: short-lived vs. long-lived trees; native trees, especially evergreens; tree tracts

Canopy

- Provide for the 40% coverage objective
- Infill and small lots are hard to replant with larger tree species; obtain "tree tracts"
- Provide incentives to maintain mature tree canopy on private lands
 - o Property tax credit
 - o Increment by DBH and benefit created
 - o Equate to tree conservation ordinance penalty assessments

Street Trees

- Lower carbon emissions in vehicles along with street trees
- Fund mass transit

Tree removal preferable to topping

Looking Forward - Conclusion

- Promote more ivy removal
 - Work with Columbian to publish an annual article
 - Conduct more coordinated projects with volunteers and conservation groups
 - Provide flyers within the NHA newsletters
- Develop a map of areas with poor or limited canopy coverage for distribution to neighborhood associations – as a tool to engage neighbors and enable more focused activism
- Double-check the canopy study results for the Hough NHA (published data seems too low)
- Develop a school-based curriculum; work with schools more to engage students in understanding urban forestry in general and the "no topping" campaign in particular
- Make Urban Forestry part of a broader, citywide greening campaign (reference to mayor's interest in more sustainable design and building)
- Assess the health and quality of existing stands of mature trees
- Revisit the Tree Conservation Ordinance to give more priority to mature trees in development projects; it's not species specific; need to retain natives and long-lived species
- Publicly celebrate "wins" along the way; provide "hope" to residents that improvements are occurring
- Provide for more nature areas

Comment Forms

Vision: a 40% tree canopy full of old growth trees, none of which are topped; preserve more existing large trees and add more native trees in parks and natural areas.

Other concerns: as much as possible, save existing large trees when areas are being developed, since they are rarely replanted (do this in county too, not just city)

Outreach: email notifications of new information on website or new activities to be involved in



Urban Forestry Management Plan Public Open House #2 & Draft Plan Review Summary Notes

McLoughlin Middle School, Cafeteria February 15, 2007: 6:30-8:00PM

Overview:

Approximately 5 people attended the Urban Forestry Management Plan open house. Five display stations provided graphic and narrative information for residents to review, comment and discuss. The stations included the following:

- Urban Forestry Program Overview
- Goals: Tree Resource Protection
- Goals: Tree Resource Expansion
- Goals: Tree Maintenance and Care
- Goals: Outreach and Education

The information represents comments recorded during and after the open house regarding the content of the first public draft plan.

Comments:

Date: 2/15/07

Name: Candy Tiller

I had hoped to attend the Urban Forestry "Tree Canopy" meeting tonight because I have serious concerns for what has happened to our community, city, county over the past few years. Enforcement for the 'Tree Conservation Ordinance' in Vancouver does not happen. <> I ask if anyone has actually read the 2003 report for the Canopy Project? I ask because I have and since 2003 there has been a huge destruction of trees in the Burton/Evergreen area. An area that was once actually green with a tree canopy that made the whole community a nice place to live. It is now, roads, houses and pavement and there is saplings where mature firs once grew and were not diseased or a hazard to the area, contrary, they were what made the community a place one wants to reside. <> I for one have had the chain-saws appear in the adjacent yard and cut a perfectly beautiful mature fir for no other reason than to meet a quota necessary for the VHA to have tree work done on other properties. The effect was my yard was devastated because I grow native ferns, and trees. I've owned my home since 1995 and what was one a park like yard with wildlife and wild flowers, is now an open area with the impact of winds from the west toppling my 30 foot cedar and apple tree because there is no wind break from the West anymore. And for no reason other than someone wanted to. <> The streets and neighborhoods in the Burton Evergreen area or open and the weather has changed because there are the loss of wind shields and no more root systems or vegetation to absorb the water. What use to be a wonderful, visually and physically healthy environment is now at the hands of developers and lack of enforcement for replacement for canopy. The Evergreen bus garage is now a concrete wasteland, the firs an evergreens are gone. Yes temperatures will be higher this summer and the next. There's no shade from nature, winds will topple other trees that are not use to the winds, and weather. <> Last I knew the Vancouver City Limits extended beyond Main Street. Since our neighborhood, and community was annexed into the city it has been in constant change to metropolitan, with little energy placed on maintaining the beauty, and community health provided by our tree canopy. "Cut the trees, build the houses, widen the streets, build run offs because there is no vegetation to absorb the water, increase erosion, remove shade and quality air provided by our canopy", what do we have now, all the things we in

