KIRKLAND PARK BOARD

Date: June 13, 2012
Time: 7:00 p.m.
Place: Council Chambers, City Hall

The mission of the Park Board shall be to provide policy advice and assistance to the Department of Parks and Community Services and City Council in order to ensure the effective provision of Parks and Community Services programs and facilities to the residents of the City of Kirkland.

AGENDA

1. CALL TO ORDER

2. ROLL CALL *5 minutes*

3. APPROVAL OF MINUTES *5 minutes*
May Park Board Meeting Minutes

4. ITEMS FROM THE AUDIENCE *5 minutes*

5. REVIEW OF ACTION ITEMS
No items

6. PRESENTATIONS *30 minutes*
Urban Forest Management Plan

7. COMMUNICATIONS *15 minutes*
a. Correspondence
b. Staff Reports
- June update
c. Committee Reports
d. Comments from the Chair

8. UNFINISHED BUSINESS
a. Park Funding Exploratory Committee *15 minutes*
Topic: Receive update on Park Funding Exploratory Committee
Action: Discussion only

b. July Park Board Tour *10 minutes*
Topic: Finalize itinerary for July tour
Action: Discussion only

9. NEW BUSINESS
No items

10. MEETING EVALUATION *5 minutes*

11. ADJOURNMENT *Estimated meeting completion: 8:30 p.m.*
Next meeting: Park Board Tour July 11, 2012, depart City Hall 5:30 p.m.

PARK BOARD MINUTES – May 9, 2012

1. CALL TO ORDER

The May Park Board regular meeting was called to order at 7:00 p.m. by Chair Sue Keller.

2. ROLL CALL

Members present: Chair Sue Keller, Vice Chair Shawn Fenn, Sue Contreras, Amy Johnson, Shelley Kloba, Ted Marx and Adam White.

Rick Ockerman was excused.

Staff present: Michael Cogle, Jason Filan, Linda Murphy and Jennifer Schroder.

Recording Secretary: Cheryl Harmon

3. APPROVAL OF MINUTES

Ms. Kloba asked a clarifying question. Mr. White moved to approve the April minutes as presented. Mr. Marx seconded. Motion carried (7-0).

4. ITEMS FROM THE AUDIENCE

No items.

5. REVIEW OF ACTION ITEMS

No items.

6. PRESENTATIONS

No items.

7. COMMUNICATIONS

a. Correspondence
No items.

b. Staff Reports
Ms. Schroder reported on the "Experience It" tagline, Earth Day event and other volunteer activities, recreation leagues, activity at Peter Kirk Pool preparing for the open of the season and a request for funding of the Green Kirkland Partnership for the remainder of 2012 from unallocated Real Estate Excise Tax (REET).

Ms. Murphy answered questions related to tennis camps and revenue trends.

DRAFT

c. Committee Reports
Ms. Contreras reported on Kudos Kirkland and other volunteer activities.

Ms. Johnson reported on volunteer work by the Lake Washington High School Honors Society.

Mr. Marx reported on the recent public workshop on boating issues on Lake Washington, an upcoming Finn Hill Neighborhood Alliance meeting, OO Denny Park construction and injured wildlife at Juanita Bay Park.

Mr. Fenn reported on the Cross Kirkland Corridor dedication event held in April.

d. Comments from the Chair
Ms. Keller reported on the Highlands Neighborhood meeting, and Nourishing Networks.

8. UNFINISHED BUSINESS

a. Cross Kirkland Corridor Master Plan
Mr. Cogle introduced Joel Pfundt, Transportation Commission Chair, who presented a draft of the scope of work for a Request for Qualifications (RFQ) to develop a master plan for the Cross Kirkland Corridor.

Mr. Pfundt and staff answered questions related to the master plan process.

b. Park Funding Exploratory Committee
Ms. Schroder provided an update to the Board on current activities related to the potential ballot measures.

A public opinion survey was recently completed. The results will be presented to City Council at its next meeting and shared with the Park Board in June.

c. 2013-2018 Capital Improvement Program
Mr. Cogle presented an alternative Parks CIP which would be recommended in the event a Parks funding measure is not placed on the November ballot.

Mr. Fenn moved to approve alternative proposed CIP as presented. Ms. Contreras seconded. Motion carried (7-0)

9. NEW BUSINESS

a. July Park Board Tour
Mr. Cogle requested input on the itinerary for a July Park Board Tour.

10. MEETING EVALUATION

“Quick”
“Always interesting”

DRAFT

11. ADJOURNMENT

Mr White moved to adjourn. M s Kloba seconded. Motion carried (7-0).

Meeting adjourned at 8:09 p.m.

Jennifer Schroder, Director Parks and Community Services	Sue Keller, Chair Park Board

DRAFT

CITY OF KIRKLAND
Department of Planning and Community Development
123 Fifth Avenue, Kirkland, WA 98033
425.587.3225 - www.kirklandwa.gov

MEMORANDUM

To: Park Board

From: Deb Powers, Urban Forester

Date: June 7, 2012

Subject: DRAFT URBAN FOREST STRATEGIC MANAGEMENT PLAN

RECOMMENDATION:

Review the draft document and provide feedback at the June 13, 2012 Park Board meeting.

BACKGROUND DISCUSSION:

In 2011, the Kirkland Park Board acknowledged its support to develop a city-wide urban forest strategic management plan (Attachment 1). The purpose of the plan is to provide guidance for City staff, decision-makers and the community to sustainably manage its urban forest asset. The City successfully obtained grant funding for the project, formed a Project Team and selected Davey Research Group as a contractor to develop the plan.

Although the document is currently in an early draft stage, the Project Team felt it would be an opportune time to obtain the Board's input prior to further development of the Plan. Please review the Draft Urban Forest Strategic Management Plan for substantive content, focusing on the purpose of the plan, its conclusions and recommendations. The highlighted sections pertain to Parks Department operations and issues (Attachment 2).

For additional context, the project scope of work is outlined in the RFP (Attachment 3). The Board's changes will be incorporated into the next draft revision; the project schedule is as follows:

June 22	3rd Draft Revision submittal by Davey Research Group
June 29	Final graphics, photos, formatting by IT/Multimedia
July, 2012	Public engagement process
Sept 18	City Council Study Session

Attachments:

1. Letter of Support from Kirkland Park Board
2. Draft Urban Forest Management Plan (not for public release)
3. Request for Proposal for the City-wide Urban Forest Management Plan

Attachment 1

January 24, 2010

Sarah Foster, Program Manager
State of Washington
Department of Natural Resources
Urban & Community Forestry Program

Re: 2011 Community and Forestry Assistance Grant

Dear Ms. Foster,

On behalf of the Kirkland Park Board, we heartily support the City of Kirkland's application for funding to support an Urban Forest Strategic Management Plan.

The Park Board, a 10-member advisory body appointed by the Kirkland City Council, has for many years advocated for effective and comprehensive management of the City's tree resources. We are proud that Kirkland has attained, for the eighth straight year, Tree City U.S.A. status as bestowed by the National Arbor Day Foundation.

Most recently through our acclaimed Green Kirkland program a 20-year Reforestation Plan was adopted to help guide our community's efforts to improve our urban forests in parks and open spaces. An Urban Forest Strategic Management Plan would help link our 20-year Reforestation Plan with other important Kirkland natural resource initiatives affecting both public and private properties, with the ultimate goal of strengthening our community's ability to manage our urban forest. Given that Kirkland is one of the more densely-developed cities in King County, an effective Strategic Management Plan seems especially vital.

We appreciate your consideration of this request for funding and welcome the opportunity to work on this project.

Sincerely,

Robert Kamuda, Chair
Kirkland Park Board

123 Fifth Avenue • Kirkland, Washington 98033-6189 • 425.587.3000 • TTY 425.587.3111 • www.ci.kirkland.wa.us

Attachment 2

PARKS BOARD DRAFT

URBAN FOREST STRATEGIC MANAGEMENT PLAN [DRAFT]

CITY OF KIRKLAND

MAY 2012

Submitted to: The City of Kirkland

Submitted by: Davey Resource Group

Funding assistance was provided by the USDA Forest Service and the Washington State Department of Natural Resources Urban and Community Forestry Program. The USDA is an equal opportunity provider and employer.

ACKNOWLEDGMENTS

Mayor
Joan McBride

Deputy Mayor
Doreen Marchione

Councilmembers
Bob Sternoff
Penny Sweet
Toby Nixon
Amy Walen
Dave Asher

City Manager
Kurt Triplett

Assistant City Manager
Marilynne Beard

City of Kirkland Project Team
Deb Powers, Project Lead / Urban Forester, *Planning & Community Development*
Paul Stewart, Deputy Director / *Planning & Community Development*
Jason Filan, Park Operations Manager / *Parks and Community Services*
Jenny Gaus, Surface Water Engineering Supervisor / *Public Works*
Sharon Rodman, Environmental Education and Outreach Specialist/ *Parks and Community Services*
Bobbi Wallace, Surface Water & Wastewater Manager / *Public Works*
Mark Padgett, Grounds Lead / *Public Works*

This report would not be possible without interviewing numerous City staff as well as members from the Green Building Team and the Development Review Committee. Marilynne Beard, The Kirkland Parks Board, and Eric Shields, Director of Planning & Community Development took the time to review the draft document and provide valuable feedback as well.

Forterra and the Kirkland Parks Board provided letters of support to gain project funding.

DRAFT

TABLE OF CONTENTS i

EXECUTIVE SUMMARY 1

1. INTRODUCTION 3

1.1 History 3

1.2 Benefits of the Urban Forest 4

2. COMMUNITY CONTEXT 8

2.1 Community Vision 8

2.2 Public Input 10

(Placeholder for Public Input) **..... 10**

3 PLAN OVERVIEW 11

3.1 Methodology 11

3.2 Plan Oversight 13

3.3 Monitoring and Revisions 13

4. THE URBAN FOREST ASSET 14

4.1 Urban Forestry Documents 14

4.2 Measuring the Urban Forest Asset 15

4.3 Urban Forest Asset Performance Indicators 17

5. THE MUNICIPAL RESOURCE 19

5.1 Review of Existing Operations 19

5.4 Potential Program Funding Strategies 25

5.5 Best Management Practices 28

5.8 Municipal Resource Performance Indicators 32

6. COMMUNITY RESOURCES 33

6.1.1 The Green Kirkland Partnership 33

6.1.2 Tree City USA 33

6.1.3 The City of Kirkland Website 33

6.1.4 *Community Resources /Stakeholders identified in Phase II* 34

6.2 Community Resource Performance Indicators 34

7. RECOMMENDATIONS 35

7.1 Long-Range Strategic Goals 35

7.1.1 Urban Forest Asset Goals 36

7.1.2 Municipal Resource Goals 38

7.1.3 Community Resource Goals 39

DRAFT

7.2 Recommended 5 Year Goals 2013-2018 ..... **42**
7.3 Recommended Annual Work Plan for 2013 ..... **44**
8. REFERENCES 46
APPENDIX A: PERFORMANCE MEASURES 48
Urban Forest Asset Criteria & Indicators **48**
The Municipal Resource Criteria & Indicators **50**
Community Resource Criteria & Indicators **52**
APPENDIX B: Strategic Recommendations 54
The Urban Forest Asset **54**
The Municipal Resource **55**
Community Resources **56**

DRAFT

Attachment 2

EXECUTIVE SUMMARY

The purpose of this plan is to provide a sustainable management strategy for urban forestry operations. Fortunately, much of the professional and scientific knowledge necessary for improving urban forest health and its management is more readily available. What are not always available are the resources to support better management. Utilizing a strategic management plan enables businesses, groups or agencies to efficiently meet short term objectives that align with a long term vision and the flexibility to adapt to changes along the way. Without strategic planning, an organization's efforts may be effective on a daily basis but it is less likely to achieve a desired outcome over time in the most efficient manner with the least liability. This strategic management plan will address these issues along with recommendations on urban forestry operations, policies and programs.

Fundamentally, Kirkland will be making decisions with this plan that are aligned with core community values and vision about the urban forest established through public engagement. Staying cognizant of these values while objectives and priorities are adjusted over the next 20 years will be another strategy to ensure that the city urban forestry efforts are successful in achieving the desired outcomes. **All aspects of this plan should strive to manage the urban forest in a way that values:**

- Mitigating risks and liabilities associated with trees.
- Optimizing the ecosystem services provided by trees
- Creating pathways to stable and predictable funding.
- Controlling tree maintenance costs to the community

There were seven (7) framework goals outlined in the City's Comprehensive Plan, which reflect the community's vision for Kirkland's future, provide the background and precedence for this plan. A review of current forestry operations was conducted by examining Kirkland's adopted policies, codes and forestry-related documents and interviewing key staff members. A thorough and analytical assessment of the City's current urban forest operations was made to recommend strategies for enhancing the quality of the canopy cover and effective management on both public and private lands. Three departments were identified as those primarily engaged in urban forest management activities: Public Works, Planning and the Parks Departments. Using current business modeling, Best Management Practices and comparisons to local municipal forestry operations, the City's forestry practices were assessed according to three focus areas with the following summary conclusions and recommendations:

The Urban Forest Asset – This is how Kirkland describes and quantifies the trees that collectively become its urban forest. Currently, Kirkland's ability to track and quantify important aspects of its urban forest is fair to inadequate. The outdated street tree inventory does not include the recently annexed area. No inventory exists for trees in the City's formally landscaped parks. Although the City's 20-Year Forest Restoration Plan assesses the quality and health of native trees and vegetation located in city parks, it does not include the significant acreage of open space in the annexation area. The 2011 Tree Canopy Assessment includes data in the annexation area and indicates Kirkland has "met" its canopy goal; however the City has not adopted plans to conduct additional canopy assessments.

> ***Summary Recommendation:*** *Although canopy assessments are an excellent performance measure to quantify the overall urban forest, the quality of Kirkland's urban forest cannot be*

assessed by canopy measures alone. The city should utilize additional tracking tools and performance measures in order to efficiently manage the risks and liabilities associated with public trees, frame policies to effectively balance private tree management and development interests, and monitor the health of its urban forest to maximize its value. This can be accomplished by maintaining detailed inventories that define the structure and function of the urban forest. Inventories should stay current for use with accepted scientific models, such as the United States Department of Agriculture's i-Tree Suite of tools.

The Municipal Resource – This is the administrative staff, policies and protocols intended to manage the urban forest asset. Trees are a community asset with management strategies that involve many departments within the City of Kirkland. Staff priorities for urban forestry operations are currently driven by reactive management tactics due to budgetary constraints. This limits the city's ability to realize efficiency gains from pro-active management. There is no centralized urban forestry program or division, with operations involving a moderate level of informal intra-departmental cooperation and communication. The result is a general disconnect between staff's understanding of the City's urban forestry policies and the public's understanding and application of them.

Summary Recommendation: The City needs to set new priorities for daily operations of existing urban forestry staff based on plan goals in order to transition toward pro-active management. This will allow Kirkland to improve the efficiency of current service levels and more effectively control costs. The City should routinely evaluate staffing levels commensurate with its tree codes and the community's vision and expected levels of service.

Community Resources – This represents the residents, community groups, developers and other associations that can influence and support urban forest management in the city. As evidenced by the success of the Green Kirkland Partnership, the City has active neighborhood associations, volunteer groups and business interests that support natural resource stewardship, however without an updated urban forest management strategy; efforts from these groups are not always supported by the City or by the general community's vision for Kirkland's urban forest.

Summary Recommendation: The city should develop better pathways for the community to understand the value of trees and participate in stewardship opportunities. Coordination of efforts should be led by the creation of a formal interdepartmental Urban Forestry Team that can strategically engage the public to encourage community alignment with forest stewardship goals and reduce tree management expenses to both residents and businesses in the community.

This document is organized to introduce urban forest management in the City of Kirkland from the broadest perspective such as the historical context for this plan and benefits of Kirkland's trees. It details the community's vision for the urban forest and the current urban forest management activities in the city. Based on this information, the plan recommends 21 goals (outlined in Section 7) for the city to pursue along a 20 year timeline concluding in 2033. These long-term goals will be achieved through adapting the plan according to a five year cyclical review of operational objectives. Priority management actions have been recommended for the first five year cycle from 2013 to 2018. Each five year interval includes an adaptive management benchmark that incorporates periodic reviews and updates to achieve Kirkland's urban forest vision and objectives, even if the criteria and indicators change over time. The result is a plan that it will remain relevant to the community over the entire 20 years.

1. INTRODUCTION

With a recent annexation, the City of Kirkland nearly doubled its area and significantly increased its population, making it the 13th largest city in Washington State. As a consequence, the City also increased its urban forest resource considerably. While Kirkland has committed to accept its share of growth and development, the challenge becomes balancing this growth while maintaining livable communities. Often conflicts arise between residents who feel the city is compromising its natural resources as a result of development, and those who feel Kirkland's urban forest is self-sustaining. In addition to the challenge of balanced growth, City staff may not have sufficient staff resources or information for adequately managing an expanded urban forest.

Effective management of the urban forest requires considerable vision and forethought. Trees are relatively-long lived organisms that are slow to adapt to changes in their environment. Trees in urban settings are often constrained in their ability to grow naturally as roads and sidewalks, overhead utilities, homes and buildings are constructed. Much like rural forestland, ensuring a long-term succession of healthy trees in cites can be challenging. In the ever-changing urban (built) environment, trees require decades of deliberate management efforts to simply survive long enough to make contributions to ecosystem and public benefits. With advances in technology and science, these benefits have become quantifiable, and can be used as indicators for healthy communities as growth and population density increase.

For these main reasons, a significant review of urban forestry activity in the city has become necessary, with the results becoming an integral component to this Urban Forestry Strategic Management Plan. **The purpose of this plan** is to review and assess how Kirkland currently manages its urban forest resource and to recommend strategies that align urban forest management activities with Kirkland's overarching Comprehensive Plan.

1.1 History

Kirkland's earliest settlers were attracted to its natural resources: the abundant timber and lakeside setting would support the potential steel, wool and shipbuilding industries of Kirkland from the late1800's to the mid-1940's. The native forest remnants left behind, intentionally or unintentionally, as the City developed its homes, businesses, streets, landscapes and parks create the community forest structure that exists today.

