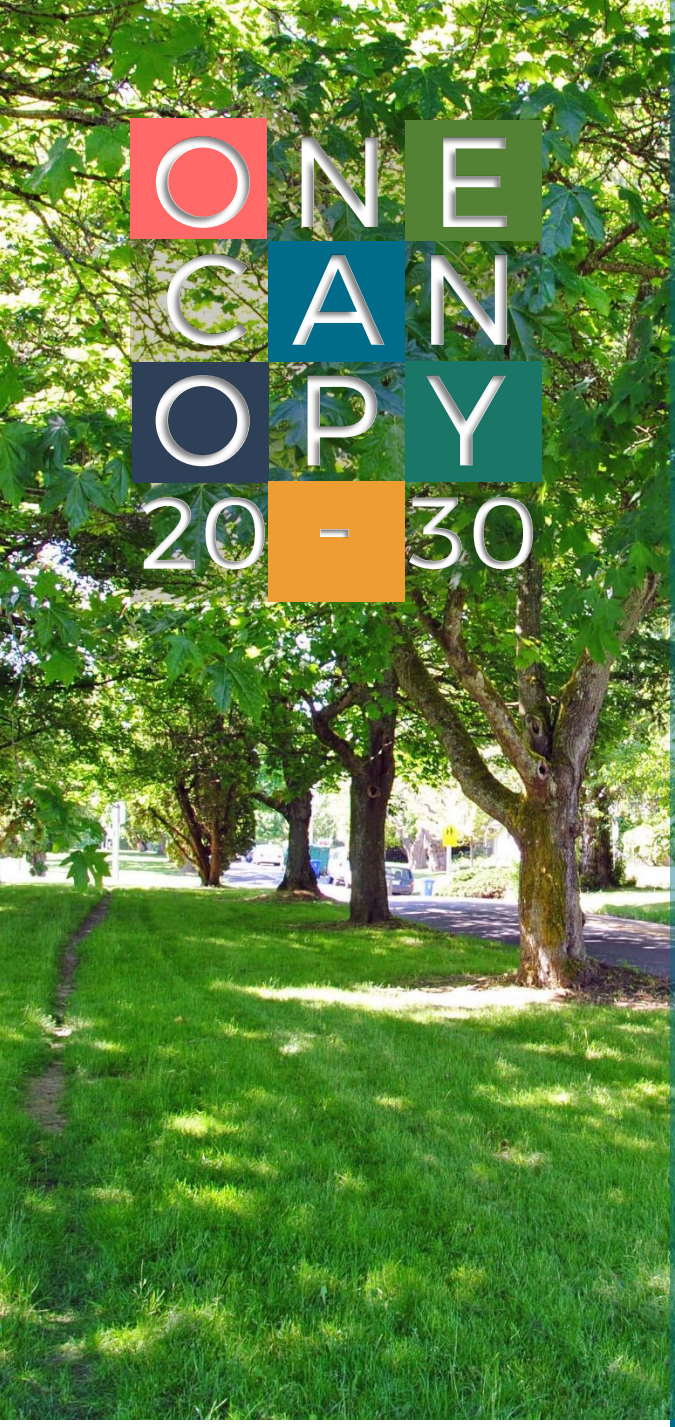

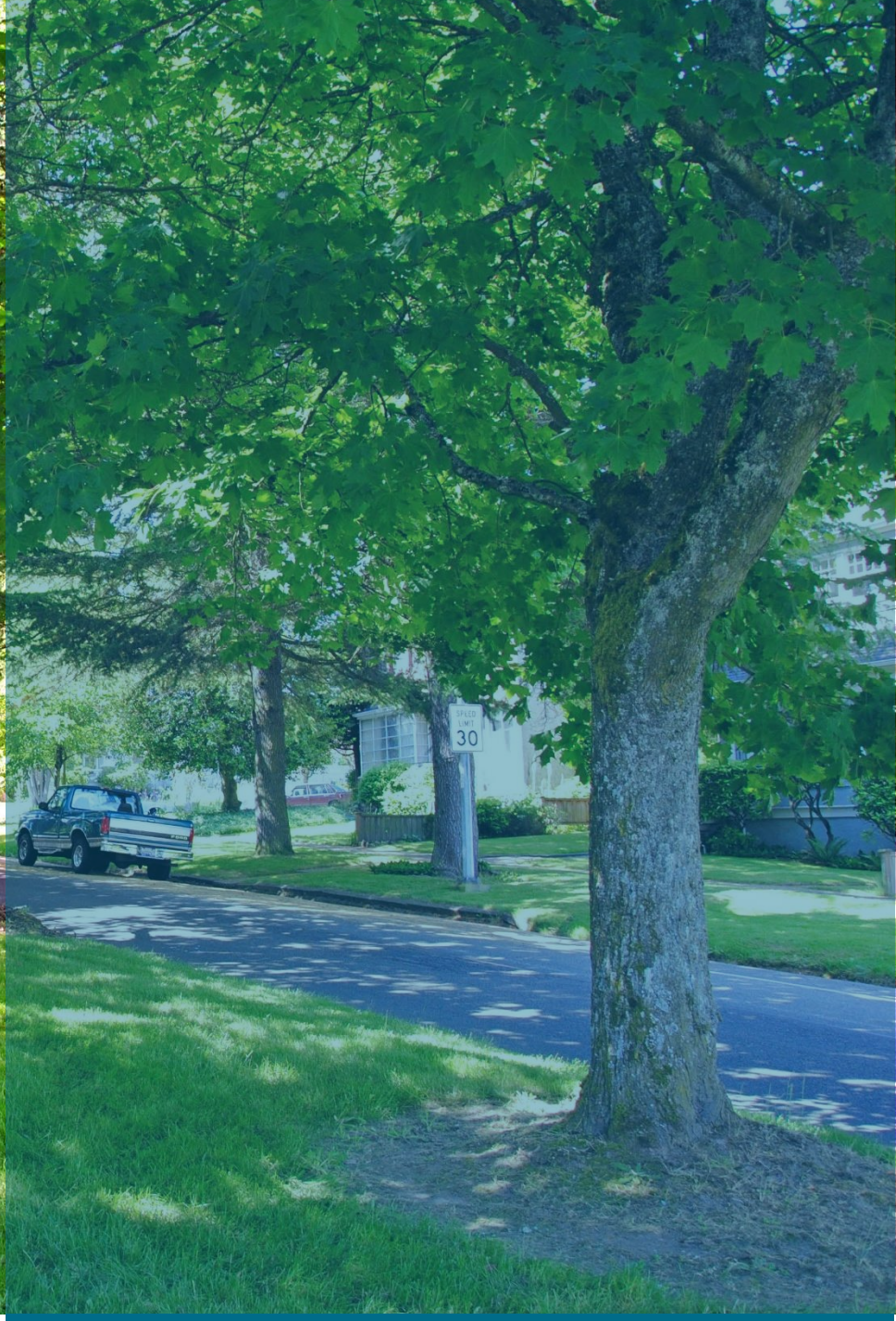

Tacoma

Office of Environmental Policy and Sustainability

PLANIT GEO
mapping a greener future

Urban Forest Management Plan

Action Plan

- Tacoma, WA -

2019

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Urban Forest Management Plan

Action Plan

- Tacoma, WA -

Acknowledgements

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- The City of Tacoma, WA Contributors -

City of Tacoma Environmental Services Department
City Council
City Council's Infrastructure, Planning, and Sustainability Subcommittee
Sustainable Tacoma Commission
Landmarks Preservation Commission
Metro Parks Tacoma
Residents of Tacoma

City Departments

Environmental Services (EnvScs)
Neighborhood & Community Services (NCS)
Planning & Development Services (PDS)
City Attorney (Legal)
Information Technology (IT)
City Manager's Office (CMO)
Community & Economic Development (CED)
Office of Equity & Human Rights (OEHR)
Public Works (PWD)
Office of Arts & Cultural Vitality

- Additional Contributions From -

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Cover photo source: City of Tacoma, WA
All other photos unless noted are from the City of Tacoma, WA

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One Tacoma, One Canopy: Tacoma's trees and forests are recognized as integral to sustaining life and health for all City residents. A healthy, thriving, and sustainable urban forest is a community priority, to be thoughtfully managed and cared for by partnerships between the City and its residents to maximize public safety and benefits that include a thriving ecosystem, vibrant economy, and livable communities shared by all Tacomans.

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Table of Contents

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Executive Summary

We are all under ***One Canopy***. Trees across the City—along streets, in parks, open spaces, and backyards—constitute Tacoma's ***urban forest***, a valuable asset that, if planned well and cared for properly, will support the health and well-being of the community for generations to come. A healthy urban forest contributes to vibrant, vital and sustainable communities, while promoting public health and safety.

The residents of Tacoma care about the place where they live, work, and play. Among the many things that make Tacoma special is its physical environment—tree-lined streets, abundant parks, natural areas, trees in parking lots and framing buildings, flowering trees in spring and fall color, trees with swings in our backyards, and trees edging streams and ponds cooling the waters for aquatic life. One of our most important responsibilities is to protect these resources and ensure that Tacoma will always be a beautiful and livable city, long into the future.

There are many challenges to this vision, however; across the Puget Sound region, urban tree canopy is declining at a rapid rate as development pressures soar. When compared with other Puget Sound cities, Tacoma has the lowest percent of tree canopy in the region. Recognizing the impacts of insufficient tree canopy, City Council has adopted many policies and plans specifically aimed at increasing resources for healthy tree canopy across Tacoma. These include the 2008 Climate Action Plan, 2010 Comprehensive Plan - Urban Forest Policy Element, and the 2016 Environmental Action Plan.

An Urban Forest Team (UF Team) was assembled to develop the City of Tacoma's Urban Forest Action Plan (the Plan) to direct City resources towards the mission of growing a better Tacoma for all. Extensive research was conducted to establish baseline conditions of Tacoma's urban forest as part of Phase 1 (October 2019). Phase 2 of the Plan (December 2019) describes recommended actions to improve the urban forestry program while meeting the needs and goals of the community. Following Phase 2, a third and final phase (2020) will provide supplemental studies that support implementation of the Plan.

The Plan serves as a road map for actions that move towards a goal of a healthy, thriving 30% overall tree canopy coverage by 2030 by creating greater efficiencies in City operations; standardizing levels of service; and responding to the challenges of climate change as well as other environmental factors. The Plan functions as a management tool for City staff that is transparent to the public regarding the actions taken on behalf of the broader community. Working together, the City and its people can achieve the vision they have for Tacoma, ensuring this city remains a great place to live, work, and play well into the future.

Overview of the Two Planning Phases

PHASE 1
RESEARCH SUMMARY

PHASE 2
ACTION PLAN FRAMEWORK

ELEMENTS AUDIT STRATEGIES TARGETS ACTIONS EVALUATION

Overview of Phase 1 Research Summary

Phase 1 consisted of a systematic audit applied to the results of an evaluation of five Citywide planning elements using the Urban Forest Sustainability and Management Audit System (Urban Forest Audit System) developed in 2014 by the U.S. Forest Service.

Phase 1 Planning Elements

#1: Existing Policies & Plans | **#2: City Staff Interviews** | **#3: Urban Forest Benchmarks** | **#4: In-Depth & High-Level Data Analysis** | **#5: Community Interests & Input** | **Urban Forest Audit System**

The Urban Forest Audit System evaluates categories on urban forest sustainability, management, and equity. Each category contains subcategories that support these urban forestry principles. **A total of 126 urban forest subcategories were evaluated for Tacoma**.

Subcategories were rated on a scale of 0 to 3. These values were then used as a multiplier to determine percent achievement for each.

0 → Not Practiced
1 → In Development
2 → Adopted Practice
3 → Exceeds Adopted Practice

This process informs the community, decision makers, and City staff on the strengths and vulnerabilities of Tacoma's urban forest. See Urban Forest Management Plan - Phase 1 Research Summary for evaluation results and further details.

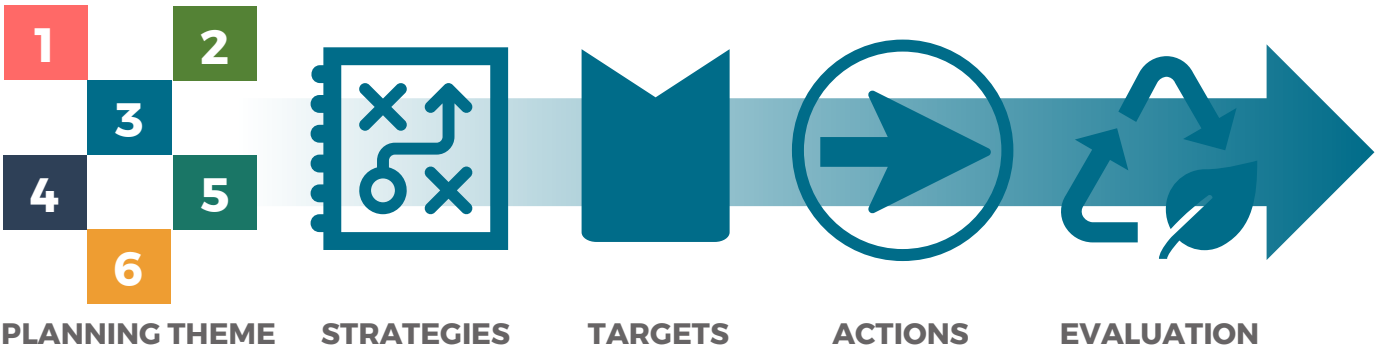
Phase 2 Approach

Results from the Urban Forest Audit System informed the Phase 2 short- and long-term strategies, benchmarks for measuring progress, implementation actions, and evaluation criteria to facilitate adaptive management approaches. The five planning elements of the Phase 1 Research Summary were integrated into six themes from the audit:

	Category Rating
1) Management Policy	85%
2) Capacity and Training	81%
3) Funding and Authority	67%
4) Inventories and Plans	81%, 79%
5) Risk and Disaster Planning	50%, 57%
6) Community Engagement	86%
Overall Rating:	**77%**

Recommended actions are based on the above themes. Each section in this Plan provides an overview of the results of the audit, the purpose and goal of the planning theme, strategies to achieve the goal, actions to achieve the strategies, and targets to measure progress and adapt for success.

Framework of the Urban Forest Action Plan



Goals:

Urban forest sustainability, management, and equity goals are provided for each planning theme and are based on strengths and opportunities identified during Phase 1 research.

Each planning theme is supported by strategies, actions, and targets the City and partners will use to attain the goal.

Strategies:

Strategies specify or justify the actions necessary to achieve the stated goal. To achieve goals of urban forest sustainability, management, and equity, strategies are provided for each planning theme at three different implementation intervals—short, mid, and long-term. These strategies are based on the desired outcomes and goals identified during the Phase 1 Research and provide the means for improvement based on the Urban Forest Audit System. The City will be able to use this audit to develop annual progress reports.

Targets:

Targets are performance standards and measurable values of specific indicators that enable monitoring of the actions to determine attainment of the strategies and goals.

Actions:

Actions are Specific, Measurable, Achievable, Relevant, and Time-bound to be implemented to acquire the goals of each planning theme. These actions include recommended timeframes or "target year(s)" based on a starting date of January 2020 and the lead department or partner for implementation. Each action is rated based on the priority, level of effort and/or resources required, and the efficacy of the action.

To support City- and partner-led efforts, each planning theme highlights actions that the community can take to contribute to progress in a particular area through direct stewardship action or by becoming a better informed advocate for urban trees and forests.

Evaluation:

Using the Urban Forest Audit System and the targets, the success of Plan implementation can be evaluated and annually reported. The evaluation provides the information necessary for adaptive management.

Co-benefits of Plan Implementation

Each goal is accompanied by a graphic depiction of co-benefits, illustrating added value that comes with achieving that goal. For example, a neighborhood with dense tree canopied streets and landscape may have cooler summer temperatures that lead to fewer heat illnesses reported. Each action impacts four different co-benefits at various levels; the relative level is indicated by the number of triangles (▲). The following is an overview of the co-benefits and their qualitative graphic:

COMMUNITY – actions that engage the public.

EQUITY – opportunities to satisfy essential needs and achieve full potential.

HUMAN HEALTH – provides physical benefits to local residents.

ENVIRONMENT – benefits of air quality, water quality, and habitat.

In Conclusion

Implementation of the strategic actions in this Plan will achieve the urban forestry goals and associated co-benefits desired by the City and its residents. To be successful, plan implementation is heavily depended on engagement between the City and its residents.

Although Tacoma received high ratings in several of the Urban Forest Audit System categories, there is always room for improvement. Each category contains goals, strategies, and actions to improve urban forest sustainability, management, and equity, which also support goals and actions in other categories.

The framework of this strategic plan allows the City to take actions that build on previous work, effectively monitor progress, and efficiently adapt in an everchanging environment. Successful implementation of the Plan will bring Tacoma's trees and forests to a higher level of service that is equitably distributed across the City, and benefits present and future generations.

Tacoma Urban Forest Action Goals

1. **Management Policy Goal:** Tacoma's urban forest policies are the foundation for preserving the environmental benefits, management, and the character of Tacoma's urban forest.
2. **Capacity and Training Goal:** The City has the capacity and expertise to provide optimal levels of service for equitable urban forest management.
3. **Funding and Authority Goal:** City resources and authority enable equitable urban forest management for the preservation and enhancement of tree benefits.
4. **Inventory and Planning Goal:** A comprehensive understanding of the urban forest ensures data-driven decisions, sustainable and equitable planning, and amplifies the benefits received from trees.
5. **Risk and Disaster Management Goal:** Proactively manage tree-related risk throughout the urban forest and equip urban forest leaders with resources to address risks and disasters.
6. **Community Engagement Goal:** Sustainable urban forest management and equity is achieved through a partnership with the City and its residents resulting in improved well-being, human health outcomes, and stronger local economies.

