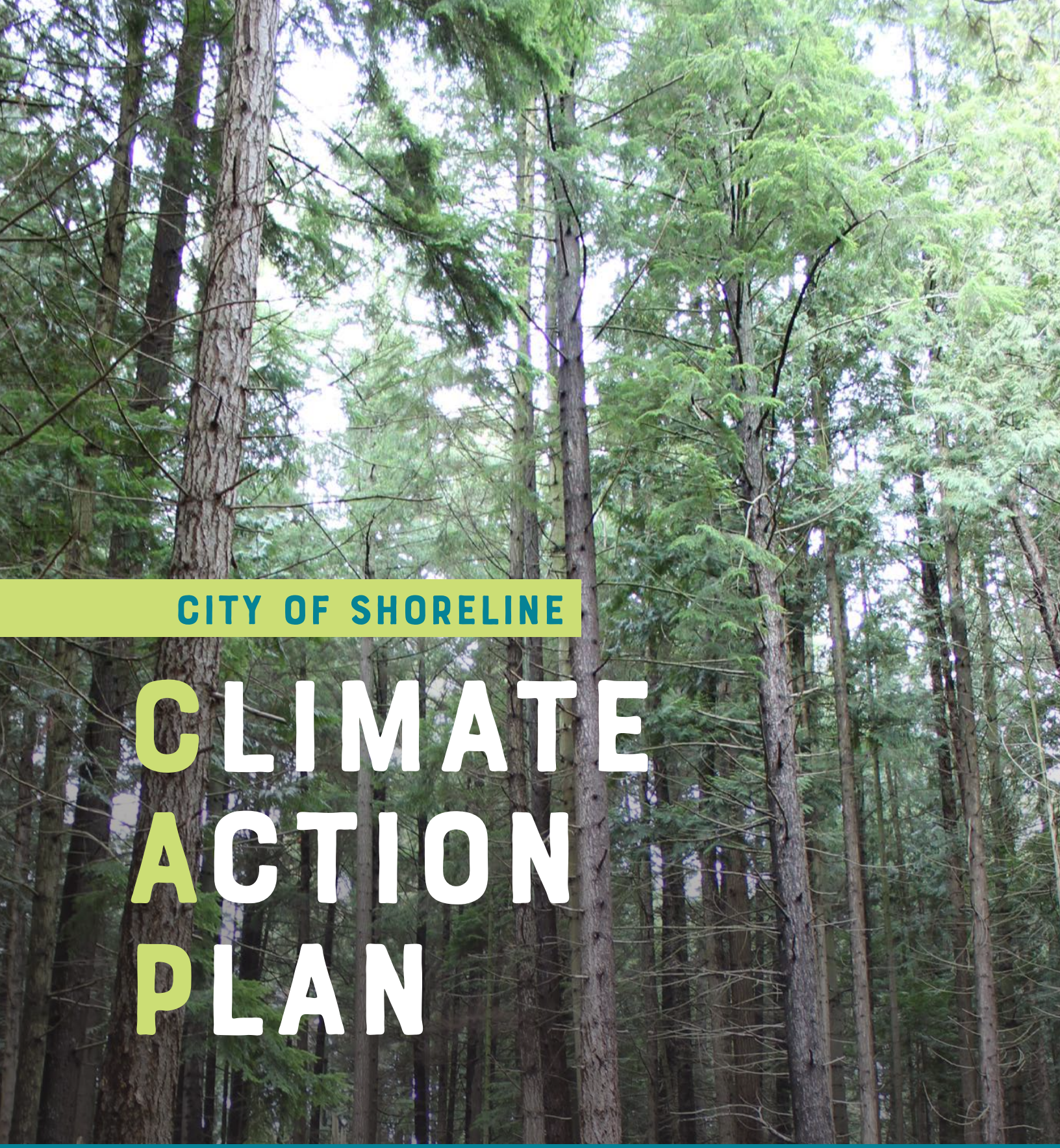

CITY OF SHORELINE

CLIMATE ACTION PLAN

CITY OF SHORELINE

DECEMBER 2022

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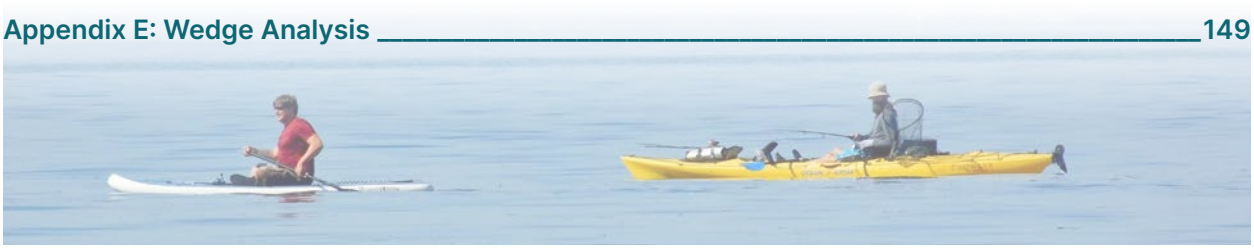

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ACRONYMS AND KEY TERMS

Carbon sequestration	The natural process by which atmospheric carbon dioxide is captured and stored by soils, oceans, vegetation, and geologic formations.
Circular economy	A model where products are designed to be reused or recycled, which avoids consumption of new raw materials and reduces waste, pollution, and carbon emissions.
Climate Action Plan (CAP)	A comprehensive roadmap developed by an entity that outlines specific strategies and actions that it will take to reduce greenhouse gas emissions and adapt to climate change impacts.
Climate change	The long-term change in global and regional climate patterns due to increased levels of atmospheric carbon dioxide and other greenhouse gases produced by human activities such as using fossil fuels like coal, oil, and gas.
Climate emergency	An extreme weather event caused by climate change, such as wildfire, heatwaves, flooding, and drought.
Climate resilience	The ability of a community to prepare for, respond to, and recover from climate emergencies and impacts. Improving climate resilience is essential to the health and wellbeing of residents.
Commute trip reduction (CTR) program	A Washington State Department of Transportation (WSDOT) program that promotes alternatives to driving alone under the Commute Trip Reduction Law (WAC Chapter 468-63) to improve sustainability and reduce traffic congestion. Common elements of CTR programs include transportation demand management strategies such as provision of bicycle amenities, carpool and vanpool incentives, subsidies for transit fares, and implementation of flexible work schedules.
Decarbonization	The targeted reduction of the amount of carbon dioxide (and other greenhouse gases) emitted into the atmosphere from fossil fuel intensive systems and infrastructure.
Ecological restoration	The process of helping the recovery of an ecosystem that has been degraded, damaged, or destroyed. This can include removing invasive species, planting native species, and remediating soils.

Electric vehicles (EVs)	Vehicles that derive all or part of their power from electricity. Plug-In Hybrid Electric Vehicles (PHEVs): Vehicles that run by using a combination of electricity and an internal combustion engine and plug into the electric grid to derive power. Battery Electric Vehicles (BEVs): Vehicles that run completely on electricity using a battery that can be recharged by being plugged into the electric grid.
Electrification	The transition away from using natural gas and other fossil fuels to electricity (typically generated from renewable energy sources like solar and wind) to power homes and vehicles.
Frontline communities	Those who are most likely to be impacted by the effects of climate change. These are community members that face historic and current inequities, often experience the earliest and most acute impacts of climate change, and have limited resources and/or capacity to adapt to those impacts. They are often excluded from planning efforts even though their voices may be the most valuable because of their vulnerability to climate impacts. In Shoreline, these communities include nonwhite community members including Black, Indigenous, Hispanic or Latino, and other identities that face current or historic inequities, people with low or no income, unhoused individuals, youth, immigrants, people with disabilities, people with limited English proficiency, and individuals from other marginalized groups.
Green Stormwater Infrastructure (GSI)	Systems where stormwater runoff is slowed, filtered, used, and/or treated using vegetation, soils, and natural processes. Examples of GSI systems include rain barrels, permeable pavement, rain gardens, and bioswales.
Greenhouse gases (GHGs)	Heat-trapping gases that warm the atmosphere such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).
Greywater	Household wastewater from bathtubs, showers, sinks, washing machines, and dishwashers.
Heat pump	An energy-efficient alternative to furnaces and air conditioners that uses electricity to move heat around rather than generating it, resulting in space heating and cooling.
ICLEI – Local Governments for Sustainability	The largest global network of local governments devoted to solving the world's sustainability challenges. ICLEI's standards, tools, and programs have been utilized by Shoreline to evaluate and reduce the City's greenhouse gas emissions.

King County-Cities Climate Collaboration (K4C)	A collaboration between King County and partner cities to coordinate and enhance the effectiveness of local government climate and sustainability action.
Low-impact development	Systems and practices that use or mimic natural processes to manage stormwater runoff. Water is infiltrated into the ground or stored onsite to protect water quality and minimize flooding.
Metric ton of carbon dioxide equivalent ($MTCO_2e$)	A common unit of measurement that represents an amount of a greenhouse gas whose impact on climate change has been standardized to that of one unit of carbon dioxide (CO_2), based on the global warming potential (GWP) of the gas.
Mixed-use development	Development that consists of a mix of uses such as residential, retail, commercial, office, government, and entertainment in the same building or in close proximity.
Multimodal transportation	Accessible transportation through a variety of travel modes, typically pedestrian, bicycle, public transit, and automobile modes.
Net zero	The balance of greenhouse gas emissions produced through human activities and emissions removed from the atmosphere from processes such as carbon sequestration to achieve carbon neutrality.
Science-based targets (SBTs)	Measurable and actionable greenhouse gas reduction targets based on the best available science and developed by individual local governments in collaboration with ICLEI. These targets represent each community's equitable share of GHG reductions needed to meet the Paris Agreement's commitment of keeping warming below 1.5°C. There are several established methodologies used to calculate SBTs.
Shared-use mobility	Transportation resources and services that are shared among users, such as public transit, bike and scooter shares, and rideshares.
Transit-oriented development	Walkable, pedestrian-oriented, and densely compacted mixed-use (commercial, residential, entertainment) development centered around or located near public transit stations.
Travel demand management (TDM)	Public and private programs to manage demand based on transportation supply. TDM measures are frequently directed toward increasing the use of public transportation, carpools and vanpools, and nonmotorized travel modes.
Vehicle miles traveled (VMT)	A metric used in transportation planning to measure the cumulative miles traveled by all vehicles in a geographic region over a given time period.

EXECUTIVE SUMMARY

Shoreline's 2013 Climate Action Plan (CAP) represented the City's commitment to reducing climate change-causing greenhouse gas emissions in Shoreline. Using new science and data, updated goals and targets, and inclusive engagement, this plan update represents the City's renewed and ongoing commitment to climate action.

This plan outlines key steps the City can take to reduce community-wide emissions, support healthy ecosystems that sequester carbon, and ensure that the community is prepared for and resilient to climate impacts. These actions will have a wide range of co-benefits for Shoreline, such as cleaner air and water, greater ecosystem health, and cost savings from lower utility bills.

