Trees for Seattle Parks

A Program Focused on Developed Parks

TREES ARE ESSENTIAL FOR SEATTLE PARKS

Trees for Seattle Parks - a multi-decade program with a multi-century vision.

Goals -

- Recognize trees as one of the most important assets that define a park
- Ensure the trees are resilient and can survive

Focus -

- Developed parks

CRISIS OF TREE LOSS

Developed parks include:

- Most recreation and gathering spaces in Seattle's parks
- Wide range of non-forested parks in Seattle's system of parks and boulevards
  (Trees in natural areas fall under the care of the Green Seattle Partnership, which also includes specified areas within other park classifications in the system.)

Recent tree canopy analysis shows a loss across Seattle, including in Developed parks.



CRISIS OF TREE LOSS

WHAT DOES THIS MEAN FOR OUR DEVELOPED PARKS?

- Current budgets are insufficient to replace dying trees
- More than 300 trees are being lost annually
- Backlog of over 2,000 dead trees need to be replaced

A substantial sustained investment is needed to retain existing canopy in our Developed parks.



CRISIS OF TREE LOSS

Planting & 5-Year Establishment Period Cost							Cost per Tree
(based on SPR 2021 figures)						Budget	**$4,000**
MONTH						Planting	**$371**
1	2	3	4	5	**Watering Schedule**		
					2x/wk/5mo	Year 1 Watering	$1,022
					2x/wk/5mo	Year 2 Watering	$1,022
					2x/wk/2mo-1x/wk/3mo	Year 3 Watering	$715
					1x/wk/5mo	Year 4 Watering	$511
					1x/wk/3mo	Year 5 Watering	$307
						Year 1-5 Watering	**$3,577**

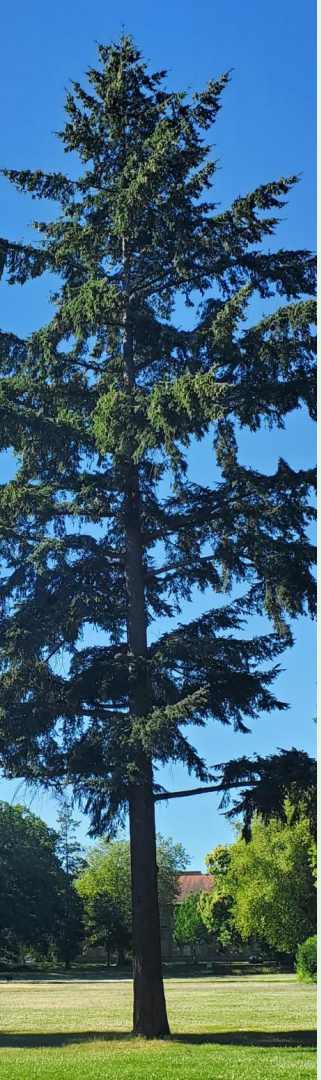
CRISIS OF TREE LOSS

BUDGET NEED: $2M Annually

- To plant 500 new trees
- To establish 2,500 trees planted in the preceding five years. *Establishment over the course of the five years, primarily entails regular watering during the expanding warm weather season, as well as staking, mulching, unstaking, and general care.*

Currently the annual budget has met:

- only 5% of the annual need.



