



Parks, Recreation & Cultural Services/ Tree Board

Regular Meeting Agenda Packet

August 25, 2022



**Parks, Recreation and Cultural Services Board
Meeting Schedule**

2022

September 22	7:00 p.m.	Room 440 and Zoom
October 27	7:00 p.m.	TBD
December 1	7:00 p.m.	TBD



AGENDA

PARKS, RECREATION & CULTURAL SERVICES/TREE BOARD REGULAR MEETING

Thursday, August 25, 2022
7:00 p.m.

Hybrid Meeting: Room 440, City Hall
and Zoom (link below)

This meeting is conducted in a hybrid manner with both in-person and virtual options to attend.



Attend the Meeting via Zoom Webinar: <https://zoom.us/j/97515984680>



Call into the Live Meeting: (253) 215 8782 - Webinar ID: 975 1598 4680



[Click Here to Submit Written Public Comment](#)

Written comments will be presented to PRCS Tree Board and posted to the website if received by 6:30 p.m. the night of the meeting.



[Click Here to Sign-Up to Provide Oral Testimony Remotely](#)

Pre-registration is required by 6:30 p.m. the night of the meeting.



In person public commenters sign up in person prior to the start of the meeting in Room 440 at City Hall

1. CALL TO ORDER / ATTENDANCE / WELCOME

7:00

Land Acknowledgement: We acknowledge the land on which our work started as the traditional home of the Coast Salish and Snohomish peoples. We take this opportunity to thank the original caretakers and storytellers of this land who are still here, and to recognize the immense culture of these peoples by remembering their history and traditions. We invite you to recognize our government's history of unfair treatment and lack of accountability against Indigenous communities as we push to raise visibility and education about them.

2. APPROVAL OF AGENDA

Action

Bill Franklin, Board Chair

3. [APPROVAL OF JULY 28, 2022 MEETING MINUTES](#)

Action

Bill Franklin, Board Chair

4. PUBLIC COMMENT

7:10

The PRCS/Tree Board provides several options for public comment: in person; remote via computer or phone; or through written comment. Members of the public may address the Board during regular meetings for three minutes or less, depending on the number of people wishing to speak. Please be advised that each speaker's comments are being recorded. Written comments received by 6:30 p.m. on June 23, 2022 will be entered into the Public Comment portion of the meeting for Board consideration. Instructions for submitting written comments can be found through the link above or at www.shorelinewa.gov/parkboard

<p>5. DIRECTOR’S REPORT <i>Colleen Kelly, RCCS Director</i> <i>Mary Reidy, RCS Superintendent</i> <i>Nickolas Borer, Parks, Fleet and Facilities Manager</i> <i>Jacob Bilbo, Park Bond Project Manager</i></p>	<p>Presentation and Questions</p>	<p>7:20</p>
<p>6. COMMITTEE UPDATES <i>Arts and Culture Committee</i> <i>Outreach Committee</i> <i>Parks Committee</i></p>	<p>Discussion</p>	<p>7:30</p>
<p>7. PARK TOUR DEBRIEF <i>Bill Franklin, Board Chair</i></p>	<p>Discussion</p>	<p>7:45</p>
<p>8. <u>CLIMATE ACTION PLAN UPDATE</u> <i>Cameron Reed, Environmental Services Program Manager</i></p>	<p>Discussion</p>	<p>8:15</p>
<p>9. COMMENTS FROM THE BOARD <i>Bill Franklin, Board Chair</i></p>	<p>Discussion</p>	<p>8:50</p>
<p>10. ADJOURN</p>		<p>9:00</p>

July 28, 2022



Parks, Recreation & Cultural Services/Tree Board Special Meeting Minutes

The purpose of these minutes is to capture a high-level summary of the Board's discussion and action. This is not a verbatim transcript.

Call to Order/Attendance/Welcome

The meeting was called to order at 6:00 p.m. by Chair Franklin.

Park Board members present: Chair William Franklin, Vice Chair Dustin McIntyre, Jean Hilde, Jeff Potter, Sara Raab McInerney, Millie Wang, Noah Weil.

Absent: Genny Arredondo, Hayley Berkman

City Staff present: Recreation and Cultural Services Superintendent Mary Reidy, Parks, Fleet and Facilities (PFF) Manager Nick Borer, Parks Superintendent Kirk Peterson, RCCS Administrative Assistant III Lori Henrich.

This Special Meeting convened briefly at City Hall then Board members departed for a tour of parks previously selected by the Board.

Land Acknowledgment read by Jeff Potter

We acknowledge the land on which our work started as the traditional home of the Coast Salish and Snohomish peoples. We take this opportunity to thank the original caretakers and storytellers of this land who are still here, and to recognize the immense culture of these peoples by remembering their history and traditions. We invite you to recognize our government's history of unfair treatment and lack of accountability against Indigenous communities as we push to raise visibility and education about them.

Approval of Agenda

Chair Franklin called for a motion to approve the agenda. So moved by Vice Chair McIntyre and seconded by Mr. Weil. All were in favor, the motion carried.

Approval of June 23, 2022, Meeting Minutes

Chair Franklin called for a motion to approve the Meeting Minutes. So moved by Mr. Potter and seconded by Vice Chair McIntyre. Mr. Weil abstained as he was not present at the June meeting. The remaining members voted in favor; the motion carried.

July 28, 2022

Chair Franklin summarized the plan for the park tour, noting that Ms. Hilde would meet them at the first park. New student representative Millie Wang was introduced and spoke about her reasons for wanting to join the PRCS/Tree Board.

The Board departed for the park tour and visited the following parks:

- [Westminster Park](#)
709 N 150th Street, Shoreline, WA 98133
- [West Woodland Park](#)
Phinney Ave N & N 59th St, Seattle, WA 98103
- [Alice Ball Park](#)
8102 Greenwood Avenue N., Seattle, WA 98103
- [James Keough Park](#)
2350 N 167th Street, Shoreline, WA 98133
- [Kruckeberg Botanic Garden](#)
20312 15th Avenue NW, Shoreline, WA 98177

Adjourn

Chair Franklin called for a motion to adjourn. So moved by Mr. Potter and seconded by Mr. Weil. All were in favor, the motion carried. The meeting adjourned at 9:10 pm.

Signature of Chair
William Franklin

Date

Signature of Minute-Writer

Date

Lori Henrich, Administrative Assistant III



Memorandum

DATE: August 25, 2022
TO: Parks, Recreation & Cultural Services/Tree Board
FROM: Cameron Reed, Environmental Services Program Manager
RE: 2021 Sustainability Report and Climate Action Plan Update

Requested Board Action:

No formal action requested. Staff are providing an update about on-going sustainability and climate action work, including the Climate Action Plan (CAP) update. Staff are presenting several of the draft strategies related to public trees for Board review tonight. Specifically, staff would like to know if Board members have significant concerns related to any of the proposed actions related to public trees.

Project or Policy Description and Background:

2021 Sustainability Report

The City's annual Sustainability Report (Attachment A) tracks the City's progress in five key areas of sustainability: transportation, climate, ecosystems, waste, and community resilience. Some key accomplishments highlighted in the 2021 report include:

- Continued expansion of the sidewalk network and increasing walkability, as measured by the [WalkScore.com](https://www.walkscore.com/) which measures the number of businesses, schools, and parks, within a 5-minute walk of residences, and transit service and bike-ability.
- Continued growth in the number of residential units and commercial space that meets a Green Building Certification through the City's [Deep Green Incentive Program](#).
- Increasing participation and impact of the [Green Shoreline Partnership](#) and programs to restore healthy urban forest in our parks and open spaces.
- Continued improvement in water quality of our urban streams and continued implementation of activities to improve water quality in support of our 5-year [Salmon Safe certification](#).

- Addressing climate change by joining the Cities Race to Zero Campaign, passing energy code updates banning fossil fuels for heating new, large buildings, completing a greenhouse gas emissions inventory, and kicking off the [Climate Action Plan update](#).

Climate Action Plan Update

Council adopted the City's current Climate Action Plan in September 2013, thereby committing to reducing greenhouse gas (GHG) emissions 25% by 2020, 50% by 2030, and 80% by 2050 (below 2009 levels).

In October 2021, the City Council discussed and approved joining the [Cities Race to Zero/ICLEI 150](#) campaign, thereby committing to updated Shoreline-specific, science-based emissions reduction targets reflecting the level of emissions reductions needed to keep global heating below the 1.5°Celsius goal of the Paris Agreement and prevent the most catastrophic impacts of climate change.

An inventory of the City's 2019 GHG emissions demonstrated that while Shoreline's emissions have decreased 5% since 2009 despite population growth, this trend is not on track to meet our previously adopted 2020 emissions reduction target nor our updated science-based 2030 and 2050 targets.

In alignment with [Council Goal 2, Action Step 6](#), Staff are currently [updating Shoreline's Climate Action Plan \(CAP\)](#) to identify the most impactful actions the City can take to reduce greenhouse gas emissions to meet the City's recently updated science-based emissions reduction targets. As part of a holistic response to climate change, the CAP will also include strategies to increase community wide resilience to near term climate change impacts and to support the ability of local ecosystems to remove carbon dioxide from the atmosphere and store it in plant tissue and soils (sequestration).

Trees and Sequestration

To support the CAP update and strategy development, Environmental Services commissioned a study to analyze the carbon sequestration benefits from Shoreline's urban forest. Cascadia Consulting Group completed the analysis, and the results are provided in Attachment B. The study utilized the USDA Forest Service's i-Tree Canopy software to provide a high-level estimate of the annual and total amount of carbon sequestered by Shoreline's urban tree canopy – an estimated 13,890 metric tons of CO₂ equivalent (MT CO₂e) removed annually and an estimated 413,840 MT CO₂e stored in tree tissues. This annual sequestration represents just under 6% of the amount of GHG emissions produced by the Shoreline community in 2019. Attachment B also estimates the value of additional ecosystem services provided by Shoreline's urban forest including air pollution reduction and stormwater management.

Trees and Climate Resilience

In addition to their ability to sequester carbon, trees and urban forests provide valuable benefits in terms of mitigating several near-term impacts of climate change, including hotter temperatures, wildfire smoke impacts, and increasing flood risk. In 2020, Public Works and Environmental Services commissioned a [Climate Impacts and Resiliency](#)

[Study](#) to identify key areas of vulnerability for the Shoreline community and public infrastructure related to the near term projected impacts of climate change and make recommendations for ways the City could increase resilience to those impacts. The Climate Action Plan update includes several of the recommendations of that study, including revising the street tree list to increase planting survivability and reviewing urban design standards for opportunities to increase resilience by planting or retaining more trees and incorporating more green stormwater infrastructure.

Focus Areas and Strategies for Parks/Tree Board Review

The draft climate action strategies fall into five topical focus areas – transportation, building energy, waste, ecosystems, and resilience – and include the following goals and strategies for Board review and discussion. Strategies were originally selected from a [regional toolkit developed by the King County-Cities Climate Collaboration \(K4C\)](#) and were further refined and supplemented in an iterative process with staff from across City departments, external stakeholders and the community over the past year. This is not a complete list of the draft strategies but includes those most relevant for Tree Board review.

Ecosystems and Sequestration

Strategy S-1: Maintain and increase tree canopy and urban forest health, especially in areas with identified urban heat impacts and environmental health disparities. Supporting actions include:

1. **Create Nature Patches:** Inventory areas within City parks where degraded non-forest habitat, lawn areas, or other under-used areas can be converted to forest habitats. Identify the most promising sites to increase tree canopy and implement planting projects.
2. **Expand Forest Restoration:** Continue to expand the acreage in Parks under ecological restoration through the [Green Shoreline Partnership](#) and regional carbon credit programs.
3. **Expand Street Tree Planting:** Complete an inventory of citywide street tree assets to assess replanting needs and identify key sites available to plant additional street trees. Identify planting opportunities in areas with documented urban heat island effects or environmental health disparities and conduct focused street tree planting efforts in these areas.
4. **Increase Urban Forestry Funding:** Increase staff resources and funding for urban forestry activities including restoration, planting, and maintenance. Explore the creation of a dedicated staff restoration crew and plant nursery for street and park planting projects.
5. **Climate Resilient Parks Design:** Include landscape features and amenities that increase tree canopy, carbon sequestration potential, and climate resiliency in the design of Parks projects and City Facilities.

6. **Acquire Parks and Open Spaces:** Continue to utilize park bond, grant, and conservation funding programs to acquire and preserve properties for use as parks and natural areas. Consider habitat value, biodiversity, equity, and climate resilience when prioritizing open space acquisitions.
7. **Update Street Tree List:** Review and update the street tree list, Green Stormwater Infrastructure planting requirements, and planting practices to ensure new plantings are resilient to climate change impacts, to expand urban forest canopy, and to maximize sequestration and urban heat mitigation. For example, consider sourcing plant material from nurseries in hotter and drier areas to increase survivability with increasing summer temperatures for City planting projects.
8. **Utilize Forest Carbon Credits:** Offset remaining emissions from municipal operations by 2030 using carbon credits generated through local forestry projects.

Community Resilience and Preparedness:

Strategy R-1: Ensure that new buildings, land use decisions, and public infrastructure improvements increase resilience to current and future climate impacts. Supporting actions include:

1. **Develop Best Practices for Urban Heat:** Develop a list of recommended design practices for private development and City capital projects to increase resilience to urban heat impacts and surface water vulnerabilities and update regularly based on best available science. Practices may include increasing tree retention or planting, green stormwater infrastructure, reduced impervious surface area, cool roofs, green corridors, or high-albedo pavement.
2. **Climate Resilient Urban Design:** Review and update codes and design standards to increase citywide resilience to climate change. For example, modify design standards to encourage reduced impervious surfaces, retention of mature trees, increased tree planting, and increased green stormwater infrastructure on private property and in the City right-of-way during development. Consider specific requirements for development in areas with identified urban heat impacts, surface water vulnerabilities, or environmental health disparities.

