CITY OF KIRKLAND
Planning and Building Department
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MEMORANDUM

To: City Council

From: Adam Weinstein, AICP, Director of Planning and Building
              Lynn Zwaagstra, Director of Parks and Community Services
              Julie Underwood, Director of Public Works
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Date: March 25, 2021

Subject: RESOLUTION ADOPTING URBAN FOREST WORK PLAN 2021-2026
              FILE NO. PLN21-00091

RECOMMENDATION:

That the City Council pass the attached Resolution adopting the Urban Forest Work Plan 2021-2026.

BACKGROUND DISCUSSION:

At the March 2, 2021 City Council study session, staff presented a draft of the Urban Forest Work Plan 2021-2026 (6YWP) and received City Council comments on suggested changes to the draft, as well as general questions and comments on the City's urban forestry work. This memo is divided into two segments, with the first segment addressing Council direction on changes to the Draft 6YWP and the second segment addressing the general urban forestry comments and questions.

City Council Direction on Changes to the Draft Work Plan

Note that the Draft 6YWP objectives were organized by high, moderate, and low priority levels. Changes to the 6YWP include content/format, new objectives, and additional information such as funding sources and volunteer opportunities.

CITY COUNCIL: change the priority levels for a) Quantifying Tree Benefits, b) Equitable Park Acquisition, c) Tree Banking, etc. and start with public tree maintenance first, prior to other objectives.

STAFF RESPONSE: By reorganizing priorities, nearly all 6YWP objectives fell into the high priority category. When considering listing the objectives in order of sequence, staff noted that the "timing" category in the prior 2014-2019 Work Plan quickly became obsolete as shifting priorities and funding availability became the primary factors for achieving 2014-2019 Urban

Forest Work Plan objectives. The gap analysis and the barriers to achieving goals shown in the 2014-2019 Status Report[1] clearly convey this.

Staff omitted the priority or sequence levels and revised the 2021-2026 6YWP consistent with the preceding 2014-2019 Work Plan format, without the "timing" category and quarterly calendar. The 2021-2026 Work Plan objectives are now grouped by purpose:
1. Inventory public trees
2. Maintain public trees
3. Increase canopy cover by planting trees
4. Community engagement
5. Improve program framework

On public tree maintenance as a top priority: ideally, maintenance is established before planting efforts increase the inventory. Like many objectives, Proactive Public Tree Maintenance relies on resources for planning and implementation. As described in the March 2 staff memo, Public Works (PW) and Parks and Community Services (Parks) departments will outline levels of proactive public tree maintenance for their Service Package Requests as part of the 2023-2024 budget process. This is further clarified in the revised 6YWP by adding a column for current/potential funding sources.

CITY COUNCIL: What is already funded and are there grant opportunities or other potential funding sources? Also, what accounts for the range in estimated cost for some of the objectives?

STAFF RESPONSE: The Urban Forestry Strategic Management Plan (UFSMP) lists funding strategies for sustainable urban forest management.[2] Staff revised the 6YWP to indicate current (2021) and potential funding, known grants and partnership opportunities (Attachment 1, far right column). Estimated costs are based on prior projects, known grant opportunities, input from neighboring jurisdictions, Kirkland's Tree Team and contractor/consultant estimations.

The revised 6YWP also indicates objectives that are supported by two recently approved service package requests (SPR) summarized below:

> *SPR 21PB15 – Formalization and enhancement of the Tree Bank. Support creating a more formal framework around the City's Forestry Account, including establishing priorities for funding.*

> *SPR 21PB14 - Public land tree inventory to shape a future tree planting program on City properties and in City rights-of-way, including supplementing previous City tree inventories.*

Grants can be a great resource for primary funding or supplemental funding for projects and programs that are identified in department work programs. However, as with volunteer program oversight, grant-writing and subsequent project management for new projects and programs requires FTE resources. For example, due to shifting priorities, Kirkland withdrew both an

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[1] March 2, 2021 City Council Study Session packet, Attachment 3, pp. 13-19.
[2] Urban Forestry Strategic Management Plan (UFSMP), Potential Funding Strategies, Section 4.2, pp. 38-40.

application and an awarded grant for 2014-2019 Work Plan objectives when it became apparent that staffing resources to manage the related projects could not be sustained.

Finally, the estimated cost of resources varies for objectives depending on very wide ranges of scope, scale and technology/methodology used. For example, establishing an urban forestry program framework can range from minor reassignments and budget reallocation to departmental reorganization with major budget implications.

CITY COUNCIL: We should be tracking species diversity. Does Lucity (the City's maintenance-management system) have the capability to track the granular data we need like tree species, condition, why trees failed, etc.?

STAFF RESPONSE: Yes, Lucity has the capability of tracking many tree characteristics, including tree species, in its database. It's used to record inspections, track service requests and auto-generate work orders. It is synched with our GIS system and can be queried to obtain specific data. Parks staff download photos and completed assessment forms into the inventory database. Lucity is customizable, so when needed, additional fields can be added. While it doesn't have all the features a dedicated tree inventory software has, Parks and PW staff feel that Lucity is an effective system, with few minor issues (below). Species and condition data are collected when trees are initially inventoried. Currently we do not record why a tree failed, since that tree would be removed from the inventory, but current tree condition data is recorded as described below.