In this plan, we commit to achieving science-based targets by reducing greenhouse gas emissions by 60% emissions by 2030 compared to 2019 levels and reaching net zero emissions by 2050. The strategies and actions outlined in this plan support and advance our three overarching goals:

GOAL 1: REDUCE EMISSIONS

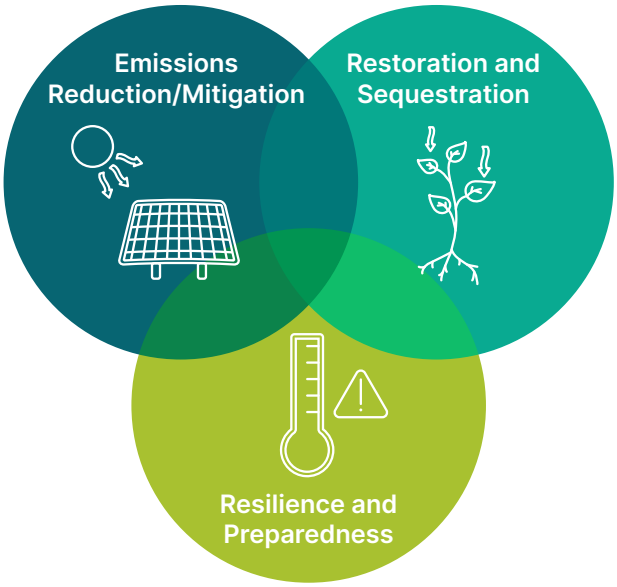
Climate change mitigation strategies limit or stop activities that are producing greenhouse gas (GHG) emissions to reach the City's GHG reduction targets. Most of Shoreline's emissions come from vehicle fuel use and natural gas use in buildings.

GOAL 2: ENHANCE ECOSYSTEM HEALTH AND SEQUESTRATION

Restoration and sequestration strategies improve the health of local ecosystems and their ability to remove carbon from the atmosphere, provide habitat, regulate the water cycle, and buffer the impacts of climate change.

GOAL 3: INCREASE RESILIENCE AND PREPAREDNESS

Climate resilience and preparedness strategies help protect the community from the worsening impacts of climate change, such as hotter summer days and more severe storms and ensure that everyone has access to preparedness resources, especially those who are most vulnerable to these impacts.



Focus Areas, Strategies, and Actions

We leveraged established best practices for cities to address climate change and findings from technical analyses and community engagement to shape and prioritize the strategies and actions included in the plan. The strategies below outline a pathway to achieving our three overarching goals. The table below shows the strategies grouped into five focus areas. The number of specific actions that fall under each focus area are shown on the right.

Focus Area: Transportation and Mobility (TM)	Number of Actions
• Strategy TM-1: Reduce community-wide driving. • Strategy TM-2: Accelerate electric vehicle (EV) adoption.	26

Focus Area: Buildings and Energy (BE)	
• Strategy BE-1: Electrify space and water heating for new and existing buildings. • Strategy BE-2: Increase energy efficiency of new and existing buildings. • Strategy BE-3: Increase renewable energy generation and access. • Strategy BE-4: Support affordable green buildings that conserve water and protect habitat.	18

Focus Area: Zero Waste (ZW)	
• Strategy ZW-1: Reduce per capita waste generation, especially wasted food. • Strategy ZW-2: Increase diversion rates and access to recycling and composting services.	16

Focus Area: Ecosystems and Sequestration (ES)	
• Strategy ES-1: Maintain and increase tree canopy and urban forest health. • Strategy ES-2: Increase soil sequestration in natural and landscaped areas.	15

Focus Area: Community Resilience and Preparedness (CRP)	
• Strategy CRP-1: Ensure that new buildings, land use decisions, and public infrastructure improvements increase resilience to current and future climate impacts. • Strategy CRP-2: Strengthen community and municipal emergency preparedness in consideration of predicted climate impacts such as extreme heat, flooding, wildfire smoke, and drought. • Strategy CRP-3: Increase community awareness of climate change impacts and mitigation and support community-based efforts that increase resilience.	15

Public Engagement

Throughout the CAP update process, the City of Shoreline engaged with the community to seek feedback to inform the plan's strategies and actions. During three phases of engagement, the community participated in a variety of opportunities to help shape the plan's vision, goals, and actions to ensure they reflect community priorities, concerns, and ideas.

We hosted five virtual community workshops, nine meetings with a cohort of Community Climate Advisors with lived experience as frontline community members, two online surveys, and several in-person outreach opportunities to engage as much of the community as possible.

PRIORITIZING EQUITY

Throughout the plan development process, the City engaged directly with frontline communities and used equity as an intentional lens to develop and prioritize strategies and actions.

Implementation

Implementation of these strategies and actions will require commitment, collaboration, resources, and accountability from the City and community. All members of the Shoreline community will need to play a significant role to achieve our climate action goals. In addition, Shoreline is positioned to work in tandem with other local jurisdictions—for example, Shoreline participates as a member of the King County-Cities Climate Collaboration.

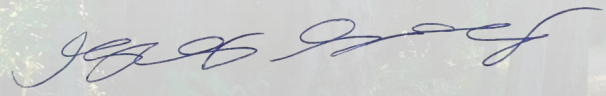
LETTER FROM THE MAYOR

Over the past decade, the Shoreline community has taken bold action to address climate change and protect local ecosystems. Since we completed our first Climate Action Plan in 2013, community members have volunteered thousands of hours to restore and protect our urban forests; we became the first city in Washington to earn Salmon Safe certification; and we passed strong energy code updates banning fossil fuel use in new, large buildings. We've also worked to ensure that we concentrate our growth in dense, walkable centers with easy access to transit, such as around the light rail station areas and along Aurora. We have also worked to ensure that new buildings are built to high environmental standards.

But despite this progress, our climate is rapidly changing, and these changes threaten the health and livability of our community and of communities around the world. The impacts of climate change that we are already experiencing – such as hotter summer days, poor air quality from wildfire smoke, and increased winter flooding – are projected to worsen in the coming decades. And we know that the people impacted most are those in our community who are already experiencing systemic racism and injustice, or who lack affordable housing or access to living wage jobs.

This Climate Action Plan update reflects our commitment to address the climate crisis and work towards a more just, resilient, and thriving future for everyone in Shoreline. This plan outlines a pathway not just to meet our climate targets, but to a future powered by clean energy, with vibrant urban centers, convenient and accessible transportation options, less waste in our landfill, cleaner air and water, and healthy, carbon-rich ecosystems and natural habitats. It leverages partnerships through the K4C; the regional investment in Sound Transit's light rail service; our access to affordable, carbon-free energy from Seattle City Light; and significant State and Federal legislation to reduce emissions and fund climate action. The plan also outlines strategies to increase community resilience and preparedness for the impacts of climate change and supports healthy ecosystems that capture carbon and provide a wide range of other benefits.

The actions in this plan are bold and implementing them will require significant effort, innovation, and partnership. But the science is clear. We need bold action to address our climate crisis. I am confident that if we continue to work together, we can create a truly sustainable and thriving future.



Mayor Keith Scully

INTRODUCTION

The City of Shoreline adopted its first Climate Action Plan in September 2013 as a strategic roadmap to guide City programs, residents, and businesses in reducing community-wide greenhouse gas (GHG) emissions. Since then, Shoreline has continued to be a regional leader in climate and sustainability work by completing regular additional GHG inventories, assessing local climate risks, and implementing key actions to reduce community emissions.

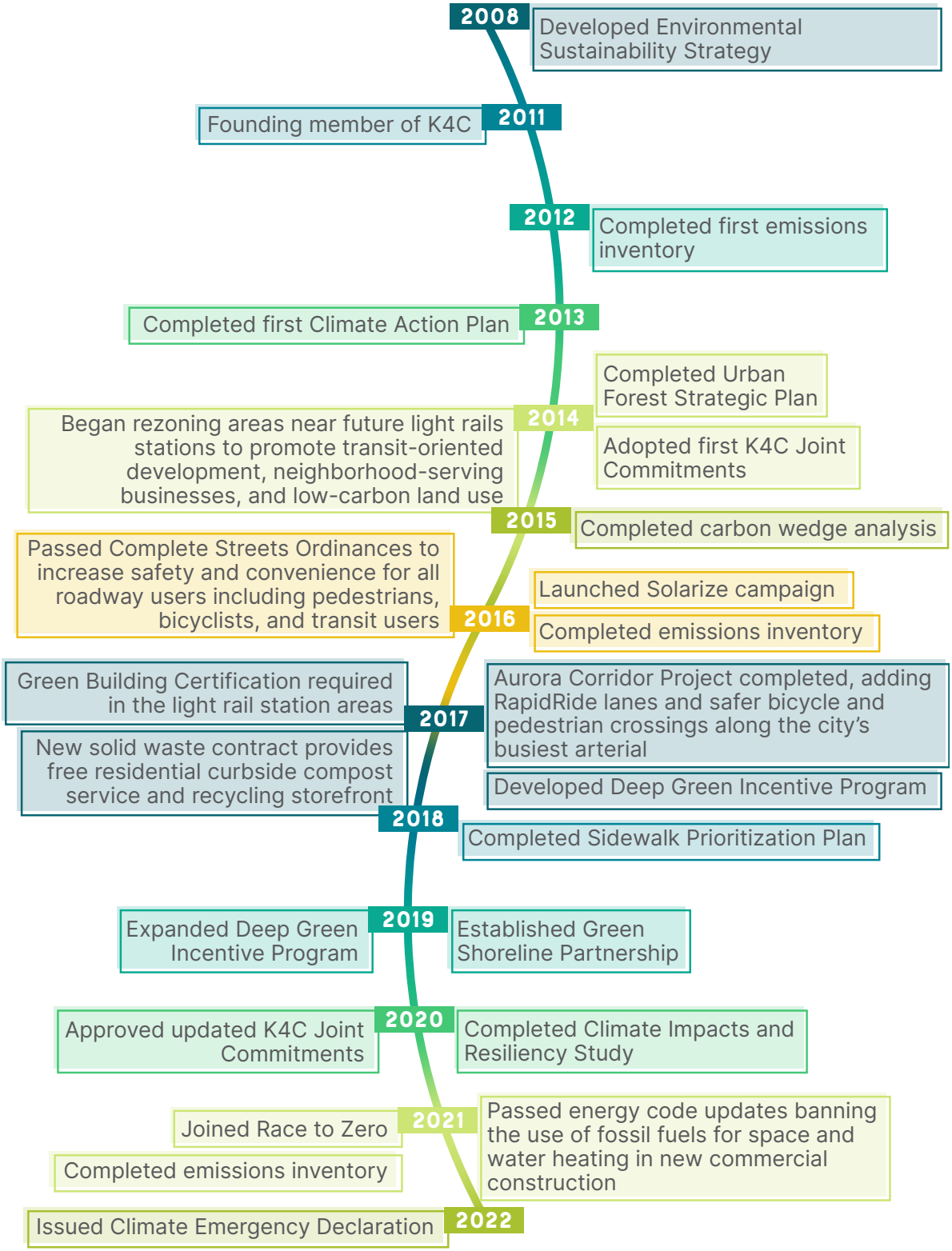
On October 18, 2021, the City of Shoreline joined the "Cities Race to Zero." In doing so, the City committed to reaching net zero emissions by 2050, in line with an overarching goal to limit warming to 1.5°C.

The Race to Zero is a global campaign established by the United Nations that motivates and provides resources for cities and other entities to reduce GHG emissions, which are responsible for our changing climate, according to science-based targets.

On August 15, 2022, the City Council issued Resolution 494 to officially declare a climate emergency, recognizing that the climate crisis threatens the health and livability of our community and of communities around the world. This resolution directed the City to take action to reduce GHG emissions to reach our science-based targets, while protecting and restoring ecosystems, increasing resilience to climate impacts, and centering equity in both planning and implementation.