Open House #2 & Plan Review Summary Comments Page 2 of 5

the community moved away from for quality of life. And do emails, and public meetings matter, NO. 'What will be will be', and our city and county government are worried about a flipping access to another city in another state. <> My daughter told me that she believed that her grandchildren would only know what a barn is from pictures. I told her that may be true, but her great grandchildren may only know what a tree over 20 feet looks like from pictures. <> I am currently a MSW student and would like to become active in Social Welfare, and work with Urban Forestry. But I have to say, I believe someone should read the 2003 project report. I would bet that all the land density and population printouts would be totally breath taking in a bad way. <> In 2003 the study showed the target density was 60 acres of canopy per 1000 people. This is 2007, population has almost doubled. It is now time to candy coat the truth and lower the level of canopy for our community to meet the needs of roads and housing. We went from 48% canopy in 1972 to 24% in 2003. Now we are at an estimated 19.5% of canopy using the measurement tools from the 2003 survey. Our target goal is 28%? This all sounds so much like LBJ 'Thrifty Food Program' to combat poverty. Change the numbers presented to the average citizen and everything looks good? <> Our community will never be the same, the developers who build 'Sunrise Glen' cut the mature firs along the property line between 'Forest Estates' and nothing was done and there is just an open wound in the community. It doesn't matter what target goals are determined, what does matter is that current ordinances are enforced, fines of a substantial amount placed on those who do not comply and do not care because the building, and selling of the lumber from the fallen, is far more profitable than a \$500 fine per mature tree that took 35 to 60 years to be. <> I have my opinions, as does everyone, but I also have so many questions about our community development for the key informants and what are we doing to rescue what is left of the canopy and what use to be things that promoted health, and well being, and quality of life, when the pressures of economics, life, etc., are so often a very heavy a responsibility. I'm just glad my children are grown and can choose to leave the area if they choose, and they will because they miss the trees and vegetation, barns, and the simple things that make life so magic.

Date: 2/15/07

Name: Dale Erikson

Add information about Firstenburg site design...footprint of parking lot such that more mature trees could be retained and adequate space set aside for planting new trees. There should be no fundraising expectation for Commission members; fundraising should be voluntary and through a separate organization such as the Evergreen Arboretum.

Date: 2/15/07

Name: Donna Young

- Focus on maintaining existing trees where appropriate. Increase canopy goal—28% doesn't seem like enough. What kinds of incentives would be offered? (see Goals 2.4 and 2.5)
- Who would be financially responsible? Would there be any reinforcement once draft proposals become permanent?
- Education and outreach ideas are very good.
- There are already groups in Clark County with similar goals. Will there be a joining of forces?
- Good plan, but <u>huge</u> in scope. As the plan solidifies hopefully it will be a bit more concise?

Date: 2/15/07

Name: Jean Akers

- Good start. Incorporate more <u>graphics</u> to convey value of <u>urban</u> trees & change due to urbanization.
- Add "Rapid, radical change" to the City's development codes to ensure a minimum 28% forest canopy for the future.

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Date: 2/15/07

Name: Holly Corbett & George Prentice

- Goals should be what is really desired not just what we think we can achieve (i.e. 40% canopy vs. 28%)
- Find actionable way to protect stands of trees now (mature trees) consider tree conservation overlay to marry with CAO non-riparian habitat overlay
- Make the cost of any tree removal so expensive that avoidance is preferable for developers and owners
- Make "Avoid > Minimize > Mitigate the rule followed in developed areas not just talk
- Critical Areas Ordinance must be enforced by City priority habitat is defined cannot be removed for development
- Tree conservation ordinance not strong enough, seek equal replacement not current tree unit (use DBH value of every tree as model)
- Must follow up on development to make sure when they say trees will not be removed or destroyed

 if so, they must pay something that hurts
- More native species instead of ornamentals
- Require diversification of species to enhance robustness of environment
- We need legislation that covers existing private stands (part education, part policy)
- Biologist for hire (CAO) during development process does not work. They pick facts to support the conclusion of their client and do not address the habitat value of trees on site.
- Policy must balance the developers desire to make a lot of money with the neighborhood's good. The rewards for cutting down trees are tremendous; the rewards for saving trees are difficult and indirect. Neighbors cannot spend 10s or 100s of hours defending our environment.
- Conduct another LiDAR study
- Connect with funeral homes and hospital as means to expand outreach about Witness Tree program

Date: 2/20/07

Name: Paul Singer

Allow me to provide the following comments on the Preliminary Draft City of Vancouver Urban Forestry Management Plan.