Discussion Questions

1. Are you generally supportive of the strategies listed above?
2. What concerns do you have, if any, about the CAP goals or strategies listed above?
3. Are there other strategies related to land use that should be considered to meet the CAP goals?

Next Steps

Staff are currently revising these actions to incorporate stakeholder feedback in advance of presenting the draft CAP for Council discussion on October 10. A final round of

community engagement is scheduled for September 19 – October 10 and will include a final community conversation event and online platform for public comment on the draft CAP. The final CAP is scheduled for Council adoption at the November 21st meeting.

Attachments

- [Attachment A – 2021 Sustainability Report](#)
- [Attachment B – 2021 Sequestration Analysis Memo](#)

CITY OF SHORELINE

2021

SUSTAINABILITY REPORT





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ENVIRONMENTAL SUSTAINABILITY: MEETING THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS, WHILE WORKING TO REGENERATE AND RESTORE THE ENVIRONMENT WHERE IT HAS BEEN DAMAGED BY PAST PRACTICES.

2021 was a year of significant challenges as we continued to deal with the COVID-19 pandemic, worked to address systemic racism, and faced worsening impacts from climate change.

2021 was the hottest and driest year on record for Washington State. We opened our first community cooling centers during June's extreme heat event that cracked the pavement on I-5. August saw the return of unhealthy air quality as smoke from across the region blanketed Puget Sound. These challenges highlighted the need to work toward a more resilient, sustainable, and equitable future for everyone in our community. Confronting the climate crisis is essential to ensure a healthy and thriving community for everyone in Shoreline, especially those most vulnerable to these impacts.

Despite these challenges, the Shoreline community demonstrated resilience and leadership in addressing climate change. With strong community support, we passed energy code updates banning fossil-fuel use in new commercial and multifamily buildings, signed on to updated climate goals, and kicked off our Climate Action Plan update.

Community members continued to advance sustainable practices, with over 600 attendees at our sustainability programming in April, volunteers from Hillwood Neighborhood Association organizing a dispersed litter pick up, and students from Shorewood High School organizing a second student climate strike.

We continued to invest in safe pedestrian and bicycle infrastructure, increasing our Walkscore™ for the first time in many years. Our Deep Green Incentive

Program continued to drive new development that meets high environmental standards and is within walking distance of amenities and transit.

The Green Shoreline Partnership continued to grow, with over 700 community members volunteering to restore our urban forest and planting over 2,500 trees in our parks and open spaces in 2021.

This report provides an overview of the City's 2021 achievements for five core focus areas:

- Climate, Water & Energy
- Materials, Food & Waste
- Transportation & Mobility
- Trees, Parks & Ecosystems
- Resilient Communities




To learn more about how you can be a part of a Sustainable Shoreline, visit shorelinewa.gov/sustainability. For more information about the sustainability indicators referenced in this report, please see [Appendix A](#).

SUSTAINABLE SHORELINE



CLIMATE, WATER & ENERGY

OUR GOAL: REDUCE GREENHOUSE GAS EMISSIONS BY REDUCING ENERGY AND WATER USE.

INDICATORS	CURRENT STATUS	2021 UPDATES
Achieve zero net municipal greenhouse gas (GHG) emissions by 2030	15% increase	A 2019 GHG emissions inventory showed a 15% increase in emissions from City operations compared to 2009 levels.
UPDATED! Reduce <i>community</i> GHG emissions by 60% by 2030 compared to 2009, and reach net-zero by 2050.	5% decrease	2019 GHG emissions decreased by an estimated 5% compared to 2009. This trend is not on track to meet the City's near-term goal to reduce GHG emissions by 60% by 2030.
Install solar panels to produce 200 kW of electricity by 2030	 1,867 kW	Data is not available for 2021; however, this goal was met in 2019. Per Seattle City Light, customers installed a cumulative 1,867 kW of solar in Shoreline as of December 31, 2020, for an increase of 347 kW compared to 2019.
Achieve an average of 10.2 miles per gallon (MPG) for the City's vehicle fleet by 2030	9.9 MPG	Data is not available for 2021. The 9.9 MPG average is for 2020.
Increase the number of green residential units in the community to over 700 by 2030	 1,379 units	*The City counted 461 new units applied for in 2021 (413 LEED Platinum, 48 Built Green 4-Star). Totals for 2020 = 918 and 2019 = 250.
Increase square feet of certified green commercial space in Shoreline by 33% by 2030	 907,294 ft ²	*2,501 ft ² of LEED Platinum commercial space applied for in 2021. This brings the City to a total of 907,294 ft ² of certified green commercial space—a 36% increase from 2016 baseline data.
Keep per capita water use at the 2010 level of 19,000 gallons per resident per year	NA	Both Seattle Public Utilities and North City Water District reported in 2019 that they are no longer able to provide Shoreline-specific community water use data for completing this calculation.

*The City changed the process for calculating this indicator in 2021. See [Appendix A](#) for details.

2019 GREENHOUSE GAS EMISSIONS INVENTORY RESULTS

Greenhouse gasses (GHG) are the primary cause of recent, human-driven climate change. Since 2009, the City has periodically measured the amount of GHG emissions created by the Shoreline community and City operations to measure our progress in reducing our contribution to climate change. In 2021 we completed an inventory of GHG emissions produced by the Shoreline community. This “geographic-plus” inventory utilized data from 2019, including emissions from energy use in buildings, fuel use in vehicles, solid

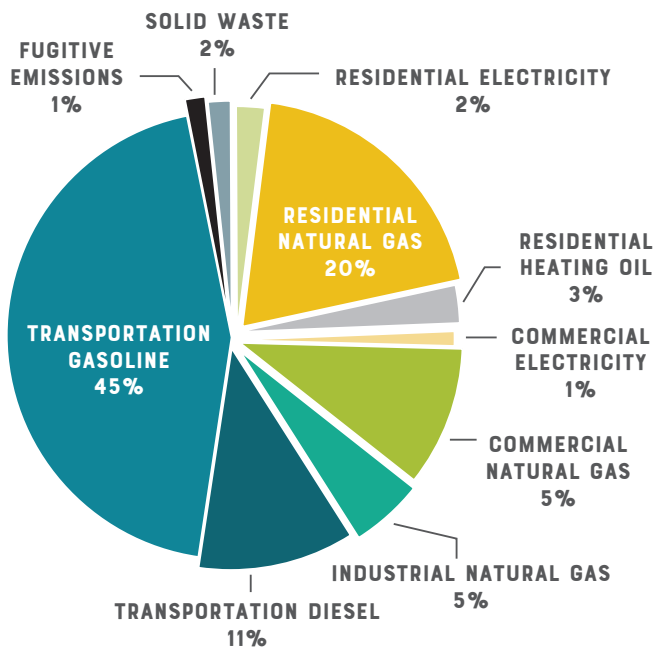
waste disposal, and energy production. The inventory did not include emissions created by goods and services consumed in Shoreline but produced in other places.

COMMUNITY-WIDE GHG EMISSIONS DROPPED 5% SINCE 2009

Based on this inventory, Shoreline’s geographic-plus emissions totaled 249,180 metric tons of carbon dioxide equivalent (mtCO₂e) in 2019, representing a 5% decrease from 2009 despite population growth. Per-person GHG emissions declined to 4.4 mtCO₂e in 2019, an estimated 10% decrease compared to 2009.

The two largest sources of GHG emissions were transportation (56%), and the built environment (42%), primarily from natural gas usage in residential and commercial buildings.

SOURCES OF GEOGRAPHIC-PLUS BASED GHG EMISSIONS FOR SHORELINE IN 2019 (249,180 MTCO₂E)



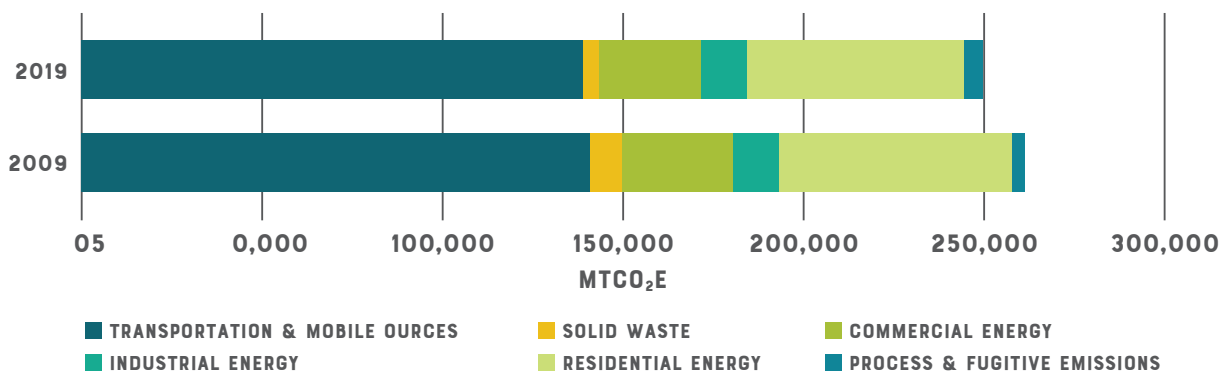
Emissions from transportation, buildings, and solid waste all dropped from 2009 despite an increase in population. These emission reductions can be attributed in part to less miles driven per person, fewer households using gas or oil heating, and less waste generated per person.

GHG EMISSIONS FROM CITY OPERATIONS ROSE 15% SINCE 2009

During each inventory, we also measure the GHG emissions from City operations. These emissions primarily come from our vehicle fleet and our municipal buildings. Emissions from City operations in 2019 totaled 959 mtCO₂e, a 15% increase from 2009 levels. This increase is mainly due to the addition of fleet vehicles as the City assumed wastewater maintenance duties from Ronald Wastewater District.

Read the [Inventory Summary Report](#) online for more information about the 2019 GHG emissions inventory.

YEARLY COMPARISON OF EMISSIONS FOR SHORELINE FROM 2009 TO 2019.



COMMUNITYWIDE INVENTORY	2009 (mtCO ₂ e)	2019 (mtCO ₂ e)	% CHANGE (2019 v. 2009)
Population	53,007	56,267	+6%
Total Emissions	261,785	249,180	-5%
Emissions Per Capita	4.9	4.4	-10%
Transportation	141,740	139,781	-1%
Residential Energy	65,004	60,886	-6%
Commercial Energy	30,381	28,158	-7%
Industrial Energy	12,278	13,402	+9%
Fugitive Emissions	2,925	2,462	-16%
Solid Waste	9,457	4,491	-53%



SHORELINE JOINS THE CITIES RACE TO ZERO CAMPAIGN

Shoreline has already committed to emissions reduction targets through the [King County Cities Climate Collaboration](#). In October, we joined the [Cities Race to Zero Campaign](#) and committed to updated science-based emissions reduction targets.

The Race to Zero is a UN-backed, global campaign to rally leadership from businesses, cities, and educational institutions to address climate change. All members are committed to the same overarching goal: keeping global heating below the 1.5° Celsius goal of the Paris Agreement.

Where our previous targets called for a 25% reduction by 2020, a 50% reduction by 2030, and an 80% reduction by 2050, we are now committed to achieving a 60% reduction by 2030 and reaching net-zero emissions by 2050. These new targets represent the level of emissions reductions needed to limit global warming to 1.5° Celsius and avoid the most catastrophic impacts of climate change. Reaching these updated targets will require a significant, concerted effort to reduce Shoreline’s emissions, mainly from building energy and transportation.

CLIMATE ACTION PLAN UPDATE UNDERWAY!

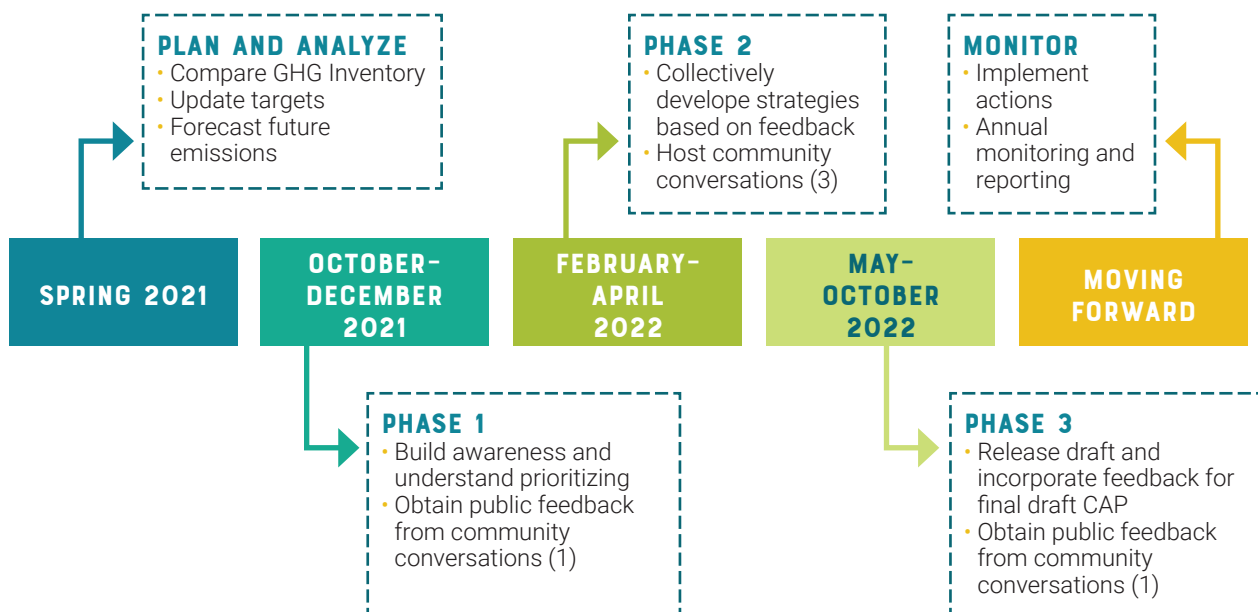
We completed our first Climate Action Plan (CAP) in 2013 to help reduce GHG emissions associated with transportation, building energy use, and solid waste generation in Shoreline. While we have completed many of the recommended actions from the 2013 CAP, we still have much work to do to reduce our emissions to the level needed to avoid the worst impacts of climate change.