Over time, the value of trees and vegetation in Kirkland's urban forest has transitioned from a primarily economic interest to an increasingly complex ecological system with quantifiable benefits to the community. Today, public trees can be categorized as capital assets and as components of a city's "green infrastructure". To achieve sustainable management of this asset, the naturally occurring and planted trees must provide the community with a continuing level of economic, social and environmental benefits into the future. Species diversity and population balance are key components to achieving this end. While a neighborhood or community may enjoy the consistency of a common species planted along a street, too many of any one species can have detrimental effects on the urban forest. Introduced pests or disease can easily spread and decimate an entire species population. In addition, storms and drought can affect one species differently than another and wipe out species that are more vulnerable. Finally,

uniform species tend to have uniform life spans, so removals may be required over a matter of years, leaving a barren look. Put simply, Kirkland now appreciates the measurable contributions of trees to the environmental, social and economic well being of the community as a whole

1.2 Benefits of the Urban Forest

"*Whereas, a healthy sustainable forest provides a natural way to filter stormwater runoff, remove carbon from the air and provide important recreation opportunities for city residents to connect with nature…"* ***Kirkland City Council Resolution R-4689, 2008***

The urban forest has surpassed its original role in public policy as a pleasing aesthetic amenity to soften the urban landscape. It is perceived as a solution to many more pressing urban environmental problems and even as a tool for community, social and economic development. City Council resolutions such as R-4689 and Kirkland's 10 year designation as a Tree City USA are evidence that the City recognizes trees and their contribution to the quality of life in Kirkland. More cities are recognizing trees as capital investments, but unlike other components of city infrastructure, a well-maintained tree population will continue to increase in value every year and make significant contributions to environmental quality.

Emerging technology has made calculating the value of municipalities' urban forest benefits a cost-effective consideration. Using USDA Forest Service i-Tree software tools in conjunction with a complete inventory or sample data is the most commonly-used method for assessing the city-wide cost-benefits of trees. This software considers regional environmental data and costs to quantify the ecosystem services unique to a given urban forest resource. Citizens can then calculate the benefits of trees on their property by using the National Tree Benefit Calculator or with i-Tree Design.

The following sections describe the specific environmental, economic and social benefits of trees.

1.2.1 Improved Water Quality

Urban stormwater runoff is a major source of contamination for Lake Washington and riparian areas in Kirkland, threatening salmon populations and human health. Requirements for surface water management are becoming more stringent and costly for both developers and the City. By incorporating the right kind of urban trees in stormwater management planning, runoff volumes are decreased along with reducing the expense of constructing detention facilities and the cost of treatment to remove sediment and other pollutants.

- **Interception -** Trees intercept rainfall in their canopy, which act as a mini-reservoir. Some water evaporates from the canopy, and some soaks into the ground, reducing the total amount of runoff. (Xiao et al, 1998). Canopy interception lessens soil compaction.
- **Increasing soil capacity and infiltration -**. Root growth and decomposition increase the capacity and rate of soil infiltration by rainfall and snowmelt (McPherson et al, 2002).Slower percolation rates increase the filtration of contaminants.

- **Reducing soil erosion** – Tree roots reduce the flow and volume of stormwater runoff, avoiding erosion and preventing sediments and other pollutants from entering streams, rivers, Lake Washington, and the Puget Sound.
- **Providing salmon habitat** – Shade from trees helps to cool warm urban runoff, which poses a threat to anadromous fish, like salmon. Shade from trees provides lakeside and riparian habitat for salmon and lowers water temperatures so more dissolved oxygen is in the water, which is essential to salmon survival.

1.2.2 Improved Air Quality

Air pollution is a serious health threat that causes asthma, coughing, headaches, respiratory and heart disease, and cancer. According to the Puget Sound Clean Air Agency, in 2010 the Air Quality Index continued to be "good" for most days in the Puget Sound, however air quality degrades into the "moderate" category approximately one tenth of the time and to "unhealthy for sensitive groups" for brief periods. Trees are efficient air-cleaning machines, improving air quality in the following ways:

- **Reduce particulate matter (dust)** - Trees intercept particulate matter (PM10), including dust, ash, pollen, and smoke. The particulates are filtered and held in the tree canopy where they are eventually washed harmlessly to the ground.
- **Absorbing gaseous pollutants -** Trees and forests absorb harmful gaseous pollutants like ozone (O3), nitrogen dioxide (NO2), and sulfur dioxide (SO_2).
- **Ozone reduction -** Shade and transpiration reduces the formation of O3, which is brought on by higher temperatures. Some trees can absorb more volatile organic compounds (VOC's) than previously thought (Karl, T. et al; Science NOW). VOC's are a class of carbon-based particles emitted from automobile exhaust, lawnmowers, and other human activities.
- **Increasing oxygen levels** - In addition, through photosynthesis, trees and vegetation increase oxygen levels in the atmosphere.

1.2.3 Carbon Sequestration

Trees absorb atmospheric carbon, which reduces greenhouse gases. The carbon-related function of trees is measured in two ways: storage (total stored in tree biomass) and sequestration (the absorption rate per year). Two national policy considerations are currently making headlines: the establishment of a carbon tax and a greenhouse gas cap-and-trade system, aimed at reducing atmospheric CO_2 and other greenhouse gases. A carbon tax would place a tax burden on each unit of greenhouse gas emission and would require regulated entities to pay for their level of emissions. Alternatively, in a cap-and-trade system, an upper limit (or cap) is placed on global (federal, regional, or other jurisdiction) levels of greenhouse gas emissions and the regulated entities would be required to either reduce emissions to required limits or purchase emissions allowances in order to meet the cap (Williams et al, 2007).

The concept of purchasing emission allowances (offsets) has led to the acceptance of carbon credits as a commodity that can be exchanged for financial gain. Recently-developed reporting protocols include

urban tree planting projects within municipalities, educational campuses, and utility service areas anywhere in the U.S. as carbon offsets (McPherson et al, 2008).

1.2.4 Energy Conservation

Urban trees and forests modify the environment and conserve energy in three principal ways:

- **Shade dwellings and impervious surfaces** – Impervious surfaces have increased by 20 percent over the past two decades in urban areas. Shade from trees reduces the amount of radiant energy absorbed and stored by impervious surfaces, thereby reducing the urban heat island effect, a term that describes the increase in urban temperatures in relation to surrounding locations. Shading structures also reduces the amount of energy used to cool a structure.
- **Transpiration -** Transpiration releases water vapor from tree canopies, which cools the surrounding area. Through shade and transpiration, trees and other vegetation within an urban setting modify the environment and reduce heat island effects. Temperature differences of more than 9°F (5°C) have been observed between city centers without adequate canopy cover and more vegetated suburban areas (Akbari et al, 1992).
- **Wind reduction -** Trees reduce wind speeds by up to 50% and influence the movement of air and pollutants along streets and out of urban canyons. By reducing air movement into buildings and against conductive surfaces (e.g., glass, metal siding), trees reduce conductive heat loss from buildings, translating into potential annual heating savings of 25% (Heisler, 1986).
- **Green Roofs**- Native trees and vegetation on rooftops can help reduce the urban heat island effect, decrease the heat loss through rooftops and provide a beautiful addition not only for enjoyment to humans, but also contribute to the success of the community's ecosystem by increasing habitat for all living creatures.

1.2.5 Other Social-Economic Benefits

Research into the aesthetic and socioeconomic benefits of the urban forests are providing quantifiable benefits from trees such as:

- **Human Health & Well-being -** Exposure to nature, including trees, has a healthy impact on humans, including increased worker productivity, higher test scores, reduced symptoms of Attention Deficit Disorder (ADD), and faster recovery times following surgery.
- **Reductions in Crime** – Empirical evidence shows a connection between trees and reduced violent crime and theft (Kaplan, 1989; Ulrich, 1986).
- **Increased Property Values –** Studies have shown how buyers are more attracted to a mixed-use high-density urban dwelling when mature trees are part of the surrounding landscape. On average, street trees add $8,870 to home sales prices in Portland and reduced time on the market by 1.7 days. In addition, this increase in property values due to the presence of trees extends to neighboring houses (Donovan, 2010).
- **Economic Stability for Businesses-** Trees have shown to stimulate more frequent and extended shopping and a willingness to pay more for goods and parking. (Wolf, 2007).

Numerous other benefits, such as wildlife habitat, biodiversity, and scenic values, have been traditionally regarded as free social goods. Undervaluing these services in economic decisions may result in an urban

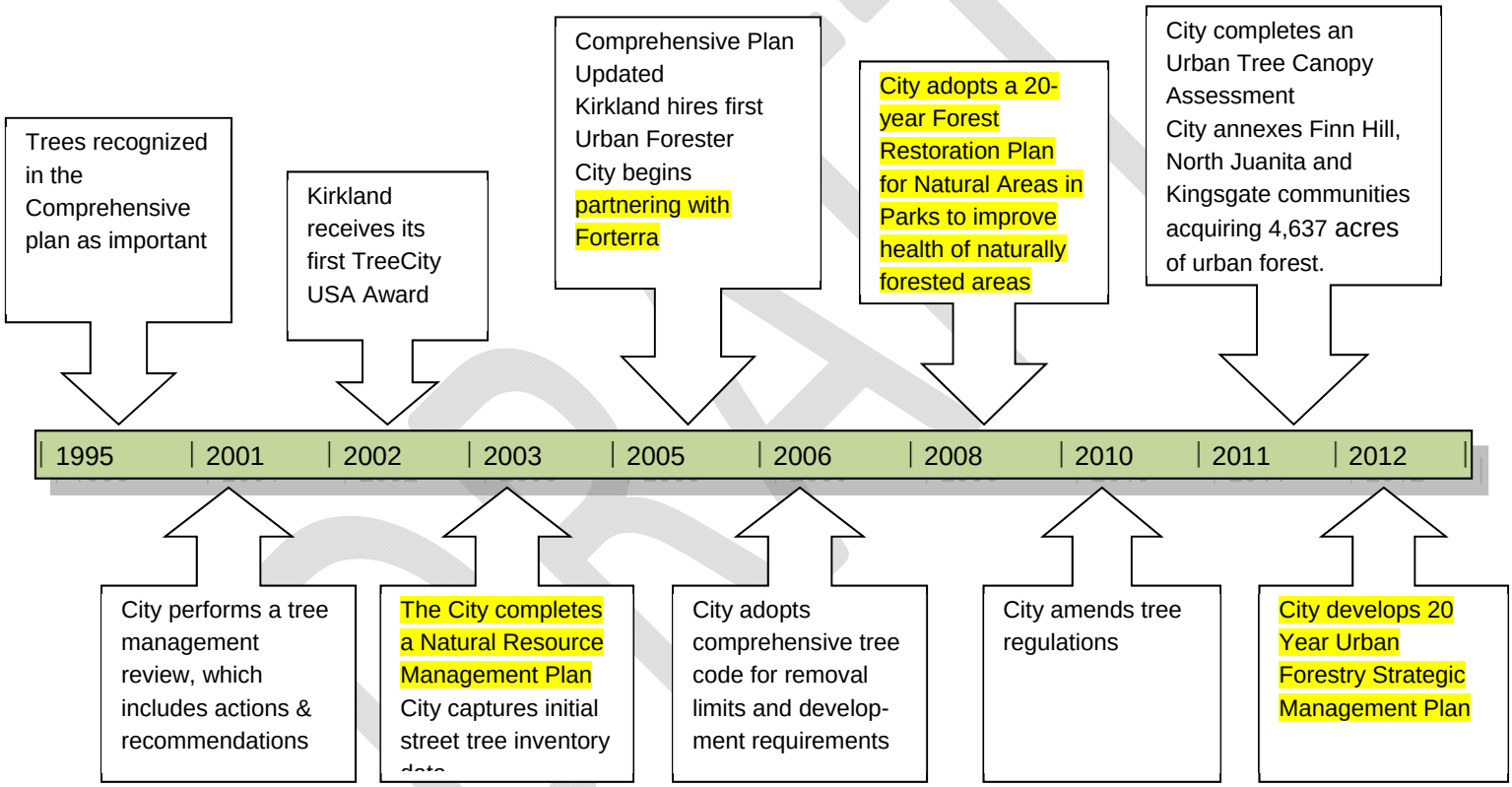
forest vulnerable to development and conversion to other uses, often increasing real economic costs for environmental protection after the damage is done.

Trees create livable cities on an aesthetic level but also in terms of health, safety and economic stability. A conscious mutual effort on the City's and the community's behalf is required to ensure the benefits of an urban forest continue to contribute to Kirkland's attractiveness as a place to work, live and play. Establishing the strategies outlined in this Plan help to sustain a healthy urban forest asset.

DRAFT

2. COMMUNITY CONTEXT

Urban forest management at the City was formalized established through community interest and political will in the 1990's. The Growth Management Act (GMA), passed by the State Legislature in 1990, required that counties and cities develop policies to guide their growth and development. As a part of Kirkland's compliance with state requirements, community trees were first recognized in the City Comprehensive Plan of 1995. At that time Kirkland had included language that reflected community support and appreciation for a healthy environment and urban forest. Since then, the City has developed codes to protect trees, hired dedicated urban forestry staff, collected asset data about its urban forest and engaged the community for support. The following chart illustrates the increased recognition and importance of urban forestry for Kirkland.



2.1 Community Vision

The community established a vision related to trees and ecological systems in Kirkland's Comprehensive Plan as follows:

> *"…We strive to protect and restore the shoreline and water quality of Lake Washington. We preserve our open space network of wetlands, stream corridors, and wooded hillsides. These natural systems provide habitat for fish and wildlife and serve many essential biological, hydrological and geological functions. Streets are lined with a variety of trees, and vegetation is abundant throughout*

the City. The water and air are clean. We consider community stewardship of the environment to be very important."

Realizing this vision is further articulated as Comprehensive Plan framework goals (FG) that were adopted by the Kirkland City Council. The framework goals below are identified in this urban forest management plan to illustrate the relationship where urban forestry values connect with values that are currently recognized by the city:

Framework Goal	Comprehensive Plan Statements Regarding Framework Goals	Urban Forestry Value
FG-5: Protect & preserve environmental resources and reduce greenhouse gas emissions to ensure a healthy environment.	"Efforts to maintain significant sensitive areas, natural features, the urban forest and vegetation, clean air and water through active community stewardship, and to curtail climate change as a result of global warming, are critical to our quality of life."	***Critical***
FG-7: Encourage a sustainable community.	"…As Kirkland develops and rebuilds, we have an opportunity and a responsibility to create a sustainable community that balances urban growth with resource protection. "	***Important***
FG-11: Maintain existing park facilities, while seeking opportunities to expand and enhance the current range of facilities & recreational programs.	"Kirkland is regionally known for its outstanding park system. Kirkland's parks also provide a prominent source of community identity and pride."	***Important***
FG-12: Ensure public safety.	"The City also has a central role in emergency preparedness and responding to natural and manmade disasters. Plans should be in place and well coordinated with local hospitals, schools, communication systems and other jurisdictions."	***Limited***
FG-13: Maintain existing adopted levels of service for important public facilities.	"Similarly, some localized deficiencies exist in the sanitary sewer and water supply systems that will require correction. Where possible, we should continue to improve all of these facilities and services above the minimum adopted level of service to preserve our quality of life and the environment."	***Limited***
FG-15: Solve regional problems that affect Kirkland through regional coordination and partnerships.	"Many challenges facing Kirkland and other local communities may only be solved through regional planning, funding and action. Transportation, affordable housing, employment, climate change, and natural resource management are just a few of the issues that need regional coordination."	***Important***
FG-16: Promote active citizen involvement and outreach education in development decisions and planning for Kirkland's future.	"Kirkland's future will be determined by a myriad of independent actions taken by individuals and groups who live, work, shop, and play here. Planning for the future offers the opportunity for all community members to cooperatively identify a vision for the City's future and to coordinate their actions in achieving that vision."	***Important***

2.2 Public Input

Building on the community's vision for the environment from the Comprehensive Plan, a community outreach effort will be conducted in July-August 2012. The outcome of this public engagement will be the formulation of a guiding statement or data *[from a visioning exercise or questionnaire]* and the community's priorities for managing the urban forest. Staying cognizant of these priorities will ensure that the City's urban forestry efforts are successful in achieving the desired outcomes.

(Placeholder for Public Input)

DRAFT

"[Urban forestry] is a planned and programmatic approach of the development and maintenance of the urban forest. It includes all elements of green infrastructure within the community in an effort to optimize the resulting benefits in social, environmental, public health, economic and aesthetic terms, especially when resulting from a community visioning and goal-setting process." Schwab, 2009

3 PLAN OVERVIEW

This plan will provide long-term guidance to Kirkland urban forestry efforts for the next 20 years. Serving as a 'road map' for community leaders, volunteers, and City staff, it provides a summary resource for urban forestry management. It builds upon what the community has accomplished in the past, and is intended to improve the efficiency and effectiveness of City efforts going forward.

Urban forest management activity in Kirkland was divided into three focus areas. These areas provide the organizational framework for the plan by simultaneously addressing the environmental, economic and social components that define urban forest sustainability. This approach to evaluating urban forestry has been successfully applied to management plans in the United States and Canada. The three focus areas are as follows:

The Urban Forest Asset (Section 4) – Describes Kirkland's current understanding of the structure and function of its urban forest, and identifies opportunities (recommendations) that will improve this understanding. Goals and operational tactics identified for this focus area allow the city to develop additional performance measures and indicators of urban forest health.

The Municipal Resource (Section 5) – Examines how existing staffing resources are applied to urban forest management. It explores city operations and policies compared against best management practices and the urban forestry operations at other similar municipalities. This plan provides recommendations and goals designed to improve efficiency in operations, and enhance the management of risks and liabilities associated with trees.

Community Resources (Section 6) – Identifies groups and individuals outside the City focused on making tangible progress in sustainability measures, i.e. business groups, non-profit organizations or agencies that are advocates and supporters of the urban forest. The opportunity to combine efforts or provide mutual support through collaboration and partnership is extremely valuable to government operations; their contributions to plan strategies and goals are essential to the Plan's success.

3.1 Methodology

The framework for this plan was adapted from *A Model of Urban Forest Sustainability* (Clark et el, 1997), a business model approach to efficient urban forest management using criteria and indicators as performance measures. The Plan incorporates concepts from Washington State's Evergreen Communities Task Force *A Guide to Community and Urban Forestry Programming* (Washington State Department of Commerce, 2009). The basis for the gap analysis to assess Kirkland's existing urban forestry practices and help develop enhanced goals and objectives for the plan is from *Criteria and Indicators for Strategic Urban Forest Planning and Management* (Kenney et al. 2011). The plan framework was further developed by integrating these key city policies and documents:

2001 Tree Management Review
Natural Resource Management Plan (2003)

Comprehensive Plan (2005, revised 2009)
20-Year Forest Restoration Plan (2008)
Kirkland Urban Tree Canopy Assessment Report (2011)

Together with direction from the multi-departmental Project Team, interviews from city-wide staff and research into city codes and practices, this Urban Forest Strategic Management Plan emerged as a long-range planning tool. It is broken down into five year increments and a recommended annual operating plan for 2013. As with successful business modeling, the plan is designed to be adaptive to change. Each five year interval includes an adaptive management benchmark to incorporate periodic reviews and updates in order to achieve the City's vision and objectives, even if the criteria and indicators change over time. This provides the opportunity for Kirkland to adjust its goals as new information becomes available and circumstances evolve. This feedback loop is important especially with regards to a dynamic natural system.