CRISIS OF TREE LOSS

BUDGET NEED: $2M annually

NOW ALLOCATED: Park District Cycle 2 - starting at $825K in 2023

NEED: $1.2M annually

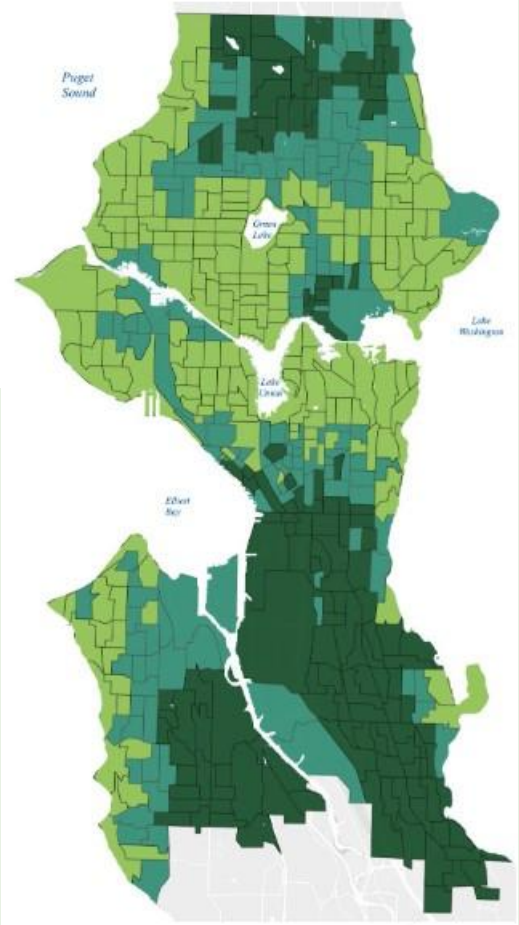
- The Mayor and Park District Board have allocated funds for 6 years to plant more trees in Developed parks, starting at $825K in 2023.
- This will meet 40% of the annual need for the next 6 years - a substantial and sustainable commitment from the Park District Cycle 2.
- An additional $1.2M annually is needed to reach “no net loss” within the next two decades.

PROGRAM PROTOCOLS

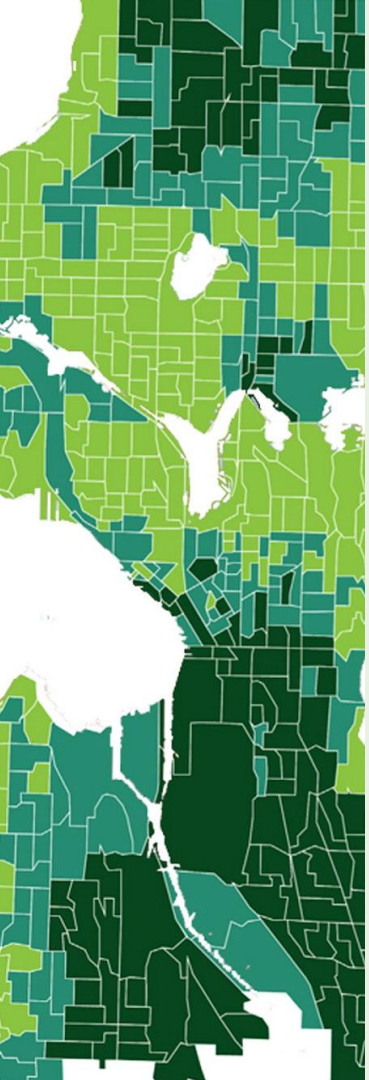
LEVELS OF NEED

Using Seattle's Racial & Social Equity Index (RSEI):

- Areas in Highest Need get the most trees planted each funding cycle.
- Parks in the categories of Moderate and Lowest Need get trees planted at a ratio relative to the Highest Need areas.



LEVELS OF NEED MAP



PROGRAM PROTOCOLS

ALLOCATION FORMULA

		Trees			Parks		
Need	**Cost**	Main Tree	Added Trees*		Low Need	Med. Need	High Need
High Need	$4,000	1 tree					1 tree
Med. Need	$8,000	1 tree	+1 tree			1 tree	1 tree
Low Need	$16,000	1 tree	+3 trees		1 tree	1 tree	2 tree
	$28,000	3 trees	+4 trees		1 tree	2 trees	4 trees

*Added Trees Factor helps to ensure that higher need parks have more trees planted for every tree planted in a lower need park.

This process ensures high-need areas get the most trees planted, while lower need areas can have some trees planted to address the tree loss throughout the system.

PRIORITY BASED ON PARK ATTRIBUTES

After prioritizing sites with greatest need, then park attribute factors are taken into consideration.

The Park Attribute Table uses scores to rank parks so that tree planting will focus systematically on parks with the greatest relative need.