Tacoma Urban Forest Action Plan Approach

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Strategies for Tacoma's Urban Forest

Management Policy, Ordinances, Standards, and Practices

2019 Urban Forest Audit System Ranking

	2019		
Low	0 of 5	0 of 5	**Good**
Moderate	5 of 5	0 of 5	**Optimal**

-- Management Policy: 85% --

Setting the Stage

STRENGTHS: Tacoma's management policy score was relatively high, based on efforts to address climate change and sustainability such as the Climate Action Plan, Tacoma 2025, the Environmental Action Plan, the Urban Forest Manual, tree canopy goals, development standards, and recognition of trees as positive influencer's on human health.

OPPORTUNITIES: Proper tree protection and enforcement in the right-of-way (ROW) would support a "no-net-loss" strategy for retaining urban trees. Strengthening Tacoma Municipal Code (TMC) and improving urban forest policy would give greater weight to the City's tree canopy goals.

Why it Matters

- Support: A strategic plan lacking regulatory support is at risk of losing political traction, losing resources and funding, and may lack the enforcement necessary for permanent improvements. A weak or outdated policy framework of policy jeopardizes the success of key projects.
- Connections: Alignment of policy, code and existing plans ensures a strong connection among the Tacoma's strategic urban forestry goals, and the projects and initiatives that realize these goals.

- Holistic: Plans cannot live in isolation. Aligning existing plans, policies, and ordinances brings to light any projects or initiatives that are a misplacement of resources, and provides a foundation for synergistic effort toward City goals.

GOAL 1: Tacoma's urban forest policies are the foundation for preserving the environmental benefits, management, and the character of Tacoma's urban forest.

Short-Term Strategies

- 1A) Strengthen the Citywide tree canopy goal of 30% by 2030 by aligning urban forest policy with existing policies and plans.
- 1B) Clarify policy for urban forest management and protection.

Mid-Term Strategies

- 1C) Protect Tacoma's significant/heritage trees.
- 1D) Improve regulations and procedures to encourage tree preservation and protection on private property and in the City right-of-way.

Long-Term Strategies

- 1E) Achieve a healthy and sustainable 30% tree canopy cover Citywide.
- 1F) Achieve an equitable distribution of urban forest benefits and the level of service provided by the City.

TARGETS

Strategy Outcomes	TARGETS	Strategy /Action
Tacoma Municipal Code updates	**2021** Tacoma Municipal Code is updated to **align** with **urban forest policy** in **One Tacoma**. → **2030** **50** of Tacoma's most **significant trees** (min) from each Council District are listed on **Heritage Tree registry**.	1A.5 1C.7
	2022 Inadvertent **tree loss** during construction is **reduced** through implementation of the **Trees and Sidewalks Operations Plan**. → **2030** The number of approved **tree removal permits** is **1% or less** of trees planted.	1E.4 1D.1 1D.6 1D.8 1D.10
Tree planting to achieve canopy goals	**2020 – 2030** **2,000 trees planted** annually through **City-led** capital, open space, or retrofit projects. **8,500 trees planted** annually through **partnerships** and public incentive programs. → **2030** A total of **105,000 trees** have been **planted** since 2020 to achieve the **30% canopy** goal.	1E.2 1D.1
	2021 Pertinent operating **procedures** and **resources** such as the recommended tree species list for tree plantings are **developed**. → **2030** A total of **105,000 trees** have been **planted** since 2020 to achieve the **30% canopy** goal.	1D.8 1D.10 1F.11 1B.3
Urban forest resiliency and equity	**2020** **Tree policy** as recommended by the **Tree Risk Management Plan** is adopted.	
	2028 A **1/3rd** of **wood waste** from high-risk tree removals is **reused** as **biomass**, woodworking, firewood, and other uses.	
	2030 **90%** of public trees are in **good condition**.	1E.4 1B.9
	2030 Tree **canopy goals** are achieved in **priority areas** (Appendix A).	1E.2 1F.11 1D.12

Actions for Management and Policy

#	Actions	Lead/Year	Co-benefits
1D.1	Monitor tree loss and gain through annual tree removal and planting permit reporting.	**ES**, **PDS**, PWD NCS, TPU, MPT **Target Year:** Annual	High / Med / Low
1E.2	Plant 2,000 trees through City projects annually and support 8,500 annual tree plantings through partnerships and public incentive programs. Improved tracking and reporting of partnership plantings will better represent on-the-ground efforts to achieve planting targets.	**ENPs**, CGs, MPT, TPU, ES, PWD **Target Year:** Annual	High / Med / Low
1B.3	Establish policy, protocols, and standards for priority City tree maintenance within low-income and underserved areas. Evaluate partnership opportunities and a potential cost-share program for hazard tree removals in priority areas (Appendix A and D).	**ES**, PWD, NCS, OEHR, TPU **Target Year:** 2020	High / Med / Low
1E.4	Implement policy and procedures recommended in the Tree Risk Management Plan.	**PWD**, ES, TPU, MPT **Target Year:** 2020	High / Med / Low
1A.5	Use the Code Recommendation Prospectus (Appendix F) to establish an Urban Forestry Title to Tacoma Municipal Code (TMC) that aligns urban forestry policy with One Tacoma, updates antiquated language and inconsistencies, and requires the use of industry best practices and standards.	**ES**, **PDS**, PWD, Legal **Target Year:** 2021	High / Med / Low
1D.6	Implement the Trees and Sidewalks Operations Plan (Plan Phase 3) to eliminate improper tree removals and reduce future hardscape conflicts.	**ES**, **PWD**, PDS, Legal **Target Year:** 2021	High / Med / Low

Urban forest policy updates, improvements to TMC, improved standards, and tree planting goals will provide the foundation for achieving the strategies in this Plan.

Actions for Management and Policy

#	Actions	Lead/Year	Co-benefits
1C.7	Update TMC with a Heritage Tree Ordinance.	**ES**, **PDS**, Legal, LPC **Target Year:** 2022	High / Med / Low
1D.8	Develop standard operating procedures and permitting processes for urban forest management by 2022 that are aligned with TMC.	**ES**, **PDS**, **NCS**, **PWD** **Target Year:** 2022	High / Med / Low
1B.9	Establish protocols for tree debris management, wood utilization, and wood waste diversion for routine tree maintenance, removals, and storm response.	**PWD**, ES, MPT, TPU **Target Year:** 2023	High / Med / Low
1D.10	Align tree protection and design standards in TMC 13.06.502.E with a no-net-loss policy by 2023 to achieve tree canopy goals.	**ES**, **PDS**, NCS, Legal, PWD **Target Year:** 2023	High / Med / Low
1F.11	Align neighborhood and priority area planting plans (Action 4B.3) with urban forest policy to address species, locations, timing, climate resiliency, reduced maintenance, higher pest and disease resistance, and equity.	**ES**, **ENPs**, PWD MPT, TPU **Target Year:** 2023	High / Med / Low
1D.12	Update post-planting tree care requirements for City projects and developers. Use the Capacity and Training actions to achieve adequate staffing levels for evaluating projects and performance bonds.	**ES**, PWD, PDS, NCS **Target Year:** 2024	High / Med / Low

Leads (**bold** = primary): CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, OACV = Office of Arts and Cultural Vitality, OEHR = Office of Equity and Human Rights, PDS = Planning and Development Services, PWD = Public Works Department, STC = Sustainable Tacoma Commission, TPU = Tacoma Public Utilities.

Co-Benefits: = Community, = Equity, = Human Health, = Environment

One Tacoma, One Canopy

Our urban forest needs you

- *Plant and maintain trees on your property using best practices. Learn about urban trees from the U.S. Forest Service at fs.fed.us/managing-land/urbanforests.*
- *Explore stewardship and volunteer activities with the City, local non-profits, and other organizations.*
- *Be vigilant by contacting Urban Forestry if you see a hazard tree or a tree pest or disease of concern in the right-of-way.*
- *Consider the City's Grit City Trees and Coupon Programs to help Tacoma reach the 30% tree canopy goal.*

Questions about these resources? trees@cityoftacoma.org

Professional Capacity and Training

2019 Urban Forest Audit System Ranking

	2019		
Low	1 of 5	1 of 5	**Good**
Moderate	3 of 5	0 of 5	**Optimal**

-- Capacity and Training: 81% --

Setting the Stage

STRENGTHS: City staff have the appropriate urban forestry-related training and certifications in both procedural and practical applications.

OPPORTUNITIES: Additional staffing to support Plan implementation, community outreach and education needs. Funding and creation of an in-house arborist crew for priority right-of-way (ROW) and City-owned property tree maintenance. Training on updated procedures and processes and technical support as needed for City Departments and Work Groups.

Why it Matters

- Quality: The complexity of urban environments requires knowledgeable, adept practitioners to ensure appropriate care, maintenance, and resiliency. Trained staff reduces risk and future costs of maintenance and improves quality in service and reduces threat of public hazard.
- Efficiency: Adequate staffing levels meet the needs of the community more efficiently and effectively. Staff with an understanding and training in processes affecting the urban forest are able to coordinate efforts to achieve common goals.
- Safety: Safe practice of arboriculture and urban forestry is critical for City staff, contractors, and the public to reduce the potential risk of public hazards.

- Service: This chapter evaluates potential staffing levels for increased tree maintenance responsibilities in public areas to achieve targets of improved urban forest health through proper and routine tree maintenance.

GOAL 2: The City has the capacity and expertise to provide optimal levels of service for equitable urban forest management.

Short-Term Strategies

- 2A) Reach and maintain staffing levels that meet the needs of the community and provide improved care for the urban forest.
- 2B) Clarify and distinguish roles pertaining to urban forest management for efficient service.
- 2C) Acquire and maintain appropriate industry certifications and qualifications. Provide training and educational opportunities to support the goal of excellent urban forest management and care.

Mid-Term Strategies

- 2D) Acquire the resources for enhanced proactive public tree planting and maintenance.

Long-Term Strategies

- 2E) Secure staffing levels to achieve a sustainable pruning rotation for trees on public property.

Targets

Strategy Outcomes	TARGETS		Strategy /Action
Capacity	**2022** **Community satisfaction** with Urban Forestry level of service is **increased** by **5%** every 2 years.	**2025** The City of Tacoma has **adequate** urban forest management **staffing levels** to achieve a sufficient **level of service** to the community.	2D.2 2C.1 2A.3 2A.4 2B.7 2E.9
Training		**2025** All **Work Groups** with urban forestry workflows are **trained** on **SOPs** and have access to technical **resources** to do their jobs effectively. **2025** City staff are properly **trained** and **certified** to provide **optimal** levels of urban forest management and **service** to the community.	2B.7 2C.5 2C.6 2C.8

Urban forest management and maintenance is improved with additional staffing and resources, public safety and equity are enhanced while risk is avoided and reduced.

Approximately 4,000 public street trees in targeted corridors are maintained and managed by the City, elevating Citywide tree canopy equality.

City staff are properly trained and certified to provide optimal levels of urban forest management and service to the community.

In-house training and public events will provide information and guidance regarding proper tree planting and care practices.

Actions for Capacity and Training

#	Actions	Lead/Year	Co-benefits
2C.1	Conduct annual urban forestry events, or partner-events—especially involving youth—relating to tree planting and pruning to increase capacity for the care of public trees led by citizen tree stewards.	**ES**, all Departments and partners listed below **Target Year:** Annual	High / Med / Low
2D.2	Evaluate updated urban forest level of service as related to tree planting and protection requirements.	**ES**, **PWD**, **PDS** **Target Year:** 2020	High / Med / Low
2A.3	Strengthen arborist crew needs assessment. Develop a business case in 2020 to propose 2021-2022 biennium budget enhancement request for an arborist crew (see Appendix C).	**ES**, **PWD**, PDS **Target Year:** 2020-21	High / Med / Low
2A.4	Prepare a business case detailing staff needs for a City Arborist to support implementation of the Plan, and more specifically, address the technical needs of PWD, ES, and PDS.	**ES**, **PWD**, **PDS** **Target Year:** 2021	High / Med / Low
2C.5	Conduct 10 Department-specific trainings and as-needed internal staff trainings regarding urban forest management standard operating procedures and workflows.	**ES**, PWD, PDS, NCS, CED, IT, MPT, TPU **Target Year:** 2021	High / Med / Low
2C.6	All designated urban forestry staff attain and maintain industry certifications such as ISA Certified Arborist accreditation and other industry qualifications.	**ES**, **PWD, MPT, TPU** **Target Year:** 2021	High / Med / Low

Actions for Capacity and Training

#	Actions	Lead/Year	Co-benefits
2B.7 Effort: ■ ■ ■ Priority: ■ ■ ■	Using the information gathered from the Work Group interviews (Phase 1 Plan), utilize the continuous improvement framework to fix the broken pieces of operational workflows in urban forest management.	**ES**, **PWD**, **PDS**, **NCS**, CED, MPT, TPU **Target Year:** 2022	▲ ▲ ▲ ▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low 🏠 ⚖ ⊕ 🌳
2C.8 Effort: ■ Priority: ■	Develop annual education and training budget by 2022 for urban forestry staff that includes attendance for 2 primary staff at industry conferences per year. Staff stay up-to-date on current and potential exotic tree pest and disease threats.	**ES**, **CMO** **Target Year:** 2022	▲ ▲ ▲ ▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low 🏠 ⚖ ⊕ 🌳
2E.9 Effort: ■ ■ ■ Priority: ■ ■	Designate 9 FTEs by 2025, including existing staff and/or new hires, for management and care of Tacoma's urban forest. The intent of this cross-department team is to be an in-house resource for City Work Groups around urban forest management.	**ES**, **PWD**, **PDS**, STC **Target Year:** 2025	▲ ▲ ▲ ▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low 🏠 ⚖ ⊕ 🌳

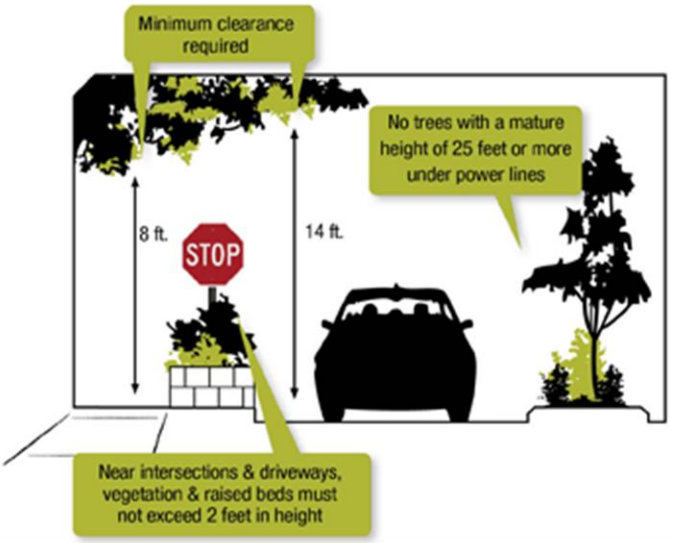
Leads (**bold** = primary): CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, OACV = Office of Arts and Cultural Vitality, OEHR = Office of Equity and Human Rights, PDS = Planning and Development Services, PWD = Public Works Department, STC = Sustainable Tacoma Commission, TPU = Tacoma Public Utilities.

Co-Benefits: 🏠 = Community, ⚖ = Equity, ⊕ = Human Health, 🌳 = Environment

One Tacoma, One Canopy

Our urban forest needs you

- *Attend tree-related events and workshops. Join the listserv to stay up-to-date (cityoftacoma.org/environews).*
- *Volunteer for a local tree-related organization. Want to learn more about trees? Become an ISA Certified Arborist!*
- *Visit cityoftacoma.org/urbanforestry to learn more about proper tree management, planting, and the tree permit process.*



Questions about these resources? trees@cityoftacoma.org

Funding and Authority

2019 Urban Forest Audit System Ranking

	2019		
Low	2 of 3	0 of 3	**Good**
Moderate	1 of 3	0 of 3	**Optimal**

-- Funding: 81% Authority: 88% --

Setting the Stage

STRENGTHS: Tacoma's Urban Forestry Program, which has authority over day-to-day tree-related activities, and provides technical support to other City Departments and Work Groups, is budgeted annually and is funded primarily through the City's stormwater program with additional funding through the General Fund.

OPPORTUNITIES: Phase 1 research indicates Tacoma is well below regional averages in urban forest budget expenditures per capita and per tree, even if expenditures from partnering agencies are included. Tacoma has a strong network of engaged community residents who are in support of reallocating resources for urban forestry and tree stewardship. The actions for the Funding and Authority Chapter focus on standards operating procedures, internal work-flows, policy, staff trainings and technical support.

Why it Matters

- Effectiveness: Appropriate urban forest funding enables and amplifies implementation of this Plan and related daily operations, resulting in better community outcomes such as increased level of service, better health outcomes, and reduced public hazard potential.
- Equity: Equitable resource dispersal balances environmental justice to historically undeserved and lower-income areas.

- Accountability: Accurate accounting of urban forest practices, management, and urban forest assets enables performance- and attribute-based funding.
- Communication: Standard protocols established for communications among the urban forest stakeholders offer transparency and coordinate efforts.

GOAL 3: City resources and authority enable equitable urban forest management for the preservation and enhancement of tree benefits.

Short-Term Strategies

- 3A) Identify appropriate resource needs and service levels for the management of trees in City-maintained areas.

Mid-Term Strategies

- 3B) Acquire additional City responsibility of street tree maintenance in prioritized corridors.

Long-Term Strategies

- 3C) Enable framework for diversified, sustained and dedicated funding to the urban forest.
- 3D) Public tree maintenance responsibility is shared by the City and its residents by City obtaining maintenance responsibility of public trees in priority areas including major arterials, business districts, regional growth areas, and historically underserved neighborhoods.

TARGETS

Strategy Outcomes	TARGETS	Strategy /Action
Urban forestry funding	**2020** Analysis of alternative and **sustained funding** sources **research** conducted. → **2030** Consistent **public** and **private funding** enables **sustained** and flexible urban forest programming.	3A.1 3A.9 3C.5 3A.6
Urban forest manage-ment authority	**2021** Recommended **priority maintenance areas** are finalized. → **2030** All public street **trees** in **all priority maintenance areas** are routinely **pruned**. **2021 – 2030** **600** public **street trees** are annually **maintained** (a total of 4,000 public street trees in a **7-year rotation**).	3B.3 3A.2 3B.4 3D.7 3D.8

Funding for the urban forest will be at comparable levels for the Western U.S. for cities with similar population levels and number of public trees.