On an annual basis, this strategic plan serves as a roadmap for community leaders, volunteers and city staff to develop annual work plans that align for achievement of the long-range strategic goals and operational objectives. The result is that the Plan remains effective and relevant to the community through 2033 and a template for extending into the next 20 years.

Figure 1. Framework for an adaptive plan that includes monitoring and revisions

This Plan is the result of collaborative interdepartmental efforts by the City and includes input from community stakeholders. The recommendations consider the range of resources that might reasonably be available. Implementation of these recommendations is intended to enable Kirkland to transition from reactive to proactive urban forest management, thereby increasing operating effectiveness, improving tree health and diversity, mitigating risks to public safety, and maximizing the wide-ranging benefits provided by a healthy and sustainable urban forest.

3.2 Plan Oversight

To achieve the highest level of efficiency and reduced liabilities, well-executed strategies require monitoring and oversight. The City should consider a department, position, or designated team who will provide oversight to this Plan. Long-range objectives require interdepartmental effort and community partnerships, therefore oversight is needed to monitor key performance measures, report on progress and facilitate the interpretation of plan elements whenever necessary. Without accountability, there is a high likelihood that inadvertent waste or loss occurs.

The City should also consider creating a formal interdepartmental working team. A 'forestry team' would provide the leadership required to accomplish the plan goals and annual work plan components as well as meet the Tree Board criteria for Tree City USA requirements.

3.3 Monitoring and Revisions

The benefit of having an overarching strategy is that day-to-day operations are associated with achieving long range goals. To ensure City efforts continually support the long range goals of the Plan, periodic revisions need to occur. Each year, the plan should be reviewed to determine or reassess annual operational priorities (Figure 1). During this annual review, an urban forestry performance report should be drafted and appended to the strategic plan document as a performance update for urban forestry. This document can be utilized for departmental work programs, Tree City USA reporting and grant applications. When unsuccessful in accomplishing goals, further explanation should be provided along with adaptive strategies which could include establishing new annual priorities and objectives.

This plan provides specific actions to be undertaken in the first five year cycle (2013–2018) The City should be prepared to recognize this plan as adaptive and dynamic. It is unreasonable to forecast how management priorities will shift over time, so every five-year interval (2018, 2023, 2028, etc.) is marked for a periodic review to adjust for changing community priorities, resources and other unanticipated factors. It is recommended that this plan be revised every five years

The result is that this Plan will remain relevant regardless of the changes that may take place over time.

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4. THE URBAN FOREST ASSET

This section describes Kirkland's current understanding of the structure and function of its urban forest. Working with historical information including previous planning documents and any available electronic data, a summary understanding is provided herein.

4.1 Urban Forestry Documents

The following documents were developed as tools for the management of Kirkland's urban forest asset:

2001 Tree Management Review

This review was the first effort to understand how Kirkland's trees were being managed. A consultant made an in-depth examination into improving the City's urban forest. Key recommendations include the pursuit of Tree City USA designation and further support and guidance for the development of the Natural Resource Management Plan. All of the goals outlined in this document have been achieved.

Natural Resource Management Plan (2003)

This document includes urban forestry as an ecosystem resource being managed by the City. It has been the guiding tool for urban forestry efforts in the city for almost 10 years. Recommendations from this plan provided the framework for the City's comprehensive tree codes, improved tree care for public trees, increased tree planting efforts and helped build community support for urban forestry. Nearly all of the goals outlined in this document have been achieved.

Comprehensive Plan (2005)

The revised Comprehensive Plan includes the urban forest in its overall strategy for meeting the City's vision statement. Kirkland set a goal of managing the natural and built environments to protect and, where possible, to enhance and restore vegetation (Comprehensive Plan Goal NE-3). The City opted to use a regulatory approach to increase Kirkland's canopy tree cover to meet the 40% canopy coverage goal (Comprehensive Plan Policy NE-3.1). This was the first measurable goal for the urban forest and constituted clear direction for city staff to prioritize urban forestry efforts to meet that goal.

20-Year Forest Restoration Plan (2008)

This long-range plan outlines the efforts to restore natural areas within open spaces located within Kirkland Parks. The risks to forest health from invasive species motivated the creation of this plan to actively manage these areas. The restoration plan was organized based on a similar strategy used by the City of Seattle. The Green Kirkland Partnership has been creating strong community links to volunteers and businesses that help achieve the goals of this plan.

Kirkland Urban Tree Canopy Assessment Report (2011)

Urban tree canopy assessments are relatively cost effective and easy to understand measurements of city-wide tree canopy. With a canopy goal in the comprehensive plan and the need to determine the effectiveness of its tree regulations, Kirkland completed its first detailed canopy assessment in 2011. Through remote sensing and geographic information system (GIS), the City found that with annexation, the city's canopy coverage is 40% and other detailed information about its tree canopy coverage. Using the data, the city could now target specific areas to improve urban forest canopy and optimize their ecosystem benefits to the city.

4.2 Measuring the Urban Forest Asset

Traditionally, cities have conducted inventories to determine the number of publicly-owned trees and to track their maintenance needs. While this information is very useful for managing public trees, it alone does not provide enough information for long-range planning of the city-wide urban forest. As canopy assessments have become more readily available, more cities utilize geographic information system (GIS) technology to set canopy goals, benchmark canopy cover, help with local planning, and calculate the urban forests' economic value and ecosystem services. A shortcoming of urban tree canopy assessments is they lack information regarding the urban forest condition.

Over the last decade, the City has conducted a street tree inventory, performed a vegetation assessment of its natural areas located in parks and completed a remotely-sensed urban tree canopy assessment. Since the recent annexation, the inventory information is not complete; only the canopy analysis describes Kirkland's urban forest in the newly annexed neighborhoods. The data from these three projects describes the urban forest structure in certain areas, and in some cases introduces performance indicators that the city could use for management purposes. However, even with all this effort, the City still has insufficient information about its urban forest resource according to the urban forest measurement resources available today.

4.2.1 The Tree Canopy

Tree canopy cover provides a simple measure and indicator for Kirkland's urban forest. In 2011, the City conducted a canopy assessment that benchmarked the change in tree canopy from the previous decade. This analysis determined the city-wide tree canopy is currently at 40.7%. As a result of annexation, the city acquired canopy and achieved a 13.9% increase in tree canopy from 2002. Even without the annexation, the City still had a gain in its canopy. The methodology for this assessment provides a data layer for the City's GIS database and allows more detailed evaluation of the canopy according to other spatial layers such as zoning classes, neighborhoods or drainage basins, even canopy coverage on a parcel level detail. Currently, the data has not been incorporated into the city's GIS system and is only available in report form, limiting its usefulness or accessibility by city staff.

City of Kirkland Tree Canopy	Pre-Annexation	Post-Annexation
Total Land (Acres)	6,806	11,403
2002 Tree Canopy (Acres)	2,151	--
2002 Tree Canopy (%)	31.6	--
2010 Tree Canopy (Acres)	2,450	4,637
2010 Tree Canopy (%)	36	40.7

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4.2.2 The Street Tree Inventory

The City has a limited inventory of street trees along the public right-of-way. Initially created in 2004, it has received minimal updates since. Stored as a data layer in the cities GIS, it is not maintained and updated by the City Public Works department due to lack of staffing. No data exists for the newly annexed areas of Kirkland. Analysis of the database shows the city has record of 18,633 street trees, and an additional 2,078 planting spaces. Over 97% of the tree data shows no evidence of having been edited since 2005 (Table 1). This suggests that there have been no follow-up inspections of these trees since they were first inventoried.

YEAR EDITED	# OF TREES	% of TOTAL
2004	12474	67%
2005	5589	30%
2006	0	0%
2007	315	2%
2008	0	0%
2009	76	0%
2010	179	1%
2011	0	0%
2012	0	0%
TOTAL	18,633	

Table 1: Data age of tree inventory record edits.

One of the most important indicators obtained through a street tree inventory is the condition assessment of these assets. The condition rating of trees helps evaluate the overall health of right-of-way trees and provides insight into the public safety considerations that these trees may represent. Trees classified in Poor, Very Poor or Dead condition may pose the greatest risk to public safety. Having detailed and reasonably current knowledge of the street trees in Kirkland would facilitate access to Federal Emergency Management Agency funds in the event of a catastrophe. Additionally, the City would be better capable of reducing accident claims and effectively manage for the overall health of this asset. Species diversity and population balance are key components to inventory. While a neighborhood or community may enjoy the consistency of a common species planted along a street, too many of any one species can have detrimental effects on the urban forest. Introduced pests or disease can easily spread and decimate an entire species population. In addition, storms and drought can affect one species differently than another and wipe out species that are more vulnerable. Finally, uniform species tend to have uniform life spans, so removals may be required over a matter of years, leaving a barren look.

CONDITION RATING	# OF TREES	% of TOTAL
Excellent	53	0%
Good	9310	50%
Fair	8141	44%
Poor	844	5%
Very Poor	69	0%
Dead	174	1%
N/A	42	0%
TOTAL	18633	

In summary, the information on Kirkland's inventoried trees is difficult to access in its current format, especially for field personnel. The data should to be easy to search, report on and update.

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4.2.3 Natural Areas

As an additional informational resource, the City's 20-Year Forest Restoration Plan identifies and categorizes 372 acres of natural areas according to tree composition and invasive species cover. Described as a Tree-iage model for assessing forest stand conditions, the results of this project quantified and prioritized the maintenance needs in these natural areas for the next 20 years (TABLE 1). The summary data from this project provides an additional indicator for Kirkland's urban forest. It is an excellent document for describing the urgent need to restore open space native vegetation and provides a long-range strategy to accomplish this; however the open space areas included in this Restoration Plan are limited to only those located in Kirkland parks prior to annexation. Significant acreage of parks owned or managed by other agencies (such as Bridle Trails Park), easements, private tracts and greenbelts are not included, in addition to the significant amount of natural area open spaces that were assimilated with the recent annexation.

TREE COMPOSITION VALUE			
HIGH	1 13.16 Acres	2 22.32 Acres	3 1.73 Acres
MODERATE	4 139.86 Acres	5 76.95 Acres	6 6.84 Acres
LOW	7 70.56 Acres	8 4.2 Acres	9 36.48 Acres
	LOW	MODERATE	HIGH
	THREAT FROM INVASIVES		

Table 1: Acres of natural areas in Kirkland according to their natural resource value and threat from invasive species.

4.3 Urban Forest Asset Performance Indicators

With the existing information available to the city, a gap analysis of the data was performed using the criteria and indicators proposed by Kenney et al (2011). Although the City could be described as having good overall performance by these indicators, there are several key indicators (criteria) of urban forest health that the city should address.

Relative Canopy Cover: The city has a good knowledge of its existing canopy and potential locations to achieve a climate appropriate degree of tree cover community-wide. With a city-wide canopy cover of 40.7% as of 2011, the City should continue efforts to maintain this canopy with a shift towards identifying the quality, condition, age and diversity of its canopy coverage to achieve optimal canopy cover conditions.

Age Distribution of Trees: Without further inventory data, the City does not have enough information to assess the risk that the age class distribution of the canopy presents. It is important for communities to achieve even age-class distributions to reduce the risk of significant decline in the canopy due to tree mortality.

Species Suitability: Without more information about the existing inventory, the City does not know if its tree population is suitable to the urban environment and well adapted to the region. This criterion is unlikely to be an immediate concern to Kirkland as there are many tree species that can be successfully

established in the Puget Sound Region; however awareness of this criterion can be an effective strategy to reducing tree maintenance costs which are usually higher for unsuitable trees.

Species Distribution: Similar to other resource measures, the City has insufficient knowledge about species diversity to formally assess this indicator. Kirkland should be seeking to achieve a diversity of species to limit the risk of catastrophic loss. The dramatic impact of Dutch Elm Disease and Emerald Ash Borer to urban forests are prime examples of why cities should adopt this criteria for urban forest health. The risk of ignoring species diversification can be costly for municipalities.

Condition of Right-of-Way & Parks Trees: Without an updated inventory**,** the City has insufficient knowledge about the condition of street trees and park trees in the city. Although there is a legacy street tree inventory, city trees should receive routine planned inspections to ensure public safety.

Extensively-Managed Natural Area Trees in Parks: The City has adopted a 20-Year Restoration Plan for its forested open spaces located in parks. This is an excellent step toward ensuring the ecological benefits of these areas are being maximized, however it does not include the extensive acreage of natural areas in the annexation areas.

Native Vegetation: The preservation and enhancement of local natural biodiversity provides resiliency in the urban forest. Native vegetation often requires less maintenance and naturally optimizes ecosystem health. This criterion is well managed with the aforementioned Restoration Plan.

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5. THE MUNICIPAL RESOURCE

5.1 Review of Existing Operations

5.1.1 Staffing Overview

With a designated urban forest program, it is relatively easy to assess staff resources and track costs for Tree City USA reporting. Municipalities without formal forestry programs often have staff that work with tree policies and issues in many departments, which is the case with Kirkland. Urban forestry issues at the City are being addressed by staff in the legal, building, planning, public works and parks departments. To assess current urban forest workload and staffing levels, over thirty individuals were identified as those that work with tree issues on at least an intermittent basis. From those involved with forestry issues or operations on a more regular time basis, 12 individuals were identified with a quantifiable amount of time each week working with trees or tree-related issues. Currently, there is no one position designated as a full time employee (FTE) dedicated to urban forestry. The following tables approximate staff time using the FTE measure as a standard equivalent for time that individuals among the three departments that work with trees:

Planning and Community Development	Current Urban Forestry Related Activities	City Staff FTE Equivalent
Code Enforcement/Complaint Investigation	Pursuing tree removal complaints	0.5 FTE
Comprehensive (Long-range) Planning	-Federal, state grant procurement -Tree City USA applications -High priority PCD Work Program/urban forest-related projects	0.5 FTE – note: temporary funding through Dec 2012
Development Services	-Development plan review for compliance with tree protection code -Public information (online, phone & counter)	1.0 FTE – note: plan review service currently contracted out, FTE equivalent reflects Planner contribution)
Permit Intake & Review	-Tree removal permit review -Public information (online, phone & counter)	0.5 FTE
Neighborhood Planning & Updates	No Urban Forestry Activity	0 FTE
Zoning and Land Use Regulations	Technical assistance with Long-Range Planning	Intermittent with specific projects
Tree Preservation/Care Education & Outreach	-Website Content and Public Education -Special projects	Intermittent as time allows
	TOTAL DEPARTMENT FTE	**2.5 FTE**

	EQUIVALENT

Public Works Department	Urban Forestry Related Activities	City Staff FTE Equivalent
Street & Public Grounds Maintenance	-Pruning and removal of street trees -Service requests for field inspection of street trees -Street tree inventory updates	2.4 FTE
Surface Water	-Maintenance of vegetation in/around stormwater facilities	0.25 FTE
	TOTAL DEPARTMENT FTE EQUIVALENT	**2.65 FTE**

Parks Department	Urban Forestry related activities	City Staff FTE Equivalent
Maintenance Operations	-Tree planting and establishment -Structural pruning on smaller trees -Inspection and identification of hazardous trees in parks	1 FTE
Green Kirkland Partnership	-Tree Planting -Implementation of 20-Year Restoration Plan -Event & volunteer coordination	1.5 FTE
	TOTAL DEPARTMENT FTE EQUIVALENT	**2.5 FTE**

5.1.2 Planning Department Review

Discussions with staff responsible for development review, processing permits and code enforcement were primarily focused on the effectiveness of the current city codes for protecting trees. Staff is satisfied with the clarity of the code and its sufficient flexibility for property owners to successfully accommodate trees in their development plans; however, there are concerns that the general public and developers do not share that sentiment. Most of the less-complicated tree removal permits are handled over the planning counter; as the complexity of development scenarios increase, staff reported these issues:

Permit Application Completeness and Quality – although the City has tried to address this issue with the Latimore Study, pilot programs and increased staffing, the City has reoccurring issues with incomplete or poor quality permit applications, resulting in increased review times,

additional review charges and numerous revisions. A concentrated education and outreach effort may be a strategy for improving permit completeness and quality of permit applications.

Arborist reports and Tree Risk Assessments – When these reports are required, there are many cases in which the reports or inventories are inaccurate or too subjective. Problems associated with this include:

- Offsite trees or those located along property line not shown
- Grade changes not properly considered
- Utility conflicts with root zones or drip lines
- Symbology used in landscape drawing not representing true drip lines.

A concentrated education and outreach effort may be a strategy for improving arborist report accuracy and quality.

Adequate Technical Support – For the past year, the Planning Department has contracted out its technical forestry development review workload to meet budget constraints. The City should evaluate the pros and cons of hiring a consulting arborist and hiring a staff arborist to support code enforcement and permit review processes.

Code Enforcement – Conversations with staff involved in code enforcement revealed that the most common explanation for tree-code infractions is that the property owner did not know what the code allowed or prohibited. Although code enforcement staff communicate with tree care companies as a strategy to increase public awareness, more strategies for educating the public are recommended.

Permit Fees – Tree removal permit fees may not adequately represent the true cost of processing the permits. With the city adopting a new permit tracking software, further research and monitoring of tree-related permits is recommended.

Coordination with PW and public tree review -

5.1.3 Parks Department Review

Interviews with city staff in regards to the Parks Department were well-rounded discussions of the City's approach to planting new trees, maintaining existing trees and managing hazardous trees. Since the 20-Year Forest Restoration Plan has successfully addressed natural areas in Kirkland parks, discussions were focused on the management of formally landscaped park areas. The following are summary comments and recommendations from these discussions:

Tree Inventory – The city has no inventory of park trees and no formal protocols for inspection. Without any summary data about park trees, the Parks department is functioning reactively to tree issues that emerge in the park.

Tree Planting – On an annual basis, Park's staff focus attention on areas where they know they have deficiencies in tree cover. They communicate with Kirkland's Environmental Education & Outreach Specialist and with local nurseries about tree planting needs and opportunities. With limited funding for establishment care (primarily watering), Park's staff focus on planting native trees and describe this as being an effective strategy to grow the forest in city parks.

Maintenance of Small Trees – Parks grounds maintenance staff perform simple structural pruning or mitigation of hazardous situations. This tree work is not performed by qualified arborists, but staff is aware of ANSI A300 pruning standards and an effort is made to perform correct tree care practices.

Maintenance of Large Trees – Parks sets aside $3,000 each year for maintenance or removal of large trees. It is widely accepted in the department that this is insufficient funding and only

typically mitigates one or two hazardous trees a year. As tree issues emerge throughout a year, typically Parks staff will collaborate with the Public Works grounds division to secure their staff time and equipment resources. When urgent tree work is identified, priorities for the Park staff change. They will divert additional funds from other park activities to contract any additional necessary work from professional tree care companies.