In fall 2021, we kicked off an update to our CAP. The updated CAP will identify the most impactful actions the City can take to reduce our emissions and meet our science-based emissions targets. The CAP will also include actions to support carbon capture by trees and ecosystems in Shoreline and measures to protect our community from the impacts of climate change. We need to ensure our community is prepared for impacts already here and predicted in the future.

In 2021, we recruited eleven community members to serve as “Community Climate Advisors” to guide the CAP update. We also launched a survey and hosted an online Community Climate Conversation to gather community input on the goals and priorities for the CAP. This work will continue in 2022, with a goal of Council adoption before the end of the year.

To learn more and get involved, please visit shorelinewa.gov/climate.

CLIMATE ACTION PLAN UPDATE TIMELINE 2021-2022



COUNCIL ADOPTS FOSSIL-FUEL BAN FOR NEW COMMERCIAL CONSTRUCTION

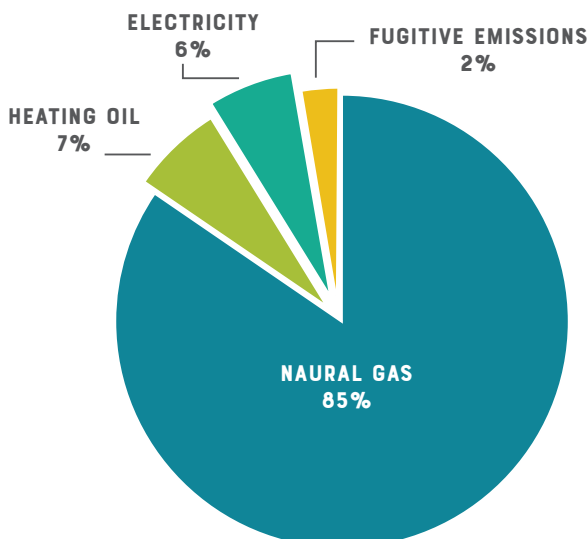
On December 6, in its continuing efforts to address climate change and reduce GHG emissions, the City Council approved an ordinance that bans fossil fuels in new commercial and large multifamily construction projects for space heating and most water heating. The ordinance also includes other increases in energy efficiency requirements. As a result, Shoreline became the second city in the Pacific Northwest region to adopt a policy that aids in accelerating the transition to all-electric buildings by eliminating most fossil fuel uses from new commercial and large multifamily development.

This is a significant step in reducing emissions from Shoreline to the level needed to prevent the most catastrophic impacts of climate change.

Reducing the number of buildings that rely on fossil fuels for heating spaces and water is an important way to reduce GHG emissions and protect public health. In Shoreline, we largely heat our buildings using three fuel sources: electricity from Seattle City Light, natural gas from Puget Sound Energy, and heating oil from private companies. Electricity from Seattle City Light is considered carbon neutral and thus is the preferred energy source from both a carbon emissions reduction and public health perspective. Natural gas consumption was responsible for 87% of emissions from the built environment. The residential sector was the largest consumer of natural gas, followed by the commercial sector.

The ordinance goes into effect on July 2, 2022.

2019 EMISSIONS FROM THE BUILT ENVIRONMENT (104,910 MTCO₂E)



SHORELINE POOL CLOSED

After years of providing emergency fixes to keep the aging facility open, the City came to the difficult decision to close the Shoreline Pool effective September 2021. The Shoreline Pool was a popular community resource, but unfortunately, the facility had reached the end of its useful life.

The pool was responsible for most (92%) of the natural gas use at City facilities in 2019 and 35% of total emissions from municipal operations. As a result of the closure, we expect to see a significant positive impact on our GHG emissions. Although the GHG emissions from the City's operations as a government entity are small compared with community-wide emissions (approximately 0.4% of the community-wide total), the City is committed to reducing its footprint to model best practices for climate action.

OPENED FIRST-EVER PUBLIC COOLING STATIONS DURING SUMMER HEATWAVES

Washington state experienced its highest temperature ever recorded in 2021—Hanford reached 120° Fahrenheit on June 29. Coinciding with this record, the National Weather Service issued Excessive Heat Warnings in June and August. In response, the City opened cooling centers for anyone who needed a way to escape the heat. With temperatures of 90+ degrees, the cooling centers served as an essential resource for anyone who needed a way to escape the heat.

The City partnered with Ronald United Methodist Church to open a cooling center at the church in June to protect our community. It was staffed by City of Shoreline CERT (Community Emergency Response Team) volunteers. In August, the City opened the Council Chambers in City Hall as a cooling station during business hours.

I-5 DAMAGED DUE TO HEAT WAVES

Sections of I-5 in and near Shoreline were damaged in June when extreme heat caused the pavement to expand and crack. The Washington State Department of Transportation temporarily blocked the freeway while crews worked in 107-degree weather to patch the road. These repairs were only meant to be temporary, and replacement of the damaged concrete panels began earlier this year, in January 2022.



STATEWIDE DROUGHT DECLARED (EXCEPT FOR CENTRAL PUGET SOUND)

In July 2021, Gov. Jay Inslee authorized the state Department of Ecology to issue an [emergency drought declaration](#) for most of Washington. A drought emergency means the water supply is projected to be below 75% of average, and there is a risk of undue hardship to water users and uses. A historically dry spring and summer, followed by a record-breaking heatwave, affected water supplies across the state. The only areas excluded from the emergency declaration were Seattle, Tacoma, and Everett. According to researchers, the impacts of the drought and extreme heat have been [worsened by climate change](#).

Due to increasingly dry weather conditions and a history of accidental fires occurring at Richmond Beach Saltwater Park due to open fires on the beach, the City of Shoreline also prohibited all beach fires at the park in July.

YOUTH CLIMATE STRIKE MARCH

On September 24, 18 students from Shorewood High School and about ten adults walked from Log Boom Park in Kenmore to Richmond Beach Saltwater Park, approximately 8 miles. In an [interview](#) for Shoreline Area News, the student organizer, Marieka, shared why she organized this Climate Strike March:

“The purpose of climate strikes is to call on our government to prioritize climate initiatives, particularly in low-income communities and communities of color where climate change hits the hardest. Climate strikes aren’t a fun party that young organizers like to host every year. We will stop when every feasible measure has been taken to ensure a livable planet for everyone... I have the obvious and ambitious hope that everyone in the world can be free from the effects of climate change in the future. I especially hope that the poorest and most vulnerable people of the world can be included in these actions, as they are the ones that are most affected by the climate crisis.”



Marchers on the Burke Gilman Trail.
Photo Credit: Todd Staheli, Shoreline Area News



Marchers reached their destination—Richmond Beach Saltwater Park.
Photo Credit: Todd Staheli, Shoreline Area News

MATERIALS, FOOD & WASTE

OUR GOAL: REDUCE SOLID WASTE AND PROMOTE SUSTAINABLE CONSUMPTION.

INDICATORS	CURRENT STATUS	2021 UPDATES
Divert 70% of waste generated in the Shoreline community from the landfill	47% diversion rate	Overall diversion rates in Shoreline decreased from 50% in 2020 to 47% in 2021. However, this is still an increase from 44% in 2016.

ENVIRONMENTALLY PREFERRED PURCHASING POLICY UPDATE

The City updated its 2011 Environmentally Preferred Purchasing Policy to reflect new local and state policies, plans and recommended best practices. The City developed the 2011 policy in recognition that everyday purchasing decisions of employees and contractors can positively or negatively affect the environment. The policy provides guidance and resources for City employees to reduce waste and climate pollution and help protect the health of both people and the environment. Formally adopted in

June 2021, the new policy includes new content regarding office electronics, landscaping practices, and City-sponsored meetings and events.

ELECTRONIC PROPOSALS

In 2021, we updated several of our bid and RFQ/RFP templates to allow for electronic submittals, significantly reducing paper consumption and waste. Previously, this process required multiple hard copies and jump drives of submissions to be delivered to the 'Clerk's office for each bid opportunity.

PLASTIC BAG BAN AND PHASED REDUCTION OF OTHER SINGLE-USE PLASTICS

The Washington State Legislature passed a statewide ban on single-use plastic bags in 2020. The bag ban prohibits the distribution of single-use plastic carry-out bags by restaurants, retail, small vendors, and grocery stores. Originally scheduled to take effect on January 1, 2021, Governor Jay Inslee and the Legislature delayed implementation of the ban due to supply issues caused by the COVID-19 pandemic. The statewide ban on single-use plastic bags officially went into effect on October 1, 2021. While Shoreline has banned thin, single-use plastic bags since 2014, local retailers must comply with the new state law. Some single-use plastic bags are exempt from the law, including plastics to wrap meats and produce, bags for prescriptions, and newspaper or dry-cleaning bags. For full details on the ban, visit ecology.wa.gov/bag-ban.

In addition to a ban on single-use plastic bags. The Legislature passed a [2021 plastics law](#) that restricts other types of plastics. It will be phased in over several years and include:

- 2022: Restaurants and food service businesses can no longer automatically include single-use food service ware.
- 2023–2024: Restrictions placed on the sale of certain types of expanded polystyrene, often called Styrofoam™.

COMMUNITY CLEAN-UP AT HILLWOOD

In honor of Earth Day, Hillwood Neighborhood Association sponsored a Litter Pick-Up Day in Hillwood Neighborhood. Families and individuals joined the safe, socially distanced stewardship project. Though it was a cold, rainy day, volunteers worked hard to cover all of Hillwood by cleaning in each of the 13 litter clean-up zones, ultimately filling seven 55-gallon garbage bags!



Photo Credit: Hannah June Photography, 2021

FARMER'S MARKET BANNERS UPCYCLED & 10-YEAR ANNIVERSARY OF SHORELINE FARMER'S MARKET

The City partnered with Shoreline Farmers Market to keep unused and outdated vinyl banners out of the landfill. These materials cannot be recycled but are durable, colorful, and full of potential. Between the Farmers Market and the City of Shoreline, over 20 old and unused banners were taken to Kirkland, WA and presented to local artist Serene Cheung of Serene Handbags. Over six months, these banners were cleaned, cut, and sewn into multi-sized tote bags for the Farmers Market. Bags included banners featuring City of Shoreline Programs, [Livable City Street Banners](#), local business logos, and more, allowing each bag to be unique. The City of Shoreline and Shoreline Farmers Market will continue this project as outdated banners become available and ready to see a new life.



WASTE WISE PROGRAM MAKES A DIFFERENCE

From June 2020 to June 2021, the City and Recology collaborated on a pilot program to help apartment properties improve their recycling. The “Waste Wise” program aims to increase the amount of recycling and reduce “contamination.” Contamination occurs when items that aren’t recyclable end up in the recycling bin, like plastic bags or Styrofoam™. This program provides free tools and resources to make it easy and convenient for residents and property managers to recycle right, which could help them avoid future fees for contaminated recycling containers.

Approximately 890 residents at six multifamily properties received enhanced recycling materials in eight languages. As a result of the program, recycling contamination was significantly reduced at all properties by an average of 53%, showing an improvement in recycling behavior. Highlights from participating properties include:

- After participating in the program, Meadowbrook Apartments, a 115-unit complex in Richmond Beach, decreased recycling contamination by 33%.
- Canterbury Court Apartments in the Ballinger neighborhood reduced recycling contamination by over 70%.
- At Ballinger Commons, one of the largest apartment communities in the city, contamination dropped by 65%.

Meadowbrook
Apartments



Canterbury Court
Apartments



Ballinger
Commons



Recycling can be challenging, especially at larger apartment properties, but the Waste Wise program shows that collaboration between Recology, property staff, and residents can make a difference!

The pilot program was funded by a grant from the Washington State Department of Ecology, with Recology contributing staff time. In June 2021, the City secured additional Local Solid Waste Financial Assistance grant funding from the Washington State Department of Ecology to expand the program to include more properties and additional elements through July 2023.

JOIN THE PROGRAM!

Want to bring Waste Wise to your apartment or condo community? Contact Recology to schedule an initial site assessment: educationoutreach@recology.com or (206) 763-4444.



Left: Meadowbrook apartments reduced their contamination by a third as a result of their participation in Waste Wise.

Right: An apartment-specific sorting guide that was distributed to residents.



DON'T BLOCK THE WALK

You are responsible for ensuring your garbage, recycling, and compost carts don't block the sidewalk. Blocking the sidewalk creates a hazard, especially for the elderly, disabled, small children, and other vulnerable members of our community who may be unable to pass or be forced onto the street.

You should place Recology carts out for collection by 7 a.m. on your collection day and remove them as soon as possible after they have been emptied. If you live in a townhouse unit, store your carts in your garage.

Do your part to help keep our sidewalks clear for all to pass!