Healthcare and transportation partnerships diversify the funding portfolio of urban forest programs, resulting in increased program resiliency and amplified resource benefits.

A comprehensive inventory of public trees justifies budget, determines ecosystem services, and informs tree maintenance decisions.

Care for the trees in priority corridors and areas will be managed by the City—an estimated 4,000 trees in phase one.

Actions for Funding and Authority

#	Actions	Lead/Year	Co-benefits
3A.1	Continue to track and annually report urban forestry activities of all partners to apply to budget change requests and continue support of Arbor Day Tree City USA Designation.	**PWD**, ES, PDS, NCS, MPT, TPU, ENPs **Target Year:** Annual	High / Med / Low
3A.2	Implement Action 2A.3 and "develop a business case in 2020 to propose 2021-2022 biennium budget enhancement request for an arborist crew" and include a request for annual urban forest management funding (including City partners) that incrementally aligns more closely with Western U.S. rates. Recommended incremental increase in urban forest management expenditures per capita is $8.00 ($1,658,240)—increased from $7.77 ($1,610,565) to meet the levels of service required for implementation of this Plan.	**ES**, **PWD**, PDS, STC, CMO **Target Year:** 2020	High / Med / Low
3B.3	Finalize the priority street tree maintenance corridors that were recommended through the lens of environmental justice and equitable ecosystem services (Appendix D).	**ES**, **PWD**, PDS, NCS, CED, MPT, TPU **Target Year:** 2021	High / Med / Low
3B.4	Using guidance from Action 3A.2, implement a City street tree maintenance program and start street tree maintenance in identified corridors and neighborhoods (approximately 4,000 total trees).	**PWD**, ES, PDS **Target Year:** 2021	High / Med / Low
3C.5	Beginning in 2021, implement the sustained funding source findings (Phase 3 Plan). Develop or strengthen open channels of communication with non-conventional urban forest partners, including healthcare and transportation partners.	**ES**, PWD, PDS **Target Year:** 2021	High / Med / Low
3A.6	Develop a business case in 2022 to propose 2023-2024 biennium budget enhancement request for urban forest management to increase from the 2022 amount to the recommended $8.76 per capita ($1,815,773) (see Action 3A.2).	**ES**, **PWD**, PDS, STC, CMO **Target Year:** 2022	High / Med / Low

Actions for Funding and Authority

#	Actions	Lead/Year	Co-benefits
3D.7	In coordination with the Management Policy actions, establish and sustain efforts with Neighborhood Business Districts, Neighborhood Council District, neighborhood organizations, and civic groups in all Tacoma neighborhoods by 2022 to implement young tree maintenance approaches for the care of 10,500 trees planted annually.	**NCS**, ES, ENPs, OEHR **Target Year:** 2022	
3D.8	Starting in 2022, prune approximately 600 established public trees per year along target road corridors to preserve existing mature canopy and train young trees to reduce potential risk.	**PWD**, ES, PDS **Target Year:** 2022	
3A.9	Quantify the ecosystem benefits and appropriate appraisal values of public trees to enable completion of cost-benefit analysis. Align this with Action with 4A.1, rotational 5-year public tree inventory.	**ES** **Target Year:** 2025	

Leads (**bold** = primary): CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, OACV = Office of Arts and Cultural Vitality, OEHR = Office of Equity and Human Rights, PDS = Planning and Development Services, PWD = Public Works Department, STC = Sustainable Tacoma Commission, TPU = Tacoma Public Utilities.

Co-Benefits: = Community, = Equity, = Human Health, = Environment

One Tacoma, One Canopy

Our urban forest needs you

- *Join your neighborhood association and coordinate tree-themed improvement projects. Funding opportunities described at cityoftacoma.org/urbanforestry.*
- *Learn about the public trees inventoried in Tacoma by visiting www.pg-cloud.com/TacomaWA.*
- *Learn about public right-of-way tree maintenance responsibility on the City's urban forestry website.*
- *Get involved by joining the Green Tacoma Partnership and local environmental non-profits and find out how you can volunteer.*

GREEN TACOMA PARTNERSHIP

Questions about these resources? trees@cityoftacoma.org

4) Inventories and Plans

2019 Urban Forest Audit System Ranking

	2019		
Low	1 of 7	1 of 7	**Good**
Moderate	5 of 7	0 of 7	**Optimal**

-- Inventories: 81% Plans: 79% --

Setting the Stage

STRENGTHS: Multiple datasets describe the distribution, composition, and health of Tacoma's urban trees and canopies which together can inform tree planting, preservation and maintenance in an equitable and sustainable fashion. The City has recently acquired innovative software for managing public trees and has pioneered tree-centric green stormwater infrastructure in the region and is currently working on comprehensive watershed planning efforts.

OPPORTUNITIES: A more thorough and dynamic understanding of the public tree population can be obtained through the comprehensive inventories recommend in this Chapter. Threats to the urban forests such as pests, disease and climate are jurisdictionally agnostic and require inter-agency, regional planning.

Why it Matters

- Informed management: An inventory of Tacoma's valuable green assets—including public trees—informs data-driven management and resource decisions.
- Measurement: A dynamic understanding of tree populations provides baseline information from which measurable targets and performance standards can be defined and met.

- Value: Tree inventories provide valuable information which can be used to quantify ecosystem services provided to residents, the environment, and economy.
- Inclusivity: The urban forest is comprised of public and private trees spanning a multitude of ecosystems and land uses. Integrated plans for trees across these landscapes ensures all aspects of urban forestry are included in a cohesive, strategic plan.

GOAL 4: A comprehensive understanding of the urban forest ensures data-driven decisions, sustainable and equitable planning, and amplifies the benefits received from trees.

Short-Term Strategies

- 4A) Create and maintain a comprehensive inventory of public trees.
- 4B) Develop a strategic tree planting and maintenance plan(s).

Mid-Term Strategies

- 4C) Encourage and support other City policies and plans through the lens of urban forestry.

Long-Term Strategies

- 4D) Identify urban tree canopy cover trends resulting from the implementation of this Plan and other factors.
- 4E) Understand urban forest trends and risks on private land and utilize the partnership network for improved urban forest management.

TARGETS

Strategy Outcomes	TARGETS	Strategy /Action
Urban forest inventory	**2020** The City's **public** incentive **programs** are **recorded** in the City's **tree** management **software**. **2022** The tree inventory **data is integrated** with the City's SAP, AccessES webmaps, and GeoHub. Capital projects in these systems include tree inventory database. **2021** **100%** of **City**-led **tree** plantings, maintenance, and removals are **tracked** in the City tree management **software**. **2024** **100%** of **trees** planted as part of **partnership** and public incentive programs are **recorded** in the City's tree management **software**. Historic plantings are included. **2030** **100%** of **public trees** and newly planted trees are **inventoried** and reinventoried on a **7-year cycle** aligned with maintenance and planting efforts. **2021- 2030** **2,600** of Tacoma's **public trees** are **inventoried annually** that is aligned with annual tree maintenance (600 maintenance trees and 2,000 annual City-led plantings).	4A.2 4A.6 4A.1
Urban forest planning	**2020** The City actively **manages trees** as integral **assets** to urban infra-structure. **2021** Amendments to **One Tacoma include** pertinent **information** from this **Plan**. **2028** Strategic urban forest management and/or **planting plan**(s) are developed for priority **neighbor-hoods**. **2030** Tree **canopy assessment** determines **30%** canopy progress. **2020 – 2030** **Annual workshops** or events for private landholders are supported by the City to encourage **sustainable urban forest management** and planting practices.	4C.4 4C.7 4C.8 4B.3 4E.9 4D.10 4E.5

A well-maintained inventory of public trees integrated with other City asset management software provides the baseline data for developing tree maintenance areas, priorities, and tree planting projects.

Strategic planting plans align tree canopy targets with the goals of a sustainable urban forest that is shared and valued by all City residents.

Actions for Inventories and Plans

#	Actions	Lead/Year	Co-benefits
4A.1	Conduct a comprehensive inventory of public trees planted and maintained by the City, keeping the data current, and continue the cycle aligned with tree maintenance cycles (600 trees per year) and City tree planting projects (2,000 trees per year).	**ES**, **PWD**, PDS, ENPs **Target Year:** Annual	High / Med / Low
4A.2	Beginning in 2020, track tree maintenance, removals, and plantings in a tree inventory software program. Annually prioritize maintenance and risk-tree removals in established corridors/areas and create work orders using this program.	**PWD**, ES, MPT, TPU, ENPs, PDS, NCS, IT **Target Year:** Annual	High / Med / Low
4B.3	Develop a strategic urban forest management plan for one priority neighborhood or area per year similar to the 2020 Tacoma Mall Strategic Urban Forest Management Plan (in progress) and the 2010 Neighborhood Business Districts Urban Forest Management Plan. Address best practices, species diversity, and tree pest and disease resiliency.	**ES**, ENPs, NCS **Target Year:** Annual	High / Med / Low
4C.4	Continue to align tree planting and canopy goals with the watershed assessment, green stormwater infrastructure plans, and subarea planning efforts by providing technical assistance for the goals of stormwater management and improved water quality.	**ES**, PDS, PWD, ENPs **Target Year:** Annual	High / Med / Low
4E.5	Utilize partners to provide at least one annual workshop or event and provide resources to private landholders to support sustainable urban forest management and planting practices with an emphasis in priority areas as identified in Appendix A and D.	**ENPs**, ES, NCS, CMO, CED, OACV, OEHR **Target Year:** Annual	High / Med / Low
4A.6	In 2020, integrate the tree inventory software program with other City asset management programs and data to align project planning, construction, and maintenance efforts with urban forest management strategies. Fully functional and effective planning will be achieved by 2022.	**IT**, **ES** **Target Year:** 2020	High / Med / Low

Actions for Inventories and Plans

#	Actions	Lead/Year	Co-benefits
4C.7	Urban Forestry Program staff represented in the five-year update to the 2015 One Tacoma Comprehensive Plan to align updates with this Plan.	**ES**, PDS **Target Year:** 2020	
4C.8	Beginning in 2020, provide this Plan and supporting documents and data to relevant urban forestry and planning partners to strategically plan and prioritize street tree plantings and establish a master street tree plan by 2023 that addresses species and age diversity and balance equity and accessibility of the urban forest. Use Appendix A and D to align strategies.	**ES**, All Departments and Partners Listed **Target Years:** 2020, 2023	
4E.9	Use the tree inventory data in private development as part of permit inspections for compliance.	**PDS**, PWD, NCS, ES **Target Year:** 2025	
4D.10	Conduct a high-resolution tree canopy assessment Citywide and by planning boundaries to track canopy gains and losses and to inform future tree plantings and preservation.	**ES**, **IT** **Target Year:** 2030	

Leads (**bold** = primary): CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, OACV = Office of Arts and Cultural Vitality, OEHR = Office of Equity and Human Rights, PDS = Planning and Development Services, PWD = Public Works Department, STC = Sustainable Tacoma Commission, TPU = Tacoma Public Utilities.

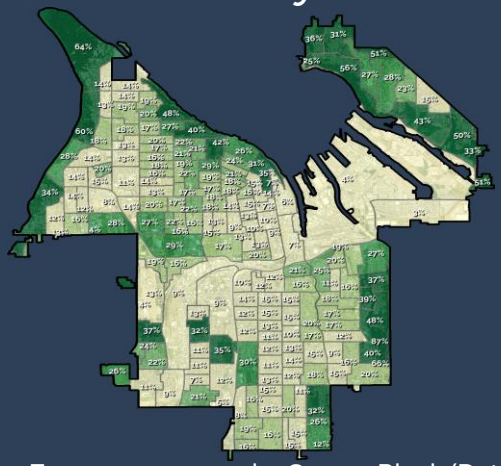
Co-Benefits: = Community, = Equity, = Human Health, = Environment

Urban forest management must be integrated with other planning efforts such as One Tacoma, green infrastructure, watershed assessments, and subarea plans for achieving a healthy and thriving 30% tree canopy.

One Tacoma, One Canopy

Our urban forest needs you

- *Learn more about the extent of the urban forest by reading the 2018 Tree Canopy Assessment. Find out how canopy goals can be achieved in your neighborhood.*
- *Visit Pierce Conservation District's website (PierceCD.org) to learn how you can manage invasive species and protect your trees from harmful pests and diseases.*
- *Consider Tacoma's Grit City Trees program cityoftacoma.org/urbanforestry and learn how to plant and care for your tree.*
- *Get involved by joining the Green Tacoma Partnership and local environmental non-profits and find out how you can volunteer.*



Tree canopy cover by Census Block (Details in Phase 1)

Questions about these resources? trees@cityoftacoma.org

Risk and Disaster Management

2019 Urban Forest Audit System Ranking

	2019		
Low	1 of 4	0 of 4	**Good**
Moderate	3 of 4	0 of 4	**Optimal**

-- Risk: 50% Disaster Plan: 57% --

Setting the Stage

STRENGTHS: Several current staff are trained in tree risk assessment methods. Management of post-disaster debris is outlined in the Pierce County Hazard Mitigation Plan. Grounds maintenance crews and Tacoma Power conduct post-storm cleanup as resources allow.

OPPORTUNITIES: Tacoma-specific standard operating plans and additional technical support for assessing potential tree risk will improve efficiency, resourcefulness and avoid tree-related risk. Accurate tree inventories of trees in rights-of-way are necessary to identify, monitor, plan, prioritize and mitigate risk. Tree canopy assessments and comprehensive tree inventories help inform Tacoma's assessment of vulnerabilities to tree pests, diseases, climate change, storm events, and invasive species. Tacoma will establish tree risk management procedures and an urban forest disaster readiness plan in Phase 3 of the Urban Forest Management Plan project.

Why it Matters

- Due Diligence: It is the City's responsibility to appropriately manage risk in the public rights-of-way to maintain public health.
- Preparation: Natural disasters cannot be prevented but the impact of, mitigation for, and recovery from the disaster can be controlled through appropriate planning.

- Safety: Proper proactive planning and managing of risks and disaster response reduces the public safety risk and long-term costs.
- Savings: Actively managing tree risk likely reduces tree failure, City liability, and potential for human or property damages. Proper planning for disaster response enables resourceful and efficient mitigation and recovery procedures.

GOAL 5: Proactively manage tree-related risk throughout the urban forest and equip urban forest leaders with resources to address risks and disasters.

Short-Term Strategies

- 5A) Effectively monitor threats from urban forest disturbances such as pest and disease outbreaks.

Mid-Term Strategies

- 5B) Reduce tree-related risk through risk avoidance, prioritized hazard elimination, and accurate tree inventories.
- 5C) Risks to the urban forest are properly planned for and appropriately addressed or mitigated with adequate resources to maintain public health and urban forest sustainability.

Long-Term Strategies

- 5D) Sustain urban forest resiliency through emergency preparedness.

TARGETS

Strategy Outcomes	TARGETS	Strategy /Action
Urban forest risk and disaster planning	**2021 – 2030** **600** public **trees** are annually **assessed** for potential **risks** and mitigation is prioritized in City-maintained areas.	5A.3
	2020 **4,000** City-maintained **trees** are **assessed for risk** and mitigation is prioritized.	5A.1 5D.4 5B.5
	2022 Urban Forest Manager receives **Urban Forest Strike Team Training** from the U.S. Forest Service or similar training.	
	2030 High **risk trees** from the City's newly acquired management areas (public trees) **are effectively mitigated**.	
	2020 **Tree Risk Management Plan** is completed that includes guidance for risk trees, pest and disease threats, and disasters.	5C.2 5A.6
	2030 Less than 5% of the tree inventory population has record of signs or symptoms of tree pest and diseases of concern.	

Tree risk assessments for public trees are used to prevent, mitigate, respond, and recover to maintain public safety and a sustainable urban forest.

A plan that addresses harmful tree pests and diseases reduces the risk of significant loss of urban forest ecosystem services and benefits and maintains the health and sustainability of the resource.

Actions for Risk and Disaster Management

#	Actions	Lead/Year	Co-benefits
5A.1	In 2021, assess potential tree-related risks for all 4,000 public street trees the City is starting to maintain. Then conduct annual routine inventories in line with maintenance schedules with intent to document, monitor, prepare, and mitigate current and future risks to the urban forest (i.e. tree structure issues, exotic pests and diseases, climate change impacts).	**ES**, **PWD**, PDS **Target Year:** 2021, Annual	▲ High ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low
5C.2	Work with environmental non-profit organizations and other partners to provide resources and annual training regarding tree pest and disease management as well as invasive species management. Provide resources to private landholders on an as-needed basis.	**ENPs**, ES, MPT, NCS **Target Year:** Annual	▲ ▲ ▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low
5A.3	Use the elevated urban forest management staffing levels (see Action 2D.2) and 2025 (see Action 2A.3) for the assessment of potential tree risks in priority areas (outlined in 5A.1).	**ES**, **PWD**, PDS **Target Year:** 2021	▲ ▲ High ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low
5D.4	Implement the Tree Risk Management Plan that relates to planning for structural tree risks, exotic tree pest and disease threats, and disasters.	**ES**, **PWD**, PDS, ENPs, CGs, NCS, Legal **Target Year:** 2021	▲ ▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low
5B.5	Mitigate high-risk trees in the City's newly acquired maintenance areas (public trees) by incrementally (25% by 2021, 50% by 2025, 75% by 2028) addressing high-risk trees annually with the appropriate maintenance activity.	**PWD** **Target Years:** 2021, 2025, 2028	▲ High ▲ ▲ ▲ ▲ Med ▲ ▲ ▲ ▲ Low
5A.6	Use Citywide tree inventory data and best available science for long-term planning and management of existing and future tree pests and diseases impacting Tacoma's urban forest (training obtained from Action 2C.8). Use results from 5D.4 to inform decisions on this Action.	**PWD**, **ES**, **ENPs** **Target Year:** 2023, Annual	▲ ▲ High ▲ ▲ Med ▲ ▲ ▲ ▲ Low

Leads (**bold** = primary): CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, PDS = Planning and Development Services, PWD = Public Works Department, STC = Sustainable Tacoma Commission, TPU = Tacoma Public Utilities.