The City of Shoreline continues to be a leader in regional efforts to reduce emissions and prepare for climate change. Shoreline is a founding member of both the King County-Cities Climate Collaboration (K4C) and the Puget Sound Climate Preparedness Collaborative. In 2019, we affirmed our continued commitment to this regional approach by approving the updated K4C Joint Commitments that outline actions and policies to meet our shared regional climate targets. Through the K4C and other partnerships, the City aligns its work with best practices from peer cities, advances regional solutions to climate change, and leverages regional opportunities and resources.

These commitments build on Shoreline's existing environmental stewardship and further solidify the City's role as a leader in climate action. Examples of the City's previous climate action work include the following:



The Shoreline Climate Action Plan (CAP) update sets new targets and establishes a vision for a low-emissions, resilient, and equitable Shoreline that reaches **net zero emissions** by 2050. This CAP update focuses on the most impactful actions that the City can take to reduce community-wide emissions, including emissions from municipal operations, given the urgent need to reduce emissions by 2030 to slow the impacts of the global climate crisis.

In addition to reducing community-wide emissions, this plan will also support healthy, functioning ecosystems and will increase resilience in the face of climate impacts. These actions will have a wide range of additional benefits for Shoreline, such as cleaner air and water, greater ecosystem health, and lower utility bills. The strategies and actions in this plan were designed to support and advance Shoreline's three overarching goals:

NET ZERO EMISSIONS

For Shoreline to achieve its goal of net zero emissions by 2050, the amount of greenhouse gases emitted into the atmosphere must equal the amount removed. Emissions can be removed from the atmosphere through natural processes like ecosystem carbon sequestration or from actions like purchasing Renewable Energy Certificates.

GOAL 1: REDUCE EMISSIONS

Mitigation strategies limit or stop activities that are producing greenhouse gas emissions. Most of Shoreline's emissions come from vehicle fuel use and natural gas use in buildings.

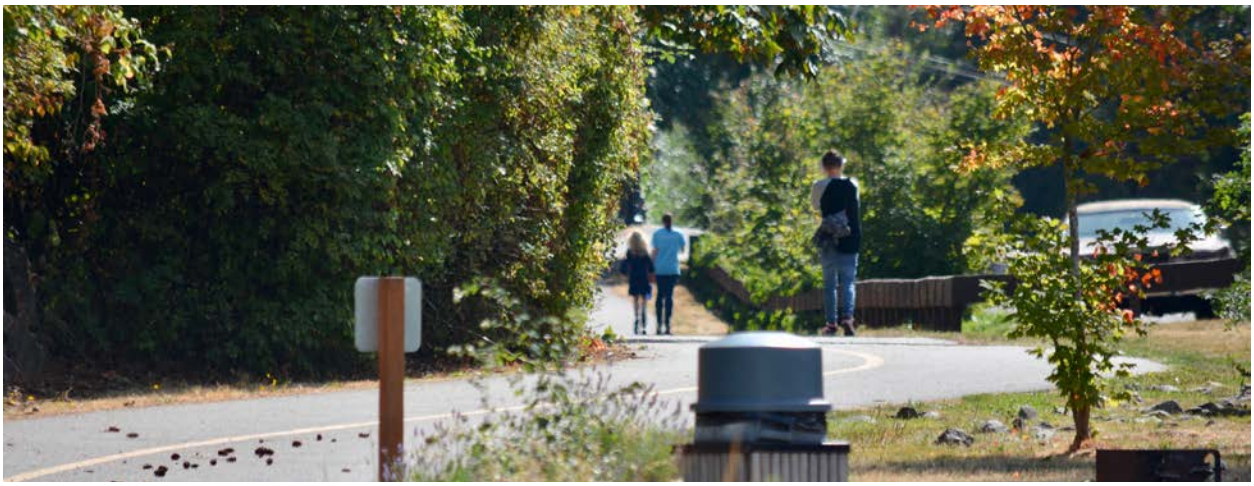
GOAL 2: ENHANCE ECOSYSTEM HEALTH AND SEQUESTRATION

Restoration and sequestration strategies improve the health of local ecosystems and their ability to remove carbon from the atmosphere, provide habitat, regulate the water cycle, and buffer the impacts of climate change.

GOAL 3: INCREASE RESILIENCE AND PREPAREDNESS

Climate resilience and preparedness strategies help protect the community from the worsening impacts of climate change, such as hotter summer days and more severe storms, and ensure that everyone has access to preparedness resources, especially those who are most vulnerable to these impacts.

All three of these goals are essential to address the current climate crisis and ensure that Shoreline continues to be a thriving and resilient community.



CAP Organization

SECTION 1: CONTEXT

This plan begins by setting the context for Shoreline's Climate Action Plan. It introduces climate impacts and vulnerabilities, the plan development process, current and future emissions, and Shoreline's emissions reduction targets.

SECTION 2: ACTIONS

The Climate Strategies and Actions section of this plan details the actions that Shoreline will take to achieve its three goals of reducing emissions, increasing sequestration, and improving resilience.

SECTION 3: IMPLEMENTATION AND APPENDICES

The end of this plan explores implementation considerations and includes appendices that elaborate on the analyses used in this process.

SECTION 1: CONTEXT

CLIMATE IMPACTS AND VULNERABILITIES IN SHORELINE

Shoreline—along with communities around the world—is already experiencing the impacts of a changing climate. Like other cities in the Puget Sound region, Shoreline is experiencing rising average temperatures, more frequent extreme heat days, more frequent and severe wildfires and wildfire smoke exposures, and increased localized flooding from short, intense storm events. These impacts affect **frontline communities** most, which in Shoreline include Black, Indigenous, Hispanic, Latino, and other identities that face current or historic inequities, youth, and people with disabilities, who are unhoused, work outside, or have underlying health conditions.

In 2020, the City assessed the vulnerability of Shoreline's community, environment, and infrastructure to various climate change impacts. Vulnerability describes whether and how systems and people are affected by climate impacts and the extent to which they can adapt to climate impacts. Understanding what, and who, is most vulnerable in Shoreline helps the City prioritize people and systems that are most at risk from climate change.

The assessment found that key areas of vulnerability include **low-lying areas, sensitive ecosystems, buildings and development, heat-related illness, and air quality**. The CAP update builds from this assessment by creating and prioritizing actions that address the greatest climate risks and key vulnerabilities.

Shoreline is already experiencing impacts from climate change, including:

TEMPERATURE

The average year in Puget Sound is currently 1.3°F warmer than historic averages.

By the 2050s...

- Average annual temperature will be 4.2°F to 5.5°F warmer.
- The hottest summer days will be 4.0°F to 10.2°F warmer.

PRECIPITATION

Extreme rain events in Western Washington have increased moderately.

By the 2080s...

- Annual precipitation will increase at least 6.4%.
- Rainstorms will be more intense.
- Winters will be wetter and summers drier.

PUGET SOUND HYDROLOGY

Puget Sound rivers have lower summer streamflows and streamflow peaks, leaving them drier in late summer and fall.

By the 2080s...

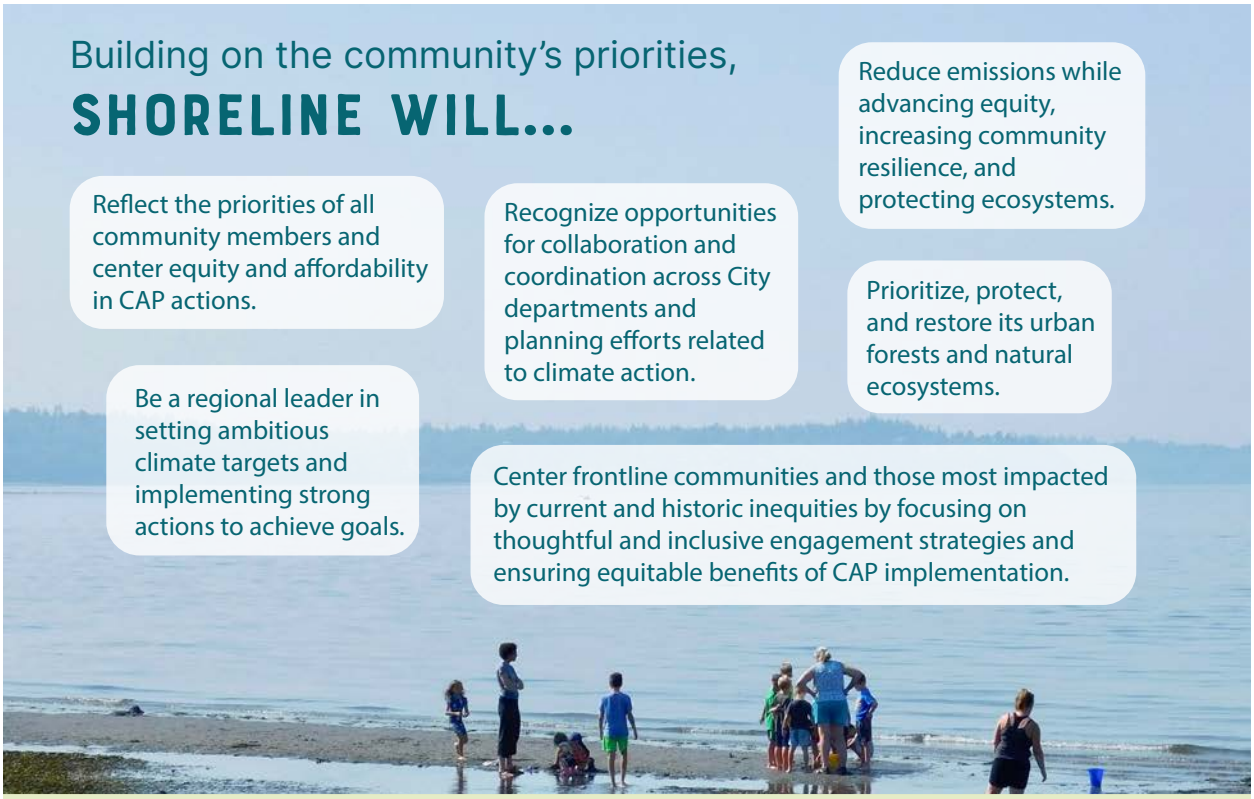
- Summer streamflows will be even lower.
- Flooding risk will increase during fall, winter, and spring.

By the 2080s, the Tolt and Cedar River watersheds (which supply Shoreline's drinking water) will have less snowpack to source water from.

We have an opportunity to keep these impacts from getting much worse, but we need to act now to significantly reduce our greenhouse gas emissions.

COMMUNITY VISION

Shoreline's vision for a resilient and sustainable community is rooted in the priorities and values we heard from community members throughout the CAP update process. Themes we heard from Shoreline's community helped us to describe a community vision of a holistic and bold response to climate change that reduces emissions, promotes nature-based solutions, and works to increase resilience. This work must continue to prioritize and center the voices of community members, especially those most vulnerable to the impacts of climate change.



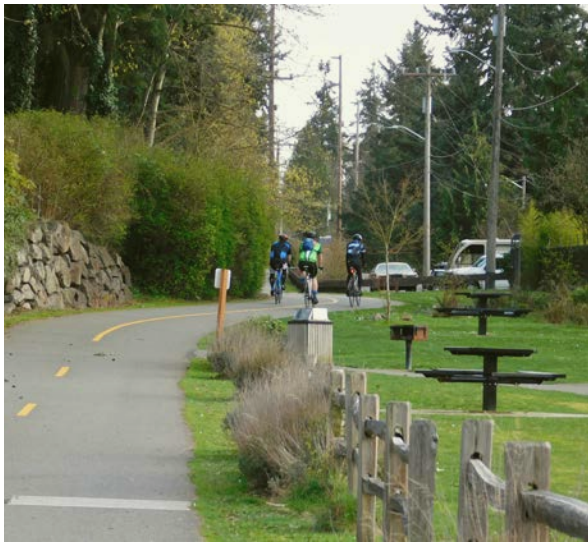
AN ANTI-RACIST SHORELINE

In the fall of 2020, City Council adopted **Resolution 467**, which declares the City's commitment to building an anti-racist community in Shoreline. The Climate Action Plan update builds on this commitment by centering frontline communities, incorporating equity in action prioritization, and planning for inclusive and equitable implementation of the CAP.