20 Year Forest Restoration Plan – Adopted by the City in 2008, currently there a many plan elements that are not adequately funded. Partnerships with community groups and non-profits are helping to achieve some objectives of this plan, but further support from the city will be necessary to ensure success. With the recent annexation, significant areas of natural area acreage will likely be included in future plan revisions.

5.1.4 Public Works Review

The staff in the Public Works division discussed urban forestry from both the perspective of street tree (right-of-way) maintenance, and stormwater mitigation strategies. Currently, there are two people in the Grounds Maintenance Division with arborist qualifications. Aside from other grounds-keeping tasks, their duties include the inspection, pruning and removal of trees at their discretion as a response to service requests from residents and businesses. They have access to one aerial-lift truck (bucket truck) and climbing gear to perform tree work. Additionally, these individuals have access to a mobile tablet computer with capabilities of updating the street tree inventory in GIS. The following challenges and recommendations were identified:

Public Tree Pruning & Removal – By code, permits are required for both public tree removal and pruning; fees are required for tree removal only. However, crews are responding to pruning and removal requests without the required permits or fee collection. Further research into this issue was recommended, and public outreach may be a strategy for improving compliance with this section of the code.

Tree Maintenance and Groundskeeping – The amount of time the ground division accounts for as solely working with trees varies. Because staff spends time fulfilling other grounds keeping obligations, time spent working on trees is difficult to track. As a consequence, the majority of tree work is reactive, with little to no time to implement more cost effective planned maintenance strategies.

Safety Training – Both staff arborists attend annual International Society of Arboriculture (ISA) training events to maintain professional qualifications and develop their skills. Any additional safety training as it relates to the practice of arboriculture is achieved through self-directed learning. This is undocumented safety training. The City should review OSHA requirements for tree worker hazards and integrate this with existing documented safety training programs.

Tree Inventory and Inspection – With the majority of street tree maintenance work being reactive, the Public Works staff does not perform planned cyclical inspections or updates to the tree inventory. According to the database over 12,000 city trees have not been revisited since 2004 and no trees were updated in 2010 or 2011. With the recent annexation, the number of street trees may have doubled. These unknowns represent an increasing liability to the City as it may not be performing the due diligence necessary to maintain the safety of public right-of-ways.

Inventory (con't) – The City's GIS-IT department is updating the GIS database to include the location of street trees in the annexation areas, but the trees that will be catalogued will not be properly identified, rated for condition, or assessed for size. Using this strategy the cost to collect tree information by a qualified professional may be double what it should be.

Tree Planting – Public Works does not have a tree planting program/goals, consequently, crew's plant trees occasionally. The exceptions are trees planted by the Surface Water division when conducting volunteer stewardship projects, those planted with capital improvement projects and frontage improvements required with development. Public Works maintains a small database of trees they know will require follow-up establishment care, but no mass planting projects are planned. Again, available staff time limits this proactive urban forestry activity.

Productivity Tracking – The public works department does not maintain readily searchable records for productivity tracking with respect to tree work. Staff report production as approximately three (3) trees per week. The city should monitor productivity using a trees/person hour measurement in order to uncover options for enhancing efficiency of maintenance operations.

5.2 Codes & Policies

"*Trees and other vegetation are important elements of the physical environment. They are integral to Kirkland's community character and protect public health, safety and general welfare. Protecting, enhancing, and maintaining healthy trees and vegetation are key community values".*

Comprehensive Plan Policy NE-3.1

Over the last decade, the City has adopted policies and codes to protect trees on public and private lands. Guided by the Natural Resource Management Plan, discussions with the community and the known data on the urban forest at the time, the City adopted its comprehensive tree code in 2006 to achieve the 40% canopy goal established in the Comprehensive Plan.

The regulations regarding tree removal and tree protection requirements with development are within Chapter 95 of the Kirkland Zoning Code. Other regulations concerning tree protection are within the City Zoning Code's Shoreline Management and Holmes Point chapters. The Kirkland Municipal Code contains specifics regarding code enforcement for tree regulation violations and language regarding clearing and grading as it relates to trees.

Trees along streets, in parks and on private properties are all provided with some protection within the Kirkland Municipal Code. Included in these regulations are explicit references to ANSI A300 standards for tree care and definitions for a qualified tree care professional, both of which help to ensure that trees within the City of Kirkland are being planted and cared for according the best available science of the day.

In addition to codes and code enforcement as protection measures, the City has established permit requirements within the code for both removal and pruning of public trees as a method of tracking change in the urban forest composition. Permits are not required for the pruning of trees on private property, or for the removal of up to two trees on private property within a twelve month period. Tracking permits provides an additional indicator for the city to adapt management decisions and long range goal expectations within the plan.

The following table summarizes the applicable codes and permit requirements for trees listed by ownership designation:

Tree Ownership Designation	Applicable City Code	Current Practice/Code Requirements
Private Tree	Kirkland Zoning Code Chapter 95 establishes tree removal limitations and protection measures with proposed development on private property	-Property owners are responsible for the maintenance and care of trees. -A qualified professional may be required for multiple, nuisance and hazard tree removal or trees potentially impacted by development. -No topping allowed.
Park Tree	Kirkland Zoning Code Chapter 95 includes protection for Park trees, however no permits or review process required for pruning or removal.	-Pruning and care of small trees is performed by Parks staff -At Parks' staff discretion, tree work may be performed by Public Works staff or more complicated work contracted out to private tree care companies.
Street Tree	-Kirkland Zoning Code Chapter 95 requires permits for pruning or removal of street trees -Trees within medians and in the Central Business District are to be maintained by the City -All other care of street trees is the responsibility of the adjacent property owner.	-Public Works grounds maintenance staff will prune street trees by property owner request. - Public Works grounds maintenance staff will remove street trees at their discretion without a permit or formal review process

5.3 Program Funding

Municipal budgets can be quite complex, as researching Kirkland's urban forestry budget has shown. Without a centralized urban forestry program or department divisions, there is no accounting for an urban forest budget. No one department could show how they *planned* to fund its 2011 urban forestry-related budget items, although each affected department could show end-of-year *expenses*. Planning and caring for Kirkland's urban forest is not a discrete line item in the city's **general fund budget**, or delineated as such in departmental budgets. As a discretionary item within the Planning, Parks, Public Works (and Surface Water division) budgets, the city's current approach to allocation of funds for urban forestry operations is in most cases reactionary management decisions. Most permit fees associated with development review and tree removals are collected, however these fees are not tracked and reported as revenue income for an urban forestry program or staff. It is difficult to control costs without clearly identified forestry revenues or planned expenses.

Kirkland has established a **City Forestry Account** which receives funds according to Kirkland Zoning Code Chapter 95.57, primarily from code enforcement fines and fees paid in lieu of tree planting. This account is intended to fund a variety of urban forestry related projects including:

- Acquiring, maintaining, and preserving wooded areas
- Planting and maintaining trees
- Establishment of a holding public tree nursery;
- Urban forestry education

- Implementation of a tree canopy monitoring program
- Other purposes relating to trees as determined by the City Council.

The City has recognized the value of trees in reducing storm water runoff by allocating funds from the **Surface Water Management budget** to fill a 0.5 FTE Field Arborist position and temporarily funding the 0.5 FTE Urban Forester position through the end of 2012.

Realizing the complexities of the municipal budget process, the City should consider forming a centralized urban forestry program such as Vancouver or Olympia, WA. Another strategy to facilitate a straightforward budget process is to designate distinct forestry elements within key departments such as Mercer Island or Seattle WA. Regardless of budget strategy, it is critical for municipalities to integrate alternative funding strategies towards a sustainable urban forestry program

5.4 Potential Program Funding Strategies

Adequate funding for achieving the goals and objectives within this plan will be critical to its success. Realistically however, generating reliable financing and discrete allocation to urban forestry remains an ongoing challenge for most communities, Kirkland included. Unlike other infrastructure in the City, the urban forest in Kirkland can appreciate in value over time providing environmental, social and economic benefits to the entire community. It is this diversity of value that makes it challenging to monetize the cost-benefits of trees and effectively compete against other municipal programs. For this reason, municipalities around the United States have developed a number of program funding strategies. As new technologies and models of urban forest value become commonly accepted, so do new approaches for accounting and financing urban forest management. This section details some potential funding strategies that have been accepted in other jurisdictions for generating financial resources for urban forest management.

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5.4.1 Stormwater or Utility Funding

If a city actively manages trees and green infrastructure to improve stormwater quality and reduce peak flows, then stormwater utility funding may be available. Two cities, Portland Oregon and Vancouver, Washington are currently using this as a funding source. In Vancouver, Washington, they have recognized the important connection between forests and stormwater runoff and have included Urban Forestry in the City's stormwater management plan, which represents a comprehensive watershed

approach to improving water quality. The City of Bellevue, WA combines the use of parks with stormwater management and for over two decades, has worked to protect riparian open space. The city has therefore dedicated 100% of the stormwater utility fees to support the Urban Forestry Division. .

5.4.2 Frontage Assessments

These are typically applied Citywide based on the feet of street frontage a property occupies. Fees are collected annually and dedicated to the program for which they are being assessed. Unlike general fund monies, which change and are approved annually, frontage assessments can be a consistent source of income. The City of Pittsburg, California receives its entire urban forestry budget from a $0.17/ foot assessment on private properties.

5.4.3 Landscape Maintenance District (LMD)

This funding source can be used by property owners who vote to assess themselves an annual fee to pay and receive services beyond what the City normally provides. LMDs can also be formed when a new subdivision is built. The City can require the developer to pay the assessments until they can be turned over to a homeowners association or LMD. Even in small developments, fees can be assessed to the parcels on an annual basis that contribute to the costs of receiving increased maintenance and care of the trees in the project. When a LMD is created, it is specifically documented what additional services will be provided for the assessment. This can include such items as regular tree pruning, litter cleanup, and planting projects. LMDs are also known as maintenance assessment districts, lighting and landscape maintenance districts, or local improvement districts.

5.4.4 Business Improvement Districts (BIDs)

Similar to LMDs , Business Improvement Districts are an additional assessment that can be levied against the property owners to provide increased services in the assessed area. BIDs are formal organizations made up of property owners and Mixed-Use Commercial tenants dedicated to the improvement of quality of life within their districts. They differ from LMDs in that BIDs are usually self-managed entities as opposed to being managed by the City. BIDs are often compared to residential homeowners associations. Many cities and their contractors allow their BIDs to obtain services such as tree maintenance, street maintenance, and litter cleanup at the same discounted rates as the City pays. The Portland Business Alliance (PBA) is a great example of a BID with over 1,400 business members in the Portland-Vancouver area and is one of the oldest BIDs in the nation.

5.4.5 Street Repair Funds

The City of San Diego, California has been successful in leveraging street repair funds to contribute to the maintenance of their ROW trees. San Diego's code provides that when street maintenance activities are conducted, all City assets within that ROW receive any required maintenance. The City urban forester has been successful in extending that maintenance to the trees within the ROW where the street maintenance is being performed.

5.4.6 Capital Improvement Projects

Treating trees as capital assets can help to ensure that budgets for large-scale projects include line items for trees. Projects for building or expanding items such as roads or bridges often have an impact on existing trees. If trees are identified as a capital asset, funding can be guaranteed, as part of the construction project budget, that any tree impacts will be mitigated through replacement or relocation. Treating trees as capital assets is different than items such as bridges and roadways and other "gray infrastructure." With most type of assets, their value is depreciated over their useful lifespan. Trees, on the other hand, continue to grow in value throughout their lifetime, in terms of benefits returned to the

community. The Government Accounting Standards Board has set procedures for accounting for capital assets in its GASB 34 rule. Although these procedures typically are used for gray infrastructure and accounting for depreciation, trees can also fit into the GASB 34 program model. Trees can be described as asset management within GASB 34. This will avoid the cost less depreciation model of a typical city infrastructure. To accomplish this, a complete inventory of City tree assets must be performed to be able to report the current condition of the City asset (trees). The City must also then define a desired condition of the urban forest (asset) and the management costs and activities necessary to maintain the forest at that desired level.

5.4.7 Utility Company Partnerships

Collaboration with utilities such as Seattle City Light and Puget Sound Energy for inspection and maintenance of trees that are within city and utility rights-of-way can provide additional cost savings to both parties. Where community values of electric reliability and sound tree care intersect, partnerships between utility and municipalities often emerge. This is particularly valuable in the sharing of costs and benefits of hazard tree removal and replanting of appropriate trees near overhead utility lines. Seattle City Light has a model Urban Tree Replacement program to ensure a succession of the “right trees, right place” where overhead utilities pose a challenge to maintaining a healthy urban forest.

5.4.8 Emergency Funding

The City is eligible for funding assistance if severe weather and other catastrophic events result in tree failure or damages associated with trees. The costs of damages, clean up, and restoration can be prohibitive for most municipalities. The Federal Emergency Management Agency and other state and federal institutions release funds in the event of an emergency, but are typically more supportive when the damaged assets have been documented and specific monetary damage assessments are provided promptly after the emergency. Many cities have adopted the FEMA-approved i-Tree STORM as their damage assessment protocol to be poised for emergency funding.

5.4.9 Levies or Bond Measures

Another fund raising strategy is the use of citizen approved levies or bond measures. In November 2000, Seattle voters approved a $198.2 million levy for Parks and Recreation. The levy followed closely the plan forged by the Pro Parks 2000 Citizens' Planning Committee. The annual cost to the average Seattle property owner during the life of the levy was expected to be approximately $.35 per $1000 assessed value. Within the levy, Seattle added a Pro Parks tree crew which enabled them to perform preventive maintenance on selected trees. Under the supervision of their Urban Forestry Crew Chief, the Tree Maintenance crew responded to 410 work orders in 350 parks in 2008. A Natural Area Crew was created to allow for cleanup and restoration work in natural areas and forests. Natural Area Crews performed 3,600 hours of labor, supplemented by nearly 5,000 hours of volunteer labor. The team completed 56 work orders, worked with volunteers on 50 projects and worked in 30 parks. The Levy provides funding for the work of the Green Seattle Partnership. Additionally, the Green Seattle Partnership formed in 2004 and has worked to restore 2,500 acres of forested park land in Seattle by 2025. The unique public/private effort is the largest urban forest restoration project in the nation. Levy funding contributed to the restoration of 126 acres of urban forest in the first two years of the Levy.

This cultural momentum from Seattle’s efforts continued in 2008 with the passage of a **Parks and Green Spaces Levy**. It is expected to raise $146 million and will last for six years, from 2009 through 2014. Within this levy remains a $6.6 million Environment category which is dedicated to creating a healthy ecosystem for Seattle. This “green” funding has three types of projects: Forest and stream restoration, community gardens and shoreline access.

5.5 Best Management Practices

The care and maintenance of trees in Kirkland can remain optimal when the city and its citizens take advantage if industry best practices. This section introduces existing tree care resources that can be applied to the plan.

5.5.1 Tree Care and Safety

Compliance with nationally recognized standards for tree care, safety, and management can decrease Kirkland's exposure to risk, increase consistency of maintenance, reduce injuries to workers and the public, and increase the health of Kirkland's urban forest. Standards exist in three major categories: worker safety, professional expertise, and tree health and safety. In addition, peer-reviewed journals such as the Journal of Arboriculture regularly publish new recommendations and data as researchers learn more about trees in urban environments. The City of Kirkland should require workers and contractors to comply with the nationally recognized standards in the tree care industry described below. Compliance with basic safety standards and working with qualified staff who follow industry best practices are basic steps to good urban forest management.

5.5.2 Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) is very specific about the personal protective equipment (PPE) that tree workers should wear, and requires employers to furnish appropriate equipment. The requirements for workers' PPE and training depend on their specific role in tree care operations. Requirements for safety glasses, hearing protection, head protection, protective clothing, and face masks are described in sections 1910.132, 190.133, 1910.135 1910.95 of the Occupational Safety and Health Administration Standards. OSHA also requires reporting of workplace injuries and imposes fines on employers that are found to be allowing unsafe work environments or practices. The City of Kirkland should be able to readily produce documentation that demonstrates all city employees and contractors working with trees follow OSHA standards, and report any private entity that is not following these national safety standards.

5.5.3 Tree Care Industry Association

While OSHA provides regulations for workplace safety, other organizations such as the Tree Care Industry Association (TCIA) provide standards for businesses conducting pruning, removal, transplanting, and plant health care (including chemical application). TCIA developed a set of standards for tree care professionals (ANSI A300). It has been rigorously vetted by professional tree care practitioners and is based on the latest scientific research. The ANSI A300 standards unify and take authoritative precedence over all previously existing tree care industry standards. The standards are reviewed and revised periodically by a committee of industry experts.

5.5.4 International Society of Arboriculture Certifications

The organization responsible for testing and certification of tree care professionals is the International Society of Arboriculture (ISA). **ISA-certified Arborists** and **Certified Tree Workers** are individuals who have demonstrated a level of knowledge in the art and science of tree care through experience and by passing a comprehensive examination developed by national tree care experts. Certified arborists must continue their education to maintain their certification and agree to adhere to a code of ethics. Although

currently offered only through ISA's Pacific Northwest Chapter, the **Tree Risk Assessor Course and Exam (TRACE)** will be a certification sanctioned by ISA in the near future. It is the standard for assessing hazardous trees and has become a required credential for arborists in Kirkland for tree risk evaluation.

5.5.5 National Recreation and Park Association Park Maintenance Standards

This manual is the national standard for efficiency in Parks and Grounds operations. It can be used to assess productivity levels for special projects, regular maintenance or for forecasting budgets.

5.6 Emergency Preparedness

As with other city infrastructure, trees can be subject to events which can result in emergency situations. Fire, storm events, insect or disease outbreaks can make significant changes to the urban forest. The dramatic loss of American Elms from Dutch Elm disease in the eastern United States is one example of the catastrophic effect pests can have on the urban forest. Trees debris can also be the cause of emergency situations. Debris from tree leaves, limbs or entire tree failure can block storm drains that increase the risk of flooding, damage utility infrastructure, or block transportation corridors.

The City of Kirkland has adopted the 2010 Comprehensive Emergency Management Plan establishing the structure for an organized and effective response to multi-agency emergencies and disasters that may occur within the City. The plan does not explicitly address trees and the urban forest, but effectively considers them as part of debris management. The Public Works department has an operational plan to coordinate debris removal.

With respect to emergency preparedness and risk management, the City has a tree inventory, but does not have a routine tree inspection process. Hazardous trees are identified and managed through service ticket calls to the public works department.