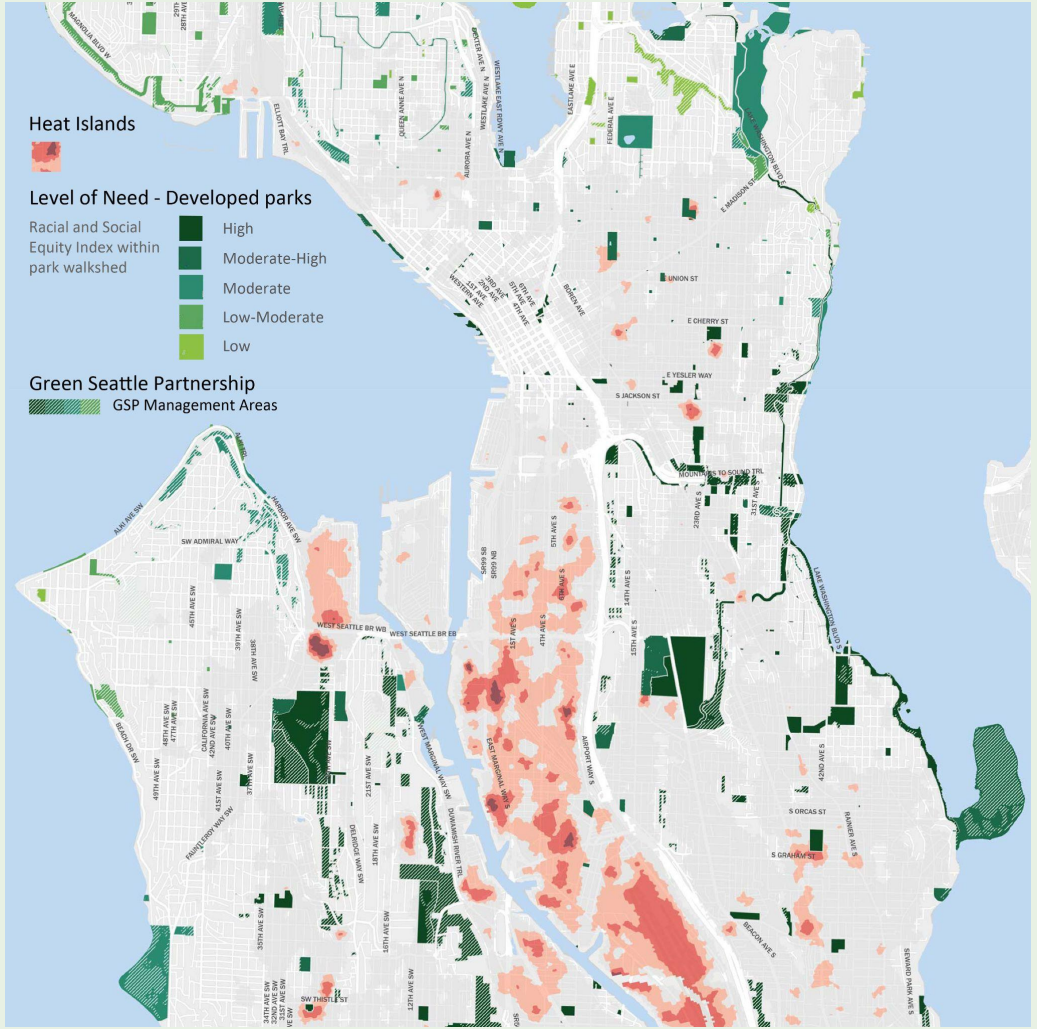
PARK ATTRIBUTE MAPPING

HEAT ISLANDS - elevate the ranking of a Developed park.

GIS maps can help:

- visualize the different needs across the city,
- guide tree planting decisions.

Green Seattle Partnership areas are cross-hatched and help show where existing forested areas can be found.



Sample Excerpt

SITE ANALYSIS

Careful analysis of site ecology and character will underpin the process of tree planting.

Once the annual set of sites are selected, **design considerations** in combination with **ecological considerations** drive the selection of tree species.

For each site, essential design characteristics are analyzed, including size & height of tree & canopy, foliage color, size & texture, and historical or cultural aspects of that site.

WHAT FITS THE SITE? - **ECOLOGY-wise?**

AVOID!

SOILS

[sandy / loam / clay / post industrial +]

WATER

[wet / dry conditions & seasonal variation]

EXPOSURE

[high / moderate / low exposure]

PESTS & DISEASES

[if there is history of particular pests of diseases on a site, avoid planting trees that are vulnerable.]