We also acknowledge the ongoing work needed on multiple fronts to fully advance the City's vision of anti-racism. This includes the need to better understand the history of the land on which the city is built, the history of the Native and Indigenous communities that resided here then and are still residing here now, and the process by which their land was taken and their people displaced. Environmental and climate justice are interconnected with racial, economic, and social justice, and we recognize our responsibility as an organization to learn from and work in partnership with those in Shoreline most impacted by racism and injustice across the board.

As we implement this plan, we invite ongoing engagement from the community, and we will strive to build new and meaningful partnerships with those who have been most impacted.

PLAN DEVELOPMENT



We have designed this plan to align with and build upon local and regional strategic initiatives and planning efforts that are already underway or currently in development. Many plan actions were developed through collaboration with the City staff leading these efforts. Key City plans, initiatives, and programs aligned with the CAP include:

- **Comprehensive Plan**: Provides the basis for the City's regulations and guides future decision-making. The plan includes climate-related elements which the CAP will support, including the goal of limiting global warming to less than 1.5°C above pre-industrial levels, supporting the Paris Agreement's climate action target.
- **Transportation Master Plan (TMP)**: The TMP is the long-range plan for Shoreline's transportation network. The current TMP update prioritizes safety, equity, multimodality, connectivity, climate resilience, and community vibrancy when planning transportation improvements.
- **Climate Impacts & Resiliency Study:** Completed in 2020, this study recommends prioritization of green infrastructure, retrofits, and resilience measures which the CAP builds from.
- **Surface Water Master Plan:** Guides the City's Surface Water Utility to address drainage and water quality challenges associated with growth, increasing regulations, and aging infrastructure.
- **Urban Forest Strategic Plan** and **Green Shoreline 20-Year Forest Management Plan:** Establish priorities for on-the-ground urban forest management and restoration programs.
- **Parks Recreation and Open Space (PROS) Plan:** Defines priorities for Parks investments, acquisitions, and programs and is set to be updated soon.
- **King County's Re+ Plan:** Will outline key strategies for cities, counties, businesses, and communities to implement the County's 2019 Solid Waste Comprehensive Plan goal of zero waste of resources with economic value by 2030.

To ensure that the strategies and actions outlined in this plan are rooted in the latest climate science, aligned with regional targets and best practices, and tailored to reflect the community's priorities and perspectives, we took an iterative approach that included **quantitative and qualitative processes**. As a result, this plan update not only builds on our prior climate work, but also builds on current efforts, including:

- **Carbon wedge analysis:** Analyzes Shoreline's future GHG emissions based on multiple scenarios, including a "no action" future, a scenario that includes current climate policies, and a scenario that considers existing and future local climate actions that Shoreline can implement. For more details on this analysis, see "**Future Emissions**."
- **Carbon sequestration analysis:** Analyzes Shoreline's tree cover to understand the annual carbon sequestration rate across the city, as well as air and water quality benefits. This analysis was conducted using the United States Department of Agriculture (USDA) Forest Service's i-Tree Canopy software. For more details on this analysis, see "**Appendix D: Sequestration Analysis**."
- **Multi-criteria analysis (MCA):** Ranks actions qualitatively based on multiple criteria that represent Shoreline's priorities. The MCA evaluated 35 actions from Shoreline's action list. The MCA assigns numerical scores to each criterion to arrive at an overall priority score for each action. For more details on this analysis, see "**Multi-Criteria Analysis**."
- **Cost assessment:** Evaluates the cost to the City and community for specific actions. The cost assessment evaluated 10 actions to understand costs as a measure of feasibility. For more details on cost and other implementation considerations, see "**Implementation Plan**."

These processes are described below as individual steps in a chronological approach:

STEP 1: INITIAL CONTEXT SETTING

We conducted initial outreach and engagement to understand the community's priorities and concerns. To create a holistic picture of our current context and priorities, we referenced the City's 2019 GHG Emissions Inventory and completed an updated wedge analysis, and carbon sequestration analysis.

STEP 2: DEVELOP INITIAL SET OF STRATEGIES AND ACTIONS

City staff prepared a set of plan actions based on feedback from the context setting phase, current best practices and best available science, synergies with existing plans and policies, and opportunities for regional alignment.

STEP 3: REFINE STRATEGIES AND ACTIONS

The community reviewed the set of actions and had provided feedback on specific actions via Community Climate Conversations, meetings of the Climate Advisory Committee, and a public survey. We then refined the draft actions to align with community feedback.

STEP 4: CONDUCT QUANTITATIVE ANALYSES OF A SHORT LIST OF ACTIONS

We conducted a multi-criteria analysis (MCA) for a short list of 35 high priority actions, which were selected by City staff and informed by community input. The MCA provided a ranking of actions based on the following criteria:

- GHG emissions impact
- Resilience impact
- Feasibility
- Equity
- Co-benefits

For more details on this analysis and the scoring results, see "**Multi-Criteria Analysis**".

We then selected 10 actions to be analyzed using a cost assessment, which provided further information about the anticipated costs and the potential cost savings of these actions for the City and community. The analysis relied on published literature, research, case studies, and expert opinion.

STEP 5: FINALIZE ACTION LIST

Based on the results of this process, City staff further refined and finalized the plan's action list. To the extent possible, the strategies and actions reflect community priorities and concerns and integrate the results of the quantitative analyses.

ONGOING: COMMUNITY ENGAGEMENT

In addition to these technical analyses, we solicited feedback to shape the CAP's strategies and actions. This work ensured that the plan reflects community priorities. Throughout three phases of engagement in 2021-2022, community members participated in numerous engagement opportunities to provide input on the plan's vision, strategies, and actions by sharing their priorities, concerns, and ideas.

The public engagement process was one of several ways we worked to center equity in the planning process. At the start of the planning process, we hired a panel of community members to serve as Community Climate Advisors to guide both the plan development and community engagement efforts. When selecting advisors, we prioritized community members from diverse and underrepresented backgrounds and lived experiences. We also provided multiple ways for community members to engage with the planning process. These efforts included online conversation events, in-person outreach at community events, "pop-up" in-language displays at locations serving frontline community members, and translated online surveys. The aim of these efforts was to include the voices of those most vulnerable to climate impacts or who have previously been underrepresented in City planning processes.

To gain greater participation in engagement opportunities, we used a variety of outreach strategies, including in-person promotion at community events, placement of posters and yard signs around Shoreline, and information in the City's Currents newsletters. For more information about our engagement efforts and a list of outreach strategies we used, see "**Appendix B: Community Engagement.**"

COMMUNITY CLIMATE ADVISORS

The City's Community Climate Advisors are a panel of community members with lived experiences in frontline communities who were compensated for their time attending meetings and providing feedback. The Advisors' goal was to ensure that this process prioritized frontline communities' perspectives and engaged community members that the City does not have existing relationships with. This which helped create a meaningful, effective, and inclusive process.

15 TOTAL ENGAGEMENT OPPORTUNITIES

2 surveys with over **550** responses

5 virtual conversations with community members

9 forums of Shoreline's Community Climate Advisors

OCTOBER 2021 — DECEMBER 2022

PHASE 1

- Shared current GHG emissions, trends, and goals with the community.
- Determined community willingness to support transformative climate action.
- Identified key considerations for equitable climate action.
- Identified community priorities for evaluating climate actions.

- **1** Community Climate Conversation
- **5** Community Climate Advisor Meetings
- Online survey with **177** responses

PHASE 2

- Determined community interest, support, and concerns related to specific CAP actions.
- Identified additional actions and key partners for implementing actions.

- **3** Community Climate Conversations
- **3** Community Climate Advisor Meetings
- Online survey with **375** responses
- In-person poster outreach

PHASE 3

- Reviewed the plan with the community for input.
- Hosted conversations to get commitments for implementing the plan.

- **1** Community Climate Conversation
- **1** Community Climate Advisor Meeting
- Online review of the draft CAP update with **140** responses

The City's tailored approach to CAP engagement resulted in a wide representation of Shoreline's community. Equitable and accessible engagement practices included:

- Postcards in English, Spanish, Amharic, Chinese, Korean, and Vietnamese
- Workshops on weekday evenings to accommodate working schedules
- Compensation for Community Climate Advisors from frontline communities
- Posterboards in English, Spanish, Chinese, Tigrinya, and Amharic
- In-person school assembly and forums to engage youth
- Surveys reached the following under-represented communities
  - Hispanic
  - American Indian/ Alaska Native
  - Black/African
  - Hawaiian/Pacific Islander
  - Under 18 and over 65
  - Renters in Shoreline

GREENHOUSE GAS EMISSIONS AND REDUCTION TARGETS

Past and Current Emissions

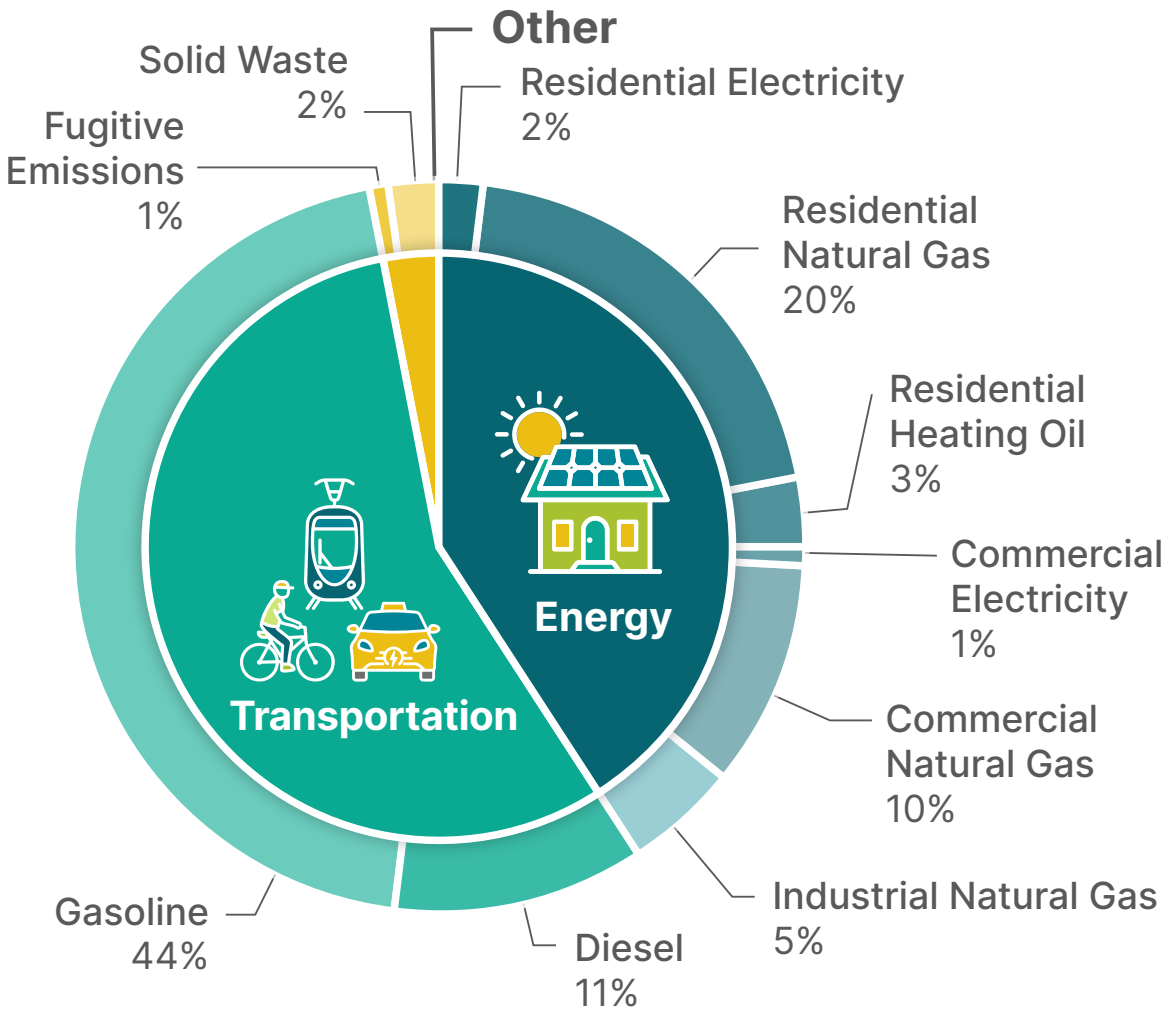
Understanding Shoreline's current and historic GHG emissions—heat-trapping gases that warm the atmosphere—is crucial for effective climate action planning. Shoreline has completed GHG inventories for 2009, 2012, 2016, and 2019, which allows us to compare how emissions have changed over time and where most of our community-wide emissions originate.