In general, it seemed to me to be an excellent plan demonstrating considerable work and commitment.
 Under "Threats" is the issue of "Public fear or ignorance regarding hazard trees, tree care, wildfire and wind damage concerns." I suggest some specific resource be provided to offset unrealistic fear or ignorance to reduce the loss of trees on small private holdings. Perhaps an informational pamphlet could be prepared on the subject on how realistic is a tree hazard. This information could be included in concert with the informational material listed in section 1.2 (page 34) or included in the mailings with utilities or services bills.
 The Clark Public Utilities Wildlife Stewards might be a compatible resource to dispense information on the Urban Forestry Management Plan.

4. Under Section 4, Education and Outreach, the public might be enlisted through periodic "nature walks" either sponsored through the Department of Urban Forestry or in concert with other organizations.

Hope this helps. In case you have not seen it, suggest reading the very short story of Elzéard Bouffier. You can find it at http://home.infomaniak.ch/~arboretum/man_tree.htm. Elzéard Bouffier is known as the Man Who Planted Trees and Grew Happiness.

Date: 2/18/07 Name: Elizabeth Walker

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Congratulations on your draft plan – quite impressive. I would however point out a small but critical error. In the front part of the draft plan (page 15 I think) it says that the Tree Conservation code was adopted in 2004. As the former and first-time urban forester for the City, I developed the original code that was adopted in 1997 (appears to have been amended in 2004). Please make the correction so I have some semblance of making a contribution to what is a successful program.

Date: 3/5/07

Name: Karen Wood

1. What is your vision for the city's urban forest 20 to 50 years from now?

20 years from now, to have at least maintained the current level of tree canopy and have a citizen and development community that understands the value of trees and cares about preserving and enhancing them. It would be nice to increase the tree canopy, but at the rate development is occurring with its associated tree removal, and the rate my neighbors are cutting down their trees, it seems unrealistic to see an improvement in only 20 years. 50 years from now, to have enhanced the tree canopy to a level that is twice what it is now, due to maintaining existing large trees and planting new trees over the years, both on public and private property.

2. In general, what are your thoughts regarding the Draft Plan?

I think it has some excellent goals and action steps that should at least maintain the existing level of tree canopy, if not improve it. I like that tree resource protection is the first goal since it is important to reduce the number of large trees that are being cut down. Education and outreach to citizens and the development community is also very important, so they will both approach tree management in a way that protects the tree canopy. See below for more specific comments.

3. Are there any specific goals or actions that should be added to the Draft Plan? None come to mind. It seems to have thoroughly covered the range of possibilities for improving the tree canopy in Vancouver.

4. Do you think the Draft Plan is too ambitious or not ambitious enough?

It's probably too ambitious and is likely to be constrained by staff time and budgets, but I don't think it hurts to have all of the goals and action items included for future implementation. It will probably be necessary to prioritize based on available funding and staff time, hopefully with the actions that will get the most canopy improvement focused on first.

5. Additional questions or comments--on goals and action steps.

- Goal 1.1 Perhaps groups like Columbia Land Trust could help with protection of large tracts of forest lands, in addition to using Public Works and Parks acquisition programs.
- Goal 1.2 It would be great if cash donations could provide funds for plantings on public lands. I
 would probably donate, especially if I knew what property my donation would be used on so I could
 see the results of my donation.
- Goal 1.3 I hope the action items for promoting tree-friendly development and land use practices can be implemented since this is such an important goal. It will be much harder to maintain and improve the tree canopy if we keep cutting down so many trees when property is developed. The idea of creating canopy corridors is very good.
- Goal 2.1 It would be nice to see swales planted with something other than grass.
- Goal 2.3 Would be great if churches and schools could plant more trees on their property instead of the usual large expanses of grass.