Trees for Seattle Parks

SITE ANALYSIS CHECKLIST

Developed park: _____ Arborist: ___, LA: ___, SR Gardener: ___

Park classification: _____

This site checklist is intended to be used by Seattle Parks & Recreation (SPR) staff - specifically the Arborist, Landscape Architect and Senior Gardener for a site - to consider all factors that affect tree layout in combination with species selection (referred for brevity as "tree layout").

By checking each box, you are confirming that the issues have been considered and any recommended action taken. Some items contain sub-items, which need to all be checked/completed before the overall issue is considered completed. The checklist is complete when all boxes are checked.

1. Confirm Site Status. Before delving into site criteria, confirm that the site is high-priority for tree planting based on the program's metrics, and that it can fit into the current/upcoming tree planting cycle based on:

☐ Level of Need

If the park site is within a **Low-Need** or **Moderate-Need Area**, confirm that trees can be planted at the appropriate ratios in **High-Need Areas** to maintain the trajectory of balancing allocation ratios per protocols. Levels of Need are shown geographically in the ***Allocation Map***, and as a column in the ***Park Attribute Table***.

☐ Park Attribute Ranking

On the ***Park Attribute Table***, the site should fall within the top 10% of park sites with the same Level of Need based on the "Human/Tree xDevPark Need Score," which combines all relevant site factors (heat island, tree loss, racial & social equity data, etc.). If not, provide an explanation: __ current management efficiency, __ other: _____

2. Site Analysis - Design. Once site status is confirmed, review all potentially relevant design considerations:

☐ Cultural Landscape

Verify if the park has a culturally significant landscape:

__ designed by a well-recognized landscape architecture practice, such as: Olmsted Brothers, Richard Haag, Lawrence Halprin, Sasaki Associates, etc.;

__ designed by an accomplished landscape designer within an underrepresented group;

__ significant or unique representation of vernacular landscape design or having significant design characteristics important within the community,

__ none of the above.

If applicable, document and consider the qualities and character related to what makes the design notable in the tree layout.