EARTH DAY CELEBRATIONS

EARTH DAY EVERY DAY WEBINAR SERIES

From reducing waste to growing your own vegetables, our everyday actions can make a big difference for our community's and our planet's health! In April, the City invited Shoreline residents to learn how they can help protect the Earth, fight climate change, and create a Sustainable Shoreline every day. The City hosted weekly online classes with sustainability experts throughout the month. Each course featured family-friendly activities to try at home and sustainability-themed raffle prizes. Overall, 385 people attended at least one portion of the webinar series!

Week 1: Recycling & Low-Waste Living

Recycling experts covered what—and what not—to recycle and compost and provided ideas and inspiration for low-waste living.

Week 2: Composting at Home

Residents learned how to turn food scraps into nutrient-rich garden soil using home compost systems, including worm bins and off-the-shelf systems. Experts from The Garden Hotline provided tips on choosing and starting a new compost system or fine-tuning an existing one.

Week 3: Safer Cleaning for a Healthy Home

City staff provided information on identifying safer cleaning products in the store and making your own at home using basic ingredients.

Week 4: Creating a Climate-Friendly Community

Residents learned about local climate change impacts and opportunities. From green building to climate-smart transportation networks, City staff shared key steps we can take as a community to both reduce emissions and build resilience.

Week 5: Vegetable Container Gardening for Beginners

Experts from the Garden Hotline taught residents about growing salad greens and tomatoes in a portable pot or container, from container set up to harvest.

WEBINAR	ATTENDEES
#1 Recycling & Low-Waste Living	142
#2 Composting at Home	173
#3 Safer Cleaning for a Healthy Home	163
#4 Creating a Climate-Friendly Community	44
#5 Vegetable Container Gardening for Beginners	161
Series Total	683
Series Total (unique)	385



A resident with their compost kit from the Earth Day Every Day Series. Though they could not sign up for the live webinar due to the language barrier, their relative attended on their behalf and helped deliver the compost pail and educational materials (translated into Vietnamese).



EARTH DAY PHOTO CHALLENGE

The Earth Day celebrations continued with the Earth Day Photo Challenge. Each week during April, the City released a new photo-mission featuring an activity that residents could do to help protect the Earth and create a sustainable Shoreline. By submitting a photo, individuals entered a raffle for a chance to win a sustainable prize. Residents submitted more than 60 entries across the five-week challenge, with the City distributing approximately 25 raffle prizes overall.



Photos submitted for the Earth Day Photo Challenge. Clockwise from top left: urban forest restoration, a backyard rain garden, new compost bin at Shorecrest High School, a backyard compost bin for food scraps, and a little free library by the Densmore Pathway

CHOOSE TO REUSE CHALLENGE TO STOP PLASTIC POLLUTION




Though it is often used only for a few moments, plastic lasts hundreds of years in the environment where it pollutes our oceans and harms wildlife. Many single-use plastics like grocery bags, straws, or utensils, are difficult or sometimes impossible to recycle. Making plastic from oil and gas also contributes to climate change. In the summer of 2021, the City invited the community to participate in the “Choose to Reuse” Challenge to help stop plastic pollution at the source! Individuals chose a reusable item to replace a single-use plastic item during the Challenge to participate. Swaps were as simple as bringing their water bottle or reusable utensils when getting take-out. Participants then sent photos of their “Choose to Reuse” action to receive a zero-waste prize kit!



Community members were invited to stop by the #SustainableShoreline selfie booth at the Farmer’s Market to claim their prize.

TRANSPORTATION & MOBILITY

OUR GOAL: DEVELOP LOW-CARBON, SAFE, AND CONVENIENT TRANSPORTATION OPTIONS.

INDICATORS	CURRENT STATUS	2021 UPDATES
Increase walkability for our community by 2030	 50 out of 100 WalkScore™	Shoreline's WalkScore™ increased to 50 in 2021, a 2-point increase from 48 in 2020. A WalkScore™ is based on the number of shops and services within a 5-minute walk to residences, transit service, and bikeability.
Add 14 miles of new sidewalks by 2030, expanding the network to 92 miles	75-mile sidewalk network	*About 1,900 linear feet, or 0.3 miles, of new sidewalk were added in 2021. This brings the total of new sidewalks added since 2016 to 9,933 linear feet, approximately 1.9 miles.
Add 20 miles of dedicated bike lanes and paths by 2030, for a total of 40 miles	 77.4 miles	*The City added 29 miles in 2021. Since 2017, the City has added about 58 miles of dedicated bike lanes and paths.
Increase the number of Shoreline residents who bike to work to reach 500 bike commuters by 2030	175 bike commuters	Per the 2020 American Communities Survey data. This is down from 280 bike commuters in 2017, which is the last year data were available.
Add 21 public electric vehicle (EV) charging stations in the community by 2030	15 EV charging stations	A total of 15 publicly available electric vehicle chargers were identified on maps from PlugShare and AFDC in 2021, compared to 9 stations identified in 2016. This is a decrease from 21 in 2020.
Increase the number of registered EVs in the community to 450 EVs by 2030	 1,107 EVs	This goal was met in 2019. In 2021 there were 1,107 registered EVs in Shoreline, representing a 46% increase compared to just 2020.
Have 36% of residents living within a 10-minute walk of a light rail station by 2035 Achieve over 13,000 light rail station boardings per day by 2035	NA	We will report these indicators when the light rail stations are open.

*As of May 2, 2022. Data includes a combination of backlog and Sound Transit updates. Data for the full 2021 calendar year were not available at the time of publication.

BICYCLE-FRIENDLY COMMUNITY ACTIVITIES

BIKE MONTH AND CELEBRATION STATION

May is National Bike Month, which is celebrated in communities nationwide with an ever-expanding diversity of events to promote bicycling for recreation and transportation. The City celebrated "Bike Everywhere Day" on May 21 by hosting a socially-distanced "Celebration Station" along the Interurban

Trail next to Trader Joe's. Staff played upbeat music and offered verbal encouragement to cyclists and pedestrians. Of the 48 cyclists who rode past the station that morning, 13 were on electric bikes.

EMPLOYEE TEAM FOR THE "BIKE EVERYWHERE CHALLENGE"

Continuing the City's long-standing tradition of forming teams to participate in the "Bike Everywhere

NEW SIDEWALK AND BICYCLE PROJECTS INCREASE SAFETY AND SUSTAINABILITY

NEW SIDEWALK PROJECT: 1ST AVE NE

In September 2021, construction of the New Sidewalk Project on 1st Avenue NE between N 193rd Street and NE 195th Street was completed. This sidewalk filled a critical gap in the City’s sidewalk network providing a connection to existing trails on NE 195th Street. Design of the 1st Avenue sidewalk included:

- Shared-use pedestrian and bicycle facilities with curbs and gutters;
- Curb ramps for ADA accessibility; and
- Drainage improvements, including permeable concrete to promote infiltration and reduce impacts of urban runoff.

The 1st Avenue NE sidewalk was the first of twelve [voter-approved sidewalks](#) to be completed.



City staff at the Celebration Station to promote Bike Everywhere Day.

Challenge” each May, a small but intrepid team of eight staff cycled nearly 360 miles in 50 trips for socially-distanced fun, transportation, and exercise!

NEW BIKE RACKS AT KRUCKEBERG

The City purchased and installed new bike racks for visitors and employees to support alternative transportation access at Kruckeberg Botanic Gardens.



Top left: Before (top) and after (bottom) photos of the project at 1st Avenue NE and N 192nd Street.



Top right: Before (left) and after (right) photos of the project at 1st Avenue NE and N 193rd Street.



Bottom right: Before (left) and after (right) photos of the project at 1st Avenue NE and N 195th Street.



NEW SHARED-USE PATH: NE 195TH STREET BRIDGE CONNECTOR

In fall 2021, a new shared-use path along NE 195th Street, from 5th Avenue NE to the pedestrian bridge over Interstate 5 (I-5), just east of 7th Avenue NE was constructed. This project closed the last gap of missing pedestrian and bicycle facilities along N 195th Street from the Interurban Trail to the 195th Street Pedestrian Bridge.

Project design elements include:

- 12 foot wide shared-use sidewalk to accommodate bicyclists and pedestrians;
- New crosswalk and curb ramps at the 7th Avenue NE and NE 195th Street intersection;
- New curb and gutter;
- Minor drainage improvements;
- New driveway aprons to preserve existing driveway access; and
- Amenity zone with hardscaping/landscaping and street trees where possible.

Improvements were funded by a Transportation Improvement Board Complete Streets Grant to improve pedestrian and bicycle safety.



Left: The shared-use sidewalk to the pedestrian bridge over I-5. Right: The new crosswalk and curb ramp.

INTERSECTION IMPROVEMENTS: WESTMINSTER WAY N & N 155TH

This project reconstructed the intersection of Westminster Way N and N 155th Street to provide a safer intersection for all users, enhance the flow of traffic, and to support redevelopment of the Shoreline Place Community Renewal Area and adjacent properties. The project added a new traffic



Paving the intersection of Westminster Way N and N 155th Street.

signal, asphalt roadway surface, roadway illumination system, pedestrian facilities (sidewalks, curb ramps, crosswalks, and accessible pedestrian signals), revised lane configuration, and utility infrastructure.

Increased traffic from pedestrians and bicyclists is expected in this area. The improved intersection will help all users move through the area safely and efficiently. The improved intersection also enhances the flow of traffic and support projected traffic volumes.

MOBILITY HUBS STUDY

To inform the City as it updates the Transportation Master Plan, the [Shoreline Planning Commission](#) studied the concept of [mobility hubs](#). Mobility hubs are places where different types of transportation come together. It can include space for bike share, scooter share, car share, as well as curb space for services like Uber and Lyft. They also can provide amenities like public bathrooms, information kiosks, outdoor seating, and public art.

To maximize the use of the upcoming light rail and to support car-light and car-free lifestyles, the City is interested in creating mobility hubs in strategic locations across Shoreline. The City is particularly interested in how these hubs can be integrated into new developments near future light rail stations and connect residents to neighborhood-based commercial services. Through the mobility study, the City established criteria for evaluating mobility hubs, identified and prioritized locations in Shoreline, and recommended basic design principles to promote equity and accessibility.

ELEVATED BOARDWALK: DAYTON AVENUE N

In response to significant community input, Public Works worked with WSDOT, the developer, to design and build an elevated boardwalk on Dayton Avenue N to prevent the removal of trees and allow roadway runoff to support tree root systems. Through this collaborative and innovative design solution, 92 trees (9 of which were over 30-inches in diameter) were retained by using the elevated boardwalk, while still providing needed pedestrian facilities.



The completed elevated walking path at Dayton Avenue N.

OUTREACH FOR TRANSPORTATION MASTER PLAN UPDATES

The City began updating its Transportation Master Plan (TMP) in 2021. The TMP supports all forms of travel—by foot, bicycle, skateboard, scooter, stroller, wheelchair, transit, motorcycle, automobile, etc. The TMP will guide local and regional transportation investments and define the City’s future transportation policies, programs, and projects for the next 20 years. Below is a snapshot of the multi-year update process:

OUTREACH SERIES 1

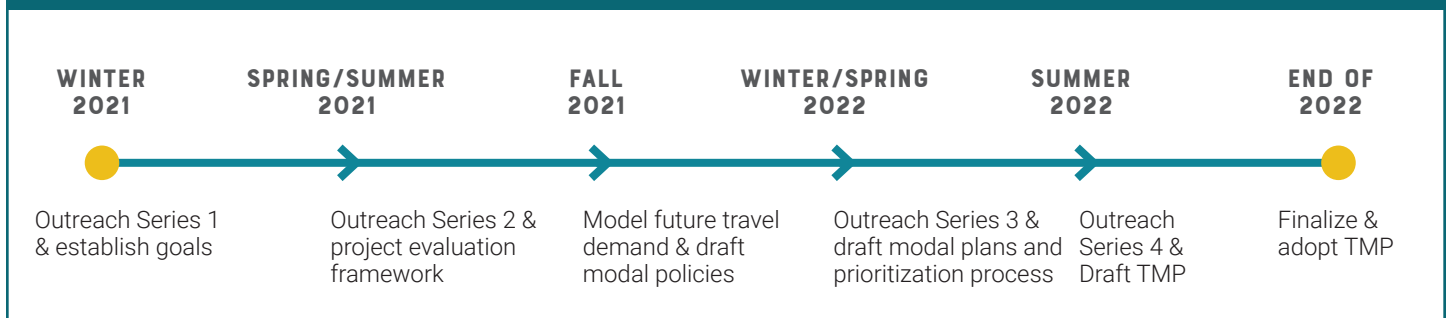
Outreach Series 1 kicked off in February. The City conducted two online open houses and several neighborhood meetings along with a public survey about travel needs and priorities. It introduced community members and stakeholders to the TMP process, offering opportunities to learn about the TMP and share early input on their priorities. Approximately 500 people participated in the online survey, and about 130 attended a presentation. Key discussion topics from Series 1 included: concerns about the safety of people walking, questions on how to use transit to get to and from future light rail stations, interest in car-free options for short trips, the implementation of more sidewalks, and more.

OUTREACH SERIES 2

Outreach Series 2 offered the opportunity to learn more about modal options, shared-use mobility, and the transportation network. Feedback from Outreach Series 1 helped the project team develop a vision and set of goals for the TMP that were shared during Outreach Series 2. Similar to Outreach Series 1, the City presented virtually at several neighborhood association and community meetings. It hosted one in-person engagement opportunity in June. Approximately 700 participants completed the online survey and nearly 170 people attended in-person engagement opportunities. Key discussion topics from Series 2 included: dialogue around shared-use mobility hubs, discussion about changes in traffic patterns due to the future light rail, questions on how to use transit to get to and from future light rail stations, concerns about the impact of redevelopment, and more.