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- Goal 2.5 I think it is very important to have the program include the Vancouver urban growth boundary. Too often, land outside city limits is allowed to be developed by the county with little regard for preserving or replacing existing trees. Alternative would be for Clark County to improve its development policies regarding trees. If the program only applies to Vancouver city limits, then we will always be playing catch up to undo the damage done when land outside the city limits is developed.
- Goal 3.3 The action items under this goal (to assist in the development of natural area management) are great ideas, hope they can be implemented.
- Goal 4.1 A monthly urban forestry column in The Columbian is a great idea. Maybe the Home and Garden section would be a good place for it. Also, helping developers and homeowners understand the financial benefits of trees would probably result in fewer trees cut down and more trees planted.
- Goal 5.3 If not happening already, I think it is an important job of the Urban Forestry group to ensure development tree plans are adequate and the tree conservation ordinance is enforced and violations are pursued.
- On page 22, under threats, I think the bullet on conflicting policy mandates captures one of the main reasons why the Vancouver tree canopy is decreasing. One of the biggest challenges to increasing the tree canopy is the conflict with the goals of residential densification and economic development. I wish it could somehow be addressed.

Thanks for the opportunity to comment on the draft Urban Forestry Management Plan. Hope submitting these comments at the last minute is not a problem.

APPENDIX D: Funding Options

Financing Options & Incentives

Land Conservation

Washington Conservation Reserve Enhancement Program (CREP) United States Department of Agriculture – Farm Service Agency

This program is a federal/state partnership, authorized in 1998, that involves the retirement of farmland for conservation purposes. Washington CREP focuses on the preservation and restoration of riparian habitat that supports salmon listed under the Endangered Species Act. This voluntary program provides financial incentives to farmers and ranchers to remove lands from agricultural production. Eligible landowners enter into agreements for periods of 10 to 15 years. Landowners receive an annual rental payment and cost-sharing is available for habitat enhancements. The federal Farm Service Agency is the primary administrative agency. This program may be applicable to properties within the unincorporated urban area with remnant farmlands.

Conservation Reserve Program (CRP) United States Department of Agriculture – Farm Service Agency

The Conservation Reserve Program provides annual rental payments and cost-share assistance to help preserve and enhance sensitive habitat areas on qualifying agricultural lands. The program, established in 1986, is voluntary. Lands enrolled in the CRP must be used for riparian buffers, filter strips, shallow water areas for wildlife, or other uses that provide beneficial habitat values. Landowners enter into agreements that last 10 to 15 years. Unlike the 1998 CREP, the CRP is not limited to stream areas that support salmon runs listed under the federal Endangered Species Act. As with CREP, the CRP may have limited application within the city limits of Vancouver, since few agricultural lands remain.

Forest Legacy Program Washington State Department of Natural Resources U.S. Forest Service

This program provides funds to acquire permanent conservation easements on private forestlands that are at risk of being converted to non-forest uses such as residential or commercial development. Congress established the program in 1990, and DNR is the lead state agency for the program in Washington State. The program is intended to preserve "working forests," where forestlands are managed for the production of forest products and where traditional forest uses are encouraged. These uses will include both commodity production and non-commodity values such as healthy riparian areas, important scenic, aesthetic, cultural, fish, wildlife and recreation resources, and other ecological values. Historically, the program focus has been on the I-90 Highway Corridor east of Puget Sound within the Mountains-to-Sound Greenway area. This program may be applicable to properties within the unincorporated urban area with working forest lots.

Current Use Taxation

Clark County

Clark County's current use taxation program applies to lands in both incorporated and unincorporated areas. It provides tax reductions to land holders in return for maintaining their land in an undeveloped condition. The program derives its authority in the 1970 Washington Open Space Taxation Act (RCW 84.34, 458-30 WAC), which establishes procedures for tax deferments for

agricultural, timber, and open space lands. Owners of such lands may apply to be taxed according to current use, rather than true market value--a considerable difference in some cases. When the property is removed from the program, the tax savings realized by the land owners for a period dating back up to seven years, plus interest, are collected. Tax savings dating back further than seven years may not be collected. If the removal of classification or change of use occurs in less than ten years or if the owner fails to provide two years advance notification of withdrawal, an additional 20 percent penalty is imposed.

Transfer of Development Rights

The transfer of development rights (TDR) is an incentive-based planning tool that allows land owners to trade the right to develop property to its fullest extent in one area for the right to develop beyond existing regulations in another area. Local governments may establish the specific areas in which development may be limited or restricted and the areas in which development beyond regulation may be allowed. Usually, but not always, the "sending" and "receiving" property are under common ownership. Some programs allow for different ownership, which, in effect, establishes a market for development rights to be bought and sold.

