

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

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
<p>1.0 INVENTORY TREES - Update and maintain a comprehensive inventory of existing and newly-planted trees in City spaces (SMP EV-10.9) and periodically assess tree canopy cover (SMP EV-10). Collect data for tracking/reporting purposes and to:</p> <ul style="list-style-type: none"> - Manage for age and species diversity objectives (SMP EV-10.3) - Guide policy/code changes (SMP EV-10) <p style="text-align: right;"> -Mitigate negative impacts to public health (SMP EV-10.4) -Develop tree planting strategies (SMP EV-10.5, EV-10.9) </p>					
1.1	<p>ROW: Complete the street tree inventory</p> <ul style="list-style-type: none"> -Collect data on remaining 26,000 ROW trees: update 17-year old data and add trees in annexation areas -Include size/age, species, and condition data for tracking/reporting, -Volunteer: interns, citizen science or students for data collection 	PW	EV-10.3 EV-10.9 3-6 years	\$-\$\$ One time	2021: approved SPR ³ Potential funding: WA DNR grant, CFA, SW
1.2	<p>"Other" City-owned property: Inventory trees in "other" locations</p> <ul style="list-style-type: none"> -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. -Inventory ROW ivy-incursion areas -Volunteer: interns, citizen science or students for data collection 	PW, Parks, IT/GIS	EV-10.9 3-6 years	\$\$ One-time	2021: approved SPR ³ Potential funding: 2023-2024 SPR
1.3	<p>Parks open space: Complete tree inventory using Tree-iage method (vs. tree-by-tree inventory)</p> <ul style="list-style-type: none"> -Assess remaining 8 acres of open space using traditional stand management -Volunteer: GKP stewards, citizen science or students for data collection 	GKP	EV-10.9 3-6 years	\$\$\$ Ongoing	2021: currently unfunded Potential funding: DNR or KCD grant, CFA

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
1.4	<p>Quantify ecosystem benefits of public trees (SMP EV-10.4)</p> <p>Use demographic, inventory and canopy data to:</p> <ul style="list-style-type: none"> -Obtain stormwater, air quality, carbon and heat mitigation rates/values resulting from tree functions -Identify areas for canopy enhancement that may be disproportionately affected by adverse environmental conditions which may be associated with social disparities in income, homeownership, education, access to transportation and other services, public health outcomes, and other challenges. -Volunteer: N/A 	PBD, IT/GIS	EV-10.4 EV-10.9 3-6 years	\$-\$\$ One-time	2021: currently unfunded Potential funding: partnership opportunity with Google for heat effects study
1.5	<p>Conduct citywide tree canopy assessments at 5-6-year intervals</p> <p>Examine trends in canopy gain or loss to identify priorities for meeting the overall goal of citywide 40% tree canopy cover by 2026:</p> <ul style="list-style-type: none"> -Independently obtain LiDAR, satellite and Ortho flyover imagery -Develop strategies in 6-Year Work Plans to manage Kirkland's urban forest resource for optimal health, climate resiliency and social equity -Inform planting strategies, policy/code changes and as a performance measure towards canopy goal 	PBD	Goal EV-10 by 2026	\$\$-\$\$\$ One-time	2021: currently unfunded Requires 2023-2024 SPR
1.6	<p>Assess the current inventory/GIS/work order system (Lucity)</p> <ul style="list-style-type: none"> -Analyze current system capacity, devices and features; consider how to streamline the data entry process for optimal efficiency. -Track public tree failure/removal as historical data for future reference/reporting -Consider feasibility of linking to permit database system. -Volunteer: N/A 	PW, GKP, Parks, IT-GIS, PBD	EV-10.9 3-6 years	\$-\$\$ One-time	2021: currently unfunded Potential funding: CFA, future service package request
<p>2.0 MAINTAIN PUBLIC TREES & NATURAL AREAS - <i>Ensure continued health and growth of public trees by improving the public tree maintenance program: provide adequate public tree maintenance resources (SMP EV-10.3) to meet expected level of service for highest return on public investment.</i></p>					
2.1	<p>ROW: Maintain street trees proactively</p> <ul style="list-style-type: none"> -Provide adequate public tree maintenance resources -Maintain for optimal condition, species diversity and longevity -Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships 	PW	EV-10.3 3-6 years	\$\$\$ Ongoing	2021: General Fund, SW Potential funding: 2023-2024 SPR