5.7 Comparisons to Other Municipalities

A limited review of other municipal forestry budgets and funding strategies was included as part of this plan to inform Kirkland's community of the innovations available in urban forest management. In addition to the pursuit of the Best Management Practices in tree care, knowledge of potential funding levels adopted by other cities to help meet their own urban forestry goals provides additional reference for Kirkland's potential funding needs. In 2011, the City of Kirkland reported a forestry budget to the National Arbor Day Foundation of $553,907. With the recent annexation (and population increase), this equates to $6.06 in per capita spending. Compared to other neighboring municipalities in Washington this represents a lower funding level than most (TABLE 1). :

City	Annual Spending	Total Population	Spending per capita
Bellevue	$4,475,153.00	123,400	$36.27
Lake Forest Park	$347,662.55	12,598	$27.60

Olympia	$569,409.85	46,478	$12.25
Portland, OR	$5,440,112.69	550,560	$9.88
Redmond	$524,645.10	54,144	$9.69
Renton	$794,192.00	92,590	$8.58
Kirkland	**$553,906.55**	**80,738**	**$6.86**
Vancouver	$982,991.10	162,300	$6.06
Seattle	$3,336,175.00	608,660	$5.48

Table 1 – 2011 funding levels for local urban forestry programs. Source: National Arbor Day Foundation

With such diversity in spending per capita, it is difficult to identify what would be most appropriate for Kirkland. Each city allocates its urban forestry spending according to their own community adopted goals and objectives. City's increasingly compare basic statistics such as their percentage of canopy, or the number of trees they manage (right-of-way inventory) as measures that can suggest what is reasonable. As part of Kirkland's UFMP, neighboring cities were evaluated according to these widely used urban forest management statistics. Kirkland was found to be similar in its urban forestry program to most of the city's surveyed, having completed a canopy study, a limited tree inventory and adopted urban forestry regulations. However, Kirkland was found be the only city without at least one full-time Urban Forestry position (Table 2).

Municipality	Population (rank in state)	Area (mi^2)	UTC % (year)	Street Tree Inventory	Tree Regulations	UF Mgmt. Plan	Tree Board? (members)	UF Positions (Dept)
Seattle	608,660 (1)	142.5	23% (2007)	Yes, 38,000 city trees. Updates frequently	Yes, interim	Yes (2007)	Yes (9)	22 (Parks and Dept of Tranportation)
Tacoma	198,397 (3)	62.6	19% (2009)	N/A- will be awhile until done	Yes	Yes	Yes	1 - (Public Works)
Vancouver, WA	161,791 (4)	46	19.7% (2002)	No; TreeWorks (work orders) to be utilized eventually	Yes	Yes	Yes	3 -(Public Works + Development Review Staff)
Bellevue	122,363 (5)	34	36% (2007)	Yes, 10,000 street trees updated frequently by IT dept.	Yes, interim	No	Yes	3 - (Natural Resources Division Planning)
Renton	90,927 (9)	22.3	28.6% (2010)	Yes, 5,900 Street Trees 20,720 Park Trees 105,370 Natural	Yes, being consolidated from development codes	Yes	Yes	1 – (Parks)

				Area Trees				
Kirkland	~80,000 (13)	18	40% (2010)	Yes ~19,000 trees,	Yes	No	No	.5 (Surface Water)
Redmond	54,144 (19)	16.6	No Canopy Data	Yes, 8,000 city trees GIS/developed own unique system, 2003, updated every 4-5 yrs	Yes, interim	No	Arborist	2 – (Planning)
Bothell	33,505 (30)	12	No Canopy Data	None currently available	Yes	No	Yes (7)	1 – (GIS department)
Mercer Island	22,699 (42)	13	41% (2007)	Yes	Yes	Yes,	Open Space Conservatory Trust	2.5 – (Parks, Development Svcs)
Olympia								
Kenmore	20,460 (45)	6.3	No Canopy Data	None currently available	No	No	No	1 – (Planning)
Lake Forest Park	12,598 (66)	3.6	43% (2004)	No current, i-tree will eventually be used	Under development	Yes, task force & consult team	Yes (9)	1 – (Planning)
Woodinville	10,938 (72)	5.7	~34% (2007)	Yes GIS by Interns (2004-2005) No program updates	Yes	Community Urban Forestry Plan (1998)	Yes (5)	1 – (Development Services)

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5.8 Municipal Resource Performance Indicators

Analysis of the current information and practices highlighted numerous opportunities for improvement using the criteria and indicators proposed by Kenney et al (2011). Although the city could be described as having good performance by these indicators, two key measures (criteria) of the city's management of urban forest health are significant barriers to the potential success of the Plan's implementation: discretionary funding and insufficient tree planting plans. Although none of the plan opportunities identified in this analysis are exclusive, these are particularly co-dependent with the others for achieving improved performance over the entire implementation of the plan.

Tree Inventory: The inventory data has not been regularly updated since 2004, and with the recent annexation, it is considered outdated. By having a complete inventory or the tree resources, management activities can be directed toward including age distribution, species diversity, and condition and risk assessment.

Canopy Cover Inventory: The City has benchmark assessment data from 2010 imagery, but has not fully integrated this information into the city GIS. This reduces the effectiveness of interdepartmental urban forestry activity as canopy considerations cannot easily be integrated into other City projects.

Citywide Management Plan: The city forestry operations are currently guided by the 2003 Natural Resource Management Plan and the 20-Year Reforestation Plan for natural areas in parks. This Urban Forest Strategic Management Plan updates the goals that have already been achieved in the NRMP, linking with the goals outlined in the Comprehensive Plan.

Municipality-Wide Funding: In all departments, the city budgets for urban forestry are discretionary items from the general fund. This minimal investment in urban forestry severely limits the ability of city staff to take proactive measure to optimize the existing urban forest resource.

City Staffing: The City has ISA Certified arborists and urban forestry professionals on staff. They are supported with limited training. The City does not have a formalized forestry unit to ensure adequate staffing for implementation of the Management Plan.

Tree Establishment Planning and Implementation: Current tree planting in the city is ad hoc, with the only formal directive for new tree establishment coming from city development code requirements and land use regulations. The City should strive to ensure urban forest renewal is occurring by developing a tree establishment program that is driven by canopy cover, species diversity and species distribution objectives.

Suitable Tree Planting Locations: Although tree species are considered through existing city codes and policies, the city should explore developing community-wide guidelines for the improvement of planting sites and the selection of suitable species. This will help to ensure that trees are planted in locations that maximize current and future benefits.

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6. COMMUNITY RESOURCES

The **Green Team**, a City service team (committee), serves to increase interdepartmental communication of environmental issues and improve the City's efforts in sustainable issues, sometimes externally with partners and the community. All city departments are represented on the committee. The Green Team has served as the City's ad hoc Tree Board to meet Tree City USA criteria, although typical meeting agendas do not focus on forestry issues.

6.1.1 The Green Kirkland Partnership

is an alliance between the City of Kirkland, nonprofit partners, businesses and the community to restore natural areas in city parks. The following organizations provide resources in support of the Green Kirkland Partnership:

- Forterra
- King Conservation District
- EarthCorps
- Washington Native Plant Society
- UW Restoration Ecology Network
- National Wildlife Federation
- Kirkland Neighborhoods

6.1.2 Tree City USA

The Tree City USA designation shows a community's commitment to protecting its urban forest resource by meeting criteria established by the National Arbor Day Foundation. The four criteria that communities must meet annually to maintain Tree City USA status are:

- Spend $2 per capita annually on an urban forest program or tree-related expenses
- Adopt a tree protection ordinance
- Proclaim and celebrate Arbor Day annually
- Establish a municipal urban forestry program or a Tree Board

The City of Kirkland has shown a commitment to responsible urban forest management by celebrating its tenth consecutive Arbor Day in 2011, maintaining its status as a Tree City USA. By going beyond the requirements for Tree City USA status, Kirkland has received two Growth Awards from the National Arbor Day Foundation. Aside from the recognition and community pride in this designation, maintaining Tree City USA status enables cities to be competitive for grant funding. Without this support Kirkland could not have conducted its 2011 canopy assessment and this strategic management plan. Unfortunately, the increase in population with the recent annexation resulted in a decrease in the per capita spending required for Tree City USA designation in 2011. This means that without planning its urban forestry budget, Kirkland will have difficulty maintaining its Tree City USA designation in the future.

6.1.3 The City of Kirkland Website

The City has a webpage dedicated to urban forestry interests and issues. It is updated as needed, such as with policy changes or with the completion of a special project. Visitors to the city website must navigate from the home page to the 'Community Link' and then to the 'Kirkland Green' link to access the

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page. Although this page provides a detailed starting point to accessing questions about all trees, visitors to the Kirkland website must know to navigate through the Planning Department to learn about trees and tree-related policies.

6.1.4 *Community Resources /Stakeholders identified in Phase II*

Placeholder

6.2 Community Resource Performance Indicators

The analysis for potential opportunities to improve community resources was again adapted from the criteria and indicators proposed by Kenney et al (2011). Kirkland has good performance by these indicators. A recurring concern observed during this analysis was the lack of resources available to educate the community on urban forestry issues as it relates to them. An improved emphasis on community outreach aimed toward property owners appears to be the aspect most in need of improvement.

The City forms informal inter-departmental teams that function to implement common goals on a project-specific basis. However, the city would be better equipped to ensure all departments are cooperating with common goals and objectives by establishing a formal interdepartmental team providing leadership across all urban forestry projects.

Public Agency Cooperation:

Involvement of Private Institutional Landholders: The city provides some educational materials to support compliance with city codes, however there is an opportunity to help landholders and developers understand and embrace citywide goals. These stakeholders in the community can be incentivized to improve the stewardship of their land through education and outreach.

Green Industry Cooperation: Utility companies, nurseries and tree care professionals in Kirkland and neighboring communities occasionally work together in support of city's urban forestry goals. This relationship should be encouraged by the city through a continued commitment to requiring professional standards and performance expectations for green industry professionals. Kirkland also has an opportunity to partner with its two utility providers, Seattle City Light and Puget Sound Energy by drafting vegetation management plans for the pruning and restoration of trees within overhead utility jurisdiction.

Neighborhood Action: At the neighborhood level, associations exist that can cooperate in urban forest management objectives, however with the recent annexation; they may not be unified in their understanding of the urban forest management objectives of the city. Neighborhood stewardship can be one of the most cost effective criteria for creating a sustainable urban forest.

Citizen-Municipality-Business Interaction: Currently, all constituencies in the community interact with informal or general cooperation. The Central Business district trees are maintained by the city, and permit processes are a main point of interaction for urban forestry issues. Constituents could have more robust and effective interactions for the benefit of the urban forest with the creation of a formal community tree board.

Awareness of Trees as a Community Resource: Trees are acknowledged in existing urban forestry documents and plans adopted by the city. However further public education is still advised for the general public to develop a deep appreciation of the vital role of the urban forest in their communities environmental, social and economic well-being.

Regional Cooperation: Planning for the urban forest throughout the Puget Sound is occurring as the city engages in partnerships with King County, the Puget Sound Partnership and neighboring municipalities. This cooperation should continue to include urban forest planning in Kirkland as an integrated component of larger regional planning efforts.

7. LONG RANGE STRATEGIC GOALS & RECOMMENDATIONS

7.1 Long-Range Strategic Goals

Over the next 20 years, the City of Kirkland will have opportunities to enhance their management of the urban forest through implementation of recommendations in this plan. The decision to develop a plan with a 2033 time horizon was primarily based on the precedence established by the city with other long range planning documents. Additionally, growing and improving Kirkland's urban forest is a slow process. Tree physiology for most trees in the Western Washington can take up to 7 years to establish after planting and another 10 years before they reach functional maturity in the ecosystem services they provide. For this additional reason, it is essential that urban forest planning consider at least 20-years within the plan framework as reasonable expectation for achieving the desired state of the urban forest.

The long-range strategic goal recommendations provided in this plan are divided into three categories:

- **Urban Forest Asset Goals** which are intended to improve the urban forest resource over the next 20 years by developing detailed expectations for the urban forest. Of these goals, the most common theme will be to increase the amount of information the city maintains about its urban forest resource. These include routine Tree Canopy Assessments and maintaining a street tree inventory, both of which can be substantial expenses to an urban forestry program and require significant consideration.
- **Municipal Resource Goals** which are intended to drive improvements in city policy and practices by developing efficiency and alignment of efforts within city departments. The theme of these goals is around developing policies that promote routine tree inspection and formalized tree management strategies for city owned trees. These goals encourage the city to improve its awareness and mitigation of tree hazards and eliminating barriers to effective urban forest management.,
- **Community Resource Goals** which are intended to build stronger community engagement and public participation in urban forest stewardship. The common theme of these goals will formalize interdepartmental work groups in the city, and coordinate the participation of citizens and businesses to align with the city vision.

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7.1.1 Urban Forest Asset Goals

The research into current and historical efforts in urban forestry at the city has revealed numerous opportunities for Kirkland to enhance the understanding of the urban forest resource as well as improve efficiency in tree maintenance operations. The criteria and indicators proposed by Kenney et al. and used to assess the current urban forestry practices in the city provide the management reference necessary to frame the following seven (7) recommended goals and objectives for this plan:

Goal	*#1*
Recommendation	**Maintain City-Wide Canopy Coverage**
Performance Measure	Tree Canopy Cover (% of city land covered by tree canopy)
Rationale	*Kirkland has achieved its canopy goal of 40% through its recent annexation. In 2010, canopy coverage for Kirkland was 40.7%, including canopy from annexation.*
Risk	Allowing canopy coverage to diminish can increase flooding, urban heat island effects, energy use, reduce air quality and degrade asphalt road surfaces. Canopy reductions also negatively impact wildlife travel corridors and decrease habitat.

Goal	*#2*
Recommendation	**Increase Canopy in Key Areas**
Performance Measure	Tree Canopy Cover by Area (% of land covered by tree canopy)
Rationale	*The City could continue to increase canopy in pre-annexed areas to their optimal state as was originally proposed in the 2003 Natural Resource Management Plan.*
Risk	Disparities in tree coverage from one neighborhood to the next can cause residents in areas with fewer trees to feel the city is demonstrating favoritism.

Goal	*#3*
Recommendation	**Manage Tree Population Age Distribution for Diversity**
Performance Measure	Number of trees per DBH Class (%)
Rationale	*Plant trees over time so that no DBH class represents more than 75% of the population. Maintenance costs and expensive end-of-life tree care are more evenly distributed when a population has an ideal (though uneven) distribution of tree ages (approximated by DBH). Manage tree plantings to distribute them over time rather than planting a large number of trees in one to five years.*
Risk	Serious and substantial expenditures on tree removals can be necessary in even-aged populations which reach the end of their useful life in a few years. Neighborhoods can end up looking denuded and barren.

Goal	*#4*
Recommendation	**Plant Suitable Trees and Schedule Phased Replacement for Unsuitable Species**
Performance Measure	% trees in population considered suitable species

Rationale	*Some species have demonstrated poor performance and should not continue to be planted. Phased removals of existing poor-performing species should be considered for key areas.*
Risk	Unsuitable species require substantial maintenance and must be replaced more frequently.

Goal	*#5*
Recommendation	**Manage for Species Diversity**
Performance Measure	Species Distribution (%)
Rationale	*No species should represent more than 10% of the population and no genus should represent more than 20%. Exceptions may be made for native species in naturalized areas.*
Risk	Predominance of a few species can lead to substantial impacts from pests or diseases which tend to be species-specific, and storms that may predominantly damage certain species.

Goal	*#6*
Recommendation	**Inventory Public Trees to Document Tree Condition and Risk**
Performance Measure	% of City Area with Documented Tree Inspection
Rationale	*There is no inventory of Parks trees; the current street tree inventory only includes pre-annexed areas. The City cannot quantify assets, risks, or liabilities.*
Risk	Without data on all city trees, planning and prioritization of urban forestry activities is based on conjecture and anecdotal evidence.

Goal	*#7*
Recommendation	**Document the Ecosystem Services Provided by Public Trees ad Natural Areas**
Performance Measure	Number of Ecosystem Services Tracked in City GIS
Rationale	*With a 20 Year Natural Areas restoration plan, the city is favorably positioned to understand and optimize the ecosystem benefits provided from trees in these areas and is on a path to understanding the ecological function of publicly owned trees in natural areas.*
Risk	If services are not tracked, the value of the asset is unknown and preservation and maintenance is more difficult to rationalize.

Goal	*#8*
Recommendation	**Encourage Planting of Native Species, Discourage Invasive Species**
Performance Measure	Ratio of Native vs. Non-native Species
Rationale	*Through the GKP efforts & modifications of existing city regulation, policies and public education, the city can directly influence the biodiversity of the tree population toward the optimal performance level that preserves and enhances local natural biodiversity.*
Risk	Reductions in native species decrease preferred habitat for fauna.

7.1.2 Municipal Resource Goals

The research into staffing, policies and work management as it relates to urban forestry in Kirkland has revealed opportunities for the city to prioritize staff resources, improve efficiency and develop cost effective tree care strategies with respect to public trees. The criteria and indicators proposed by Kenney et al. and applied in the analysis of current practices sections of this plan provides the management references necessary to frame the goals and objectives for this aspect of the plan:

Goal	*#8*
Recommendation	**Conduct an Inventory to Document Tree Condition and Risk**
Performance Measure	% of City Area with Documented Tree Inspection
Rationale	*The current street tree inventory only includes pre-annexed areas. The city cannot quantify assets, risks, or liabilities.*
Risk	Without data on all city trees, planning and prioritization of urban forestry activities is based on conjecture and anecdotal evidence.

Goal	*#9*
Recommendation	**Measure Canopy by Neighborhood over Time**
Performance Measure	% Canopy Measured Every 5 Years
Rationale	*Canopy should be measured city-wide and within each neighborhood using a consistent measurement strategy at even intervals.*
Risk	Lack of information can cause resources to be distributed unevenly.

Goal	*#10*
Recommendation	**Maintain a Routinely-Updated Urban Forestry Management Plan**
Performance Measure	Management Plan Age and Frequency of Revisions
Rationale	*For this plan to adapt to evolving circumstances and maintain relevance to the community and city staff, periodic reviews and amendments are required.*
Risk	The plan may become unused and obsolete.

Goal	*#11*
Recommendation	**Develop Funding to Optimize Urban Forest Benefits**
Performance Measure	Each Plan Objective Has a Funding Strategy
Rationale	*Funding fluctuations may require re-prioritization of goals and objectives.*
Risk	Objectives will not be attained if staff and funding resources are not available.

Goal	*#12*
Recommendation	**Train Staff to Maintain Expertise and Professional Performance**

Performance Measure	Annual Number of Training Hours per FTE
Rationale	*Each city staff person who makes decisions that impact the urban forest should receive training specific to their duties annually. This will strengthen the qualifications of the urban forestry team and increase their capacity to effectively implement the plan.*
Risk	Staff may not be aware of most recent best management practices and industry standards.

Goal	*#13*
Recommendation	**Plant Trees Annually**
Performance Measure	Number of Trees Planted Per Year
Rationale	*Due to normal tree mortality, the city must engage in annual tree planting or risk a decline in the size of the urban forest. Urban forest renewal is ensured through a comprehensive tree establishment program driven by canopy cover distribution, species diversity, and distribution objectives*
Risk	The number of trees in the city will decline without active replanting.