Co-Benefits: = Community, = Equity, = Human Health, = Environment

One Tacoma, One Canopy

Our urban forest needs you

- *Are you prepared for natural disasters and other emergencies? Learn more about personal preparedness here: co.pierce.wa.us/945/Personal-Preparedness and stay alert by signing up for Pierce County's ALERT program: co.pierce.wa.us/921/Pierce-County-ALERT.*
- *Did you know Tacoma manages almost 500 acres of passive open space, including many forests and natural areas? Learn more at cityoftacoma.org/openspace. Consider volunteering to help manage these vital open space areas at EarthCorps.org/Volunteer.*
- *Did you know there is an international standardized method for assessing trees and their potential risks? Learn more at PNWISA.org/Certification.*
- *Learn your invasive trees and shrubs and how to manage them at PierceCountyWeedBoard.org.*
- *Report an invasive tree pest or disease by contacting the state plant health director at aphis.usda.gov.*

Pacific Northwest ISA
pnwisa.org

Questions about these resources? trees@cityoftacoma.org

6) Community Engagement

2019 Urban Forest Audit System Ranking

	2019		
Low	1 of 4	0 of 4	**Good**
Moderate	3 of 4	0 of 4	**Optimal**

-- Community: 86% --

Setting the Stage

STRENGTHS: The City collaborates with environmental organizations for tree planting and tree walk events, has an extensive network of stakeholders, and engages the public through social media, websites, radio and other communication platforms. This Plan was informed through nearly 2,000 public survey responses, three public meetings, stakeholder meetings, and multiple public working group sessions.

OPPORTUNITIES: Community feedback and concerns, gathered from surveys and meetings, surrounding urban forest operations and planning can be used to inform future urban forest management strategies. Recurring feedback includes interest in City right-of-way tree maintenance responsibility, a heritage tree program, and resources in alignment with the industry, among other interests. Efforts should align with ongoing planning efforts and initiatives.

Why it Matters

- Inclusivity: Residential property contains 44% of Tacoma's total tree canopy cover. Sustaining Tacoma's urban forest requires residential collaboration and feedback, and fostering long-term relationships to improve outcomes.
- Transparency: Program and funding transparency are essential in building resilient community partnerships.

- Resourcefulness: Public participation and insight provide resourceful and impactful urban forest program growth.
- Community: Active participation in nature-related efforts foster community pride and ownership, and breaks down walls, helping bring communities closer together as they become closer to nature.

GOAL 6: Sustainable urban forest management and equity is achieved through a partnership with the City and its residents resulting in improved well-being, human health outcomes, and stronger local economies.

Short-Term Strategies

- 6A) Continue to build trust and strong partnerships between the City, partners, and the community.
- 6B) Revisit public engagement methods to retain open lines of communication.

Mid-Term Strategies

- 6C) Include the community in the decision making process for urban forestry efforts throughout Tacoma's neighborhoods.
- 6D) Seek inclusive outlets for City members to actively steward and value their urban forest.

Long-Term Strategies

- 6E) Secure non-conventional partners in urban forestry, including public health, tribes, and transportation sectors.
- 6F) Provide equitable access to urban forest resources for all Tacomans, ensuring all residents and visitors alike share the benefits of trees.

TARGETS

Strategy Outcomes	TARGETS	Strategy /Action
Community outreach and education	**2020 – 2030** **Biannual community survey** results demonstrate improved levels of service regarding urban forest management. **Annual Plan** implementation **progress reports** provided to **City Council**. **Annual Tree City USA Award** and celebration. Continue a presence on **social media** to **engage** new **audiences** and reach a broader **community**. **2020** **Tree canopy goals** are integrated into **Grit City Trees Program**. **2025** First annual urban forest **stewardship recognition** award. **2030** **Engagement** of high school **students** expands access to nature and a **greater understanding** of our impact on our environment.	6C.2 6A.4 6B.3 6B.6 6A.10 6A.11 6A.4 6A.12
Partnerships	**2021** **Non-conventional partnerships** established that represent **all** Tacoma **neighborhoods**. **2025** Coordinate tree **planting** or tree maintenance projects in **each** priority **neighborhood** or area by utilizing partnerships with neighborhood groups and **non-conventional partners**. **2030** Neighborhood tree **planting** and stewardship **groups** established in **each neighborhood** and supported by **non-conventional partners**.	6E.9
Stewardship	**2020** **Increase** number of **volunteers by 10% from 275** volunteers (2018) due to outreach and partnerships. **2021** **Fruit trees** and **gleaning** approved for the right-of-way under specific circumstances. **2022** Volunteers, City, and partners are providing **post-planting care** for the **10,500 trees** planted annually to achieve **canopy goals**. **2025** **Green job training and placement** program is implemented providing tree **maintenance** and **planting** assistance while training a new, **diverse work force**. First **City-led project** including **fruit trees** supported for priority area.	6A.1 6F.8 6D.5

Actions for Community Engagement

#	Actions	Lead/Year	Co-benefits
6A.1	Support and sustain partnerships with local and regional participatory organizations. Encourage and support horizontal volunteer collaboration between organizations. Increase the number of community volunteers annually from 275 recorded in 2018.	**ES** and listed partners (next page) **Target Year:** Annual	
6C.2	Conduct biannual community surveys (starting in 2021) to gauge public viewpoints and receive feedback on Plan implementation and program success. Survey responses should inform future urban forest decision making.	**ES**, CMO, ENPs, CGs **Target Year:** Biannual	
6B.3	Every quarter, share informative urban forestry and tree-related content to a social media, City website, and other communication platforms.	**ES**, **CMO**, PWD, ENPs, CGs **Target Year:** Quarterly	
6A.4	Encourage youth participation in Arbor Day and Green Tacoma Day events. Encourage and provide technical support to enable tree-related curriculum and plantings at schools. Pilot high school project by 2021, all 10 high schools by 2030.	**ES**, ENPs, CGs, CED, NCS **Target Year:** 2021, 2030	
6D.5	Establish a young adult job training, urban forest stewardship program to facilitate the planting and/or care of 10,500 trees annually (City-led and partnership plantings).	**ES**, NCS, CED, ENPs, CGs, PWD **Target Year:** 2021	
6B.6	Prepare a minimum of 4 new audience-specific (business owner, developer, resident) urban forest and/or tree-related outreach and education materials based on research from this Plan .	**ES**, **CMO**, ENPs, CGs, PDS, PWD, NCS, CED **Target Year:** 2021	
6C.7	Update role of Landmarks Preservation Commission as necessary to implement Heritage Tree Program Action described in the Management Policy section of this Plan.	**LPC**, **ES** **Target Year:** 2021	

Actions for Community Engagement

#	Actions	Lead/Year	Co-benefits
6F.8	Identify appropriate parks, rights-of-way, and other public spaces in Tacoma that feasibly can support healthy and safe fruit trees to support gleaning initiatives. Initiate feasibility study in supportive low-income neighborhoods in 2023, progressing to other supportive neighborhoods by 2025. Consider the use of vacant City lots and brown-fields for community-oriented orchards in supportive neighborhoods.	**ES**, NCS, PWD, ENPs, CGs **Target Year:** 2023-25	
6E.9	Establish non-conventional partnerships that serve single and/or multiple Tacoma neighborhoods. All 8 neighborhoods should be supported.	**ES**, **ENPs**, **PWD**, **CGs**, PDS, MPT, TPU, NCS, CED **Target Year:** 2025	
6A.10	Hold biannual tree-related stewardship events with neighborhood associations, councils, working groups, and districts in each of the 8 Tacoma neighborhoods. Use meetings to grow Grit City Tree and Tree Coupon programs and increase volunteer participation.	**NCS**, **ENPs**, **CGs**, ES **Target Year:** 2025	
6A.11	Recognize exemplary urban forest stewards and volunteers representing youth, residents and business owners. Consider a tree donation or tree fund framework for costs associated with this program.	**ENPs**, **CGs**, ES, **Target Year:** 2025	
6A.12	Encourage and support sustainable urban forest planning and practices on all academic institutions through approval of an institution-specific Urban Forest Management Plan or adoption of this Plans relevant strategies and actions. Academic institutions should have a tree inventory by 2027 and be actively contributing to Tacoma's 30% tree canopy goal.	**ENPs**, NCS, ES **Target Year:** 2027	

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Co-Benefits: = Community, = Equity, = Human Health, = Environment

One Tacoma, One Canopy

Our urban forest needs you

- *Trees need people just as much as people need trees. Consider volunteering a local environmental organization.*
- *Engage your local parks and enjoy the restorative effect of our urban forest. Visit MetroParksTacoma.org to find a park near you.*
- *Sign up for EnviroNews with Citizens for a Healthy Bay to learn about workshops, training, and news at HealthyBay.org.*
- *Participate in biannual urban forest surveys. Your feedback is influential to current and future programs.*
- *See how this Plan's actions align with One Tacoma at cityoftacoma.org/planning and Tacoma 2025 at cityoftacoma.org/tacoma_2025.*

A shared vision for the urban forest can be accomplished by implementing community outreach and education, strengthening partnerships, and enhanced stewardship from the community.

In addition to public land, sustainable urban forest management must occur on institutional grounds, commercial property, and residential land; supported by the City and its partners.

Urban forest sustainability and increased tree canopy cover can only be accomplished through partnerships with the City and the residents.

Questions about these resources? trees@cityoftacoma.org

Urban Forest Action Plan Timetable

Theme	#	Action
CE	6B.3	Every quarter, share informative urban forestry and tree-related content to a social media, City website, and other communication platforms.
CE	6C.2	Conduct biannual community surveys (starting in 2021) to gauge public viewpoints and receive feedback on Plan implementation/program success. Survey responses should inform future urban forest decision making.
MP	1D.1	Monitor tree loss and gain through annual tree removal and planting permit reporting.
MP	1E.2	Plant 2,000 trees through City projects annually and support 8,500 annual tree plantings through partnerships and public incentive programs. Improve tracking and reporting of partnership plantings to better represent on-the-ground efforts to achieve planting targets.
CT	2C.1	Conduct annual urban forestry events, or partner-events—especially involving youth—relating to tree planting and pruning to increase capacity for the care of public trees led by citizen tree stewards.
FA	3A.1	Continue to track and annually report urban forestry activities of all partners to apply to budget change requests and continue support of Arbor Day Tree City USA Designation.
IP	4A.1	Conduct a comprehensive inventory of public trees planted and maintained by the City, keeping the data current, and continue the cycle aligned with tree maintenance cycles (600 trees per year) and City tree planting projects (2,000 trees per year).
IP	4A.2	Beginning in 2020, track tree maintenance, removals, and plantings in a tree inventory software program. Annually prioritize maintenance and risk-tree removals in established corridors/areas and create work orders using this program.
IP	4B.3	Develop a strategic urban forest management plan for one priority neighborhood or area per year similar to the 2020 Tacoma Mall Strategic Urban Forest Management Plan (in progress) and the 2010 Neighborhood Business Districts Urban Forest Management Plan. Address best practices, species diversity, and tree pest and disease resiliency.
IP	4C.4	Continue to align tree planting and canopy goals with the watershed assessment, green stormwater infrastructure plans, and subarea planning efforts by providing technical assistance for the goals of stormwater management and improved water quality.
IP	4E.5	Utilize partners to provide at least one annual workshop or event and provide resources to private landholders to support sustainable urban forest management and planting practices with an emphasis in priority areas as identified in Appendix A and D.
RM	5A.1	In 2021, assess potential tree-related risks for all 4,000 public street trees the City is starting to maintain. Then conduct annual routine inventories in line with maintenance schedules with intent to document, monitor, prepare, and mitigate current and future risks to the urban forest (i.e. tree structure issues, exotic pests and diseases, climate change impacts).
RM	5C.2	Work with environmental non-profit organizations and other partners to provide resources and annual training regarding tree pest and disease management as well as invasive species management. Provide resources to private landholders on an as-needed basis.
CE	6A.1	Support and sustain partnerships with local and regional participatory organizations. Encourage and support horizontal volunteer collaboration between organizations. Increase the number of community volunteers annually from 275 recorded in 2018.

Target Year	Lead	Rank (Effort, Priority) (3 = highest)	Rank Total (E + P)	Co-Benefits	Composite Score
Quarterly	ES, CMO	1,2	3 of 6	6 of 12	9 of 18
Biannual	ES	1,2	3 of 6	6 of 12	9 of 18
Annual	ES, PDS	1,3	4 of 6	4 of 12	8 of 18
Annual	ENPs	3,3	6 of 6	12 of 12	18 of 18
Annual	ES	2,1	3 of 6	10 of 12	13 of 18
Annual	PWD	1,3	4 of 6	5 of 12	9 of 18
Annual	ES, PWD	3,2	5 of 6	8 of 12	13 of 18
Annual	PWD	1,3	4 of 6	8 of 12	12 of 18
Annual	ES	2,2	4 of 6	10 of 12	14 of 18
Annual	ES	1,2	3 of 6	6 of 12	9 of 18
Annual	ENPs	1,2	3 of 6	9 of 12	12 of 18
Annual	ES, PWD	3,2	5 of 6	8 of 12	13 of 18
Annual	ENPs	1,1	2 of 6	11 of 12	13 of 18
Annual	ES	2,3	5 of 6	10 of 12	15 of 18

CED = Community and Economic Development Department, CG = Civic Groups, CMO = City Manager's Office, ENP = Environmental Non-Profits, ES = Environmental Services Department, IT = Information Technology Department, LPC = Landmarks Preservation Commission, MPT = Metro Parks Tacoma, NCS = Neighborhood and Community Services Department, PDS = Planning and Development Services, PWD = Public Works Department, TPU = Tacoma Public Utilities.

Rank: Effort & Priority on a scale of 1-3 for each, **Rank Total**: Sum of Effort & Priority counts (6 max), **Co-Benefits**: Sum of counts (12 max), **Composite Score**: Sum of Rank and Co-Benefits (18 max)

Theme	#	Action
MP	1B.3	Establish policy, protocols, and standards for priority City tree maintenance within low-income and underserved areas. Evaluate partnership opportunities and a potential cost-share program for hazard tree removals in priority areas (Appendix A and D).
MP	1E.4	Implement policy and procedures recommended in the Tree Risk Management Plan.
CT	2D.2	Evaluate updated urban forest level of service as related to tree planting and protection requirements.
CT	2A.3	Strengthen arborist crew needs assessment. Develop a business case in 2020 to propose 2021-2022 biennium budget enhancement request for an arborist crew (see Appendix C).
FA	3A.2	Implement Action 2A.3 and "develop a business case in 2020 to propose 2021-2022 biennium budget enhancement request for an arborist crew" and include a request for annual urban forest management funding (including City partners) that incrementally aligns more closely with Western U.S. rates. Recommended incremental increase in urban forest management expenditures per capita is $8.00 ($1,658,240)—increased from $7.77 ($1,610,565) to meet the levels of service required for implementation of this Plan.
IP	4A.6	In 2020, integrate the tree inventory software program with other City asset management programs and data to align project planning, construction, and maintenance efforts with urban forest management strategies. Fully functional and effective planning will be achieved by 2022.
IP	4C.7	Urban Forestry Program staff represented in the five-year update to the 2015 One Tacoma Comprehensive Plan to align updates with this Plan.
MP	1A.5	Use the Code Recommendation Prospectus (Appendix F) to establish an Urban Forestry Title to Tacoma Municipal Code (TMC) that aligns urban forestry policy with One Tacoma, updates antiquated language and inconsistencies, and requires the use of industry best practices and standards.
MP	1D.6	Implement the Trees and Sidewalks Operations Plan (Plan Phase 3) to eliminate improper tree removals and reduce future hardscape conflicts.
CT	2A.4	Prepare a business case detailing staff needs for a City Arborist to support implementation of the Plan, and more specifically, address the technical needs of PWD, ES, and PDS.
CT	2C.5	Conduct 10 Department-specific trainings and as-needed internal staff trainings regarding urban forest management standard operating procedures and workflows.
CT	2C.6	All designated urban forestry staff attain and maintain industry certifications such as ISA Certified Arborist accreditation and other industry qualifications.
FA	3B.3	Finalize the priority street tree maintenance corridors that were recommended through the lens of environmental justice and equitable ecosystem services (Appendix D).
FA	3B.4	Using guidance from Action 3A.2, implement a City street tree maintenance program and start street tree maintenance in identified corridors and neighborhoods (approximately 4,000 total trees).
FA	3C.5	Beginning in 2021, implement the sustained funding source findings (Phase 3 Plan). Develop or strengthen open channels of communication with non-conventional urban forest partners, including healthcare and transportation partners.
RM	5A.3	Use the elevated urban forest management staffing levels (see Action 2D.2) and 2025 (see Action 2A.3) for the assessment of potential tree risks in priority areas (outlined in 5A.1).
RM	5D.4	Implement the Tree Risk Management Plan that relates to planning for structural tree risks, exotic tree pest and disease threats, and disasters.
RM	5B.5	Mitigate high-risk trees in the City's newly acquired maintenance areas (public trees) by incrementally (25% by 2021, 50% by 2025, 75% by 2028) addressing high-risk trees annually with the appropriate maintenance activity.
CE	6A.4	Encourage youth participation in Arbor Day and Green Tacoma Day events. Encourage and provide technical support to enable tree-related curriculum and plantings at schools. Pilot high school project by 2021, all 10 high schools by 2030.
CE	6D.5	Establish a young adult job training, urban forest stewardship program to facilitate the planting and/or care of 10,500 trees annually.
CE	6B.6	Prepare a minimum of 4 new audience-specific (business owner, developer, resident) urban forest and/or tree-related outreach and education materials based on research from this Plan .
CE	6C.7	Update role of Landmarks Preservation Commission as necessary to implement Heritage Tree Program Action described in the Management Policy section of this Plan.