☐ Historic Landscape

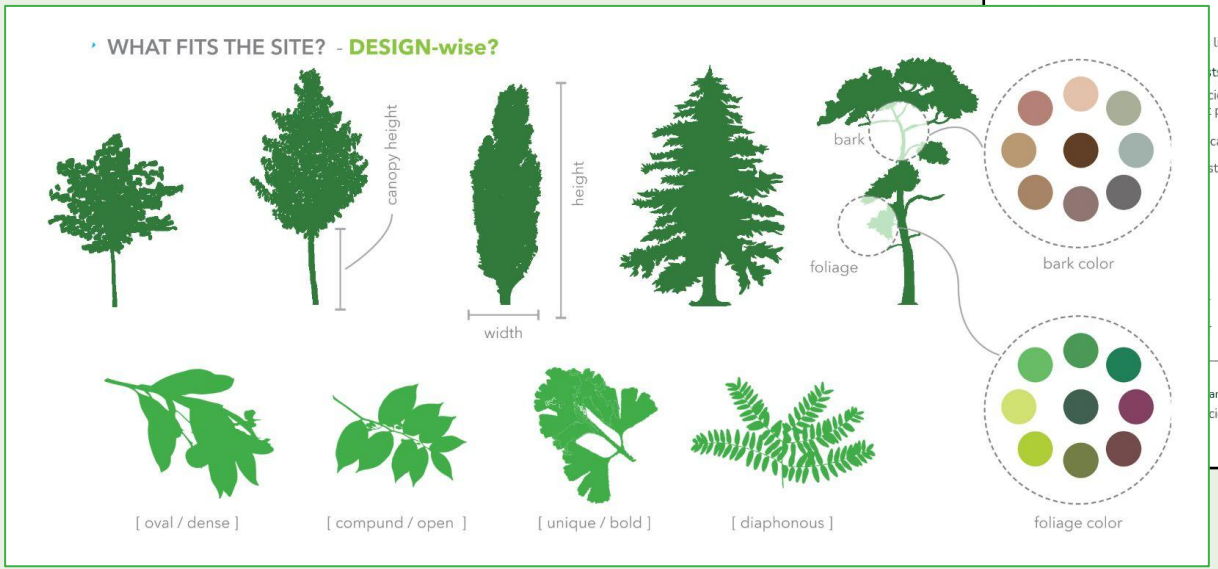
☐ Landscape Typology

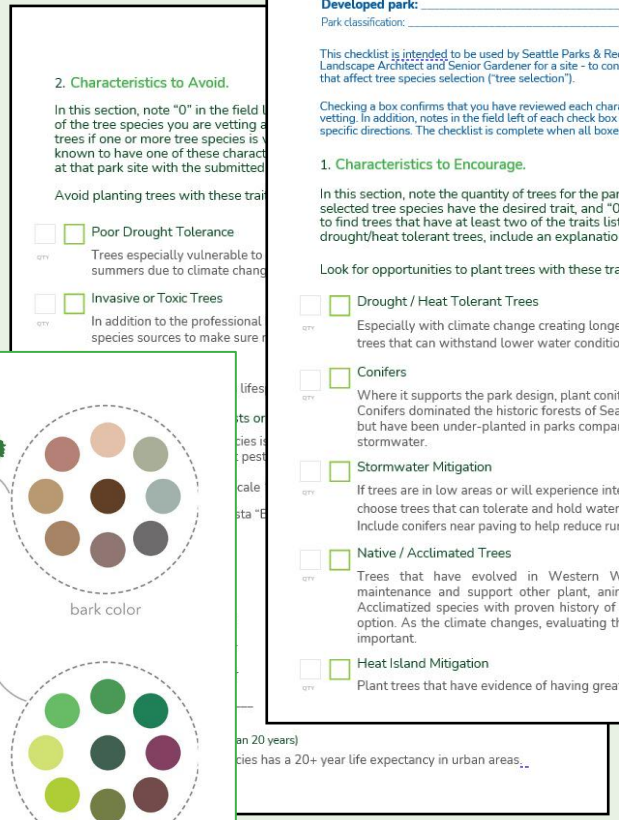
☐ Canopy Coverage: Goal __

☐ Visual Character Considerations

TREE SELECTION

Best practices, site character and intended design will guide individual species selection.




2. Characteristics to Avoid.

In this section, note "0" in the field l
of the tree species you are vetting a
trees if one or more tree species is
known to have one of these charact
at that park site with the submitted

Avoid planting trees with these trai

Poor Drought Tolerance

Trees especially vulnerable to
summers due to climate chang

Invasive or Toxic Trees

In addition to the professional
species sources to make sure

an 20 years)

cies has a 20+ year life expectancy in urban areas.

Trees for Seattle Parks

SPECIES SELECTION CHECKLIST

Developed park: _____

Park classification: _____

Arborist: ___, LA: ___, SR Gardener: ___

This checklist is intended to be used by Seattle Parks & Recreation (SPR) staff - specifically the Arborist, Landscape Architect and Senior Gardener for a site - to consider survival, function and tolerance factors that affect tree species selection ("tree selection").

Checking a box confirms that you have reviewed each characteristic against the tree species you are vetting. In addition, notes in the field left of each check box should be filled in according to section-specific directions. The checklist is complete when all boxes are checked and all fields filled in.

1. Characteristics to Encourage.

Quantity of Trees Proposed: _____

In this section, note the quantity of trees for the park in the field left of the check box if the selected tree species have the desired trait, and "0" if they do not. If you were not able to find trees that have at least two of the traits listed and/or you were not able to find drought/heat tolerant trees, include an explanation with the completed checklist.

Look for opportunities to plant trees with these traits:

Drought / Heat Tolerant Trees

Especially with climate change creating longer dry months and hotter weather, trees that can withstand lower water conditions will do better.

Conifers

Where it supports the park design, plant conifers rather than deciduous trees. Conifers dominated the historic forests of Seattle and offer many ecological benefits but have been under-planted in parks compared to deciduous trees and help address stormwater.

Stormwater Mitigation

If trees are in low areas or will experience intermittent or seasonal inundation, choose trees that can tolerate and hold water (i.e. *Thuja plicata*). Include conifers near paving to help reduce runoff during storms.