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
2.2	Parks: Maintain park trees proactively -Provide adequate public tree maintenance resources -Maintain for optimal condition, species diversity and longevity -Volunteer: Tree Ambassador program (trained) for small trees, one-time event with professional partnerships	Parks, GKP	EV-10.3 3-6 years	\$\$ Ongoing	2021: currently funded through a perpetual Park Levy Potential funding: 2023-2024 SPR
2.3	ROW: Develop solutions to reduce tree removals with development -Evaluate and revise PW Pre-Approved Plans/policies to further retain right-of-way trees -Develop written policies and procedures to further retain right-of-way trees -Track public tree removal/failures (see Action 1.6) -Volunteer: N/A	PW-Engineer, CIP	EV-10.8 0-2 years	\$ One-time	N/A
2.4	Park/park open space areas: control ivy Increase management levels in all park areas from 'proactive' to 'intensive' - Volunteer: current GKP program	Parks/GKP	EV-10.3 3-6 years	\$\$ Ongoing	2021: currently funded through a perpetual Park Levy, volunteer support Potential funding: KCD grant
2.5	ROW areas: control ivy -Document ROW areas with ivy incursion (see Action 1.2) -Prioritize areas and define acceptable management levels for each location -Negotiate with labor unions (if necessary) -Determine who is responsible for project oversight and crew coordination -Volunteer opportunities: GKP or TBD	PW	EV-10.3 3-6 years	\$\$ Ongoing	Potential funding: 2023-2024 SPR, contract professional crews (Earthcorps, WCC crews).
3.0 PLANT TREES - <i>Create tree planting programs using data-driven planting strategies with targeted areas and numerical goals for canopy expansion in our City public spaces and residential areas using incentives, public outreach and community engagement. (SMP EV-10.9) Develop and implement tree planting programs to increase tree canopy cover on private and public property, including rights-of-way, parks and natural areas (SMP EV-10.5).</i>					
3.1	Public/private trees: Identify/prioritize climate resilient tree species -Create tree lists that emphasize species diversity objectives related to climate change. -Set commercial landscape design standards that use low-maintenance and water-wise plants (SMP EV-10.10).	PW, PBD, Parks, GKP	EV-10.6 EV-10.10 0-2 years	\$ One-time, periodically	2020: revised ROW (street) tree list in Pre-Approved Plans Policy R-10, developed "Staff Favorites" tree list for private property planting. 2021: commercial landscape design standards with KZC 95 amendments

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost¹	Potential Funding Sources²
3.2	<p>ROW: Develop a robust street tree planting program</p> <ul style="list-style-type: none"> -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 using species diversity/age distribution/climate resiliency objectives -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 (PW Policy R-10 for adjacent property owner-planted ROW may address labor union conflicts) 	PW, PBD	EV-10.5 EV-10.9 3-6 years	\$\$ Ongoing	2021: currently unfunded Potential funding: 2023-2024 SPR, frontage fees, CIP, CFA, WA DNR grants, partnership with schools, regional agencies and nonprofits
3.3	<p>Parks/park open space: Develop a robust tree planting program</p> <ul style="list-style-type: none"> -Determine appropriate tree species, locations, with # of trees planted by completion dates -Volunteer: one-time event, Tree Ambassador (trained) group event. Continue GKP volunteer-based strategy. 	Parks/GKP	EV-10.5 EV-10.9 3-6 years	\$\$ Ongoing	2021: Perpetual Park levy, General fund Potential funding: 2023-2024 SPR, SW, CFA, WA DNR grants, partnership with schools, regional agencies, nonprofits
3.4	<p>PW-managed natural areas: Develop a robust tree planting program</p> <ul style="list-style-type: none"> -See Action 1.2 for inventorying locations and acquiring other relevant data -Develop management strategy for PW open space-managed areas -Determine appropriate tree species, locations and quantities planted by completion dates 	PW	EV-10.5 EV-10.9 3-6 years	\$\$ Ongoing	2021: currently unfunded Potential funding: CFA, 2023-2024 SPR, partnership with schools, regional agencies and nonprofits