Target Year	Lead	Rank (Effort, Priority) (3 = highest)	Rank Total (E + P)	Co-Benefits	Composite Score
2020	ES	3,3	6 of 6	9 of 12	15 of 18
2020	PWD	2,2	4 of 6	5 of 12	9 of 18
2020	ES, PWD, PDS	2,3	5 of 6	5 of 12	10 of 18
2020	ES, PWD	3,3	6 of 6	11 of 12	17 of 18
2020	ES, PWD	3,3	6 of 6	11 of 12	17 of 18
2020	IT, ES	1,2	3 of 6	5 of 12	8 of 18
2020	ES	1,2	3 of 6	6 of 12	9 of 18
2021	ES, PDS	3,3	6 of 6	7 of 12	13 of 18
2021	ES, PWD	2,3	5 of 6	9 of 12	14 of 18
2021	ES, PWD, PDS	3,3	6 of 6	7 of 12	13 of 18
2021	ES	1,2	3 of 6	7 of 12	10 of 18
2021	ES, PWD, MPT, TPU	1,1	2 of 6	6 of 12	8 of 18
2021	ES, PWD	1,3	4 of 6	9 of 12	13 of 18
2021	PWD	3,3	6 of 6	11 of 12	17 of 18
2021	ES	2,2	4 of 6	6 of 12	10 of 18
2021	ES, PWD	3,3	6 of 6	9 of 12	15 of 18
2021	ES, PWD	3,3	6 of 6	10 of 12	16 of 18
2021	PWD	3,3	6 of 6	9 of 12	15 of 18
2021	ES	1,2	3 of 6	8 of 12	11 of 18
2021	ES	2,3	5 of 6	9 of 12	14 of 18
2021	ES, CMO	1,3	4 of 6	9 of 12	13 of 18
2021	LPC, ES	2,3	5 of 6	7 of 12	12 of 18

Theme	#	Action
MP	1C.7	Update TMC with a Heritage Tree Ordinance.
MP	1D.8	Develop standard operating procedures and permitting processes for urban forest management by 2022 that are aligned with TMC.
CT	2B.7	Using the information gathered from the Work Group interviews (Phase 1 Plan), utilize the continuous improvement framework to fix the broken pieces of operational workflows in urban forest management.
CT	2C.8	Develop annual education and training budget by 2022 for urban forestry staff that includes attendance for 2 primary staff at industry conferences per year. Staff stay up-to-date on current and potential exotic tree pest and disease threats.
FA	3A.6	Develop a business case in 2022 to propose 2023-2024 biennium budget enhancement request for urban forest management to increase from the 2022 amount to the recommended $8.76 per capita ($1,815,773) (see 3A.2).
FA	3D.7	In coordination with the Management Policy actions, establish and sustain efforts with Neighborhood Business Districts, Neighborhood Council District, neighborhood organizations, and civic groups in all Tacoma neighborhoods by 2022 to implement young tree maintenance for the care of 10,500 trees planted annually.
FA	3D.8	Starting in 2022, prune approximately 600 established public trees per year along target road corridors to preserve existing mature canopy and train young trees to reduce potential risk.
MP	1B.9	Establish protocols for tree debris management, wood utilization, and wood waste diversion for routine tree maintenance, removals, and storm response.
MP	1D.10	Align tree protection and design standards with a no-net-loss policy by 2023 to achieve tree canopy goals.
MP	1F.11	Align neighborhood and priority area planting plans (Action 4B.3) with urban forest policy to address species, locations, timing, climate resiliency, reduced maintenance, higher pest and disease resistance, and equity.
IP	4C.8	Beginning in 2020, provide this Plan and supporting documents and data to relevant urban forestry and planning partners to strategically plan and prioritize street tree plantings and establish a master street tree plan by 2023 that addresses species and age diversity and balance equity and accessibility of the urban forest (App. A and D).
RM	5A.6	Use Citywide tree inventory data and best available science for long-term planning and management of existing and future tree pests and diseases impacting Tacoma's urban forest (training obtained from Action 2C.8). Use results from 5D.4 to inform decisions on this Action.
CE	6F.8	Identify appropriate parks, rights-of-way, and other public spaces in Tacoma that feasibly can support healthy and safe fruit trees to support gleaning initiatives. Initiate feasibility study in supportive low-income neighborhoods in 2023, progressing to other supportive neighborhoods by 2025. Consider the use of vacant City lots and brown-fields for community-oriented orchards in supportive neighborhoods.
MP	1D.12	Update post-planting tree care requirements for City projects and developers. Use the Capacity and Training actions to achieve adequate staffing levels for evaluating projects and performance bonds.
CT	2E.9	Designate 9 FTEs by 2025, including existing staff and/or new hires, for Tacoma's urban forest. The intent of this cross-department team is to be an in-house resource for City Work Groups around urban forest management.
FA	3A.9	Quantify the ecosystem benefits and appropriate appraisal values of public trees to enable completion of cost-benefit analysis. Align this with Action with 4A.1, rotational 5-year public tree inventory.
IP	4E.9	Use the tree inventory data in private development as part of permit inspections for compliance.
CE	6E.9	Establish non-conventional partnerships that serve single and/or multiple Tacoma neighborhoods. All 8 neighborhoods should be supported.
CE	6A.10	Hold biannual tree-related stewardship events with neighborhood associations, councils, working groups, and districts in each of the 8 Tacoma neighborhoods. Use meetings to grow Grit City Tree and Tree Coupon programs and increase volunteer participation.
CE	6A.11	Recognize exemplary urban forest stewards and volunteers representing youth, residents and business owners. Consider a tree donation or tree fund framework for costs associated with this program.
CE	6A.12	Encourage and support sustainable urban forest planning and practices on all academic institutions through approval of an institution-specific Urban Forest Management Plan or adoption of this Plans relevant strategies and actions. Academic institutions should have a tree inventory by 2027 and be actively contributing to Tacoma's 30% tree canopy goal.
IP	4D.10	Conduct a high-resolution tree canopy assessment Citywide and by planning boundaries to track canopy gains and losses and to inform future tree plantings and preservation.

Target Year	Lead	Rank (Effort, Priority) (3 = highest)	Rank Total (E + P)	Co-Benefits	Composite Score
2022	ES, PDS	2,3	5 of 6	7 of 12	12 of 18
2022	ES, PDS, NCS, PWD	2,3	5 of 6	6 of 12	11 of 18
2022	ES, PWD, PDS, NCS	2,3	5 of 6	9 of 12	14 of 18
2022	ES, CMO	1,1	2 of 6	6 of 12	8 of 18
2022	ES, PWD	3,2	5 of 6	11 of 12	16 of 18
2022	NCS	3,2	5 of 6	11 of 12	16 of 18
2022	PWD	3,3	6 of 6	10 of 12	16 of 18
2023	PWD	1,1	2 of 6	6 of 12	8 of 18
2023	ES, PDS	3,2	5 of 6	9 of 12	14 of 18
2023	ES, ENPs	2,2	4 of 6	9 of 12	13 of 18
2023	ES	2,2	4 of 6	10 of 12	14 of 18
2023	PWD, ES, ENPs	3,2	5 of 6	8 of 12	13 of 18
2023	ES	2,2	4 of 6	10 of 12	14 of 18
2024	ES	3,2	5 of 6	5 of 12	10 of 18
2025	ES, PWD, PDS	3,2	5 of 6	12 of 12	17 of 18
2025	ES	1,2	3 of 6	6 of 12	9 of 18
2025	PDS	1,3	4 of 6	9 of 12	13 of 18
2025	ES, ENPs, PWD, CGs	2,3	5 of 6	10 of 12	15 of 18
2025	NCS, ENPs, CGs	2,3	5 of 6	10 of 12	15 of 18
2025	ENPs, CGs	1,1	2 of 6	6 of 12	8 of 18
2027	ENPs	2,2	4 of 6	5 of 12	9 of 18
2030	ES, IT	1,2	3 of 6	7 of 12	10 of 18

Urban Forest Action Plan Conclusion

Trees are an integral part of our community and the ecological systems in which they exist. They provide significant economic, social and ecological benefits, such as carbon sequestration, reduction of the urban heat island effect, energy savings, reduction of stormwater runoff, improvement of water quality, provide healing and calming qualities, and increase the value of business and residential properties. Planting and maintaining trees help Tacoma become more sustainable and reduce the negative impacts on the ecosystem from urban development. Trees are as necessary as water, infrastructure, and energy to sustaining healthy communities. The health of the urban forest is directly linked to the health of the Puget Sound.

Tacomans recognized this in 1924 when the City passed one of Washington State's first tree protection ordinances. In 2019, Tacoma once again demonstrated its commitment to long-term urban forest sustainability through the implementation of a nationally recognized discovery and audit system to develop this Urban Forest Action Plan, one of the first cities in the Puget Sound to conduct such an audit.

This Plan supports the City's Urban Forest Policy Element and a multitude of plans such as One Tacoma, Tacoma 2025, and the Climate Action Plan. The planning elements in Tacoma's Urban Forest Action Plan are based on outcomes of the audit system and in alignment with existing plans to allow the City to incrementally implement, effectively monitor progress, and efficiently adapt in an everchanging environment. Successful implementation of this Plan will bring Tacoma to a higher level of service that is equitably distributed across the City resulting in a sustainable and thriving urban forest that benefits all residents and future generations.

The vision for Tacoma's urban forest:

One Tacoma, One Canopy

Tacoma's trees and forests are recognized as integral to sustaining life and health for all City residents. A healthy, thriving, and sustainable urban forest is a community priority, to be thoughtfully managed and cared for by partnerships between the City and its residents to maximize public safety and benefits that include a thriving ecosystem, vibrant economy, and livable communities shared by all Tacomans.

Appendices

Appendix A. Establishing Tree Canopy Goals

Implementation:
Management Policy: Action 1E.2, Action 1D.1, Action 1D.10, Action 1F.11
Funding and Authority: Action 3D.7
Inventories and Plans: Action 4C.4, Action 4C.8, Action 4D.10
Community Engagement: Action 6D.5, Action 6A.10

The following information summarizes the recommended approaches to achieve Tacoma's tree canopy goals.

Table 1. Assumptions and outcomes of canopy goal and tree planting targets

Category	Assumption/Outcome
Tacoma Land Acres	31,607 acres
Existing Tree Canopy	20%
Canopy Goal	30%
Timeframe	10-year goal
Number of Trees	104,264 or 10,426 trees per year
Tree Size at Maturity	▪ Large tree at maturity with a 41-foot canopy spread (USFS PNW Community Tree Guide) ▪ 1,320.5 ft^2
Tree Mortality	▪ No mortality
Tree Replacement	▪ No-net-loss
Estimated Benefits of Future Trees	▪ 358,875,333 gallons of stormwater runoff prevented ▪ $2,871,420 stormwater savings ▪ 53,038,896 pounds of carbon sequestered ▪ 9,279,461 kilowatt hours saved ▪ $1,300,167 energy savings ▪ 320,714,853 kBtu in natural gas reductions ▪ $4,747,122 in natural gas savings ▪ **$8,918,709 Total Benefits**

Based on the total land area of Tacoma, the 30% tree canopy goal, and the recommendation to plant large-statured trees when possible, a total of 104,264 trees are needed over a 10-year timeframe. This assumes the City establishes a no-net-loss policy—replacing trees that are removed—and proper post-planting care and routine maintenance is conducted. If the City achieves this target of 30% tree canopy, it is estimated that these new trees would provide nearly $9 million in additional annual benefits at maturity.

Table 2. Recommended tree canopy cover goals by NBD using the 2009/2011 assessment.

Neighborhood Business District (NBD)	Percentage of Right-of-Way (ROW) in NBD	Actual NBD Cover	NBD Cover Needed	Actual NBD ROW Cover	NBD ROW Cover Needed
Portland Avenue	42.2%	2.4%	12.6%	0%	30%
South Tacoma	39.7%	0%	15%	0%	30%
Stadium	49.6%	4.9%	10.1%	4.5%	25.5%
6th Ave	41.3%	2.1%	12.9%	2.3%	27.7%
Proctor	41.2%	4%	11%	7.3%	22.7%
Oakland/Madrona	41.3%	7.1%	7.9%	0.2%	29.8%
Fern Hill	34.4%	7.3%	7.7%	2.8%	27.2%
Lincoln	37.7%	0%	15%	0%	30%
McKinley	48.1%	1.1%	13.9%	1.2%	28.8%
Narrows	43.9%	3.3%	11.7%	2.7%	27.3%
Dome	36.1%	1.9%	13.1%	1.8%	28.2%
Hilltop	43%	0.9%	14.1%	1.1%	28.9%
Ruston/Pt. Defiance	41.2%	2.6%	12.4%	0%	30%
Old Town	44.8%	2.8%	12.2%	1.2%	28.8%
Pacific	40.7%	3.4%	11.6%	0.9%	29.1%

Table 3. Updated canopy cover and goals by land use using the 2018 tree canopy analysis

Land Use	Land Area (Acres)	Actual Tree Cover %	Vegetative Planting Area %	Goal Cover	# of Trees by 2030
Crossroads Mixed-Use Center	642	12%	9%	15%	635
Downtown Reg'l Growth Center	978	7%	6%	10%	968
General Commercial	817	7%	6%	10%	809
Heavy Industrial	4,002	4%	6%	6%	2,640
Light Industrial	538	6%	7%	10%	710
Major Institutional Campus	626	10%	11%	15%	1,033
Multi-Family (High Density)	389	14%	14%	20%	770
Multi-Family (Low Density)	1,478	15%	12%	20%	2,438
Neighborhood Commercial	597	10%	7%	15%	985
Neighborhood Mixed-Use Center	386	9%	6%	12%	382
Parks and Open Space	4,965	56%	16%	70%	22,930
Shoreline	1,014	21%	11%	28%	2,341
Single Family Residential	14,496	17%	16%	30%	62,164
Tacoma Mall Reg'l Growth Center	483	10%	7%	15%	797
TOTAL TREES					**99,602**
Total Trees to Achieve Land Use Canopy Goals					104,264
Remaining Trees Needed					4,662
Assumption	*Existing tree canopy growth to account for difference*				

Figure 1. 2018 tree canopy cover

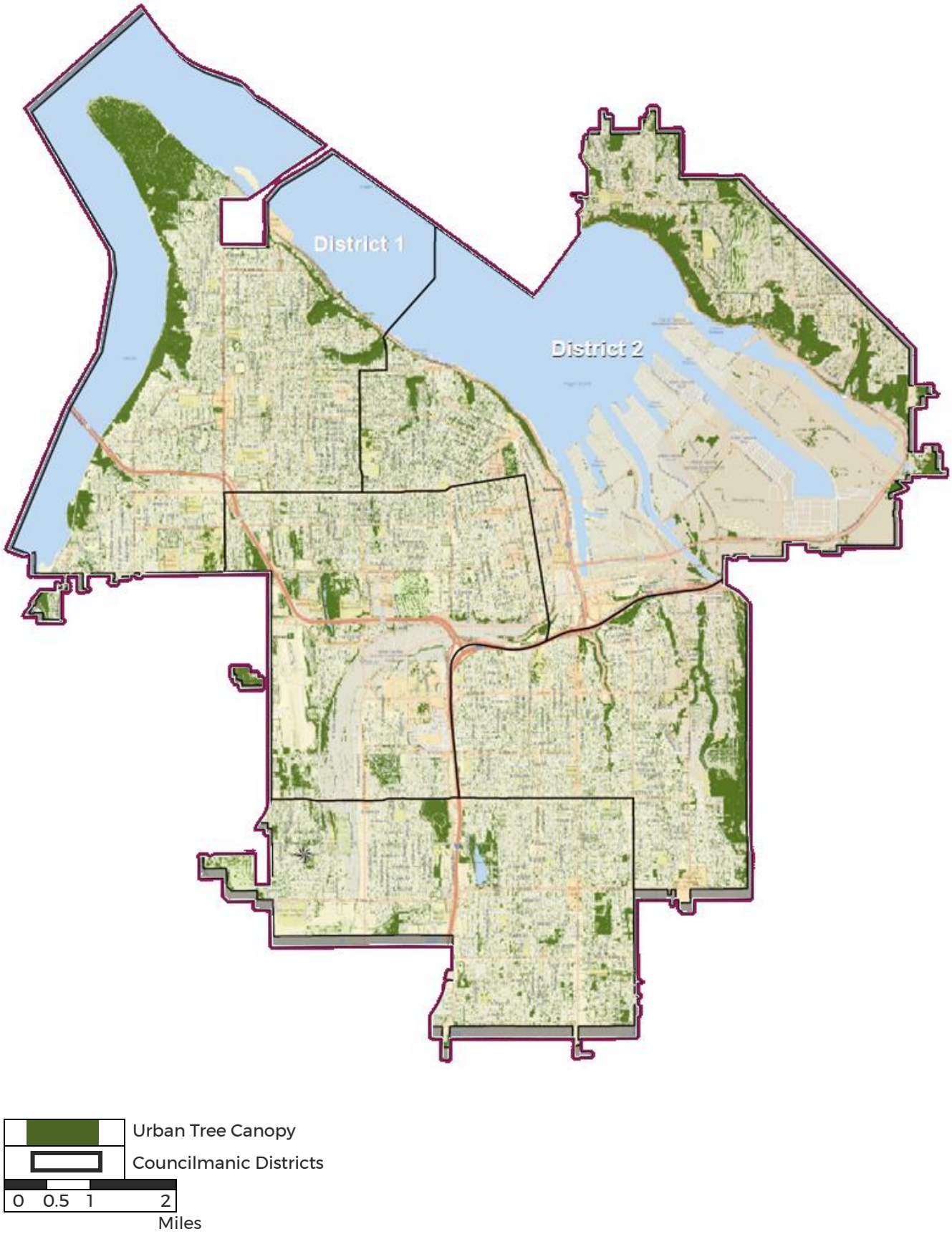
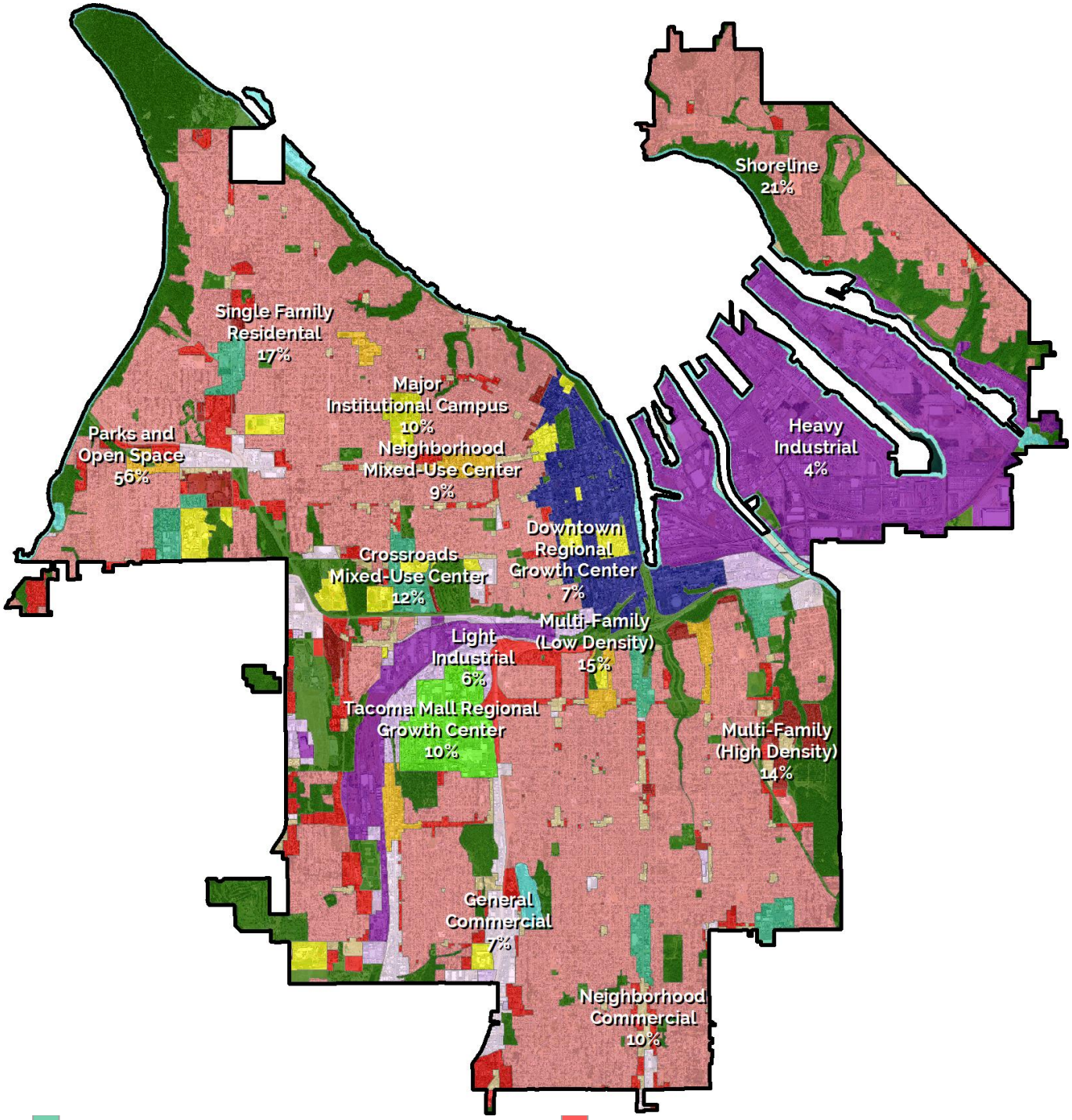