Native / Acclimated Trees

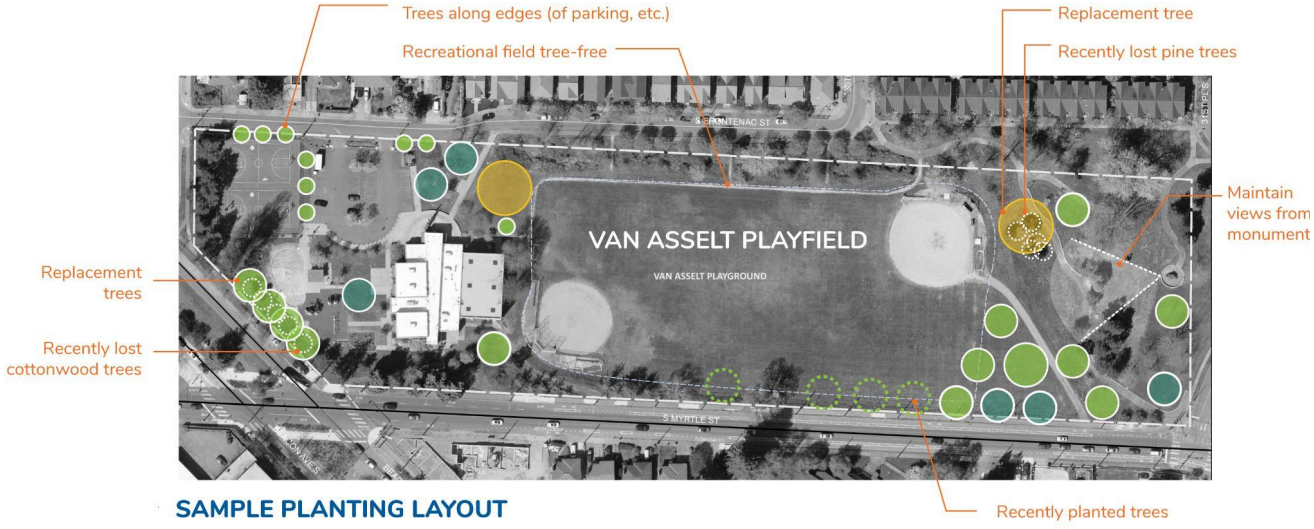
Trees that have evolved in Western Washington tend to require lower maintenance and support other plant, animal, and fungi species of the area. Acclimatized species with proven history of success in this area are also a good option. As the climate changes, evaluating the tolerance of native species will be important.

Heat Island Mitigation

Plant trees that have evidence of having greater positive impact of heat island effect.

SITE DESIGN

Trees are intended to be selected and planted to support and contribute to the park design and function.



SAMPLE PLANTING LAYOUT

Signature Trees

"Signature trees" are planted with the potential to live 200 years or more & provide a focal point for community engagement

Conifer Trees

Conifers generally offer more ecological benefit than deciduous trees. Where they flank the field, the could be limbed up to preserve views.

Deciduous Trees

Deciduous trees are classic park trees, used to keep views open and create variety.

SIGNATURE TREES

Long-lived trees' benefits are immeasurable.

Goals:

- Identify sites, particularly in newer parks, to plant long-living tree species to flourish over the next 200 years
- Establish future Heritage Trees in parks

A Signature Tree:

- has the potential to live 200 years or more
- would be specially sited in its park
- engages the community in its care
- demonstrates the potential for that species
- provides the neighborhood with a focal point within its park

SITE DESIGN

Each park is unique, but each is critical to helping provide shade for its community.

Even in parks which have large areas of playfields, there are opportunities to plant trees which can provide important shade.

TREES ARE ESSENTIAL FOR SEATTLE PARKS

Homer Harris Park plaque
By Monad 2005

For the **Trees for Seattle Parks** program to successfully address the tree loss crisis, funding is needed now and it needs to be sustained over time, if we want to keep our parks green for the future.

Please join in supporting this effort.

Trees for Seattle Parks

Seattle Parks and Recreation

OLMSTED 200

Olmsted
Friends of Seattle's Olmsted Parks

People, Parks & Boulevards

berger

Herrera

A program in collaboration with SEATTLE PARKS FOUNDATION

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Questions?

- What can make this program more compelling?
- What role can the Urban Forestry Commission and its members play?