The process of entering data updates into the system, particularly when out in the field, is not very streamlined, which is key to keeping tree inventory data current. This is more a GIS system issue than a shortcoming of Lucity. IT-GIS is currently working with PW and Parks staff to resolve the issue, which entails acquiring different portable devices than currently in use. As an efficiency measure, "assess current inventory and work order system" is an added 6YWP objective.

Note that active/landscaped park trees have been inventoried within 6 years, so inventory updates described above occur as staff works in given areas. In contrast, there are 26,000 right of way (ROW) trees that have no data, or if previously inventoried, have 17-year-old data. Collecting the remaining ROW tree inventory data requires a more strategic approach than what is described above and will be assessed as part of the service package for tree inventories noted above.

CITY COUNCIL: The 6YWP should be compatible with and complement our tree code, Kirkland Zoning Code Chapter 95 (KZC 95). They should be developed together, use the same terminology, reinforce each other and not be such separate bodies of work. For example: the term "heritage" tree in the 6YWP is inconsistent with the term "landmark" tree in the tree code.

STAFF RESPONSE: KZC 95 establishes a permit process and development standards for trees primarily on private property. Although a few 6YWP objectives pertain to private property (tree planting programs, for example), the bulk of objectives focus on City practices and public trees. Each 6YWP is a supplement to the overall strategy articulated in the UFSMP, of which codes are a small part – they're not the strategy itself. While the prior 2014-2019 Work Plan includes an objective for updating KZC 95, its focus otherwise, like the 2021-2026 6YWP, is the incentive, outreach and project objectives that balance the regulatory approach. The UFSMP and 6YWP

guide City actions and financial initiatives, as the Council Work Plan does. The 6YWP has a similar format to the:

- Sustainability Master Plan
- Safer Routes to School Action Plan
- Fire Department Strategic Plan

Further, Kirkland's UFSMP is consistent with Snoqualmie, Redmond, Renton, Shoreline, etc. urban forest management plans, in which codes have a complementary role within a comprehensive strategy.

During the KZC 95 code amendment process, some stakeholders felt there was too little emphasis on public tree canopy enhancement, so much that staff memos repeatedly stated, *"public tree management goals are not within the scope of amendments to KZC 95."* Developing the 6YWP and resuming the KZC 95 code amendments simultaneously is not an option due to current staffing levels. The KZC 95 code amendments to the tree code will follow the 6YWP project and are tentatively scheduled for May of 2021.

Aside from the heritage tree clarification discussed below, a review of KZC 95 did not reveal terminology discrepancies.

"Heritage" tree is used in the 6YWP within the context of incentive programs that recognize mature trees and promote their stewardship, as with the PlantAmnesty/City of Seattle Heritage Tree partnership. In that program, heritage trees can be on City or private property, are protected through City ordinance and may be protected in perpetuity at the property owner's discretion. Bellevue's Heritage Tree program is similar except there are no code restrictions.

"Landmark" tree is the term selected by staff and stakeholders involved with the Kirkland Zoning Code Chapter 95 (KZC 95) code amendments. It refers to a <u>regulated</u> tree of a certain size and condition with code restrictions. Alternative terms such as 'exceptional' were considered, too.

A clarification has been made to the heritage tree objective in Attachment 1 to describe the incentive program. If a Heritage Tree program were to be developed using a volunteer-based model, criteria (such as historical significance, rarity, size, etc.) will be determined by the program initiators.

<u>CITY COUNCIL: Consider adding "proactive tree code enforcement" to the 6YWP, given the recent Cross Kirkland Corridor tree topping & trespass-tree-cutting on Goat Hill.</u>

STAFF RESPONSE: Proactive tree code enforcement has been added to the 6YWP. Note that trespass tree-cutting is a police matter.

In recognizing the Planning Commission and City Council concerns for tree code enforcement issues, Kirkland Municipal Code (KMC) 1.12.100 was revised prior to the tree code amendments. As a result, the Environment Analyst position was funded and has been conducting proactive tree protection fence inspections since January 2020. This position randomly inspects development sites (about 8 per week), primarily with Land Surface Modification (LSM) permits, shifting from what was a reactionary approach with tree protection fence inspections to a proactive one. Routine fence inspections are also conducted by Planners, Public Works

Inspectors and Code Enforcement (CE) Officers. Recently implementing new code enforcement penalty fines has lowered the number of cases resulting in fines.