Complete summaries of Outreach Series 1 and 2 as well as other TMP updates can be found online at shorelinewa.gov/tmp.

TIMELINE OF TMP UPDATE PROCESS



TREES, PARKS & ECOSYSTEMS

OUR GOAL: PROTECT LOCAL AND REGIONAL NATURAL RESOURCES AND RESTORE ECOSYSTEM HEALTH.

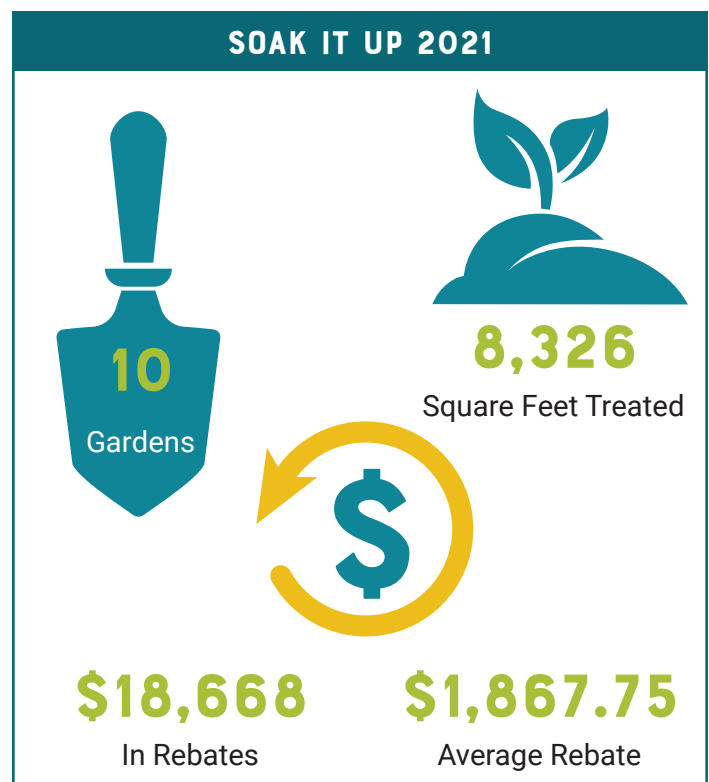
INDICATORS	CURRENT STATUS	2021 UPDATES
UPDATED! Plant 1.5 million trees in King County by 2025	7,271 in Shoreline	Includes trees planted from 2017–2021. The City added 2,558 native trees across six parks in 2021. Data from the City of Shoreline is included in King County totals for measuring a regional goal to plant 500,000 additional trees by 2025. The previous goal of 1,000,000 by 2020 was met in 2019.
Add five new acres of parkland by 2023	1.3 acres acquired	The City acquired 0.43 acres of parkland in the Westminster Triangle neighborhood in 2021.
Achieve a water quality index score of 80 or better for all streams by 2030	57 average	Individual stream water quality index scores ranged from 27–79 in 2021 for an average across all stream sites of 57. This is an increase from 40.4 in 2008 and 52 in 2020.
Install 200,000 ft ² of rain gardens and other natural drainage systems to reduce polluted runoff by 2030	165,482 ft ²	In 2021, the City installed 13,443 ft ² of natural drainage systems. This puts the City at 83% of the way to our 2030 goal.

SOAK IT UP REBATE PROGRAM SUCCESSES

Shoreline’s Surface Water Utility provides rebates of up to \$2,000 for property owners to install rain gardens or native vegetation landscaping on their properties. These beautiful landscape features soak up rainwater runoff, reducing our impact on streams, lakes, and the Puget Sound. 10 gardens were installed around the city in 2021.



A landscaping bed planted with native plant species installed through the Soak It Up program.



SALMON SAFE PROGRESS

Salmon-Safe Certification recognizes Shoreline’s regional leadership in preventing water pollution and commits the City to take additional action through 2024 to improve the health of Puget Sound. City staff worked on several Salmon-Safe activities in 2021.

SALMON-SAFE CONDITIONS ACHIEVED IN 2021	
<p>CONDITION 5: Assess water conservation efforts</p>	<p>The City submitted a memo to Salmon Safe with an assessment of water use and documented water savings associated with recent water conservation efforts for Parks Department properties, and a plan for implementing the expanded practice to Public Works and Facility properties since Salmon-Safe certification was obtained in April 2019.</p>
<p>CONDITION 8: Assess snow removal and ice control plan.</p>	<p>In 2021, Public Works commissioned a study to examine its Snow and Ice Control equipment, operational practices, and chemical treatment methods to reduce the impact of chlorine-based products on the natural environment. The findings of that study will be incorporated into the next update of the Snow and Ice Control Plan.</p>
<p>CONDITION 9: Update the integrated pest management plan.</p>	<p>In April, the City approved an updated integrated pest management plan focused on long-term prevention or control to acceptable levels of pest problems with minimum negative impact on human health, non-target organisms, and the environment. The policy established that pest treatments be used in the following order: preventive, cultural, mechanical, biological and lastly chemical treatment if the other treatment methods have not been successful in managing the infestation with governance, guidance and documentation on use of “hazardous” chemicals.</p>
<p>CONDITION 10: Enhance biodiversity in parks when converting turf or landscaped areas.</p>	<p>The City evaluated landscaped areas in our parks and rights-of-way for the potential to convert bed areas that were previously treated as turf to function as nature patches in the next 5-10 years. More than 150 landscaped areas of City parks were identified for potential conversion to nature patches in the future, which can lead to reduce maintenance costs (e.g., removing a landscaped bed) and/or to enhance the ecological functioning of an area that is otherwise underutilized.</p>



YOU CAN BE SALMON-SAFE TOO!

As part of the [City's Salmon-Safe certification](#), we have committed to avoiding the use of uncoated zinc and copper for any new building cladding. Building materials with uncoated zinc and copper can leach pollutants into stormwater. Those pollutants are toxic to salmon and aquatic life. Do your part to reduce zinc and copper pollution in Shoreline’s waterways and Puget Sound.

- Avoid zinc and copper-bearing building materials at your home or business.
- Switch to copper-free brake pads.
- Fix car leaks as soon as you detect them.
- Reduce the use of garden chemicals, including fertilizers, weed and feed, and pesticides.
- Choose zinc- and copper-free moss removal products.

THREE REGIONAL AGENCIES TEAMED UP FOR TREES FOR RAIL

Sound Transit, the City of Shoreline, and King Conservation District (KCD) announced Trees for Rail, a partnership to re-green the Lynnwood Link light rail corridor with native trees and shrubs as it passes through Shoreline. The first of its kind partnership seeks to utilize KCD's County-wide Urban Tree Canopy program to offer trees and shrubs to be planted at nearby homes or adjacent City rights-of-way in the impacted neighborhoods. The program offers free native trees and plants for qualifying City of Shoreline residents—those along the rail corridor in parts of the Ridgecrest, North City, and Ballinger neighborhoods. KCD will offer free consultation and installation of up to two trees, four shrubs, and eight groundcovers.

GREEN SHORELINE PARTNERSHIP AND GREEN SHORELINE DAY

The Green Shoreline Partnership is part of the Green City Partnerships program. The Green City Partnerships program unites cities across Puget Sound in developing community-based stewardship programs to care for the valuable forests and natural areas in our urban environments.

The [Green Shoreline Partnership](#) aims to restore 240 acres of Shoreline's forested parks and natural areas by 2039! Last year alone, volunteers gave over 2,000 hours of their time and planted over 2,500 native plants across six parks! The Partnership also added two stewards—one at Hamlin Park and one at North City Park.

The City observed Green Shoreline Day on November 13—the biggest planting celebration of the year! Skilled volunteer forest stewards added 1,300 native trees and 1,400 shrubs into active restoration sites across four of our City parks:

- Richmond Beach Saltwater
- Paramount Open Space
- North City
- Twin Ponds



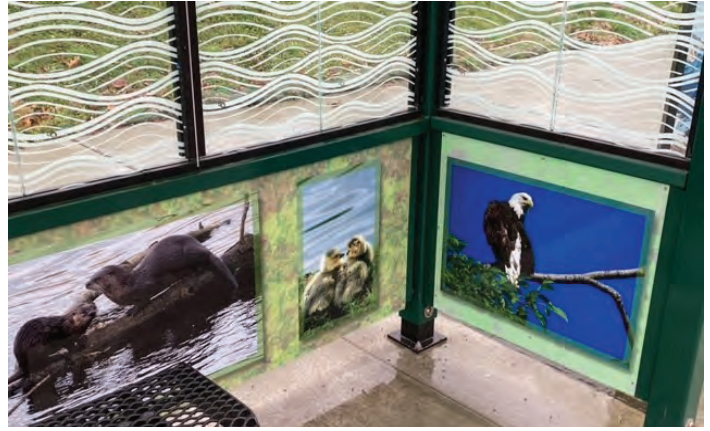
Green Shoreline Partnership volunteers.



RONALD BOG BUS SHELTER ARTWORK

The City once again collaborated with King County Metro on bus shelter murals depicting images relevant to their locations. Two new murals, both near Ronald Bog Park, were installed in early February.

The shelter on Meridian Avenue N across the from the park celebrates bog wildlife. Martin DeGrazia lives adjacent to the bog. Over time, he has gotten to know his wild neighbors through a camera lens. His photos invite passersby to exchange glances with animals who coexist next to a busy intersection and interstate highway.



The mural at the bus shelter on Meridian Avenue N.

GROUNDS MAINTENANCE ADVANCES SUSTAINABLE LANDSCAPE PRACTICES

In 2019 The City created an in-house Grounds Maintenance Division to take over care of landscapes in our parks and rights-of-way. Since that time, Grounds Maintenance has advanced a wide range of sustainable landscaping practices such as natural weed control, water conservation, and converting turf areas to native habitat. In 2021, Grounds applied over 500 cubic yards of locally-generated compost and mulch to 12,121 square feet of landscape areas and installed 2,665 mostly native plants in beds that were renovated from turf. Most of the compost was purchased from Cedar Grove Composting, one of the facilities that processes food and yard waste from Shoreline. The rest of the mulch was chipped in-house from brush generated by maintenance staff. These practices not only support waste reduction and a circular economy - they also increase soil health and water holding capacity, sequester carbon, and create habitat for wildlife.



Grounds Maintenance workers applying compost and burlap to a bioretention bed along Aurora Avenue.

EVERGREEN CARBON CAPTURE GRANT RECEIVED

In 2021 the City received a non-competitive carbon sequestration grant as part of Forterra's Evergreen Carbon Capture (ECC) program. Forterra created ECC to provide organizations and individuals a local option to help address climate change through native tree planting. Forterra plants and maintains ECC trees for carbon sequestration in cities and rural lands throughout Western Washington. They help calculate an organization's or individual's annual carbon footprint and then plant trees locally to offset the estimated carbon impact. (Fun fact: ECC began as a partnership with Pearl Jam, who wanted to take

responsibility for their carbon emissions produced from their world tour by planting trees in their local community!)

Three sites in Shoreline are being planted and stewarded by the Green Shoreline Partnership, a partnership between the City of Shoreline, Forterra, and community volunteers:

1. Edwin Pratt Memorial Park
2. James Keough Park
3. Shoreview Park

Approximately 200 Pacific Northwest native trees will be installed, with the potential to sequester

~973 tons of CO₂. Across all three sites, the trees from ECC will help decrease ambient air temperatures for the neighborhood, filter pollutants, provide habitat for wildlife, and create beautiful and healthy spaces for visitors to enjoy long into the future. The City has pledged to leave the ECC trees undisturbed for 100 years.

TWO NEW PARKS AND PROPOSITION 1 PASSED

NEW PARKS

The Shoreline City Council adopted names for Shoreline’s two newest parks – Edwin Memorial Park and Westminster Park. The City acquired both properties in 2020 using funds from Conservation Futures Tax grants and Park Impact Fees paid through new development.

As future funding is identified for design of these parks, the public will have an opportunity to comment.

1. Edwin Memorial Park

[1341 N 185th Street](#)

The 0.70-acre park is named in honor of civil rights leader and Shoreline resident Edwin Pratt. The location is close to both the home where Edwin Pratt lived with his family and the church they attended. Naming the park after Edwin Pratt honors his legacy and the impact he has had on our community. It will also serve as a place for reflection. As part of the requirements for using the Conservation Futures Tax grant, the City can only develop 15% of the park with hard surfaces, so the remaining portion will be a natural refuge.

2. Westminster Park

[709 N 150th Street](#)

The 0.43-acre park sits almost in the middle of the Westminster Triangle neighborhood. Naming it Westminster Park reflects the neighborhood, the community, and its geographical identification.