These inventories tracked emissions from the three main greenhouse gases, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) that originated or occurred within Shoreline's boundaries, such as from fuel use in buildings and cars. The inventories do not include emissions from the production and consumption of goods and services that occur outside of Shoreline, which can be significant.

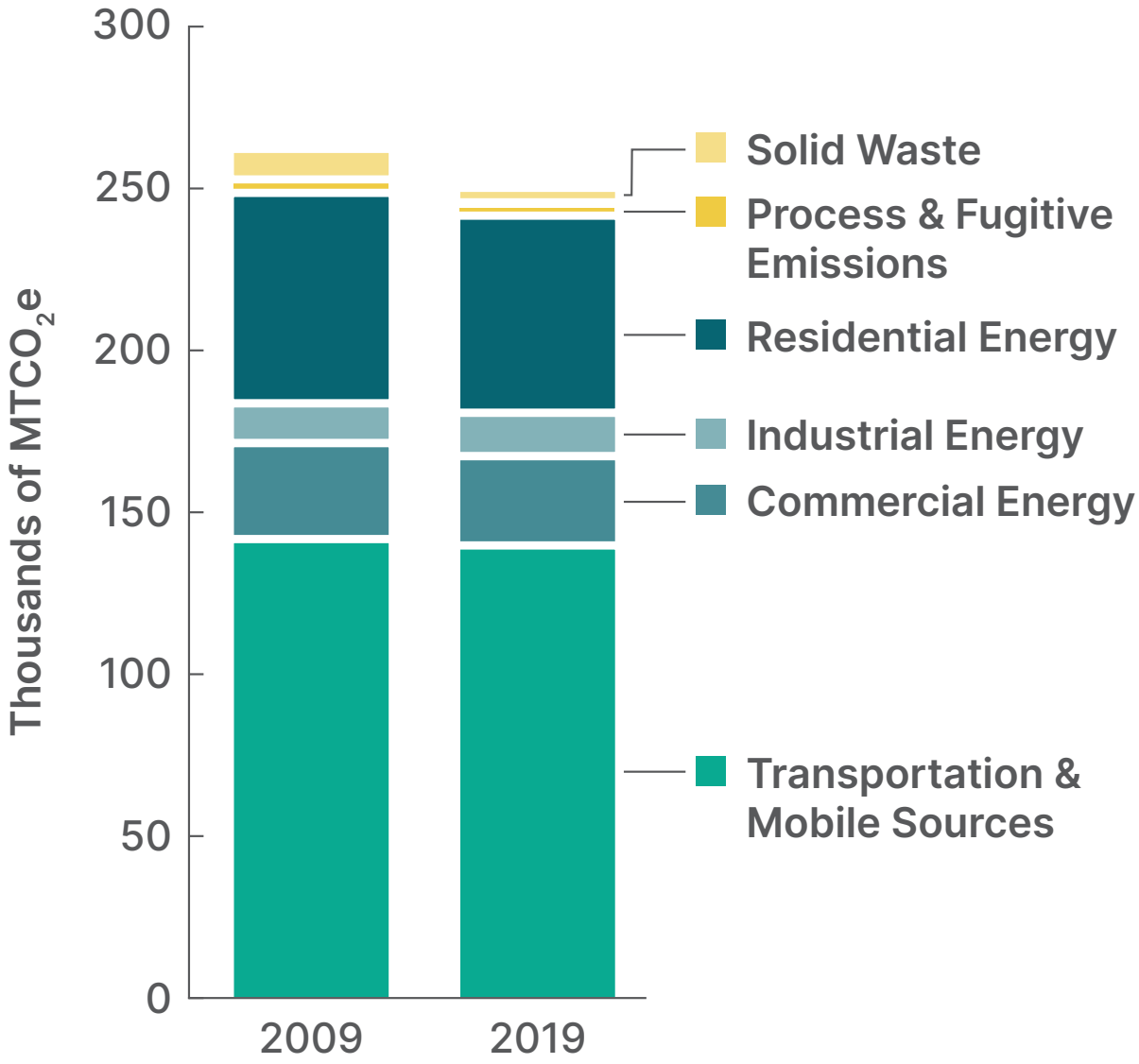
- In both 2009 and 2019, the majority of emissions came from **transportation gasoline** and **residential natural gas** use (44% and 20% of 2019 emissions, respectively).
- Between 2009 and 2019, GHG emissions **decreased by 6%,** even as Shoreline experienced an increase in population.
- Per capita emissions (total emissions divided by the number of people living in Shoreline) **decreased by 10%** between 2009 and 2019.
- Some of these emissions reductions are due to **higher energy efficiency**, **fewer homes using oil heat**, **fewer miles driven** per person, and **less solid waste** sent to the landfill.

For more details on Shoreline's emissions, see "**Appendix A. Greenhouse Gas Emissions Inventory**."

Sources of Shoreline's community-wide greenhouse gas emissions in 2019 (246,001 $MTCO_2e$)



Comparison of Shoreline's community-wide emission sources in 2009 and 2019



Future Emissions

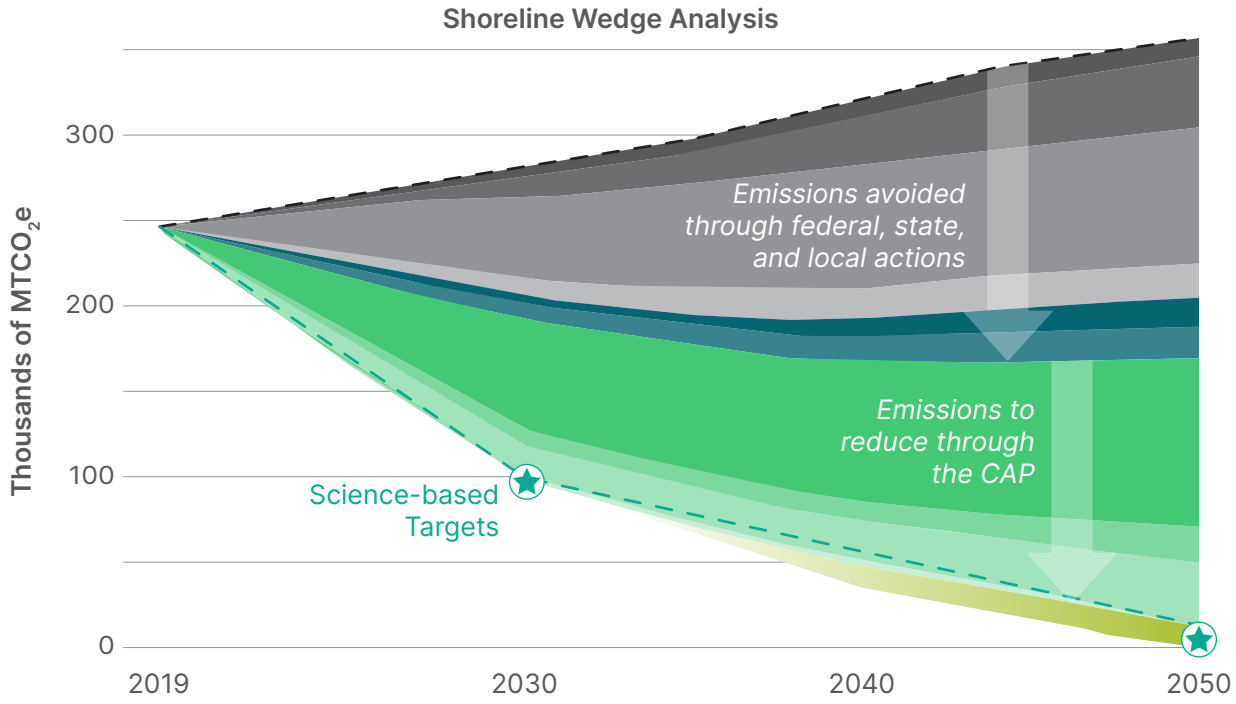
Based on the 2019 GHG Emissions Inventory and expected housing, population, and employment growth rates, we forecasted Shoreline's future emissions from 2019 to 2050 under the following scenarios:

- **No action future**: Without federal, state, or local climate action, Shoreline's total GHG emissions are expected to increase by 45% from 2019 to 2050.
- **Current policy and action future**: When considering the anticipated impacts of current state, federal, and City policies, Shoreline's total GHG emissions are expected to decrease by 30% from 2019 to 2050. The following policies were modeled to understand the anticipated impacts on GHG emissions:
    - **Clean Energy Transformation Act (CETA)**: Requires all electric utilities in the state to eliminate coal-fired electricity from their state portfolios by 2025 and be GHG neutral by 2030.
    - **State Energy Codes**: Require new buildings to becoming increasing more energy-efficient, incrementally moving towards achieving a 70% reduction in annual net energy consumption by 2031 (compared to a 2006 baseline).
    - **WA Clean Fuel Standard (HB 1091)**: Requires a 20% reduction in the carbon intensity of transportation fuels by 2038, compared to a 2017 baseline, beginning January 1, 2023.
    - **Corporate Average Fuel Economy (CAFE) standards**: Regulates light- and heavy-duty vehicle fuel economy standards (how many miles the vehicle can drive per gallon of fuel).
    - **Shoreline Energy Code**: Increases energy efficiency and prohibits fossil fuel use for space and water heating in new commercial and large multifamily buildings.
    - **Light rail and transit-oriented development**: Emissions reductions associated with existing and planned multi-modal transportation investments and land use decisions to center growth in areas in proximity to future light rail stations and other high-capacity transit.
- **Additional actions future**: When considering the impacts of key CAP actions—including building electrification, reducing driving, EV adoption, and waste reduction and recycling—Shoreline's total GHG emissions are expected to decrease by an additional 64% from 2019 to 2050.