CE Officers do not patrol the City searching for violations. They'll check if they see something suspicious like potential spills, wetland fill and tree cutting. They respond to complaints on tree removals, the majority of which, including in the Holmes Point Overlay area, are legitimate. For those instances where the removals are initially determined as unauthorized under KZC 95, CE Officers will visit the site and begin their investigation. Not all investigations lead to violations. A limited amount (estimated at less than 5%) end up as a code enforcement case with fines. Regarding violations on City-owned/managed properties like parks or the CKC, department staff will investigate unauthorized tree removals and refer to Code Enforcement as needed. In addition to penalties established in the KMC, the City can assess treble damages per RCW 64.12.030 for these violations.

Proactive Code Enforcement patrols would require significant additional resources because the two current officers are at or beyond capacity dealing with complaints. Additional creative solutions include staff training volunteers to report violations (much like the sign code enforcement program); however staffing resources for volunteer training and ongoing oversight would need to be considered. Another option would be to educate community members on how to check properties for permits or notifications to reduce the number of inquiries on invalid tree code violations.

CITY COUNCIL: Consider updating our Public Works policies and Pre-Approved Plans and find creative solutions to avoid ROW tree removals. We should treat both public/private development tree retention consistently and hold ourselves (City) to the same standards as private property owner/developer tree retention and removal.

STAFF RESPONSE: All development projects are reviewed for right-of-way tree retention. Public Works retains right-of-way trees by modifying street standards to adjust the placement of:

- Pavement
- Curb
- Landscape strip
- Sidewalks

Compared to the typical right-of-way profile, residential streets are narrow, allowing greater flexibility to modify street standards to retain trees by meandering sidewalks, using curb bump-outs (removes parking), adjusting utility alignments, and using creative street alignments.

Tree retention is difficult on collector streets and nearly impossible with arterials because there tend to be more public improvements here than the width of the right-of-way allows. If the project involves travel, turn, and bike lanes, the City typically acquires more right-of-way for these improvements.

An objective to formalize a policy to reduce ROW tree removals with development has been added to the 6YWP. Actions include:

- Develop a written ROW tree retention policy
- Document tree retention efforts
- Provide a list of documented tree efforts annually

Regarding treating the right-of-way tree retention standards and the requirements for development of private property the same, there are a few differences:

- The City is responsible for providing critical/reliable infrastructure, sewer, water and storm systems with public safety and environmental outcomes, in addition to delivering safe transportation infrastructure.

- The right-of-way is much more constrained due to its linear nature than the average private development site. A development may have the flexibility to adjust access and lot layout, but City infrastructure projects: travel lanes, turn lanes, bike lines, street parking, sidewalks, overhead and below ground utilities, traffic control, signage, etc. are confined to a constrained width with very little flexibility and must meet federal, state and local safety regulations.

- As with private property development, every tree is not a candidate for tree retention, something the City considers in its development review. Successful tree retention relies on good tree health/condition. We should do everything we can to properly maintain existing ROW trees so that they are candidates for tree retention. Healthier ROW trees that can grow to their full life expectancy (with less infrastructure damage) result from using arboricultural BMPs and adequate soil volumes when initially installed, something we can address in our Pre-Approved Plans.

PW is also taking the lead on other efforts to explore ways to more effectively protect trees as part of ROW projects, such as the ongoing Holmes Point Drive Street Design Standards and Corridor Project.

In summary, staff made changes discussed by Council at the March 2, 2021 study session in preparation of adopting the Urban Forest Work Plan for 2021-2026, a framework to guide citywide efforts in managing a sustainable urban forest asset. The 6YWP supports the Council's vision for a "…*vibrant, attractive, green and welcoming place to live, work and play. …as a model, sustainable city that values preserving and enhancing our natural environment for our enjoyment and future generations.*" The 6YWP furthers Comprehensive Plan policies to:

- *Strive to achieve a healthy, sustainable urban forest… (Policy E-2.1)*
- *Balance the [tree] regulatory approach with the use of incentives, City practices and programs, public education, and outreach. (Policy E-2.4)*
- *Implement the Urban Forestry Strategic Management Plan. (Policy E-2.2)*

Final Draft 2021-2026 Urban Forest Work Plan

Based on Council's comments, the 6YWP has been revised to include four new objectives, shown as redlined and highlighted changes in Attachment 1:

- Formalize a policy to reduce right-of-way tree removals with development
- Show current and potential funding, including known grants and volunteer opportunities
- Enforce the tree codes more proactively
- Assess Lucity (City's inventory/work order system) for sufficient capacity and efficiency

Some of the objectives were edited to reflect the Council discussion, also noted as redlined and highlighted text:

- Apply public tree planting/establishment protocols to City/capital (CIP) projects
- Include City/CIP development projects in the "tree banking" program
- Include the areas under Public Works (PW) management in "open space tree planting"
- Clarify that the term "heritage tree" refers to an incentive program

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Council Direction Needed

Staff is seeking final review and approval of the Urban Forest Work Plan for 2021-2026 and the resolution itself.

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City Council Comments and Questions on the City's Urban Forestry Efforts

Staff responses to City Council comments made at the March 2, 2021 study session:

CITY COUNCIL: We should capitalize on volunteer interest to implement 6YWP Objectives. Can we get an estimate of the resources involved to expand a program like the Green Kirkland Partnership (GKP) program to right-of-way and landscaped park areas?