Figure 2. 2018 land use classifications



- Crossroads Mixed-Use Center
- Downtown Regional Growth Center
- General Commercial
- Heavy Industrial
- Light Industrial
- Major Institutional Campus
- Multi-Family (High Density)
- Multi-Family (Low Density)
- Single Family Residental
- Neighborhood Commercial
- Neighborhood Mixed-Use Center
- Parks and Open Space
- Shoreline
- Tacoma Mall Regional Growth Center

Figure 3. Tree canopy cover of Census Block Groups with less than half the median Washington household income

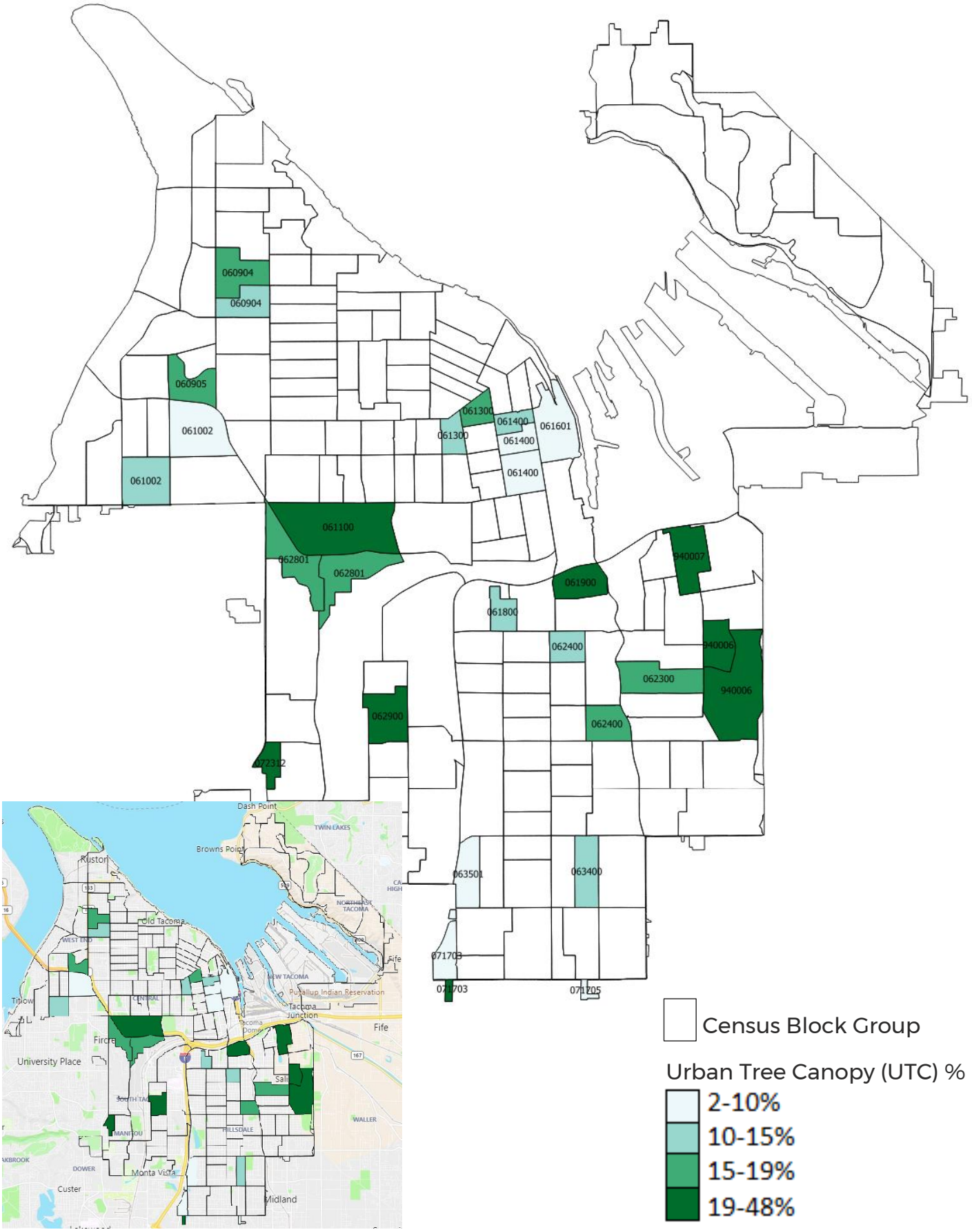
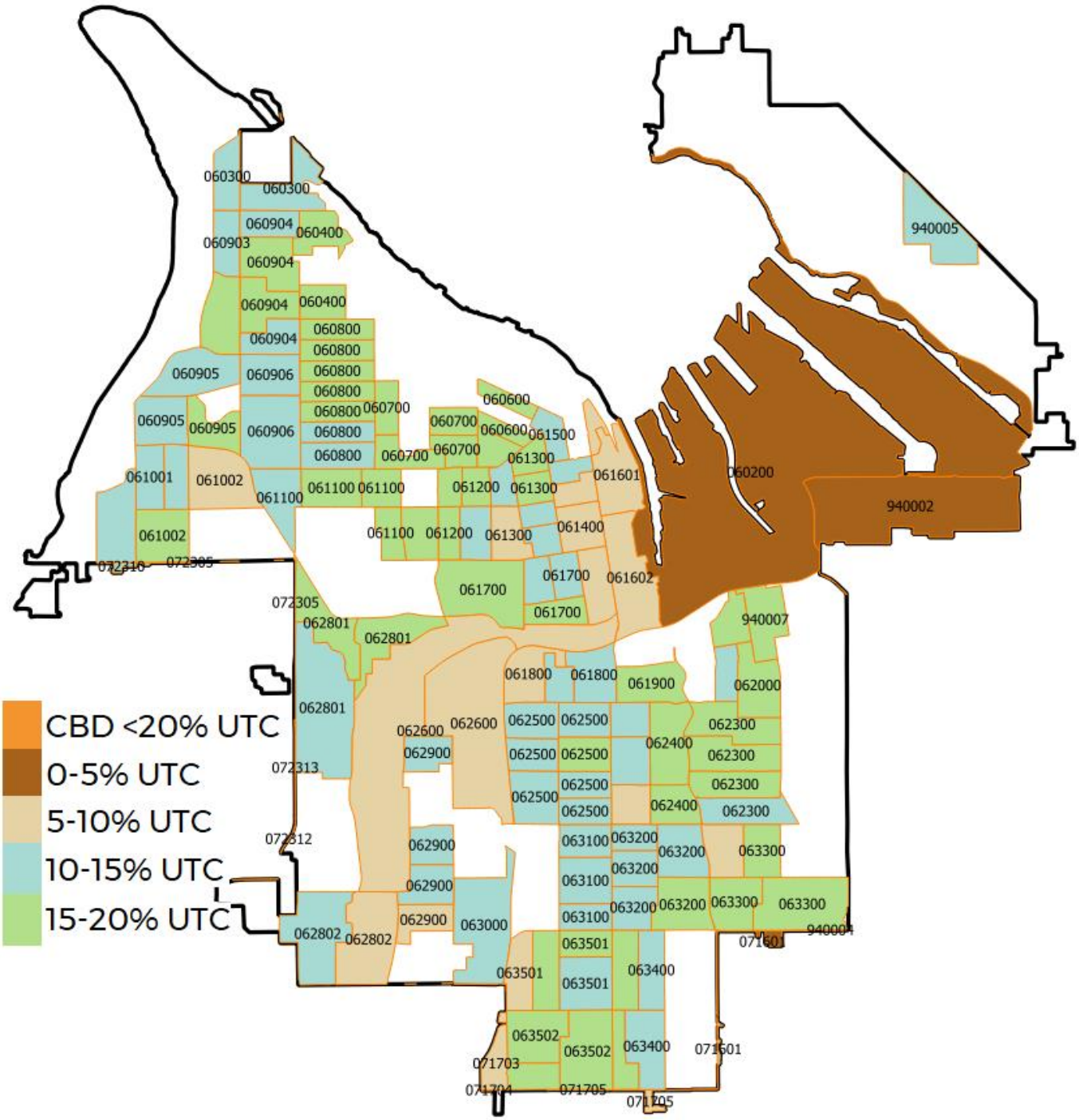


Table 4. Tree canopy metrics and suggested goals for Census Block Groups with less than half the median WA household income of $70,979

CBG ID	Area (ac)	Actual Tree Cover %	Vegetative Planting Area %	Goal Cover	# of Trees by 2030
71704	0.6	2%	0%	2%	0
61601	188.0	6%	4%	8%	124
61400	63.7	7%	5%	10%	63
63501	112.6	8%	8%	12%	149
61002	214.1	8%	7%	12%	283
71703	77.3	10%	9%	15%	127
61400	114.5	10%	8%	15%	189
71705	14.3	10%	4%	12%	9
63400	119.5	11%	10%	15%	158
61800	68.3	12%	12%	20%	180
60904	100.2	13%	9%	18%	165
61400	50.6	14%	9%	18%	67
61300	60.0	14%	13%	20%	119
62400	77.2	15%	13%	20%	127
60905	114.0	15%	10%	20%	188
61002	157.7	16%	13%	20%	208
62801	166.5	16%	12%	20%	220
61300	58.9	16%	12%	20%	78
62300	164.1	17%	20%	22%	271
62400	105.3	17%	17%	25%	278
60904	137.2	18%	14%	22%	181
62801	166.7	19%	11%	25%	330
940007	145.1	19%	16%	25%	287
61900	108.9	21%	11%	26%	180
72312	55.5	24%	11%	30%	110
61100	392.2	29%	13%	35%	776
71703	12.8	29%	15%	35%	25
62900	145.4	32%	21%	40%	384
940006	99.5	39%	14%	45%	197
940006	349.8	48%	16%	55%	808
TOTAL TREES					**6,281**

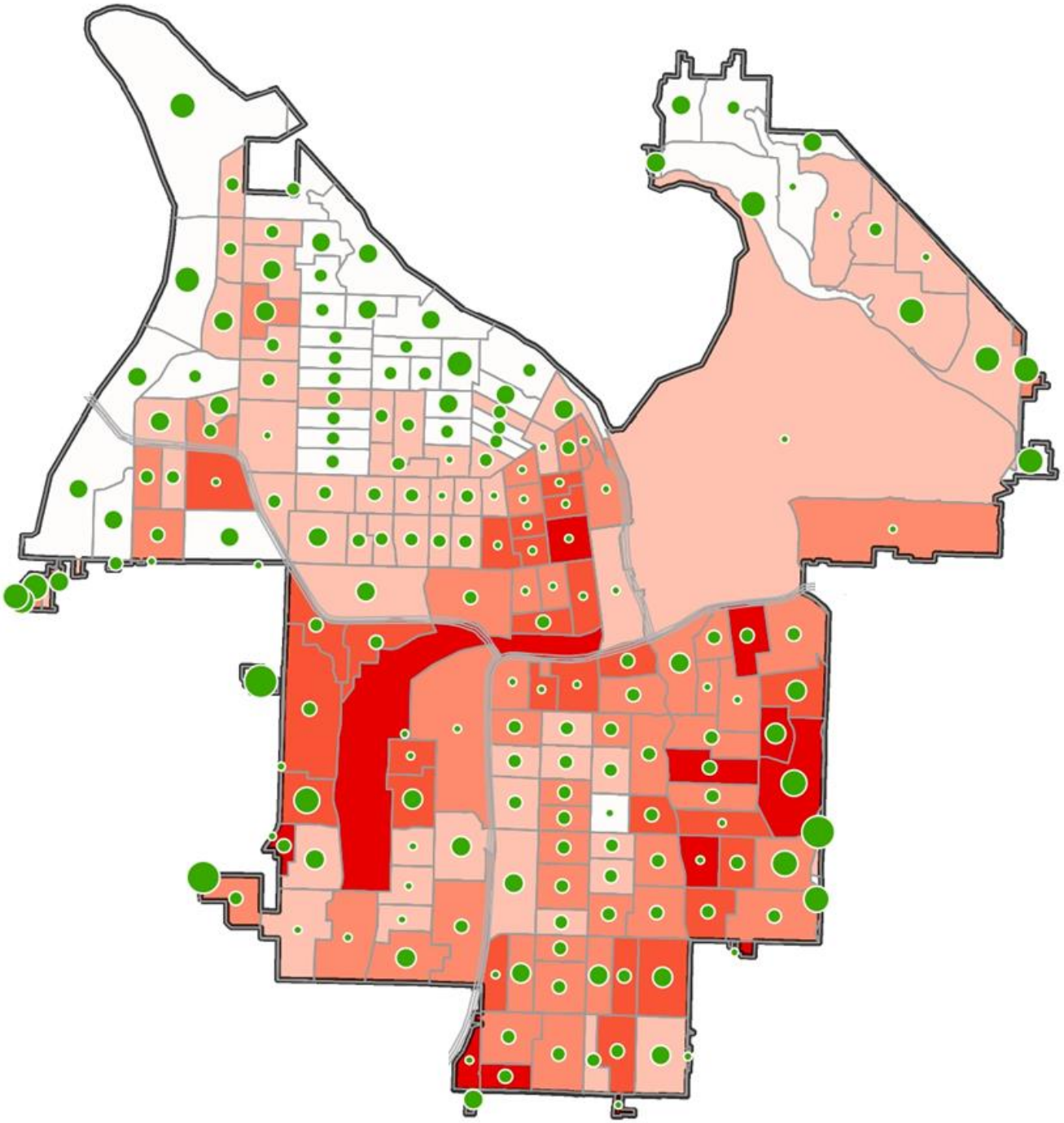
Assumptions/Outcomes	
Tacoma Land Acres	31,607 acres
Existing Tree Canopy	20%
Canopy Goal	30%
Timeframe	10-year goal
Total Number of Trees	104,264 or 10,426 trees per year
Tree Size at Maturity	▪ Large tree at maturity with a 41-foot canopy spread (USFS PNW Community Tree Guide) ▪ 1,320.5 ft^2
Tree Mortality	▪ No mortality
Tree Replacement	▪ No-net-loss

Figure 4. Census Block Groups with less than the Citywide tree cover of 20% (139 CBGs)



139 Census Block Groups have less than 20% tree canopy cover

Figure 5. Tree planting priority areas based on canopy cover and demographic data.



Communities of Color and Income Weighted Scale

- 2 – 3
- 4 – 6
- 7 – 8
- 9
- 10

Percent 2009 Tree Cover by Block Group

- 2.9% – 15.4%
- 15.5% - 26.0%
- 26.1% - 41.2%
- 41.3% - 66.1%
- 66.2% - 97.6%

Original Map Created By:
Community & Economic Development Department
GIS Analysis & Data Services, 2016

0 0.25 0.5 1 1.5 2 Miles

NOTE: This map is for reference only.