PROPOSITION 1

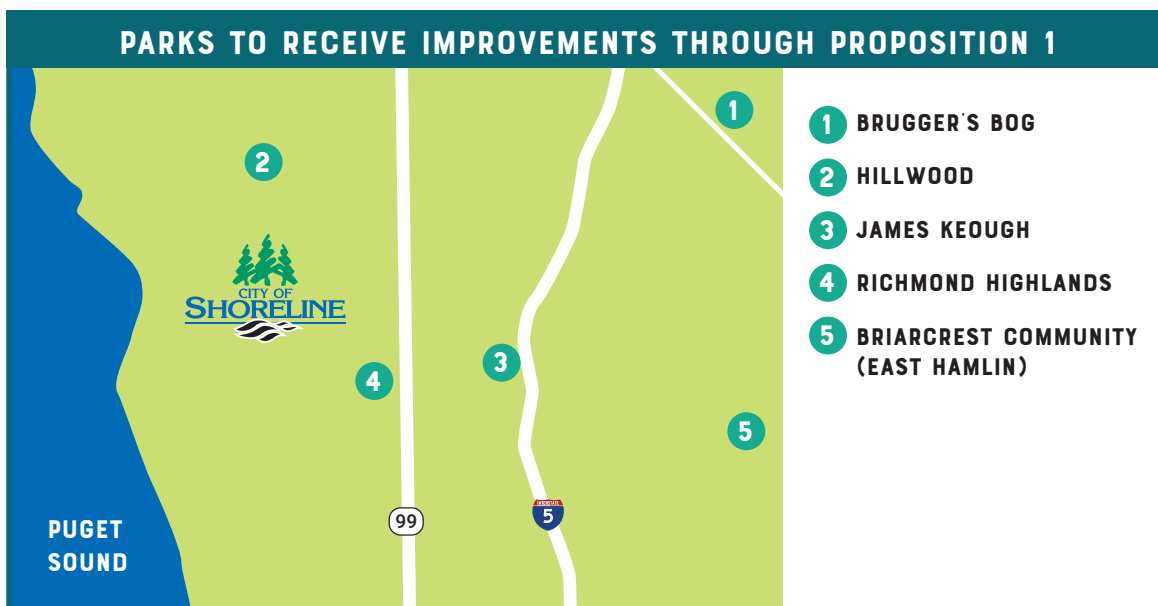
Shoreline voters showed strong support for Proposition 1, a park bond levy for park improvements and park land acquisitions, in February’s Special Election. Seventy percent of Shoreline voters casting ballots approved the measure. Bond measures require 60% approval to pass.

Five parks will receive sizeable improvements thanks to Proposition 1. These include:

1. Brugger’s Bog
2. Hillwood
3. James Keough
4. Richmond Highlands
5. Briarcrest Community (east Hamlin)

Park improvements would include such things as playgrounds, splash-pads, multi-sports courts, walking trails, picnic shelters, off-leash dog areas, and a fully accessible play area for people of all physical abilities.

Park land acquisitions and improvements will expand Paramount Open Space, Brugger’s Bog, and Rotary Parks, and will include additional park land acquisitions in the light rail station areas and other parts of the City.



RESILIENT COMMUNITIES

OUR GOAL: PROMOTE COMMUNITY HEALTH AND PROSPERITY FOR ALL

INDICATORS	CURRENT STATUS	2021 UPDATES
Add nearly 2,000 additional affordable housing units in Shoreline by 2031	386 units added	The total number of affordable housing units in the City—as measured in the Property Tax Exemption program—increased by 91 in 2021, for a total of 386.
Create an estimated 7,200 new jobs in Shoreline by 2035	1,215 jobs added	Shoreline added 245 new jobs between 2019-2020 for a total of 1,215 jobs added since 2016.

CLIMATE IMPACTS TOOL IMPLEMENTATION

The City completed a Climate Impacts and Resiliency Study in 2020. One of the outcomes of the study was the creation of a Climate Impacts Tool to help capital project managers easily identify current or future areas of vulnerability and opportunities to increase resiliency related to climate change.

This interactive, map-based tool identifies also provides suggestions for adaptive solutions to address three key topics:

1. Surface water vulnerabilities;
2. Urban heat island effects; and
3. Equity and justice.

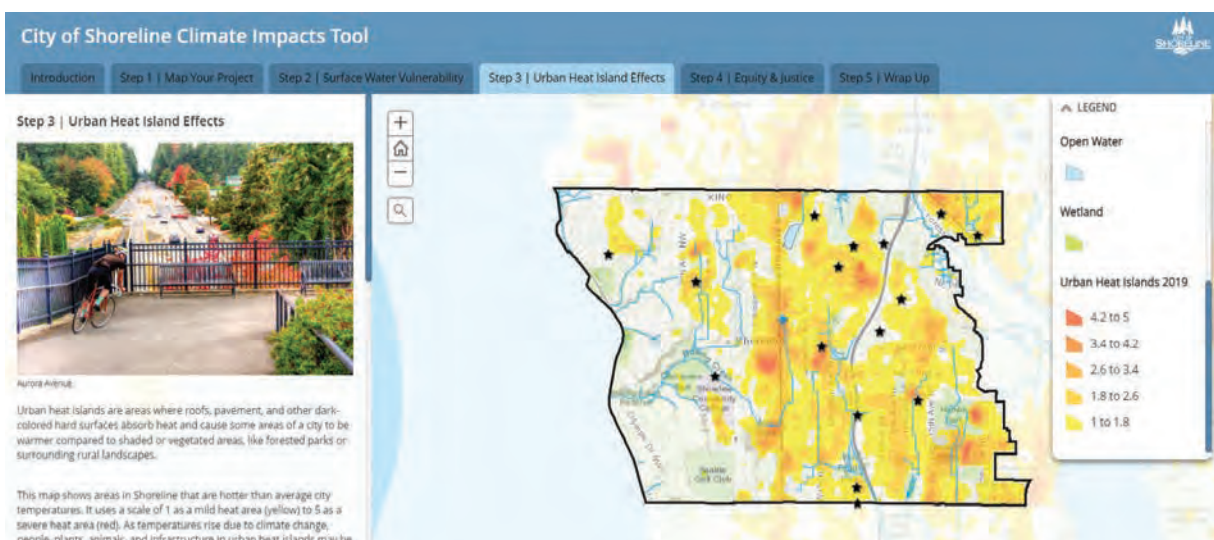
The tool also outlines potential resilience measures to combat increased rain events and increased extreme heat events in the City of Shoreline.

For more information about how climate change is impacting Shoreline, [visit this interactive story map](#).

WHAT IS CLIMATE RESILIENCE?

Resilience is a broad concept that can apply to individuals, communities, and social, economic, and environmental systems. Resilience is the capacity to cope with a hazardous event or long-term trend in ways that maintain essential identities, functions, and structures while also maintaining the capacity to learn, adapt, and/or transform.

—from the King County 2020 Strategic Climate Action Plan



A screenshot of the Climate Impacts Tool.

2021 ENVIRONMENTAL MINI-GRANTS

The City offers grants up to \$5,000 per application to individuals, community groups, and business owners for projects that enhance the environment and promote environmental stewardship. **Since 2007, the Environmental Mini-Grant program has awarded over \$210,000 in funding.** The City funded four projects in 2021.

- 1. Twin Ponds Giving Garden (\$600)** Neighborhood volunteers continued their ongoing work to grow produce at the Twin Ponds Community Garden for donation to the Bitter Lake and Lake City food banks (Hopelink does not currently accept fresh food or produce).



- 2. Nature Education for Shoreline School District (\$2,875)** Shoreline School District hired a nature educator to provide an ecosystem learning unit for 4th and 5th grade classes at Highland Terrace and Meridian Park Elementary schools. The unit included hands-on activities and a field trip to local wetlands at Cromwell Park and Echo Lake Park.



- 3. Midvale Gardens Vegetation Management (\$3,500)** The community-based nonprofit, Diggin' Shoreline employed goat herds from Earthcraft Services to suppress invasive species plant growth at Midvale Gardens, an area adjacent to the Interurban Trail.

- 4. Paramount Open Space Restoration (\$3,539)** Non-profit community organization, Friends of Paramount continued an urban forest restoration project in the park.

2021 NEIGHBORHOOD MINI-GRANTS

Neighborhood Mini-Grants help neighbors increase their sense of community by working together on improvement projects or special events, and partnerships. There were several exciting projects in 2021, two of which are highlighted below:

PATHMATES PROJECT

Hillwood Neighborhood Association

When the neighborhood re-branded in 2020, leaders kept their retired welcome signs and began imagining how they could be transformed into art pieces. Reaching out through social media, libraries, and art programs in local schools, they invited youth in grades K-12 to visually explore the theme "What I Like About My Neighborhood." Nine young artists were chosen to have their sketches transformed into small, silhouette-style sculptures that have been installed along Hillwood neighborhood paths. In addition to the excitement of seeing their visions realized in metal, each were awarded \$100, their first honoraria as artists.



DENSMORE PATHWAY

Echo Lake Neighborhood Association



Since 2011, the Echo Lake Neighborhood Association has spent countless hours developing and improving the pathway connecting Ashworth and Densmore streets on North 188th. Last year, volunteers continued their efforts to enhance the pathway by

adding even more life to the trail, with additional native plantings and new art, including sculptures of a nesting heron, school of young salmon, and various pollinator species. Signage welcomes people into pesticide-free, pollinator-friendly green space and encourages them to create their own healthy habitats.

ADOPT-A-DRAIN VOLUNTEER PROGRAM
66 storm drains were adopted to help prevent neighborhood flooding and water pollution.

GRANT FOR COTTAGE HOUSING STUDY

The City received a grant from the Department of Commerce for developing cottage housing regulations, a component of Shoreline’s [Housing Action Plan](#) (adopted in May 2021). The Plan contains a Housing Needs Assessment which provides the quantitative data and analysis required to understand Shoreline’s housing needs and a Housing Toolkit which identifies a variety of possible options to address those needs. Of the many strategies within Housing Toolkit, cottage housing was identified as one of the highest priorities for implementation.

Cottage housing is a type of missing middle housing that allows for small 1 or 2 story houses, either attached or detached and may not have a backyard but, instead, are arranged around a common interior courtyard. Houses are normally 700–1,200 ft² in size. These features and relatively small size allow for moderate-income housing well suited for seniors and small families. Cottage housing has the potential to blend with the scale of existing neighborhoods that consist of predominantly detached single-family housing but can increase the dwelling units per acre threefold and drastically increase the residential building capacity through infill development. While

the City has focused much of its planning efforts in recent years to increasing development capacity and investing in infrastructure on the Aurora corridor and its two light rail station areas, cottage housing will provide a needed housing type to complement the more compact growth pattern planned in other areas of the City.

SHORELINE WALKS

After taking a year off, Shoreline Walks returned in 2021. Shoreline Walks is a free community walking program helping Shoreline adults stay active, meet new people (or connect with old friends), and feel safer and more confident exploring our city by foot. Walks explore neighborhoods, parks, and trails offering great insight into some of the best walking routes in our City. Specifically designed for adults ages 50+ but open to all ages and abilities, each walk is led by a volunteer walk leader and all walks are free to the public. Between April–November 2021, volunteers led 20 walks for more than 400 participants.



Residents participating in Shoreline Walks.

APPENDIX A: SUSTAINABILITY INDICATORS

This appendix provides additional information on the sustainability goals referenced in the 2021 Sustainability Report. City staff, working with a consultant, developed these indicators in 2018. Most indicators reference a baseline year of 2016, although a few have earlier baseline years as noted below. The 2021 status update refers to data available as of May 20, 2021, unless otherwise indicated.


CLIMATE, ENERGY & WATER


INDICATOR	2009 BASELINE	2021 STATUS UPDATE
Achieve zero net municipal greenhouse gas (GHG) emissions by 2030	835 mtCO ₂ e	959 mtCO ₂ e (15% increase, does not include employee commute data)
UPDATED! Reduce <i>community</i> GHG emissions by 60% by 2030 compared to 2009, and reach net-zero by 2050.	261,785 mtCO ₂ e	249,180 mtCO ₂ e (5% decrease)


DETAILS: We completed an inventory of GHG emissions produced by the Shoreline community. This “geographic-plus” inventory utilized data from 2019, including emissions from energy use in buildings, fuel use in vehicles, solid waste disposal, and energy production. The inventory did not include emissions created by goods and services consumed in Shoreline but produced in other places.

We calculate GHG emissions using several data sources, including community electricity, natural gas, and heating oil use; vehicle miles traveled; and solid waste generation. We typically measure emissions every three years as it takes a significant amount of staff time to gather and analyze data. Zero net municipal GHG emissions refers to reducing or offsetting all sources of carbon emissions measured in our GHG emissions inventory for City operations. We also refer to this as being carbon neutral. One way to offset GHG emissions is to plant trees that absorb excess carbon dioxide and store that carbon while releasing oxygen back into the air.