STAFF RESPONSE: Volunteerism was factored into the estimated cost to implement objectives in the March 2, 2021 City Council meeting packet using the key below:

$ - Less than $50,000. Can be accomplished with existing City staff resources, may need inter-departmental coordination.

$$ - Between $50,000 and $100,000. Has budget implications; requires dedicated staffing, contractor and/or volunteer commitment.

$$$ - Greater than $100,000. Involves substantial project/program management, staffing and funding commitment.

Generally, volunteers in Kirkland can engage through the GKP program, Neighborhood Associations or through the City's volunteer coordinator. Initiating volunteer programs can

involve navigating complex labor union issues. Since open space areas were not managed by the City, the GKP can restore these areas without violating union contracts.

A City-led volunteer program for maintaining landscaped parks exists under Parks Management; however, tree maintenance is not a component of volunteer work as any work involving ladders, saws or power tools must be done by qualified staff. Note that the GKP program has merged with Parks Management and this partnership facilitates program expansion to include all park acreage as described in their 20-year plan.

For GKP or any volunteers to manage ROW trees, there still needs to be a partnership between the volunteers and the managing department (Public Works) to coordinate projects, select appropriate tree species, prepare for planting (which includes stump removal, soil/tree delivery), monitor/water the trees until they're established and to enter new tree data into the inventory. Generally, the managing division and their professional crews would need to be responsible for volunteer coordination in their management areas.

By way of comparison for creating or expanding a volunteer program, in the last "normal" year (2019), GKP contributed about 13,000 volunteer hours using 4.5 FTEs with support from other staff and a team of 32-33 dedicated, ongoing lead volunteers (stewards). Lead volunteers are a key component to the GKP model, as is the regional support through the Green Cities network that provides staff education, program marketing and research findings generated from Forterra, Green Cities' supporting organization.

Rather than expanding its scope or duplicating a scaled-down GKP model, another consideration would be splitting the scope into separate programs for maintenance and planting, as observed with other City programs. A one-time event model for individual volunteers may be more effective for tree planting on private property (and possibly in the ROW) than the ongoing GKP model for group participation. An example is Kirkland's new Public Works-Stormwater division's recently launched rebate program that incentivizes individuals to voluntarily plant trees in their yards. Most municipal-led tree planting and maintenance programs follow this model, as shown below.

Tree planting program	Intended location	Program model	Staffing/other resources	# trees planted/year (2" caliper) or volunteer hours (for GKP)
Lynnwood Tree Voucher	Private property	Annual one-time, individuals	1 FTE	250
Bellevue Tree Giveaway (Trees are delivered)	Private property	Annual one-time, individuals	2 FTEs w/ some support from additional staff	New program
Trees for Seattle	Private property, ROW	Annual one-time, individuals and groups of adjacent property owners	1.8 FTE and $254K budget	1,000
Grit City (Tacoma)	ROW	Annual one-time, individuals or groups of adjacent property owners	2 FTEs dedicated to both programs	500
Tacoma Tree Coupons for 30% discount	Private property	One-time, individuals		?
Spokane Neighborhood Tree Program	Private property	Annual one-time, individuals	Not available	1,000
"Communitrees" pickup event - SeaTac, Burien, Des Moines partnership	Private property	One-time, individuals	Not available	Not available
Green Kirkland Partnership	Open space parks	Ongoing, groups	4.5 FTE + stewards, contracted crews, etc. (see program model above).	Logged 13,000 volunteer hours in 2019
New Kirkland Tree Rebate Program	Private property	One-time, individuals	Under current staffing levels (PW-SW)	New program

Attachment 1 has been revised to show the objectives with a potential for various volunteer engagement opportunities, such as citizen science, volunteer-based programs with limited staff support, student projects, etc. and one-time events for individuals as previously discussed.

Council may want to use volunteer support as a guide rather than a basis to consider the next 6-year objectives. Note that time/resources for volunteer management posed a barrier for program development with the Heritage Tree, 4th Grade Foresters and currently, the Outdoor Explorers program due to shifts in staffing priorities.

CITY COUNCIL: Need to establish measurable, specific goals for each Objective.

STAFF RESPONSE: As with other work plans, the 6YWP is a high-level view of what we, as an organization, intend to do over the next six years and where to allocate resources. For many objectives, establishing specific goals relies on data resulting from completing another objective. For example, tree planting based on "targeted goals" means we should plant certain quantities of certain species in specific locations within a specified timeframe. We want to consider areas that have disproportionately lower canopy cover and other factors that inventory and canopy data inform.

Measurable, specific goals are the outcome of each department developing their annual work plans and budget. As the City implements specific action items identified in the objectives, many of them may have more quantifiable components based on metrics set by departments or Council. In turn, progress toward those metrics will be reported on an annual basis when we report back to Council.

CITY COUNCIL: We should encourage green roofs, balcony, and public space trees/vegetation as green stormwater infrastructure (GSI) features.