Goal	*#14*
Recommendation	**Update Planting Guidelines**
Performance Measure	Updated Tree Planting Guidelines
Rationale	*Through planting guidelines that are routinely updated, the city can set policies on species selection and planting strategies that are aligned with other plan goals and ensure that all publicly owned trees are planted in habitats that will maximize current and future benefits for the site.*
Risk	Improperly planted trees and unsuitable species increase future workloads.

7.1.3 Community Resource Goals

The research into how the community in Kirkland connects and favors urban forestry has revealed opportunities for the city to foster community interest in urban forestry, create pathways for funding urban forestry objectives and potentially reduce City costs through improved participation in community stewardship. The criteria and indicators proposed by Kenney et al. and used in the gap analysis sections of this plan are the fundamental ideas necessary to frame the goals for this aspect of the plan:

Goal	*#1*
Recommendation	**Establish a Formal Interdepartmental Working Team**
Performance Measure	Number of Urban Forestry Team Meetings Annually
Rationale	*Team meetings ensure that plan objectives are routinely referenced and plan obstacles can be addressed through collaborative problem solving ensuring that all city departments cooperate with common goals and objectives.*
Risk	Miscommunications with the public or misalignment of priorities or objectives may occur. Isolation from decisions and collaborations can result in limited plan effectiveness.

Goal	*#2*
Recommendation	**Engage Large Land Owners**
Performance Measure	Number of Properties over 5 acres with a Signed MOU
Rationale	*Establishing urban forestry memorandums of understanding (MOU's) with large landowners can help educate and encourage partnerships with urban forestry objectives. Large private landholders will help to embrace citywide goals and objectives through their own specific resource management plans.*
Risk	Failure to engage with large land owners can result in considerable canopy loss.

Goal	*#3*
Recommendation	**Engage Green Industry Businesses Licensed in Kirkland**
Performance Measure	Number of Green Businesses with a Signed MOU
Rationale	*Establishing urban forestry memorandums of understanding (MOU's) with businesses in the city is a strategy to encourage partnership and alignment with city urban forestry objectives. It will help to ensure the green industry operates with high professional standards and commits to citywide goals and objectives.*
Risk	Failure to engage with green businesses can result in damage to public trees and canopy loss.

Goal	*#4*
Recommendation	**Engage Community Stewardship Programs**
Performance Measure	Number of Neighborhood Stewards
Rationale	*The City should continue support GKP and other volunteer programs focused on environmental stewardship. This promotes communication of urban forestry objectives to the public and foster volunteerism in the community.*
Risk	Failure to support citizen groups can lead to misunderstandings and citizen mistrust of city regulations.

Goal	*#5*
Recommendation	**Establish a Community Tree Board**
Performance Measure	Number of Tree Board Meetings Annually
Rationale	*Having a community tree board that meets on a regular basis will increase community participation on urban forestry issues and help ensure success with plan objectives by creating interactions between the community and the benefits of the urban forest.*
Risk	Public will not have a way to voice opinions or appeal decisions.

Goal	*#6*
Recommendation	**Integrate UFMP Objectives into City Policy**
Performance Measure	Number of UFMP Performance Measures adopted in the City-wide Comprehensive Plan

Rationale	*Currently the city has adopted canopy cover as the only urban forestry performance measure for comp plan goals. Assigning urban forestry performance measures to additional Comprehensive Plan goals should increase public awareness and understanding.*
Risk	Failure to integrate UFMP goals in the city's policies may limit effectiveness of plan or risk conflict or lack of funding.

Goal	*#7*
Recommendation	**Align UFMP Objectives with Regional Goals**
Performance Measure	Number of UFMP Performance Measures in Alignment with Regional Goals
Rationale	*Plan objectives should have relevance wherever possible to the objectives of any regional planning documents and provide for cooperation and interaction among neighboring communities and regional groups.*
Risk	Failure to integrate UFMP goals with regional goals may limit effectiveness of plan or risk conflicts with regional planning efforts.

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7.2 Recommended 5 Year Objectives 2013-2018

The following recommended objectives direct urban forestry activities over the next 5 years. Priorities for these objectives are based on funding and their relative value with helping toward successfully achieving plan goals. As costs and value are subjective estimates, general guidelines for setting priorities has been provided to describe the cost and value of each objective to the strategic plan goals.

COST	This is the relative value of budget costs required to accomplish the objective
$	Estimated at less than $50,000. These objectives are often accomplished with existing city staff resources.
$$	Estimated between $50,000 - $100,000. These objectives will almost certainly have budgetary implications, dedicated staffing, contractor or volunteer commitment.
$$$	Estimated at greater than $100,000. These objectives involve substantial project management, staffing and commitment.
VALUE	Relative value of the contribution toward successfully meeting strategic goals.
Low	Objective supports less than 5 plan strategic goals.
Moderate	Objective supports between 5-7 strategic goals.
High	Objective supports more than 7 strategic goals.

Lead Department	Objective	Product	Goals Justification	COST	VALUE
Planning	Determine Tree Planting Strategy for Kirkland setting annual planting targets for street trees, park trees and private properties	UF Planning Document	Supports 7 Goals	$	HIGH
	Develop species suitability index.	UF Planning Document	Supports 1 Goal	$	LOW
	Perform an iTree Eco assessment .	Tree Inventory data and urban forest ecosystem services benchmarks	Supports 11 Goals	$$	HIGH
	Investigate and report on tree permits to develop tree planting and mortality rates	UF Planning Document	Supports 8 Goals	$	HIGH
	Develop Tree Planting Guidelines	UF Planning Document	Supports 1 Goal	$	LOW
	Urban Forestry attends training class on municipal forestry	Maintain Qualified Workforce	Supports 1 Goal		

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	annually				
	Lead Urban Forestry Team Meetings	UF Plan status updates	ALL GOALS	$	HIGH
	Identify Large Properties owners and seek MOU Agreements	An MOU documents and prioritized list of properties	Supports 1 Goal	$	LOW
	Identify green businesses and seek MOU agreements	MOU documents and prioritized list licensed businesses	Supports 1 Goal	$	LOW
	Urban Forester participate in Comprehensive Plan review	Develop qualified workforce	Supports 4 Goals	$	MODERATE
	Identify regional planning groups and opportunities for engagement	UF Regional Integration Strategy Document	Supports 1 Goal	$	LOW
Public Works	Integrate Tree inventory updates into all arborist workflows.	GIS Tree Inventory Updates	Supports 8 Goals	$	HIGH
	Inventory Street Trees	GIS Tree Inventory	Supports 8 Goal	$$$	MODERATE
	Perform sample iTree STREETS assessment	Planning and operations Document	Supports 5 Goals	$	HIGH
	Track and report on Tree Removal and Planting Activity	Operations Document	Supports 5 Goals	$	HIGH
	Arborists attend one day of training in Arboriculture each year	Qualified Workforce	Supports 1 Goal	$	LOW
	Review Utility Vegetation Management Plans for Partnership Opportunities	Operational Plan Document	Supports 3 Goals	$	MODERATE
Parks	Inventory and inspect park trees with potential targets	GIS Tree Inventory	Supports 4 Goals	$$	MODERATE
	Integrate Tree Inventory updates into all arborist workflows in parks	GIS Tree Inventory Updates	Supports 3 Goals	$	HIGH
	One member of parks	Qualified	Supports 2 Goals	$	LOW

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	staff becomes a qualified arborist	Workforce			
	Develop a neighborhood tree steward designation	Volunteer Resource and Public Outreach	Supports 1 Goal	$	LOW
	Lead a community Tree Board	Volunteer Resource and Public Outreach	Supports 1 Goal		

7.3 Recommended Annual Work Plan for 2013

The following operational objectives were selected for 2013 from the departmental objectives laid out over the next 5 years. With recognition that deficiencies in the urban forestry gap analysis and available funding are immediate barriers to urban forestry plan implementation, these actions were selected for their low cost-high value traits. Some of these objectives will remain likely remain annual activities through the term of the plan, while others will be one-time projects that support plan goals.

Lead Department	Objective	Timing	Product	Goals Justification	COST	VALUE
Planning	Perform an iTree Eco assessment .	One Time	Tree Inventory data and urban forest ecosystem services benchmarks	Supports 7 Goals	$$	HIGH
	Investigate and report on tree permits to develop tree planting and mortality rates	Annual	UF Planning Document	Supports 8 Goals	$	HIGH
	Urban Forestry attends training class on municipal forestry annually	Annual	Maintain Qualified Workforce	Supports 1 Goal		
	Lead Urban Forestry Team Meetings	Routine	UF Plan status updates	ALL GOALS	$	HIGH
	Identify regional planning groups and opportunities for engagement	Semi-Annual	UF Regional Integration Strategy Document	Supports 1 Goal	$	LOW
Public	Integrate Tree	Routine	GIS Tree	Supports 8	$	HIGH

Works	inventory database updates into all arborist workflows.		Inventory Updates	Goals		
	Perform iTree STREETS assessment (sampling only)	One Time	Planning and operations Document	Supports 6 Goals	$	HIGH
	Track and report on Tree Removal and Planting Activity	Routine	Operations Document	Supports 6 Goals	$	HIGH
	Arborists attend one day of training in Arboriculture each year	Routine	Qualified Workforce	Supports 1 Goal	$	LOW
	Review Utility Vegetation Management Plans for Partnership Opportunities	Annual	Operational Plan Document	Supports 3 Goal	$	MODERATE
Parks	Inventory and inspect park trees with potential targets	Routine	GIS Tree Inventory	Supports 4 Goal	$$	MODERATE
	Integrate Tree Inventory database updates into all arborist workflows in parks	Routine	GIS Tree Inventory Updates	Supports 5 Goals	$	HIGH
	One member of parks staff becomes a qualified arborist	One Time	Qualified Workforce	Supports 2 Goals	$	LOW
	Develop a neighborhood tree steward designation	One Time	Volunteer Resource and Public Outreach	Supports 1 Goal	$	LOW
	Develop a community Tree Board Structure	One Time	Volunteer Resource and Public Outreach	Supports 1 Goal	$	LOW

DRAFT

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APPENDIX A: PERFORMANCE MEASURES

Urban Forest Asset Criteria & Indicators

City Opportunity	Criteria	Performance Indicators				Justification
		Low	Moderate	Good	Optimal	
Achieve climate-appropriate degree of tree cover community-wide	Relative Canopy Cover	The existing canopy cover equals 0%-25% of the potential	The existing canopy cover equals 25%-50% of the potential	**The existing canopy cover equals 50%-75% of the potential**	The existing canopy cover equals 75%-100% of the potential	The 2011 UTC assessment identified current UTC at 40.7% with a potential for 60% canopy in the city
Provide for uneven aged distribution of trees throughout the city and at the neighborhood level	Age Distribution of trees in the community	Any relative DBH class (RDBH) represents more than 75% of the tree population	Any relative DBH class (RDBH) represents between 50% and 75% of the tree population	No RDBH class represents more than 50% of the tree population	25% of the tree population is in each of the four RDBH classes	**Not enough information available at the city to evaluate.**
Establish a tree population suitable for the urban environment and adapted to the regional environment	Species suitability	Less than 50% of the trees are of species considered suitable for the area	50% to 75% of trees are of species considered suitable for the area	More than 75% of trees are of species considered suitable for the area	All trees are of species considered suitable for the area.	**Not enough information available at the city to evaluate**
Establish a genetically diverse tree population citywide as well as at the neighborhood level	Species Distribution	Fewer than five species dominate the entire tree population	No species represents more the 20% of the entire tree population citywide,	No species represents more than 10% of the entire tree population citywide	No species represents more than 10% of the entire tree population at the neighborhood level.	**Not enough information available at the city to evaluate**
Detailed understanding of the condition and risk potential of all publicly-owned trees	Condition of publicly owned trees (trees managed intensively)	No tree maintenance or risk assessment. Request based/reactive system. The condition of the urban	**Sample-based inventory indicating tree condition and risk level is in place.**	Complete tree inventory that includes detailed tree condition ratings.	Complete tree inventory that includes detailed condition and risk ratings.	City has inventory information about Street Trees in pre-annexation areas only.

		forest is unknown.				
Detailed understanding of the ecological structure and function of all publicly-owned natural areas	Publicly owned natural area trees managed extensively	No information about publicly owned natural areas	**Publicly owned natural areas identified in a "natural areas survey" or similar document**	The level and type of public use in publicly owned natural areas is documented.	The ecological structure and function of all publicly owned natural areas are documented in the citywide GIS.	20 Year natural areas management plan documents a strategy for care an management of natural areas.
Preservation and enhancement of local natural biodiversity	Native Vegetation	No program of integration	**Voluntary use of native species on publicly and privately-owned lands; invasive species are recognized**	The use of native species is encouraged on a project-appropriate basis in both intensively and extenstively managed areas; invasive species are recognized and their use discouraged	The use of native species is required on a project-appropriate basis in both intensively and extensively managed areas; invasive species are recognized and prohibited.	20-Year Natural Areas Management Plan recognizes the danger of invasive species.

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The Municipal Resource Criteria & Indicators

Plan opportunities	Criteria	Performance Indicators				Justification
		Low	Moderate	Good	Optimal	
Complete inventory of the tree resource to direct its management, including age distribution, species mix, tree condition and risk assessment	Tree Inventory	No inventory	**Complete or sample-based inventory of publicly owned trees**	Complete inventory of publicly owned trees and sample-based inventory of privately-owned trees	Complete inventory of publicly owned trees and sample-based inventory of privately owned trees including citywide GIS	-Majority of inventory data has not been updated since 2004. -Street tree inventory is a partial inventory due to recent annexation.
High Resolution assessments of the existing and potential canopy cover for the entire community	Canopy cover inventory	No inventory	Visual assessment.	**Sampling of tree cover using aerial photographs or satellite imagery.**	Sampling of tree cover using aerial photographs or satellite imagery included in citywide GIS	-UTC assessment performed on 2010 imagery.
Develop and implement a comprehensive urban forest management plan for private and public property	Citywide management plan	**No Plan**	Existing plan limited in scope and implementation	Comprehensive plan for publicly owned intensively-managed forest resources are accepted and implemented	Strategic multi-tiered plan for public and private intensively and extensively managed forest resources accepted and implements with adaptive management mechanisms.	City is currently guided by 2003 natural resource management plan and 2008 Natural areas management plan.
Develop and maintain adequate funding to implement citywide urban	Municipality-wide funding	**Funding for reactive management**	Funding to optimize existing urban forest	Funding to provide for net increase in urban forest benefits	Adequate private and public funding to sustain maximum	Budgets for urban forestry efforts are discretionary items in the

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forestry plan					urban forest benefits	general fund.
Employ and train adequate staff to implement citywide urban forest management plan	City Staffing	No Staff	No Training of existing staff	**Certified arborists and professional foresters on staff with regular professional development**	Multi-disciplinary team within the urban forestry unit	Certified arborists and urban forestry professionals on staff. Training opportunities are supported. There is no dedicated urban forestry unit.
Urban forest renewal is ensured through a comprehensive tree establishment program driven by canopy cover, species diversity and species distribution objectives	Tree establishment planning and implementation	**Tree establishment is ad hoc**	Tree establishment occurs on an annual basis	Tree establishment is directed by needs derived from an inventory	Tree establishment is directed by needs derived from a tree inventory and is sufficient to meet canopy cover objectives	Trees are established due to development code requirements and land use regulations.
All publicly owned trees are planted in habitats that will maximize current and future benefits for the site.	Tree Habitat suitability	Trees planted without consideration of site conditions	**Tree species are considered in planting selection**	Community-wide guidelines are in place for the improvement of planting sites and the selection of suitable species.	All trees planted in sites with adequate soil quality and quantity, and growing space to achieve their genetic potential.	Chapter 95 of Kirkland Zoning Code supports this objective. Certified arborists on staff advise on best practices

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Community Resource Criteria & Indicators

City Opportunity	Criteria	Performance Indicators				Justification
		Low	Moderate	Good	Optimal	
Ensure all city departments cooperate with common goals and objectives	Public Agency Cooperation	Conflicting goals among departments or agencies	Common goals but no cooperation among departments and/or agencies.	**Informal teams among departments and or agencies are functioning and implementing common goals on a project-specific basis**	Municipal policy implemented by formal interdepartmental/interagency working teams on all municipal projects.	City endorses the Green Team committee, but has not created formal urban forestry team.
Large private landholders embrace citywide goals and objectives through specific resource management plans	Involvement of large private and institutional land holders	Ignorance of issues.	**Educational materials and advice available to landholders**	Clear goals for tree resource by landholders, incentives for preservation of private trees.	Landholders develop comprehensive tree management plans (including funding)	Chapter 95 and website resources provide city guidance and regulations for large private land holders.
The green industry operates with high professional standards and commits to citywide goals and objectives.	Green industry cooperation	No cooperation among segments of the green industry. No adherence to industry standards.	General cooperation among nurseries, tree care companies, etc.	Specific cooperative arrangements, such as purchase certificates for "right tree in right place"	**Shared vision and goals including the use of professional standards.**	Utility companies, nurseries and tree care professionals in Kirkland and neighboring communities openly work together in support of urban forestry

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						goals in the city
At the neighborhood level, citizens understand and cooperate in urban forest management.	Neighborhood action	No Action	Isolated or limited number of active groups	**Citywide coverage and interaction**	All neighborhoods organized and cooperating.	Neighborhood associations exist, but are not unified in their understanding of urban forest management objectives in the city
All constituencies in the community interact for the benefit of the urban forest.	Citizen-municipality-business interaction.	Conflicting goals among constituencies.	No interaction among constituencies	**Informal and/or general cooperation**	Formal interaction, such as a tree board with staff coordination.	Central Business District trees are maintained by the City. City permit processes are main point of interaction with urban forestry issues.
The general public understands the role of the urban forest.	General awareness of trees as a community resource	Trees seen as a problem, a drain on budgets	Trees seen as important to the community.	**Trees acknowledged as providing social and economic services**	Urban forest recognized as vital to the community's environmental, social and economic well-being	Acknowledgment in existing urban forestry documents and plans adopted by the city.
Provide for cooperation and interaction among neighboring communities and regional groups	Regional cooperation	Communities cooperate independently.	Communities share similar policy vehicles	**Regional planning is in effect**	Regional planning, coordination, and/or management plans.	City works in partnership with King County, the Puget Sound Partnership and neighboring municipalities.