Tacoma

Unimproved Right-of-Way Canopy Improvement Project

Programming public space for cross-functional and co-beneficial usage is important in urban places like Tacoma. For land use programming to influence canopy cover and the effects of climate change, stewardship of non-traditional open spaces must be encouraged. The *Unimproved Right-of-Way Canopy Improvement Project* aims at intelligently utilizing right-of-way to increase Citywide tree canopy.

Unimproved right-of-way (UROW) are areas platted for alleys, streets, and other transportation corridors, which are currently unpaved and potentially ungraded. UROW boundaries require geospatial identification as they often appear adjacent to private property and could be inaccessible due to shrubs.

These places are scattered throughout the City and may provide opportunities for Tacoma to create public green spaces or enhance the Citywide tree canopy rating. Community members can provide basic stewardship of unimproved ROW, including invasive species removal, tree planting and after care. Unimproved ROWs are often inundated with noxious and invasive plants, including Scotch broom, reed canary grass, English holly and English Ivy.

It should be noted that while the removal of noxious and invasive species, or the removal of trash and litter, are important for all land use designations including UROW, the goal of this land use characterization and prioritization is specifically to plant site-appropriate trees based on the City's Urban Forestry Program's approved tree species list. This policy could help the City reach its comprehensive plan goal of 30% canopy cover by 2030.

UROW spatial extent characterization

- Identify public right-of-way space in the City.
- Map locations of vegetative cover and pervious surface/soil through NDVI and LiDAR technology.
- Land identified in this manner must be vetted by Department of Community Economic Development to verify its infeasibility and inappropriateness for development.

Note: All unimproved right-of-way selected for canopy improvement should have no feasible or appropriate land use actions available to it. If land identified as UROW can realistically be developed, it does not meet the threshold for the Unimproved Right-of-Way Canopy Improvement Project.

Prioritization for UROW tree installations

1) Areas adjacent to City and State highway infrastructure.
2) Areas within historically low canopy.
3) Neighborhoods with relative lower opportunity as identified on the Tacoma Equity Index Map.
4) Areas within Tacoma Shoreline Management Program jurisdiction.
5) Areas within environmentally sensitive areas/critical areas.

Threshold for Plan Implementation

The Unimproved Right-of-Way Canopy Improvement Project will be measured by performance standards related to feasibility, significance and effectiveness.

Feasible:
Project is feasible if unimproved right-of-way land is determined to exist within the City of Tacoma using the characterization above.

Significant:
Project is Significant if the amount of land identified as unimproved right-of-way is:

1) capable of supporting trees, and
2) the total amount of land capable of supporting trees accumulates to a potential 0.5% increase in the City's current tree canopy coverage.

Effective:
Project is effective if expenditures remain controlled and focused on trees purchased, volunteer coordination, and well-planned implementation. Tree maintenance and tree risk management would not necessarily be budgeted into this policy. Appropriate land use programming and planned tree planting will reduce and avoid potential need for risk management.

Notes

- Tacoma's ROW Restoration Policy 2017 includes no comment on trees in developed or undeveloped ROWs.

Appendix B. Hazard Tree Cost-Share Program

The following is an example that can be referenced for implementing the Management Policy **Action Item 1B.3**.

EXAMPLE ONLY

The hazard tree cost-share program is a voluntary cost-share program designed to assist homeowners with street tree removal and replacement. A street tree is any tree that is located in the public right-of-way easement (utility strip) between the street and sidewalk. Homeowners can qualify to receive matching funds for tree removal, stump grinding and new tree installation by submitting two written estimates from the enclosed list of participating vendors. The reimbursement amount is based upon the lower of the two estimates and is fifty percent (50%) of the total cost.

Homeowners are required to maintain street trees in front of their homes. This program is intended to help the homeowner comply with the street tree ordinance through financial assistance. If a street tree becomes extremely hazardous, it could result in a civil citation for the homeowner. This program is conducted on a first-come, first-served basis as long as matching funds are available. Reimbursement checks will be processed starting after MONTH, DAY, YEAR.

Recommended Deadlines:

MONTH, DAY, YEAR

Mail or hand-deliver: a signed application form. Two (2) written estimates from the enclosed list of participating vendors.

MONTH, DAY, YEAR

All work must be completed: tree removal, stump grinding and new tree installation. Mail or hand-deliver receipt(s) for all completed work. Reimbursement checks will be processed in four to six weeks.

Only homeowners who provide complete estimates for tree removal, stump grinding and new tree installation will be considered. The Urban Forestry Program office will promptly send a written authorization to proceed with the work upon receipt of the signed application form and two (2) written estimates.

Contact the ### Department with any additional questions about the program at (###) ###-####.

Recommended Application:

APPLICATION FORM HAZARD STREET TREE (COST-SHARE) PROGRAM

DATE:

I(we), the property owner(s) of (street address + zip code) wish to participate in the Hazard Street Tree (Cost-Share) Program.

Please return or hand-deliver a signed application form and copies of the two (2) written estimates from the enclosed list of participating vendors by MONTH, DAY, YEAR to the address below. Please make copies for your records. Deadline for the completion of all work is MONTH, DAY, YEAR which must include tree removal, stump grinding and tree planting. Please submit a copy of your paid invoice/receipt for payment processing. Please call (###) ###-#### if you are asking for assistance with five (5) or more street tree removals. The property owner is responsible for the selection, management and payment of all contractors and suppliers and abides by the program's guidelines. The City of XXXX does not recommend nor endorse contractors and suppliers of goods and services. Funds for this program are limited. This is a first-come, first-served basis program.

PLEASE WAIT FOR A RETURN PHONE CALL OR LETTER OF APPROVAL PRIOR TO AUTHORIZING WORK TO

BEGIN.

SIGNED:

PROPERTY OWNER(S)

HOME PHONE:

WORK PHONE:

Please mail the completed form and estimates to:

DEPARTMENT, ADDRESS, CITY, STATE, ZIPCODE

EMAIL:

Guidelines for the Hazard Street Tree Cost-Share Program:

The CITY has established a Hazard Street Tree Cost-Share and Grant Program for property owners throughout the PRIORITY AREAS to remove and replace street trees that pose a threat to public safety. This is a voluntary program that provides financial assistance to residential property owners for street tree removal, including stump grinding and new street tree installation, in ACCORDANCE WITH MUNICIPAL CODE CHAPTER ##, ORDINANCE ##. The intent of these guidelines is to establish a fair and objective method to govern the award and use of funds budgeted for the Hazard Street Tree Cost-Share and Grant Program.

Eligible Properties

Only owner-occupied residential properties within the USA are eligible for participation.

Program Guidelines

1. This program provides matching monies to reimburse property owners 50% of the total cost of removal of hazardous street trees, stump grinding and replacement of the street tree being removed. In order to qualify for this program, the cost of the work being done cannot be subsidized by any other federal, state or CITY grant program.

2. Reimbursement amounts are based upon the lower of two (2) estimates.

3. Eligible property owners must have at least one hazardous street tree, as determined by the Urban Forester or his/her designee, abutting their property. If funds are available, property owners may replace more than one street tree.

4. Qualifying vendors must submit written documentation to the Urban Forester and agree to adhere to the specifications for tree removal and planting as provided by the Urban Forester. Vendors must provide a one-year guarantee on any replacement tree. The Urban Forester reserves the right to disqualify vendors based upon their prior non-compliance with the specifications of this program.

5. Property owner participation is strictly voluntary, and funding is limited to a first-come, first-served basis.

6. Property owners must replant with a tree at least XXXX inches in caliper, as required by Chapter XXXX. Property owners may replant a larger caliper tree, but reimbursement will be limited to a maximum of the cost of a two and a half-inch caliper tree.

7. The planting of a replacement tree in a location outside the area of the public right-of-way easement may be allowed, but only with prior approval by the Urban Forester or his/her designee.

8. Property owners who wish to perform the work themselves must submit two (2) complete sets of estimates from qualified vendors. The reimbursement will be based upon the lower of the two (2) estimates.

The Process

1. Any interested property owner should contact the Urban Forestry Program to receive program information, an application and to arrange for an on-site inspection. The Urban Forestry Program is located in the XXXXX, ADDRESS, CITY, STATE, ZIPCODE. The phone number is ###-###-####.

2. An eligible property owner shall receive a written acknowledgement of eligibility from the Urban Forestry Program.

3. The property owner shall submit the signed acknowledgement and copies of two (2) written estimates, including the scope of work to be completed, from two (2) separate vendors.

4. Following receipt of the signed acknowledgement and estimates, the Urban Forester or his designee shall provide the homeowner with a written approval to proceed. The written approval shall include a date by which the work must be completed and a date by which all paperwork must be submitted. The property owner can then contact either of the vendors from whom they received estimates and arrange to have the work completed; however, reimbursement will be based on the lower of the two (2) estimates. If the property owner fails to complete the work or submit the paperwork by the deadline dates, the funding may be reallocated to another property owner.

5. Upon completion of work by the vendor, the property owner shall submit a notice of work completed and a copy of the paid invoice (or unpaid invoice in the case of an income qualified property owner) to the Urban Forester, who shall then inspect the site for satisfactory performance as outlined in the vendor specifications.

6. Upon approval of the completed work by the Urban Forester, the request for reimbursement shall be processed. Processing of the reimbursement request can take six to eight weeks.

7. The property owner is solely responsible for managing the project, obtaining all necessary approvals and permits and paying all vendors.

Income Eligibility Qualifications for One Hundred Percent Grants

1. A qualified property owner means any person owning and occupying a residential property who meets the assets test and has an annual income equal to or less than one hundred twenty-five percent (125%) of the poverty guidelines chart established by the Community Services Administration, annually published in the Federal Register, in effect at the time of application. However, income itself shall be measured by the definition contained in subsection (2) of this section. Any person having a beneficial interest in benefited property may qualify for the Hazard Street Tree Cost-Share and Grant Program

2. Income means the total cash receipts to the residential property owner and spouse after taxes from all sources. These sources include money, wages and salaries after any deductions required by law, but not including food or rent in lieu of wages. They include receipts from self-employment or from one's own farm or business after deductions for business or farm expenses. They include regular payments from public assistance, social security, unemployment and workmen's compensation, strike benefits from union funds, veterans benefits, training stipends, alimony and military family allotments or other regular support from an absent family member or someone not living in the household; government employee pensions, private pensions and regular insurance or annuity payments; and income from dividends, interest, rents, royalties or income from estates and trusts. For eligibility purposes, income does not refer to the following money receipts: any assets drawn down as withdrawals from a bank, sale of property, house or car, tax refunds, gifts, one-time insurance payments or compensation for injury; also to be disregarded is noncash income, such as the bonus value of food and fuel produced and consumed on farms and the imputed value of rent from owner occupied farm or nonfarm housing.

3. Assets test means that any person having assets in excess of either:

a. Five thousand dollars ($5,000.00) in liquid assets such as bank accounts, savings, certificates of deposits, stocks bonds, etc; or

b. Five thousand dollars ($5,000.00) in equity in assessed value of nonhomestead property.

c. Shall be ineligible to participate in the Hazard Street Tree Cost-Share and Grant Program for a one hundred percent (100%) grant, notwithstanding that he meets the income level qualifications set forth in this section. However, motor vehicles for personal use, household furnishing and the benefited property itself, as well as buildings located thereon, shall not be included in computing assets.

4. Qualified owners may receive a grant for one hundred percent (100%) of the reasonable cost of removal and replacement of hazardous street trees. Those who are not income qualified may receive a grant for fifty percent (50%) of the reasonable cost of removal and replacement.

5. Twenty-five percent (25%) of the funds appropriated for the Hazardous Street Tree Cost-Share and Grant Program shall be made available for grants to qualified property owners with the remainder of the appropriated funds available for grants to all other property owners. The commissioners of the departments of streets and roads and social services shall be responsible for administration of the program consistent with all provisions of these Guidelines.

INCLUDE VENDOR SPECIFICATIONS FOLLOWING THIS DESCRIPTION

Appendix C. In-House Arborist Crew Guidance

The following provides an overview of the budget enhancement and framework for proposing the in-house arborist crew.

Implementation:
Capacity and Training: Action 2D.2, Action 2A.3, Action 2A.4
Funding and Authority: Action 3A.2

Recommended Right-of-Way Tree Maintenance Budget Enhancement

Table 5. Proposed budget enhancement to facilitate ROW tree maintenance

Position/Item	Notes	Annual Cost (Biennium Cost)
Administrative	• Hiring & supervisory	$30,000
Lead ROW Arborist Equipment Operator 1*	• ISA Certified Arborist at time of hire • TRAQ within 6 months of hire • $33.74/hr + 35% Benefit Package	$94,742 ($189,484)
Tree Technician Grounds Maintenance Worker 1*	• ISA Certified Arborist or TCIA Certified Tree Care preferred • $26.13/hr + 35% Benefit Package	$73,373 ($146,746)
Seasonal Tree Worker Seasonal O&M*	• ISA/TCIA Certifications recommended • $14.11/hr + 35% Benefit Package	$19,810 ($39,621)
Municipal Forestry Truck	• Altec 12 Yard w/ 40 foot lift • Lease from vendor (through Tacoma Fleet Management)	$17,064 ($34,128)
Woodchipper	• Bandit 6 inch chipper • Lease from vendor (through Tacoma Fleet Management) • Includes insurance & gas through TFM	$7,221 ($14,442)
Parking	• Assumed parking is through currently owned City location and does not accumulate cost.	$0.00
Annual Training	• Annual PNW ISA or TCIA Conference or two CEU classes (For Lead ROW Arborist Only)	$1,275 ($2,550)
Equipment Maintenance	• Maintenance	$1,000
Equipment Purchase	• One-time purchase	$4,500
	TOTAL ANNUAL COST **TOTAL ENHANCEMENT COST (2-years)**	**$218,985** **$463,470**

*Note: Wages are taken directly from City of Tacoma's Human Resources website. Exact wages for Equipment Operator 1, Ground Maintenance Worker 1, and seasonal labor may be different. 35% was added to each wage salary to represent benefits and insurance.

Table 6. Estimated 2020 per capita expenditures if Tacoma accepts budget enhancement

Rank	City	2018 Population	2018 U&CF Total Budget	*Recommended Budget Enhancement*	2018 Per Capita
1	Bellevue	139,014	$7,287,080		$52.42
2	Longview	36,740	$858,720		$23.37
3	Olympia	49,928	$914,740		$18.32
4	Kirkland	86,772	$1,568,690		$18.08
5	Renton	99,692	$1,771,581		$17.77
6	Seattle	724,764	$10,168,821		$14.03
7	Redmond	60,712	$679,079		$11.19
8	Vancouver	171,393	$1,524,385		$8.89
9	***Tacoma***	***207,280***	***$1,609,909***	***248,985***	***$8.83***
10	Bellingham	85,388	$672,118		$7.87
11	Spokane	212,982	$894,620		$4.20

Given the ROW Tree Maintenance Budget Enhancement, Tacoma would elevate spending to ninth rank per capita across the State.

Street Tree Maintenance Regime

The above Urban Forest budget enables the City to meet the goals of community members, stakeholders, and City staff—supported by the Infrastructure, Planning, and Sustainability subcommittee to City Council. This budget will be used to hire, lease machinery, purchase equipment, and supervise a team of 2.5 full-time employee (FTE) staff performing right-of-way tree care on critical and under-maintained street trees in Tacoma.

Pruning should be performed on a rotation of 5-7 years. TreePlotter, Tacoma's tree asset management software, should be used as the primary instrument in prioritizing trees, locating and identifying trees, and tracking maintenance and performance.

Street Tree Maintenance Objectives:

- Maintain tree health and safety through routine inspection and pruning of street trees in prescribed neighborhoods and street corridors.
- Maintenance will include American National Standard Institute (ANSI) A300 standard pruning practices.
- Removal of high-risk tree parts and whole trees, of small to moderate sized trees.
    - Large trees will likely continue to be contracted out to specialized tree services.

Table 7. Street tree maintenance regime outline

Type	Street tree pruning, risk identification and mitigation of prescribed and prioritized street tree corridors. May include occasional tree mulching and irrigation.
Who	Public Works > Right-of-Way Tree Care Crew
Intensity	Prune as needed to reach outlined Objectives.
Frequency	5 to 7-year pruning routine.
Duration	Tree installation through tree removal.
Extent	ANSI A300 specified pruning specifically to reduce long-term structural defects/features. To include structural pruning, removal of dead, diseased and decaying branches, redundant leader subordination, and clearance pruning for pedestrians, vehicles, transportation signs, and streetlights.

Appendix D. Right-of-Way Tree Maintenance

This Urban Forest Action Plan recommends the City share the responsibility of street tree maintenance with its residents. Based on multiple data layers, benchmarking research, community feedback, and City staff interviews, the following recommendations are provided.

Implementation:
Management Policy: Action 1B.3
Funding and Authority: Action 3B.4, Action 3D.8
Inventories and Plans: Action 4A. 1, Action 4A.2
Risk and Disaster Management: Action 5A.1, Action 5A.3, Action 5B.5

Recommended Priority Tree Maintenance Corridors

The following maps and information provide an overview of the potential priority maintenance corridors recommended as part of this Urban Forest Action Plan. Final corridors will be approved by implementing Action 3B.3. The maintenance corridors are based on an analysis of data layers and indicators including the Tacoma Equity Index, the 2018 tree canopy assessment, U.S. Census Bureau's demographic data, and Tacoma's tree inventory database.

It is estimated that the City has over 46,000 public trees, many of which are in the public rights-of-way along streets. Currently, in most cases, it is the adjacent property owner's responsibility to maintain the trees. A permit system is in place for the planting, maintenance, and removal of trees in this public area. By implementing the actions in this Plan such as the budget enhancement request and the assessment of levels of service, an in-house arborist crew can be established for the City to acquire responsibility of tree maintenance in priority corridors.