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
3.5	<p>Private property: Develop tree planting programs Volunteer: consider one-time, individual (vs. group events) volunteer programs (free tree giveaways, rebates, discount coupons, etc.)</p>	PBD, PW-SW	EV-10.5 EV-10.9 3-6 years	\$\$ One-time or ongoing	2021 only: WA Ecology grant Tree Rebate Potential funding: CFA, 2022-2023 SPR, WA DNR, KCD and other grants, partnerships with schools, regional agencies, nonprofits
3.6	<p>City/CIP and private property development projects: Develop public tree planting and establishment policies -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</p>	PW-Engineering PW-CIP, PBD	EV-10.5 EV-10.9 3-6 years	\$\$ Ongoing	2021: currently unfunded Potential funding: frontage improvement fees, CIP, partnership with schools, regional agencies and nonprofits
3.7	<p>City/CIP and private property development projects: Develop Tree Bank program to mitigate tree removals Inventory City locations, establish funding structure and determine program administration. Volunteer: N/A</p>	PBD, Finance	-	\$\$ Ongoing	2021: approved SPR ³ Potential funding: WA DNR grant, partnership with schools, regional agencies and nonprofits
4.0 COMMUNITY ENGAGEMENT - <i>Diversify outreach efforts to promote awareness of urban forestry issues, incentives and programs that provide opportunities for engagement.</i>					
4.1	<p>Dedicate resources for ongoing, robust and inclusive urban forestry-related public outreach Offset regulatory approach with community outreach/engagement opportunities to -Communicate the value and benefits of trees -Garner support for the planting and preservation of trees citywide -Increase awareness of long-range goals and code requirements -Promote stewardship of the urban forest -Volunteer: high school/college-level student project, intern and partnerships for communication strategy/design</p>	PBD	EV-10.7 0-2 years	\$\$ Ongoing	Current: unfunded, although projects supported by City Communications Potential funding: 2022-2023 SPR, WA DNR or KCD grants
4.2	<p>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</p>	PBD	EV-10.7 0-2 years	\$\$ One-time	2021: currently unfunded Potential funding: WA DNR or KCD grants

Urban Forest Six Year Work Plan 2021-2026		Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
-Volunteer-based program with City support, partnerships					
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	EV-10.7 0-2 years	\$ One-time	N/A
5.0 PROGRAM FRAMEWORK - Formally recognize and support internal cross-department collaborative planning to develop and implement sustainable urban forestry strategies for the broader community (SMP EV-10.2)					
5.1	Establish a formal urban forest program framework Provide adequate capacity to implement plan objectives, sustain expected level of service and cooperate with common goals and leadership support. -Volunteer: N/A	?	EV-10.2 3-6 years	\$-\$\$\$	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	EV-10.2 3-6 years	\$ 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	EV-10.2 3-6 years	\$ Ongoing	N/A
5.4	Develop annual reports to City Council Increase accountability to decision-makers and community -Volunteer: N/A	ALL	EV-10.2 3-6 years	\$ Ongoing	N/A
5.5	Enforce tree codes proactively -Explore options to fund a 3 rd code enforcement officer -Revisit KMC 1.12.100 to address trespass tree violations -Volunteer: N/A	PBD	EV-10.9	\$\$ Ongoing	2023-2024 SPR

Urban Forest Six Year Work Plan 2021-2026	Lead Dept	SMP Reference	Estimated Cost ¹	Potential Funding Sources ²
5.6 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	EV-10.4	\$\$	2021: currently unfunded Potential funding: equity-focused grants, corporate partnership

¹Estimated resources using the key below from the UFSMP, Table 7, page 57:

\$ Less than \$50,000. Could be accomplished with existing City staff resources, may need planning and 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.

²Unless otherwise indicated, potential funding sources have not been secured. For more information, Potential Funding Strategies are outlined in the UFSMP, Section 4.2, pages 38-40

³These 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

PBD – Planning & Building Department

PW – Public Works Department

ROW – Right of Way

SMP – Sustainability Master Plan

SW – Stormwater (funding) through Public Works

WCC – Washington Conservation Crews