Land Trusts

Land trusts are private non-profit organizations that act to conserve locally important lands and traditionally are not associated with any government agency. Land trusts serving the region include the Columbia Land Trust (CLT), the Nature Conservancy (TNC) and the Trust for Public Land (TPL).

Habitat Enhancement

Washington Wildlife and Recreation Program (WWRP) Washington State Interagency Committee for Outdoor Recreation (IAC)

The IAC is a state office that allocates funds to local and state agencies for the acquisition and development of wildlife habitat and outdoor recreation properties. Funding sources managed by the IAC include the Washington Wildlife and Recreation Program. The WWRP is divided into Habitat Conservation and Outdoor Recreation Accounts; these are further divided into several project categories. Cities, counties, and other local sponsors may apply for acquisition and/or development funding in urban wildlife habitat, local parks, trails, and water access categories. Certain state agencies may also apply for funding in natural areas, critical habitat, and state parks categories. Funds for local agencies are awarded on a matching basis. The State Legislature must authorize funding for the WWRP project lists.

Washington State Ecosystems Conservation Program (WSECP) U.S. Fish and Wildlife Service (USFWS)

This WSCEP was established in 1990 and is divided into federal- and state-managed components. The federal program focuses funds on projects that help restore habitat for threatened, endangered and sensitive species and, secondarily, for species of concern. In addition, the program attempts to concentrate funds within a limited number of watersheds to maximize program benefits. The program provides funds to cooperating agencies or organizations. These grants, in turn, can be distributed among project sites. The program requires a 50% cost-share from cooperating agencies, and individual landowners at project sites must enter into maintenance/management agreements that have a 10-year minimum duration.

Local Funding Options

If an aggressive program were devised to pursue land acquisition as the preferred means to protect treed lands, a number of local funding options are available for consideration. Those listed below represent likely sources, but discussion with city leadership is critical for endorsement and to assess the political landscape to fund such a program. Additionally, several of these sources can be used for planting projects, outreach and on-going maintenance.

Excess Levy

Washington law allows cities to levy property taxes in excess of limitations imposed by statute when authorized by the voters. Levy approval requires 60 percent majority vote at a general or special election. Excess levies by school districts are the most common use of this authority.

General Obligation Bonds

For the purposes of funding capital projects, such as land acquisitions or facility construction, cities and counties have the authority to borrow money by selling bonds. Voter-approved general obligation bonds may be sold only after receiving a 60 percent majority vote at a general or special election. If approved, an excess property tax is levied each year for the life of the bond to pay both principal and interest. Vancouver has a maximum debt limits for voter-approved bonds of two and one-half percent of the value of taxable property in the city. The city has an additional two and one-half percent for municipal water, sewer and lighting facilities, and an additional two and one-half percent for acquisition and development of open space and park facilities.

Utility Taxes

Cities are authorized to impose taxes on utility services, such as telephone, electric and natural gas. Legislative maximums limit the amount of tax that may be collected. For example, the maximum tax rate for electric and natural gas is six percent. Maximums may be exceeded for a specific purpose and time period with majority voter approval. City operated water and sewer utilities do not share the 6% limit.

Surface Water Management Fees

Currently, Public Works supports Urban Forestry through dedication of a portion of the City's surface water management fees. These funds are used specifically to provide City services related to canopy restoration: coordination of contractor and volunteer tree planting efforts, outreach and education to promote environmental stewardship, and enhanced customer service. The use of this funding source is in recognition of the importance of the urban forest for stormwater management functions, water quality protection, and Clean Water Act, Clean Air Act, and Endangered Species Act compliance.

Real Estate Excise Tax

Washington law authorizes the governing bodies of counties and cities to impose excise taxes on the sale of real property within limits set by the statute. Two (2) taxes of ¹/₄ of 1% may be imposed; however, the funds can only be used on capital projects listed in the capital facilities plan. Specifically related to urban forestry, such projects would likely need to be associated with one of the following project types to be eligible: parks; recreational facilities; trails; or river and/or waterway flood control projects. Currently, REET cannot be used for maintenance or operations.