When considering the impacts of all emission-reducing actions modeled, Shoreline's emissions are expected to decrease by approximately 95% from its 2019 baseline by 2050.

For a more detailed report of this analysis and the assumptions used, see "**Appendix E: Wedge Analysis**."

Shoreline's future emissions under two scenarios through 2050 (in thousands of $MTCO_2e$)



– – **No Action Future**

Federal/State Policies
- WA Clean Energy Transformation Act
- WA State Energy Code
- Federal Fuel Economy Standards
- WA Clean Fuel Standard

CAP Actions
- Building Electrification
- Reduce Driving
- On-road EV Adoption
- Waste Reduction/Recycling

Existing Local Actions
- Shoreline Energy Code
- Light Rail and Transit-Oriented Development

- Forest Carbon Sequestration*

**Forest Carbon Sequestration cannot be used to meet emissions reduction targets but can contribute toward carbon neutrality and is shown here for illustrative purposes.*

These projections highlight the importance of local climate action to meet Shoreline's targets. Shoreline and other cities cannot rely solely on federal and state legislation to meet their climate goals. Past, present, and future community-wide emissions lay the foundation for the development and prioritization of Shoreline's climate actions. The policy and regulatory environment related to climate change is dynamic and evolving. Additional legislation such as the Washington State **Clean Buildings Act expansion** and the U.S. **Inflation Reduction Act** were passed after the analysis was conducted and are not included in this scenario. We expect these and other recent legislation to further reduce emissions in Shoreline. Since completing this wedge forecast analysis, a significant regional effort was completed (**Puget Sound Regional Emissions Analysis**), which quantified 2019 GHG emissions for King, Kitsap, Pierce, and Snohomish counties (and all cities in King County, including Shoreline). This analysis provides information on the impacts of recent legislation on reducing emissions in our region.

Science-Based Targets

Through the actions defined in this plan, the City aims to significantly reduce Shoreline's GHG emissions that are driving climate change.

While Shoreline has had commitments to reduce community-wide emissions since our first CAP in 2013, this current plan is based on updated science-based targets (SBTs). The 2013 CAP included targets of reducing GHG emissions **25% by 2020, 50% by 2030, and 80% by 2050 (below 2009 levels).**

In 2021, K4C adopted GHG reduction targets that are consistent with those established by the King County Growth Management Planning Council. These targets called for a **50%** GHG reduction by 2030, **75%** by 2040, and **95%** and **net zero** by 2050 compared to 2007 levels.

The City joined the Cities Race to Zero in 2021 and committed to reaching updated SBTs. The Race to Zero is a campaign by the United Nations to reduce global emissions 50% by 2030 and reach net zero emissions by 2050. This is the level of emissions reductions needed to keep global heating below the 1.5° Celsius goal of the Paris Agreement[1] and prevent the most catastrophic impacts of climate change.

As part of our Race to Zero commitment, the City agreed to calculate and adopt Shoreline-specific GHG reductions targets that reflect the Shoreline community's fair share of achieving the 1.5° threshold. The City worked with ICLEI – Local Governments for Sustainability to calculate Shoreline's SBTs based on the City's 2019 GHG Emissions Inventory using the **World Wildlife Fund's One Planet methodology**.

Science-based GHG reduction targets are "measurable and actionable environmental targets that allow cities to align their actions with societal sustainability goals and the biophysical limits that define the safety and stability of earth systems."

These new SBTs aim to achieve a 60% emissions reduction by 2030 and net zero emissions by 2050 compared to a 2019 baseline.

Summary of GHG emissions reduction targets as a percentage of baseline emissions

Jurisdiction	Baseline Year	2030	2040	2050
United States	2005	50–52%	-	Net zero
Washington State	1990	45%	70%	95% + net zero
King County-Cities Climate Collaboration (K4C)	2007	50%	75%	95% + net zero
City of Shoreline (adopted SBTs)	**2019**	**60%**	**TBD**	**95% + net zero**

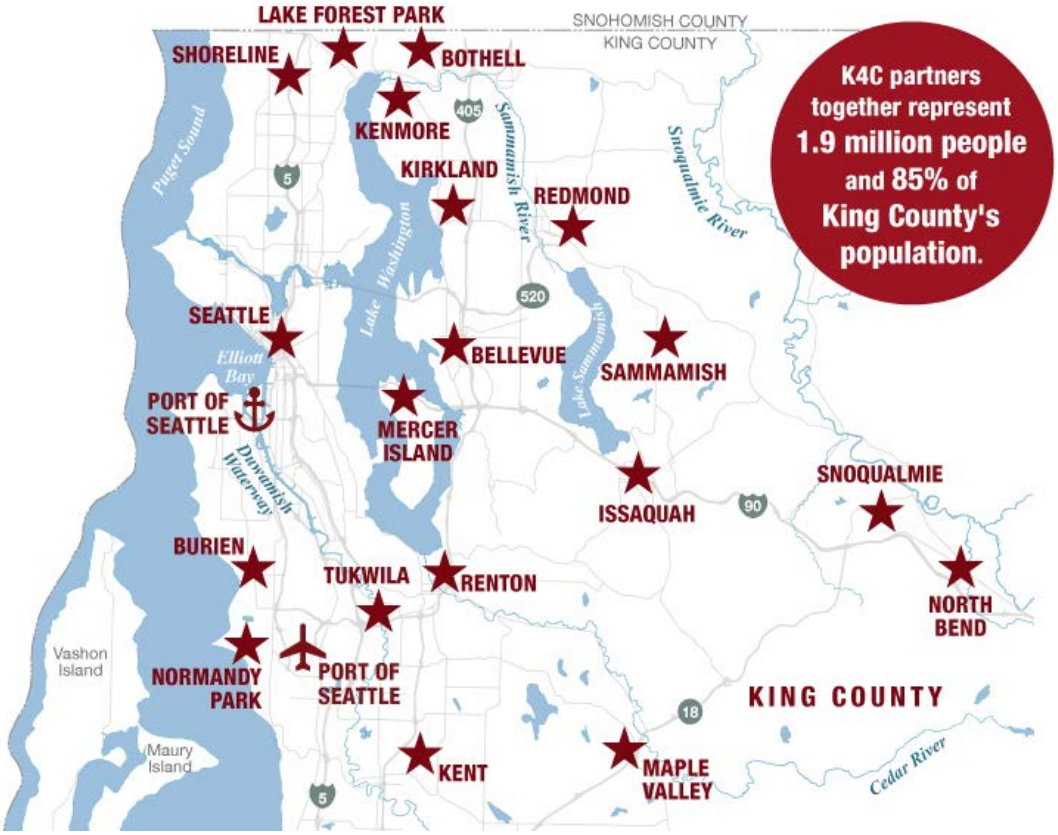
1 *The Paris Agreement*. United Nations. Retrieved from **https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement**

While Shoreline's SBTs call for a steeper emissions reduction than K4C's recently adopted targets, Shoreline can leverage K4C's increased commitment to regional climate action to:

- Align with peer cities in King County.
- Stay up to date on regional climate action efforts and collective progress.
- Seek inspiration and guidance from other K4C members with similar local contexts.
- Support local opportunities for synergistic policies and programs.
- Keep pace with the region while benefiting from knowledge of peer cities who may be further ahead in climate action and implementation.

In addition to these community-wide targets, this plan continues to advance the City's existing commitment to lead by example and **reach net zero emissions from municipal operations by 2030**.

To track progress toward Shoreline's SBTs, the City has developed key performance indicators (KPIs) for the plan's strategies. See the "**Implementation Matrix**" for KPIs and other implementation considerations.



SECTION 2: ACTIONS

CLIMATE STRATEGIES AND ACTIONS

Drawing on existing plans and actions, community priorities and feedback, the 2019 GHG Emissions Inventory, and the Climate Impacts & Resiliency Study, we developed a list of climate actions to meet the three main goals of this plan:

GOAL 1: REDUCE EMISSIONS

Limit or stop activities that are producing greenhouse gas emissions to achieve our science-based targets of a 60% reduction by 2030 and net zero by 2050 (compared to a 2019 baseline).

GOAL 2: ENHANCE ECOSYSTEM HEALTH AND SEQUESTRATION

Improve the health of local ecosystems to maximize their ability remove carbon dioxide from the atmosphere, provide habitat, regulate the water cycle, and buffer the impacts of climate change.

GOAL 3: INCREASE RESILIENCE AND PREPAREDNESS

Protect the community from the worsening impacts of climate change through resilient infrastructure, emergency preparedness, and community participation.

Community Priorities

Developing these strategies and actions was an iterative process. Community members voiced their priorities, concerns, ideas, and feedback about the overall CAP goals and specific actions through four Community Climate Conversation workshops, two online surveys, several in-person events using posters, and eight meetings of the Community Climate Advisors.

The Shoreline community prioritized environmental equity and climate resilience as the top criteria the City should use when evaluating actions. Community members also identified public health, cost savings and affordability, and other environmental benefits as important to consider during action evaluation. For more details on community engagement and feedback, see "**Appendix B: Community Engagement**."

Actions to achieve the three goals of reducing emissions, enhancing ecosystem health and sequestration, and increasing resilience and preparedness are grouped into the following five focus areas and associated strategies:

Focus Area: Transportation and Mobility

- Strategy TM-1: Reduce community-wide driving.
- Strategy TM-2: Accelerate electric vehicle (EV) adoption.

Focus Area: Buildings and Energy

- Strategy BE-1: Electrify space and water heating for new and existing buildings.
- Strategy BE-2: Increase energy efficiency of new and existing buildings.
- Strategy BE-3: Increase renewable energy generation and access.
- Strategy BE-4: Support affordable green buildings that conserve water and protect habitat.

Focus Area: Zero Waste

- Strategy ZW-1: Reduce per capita waste generation, especially wasted food.
- Strategy ZW-2: Increase diversion rates and access to recycling and composting services.

Focus Area: Ecosystems and Sequestration

- Strategy ES-1: Maintain and increase tree canopy and urban forest.
- Strategy ES-2: Increase soil sequestration in natural and landscaped areas.

Focus Area: Community Resilience and Preparedness

- Strategy CRP-1: Ensure that new buildings, land use decisions, and public infrastructure improvements increase resilience to current and future climate impacts.
- Strategy CRP-2: Strengthen community and municipal emergency preparedness in consideration of predicted climate impacts such as extreme heat, flooding, wildfire smoke, and drought.
- Strategy CRP-3: Increase community awareness of climate change impacts and mitigation and support community-based efforts that increase resilience.

How to Read These Sections

Each focus area section provides an overview of the topic's relevance and importance to the plan, followed by tables listing the climate strategies and actions within the focus area. Each action has an "action ID number," which is comprised of the focus area abbreviation, associated strategy number, and action number (e.g., TM 1.1 is the first action within the first strategy of the Transportation and Mobility focus area).

Strategy

Targets: If developed, targets specific to each strategy will appear here.

ID	Action	Benefits
Action ID number	Action name and description	Potential benefits of action (see icons below)

Benefits*

GHG emissions reduction potential: Action has a high potential to reduce GHG emissions

Public health/quality of life: Action has a high potential to improve public health or quality of life

Cost savings/affordability: Action has a high potential to provide cost savings or increase affordability for the community

Ecosystem health: Action has a high potential to support ecosystem health and natural systems

Equity: Action has a high potential to benefit communities that face historic inequities

Resilience: Action has a high potential to address key climate risks and improve climate resilience for the community

Feasibility: Action has a high feasibility potential (technically, politically, fiscally, and socially)

Benefit icons are included only if the action was evaluated in the multi-criteria analysis and received a score of 4 or 5 for the given benefit.