STAFF RESPONSE: Some cities like Portland and Seattle consider green infrastructure elements under one program. In Kirkland, GSI incentives, public education, and Low Impact Development (LID) technical guidance is provided through the Public Works department. The installation of green roofs with new-single family development is incentivized through Kirkland's Green Building Program.

Additional emphasis on green roofs/walls as sustainable development features is part of the high-performance building codes/Sustainability Master Plan implementation, scheduled to occur in mid-2021.

CITY COUNCIL: We should incentivize landowners to preserve trees on their property, as with the State's tax credits, not threaten them with fines for removing trees if they want to.

STAFF RESPONSE: See the previous response regarding tree code enforcement. If tree code enforcement penalty fines are objectionable, Council can revisit KMC 1.12.100 for further amendments.

The 6YWP includes the following objectives to help preserve trees on private property through incentives and public education (rather than with codes/fines):
- Develop a well-coordinated, inclusive public outreach plan
- Establish a program to promote and celebrate heritage trees
- Recognize sustainable land use and development (including tree preservation) on City/private property projects through certification programs such as SITES, Salmon Safe and Greenroads.

CITY COUNCIL: We need to work better across divisions.

STAFF RESPONSE: Although the last six year's accomplishments shown in the March 2 Council meeting memo (page 3) are notable, staff recognizes the opportunities for improvement that are apparent under the Gap Analysis and Barrier sections in the Status Report, Attachment 3 in the same Council meeting packet. Defining our municipal program and its funding framework is a 6YWP objective that is supported by a recently approved service package request. A first step would be examining Tree Team efficacy.

Another key objective is to establish uniform operational standards across divisions for improved tracking/monitoring. Please note an error on this subject in the Performance Indicator Dashboard that accompanied the March 2 staff memo as Attachment 4. It incorrectly showed the City's performance levels as Moderate (2013) and Good (2020), when the actual performance fell into the Low (2013) and Moderate levels.

CITY COUNCIL: Annual reports should show goals and the status on reaching them.

STAFF RESPONSE: Agree. Note the gap analysis showed that coordinating, preparing, and delivering annual "state of the urban forest" reports fell to the wayside due to higher priorities.

CITY COUNCIL: Tree banking data (referencing a "fees in lieu of planting" program) should be shown in annual reports.

STAFF RESPONSE: Yes, if implemented, the administrator of the tree banking program will provide data on the City locations, funds paid as fees in lieu of tree planting and other information in annual reports. Staff is currently exploring legal issues affecting revenue options for a tree bank. Using a tree bank to offset municipal tree loss is a policy choice staff will explore.

NEXT STEPS:
Following adoption, each department establishes specific goals to meet the objectives, which are distributed across annual work plans. Progress is reported to Council annually and the City may choose to adjust the work program in response to performance data.

Attachments
1) Urban Forestry Work Plan 2021-2025 (changes)
2) Urban Forestry Work Plan 2021-2025 (clean)
3) Resolution R-5472 adopting the Urban Forest Work Plan 2021-2026

Urban Forest Work Plan 2021-2026
Citywide Sustainable Urban Forest Management

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
1.0 PUBLIC TREE/ASSET INVENTORY *Document asset for proactive, efficient and cost-effective management. Data informs management decisions and planting strategies.*	**1.1 Complete the street tree inventory** -Collect data on remaining 26,000 ROW trees -Volunteer: interns, citizen science or students for data collection	PW	$-$$ One time	2021: approved SPR[3] Potential: WA DNR grant, CFA, SW funding
	1.2 Inventory trees on "other" City-owned property -Determine locations and collect tree data in the Cross Kirkland Corridor, fire stations, set-aside areas from annexation, unimproved ROW areas, stormwater detention facilities, etc. -Volunteer: interns, citizen science or students for data collection	PW, Parks, IT/GIS	$$ One-time	2021: approved SPR[3] Potential: 2023-2024 SPR
	1.3 Complete open space tree inventory using Tree-iage method (vs. tree-by-tree inventory) -Assess remaining 8 acres of open space using traditional stand management -Volunteer: GKP stewards, citizen science or students for data collection	GKP	$$$ Ongoing	2021: currently unfunded Potential: DNR or KCD grant, CFA
	1.4 Quantify ecosystem benefits of public trees -Obtain stormwater, air quality, carbon and heat mitigation rates/values resulting from tree functions. -Use demographic, inventory and canopy data to ensure canopy cover and benefits are distributed equitably over time. -Volunteer: N/A	PBD, IT/GIS	$-$$ One-time	2021: currently unfunded Potential: opportunity with Google partnership for heat effects
	1.5 Conduct tree canopy assessments at 7 to 8-year cycles -Informs planting strategies, policy/code changes and is a performance measure towards canopy cover goals.	PBD	$$ One-time	2021: currently unfunded Requires 2025 SPR