City Tree Fund

As a component of the city's Tree Conservation Ordinance (VMC 20.770), a Tree Fund was established to receive funds from all tree-related, civil penalties and other revenue sources such as the sale of trees, wood and/or seedlings. Funds in the tree account can be used or a variety purposes including, acquiring, maintaining, and preserving wooded areas within the city, propagating seedlings, conducting urban forestry education, and managing the heritage tree program. Additionally, grants and donations received can be placed into this fund.

Conservation Futures

Clark County

The Conservation Futures levy is provided for in Chapter 84.34 of the Revised Code of Washington. Boards of County Commissioners may impose by resolution a property tax up to six and onequarter cents per thousand dollars of assessed value for the purpose of acquiring interest in open space, farm, and timber lands. Conservation Futures funds may be used for acquisition purposes only. Funds may be used to acquire mineral rights, and leaseback agreements are permitted. The statute prohibits the use of eminent domain to acquire property. [*Currently in Clark County, these funds have bonded forward to finance a discrete selection of acquisitions. No funding from this source is available at this time.*]

Community Development Block Grants

U.S. Department of Housing and Urban Development

These funds are intended to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low and moderate income persons. Vancouver's CDBG program staff can assist in determining the viability of these funds for specific projects.

Other Funding Methods & Sources

Front Foot Assessment / Street Utility Fee

A front foot assessment is the traditional funding source for street tree maintenance throughout the United States, but is currently not authorized by Washington law. It is dedicated funding source for the management and maintenance of street trees, including planting, pruning, and monitoring. A comprehensive street tree program would help ensure that hazards and storm damage are minimized and that the benefits of trees are equitably distributed throughout the municipality. As noted in this plan, the Parks and Recreation surveys in 2001 and 2005 and the Urban Forestry survey in 2006 suggest a willingness to pay for this service, but there is currently no funding mechanism in place. Vancouver should join with State and Regional efforts to enable this funding source and review possibilities to utilize this funding solution for street tree maintenance at some point in the future.

Private Fundraising

Fundraising projects are used to support special projects and programs. Tree climbing tournaments and plant sales are two examples of successful fundraising efforts.

Additionally, specific types and sources of fundraising are identified below.

Endowment / Trust Fund

An endowment or trust fund, similar to the Casey Tree Endowment Fund of Washington D.C., could provide a funding source for future tree planting projects and maintenance operations. An aggressive capital campaign could raise the seed money to establish the fund, with future interest earned providing a stable, steady revenue stream. The Parks Foundation, a 501(c)3, non-profit corporation dedicated to funding parks, trails and recreational opportunities throughout Clark County is a somewhat similar local example.

Business Sponsorships/Donations

Business sponsorships for programs are available throughout the year. Sponsorships and donations can be of any value. The Urban Forestry program's relationship with Columbia Credit Union illustrates the viability of such sponsor development.

Private Grants, Donations & Gifts

Many trusts and private foundations provide funding for park, recreation and open space projects. Grants from these sources are typically allocated through a competitive application process, and vary dramatically in size based on the financial resources and funding criteria of the organization. Philanthropic giving is another source of project funding. Efforts in this area may involve cash gifts and include donations through other mechanisms such as wills or insurance policies.

Community Forestry Assistance Grants, awarded on a matching basis, are available through the Washington State Department of Natural Resources, utilizing funding from the USDA Forest Service. Up to \$120,000 in grant money was available in 2005 and could be used for ordinance development, tree inventory efforts, or development of a street tree management plan. Significant budget reductions in Urban & Community Forestry at the Federal level threaten the continued availability of this grant source. However, the Washington Community Forestry Council has lobbied for an investment of State funding to replace the dwindling Federal dollars.

Other grant monies are available through organizations such as the National Tree Trust (NTT) and the National Urban and Community Forestry Advisory Council (NUCFAC), two prominent national urban and community forestry nonprofit organizations.

Interagency Agreements

State law provides for interagency cooperative efforts between units of government. Such an agreement between Vancouver and Clark County might be considered if an extension of urban forestry services into the Vancouver unincorporated urban area is contemplated.

APPENDIX E: Adopting Ordinance

12-11-06 12-18-06

ORDINANCE NO. M-3859

AN ORDINANCE relating to land use and zoning; adopting the Urban Forestry Management Plan as a policy and planning document, and, by reference, as a component of the 2003-2023 Vancouver Comprehensive Plan; providing for an effective date.