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Achieve an average of 10.2 miles per gallon (MPG) for the City's vehicle fleet by 2030	8.7 MPG	9.9 MPG (2020)
<p>DETAILS: Data for 2021 was not available at the time of publication. Municipal fleet fuel use increased from 8.7 MPG in 2016—and 7 MPG in 2019—to 9.9 MPG in 2020. Data provided by City staff in the Administrative Services Department. We captured miles from CityWorks and captured fuel use predominately from King County Fleet (which provides a fueling station for City vehicles), with some fuel use data from the Shoreline School District (another fueling site for City vehicles). Due to COVID-19 requirements of social distancing, Fleet Services leased four additional trucks during the summer of 2020 to achieve the same amount of work done by the Public Works Grounds Maintenance crew.</p> <p>We do not capture other fuel use from employee travel reports or other transactions in this calculation. This calculation also does not include MPG calculations for equipment, fuel cans, or larger vehicles (such as street sweepers and Vactor trucks), electric vehicles or the police transport van that was historically in the City fleet. The City currently has three electric vehicles (including two electric police motorcycles) and four hybrid vehicles. The City is committed to replacing gasoline and diesel vehicles with electric or hybrid options as vehicles are due for replacement and heavy-duty vehicle technologies advance..</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Install solar panels to produce 200 kW of electricity by 2030	157 kW	 1,867 kW (2020)
<p>DETAILS: Data for 2021 was not available at the time of publication. Seattle City Light provides electricity for the Shoreline community, and all properties that install solar photovoltaic panels must register their project with Seattle City Light. Per Seattle City Light, as of December 31, 2020, customers have installed a cumulative 1,867 kW, or approximately 1.87 MW, of solar in Shoreline. That includes approximately 433 kW of solar installations in 2020.</p> <p>It is unclear how we obtained the 2016 baseline data. However, the 2016 baseline appears to include data for 16 installations completed as part of the 2016 Solarize Shoreline campaign that installed 117 kW of solar capacity, and a 20.2 kW solar installation at City Hall.</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Increase the number of green residential units in the community to over 700 by 2030	~260 units	 ~1,379
<p>DETAILS: In 2021, the City counted 461 new units applied for in 2021 (413 LEED Platinum, 48 Built Green 4-Star) for a total of ~1,739 green residential units. We obtained data for the 2021 status update from the City's TRAKIt system—same as in 2020—but used a new process for identifying total green residential units. We counted permits that had an “applied” date during 2021. As a result, we adjusted our numbers for 2019 and 2020 to capture a more accurate comparison to previous years. Data for 2019 and 2020 using the new process are 250 and 918, respectively. To count as a green unit, projects must register with a certification agency, such as Built Green. Built Green Program staff provided data for the 2016 baseline.</p> <p>In 2015, the City created the Mixed-Use Residential (MUR) zoning districts for the light rail station subareas. The City mandated that any new building in the MURs be constructed at the Built Green 4-Star Level. As a result, the number of green building units permitted in Shoreline has grown exponentially in recent years.</p>		


INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Increase square feet of certified green commercial space in Shoreline by 33% by 2030	668,000 ft ²	 907,294 ft ²
<p>DETAILS: The City counted 2,501 ft² of LEED Platinum commercial space applied for in 2021. We obtained data for the 2021 status update from the City’s TRAKIt system—same as in previous years—but used a new process for identifying total green commercial space. We counted permits that had an “applied” date during 2021. It is unclear how we calculated the data for 2019; however, to obtain an updated total amount of green commercial space we used the sum of 2021 data and the 2019 reported total, bringing Shoreline to 907,294 ft²—a 36% increase from 2016 baseline data.</p> <p>It is unclear how we developed the 2016 baseline data, but it appears to include commercial properties that received LEED certification. Staff used the City’s TRAKIt system to review data for the 2021 status update.</p>		

INDICATOR	2010 BASELINE	2021 STATUS UPDATE
Keep per capita water use at the 2010 level of 19,000 gallons per resident per year	19,000 gallons/resident/year	Not available for 2021
<p>DETAILS: Seattle Public Utilities and North City Water District provided information on water use by sector (residential, commercial, etc.) in Shoreline to establish the 2010 baseline. However, both utilities informed City staff in 2019 that they are no longer able to provide Shoreline-specific water use data by sector for completing this calculation. Thus, we will not be able to evaluate this indicator on an ongoing basis.</p>		


MATERIALS, FOOD & WASTE

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Divert 70% of waste generated in the Shoreline community from the landfill	44% overall diversion rate 58% Single-Family 31% Multifamily 26% Commercial	47% overall 61% Single-Family 24% Multifamily 25% Commercial
<p>DETAILS: Shoreline residents and businesses generated 35,652 tons of waste in 2021, which was 306 tons less than measured in 2020. They recycled or composted approximately 47% of that waste, down from 50% in 2020 and 48% in 2019. Compared to 2020, diversion rates for single-family households, multifamily and commercial customers all decreased.</p> <ul style="list-style-type: none"> • Single-family: 64% in 2020 down to 61% in 2021. • Multifamily customers: 25% in 2020 down to 24% in 2021. • Commercial customers: 27% in 2020 to 25% in 2021. <p>Recology provides data used to calculate diversion rates, i.e., the percentage of waste generated by all Recology customers in the City of Shoreline that they recycle or compost instead of it going to the landfill. Garbage collected by Recology in Shoreline is taken to the Cedar Hills Regional Landfill. According to population and economic projections, and current recycling rates for King County, the Cedar Hills Regional Landfill will be full around 2028.</p>		

TRANSPORTATION & MOBILITY


INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Increase walkability for our community by 2030	48 out of 100 WalkScore™	 50 out of 100 WalkScore™
<p>DETAILS: Shoreline’s WalkScore™ increased to 50 in 2021, a 2-point increase from 48 in 2020 and 2016 baseline levels. A WalkScore™ is based on the number of shops and services within a 5-minute walk to residences, transit service, and bikeability. WalkScore, the organization, calculates WalkScores by gathering data on restaurant/bar/coffee shop locations, transit services, and bicycle infrastructure.</p> <p>Currently, most errands in Shoreline require a car. The opening of two light rail stations in 2024, along with the future high-density residential and mixed-use developments will help to improve Shoreline’s WalkScore. Learn more at www.walkscore.com/WA/Shoreline.</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Add 14 miles of new sidewalks by 2030, expanding the network to 92 miles	78 miles	75-mile sidewalk network
<p>DETAILS: A review of miles of sidewalk added in the City’s GIS database showed we added 4,225 linear feet of new sidewalk in 2019, 4,105 linear feet in 2020, and 1,900 linear feet in 2021. This brings the total amount of new sidewalk measured in GIS since 2016 to 9,933 linear feet, or approximately 1.9 miles. Sidewalk data from GIS were not available for 2017–2018.</p> <p>When looking at the total mileage of the sidewalk network, it is unclear how it decreased from 78 miles in 2016 to 75 in 2021. It may be due to having an incomplete dataset at the time of this publication. Alternatively, the City completed an aerial photo project in early 2020, which may have significantly altered our recorded miles of sidewalk than in previous years.</p> <p><i>*As of May 2, 2022. Data includes a combination of backlog and Sound Transit updates. Data for the full 2021 calendar year were not available at the time of publication.</i></p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Add 20 miles of dedicated bike lanes and paths by 2030, for a total of 40 miles	20 miles	 *77.4 miles
<p>DETAILS: While it is unclear how we obtained 2016 baseline data, the City has added about 58 miles of dedicated bike lanes and paths since 2017. *The City added 29 miles in 2021.</p> <p><i>*As of May 2, 2022. Data for the full 2021 calendar year were not available at the time of publication.</i></p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Increase the number of Shoreline residents who bike to work to reach 500 bike commuters by 2030	339 bike commuters	175 bike commuters (2020 data)
<p>DETAILS: It is unclear how we obtained 2016 baseline data, although staff thinks it likely came from the American Communities Survey (ACS). The 2021 status update refers to data reported in the 2020 ACS for Shoreline. The number of bike commuters decreased from 280 in the 2017 ACS report survey to 175 in 2020. Given ongoing challenges with using the ACS for this metric, the City may consider gathering site specific counts for popular bike routes via manual counts, tube counts, and/or automated bike counters in the future.</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Add 21 public electric vehicle (EV) charging stations in the community by 2030	9 charging stations	15 charging stations
<p>DETAILS: We identified a total of 15 EV chargers on online charging maps in Shoreline in May 2022. This is a decrease from 21 in 2020. We only included those stations that are available to the public. Compared to the 2016 baseline, 6 public EV charging stations have been added in the community. It is unclear how we obtained 2016 baseline data. We obtained data for 2021 from three sources: PlugShare, ChargeHub and the Alternative Fuels Data Center (AFDC).</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Increase the number of registered EVs in the community to 450 EVs by 2030	180 EVs	 1,107 EVs
<p>DETAILS: In 2021, there were 1,107 electric vehicles (EVs) registered in Shoreline, representing a 46% increase compared to just 2020.</p> <p>It appears we obtained data for the 2016 baseline from Data.WA.gov. We also obtained data for the 2021 status update from Data.WA.gov, which provides a summary of EV registrations via the Washington State Department of Licensing.</p>		

TREES, PARKS & ECOSYSTEMS

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
UPDATED! Plant 1.5 million trees in King County by 2025	NA	7,271 in Shoreline
<p>DETAILS: The current total includes trees planted from 2017-2021. The City added 2,558 native trees across six parks in 2021.</p> <p>Building on the momentum of King County’s regional goal of planting 1 million trees by 2020 (achieved in 2019), the County established a new target to plant 500,000 more trees by 2025. This new goal is guided by equity and ecological priorities outlined in their 2020 Strategic Climate Action Plan. King County data for measuring the regional goal to plant an additional 500,000 trees by 2025 includes totals from the City.</p>		

INDICATOR	2016 BASELINE	2020 STATUS UPDATE
Add five acres of new parkland by 2023	475 acres	1.3 acres acquired
<p>DETAILS: The City acquired 0.43 acres of parkland in the Westminster Triangle neighborhood in 2021. Added to the 2020 total of 0.87 acres, this brings the City to 1.3 acres acquired since 2016.</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Achieve a water quality index score of 80 or better for all streams by 2030	40.4 average (Scores ranged from 26-60)	57 average (Scores ranged from 27-79)
<p>DETAILS: The average Water Quality Index Score across all City stream sites increased from 52 in 2020 to 57 in 2021, indicating better water quality. This is also a slight increase from 56.6 in 2019. Seven streams scored in the category of “Moderate Concern” in 2020, with two streams (Littles Creek and Thornton Creek) scoring in the category of “Highest Concern.” The average across all Shoreline stream sites remains in the category of “Moderate Concern” or moderately impaired water quality.</p> <p>The Water Quality Index Score is a unitless number ranging from 1 to 100, with a higher number indicating better water quality. In general, stream sites scoring 80 and above are of “lowest concern,” while scores of 40 to 80 indicate “moderate concern,” and water quality at stations with scores below 40 are of “highest concern.” Scores are determined for temperature, pH, fecal coliform bacteria, dissolved oxygen, total suspended sediment, turbidity, total phosphorus, and total nitrogen. Constituent scores are then combined, and results are aggregated over time to produce a single yearly score for each sample station. King County Environmental Lab analyzes the water quality samples collected by City staff and calculates the annual Water Quality Index Score for Shoreline streams.</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Install 200,000 square feet of rain gardens and other natural drainage systems to reduce polluted runoff by 2030	88,000 ft ²	165,482 ft ²
<p>DETAILS: In 2021, the City installed 13,443 ft² of natural drainage systems, also known as “low-impact development (LID)” features. LID refers to a suite of development tools and constructed features that both minimize the environmental impacts of development and seek to mimic ecological functions of the natural environment. Typically, LID refers to stormwater-specific features, such as rain gardens, bioswales, pervious pavement, and cisterns. The 2021 status update includes square footage for City-installed rain gardens through the Soak It Up program (8,326 ft²), bioretention ponds (-240 ft²) and permeable pavement projects (5,357 ft²). The 2021 installations put the City at 83% of the way to our 2030 goal. We obtained data for the 2016 baseline using GIS data for City installed raingardens, bioretention ponds, and permeable pavement projects. The baseline includes data points from 2009-2016. An analysis of this data in 2019 showed a higher 2016 baseline of 109,075 square feet. The source of this discrepancy is not clear.</p>		

RESILIENT COMMUNITIES

INDICATOR	2014 BASELINE	2021 STATUS UPDATE
Add nearly 2,000 additional affordable housing units in Shoreline by 2031	11,358 units	386 units added
<p>DETAILS: The total number of affordable housing units in the City increased from 278 in 2019 and 295 in 2020, to 386 in 2021. The 2014 baseline appears to reference data from the 2014 American Communities Survey and the 2014 Final Environmental Impact Statement for the 185th Street Station Subarea Planned Action. Data for the 2021 update were provided by staff overseeing the City’s Property Tax Exemption (PTE) program. The PTE program is the City’s main affordable housing program. For a development to qualify in the targeted residential areas, a project must be multifamily housing development with at least 20% of the units meeting the affordable housing definition as defined in Shoreline Municipal Code Chapter 3.27.020 (excluding the two light-rail station areas).</p>		

INDICATOR	2016 BASELINE	2021 STATUS UPDATE
Create an estimated 7,200 new jobs in Shoreline by 2035	15,962 jobs	1,215 new jobs added since 2016 (2020)
<p>DETAILS: Data for 2020 showed that Shoreline had 17,177 total jobs, for an increase of 1,215 new jobs since 2016. The Puget Sound Regional Council (PSRC) reports data as received from the State Employment Security Department (ESD). Supplemental information from Boeing, OSPI, and governmental units from the same period are collected directly by PSRC and used as distributions of the jobs totals reported by ESD. Duplicates, temporary staffing agencies, ski resorts, out-of-area records, and unlocatable records are removed from the dataset. Major sector employment totals by county from the initial ESD dataset are used as control totals and applied proportionally to each record’s employment data to arrive at a total matching that of ESD.</p>		

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shorelinewa.gov/sustainability

#sustainableshoreline





Attachment B

CARBON SEQUESTRATION MEMO

Cascadia Consulting Group (“Cascadia”) used the USDA Forest Service’s i-Tree Canopy software to conduct a high-level land carbon sequestration analysis to estimate potential greenhouse gas (GHG) emissions reduction benefits from Shoreline’s urban forests. The software facilitates a supervised random sampling (100 samples) using Google Maps aerial photography. The analysis includes quantification of the carbon sequestration potential of Shoreline’s existing tree canopy.