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	1.6 NEW! Assess Lucity (current inventory, GIS, and work order system) for capacity and efficiency -Analyze current system capacity, devices and features; consider how to streamline the data entry process for optimal efficiency. -Consider feasibility of linking to permit database system. -Volunteer: N/A	PW, GKP, Parks, IT-GIS, PBD	$-$$ One-time	2021: currently unfunded Potential: CFA, future service package request
2.0 PUBLIC TREE/NATURAL AREAS MAINTENANCE *Maintain asset for optimal condition, diversity and longevity. Reverse the decline of natural areas. Meet expected level of service for highest return on public investment.*	**2.1 NEW! Develop public tree planting and establishment policies applicable to City/CIP and private development projects** -Ensure newly-planted public trees thrive. -Revise bonding procedure for CIP, ROW frontage improvements. -Consider inspection process to reduce tree mortality mid-bond. -Includes a public outreach element. -Develop Pre-Approved Plans for adequate soil volumes, installation standards, etc. for ROW tree planting. -Volunteer: high school or college-level student project, partnerships. -Volunteer: N/A	PW-Engineerin g, PW-CIP, PBD	$$ Ongoing	2021: currently unfunded Potential: frontage improvement fees, CIP
	2.2 Proactively maintain street trees Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships -Intern	PW	$$$ Ongoing	2021: General Fund, SW Potential: 2023-2024 SPR
	2.3 Proactively maintain park trees Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships (such as tree-climbing event)	Parks, GKP	$$ Ongoing	2021: currently funded through a perpetual Park Levy Potential: 2023-2024 SPR
	2.4 NEW! Develop solutions to reduce ROW tree removals with development -Develop written policies, procedures, Pre-Approved Plans, etc. -Volunteer: N/A	PW-Engineer, CIP	$ One-time	N/A

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	2.5 NEW! Eradicate tree ivy in all park open space areas - Increase management levels in all public natural areas from 'proactive' to 'intensive' - Volunteer: GKP	GKP	$$ Ongoing	2021: currently funded through a perpetual Park Levy, volunteers, grants Potential: KCD grant
3.0 TREE PLANTING EFFORTS *Develop data-driven strategies with targeted goals to increase canopy cover through incentives, public outreach and community engagement, including tree establishment plans and social equity and inclusivity values.*	**3.1 Develop a robust street tree planting program** -Consider one-time, individual (vs. group event) volunteer programs -Replace dead/removed trees w/ minimum 1:1 ratio -Establish numerical or % tree planting goals according to canopy, inventory and other data -Select public trees by species diversity/distribution -Remove/replace street trees negatively impacted by utility line clearance pruning -Volunteer: one-time event, rebate/voucher program, tree giveaways, Tree Ambassador (trained) group event. Note: Policy R-10 for adjacent property owner-planted ROW may address labor union conflicts	PW, PBD	$$ Ongoing	2021: currently unfunded Potential: 2023-2024 SPR, frontage fees, CIP, CFA, WA DNR grant
	3.2 Develop a robust park tree planting program - Determine appropriate tree species, locations, with # of trees planted by completion dates - Volunteer: one-time event, Tree Ambassador (trained) group event. eventually GKP	Parks	$$ Ongoing	2021: General fund Potential: 2023-2024 SPR, SW, CFA, WA DNR grant
	3.3 Develop a robust PW /parks open space tree planting program -Parks: continue volunteer-based current strategy -PW: Need management strategy for PW open space-managed areas. Determine appropriate tree species, locations and number of trees planted by completion dates	GKP, PW	$$ Ongoing	2021: Parks open space planting funded through a perpetual Parks Levy 2021: PW open space planting is unfunded Potential for Parks/PW: CFA, 2023-2024 SPR

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	3.4 NEW! Develop a tree planting program applicable to private property Volunteer: consider one-time, individual (vs. group events) volunteer programs (free tree giveaways, rebates, discount coupons, etc.)	PBD, PW-SW	$$ One-time or ongoing	2021 only: WA Ecology grant PW Tree Rebate program Potential: CFA, 2022-2023 SPR, WA DNR, KCD and other grants
	3.5 NEW! Develop Tree Bank program to offset <mark>City/CIP</mark> and private property tree removals resulting from development Inventory City locations, establish funding structure and determine program administration. Volunteer: N/A	PBD, Finance	$$ Ongoing	2021: approved SPR[3] Potential: WA DNR grant
4.0 COMMUNITY ENGAGEMENT *Provide opportunities for engagement and diversify outreach efforts to promote awareness of urban forestry issues, incentives and programs.*	**4.1 NEW! Develop a well-coordinated, inclusive public outreach plan** Offset regulatory approach by providing ongoing education/outreach with diverse audiences on urban forestry issues, tree codes, incentives and new program/engagement opportunities Volunteer: high school/college-level student project, intern and partnerships for communication strategy/design	PBD	$$ Ongoing	Current: unfunded, although projects supported by City Communications Potential: 2022-2023 SPR, WA DNR or KCD grants
	<mark>**4.2 Establish a program to promote and celebrate heritage (mature/unique) trees** - Encourage mature/unique tree stewardship, ensure an even forest succession and maximize community benefits - Volunteer-based program with City support, partnerships</mark>	PBD	$$ One-time	2021: currently unfunded Potential: WA DNR or KCD grants
	4.3 Seek project/program sustainability certification Recognize sustainable land use and development of City/private property projects through SITES, Salmon Safe, Greenroads, etc. certification -Volunteer: N/A	PBD	$ One-time	N/A