Other actions would also result in many of these benefits but were not evaluated at this time. See "**Appendix C: Multi-Criteria Analysis**" for more details on the analysis.

TRANSPORTATION AND MOBILITY

Transportation is Shoreline's largest greenhouse gas emissions source, accounting for **55% of total community-wide emissions in 2019**. Most of these emissions come from gasoline use in passenger vehicles. The City has already taken important steps toward reducing these emissions by investing in infrastructure for walking, biking, and taking transit, and by supporting dense, transit-oriented development within walking distance of frequent transit and businesses.

The current update to the City's Transportation Master Plan (TMP) will continue to guide transportation investments over the coming decades with goals of improving safety, increasing equity and climate resilience, supporting multimodal connectivity, and enhancing community vibrancy. Together, these investments are expected to significantly reduce transportation emissions as shown in the wedge analysis. See "**Appendix E: Wedge Analysis**" for more details on the assumptions regarding emissions reductions from transportation actions.

However, additional efforts are needed to reduce emissions from transportation to meet our science-based targets. To complement the TMP and achieve the necessary emissions reductions in this sector, the CAP actions aim **to reduce community-wide driving** and **accelerate the adoption of electric vehicles (EVs).** Because Shoreline has access to plentiful, affordable carbon-free electricity from Seattle City Light, replacing conventional gasoline- and diesel-powered vehicles with electric alternatives is a key strategy for decarbonizing Shoreline's transportation.

Community Priorities

Transportation and Mobility priorities identified by the community include:

- Increase walkability and bikeability
- Create more safe sidewalks and improve existing sidewalks
- Provide incentives for electric vehicle adoption
- Support climate-friendly transportation in a way that makes it more convenient than less sustainable alternatives

> ***I would love to see more of a City push for creating biking/walking paths closer to the light rail. Shoreline has the opportunity to lead by showing other cities how to become truly less dependent on cars, but it won't happen unless we invest in actual safe spaces that take foot and bike and other mode of transportation away from the roads with heavy car traffic."***
>
> *– Survey respondent*

STRATEGY #1: REDUCE COMMUNITY-WIDE DRIVING.

Targets:

- Reduce miles driven per person 20% by 2030 and 50% by 2050 compared to 2019 levels.

ID	Action	Benefits
TM 1.1	**Increase density and walkability** Study and implement land use and transportation policies to increase density, increase walkability, and encourage business development so that basic and desirable amenities are available by walking from more residences.	
TM 1.2	**Increase street and pathway connectivity** Increase street and multimodal connectivity where it supports the City's connectivity objectives. Identify funding and acquire mid-block right-of-way and street connections to increase multimodal connectivity in the Candidate Countywide Centers (148th St. Station Area, 185th St. Station Area, Shoreline Place, and Town Center).	
TM 1.3	**Support transit-oriented development** Continue to encourage transit-oriented development that incorporates affordable housing through land use and transportation policies and infrastructure. Partner with transit agencies and private developers to encourage redevelopment of Park and Ride locations for transit-oriented development projects that incorporate affordable housing.	
TM 1.4	**Reduce demand for parking** Continue to study and implement policies that reduce demand for parking in mixed-use and commercial centers and encourage transportation modes other than driving. Focus especially on limiting off-street, surface parking to reduce urban heat.	
TM 1.5	**Reduce car trips from multifamily residents** Continue to incentivize Travel Demand Management (TDM) strategies to reduce car trips from residents at new multifamily developments through the Deep Green Incentive Program. Explore and implement options to increase TDM incentives and requirements for new development.	
TM 1.6	**Complete the pedestrian and bicycle network** Fund and implement a connected network of safe, comfortable, welcoming, and low-stress bicycle facilities, sidewalks, and trails for pedestrian and bicycle travel that connects to schools, commercial destinations, transit stops, and essential services. Identify funding opportunities for bicycle infrastructure.	

ID	Action	Benefits
TM 1.7	**Reduce commute trips by business employees** Enhance and expand the City's Commute Trip Reduction (CTR) Program to encourage and require CTR activities across the city for major employers and within the City for internal employees. Possible strategies could include ridesharing programs, carpool matching, telecommuting, and employer-sponsored vanpools.	
TM 1.8	**Create mobility hubs** Create shared-use mobility hubs to enhance cross-community travel by transit, ride-share, electric vehicles, bike-share, and scooter-share and any means other than driving a traditional gas/diesel vehicle alone.	
TM 1.9	**Provide shared-use electric bicycle or scooter programs** Partner with King County or other cities to pilot electric bike- or scooter-share programs. Partner with community groups to pilot an e-bike library where bikes are available to low-income community members without requiring smartphone technology and a credit card to access.	
TM 1.10	**Expand transit service and access** Partner with Metro Transit, Sound Transit, Community Transit and/or WSDOT to increase transit service and access to encourage greater ridership. Improve cross-city transit connections, especially to the new light rail stations, explore flexible micro-transit service. Expand subsidized or discounted transit programs and increase education to encourage greater use of them.	
TM 1.11	**Increase bicycle parking infrastructure** Conduct a citywide bicycle parking inventory and increase bicycle parking, especially near businesses and amenities. Provide public and/or employee bicycle parking at all City facilities.	
TM 1.12	**Provide bicycling education programs** Host cycling education and encouragement programs in support of achieving Silver-level Bicycle-Friendly Community certification.	
TM 1.13	**Provide rebates for electric bicycles** Incentivize e-bike ownership through a bulk purchase or rebate program.	
TM 1.14	**Regional road usage fees** Explore and advocate for regional road usage fees and regional pricing strategies for parking.	

STRATEGY #2: ACCELERATE ELECTRIC VEHICLE (EV) ADOPTION.

Targets:

- Achieve 30% electric passenger and light-duty vehicles and 1% electric heavy-duty vehicles on the road by 2030.
- Achieve 95% electric passenger and light-duty vehicles and 50% electric heavy-duty vehicles on the road by 2050.
- Replace all operationally feasible light and medium-duty vehicles and off-road equipment in the City fleet with electric by 2030.
- Replace all operationally feasible heavy-duty vehicles and off-road equipment with low-emission alternatives by 2050.

ID	Action	Benefits
TM 2.1	**Encourage electric vehicle car-sharing** Partner with regional jurisdictions and businesses to provide an EV car share program in the community.	
TM 2.2	**Community education about electric vehicles** Provide community education and outreach to increase EV adoption and promote existing incentives for EV purchases.	
TM 2.3	**Support electrification of partner vehicle fleets** Secure grant funding or update contract provisions to support fleet electrification by schools, businesses, utility, and transit partners such as Shoreline School District, North City Water District, and Recology.	
TM 2.4	**Provide rebates for electric vehicle purchases** Work with the State, Seattle City Light, and regional jurisdictions to offer more rebates and incentive programs for residents and businesses that purchase EVs. Partner with regional jurisdictions and local businesses to increase access to rebates.	
TM 2.5	**Increase EV charging infrastructure installed in new buildings** Strengthen our existing **EV-ready ordinance** to increase the percentage of required EV-ready stalls for new buildings. Consider requiring installation of a minimum number of charging stations in addition to electrical capacity for all new multifamily residential and commercial construction and during major renovation of parking lots/ structures.	
TM 2.6	**Install public charging stations in strategic locations** In alignment with regional efforts through WSDOT and Seattle City Light, expand the public EV charging network by assessing gaps and supporting installation of charging stations for public use on business, institutional, City, and utility properties in key areas. Install charging stations for public use at City facilities open to the public such as parks and recreation centers wherever feasible.	

ID	Action	Benefits
TM 2.7	**Encourage charger installation in existing buildings** Provide education, incentives, and technical assistance to encourage building owners to add EV charging infrastructure, especially in multi-family and affordable housing buildings.	
TM 2.8	**Electrify the City fleet** Purchase and deploy make-ready Battery Electric Vehicles (BEVs) to transition the City's vehicle fleet to electric by 2030 for all operationally feasible vehicles. As needed, delay purchasing replacement vehicles until BEV options are available and affordable. If BEVs are not available for necessary replacements, consider plug-in hybrid options.	
TM 2.9	**Electrify the City's heavy-duty vehicles and equipment** Replace the City's heavy-duty vehicles with electric options where operationally feasible. Alternative low-emission fuels may be considered if electric options are not operationally feasible.	
TM 2.10	**Increase charging infrastructure at City facilities** Increase electrical capacity and charging infrastructure at City facilities to ensure adequate capacity for fleet and employee EV charging.	
TM 2.11	**Electrify the City's off-road equipment** Replace City gasoline or diesel-powered off-road equipment (blowers, mowers, chainsaws, generators, etc.) with electric models as operationally feasible.	
TM 2.12	**Electrify leaf blowers and off-road equipment** Study and implement policies to ban the use of gas-powered tools and equipment throughout the City, such as leaf blowers or non-riding lawn mowers, requiring that electric models be used instead.	

BUILDINGS AND ENERGY

Energy use in buildings is the second largest source of GHG emissions in Shoreline, accounting for **42% of total community-wide emissions in 2019**. These emissions come mainly from using natural gas or heating oil for heating homes and buildings.

By comparison, Shoreline's electricity, provided by Seattle City Light, is carbon-neutral and comes from renewable sources. Converting gas and oil heating systems to efficient, electric options is a key strategy to reducing Shoreline's emissions. Switching from a natural gas or oil furnace to an electric heat pump can also lower heating costs, improve comfort, provide air-conditioning, and reduce indoor air pollution. By banning the use of natural gas heating in large new buildings in Shoreline, we have already made progress in reducing emissions from new buildings. However, more action is needed to help existing homes, businesses, and multi-family buildings convert to efficient, electric heat pumps and appliances. The following actions aim to build on existing federal, state, and utility incentives to support electrification of existing buildings while also **increasing energy efficiency and renewable energy generation** and **advancing more sustainable codes for new buildings**.

Community Priorities

Buildings and Energy priorities identified by the community include:

- Continue to electrify buildings and invest in renewables
- Provide incentives to help make the transition from fossil fuels more feasible
- Focus on both retrofitting existing construction and requiring all-electric new construction

> ***"If we believe that climate change is a crisis worth addressing, and that natural gas contributes to it, new buildings should not use natural gas. Both a ban for new construction to use natural gas, and a program to retrofit existing homes are required."***
>
> *– Survey respondent*

STRATEGY #1: ELECTRIFY SPACE AND WATER HEATING FOR NEW AND EXISTING BUILDINGS.

Targets:

- Phase out heating oil use by 2030.
- Reduce natural gas usage 60% by 2030 and 98% by 2050.
- Utilize electricity for space and water heating and cooking in all City facilities by 2030.