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APPENDIX B: Strategic Recommendations

The Urban Forest Asset

GOAL	Management Opportunity	Strategy	Performance Measure	Rationale
1	Achieve climate appropriate degree of canopy cover community wide	The existing canopy cover equals 45%	Canopy (%)	Kirkland is well positioned to achieve optimal canopy measure. In 2010 Canopy results for Kirkland was 40.7% with a potential canopy of 60%.
2	Provide for uneven aged distribution of trees throughout the city and at the neighborhood level.	Any Relative DBH class (RDBH) represents more than 75% of the tree population.	Tree per DBH Class (%)	There is not enough information to assess this performance measure. The city should at achieve a minimum standard for this performance measure.
3	Establish a tree population suitable for the urban environment and adapted to the regional environment	Less than 50% of the trees are of species considered suitable for the area.	Species Suitability	There is not enough information to assess this performance measure. The city should achieve a minimum standard for this performance measure.
4	Establish a genetically diverse tree population city-wide as well as at the neighborhood level.	Fewer than five species dominate the entire tree population.	Species distribution (%)	There is not enough information to assess this performance measure. The city should achieve a minimum standard for this performance measure.
5	Detailed understanding of the condition and risk potential of all publicly-owned trees	A complete inventory with detailed condition and risk ratings	# of Trees with documented inspection older than 5 years.	With only a street tree inventory in pre-annexed areas, uncertainty about city risks and liabilities warrants the pursuit of optimal performance levels.
6	Detailed understanding of the ecological structure and function of publicly-owned natural areas.	The ecological function of all publicly owned natural areas are tracked in citywide GIS	# of ecosystem service measures tracked in city database	With a 20 Year Natural Areas restoration plan, the city is favorably positioned to understand and optimize the ecosystem benefits provided from trees in these areas.
7	Preservation and enhancement of local natural biodiversity	Planting of native species are encouraged in all managed areas, invasive species are discouraged.	Ratio of Native vs. non-native tree species.	Through modifications of existing city regulation, policies and public education, the city can directly influence the biodiversity of the tree population toward the optimal performance level.

The Municipal Resource

Goal	Management Opportunity	Strategy	Performance Measure	Rationale
1	Complete inventory of the tree resource to direct its management, including age distribution, species mix, tree condition and risk assessment	Complete inventory of city owned trees.	% of public canopy inventoried and assessed	The information provided from tree inventory data is essential to cost control of tree planting, maintenance, and risk management activities.
2	High Resolution assessments of the existing and potential canopy cover for the entire community	Maintain a relevantly current and historical database of citywide and neighborhood tree canopy measures.	Canopy per Neighborhood (%)	This goal is currently at optimal levels, but during the next 20 years of the plan, the city will need to perform periodic update assessments.
3	Develop and implement a comprehensive urban forest management plan for private and public property	Maintain a relevant and routinely updated urban forestry strategic management plan.	Management plan age.	In order for this plan to adapt and maintain its relevance to the community and city staff, periodic reviews and amendments are required.
4	Develop and maintain adequate funding to implement citywide urban forestry plan	Funding to optimize existing urban forest benefits.	Each Plan Objective has a funding strategy.	With funding at low to moderate performance levels, success with individual objectives and overarching goals in the plan will affected by their funding strategies.
5	Employ and train adequate staff to implement citywide urban forest management plan	Have a qualified multi-disciplinary team within the urban forestry unit.	Annual number of hours training per FTE	Each city staff person who makes decisions that impact the urban forest should receive subject specific training on an annual basis to strengthen the qualifications of the urban forestry team.
6	Urban forest renewal is ensured through a comprehensive tree establishment program driven by canopy cover, species diversity and species distribution objectives	Tree establishment occurs on an annual basis.	# of trees planted per year	Due to tree mortality, the city must engage in annual tree planting or risk a decline in the health of the urban forest.
7	All publicly owned trees are planted in habitats that will maximize current and future benefits for the site.	Community-wide guidelines that improve planting sites and suitable species selection.	Updated tree planting guidelines	Through planting guidelines that are routinely updated the city can set policies on species selection and planting strategies that are aligned with other plan goals.

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Community Resources

Goal	Management Opportunity	Strategy	Performance Measure	Rationale
1	Ensure all city departments cooperate with common goals and objectives	Municipal policy implemented by a formal interdepartmental working team.	# of Urban Forestry Team meetings per year.	Team meetings ensure that plan objectives are routinely referenced and plan challenges can be addressed through collaborative problem solving.
2	Large private landholders embrace citywide goals and objectives through specific resource management plans	Educational outreach tool available to large land holders	# of properties >5 Acres with a signed MOU	Establishing urban forestry memorandums of understanding (MOU's) with large landowners can help educate as well as encourage partnerships with urban forestry objectives
3	The green industry operates with high professional standards and commits to citywide goals and objectives.	Educational outreach tool available to green industry businesses licensed in the city.	# of 'green' businesses with a signed MOU.	Establishing urban forestry memorandums of understanding (MOU's) with businesses in the city is a strategy to encourage partnership and alignment with city urban forestry objectives
4	At the neighborhood level, citizens understand and cooperate in urban forest management.	All neighborhoods organized and cooperating with the plan.	# of Neighborhood tree stewards.	Kirkland should find and promote neighborhood volunteers by creating a 'tree steward 'designation. This will promote communication of urban forestry objectives to the public and foster volunteerism in the community.
5	All constituencies in the community interact for the benefit of the urban forest.	Formal interaction, such as a tree board with staff coordination.	# Of Tree Board meetings per year.	Having a community tree board that meets on a regular basis will increase community participation on urban forestry issues and help ensure success with plan objectives.
6	The general public understands the role of the urban forest.	Urban forest recognized as vital to the community's environmental, social and economic well-being	# of Urban Forestry goals adopted in the comprehensive plan	Currently the city has adopted Canopy Cover as the only urban forestry performance measure for comp plan goals. Assigning urban forestry performance measures to additional comp plan goals should increase public awareness and understanding.
7	Provide for cooperation and interaction among neighboring communities and regional groups	City plan supports regional urban forestry planning, coordination and or management plans.	# of plan objectives aligned with regional plans	Plan objectives should have relevance wherever possible to the objectives of any regional planning documents.

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Attachment 3

CITY OF KIRKLAND, WASHINGTON
DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT
DEPARTMENT OF PUBLIC WORKS
DEPARTMENT OF PARKS AND COMMUNITY SERVICES

REQUEST FOR PROPOSALS

CITY-WIDE URBAN FORESTRY STRATEGIC MANAGEMENT PLAN

Funding assistance for this project is provided by the Washington State Department of Natural Resources
Urban and Community Forestry Division and the USDA Forest Service
The USDA is an equal opportunity provider and employer

PROPOSALS ARE BEING SOLICITED FROM QUALIFIED CONTRACTORS TO ASSIST IN CREATING A CITY-WIDE URBAN FORESTRY STRATEGIC MANAGEMENT PLAN.

I. Introduction

The primary mission of a well-developed municipal forestry program is to provide the residents, businesses and visitors of the community a healthy, safe and pleasant environment, especially considering trees' quantifiable contribution to the environment. An urban forestry strategic management plan (Plan) guides the City's actions towards this mission, conveying a vision for this critical resource and identifies the actions needed to achieve the vision. Based on the distinctive character and context of the community, the Plan will help establish consistency and coherence in the City's long-range planning for its urban forest.

II. Intent

The City of Kirkland (City) is seeking qualified professional services (Consultant) to assist the City in preparing a strategic management plan for its urban forestry-related operations, policies and programs. The Plan will serve as a management tool for the City to efficiently and cost-effectively maintain and enhance its urban forest resource and establish priorities towards a sustainable urban forestry program.

III. Background

In June 2011, Kirkland annexed the Finn Hill, North Juanita and Kingsgate areas, nearly doubling the city's area to 18 square miles and significantly increasing its population to over 80,000 citizens, making it the thirteenth largest city in the state.

In 2001 the City conducted its first tree management plan. Kirkland implemented comprehensive tree regulations in 2006 and planned for open space restoration in a *20-Year Forest Restoration Plan*. However, most forestry-related goals outlined in the City's *Natural Resource Management Plan* and all of those listed in the *2001 Tree Management Review* have been achieved. To address the needs of a growing community and to incorporate the recently annexed areas, a new strategic plan is essential to proactively measure, monitor and manage the City's forestry resources.

The City has received a Community Forestry Assistance Grant (Attachment A) in the amount of $10,000 from the Washington Department of Natural Resources and the USDA Forest Service for the project. Due to staffing/budgetary issues, the project was delayed until January 1, 2012. As a result of the compressed project timeline, the project scope has been limited to the Final Draft document, or 'Phase I'. To produce the best possible product, additional deliverable tasks are listed under 'Phase II' as a continuation of the project. The Consultant shall include these tasks in their proposal; however the associated costs for Phase I and II items must be listed separately. The

cost of Phase II tasks may not exceed an additional $10,000. The total combined cost of the project shall not exceed $20,000. The City reserves the option of selecting the task(s) in Phase II to be incorporated into the scope of services and professional services agreement.

The preparation of the Plan will be guided through a Project Team consisting of representatives from the Departments of Planning, Public Works and Parks & Community Services.

IV. Project Scope of Work

To assist in completing an Urban Forestry Strategic Management Plan, the Consultant shall work with the Project Team to refine the Scope of Work and project timelines, specifying the tasks, responsibilities, schedule, deadlines and deliverables as follows:

<u>Phase I – Primary Framework of Plan</u>

1. Map out and assess the City's overall forestry activities and practices, including various departments' roles and responsibilities in permitting, management and maintenance operations via interview or survey, and review of City documents, code/ordinance review, etc. See Project Requirements (Section V) for analysis guidelines. May include comparisons to similar municipalities' forestry programs and resources.
2. Identify interested parties for community engagement and develop a strategy to obtain public input. Target specific groups early in the project via email, focus group discussion, online surveys or other strategies.
3. Provide general recommendations to increase internal efficiencies, reduce costs and liability, and promote better communication and coordination between departments, decision-makers and the community at large. Recommendations should be consistent with City goals and policies.
4. Establish a framework of long-term, comprehensive objectives or goals. Develop a long-range (minimum 20-year) strategic framework supported by incremental (5-year) management plans, with recommended annual operating plans.
5. Specify actions to meet the goals and objectives, identifying who will do what with phases of work coinciding with budget cycles. For example: Recommendations for maintenance operations may define tasks with production/outcome expectations and recommended frequency levels.
6. Framework shall diagram a monitoring and informational feedback loop so that outcomes, effectiveness and efficiency can be measured over time. Include periodic adjustment of goals to reflect updated conditions.

Phase I Deliverables:

- *Two Review Drafts*
- *Final Draft Plan document in Word and pdf format*

Phase II – Continuation of Project Tasks

The following additional tasks are to be included with the Proposal submittal; however as a continuation of the project, the timeline and costs for Phase II Option items must be listed or shown separately from the primary framework of the Plan (Phase I):

1. Provide recommendations on potential program funding sources and partnership opportunities, including consideration of utility funding for urban forestry maintenance operations (similar to Vancouver, WA).
2. Implementation of public engagement process with community stakeholders, citizens, businesses and interested parties with the intent to incorporate the Plan into the City's policy framework. May involve surveys, email, group discussions and/or interviews. Survey data shall be compiled in an electronic file and formatted to insert into the Final Draft Plan.
3. Incorporate data from the public engagement process, create Final Plan Document for public and City Council review/approval
4. Prepare a presentation for review by the City Council and other appointed commissions for approval. Deliverable is a PowerPoint file appropriate for presentation to the Planning Commission and the Kirkland City Council. Consultant is expected to participate in the presentation.
5. Develop an education & outreach strategy for the City-wide Strategic Management Plan, outlining timelines to print the approved Final Plan, update forms and the City's website, give presentations, develop and print handouts and other literature, etc internally and to Kirkland citizens.

Phase II Deliverables:

- *Inclusion of tasks noted in Phase II Final Draft Plan document for review by the Project Team*
- *Final Plan document for City Council review/approval in Word and pdf format*
- *Presentation in PowerPoint slide format*
- *Education and Outreach Strategy in pdf format*
- *Attendance at City Council presentation*

V. Project Requirements

The analysis of the City's forestry activities and practices should be done using the guidelines in *A Model of Urban Forest Sustainability* by James Clark, et al, Journal of American Arboriculture 23(1): January 1997 (Attachment B).The Plan should follow the guidelines established in Section 5 from *A Guide to Community and Urban Forestry*

Programming by the Washington State Department of Commerce and the Evergreen Communities Partnership Taskforce (Attachment C).

Phase I deliverables include two Review Drafts prior to the Final Draft document of a city-wide Urban Forestry Strategic Management Plan. The first draft will be subject to review by the multi-departmental Project Team, three departmental directors, and Project stakeholders (Attachment D). The Final Draft document will be in an electronic file format appropriate for public review.

The Final Draft Plan will be concise and readable to the average citizen. While the majority of the content will be in narrative format, the use of photographs, graphics, tables, charts, insets and bulleted lists of items and other techniques that provide the message more concisely than extensive use of paragraphs and long sentences is preferred. A large font size shall be utilized. The final draft shall be as long as necessary but fewer pages and an uncluttered appearance are preferred. The final draft shall include:

1. Cover page with title and cover photography including City logo, Contractor identification and date of report.
2. Acknowledgements and funding information (to be provided by City), Table of Contents, and Executive Summary.
3. Body of final draft to include an introduction, methodology and other clarifying descriptions for the untrained reader to understand as necessary.
4. Summary - shall include a recommendation for implementing cyclical updates.
5. Appendix (if applicable) – containing supporting data, factsheets, documents and other information that enhance the report.

The Final Draft Plan shall include summaries or references to the City's existing forestry asset inventories, plans, programs, and regulations where applicable, such as the street tree inventory, canopy assessment, the 20-Year Forest Restoration Plan, Natural Resource Management Plan, Tree City USA status, Climate Action Plan, the City's Comprehensive Plan and tree protection codes.

The Final Draft Plan shall include the environmental and economic attributes and benefits of trees (e.g. air quality, property values, energy conservation, wildlife habitat, etc.), and will describe the relationship of trees to surface water attenuation. The Plan shall identify and may incorporate tools to quantify the impacts of the urban forest on surface water attenuation.

The consultant shall submit a Phase II Final Plan review draft for comment by the Project Team. The Phase II Final Plan document shall incorporate the results from the Phase II tasks and be formatted for City Council review/approval.

VI. Proposal Submittal Requirements and Schedule

Firms interested in the project should submit a Project Proposal, which includes a one-page cover letter plus a proposal with a maximum length of six pages of at least 11 point font. The proposal shall include a

1. Summary of the Consultant's qualifications as they relate to the project
2. Description of the Consultant's approach to this project, as described in Section IV under 'Project Scope of Work'. Include general cost estimates for each task.
3. Description of similar projects performed
4. The Consultant shall outline the project and a timeline based on the Estimated Schedule of Activities below, specifying project deadlines between 'Begin Project' to 'Phase II Project Continuation final submittal'. The completion date for the Phase I Final Draft Plan is May 31st, 2012.

ESTIMATED SCHEDULE OF ACTIVITIES:

Task	Date
RFP issued	February 6, 2012
Questions submitted by 4:00pm	February 14, 2012
Proposals due by 4:00 pm	February 23, 2012
Interviews with finalists, if required	TBD
Announce "apparent successful consultant"	March 2, 2012
Begin Project	March 9, 2012
Phase I First Review Draft Plan submittal	TBD
Phase I Second Review Draft Plan submittal	TBD
Phase I Final Draft Plan submittal	May 31, 2012
Begin Phase II Project Continuation	TBD
Phase II Project Continuation Final Plan submittal	TBD

If at any time changes must be made to the approved schedule, the City must be notified immediately.

5. Resumes and references regarding the experience of the personnel who will be assigned to the project. Resumes for each key team member shall be limited to a maximum length of two pages and should be attached as an appendix to the Proposal.
6. Cost summary: the proposed cost of the project may be submitted in hourly wages, estimated number of hours and total dollar amount for the project. Phase I of the project may not exceed $10,000. Phase II Proposals including the additional Continuation of Project Options must show costs separate from Phase I of the project. Phase II of the project may not exceed $10,000 without written consent of the City of Kirkland.

7. A list of references knowledgeable of your firm's work, especially those clients with similar projects. Please include telephone numbers and addresses.
8. The City of Kirkland requires the signing of a Professional Services Agreement (Attachment E). Please review the attached agreement; the project does not commence without a completed and notarized Professional Services Agreement. A Contract consists of the Request for Proposals, the submitted Proposal and the City's Professional Services Agreement.
9. The proposal, if mailed or hand-delivered, must be submitted with four copies (total 5 proposals).

Proposals will be accepted by the City of Kirkland's Purchasing Agent until 4:00 p.m., February 23, 2012 and must be emailed to: bscott@kirklandwa.gov or addressed to:

City of Kirkland
Attn: Barry Scott, Purchasing Agent
123 5th Avenue
Kirkland, WA 98033-6189

Questions regarding the RFP process should be addressed to Barry Scott, Purchasing Agent, by email to bscott@kirklandwa.gov

Questions regarding the scope of work, timeframe or deliverables should be addressed to Deb Powers, Urban Forester, by email to dpowers@kirklandwa.gov up to 4:00pm February 14, 2012. After this deadline, all communications between the Contractor and the City shall be with the City's Purchasing Agent.

The proposal, if mailed or hand-delivered, must arrive at the City no later than 4:00 pm on February 23, 2012. Late proposals will not be accepted and will be automatically disqualified from further consideration. Consultants mailing proposals should allow mail delivery time to ensure timely receipt of their proposal by the Purchasing Agent. Consultants assume the risk for the method of delivery chosen.

VII. Selection Process

Proposals will be evaluated by the City to determine which proposal, if any should be accepted in the best interest of the City at its sole discretion reserves the right to accept or reject proposals submitted and to waive informational and minor irregularities and to request additional information required to fully evaluate a proposal.

Proposals will not be publicly opened and will be kept strictly confidential during this process. All aspects of the evaluations and any negotiations, including documentation, correspondence and meetings, will be kept confidential by the Evaluation Committee. No information regarding any proposal or its evaluation will be discussed with other companies.

An evaluation team shall review the proposals, discuss, assess and rank the proposals according to the evaluation criteria. These rankings will be used to determine if there is a single proposal that clearly is the most advantageous offer and is in the best interest of Kirkland. If so, Kirkland may proceed with an award to that proposer. It is pointed out that nothing in these procedures shall be interpreted to require Kirkland to award a contract to the lowest cost proposer.

As described above, if a single most advantageous proposal is not so readily determined, then the Evaluation Committee will use the rankings to determine which proposals fall within a competitive range. The competitive range will depend upon the results of the rankings. It may be a clustering of proposals having scores close to one another but widely separated from the others or it may be those proposals that attain scores exceeding a certain threshold.