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
5.0 PROGRAM FRAMEWORK *Provide adequate capacity to implement plan objectives, sustain expected level of service and cooperate with common goals and leadership support.*	**5.1 NEW! Establish a formal framework for Kirkland's urban forest program/funding** Volunteer: N/A	?	$-$$$	2021: approved SPR[3] Depends on scope, ie adjust FTEs, reassignments, reorganize, etc.
	5.2 Establish uniform operational standards across divisions for improved tracking/monitoring Ensure staff, contractors, utility agencies comply with current BMPs, industry/safety standards and tree codes. -Volunteer: professional/agency partnership	ALL	$ One-time	N/A
	5.3 Develop annual work plans by department Include Work Plan objectives to shape/track incremental efforts toward long term goals, increase internal efficiency -Volunteer: N/A	ALL	$ Ongoing	N/A
	5.4 Develop annual reports to City Council Increase accountability to decision-makers and community -Volunteer: N/A	ALL	$ Ongoing	N/A
	5.5 New! Enforce tree codes proactively Explore options to fund a 3rd code enforcement officer Revisit KMC 1.12.100 to address trespass tree violations - Volunteer: N/A	PBD	$$ Ongoing	2023-2024 SPR
	5.6 NEW! Ensure equitable parks acquisition Develop policy, funding & strategy to acquire park land in under-served areas as a mechanism to plant and preserve tree canopy equitably across neighborhood groups. -Volunteer: intern, college-level student project and partnerships	Parks	$$	2021: currently unfunded Potential: equity-focused grants, corporate partnership

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$$ Between $50,000 and $100,000. Has budget implications; requires dedicated staffing, contractor and/or volunteer commitment.

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[3]These objectives are identified in 2 approved 2021-2022 Service Package Requests

Abbreviations/Acronyms
ALL- Public Works, Parks, Planning, GKP
BMP – Best Management Practices
CFA – City Forestry Account
CIP – Capital Improvement Projects

GKP – Green Kirkland Partnership Program
IT/GIS – Information Technology, Geographic Information System Department
KCD – King Conservation District
NEW! – objectives not carried over from 2014-2019

PBD – Planning & Building Department
PW – Public Works Department
ROW – Right of Way
SW – Stormwater (funding) through Public Works

Urban Forest Six Year Work Plan 2021-2026
Citywide Sustainable Urban Forest Management

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
1.0 PUBLIC TREE/ASSET INVENTORY *Document asset for proactive, efficient and cost-effective management. Data informs management decisions and planting strategies.*	**1.1 Complete the street tree inventory** -Collect data on remaining 26,000 ROW trees -Volunteer: interns, citizen science or students for data collection	PW	$-$$ One time	2021: approved SPR[3] Potential: WA DNR grant, CFA, SW funding
	1.2 Inventory trees on "other" City-owned property -Determine locations and collect tree data in the Cross Kirkland Corridor, fire stations, set-aside areas from annexation, unimproved ROW areas, stormwater detention facilities, etc. -Volunteer: interns, citizen science or students for data collection	PW, Parks, IT/GIS	$$ One-time	2021: approved SPR[3] Potential: 2023-2024 SPR
	1.3 Complete open space tree inventory using Tree-iage method (vs. tree-by-tree inventory) -Assess remaining 8 acres of open space using traditional stand management -Volunteer: GKP stewards, citizen science or students for data collection	GKP	$$$ Ongoing	2021: currently unfunded Potential: DNR or KCD grant, CFA
	1.4 Quantify ecosystem benefits of public trees -Obtain stormwater, air quality, carbon and heat mitigation rates/values resulting from tree functions. -Use demographic, inventory and canopy data to ensure canopy cover and benefits are distributed equitably over time. -Volunteer: N/A	PBD, IT/GIS	$-$$ One-time	2021: currently unfunded Potential: opportunity with Google partnership for heat effects
	1.5 Conduct tree canopy assessments at 7 to 8-year cycles -Informs planting strategies, policy/code changes and is a performance measure towards canopy cover goals.	PBD	$$ One-time	2021: currently unfunded Requires 2025 SPR