Based on the Tacoma Equity Index, Census Block Groups (CBG) were identified that were low in opportunity. For more information on the Equity Index visit cityoftacoma.org/equityindex. Using the 2018 tree canopy assessment, CBGs that have a high existing tree canopy percent were overlaid with the low opportunity CBGs. In addition, the City's existing tree inventory data points were included to determine the potential density of street trees. Lastly, the streets were added to the analysis to develop a composite map of priority neighborhoods, CBGs, and roadways. A total of 14 roadway segments were identified that primarily transect the priority neighborhoods and CBGs.

This task addresses and supports the environmental justice and equity goals of this Urban Forest Action Plan. The following provides a series of maps and summaries to be utilized in the implementation of the Funding and Authority Action 3B.4 and supporting actions.

Figure 6. Map of “Low Equity” Census Block Groups and tree canopy percentages within Tacoma neighborhoods

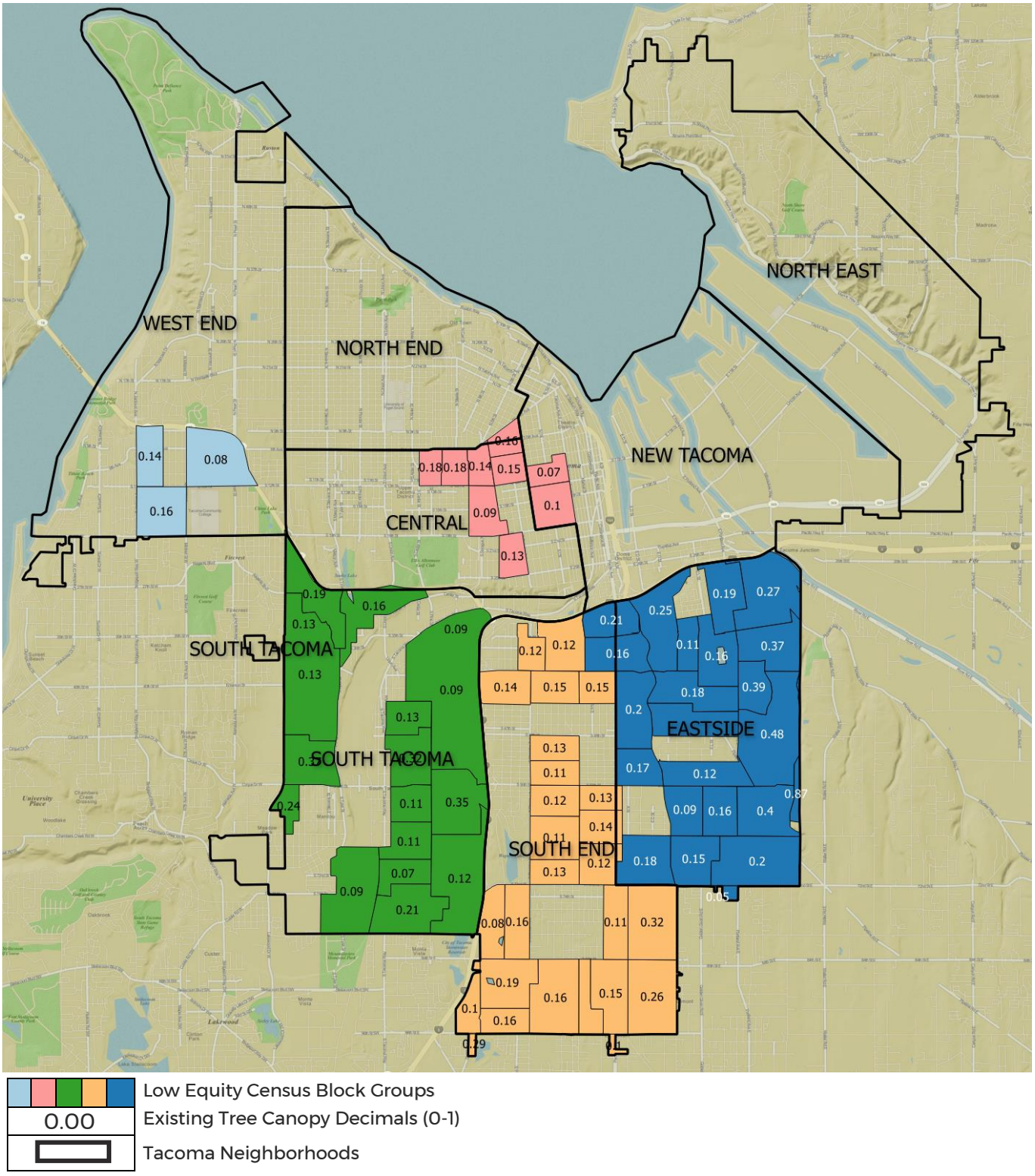
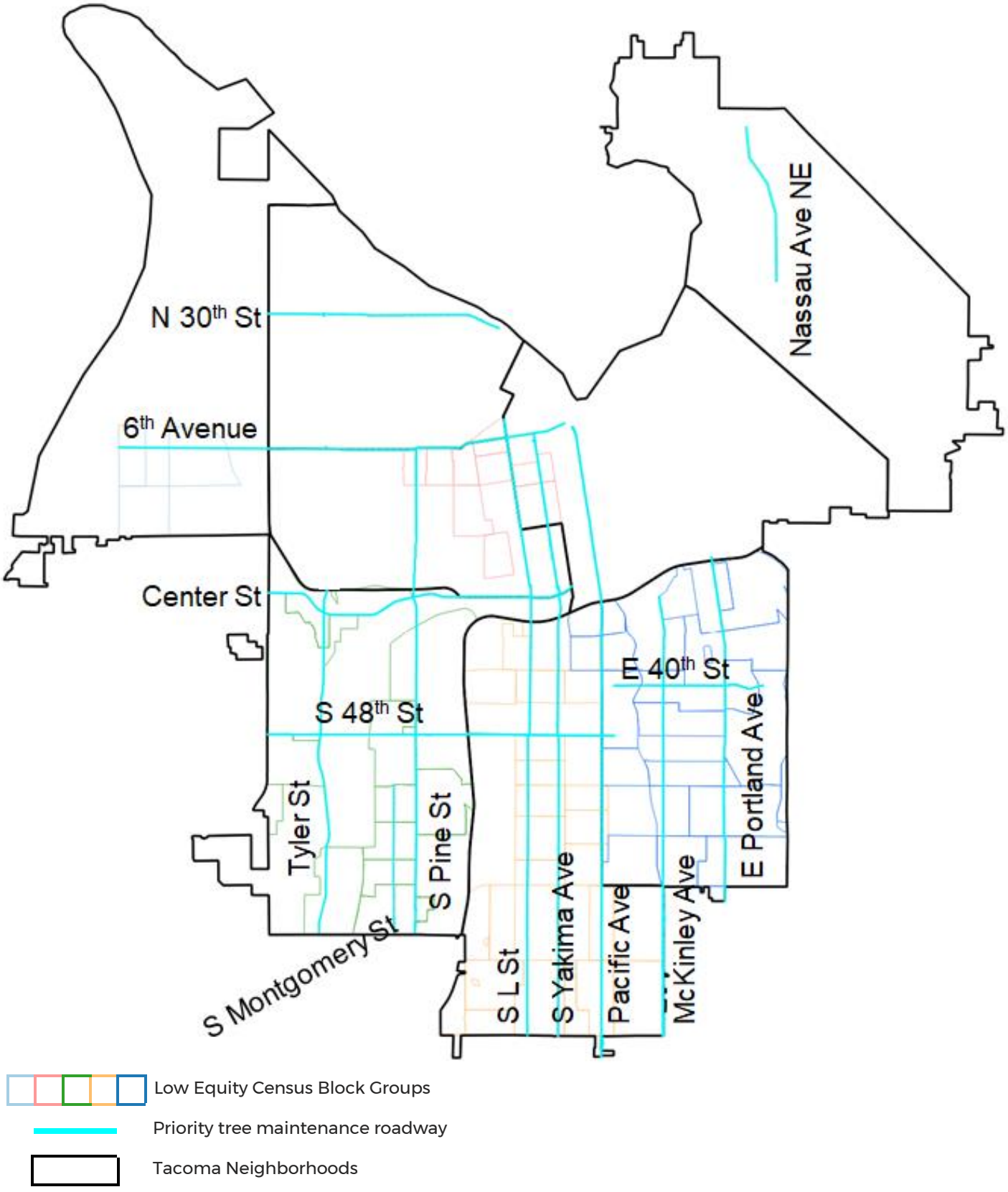


Figure 7. Map of proposed roadways for City street tree maintenance

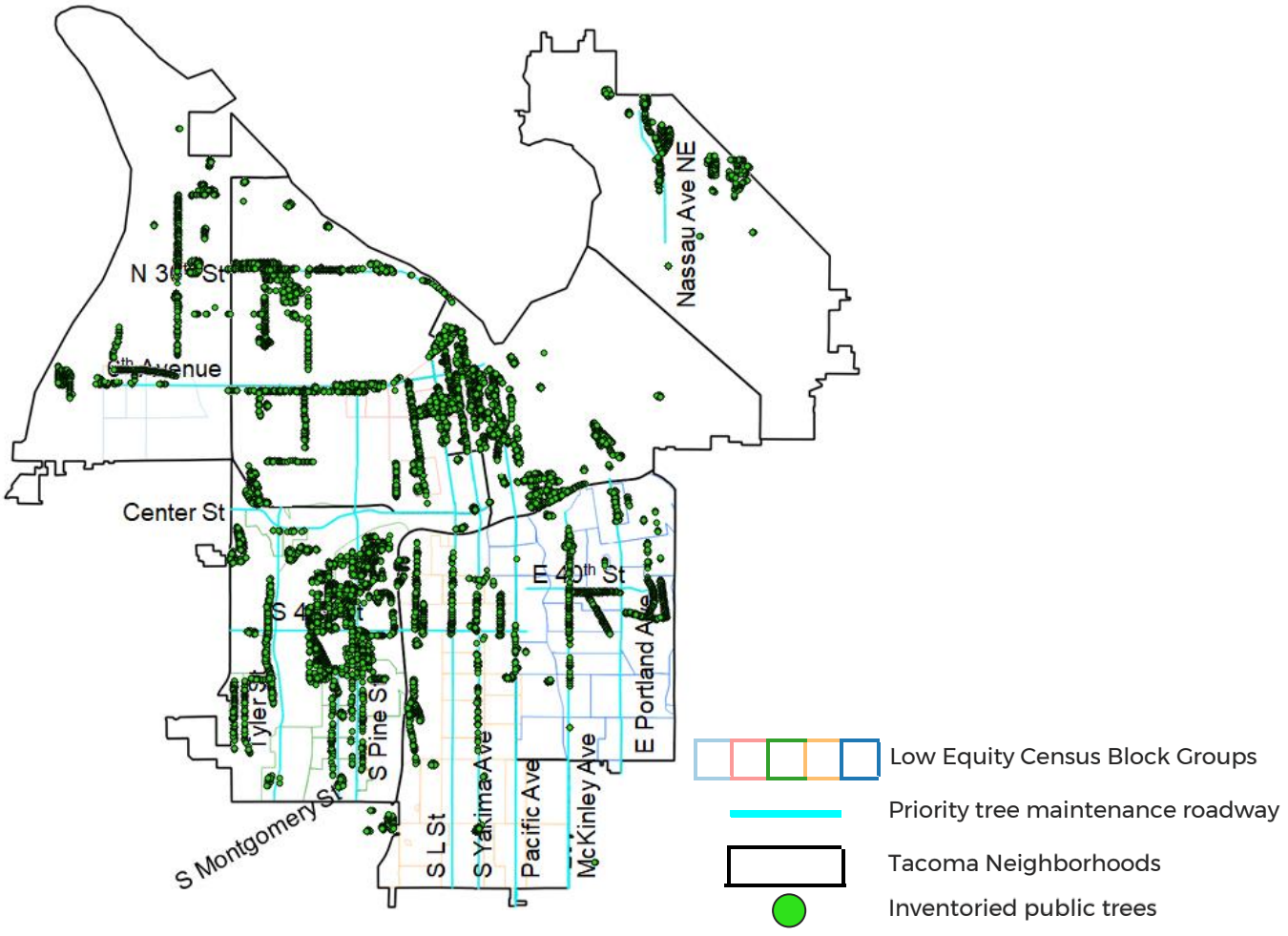


The following table provides a summary of the recommended priority maintenance corridors (roadways) based on the Tacoma Equity Index, existing tree canopy cover, and tree inventory data. Census Block Groups that have a lower opportunity were selected from the Equity Index and aligned with data informing the density of existing trees along roadways.

Table 8. Estimated tree counts for priority maintenance corridors by neighborhood

Priority Neighborhood	Roadway	Extent	Estimated Trees
South Tacoma	S Tyler St	South 74th St to SR 16 Hwy W	400 trees
South Tacoma	Center St	S Orchard to South Pine St	100 trees
South Tacoma	S Pine St	S 80th St to S Tacoma Way	400 trees
South Tacoma	S Montgomery St	S 77th St to S 56th St	120 trees
South Tacoma	S 48th St	S Tacoma Way to I5 Hwy N	100 trees
South End	Yakima Ave	S 96th St to S 48th St	400 trees
South End	S L St	S 96th St to S 35th St	300 trees
South End	Pacific Ave	S 99th St to S 56th St	300 trees
East Side	McKinley Ave	E 72nd St to Upper Park St	500 trees
East Side	E 40th St	Pacific Ave to Portland Ave E	175 trees
East Side	E Portland Ave	74th St C E to I5 Hwy N	500 trees
West End	6th Ave	Bridgeport Way W to S Stadium Way	300 trees
North End	N 30th St	N Pearl St to N Schuster Pkwy	350 trees
North East	Nassau Ave NE	Browns Point Blvd NE to Northshore Pkwy	150 trees
Total Tree Estimate			**~4,000 trees**

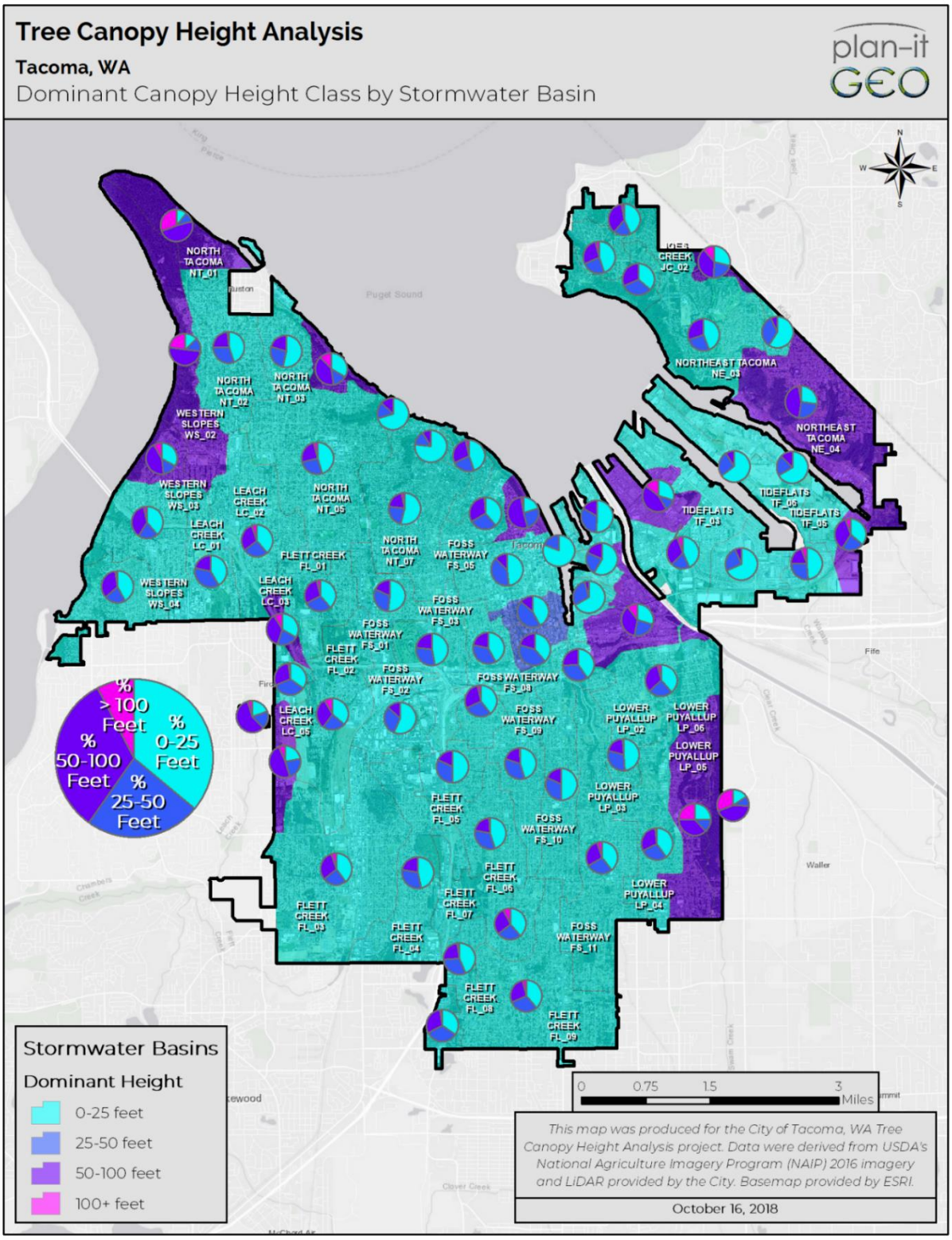
Figure 8. Map displaying the location of the inventoried public trees and the priority corridors



Appendix E. Establishing a Heritage Tree Program

Implementation: Overlay the height analysis from the 2018 tree canopy assessment with the tree inventory and right-of-way boundary to identify potential trees for the program.
Management Policy: Action 1C.7
Community Engagement: Action 6C.7

Figure 9. Tree canopy height analysis to be used for the first tier of identifying potential heritage trees



Appendix F. Code Recommendation Prospectus

To be provided in early 2020.

"Without a plan, the governments and individuals responsible for taking care of an urban forest will not be effective in meeting the true needs of the trees and the community. A plan establishes a clear set of priorities and objectives related to the goal of maintaining a productive and beneficial community forest."

~American Public Works Association, 2007