Proposers falling within the competitive range may be invited to participate in meetings and discussions. Each may be invited for an interview with the Evaluation Committee to discuss both the Technical Proposal and Price Proposal and answer specific questions. These questions may be provided in advance in writing and/or be oral. The purpose of each meeting will be to clarify and assure understanding of the requirements of the contract, improve the technical aspects of the offer in an effort to better meet specifications and/or reduce the price, question any cost data provided and any such discussion relevant only to each proposal separately that may improve the proposal both technically and economically in the interest of Kirkland.

No information, cost or otherwise, will be provided to any proposer about any competitive proposer's proposal. The meeting discussions will provide guidance to the proposer on how it may adjust its proposal to better fulfill the needs and requirements of Kirkland.

Proposers will not be given any indication of a price they must meet to gain further consideration. Proposers will not be told of their rankings among other proposers. After proposals are received, information regarding the number and identity to the proposers who are in the competitive range and who are participating in the interviews will not be made available to any of the proposers, the public or anyone else who is not required to know.

VIII. Evaluation Criteria

Proposals will be evaluated according to the following criteria, listed in order of importance:

- Specialized experience and technical competence of the firm and its personnel (including a joint venture, associate or professional subcontract). Recent experience and expertise with Urban Forestry Management Plans is highly desirable.

- Problem identification to accomplish the work required including, where appropriate, demonstrated capability to explore and develop innovative or advanced techniques and design.

- Proposed cost to perform the work.

- Capacity to perform the work (including any specialized services) within the time limitations, considering the firm's current and planned workload.

- Past record of performance on contracts with Kirkland, other government agencies or public bodies, and with private industry, including such factors as control of costs, quality of work, ability to adhere to schedules, cooperation, responsiveness, compliance with DBE utilization requirements, and other management and attitudinal considerations.

- Familiarity with types of problems applicable to the project

IX. Special Conditions

CONFIDENTIALITY OF PROPOSALS

Confidentiality of proposals is considered by KIRKLAND as an essential element of maintaining fairness during the evaluation process. However, confidentiality cannot be guaranteed under the State Public Disclosure Act, Chapter 42.17 RCW.

If a member of the public demands in writing to review portions of proposals which have been marked or identified as confidential, proprietary or business secrets, KIRKLAND will notify the affected proposer prior to releasing such portions. The proposer shall take such legal actions as it deems necessary to protect its interests. If the proposer has not commenced such actions within five (5) calendar days after receipt of the notice from KIRKLAND of a demand to review such portions of its proposal and provided KIRKLAND written notice of the actions, KIRKLAND may make such portions available for review and copying by the public as KIRKLAND deems necessary to comply with state law.

The proposer asserting that portions of its proposal are legally protectable shall bear all costs of defending such assertion, including indemnifying and reimbursing KIRKLAND for its administrative, expert and legal costs and judgments involved in defending itself in actions arising from such assertions by the proposer including (without limitation) any assessments under RCW 42.17.340(3). By submitting a proposal with portions marked confidential, proprietary, business secrets or the like, the proposer has thereby agreed to the provisions of this section, including the defense and reimbursement obligations.

REJECTION OF PROPOSALS

Kirkland reserves the right to reject any or all proposals. This Request for Proposal does not obligate Kirkland to enter into a contract for the described services.

PROPERTY RIGHTS

All records or papers of any sort relating to Kirkland and to the project will at all times be the property of Kirkland and shall be surrendered to Kirkland upon demand. All information concerning Kirkland and said projects, which is not otherwise a matter of public record or required by law to be made public, is confidential, and the Contractor will not, in whole or in part, now or at any time disclose that information without the express written consent of Kirkland.

CONTRACTOR RELATIONSHIP

a. The Contractor is and shall be at all times during the term of this Agreement an independent contractor and not an employee of Kirkland, and shall not be entitled to any of the usual benefits incident to employment with Kirkland.
b. Any and all employees of the Contractor, while engaged in the performance of any work or service required by the Contractor under this Agreement, shall be considered employees of the Contractor only and not of Kirkland and any and all claims that may or might arise under the Workers' Compensation Act on behalf of said employees, while so engaged and any and all claims made by a third party as a consequence of any negligent act or omission on the part of the Contractor's employees, while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the Contractor.

WAGE AND HOURS LAW COMPLIANCE

Contractor shall comply with all applicable provisions of the Fair Labor Standards Act and all other legislation affecting its employees and the rules and regulations issued thereunder insofar as applicable to its employees and shall at all times hold Kirkland free, clear and harmless from all actions, claims and expenses arising out of said Act and rules and regulations that are or may be promulgated in connection herewith.

SOCIAL SECURITY AND OTHER TAXES

Contractor assumes full responsibility for the payment of all payroll taxes, use, sales, income or other form of taxes, fees, licenses, excises, or payments required by any city, county, federal or state legislation which is now or may during the term of the Agreement be enacted as to all persons employed by the Contractor and as to all duties, activities and requirements by the Contractor in performance of the work on this project and under this contract and shall assume exclusive liability therefore, and meet all requirements thereunder pursuant to any rules or regulations.

ATTORNEYS' FEES

If Kirkland brings any action or suit relating to the enforcement of this Agreement or asking for any relief against Contractor, declaratory or otherwise, arising out of this Agreement or if Contractor brings any action or suit against Kirkland, declaratory or otherwise, arising out of this Agreement, then the prevailing party in any of these

events shall be paid reasonable attorneys' fees and costs and expenses expended or incurred in connection with any such suit or action.

Attachments:

(A) Community Forestry Assistance Grant Narrative
(B) *A Model of Urban Forest Sustainability*
(C) *A Guide to Community and Urban Forestry Programming*
(D) Project Stakeholders' Letters of Support
(E) Professional Services Agreement

CITY OF KIRKLAND
Department of Parks & Community Services
505 Market Street, Suite A, Kirkland, WA 98033 425.587.3300
www.ci.kirkland.wa.us

To: Park Board

From: Jennifer Schroder, Director

Date: June 8, 2012

Subject: June Staff Update

RECREATION DIVISION

Recreation

- Registration for spring and summer programs is consistently doing well. As seen in the monthly revenue comparison, the last four months we have exceeded our 2011 revenues and have taking in $42,739 over last year at this time.

	JAN	FEB	MAR	APR	May	TOTAL
2011	$52,919	$25,892	$267,949	$145,562	$113,264	**$605,586**
2012	$46,685	$30,766	$306,704	$149,658	$114,512	**$648,325**
variance	**($6,234)**	**$4,874**	**$38,755**	**$4,096**	**$1,248**	**$42,739**

- Recreation staff are not only preparing and gearing up for summer activities, but are also in the planning stage for the next Recreation Brochure: fall 2012 and winter 2013. Our submittal meeting with the brochure designer on June 13th. With final product delivered to homes by August 16th.

North Kirkland Community Center

- In addition to internal training for the Kirkland Parks and Community Services summer day camp staff, external training has also been scheduled. On June 9th, day camp staff will spend the day at the City of Redmond's Old Redmond School House in a training offered by Washington Recreation and Parks Association. The training provides 29 valuable sessions, which include communication, cooperative games, behavior management, water safety, and managing field trips.
- "Experience It," the new tagline for the department, will soon be seen all over Kirkland. In addition to banners, new-comers packets, flyers and the website, recreation staff wearing the tagline will be visible at day camps, farmers' markets and special events.

Aquatics

- The Peter Kirk Pool opened June 4th with a variety of programs: early morning lap swim, evening open swim and family swim, Peter Kirk Learn-to-Swim swimming lessons, water aerobics and pool rentals. Currently, 1,998 participants are registered in summer aquatic programs generating $148,996 in revenue.
- Swim team tryouts for new participants takes place on June 9th. Currently, 140 returning swimmers are registered for the team providing 60 spaces for new participants. Swim Team practice begins the week of June 25th.
- 60 staff have been hired to guard Peter Kirk Pool and Houghton and Waverly beaches, and to teach swimming lessons.
- Houghton and Waverly beaches will be guarded beginning July 1st. Beach lifeguards will be practicing rescue skills at the beaches June 27th and 28th.

Sports and Fitness

- The Move It! program continues to produce steady numbers, finishing the spring season with a total of 223 registrants. The summer season will begin on June 11th and will conclude in late August. We hope to equal the registration numbers of last year. The fall season will see some changes to our regular lineup with our "Early Bird" class shifting one hour later to start time at 8:00 am and the addition of a Monday Zumba class.
- The spring pee wee soccer league is winding down with the final game day scheduled for June 9th. They will receive their participant medals that day and most coaches are planning some sort of "end of the season" celebration. We have started taking early registration for the fall season and hope to attract around 200 children to participate.
- Summer tennis camps are boasting great numbers compared to last year. We are offering some classic sports camps such as baseball, golf and soccer but we are also offering more modern sports like skateboarding, fencing and lacrosse. With 236 children registered in our sports camps (excluding tennis camps), which equates to over $50,000, we are on track to surpass our participant numbers from 2011.
- Kirkland tennis camps are bringing in steady numbers overall with better than expected numbers in our Peter Kirk camp for ages 7 – 10. Those camps are completely full for the entire summer. We hope that we will continue to see an increase in registration for all ages as we near the end of the school year.

Peter Kirk Community Center

- The Kirkland Stepper's program kicked off their 9th season on June 5th. Fairwinds Redmond provided a delicious breakfast as well as sponsoring new participant t-shirts. There are scheduled walks every Tuesday for the next 17 weeks.
- Staff is gearing up for the start of Summer Camp, getting last minute supplies ordered and scheduling fun field trips.
- A recreation coordinator from the City of Seattle met with staff to discuss how our senior programs are run. They are looking for new ways to run their senior programs and took some of our ideas back to include in their recommendations report.

BUSINESS SERVICES

- With so much to offer and a wonderful venue to spend some time, many families are making a night of it at the Friday Juanita Market each week. The Friday Juanita Market has been up running back in our original location (adjacent to the play area near the beach) and has been very well received by both the vendors and local residents alike. With fresh produce, beautiful flowers, hot food ready to go, neighbors have been flocking to the park to join in the fun. Our goal is to grow the market from an average of 28 vendors to 45 vendors this season. This has been a challenge with construction, but given the response received so far and the location, staff feels this is very do-able.
- The Friday Juanita Market is teaming up with the Kirkland Chamber of Commerce to produce a "Health Fair" at the park. Alongside our regular vendors will be local Juanita businesses that specialize in naturopathic health as well as vision, yoga, massage, etc. The date for the event is June 29th, 3:00 pm – 7:00 pm at Juanita Beach Park.
- Park concessions are ramping up for summer. While many vendors are returning vendors, there have been some changes for this summer:
  - Houghton Beach: Agua Verde Mexican Food is out; Caren's Chicago Grill, selling Vienna brand hot dogs, is in.
  - Waverly Beach: Oak Hills, selling Hawaiian style shaved ice, is out; TnT Treats and More, selling a variety of snack items, is in.
  - Juanita Beach: Northwest Paddle Surfers will be renting stand up paddle boards as well as offering pre-packaged food.

MAINTENANCE DIVISION

Athletic Fields

- Lee Johnson Field – The Memorial Day weekend Kirkland Baseball Commission (KBC) tournament (at Lee Johnson, Kirkland Junior High, Lake Washington and Juanita High School) went very well. The crew did an amazing job and every game all five days was played. This has been one wet June so far. The City Championships are scheduled June 15th at Lee Johnson. This annual event is a day during which Kirkland National Little League and Kirkland American Little League teams compete for the City Champion title. Come down and watch a game! The games are scheduled for 4:30 and 7:00 pm. The rest of the month of June at Lee Johnson includes regular games, then a KBC tournament, and the month then ends with the Merchants hosting the Firecracker Tournament from June 28th through July 1st.. KBC also has a tournament on the schedule for July 4th and 5th.
- Crestwoods – Kirkland American is in the midst of season playoff games at Crestwoods and Everest, Senior Softball co-ed and Men's teams seasons continue, as does Kirkland Parks softball.
- Everest, Juanita Beach and 132nd Square – Regular seasons for KALL and KNLL are coming to a close as teams battle for championship titles. Kirkland National games at Juanita Beach will wrap up later this month. Kirkland American Little League will host their playoff games at Everest and will then move into their All Star season. KALL tournaments are on the horizon at Everest in July. More to come next month!

Volunteers

- Our hats off again to the Moss Bay Divers! On May 12th a group of divers scoured the lake bottom at Houghton Beach. Once again, they did a fantastic job and we are very grateful (as are all the upcoming Houghton Beach users). Thank you!!
- On May 17th, local volunteer group Kudos Kirkland helped Groundsperson Rose Wessels for a number of hours at Heritage Park. They helped with weeding, cleaning and general landscaping of the Centennial Garden. They were a lot of fun to work with and did a great job. Thank you to Kudos Kirkland!

Donations

- The wonderful members of Totem Lake Garden Club voted for and awarded a club donation of $200 to the Centennial Garden at Heritage Park. Their donation provided funds to purchase magnolia trees, which have since been planted. They're a wonderful addition. Thank you to the Totem Lake Garden Club!

Notes from the field

- Staff did a great job this past month preparing the cemetery for Memorial Day. The place really looked sharp and the 400 crosses and flags that were placed on all the veterans' markers really showed well.

GREEN KIRKLAND PARTNERSHIP

- Community Based Learning Students from UW Bothell have completed their field work hours, which were conducted at a number of different park events.
- UW Restoration Ecology Network students have completed their restoration project at Cotton Hill Park.
- Over the past two months, three new Green Kirkland Stewards were authorized: Cary Odegard, Ron Shapiro and Megan Gustafson who are now Stewards at Kiwanis Park.
- Green Kirkland Steward Karen Story and her volunteer group continue to lead regular Wednesday morning work parties at Cotton Hill Park.
- In April Kudos Kirkland worked on two occasions with Green Kirkland Steward Karen Story at Cotton Hill Park (see table below).
- Green Kirkland Steward Nona Ganz and her volunteer group continue to lead regular Thursday afternoon work parties at Juanita Bay Park.
- The Juanita Bay Rollers (Native Plant Stewards from 2009 class) have monthly events on the 4th Saturday of each month.
- Green Kirkland Steward Carol Lee Power and the Friends of Kiwanis Park continue with monthly Saturday work parties.
- Green Kirkland Partnership was represented April 5th at a UW Bothell networking event.

- Green Kirkland Partnership booths were included at Earth Day celebratory events in April at UW Bothell and Evergreen Hospital.
- We're gearing up for a Steward orientation training on June 9th, which will be led by our Forterra partner (formerly called Cascade Land Conservancy) using federal grant funding. 24 people are expected to attend.
- And for something else different: On July 19th Kirkland volunteers will have the opportunity of training to conduct detailed monitoring plots in selected park natural areas. This training is also funded by Forterra's federal grant.
- The following table summarizes Green Kirkland Partnership events and other activities conducted by volunteers in April. It includes field and administrative volunteers as well as event volunteers.

			Number of Volunteers				
Date	Park/Work	Group Name	Youth	Adult	Total	Hours	Dollar Equivalent[1]
4/14	Kiwanis Park	Friends of Kiwanis Park	2	7	9	5.5	118.91
4/19	Cotton Hill Park	Green Kirkland Steward with Kudos Kirkland		9	9	18	389.16
4/21	Earth Day at Juanita Bay Park	EarthCorps and Green Kirkland Partnership	96	149	245	727.5	15,728.55
4/26	Cotton Hill Park	Green Kirkland Steward with Kudos Kirkland		4	4	8	172.96
4/28	Cotton Hill Park	Green Kirkland Steward and UW REN	6	12	18	39.5	853.99
4/28	Juanita Bay Park	WNPS 2009 Stewards	3	9	12	36	778.32
Ongoing	Administration			12	12	63.1	1,364.22
Ongoing	Field Work			26	26	113.5	2,453.87
						1011.1	**$21,859.98**

[1] Dollar Equivalent = Hours x 21.62

- Upcoming events for volunteers from the general public:
  - Friday, June 15th at Watershed Park, 10 am to 2 pm. Sign up online at www.earthcorps.org. Contact Chris LaPointe, chris@earthcorps.org
  - Saturday, June 16th at Kiwanis Park, 9 am to 12 pm. Contact Carol Lee Power, 425.828.4220, carolleepower@yahoo.com
  - Saturday, June 23rd at Juanita Bay Park, 9 am to 12 pm. Contact JBRollers@gmail.com
  - Saturday, July 14th at Kiwanis Park, 9 am to 12 pm. Contact Carol Lee Power, 425.828.4220, carolleepower@yahoo.com
  - Thursday, July 19th at Grass Lawn Pavilion, Redmond. Training for Forest Monitoring Program. You must register to participate in this program. Further details at www.earthcorps.org/pages.php?articleId=739
  - Saturday, July 28th at Juanita Bay Park, 9 am to 12 pm. Contact JBRollers@gmail.com
  - Saturday, August 11th at Kiwanis Park, 9 am to 12 pm. Contact Carol Lee Power, 425.828.4220, carolleepower@yahoo.com
  - Saturday, August 18th at Cotton Hill Park, 9 am to 12 pm. Sign up online at www.earthcorps.org. Contact Chris LaPointe, chris@earthcorps.org
  - Saturday, August 25th at Juanita Bay Park, 9 am to 12 pm. Contact JBRollers@gmail.com

CITY OF KIRKLAND
Department of Parks & Community Services
505 Market Street, Suite A, Kirkland, WA 98033 425.587.3300
www.kirklandwa.gov

MEMORANDUM

To: Park Board

From: Michael Cogle, Deputy Director

Date: June 8, 2012

Subject: Park Funding Exploratory Committee Update

RECOMMENDATION:

That the Park Board receives an update from staff on the Park Funding Exploratory Committee (PFEC).

BACKGROUND DISCUSSION:

The PFEC reconvened on May 30th to incorporate feedback from City Council into its recommendation for a potential November ballot measure. Staff will provide a recap of this meeting and an outline of the next steps in the process.

CITY OF KIRKLAND
Department of Parks & Community Services
505 Market Street, Suite A, Kirkland, WA 98033 425.587.3300
www.kirklandwa.gov

MEMORANDUM

To: Park Board

From: Jennifer Schroder, Director

Date: June 8, 2012

Subject: July Park Board Tour Itinerary

RECOMMENDATION
That the Park Board finalizes the itinerary for a July 11th park tour.

BACKGROUND
At the Park Board's May meeting it was determined that a tour of the Tukwila and Federal Way Community Center's would be scheduled in lieu of the Board's regular meeting. Below is the planned itinerary. Please note that due to the distance and time of day we will be traveling, it will be necessary to begin at 5:30 p.m.

5:30 pm	**Depart City Hall**
6:15 pm – 7:00 pm	**Tukwila Community Center**
7:20 pm – 8:00 pm	**Federal Way Community Center**
8:20 pm – 8:35 pm	**(if time allows, stop at a multipurpose synthetic field TBD)**
9:00 pm	**Return City Hall**