RESULTS

The i-Tree Canopy analysis indicates 44% of Shoreline’s land mass is covered with trees as of 2021.¹ These trees sequester an estimated 13,890 metric tons of CO₂ equivalent (MT CO₂e) from the atmosphere every year² and store an estimated 413,840 MT CO₂e.³

Tree Benefit Estimates: Carbon

Description	Carbon (kT)	±SE	CO ₂ Equiv. (kT)	±SE	Value (USD)	±SE
Sequestered annually in trees	3.79	±0.43	13.89	±1.57	\$646,250	±72,907
Nitrogen Dioxide removed annually	112.87	±12.73	413.84	±46.69	\$19,249,244	±2,171,60

¹ Value depicted as mean estimate, with 95% confidence interval of 39.04-48.96%.

² Assumes a sequestration rate of 28,498 lbs. CO₂/acre/year. Source: i-Tree Canopy v.7.1.

³ Value depicted as mean estimate assuming a storage amount of 21,940 MT of Carbon, or 80,446 MT of CO₂, per mi² and rounded.



Tree Benefit Estimates: Air Pollution

Abbreviation	Description	Amount (T)	± SE	Value (USD)	± SE
CO	Carbon Monoxide removed annually	1.36	±0.15	\$420	±47
NO2	Nitrogen Dioxide removed annually	12.75	±1.44	\$1,530	±173
O3	Ozone removed annually	12.75	±1.44	\$1,530	±173
SO2	Sulfur Dioxide removed annually	3.87	±0.44	\$63	±7
PM2.5	Particulate Matter less than 2.5 microns removed annually	4.57	±0.52	\$112,510	±12,693
PM10	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	67	±2.90	\$35,561	±4,012
Total		133.12	±15.02	\$182,677	±20,609

Tree Benefit Estimates: Hydrological

Abbreviation	Description	Amount (Mgal)	± SE	Value (USD)	± SE
AVRO	Avoided Runoff	54.19	±6.11	\$484,239	±54,630
E	Evaporation	392.58	±44.29	N/A	N/A
I	Interception	395.86	±44.66	N/A	N/A
T	Transpiration	806.74	±91.01	N/A	N/A
PE	Potential Evaporation	1,258.83	±142.01	N/A	N/A
PET	Potential Evapotranspiration	1,092.90	±123.30	N/A	N/A



CONSIDERATIONS

This carbon sequestration analysis represents a high-level estimate of annual land carbon sequestration in Shoreline. Data limitations and other considerations include:

Omission of non-tree vegetation: This approach assumes that non-tree vegetation does not sequester carbon, which is not the case. This analysis does not include carbon benefits from non-tree vegetation such as agriculture, pasture, and shrubs.

Tree generalization: This approach does not explicitly differentiate between tree types, but assumes that all trees sequester an average, representative amount of carbon every year.

Statistical sampling: This approach extrapolates a statistical sampling of an area, rather than analyze the area in its entirety, which inevitably results in some level of statistical uncertainty and imprecision.

METHODOLOGY

i-Tree Canopy (version 7.1) estimates tree cover and tree benefits for a given area with a random sampling process to easily classify ground cover types. For this study, Cascadia used ground cover types “Tree” and “Non-Tree.” We selected the City of Shoreline’s boundaries from the pre-existing geographic boundaries in the program. The program randomly sampled 100 data points across the two ground cover types to estimate sequestration benefits. The following figures serve to visualize the study’s methodology.

- Figure 1: Selected city boundaries for the Shoreline study using pre-defined U.S. Census Places outlines.
- Figure 2: Estimated tree canopy cover on Shoreline in 2021, using random sampling from the i-Tree Canopy software with 100 data points classified as Tree or Non-Tree cover.
- Figure 4: Selected project location and sequestration benefits for the Shoreline study. The Shoreline study used the King County pre-set feature with both rural and urban land chosen. The air pollution benefits are shown in terms of removal rate of each pollutant.
- Figure 5: Example of tree cover area in the random sampling classification exercise.
- Figure 5: Example of non-tree area in the random sampling classification exercise.



Figure 1. Selected city boundaries for the Shoreline study using pre-defined U.S. Census Places outlines.

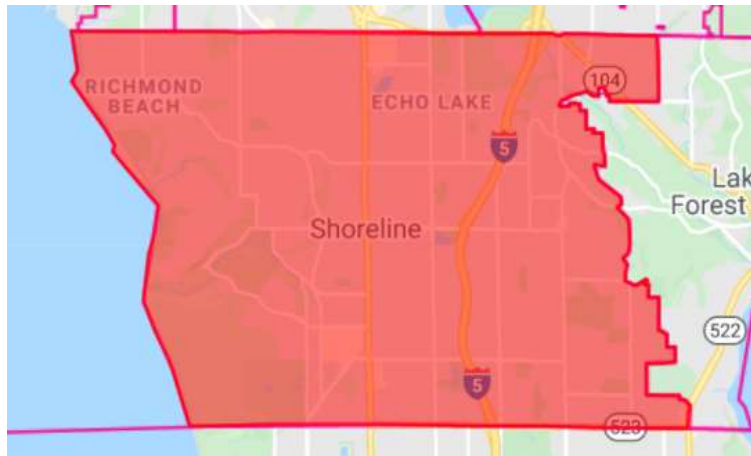


Figure 2. Estimated tree canopy cover in Shoreline in 2021, using random sampling from the i-Tree Canopy software with 100 data points classified as Tree or Non-Tree cover





Figure 3. Selected project location and sequestration benefits for the Shoreline study. The Shoreline study used the King County pre-set feature with both rural and urban land chosen. The air pollution benefits are shown in terms of removal rate of each pollutant.

Available Locations

- Grays Harbor
- Island
- Jefferson
- King
- Kitsap
- Kittitas
- Klickitat
- Lewis
- Lincoln
- Mason

Selected Locations

- United States of America
 - Washington
 - King
 - All
 - Rural
 - Urban

Currency

Code:

Symbol:

Measurement

Units:

Air Pollution
Hydrological
Carbon

Air Pollution Benefits			
Abbreviation	Description	Removal Rate (lbs/ac/yr)	Monetary Value (\$/T/yr)
CO	Carbon Monoxide removed annually	0.829	\$307.86
NO2	Nitrogen Dioxide removed annually	7.743	\$120.02
O3	Ozone removed annually	51.577	\$383.89
PM10*	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	15.591	\$1,385.53
PM2.5	Particulate Matter less than 2.5 microns removed annually	2.777	\$24,613.37
SO2	Sulfur Dioxide removed annually	2.351	\$16.25

Currency is in USD. English Units: lbs = pounds, T = ton, ac = acre

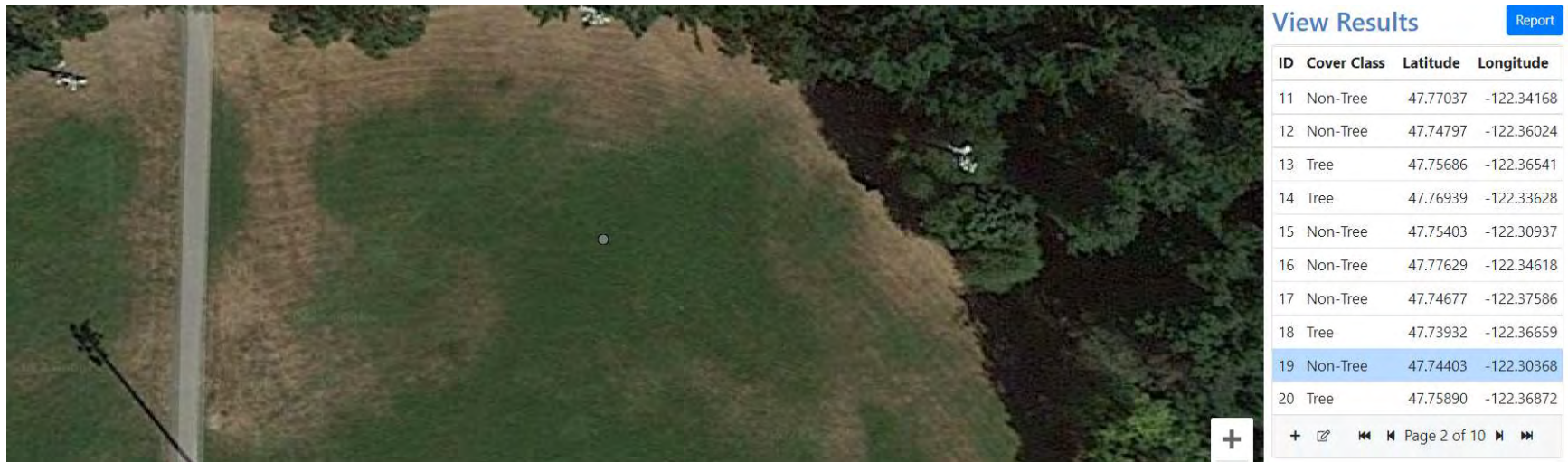


Figure 4. Example of tree cover area in the random sampling classification exercise.





Figure 5. Example of non-tree area in the random sampling classification exercise.





APPENDIX A: SAMPLED COORDINATES

ID	Class	Latitude	Longitude
1	Non-Tree	47.75227	-122.35110
2	Non-Tree	47.75443	-122.32719
3	Non-Tree	47.76202	-122.34578
4	Non-Tree	47.76230	-122.37907
5	Tree	47.76939	-122.34754
6	Tree	47.75256	-122.37072
7	Non-Tree	47.75494	-122.35635
8	Non-Tree	47.75775	-122.34500
9	Non-Tree	47.75399	-122.31516
10	Non-Tree	47.73477	-122.30868
11	Non-Tree	47.77037	-122.34168
12	Non-Tree	47.74797	-122.36024
13	Tree	47.75686	-122.36541
14	Tree	47.76939	-122.33628
15	Non-Tree	47.75403	-122.30937
16	Non-Tree	47.77629	-122.34618
17	Non-Tree	47.74677	-122.37586
18	Tree	47.73932	-122.36659
19	Non-Tree	47.74403	-122.30368
20	Tree	47.75890	-122.36872
21	Tree	47.75886	-122.35052

ID	Class	Latitude	Longitude
22	Non-Tree	47.76919	-122.34571
23	Non-Tree	47.73637	-122.29924
24	Tree	47.74524	-122.31104
25	Tree	47.76984	-122.31888
26	Tree	47.74830	-122.31458
27	Tree	47.76621	-122.38582
28	Non-Tree	47.74105	-122.29642
29	Non-Tree	47.75027	-122.36719
30	Tree	47.76774	-122.35119
31	Non-Tree	47.76735	-122.32040
32	Non-Tree	47.76307	-122.34601
33	Tree	47.76838	-122.34161
34	Non-Tree	47.77377	-122.33689
35	Tree	47.77538	-122.37145
36	Non-Tree	47.76309	-122.31485
37	Tree	47.76535	-122.32359
38	Tree	47.75583	-122.36305
39	Non-Tree	47.76835	-122.31865
40	Non-Tree	47.75427	-122.32656
41	Non-Tree	47.73510	-122.29974
42	Tree	47.76821	-122.32923



ID	Class	Latitude	Longitude
43	Tree	47.76691	-122.38668
44	Tree	47.74570	-122.31391
45	Non-Tree	47.76411	-122.33661
46	Non-Tree	47.75433	-122.37608
47	Non-Tree	47.73858	-122.36341
48	Tree	47.77042	-122.29971
49	Tree	47.73922	-122.32178
50	Non-Tree	47.75946	-122.31160
51	Tree	47.76812	-122.32809
52	Non-Tree	47.74879	-122.30346
53	Tree	47.73963	-122.31777
54	Non-Tree	47.74421	-122.32513
55	Non-Tree	47.75509	-122.31918
56	Tree	47.74099	-122.35558
57	Non-Tree	47.76183	-122.33812
58	Tree	47.73673	-122.29528
59	Tree	47.76844	-122.35633
60	Tree	47.73631	-122.35552
61	Tree	47.74690	-122.29771
62	Tree	47.74663	-122.32337
63	Non-Tree	47.74999	-122.31822
64	Tree	47.74543	-122.35559
65	Non-Tree	47.77240	-122.39368

ID	Class	Latitude	Longitude
66	Tree	47.76966	-122.31415
67	Non-Tree	47.77181	-122.34855
68	Non-Tree	47.74847	-122.33404
69	Tree	47.75096	-122.37087
70	Tree	47.74439	-122.29867
71	Tree	47.77443	-122.36146
72	Tree	47.77371	-122.32364
73	Non-Tree	47.76509	-122.33062
74	Tree	47.73739	-122.33188
75	Non-Tree	47.75615	-122.37473
76	Tree	47.73656	-122.30615
77	Non-Tree	47.76401	-122.32806
78	Non-Tree	47.73490	-122.33761
79	Non-Tree	47.73462	-122.31469
80	Non-Tree	47.74428	-122.34125
81	Non-Tree	47.77384	-122.33905
82	Non-Tree	47.73923	-122.34387
83	Tree	47.76123	-122.36061
84	Tree	47.74340	-122.37836
85	Tree	47.75484	-122.35869
86	Tree	47.74572	-122.31141
87	Non-Tree	47.74814	-122.33546
88	Non-Tree	47.75756	-122.35650



ID	Class	Latitude	Longitude
89	Tree	47.74638	-122.29862
90	Tree	47.74076	-122.35855
91	Non-Tree	47.73948	-122.31915
92	Non-Tree	47.75225	-122.31188
93	Tree	47.76907	-122.35208
94	Non-Tree	47.77778	-122.35142

ID	Class	Latitude	Longitude
95	Non-Tree	47.73602	-122.29411
96	Non-Tree	47.77588	-122.38189
97	Non-Tree	47.74387	-122.31526
98	Non-Tree	47.77176	-122.38827
99	Non-Tree	47.75181	-122.36816
100	Non-Tree	47.77053	-122.32272