WHEREAS, the Vancouver Planning Commission held duly advertised public hearings on June 12 and November 27, 2007 to consider the above referenced proposal to adopt a policy and planning document and amend the text of the Vancouver Comprehensive Plan, and took public testimony; and

WHEREAS, after deliberation, the Planning Commission recommended approval of the above referenced proposal; and

WHEREAS, the City Council held a duly advertised first reading of this ordinance on December 10, 2007 followed by a duly advertised second reading and public hearing of this ordinance on December 17, 2007 and did consider the cumulative impacts of approving the subject proposals together with other proposed amendments in the same annual cycle;

WHEREAS, a Preliminary Determination of Non-significance (DNS), with attached nonproject environmental checklist, was issued for the proposed Urban Forestry Management Plan ORDINANCE - 1 A7112801/JM:MW (UFMP), and its adoption by reference as a component of the 2003-2023 Vancouver Comprehensive Plan, on May 4, 2007; and

WHEREAS, no substantive comments being received by the end of the comment period, a Notice of Final SEPA Determination of Non-Significance was issued on May 23, 2007 with the related Staff Report for the June 12, 2007 Planning Commission hearing. The procedural appeal period ended on June 12, 2007 with no appeals received.

NOW, THEREFORE,

BE IT ORDAINED BY THE CITY OF VANCOUVER:

Section 1. Findings. City Council makes the following legislative findings:

A. SEPA. The requirements of VMC 20.790 (SEPA Regulations) have been satisfied.
B. Comprehensive Plan Policies. The proposed Urban Forestry Management Plan (UFMP) is consistent with and advances achievement of the environmental policies of the Vancouver
Comprehensive Plan and multiple goals and objectives of the Vancouver-Clark Comprehensive Parks, Recreation and Open Space Plan.

C. Consistency with Approval Criteria. This amendment to the Comprehensive Plan is consistent with the applicable provisions of the Growth Management Act, state and federal law, or other legal mandates; the applicable provisions of the Community Framework Plan, Countywide Planning Policies, and the Vancouver Comprehensive Plan, and necessary to further the public interest based on present needs and conditions, as required by VMC 20.85.070 (B) and 20.285.090. The proposed changes to the text of Appendix E of the Comprehensive Plan will have no significant or appreciable adverse impact on the available land supply, transportation system, or other public services due to the policy level nature of the changes.

ORDINANCE - 2

Section 3. Comprehensive Plan Amended. Appendix E of the 2003-2023 Vancouver Comprehensive Plan, as previously amended in the 2004, 2005, and 2006 Annual Review cycles, shall be amended to include the Urban Forestry Management Plan as a document adopted by reference as a component of the Comprehensive Plan.

Section 4. Severability. If any clause, sentence, paragraph, section, or part of this ordinance or the application thereof to any person or circumstances shall be adjudged by any court of competent jurisdiction to be invalid, such order or judgment shall be confined in its operation to the controversy in which it was rendered and shall not affect or invalidate the remainder of any parts thereof to any other person or circumstances and to this end the provisions of each clause, sentence, paragraph, section or part of this law are hereby declared to be severable.

Section 5. Effective Date. This ordinance shall become effective 30 days after final adoption.

Read the first time: December 10, 2007

PASSED BY THE FOLLOWING VOTE:

Ayes:

Councilmembers: Smith, heavith, Sterdart Harris Councilmembers: A Nays:

Absent: Councilmembers: A Jone

Councilmembers:

Councilmembers:

Read the second time: December 17, 2007

PASSED BY THE FOLLOWING VOTE: Smith Leavet Stewart Narris Jon Kavich, Jollota, Pollard

Ayes:

Nays:

Councilmembers: None Absent:

ORDINANCE - 3

SIGNED this

day of December, 2007.

Royce E. Pollard, Mayor

Attest:

1772

R. Lloyd Tylør, City Clerk By: Carrie Lewellen, Deputy City Clerk

Approved as to form: Ted. H. Gathe, City Attorney

ORDINANCE - 4

SUMMARY

ORDINANCE NO. M-3859

AN ORDINANCE relating to land use and zoning; adopting the Urban Forestry Management Plan (UFMP) as a policy and planning document, and, by reference, as a component of the 2003-2023 Vancouver Comprehensive Plan; providing for an effective date 30 days after final adoption.

ORDINANCE - 5