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	1.6 Assess Lucity (current inventory, GIS, and work order system) for capacity and efficiency -Analyze current system capacity, devices and features; consider how to streamline the data entry process for optimal efficiency. -Consider feasibility of linking to permit database system. -Volunteer: N/A	PW, GKP, Parks, IT-GIS, PBD	$-$$ One-time	2021: currently unfunded Potential: CFA, future service package request
2.0 PUBLIC TREE/NATURAL AREAS MAINTENANCE *Maintain asset for optimal condition, diversity and longevity. Reverse the decline of natural areas. Meet expected level of service for highest return on public investment.*	**2.1 Develop public tree planting and establishment policies applicable to City/CIP and private development projects** -Ensure newly-planted public trees thrive. -Revise bonding procedure for CIP, ROW frontage improvements. -Consider inspection process to reduce tree mortality mid-bond. -Includes a public outreach element. -Develop Pre-Approved Plans for adequate soil volumes, installation standards, etc. for ROW tree planting. -Volunteer: high school or college-level student project, partnerships, intern -Volunteer: N/A	PW-Engineering, PW-CIP, PBD	$$ Ongoing	2021: currently unfunded Potential: frontage improvement fees, CIP
	2.2 Proactively maintain street trees Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships	PW	$$$ Ongoing	2021: General Fund, SW Potential: 2023-2024 SPR
	2.3 Proactively maintain park trees Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships (such as tree-climbing event)	Parks, GKP	$$ Ongoing	2021: currently funded through a perpetual Park Levy Potential: 2023-2024 SPR
	2.4 Develop solutions to reduce ROW tree removals with development - Develop written policies, procedures, Pre-Approved Plans, etc. - Volunteer: N/A	PW-Engineer, CIP	$ One-time	N/A

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Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	2.5 Eradicate tree ivy in all park open space areas - Increase management levels in all public natural areas from 'proactive' to 'intensive' - Volunteer: GKP	GKP	$$ Ongoing	2021: currently funded through a perpetual Park Levy, volunteers, grants Potential: KCD grant
3.0 TREE PLANTING EFFORTS *Develop data-driven strategies with targeted goals to increase canopy cover through incentives, public outreach and community engagement, including tree establishment plans and social equity and inclusivity values.*	**3.1 Develop a robust street tree planting program** -Consider one-time, individual (vs. group event) volunteer programs -Replace dead/removed trees w/ minimum 1:1 ratio -Establish numerical or % tree planting goals according to canopy, inventory and other data -Select public trees by species diversity/distribution -Remove/replace street trees negatively impacted by utility line clearance pruning -Volunteer: one-time event, rebate/voucher program, tree giveaways, Tree Ambassador (trained) group event. Note: Policy R-10 for adjacent property owner-planted ROW may address labor union conflicts	PW, PBD	$$ Ongoing	2021: currently unfunded Potential: 2023-2024 SPR, frontage fees, CIP, CFA, WA DNR grant
	3.2 Develop a robust park tree planting program - Determine appropriate tree species, locations, with # of trees planted by completion dates - Volunteer: one-time event, Tree Ambassador (trained) group event. eventually GKP	Parks	$$ Ongoing	2021: General fund Potential: 2023-2024 SPR, SW, CFA, WA DNR grant
	3.3 Develop a robust PW /Parks open space tree planting program -Parks: continue volunteer-based current strategy -PW: Develop management strategy for PW open space-managed areas. Determine appropriate tree species, locations and number of trees planted by completion dates	GKP, PW	$$ Ongoing	2021: Parks open space planting funded through a perpetual Parks Levy 2021: PW open space planting is unfunded Potential for Parks/PW: CFA, 2023-2024 SPR

Objective	Action Items	Lead Dept	Estimated Cost[1]	Potential Funding Sources[2]
	3.4 Develop a tree planting program applicable to private property Volunteer: consider one-time, individual (vs. group events) volunteer programs (free tree giveaways, rebates, discount coupons, etc.)	PW-SW, PBD	$$ One-time or ongoing	2021 only: WA Dept. Ecology grant-supported Tree Rebate program (PW-SW) Potential: CFA, 2023-2024 SPR, WA DNR, KCD and other grants
	3.5 Develop Tree Bank program to offset City/CIP and private property tree removals resulting from development Inventory City locations, establish funding structure and determine program administration. Volunteer: N/A	PBD, Finance	$$ Ongoing	2021: approved SPR[3] Potential: WA DNR grant
4.0 COMMUNITY ENGAGEMENT *Provide opportunities for engagement and diversify outreach efforts to promote awareness of urban forestry issues, incentives and programs.*	**4.1 Develop a well-coordinated, inclusive public outreach plan** Offset regulatory approach by providing ongoing education/outreach with diverse audiences on urban forestry issues, tree codes, incentives and new program/engagement opportunities -Volunteer: high school/college-level student project, intern and partnerships for communication strategy development	PBD	$$ Ongoing	Current: unfunded, although projects supported by City Communications Potential: 2023-2024 SPR, WA DNR or KCD grants
	4.2 Establish a program to promote and celebrate heritage (mature/unique) trees - Encourage mature/unique tree stewardship, ensure an even forest succession and maximize community benefits - Volunteer-based program with City support, partnerships	PBD	$$ One-time	2021: currently unfunded Potential: WA DNR or KCD grants
	4.3 Seek project/program sustainability certification Recognize sustainable land use and development of City/private property projects through SITES, Salmon Safe, Greenroads, etc. certification -Volunteer: N/A	PBD	$ One-time	N/A

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