ID	Action	Benefits
BE 1.1	**Encourage new homes to be all-electric** Provide education, technical assistance, and incentives to encourage and incentivize construction of all-electric new single-family homes. Possible incentives include reduced permit fees, additional development benefits, property tax exemptions, and/or rebates.	
BE 1.2	**Advocate for local control of energy code** Advocate for legislative changes to allow local updates to the Residential Provisions of the Washington State Energy Code so the City can require residential building electrification and increase energy efficiency for new residential construction.	
BE 1.3	**Provide a home electrification program** In collaboration with utilities and local jurisdictions, develop a residential home energy program to provide education, technical assistance, and financial assistance to replace gas and oil heating systems with electric heat pumps, improve home efficiency, and install renewable energy systems. Options include a rebate program, bulk-purchase retrofit campaign, or other financing mechanism. Prioritize low and middle-income households for assistance and incentives.	
BE 1.4	**Identify funding sources to support building electrification** Explore and develop funding sources to support building electrification programs and discourage fossil-fuel use. Explore both grant funding and local taxes on fossil-fuel sources to fund electrification and weatherization assistance for low- and middle-income households.	
BE 1.5	**Provide incentives for electric appliances** Coordinate with utilities and regional partners to provide incentives for replacing gas and propane appliances in homes, businesses, and apartments with efficient, electric options.	
BE 1.6	**Support electrification of commercial and multifamily buildings** Promote existing financing mechanisms and incentives to convert gas and oil heating systems at commercial and multifamily buildings to electric space and water heating at low upfront cost. Partner with regional utilities and jurisdictions to provide technical assistance and outreach to building owners to encourage electrification. Develop new incentives as needed with a focus on low and middle-income residential buildings. Pair electrification measures with efficiency retrofits and renewable energy installation.	
BE 1.7	**Require large buildings to reduce emissions** Study and implement emissions-based building performance standards to reduce fossil-fuel use in commercial and multi-family buildings larger than 20,000 square feet. Standards should complement benchmarking and performance requirements under the State Clean Buildings Act and be accompanied by technical assistance for building operators.	

ID	Action	Benefits
BE 1.8	**Support job training** Partner with educational institutions to provide job training for electric heat pump system installation and energy efficiency retrofits.	
BE 1.9	**Electrify City facilities** Replace existing natural gas heating systems with electric systems at all City facilities at time of major renovation or replacement, with a goal of electrifying heating systems at remaining facilities by 2030. Include efficiency retrofits and solar PV installation in retrofits/remodels where feasible to offset energy costs.	

STRATEGY #2: INCREASE ENERGY EFFICIENCY OF NEW AND EXISTING BUILDINGS.

ID	Action	Benefits
BE 2.1	**Improve energy efficiency of new large buildings** Adopt local amendments to the Commercial Provisions of the 2021 Washington State Energy Code that increase energy efficiency.	
BE 2.2	**Support energy efficiency projects at large buildings** Promote existing financing and incentive programs such as **King County's C-PACER program**, the **Clean Building Accelerator**, **NEEC's Building Operator Certification**, state grants, or the **Early Adopter Incentive Program**, for energy efficiency retrofits at large commercial/ multifamily buildings and schools.	

STRATEGY #3: INCREASE RENEWABLE ENERGY GENERATION AND ACCESS.

ID	Action	Benefits
BE 3.1	**Incentivize solar or renewable energy installations** Provide incentives for installation of on-site renewable energy systems on residential and commercial buildings and for community solar projects (projects that allow community members to purchase a portion of the renewable energy produced from solar installations on large buildings). This could include streamlined permitting, development benefits, rebates, or bulk-purchasing program. Focus on increasing access to renewable energy by low-income households.	

ID	Action	Benefits
BE 3.2	**Increase requirements for new buildings to include solar panels** Adopt local amendments to the commercial provisions of the WSEC that encourage on-site renewable energy systems for new commercial and multifamily buildings.	
BE 3.3	**Support renewable energy at affordable housing projects** Provide resources, assistance, and financing for new affordable housing to be net zero energy (a building that produces enough renewable energy to meet its own annual energy consumption).	
BE 3.4	**Support biogas pilot projects** Support development of local and regional biogas resources, including anaerobic digestion of food scraps.	

STRATEGY #4: SUPPORT AFFORDABLE GREEN BUILDINGS THAT CONSERVE WATER AND PROTECT HABITAT.

ID	Action	Benefits
BE 4.1	**Increase requirements for sustainable building practices** Adopt local amendments to the Washington State Building Code Council that encourage sustainable building practices such as water efficiency, rain and greywater harvesting and reuse, efficient system designs, use of low-carbon materials, and green stormwater infrastructure.	
BE 4.2	**Green building policy for City buildings** Develop a green building policy for City facilities and capital improvements that includes minimum energy efficiency standards and use of low-embodied carbon materials.	
BE 4.3	**Expand incentives for sustainable building practices** Evaluate the City's **Deep Green Incentive Program** to identify opportunities to expand participation and support further decarbonization, water and energy efficiency, habitat protection, and climate resilience.	

ZERO WASTE

Although the direct emissions from disposing of Shoreline's solid waste are relatively small—just **2% of Shoreline's emissions in 2019**—the climate impact of producing, transporting, and disposing of those goods is significant.[2] Wasting resources also has negative environmental and societal impacts, as natural resources are depleted to create new products and vulnerable communities are often particularly impacted by food insecurity or pollution from manufacturing or waste disposal facilities.

As part of the King County solid waste system, Shoreline participates in a joint regional goal of **achieving zero waste of resources with economic value by 2030.** While Shoreline has a long history of successful recycling and composting, efforts to increase waste diversion have stalled. Currently, 70% of the waste that Shoreline and other communities send to the King County landfill could have been composted or recycled. Policies and programs to increase recycling and composting are needed to reach our zero waste goal. For example, extended responsibility laws (Action ZW 2.8) would require packaging companies to fund recycling systems and design products to be more recyclable. While recycling and composting are key strategies, reducing the amount of waste we create is even more impactful. Preventing food waste (ZW 1.1) and rescuing surplus edible food (ZW 1.3) are particularly important to reduce emissions from solid waste and improve food security. Shoreline's actions in this section aim to build on regional and statewide efforts to **increase composting and recycling** and **reduce the total amount of waste created in Shoreline.**

Community Priorities

Zero Waste priorities identified by the community include:

- Reduce waste of all types
- Educate residents about recycling and composting to increase participation in these programs
- Expand recycling and compost services to be accessible to single and multi-family residences
- Facilitate expansion of recycling services to accept more hard-to-recycle items

> ***"I'd love to see more upstream requirements and incentives to donate edible food, make companies pay, and make composting easier to access for all community members. We need more than outreach & education to turn the tide."***
>
> *– Survey respondent*

2 *King County Communitywide Consumption-based GHG Emissions Inventory*. EcoDataLab and Stockholm Environment Institute. 2022. Retrieved from **https://your.kingcounty.gov/dnrp/climate/documents/2022/king-county-consumption-ghg-emissions-inventory-and-wedge-report-09-2022.pdf**

STRATEGY #1: REDUCE PER CAPITA WASTE GENERATION, ESPECIALLY WASTED FOOD.

Targets:

- Reduce per capita waste generation by 2030.

ID	Action	Benefits
ZW 1.1	**Provide community programs to reduce waste** Continue utilizing grant funding to provide waste reduction programs and education for the community with a focus on food waste prevention. Options include enhancing local food rescue and donation network, expanding King County's "Repair Café" program, supporting tool libraries, or other community-based activities to reduce waste.	
ZW 1.2	**Participate in regional zero waste efforts** Implement key strategies from King County's RE+ plan to achieve zero waste of resources with economic value by 2030.	
ZW 1.3	**Support food rescue networks** Utilize grant funding to support and enhance local food rescue and donation networks that connect excess food with those needing food.	
ZW 1.4	**Develop a deconstruction ordinance** Work with regional partners to develop and implement a deconstruction ordinance requiring reusable materials to be salvaged before buildings are demolished for new construction.	
ZW 1.5	**Waste reduction in City operations** Identify opportunities for waste reduction and supply reuse/donation in City operations. Switch to digital for all internal and external paper use where feasible.	
ZW 1.6	**City sustainable purchasing** Support internal implementation of the Environmentally Preferable Purchasing Policy through training of City staff on waste reduction and sustainable procurement practices, toxic chemical reduction, and low-carbon procurement.	
ZW 1.7	**Reduce single-use plastic food service items** Implement programs and policies to reduce the use of single-use food serviceware, especially plastic and expanded polystyrene foam (Styrofoam™).	
ZW 1.8	**Explore alternative garbage service models that reduce waste** In support of King County's Re+ plan, explore solid waste service models that incentivize waste reduction and diversion, such as every-other-week garbage collection.	

STRATEGY #2: INCREASE DIVERSION RATES AND ACCESS TO RECYCLING AND COMPOSTING SERVICES.

Targets:

- Facilitate access to composting and recycling services for all residents and businesses by 2030.
- Achieve a 70% diversion rate by 2030 and 80% by 2050. Shoreline's diversion rate is the percentage of waste that Shoreline prevents from reaching landfills, through reduction, reuse, and recycling and composting programs.

ID	Action	Benefits
ZW 2.1	**Require compost and recycling service at business and multifamily properties** Require recycling and compost service for businesses and multifamily properties and provide technical assistance to help businesses and multifamily properties compost successfully. Implement compost requirements for food businesses in accordance with **HB 1799**.	
ZW 2.2	**Ban food waste and recyclables from the garbage** Study and implement source separation requirements for basic recyclable materials, compostable paper, and food waste for residential and commercial generators.	
ZW 2.3	**Community food waste drop off** Provide drop-off locations for residential food waste on a pilot basis.	
ZW 2.4	**Provide equitable recycling and composting education** Provide education, technical assistance, and resources to encourage food scrap composting by residents, businesses, and other key audiences. Ensure equitable access to waste education through multi-lingual and targeted, culturally relevant campaigns and resources.	
ZW 2.5	**Support anaerobic digestion pilot projects** Explore the feasibility of small scale, distributed anaerobic digestion facilities and local use of fuels and by-products. Support and coordinate pilot projects.	
ZW 2.6	**Expand special item recycling services** Use grant funding to expand special item recycling services for key materials such as polystyrene foam and plastic film. Increase equitable access to these services by providing education and technical assistance for key audiences.	
ZW 2.7	**Support extended producer responsibility systems** Advocate for federal or state legislation to create extended producer responsibility systems for consumer packaging and other key materials.	
ZW 2.8	**Increase recycling and composting at City facilities** Ensure all City facilities have recycling and/or composting containers for both public and staff use, as appropriate. Enhance employee education on site specific recycling and composting practices.	

ECOSYSTEMS AND SEQUESTRATION

Shoreline's trees, forests, and other ecosystems are some of our community's greatest assets. As we reduce community-wide GHG emissions, we also need to support healthy trees and ecosystems. Shoreline's trees and soils sequester—or draw down—carbon from the atmosphere, supporting our goal of reaching net-zero emissions by 2050. An analysis of carbon sequestration and storage estimated that Shoreline's trees sequester approximately 13,890 metric tons of CO_2 equivalent ($MTCO_2e$) from the atmosphere every year. This is equivalent to about **6%** of the Shoreline's emissions in 2019. See "**Appendix D: Sequestration Analysis**" for more details.

In addition to capturing carbon, healthy trees and ecosystems provide a wide range of interconnected benefits and vital services such as improving air quality, providing shade and protection from heat, reducing flooding, improving mental health, offering recreation opportunities, and providing habitat for local wildlife.[3]

While the City is working to reduce emissions from transportation by supporting dense, walkable, transit-oriented development, we are also working to **protect and increase our existing urban tree canopy.** The actions in this section enhance our efforts to protect existing trees; plant new trees in areas with urban heat impacts or low existing tree cover; restore urban forests in our parks and open spaces; improve street tree maintenance and watering; and increase soil health.

Community Priorities

Ecosystems and Sequestration priorities identified by the community include:

- Preserve existing trees and plant new trees
- Replace heat island areas such as turf and rubber crumb fields
- Protect existing trees during sidewalk construction
- Provide education for homeowners who manage their yards, arborists, developers, and youth
- Update zoning to include tree retention and replanting language and strengthened codes

> ***"Green roofs and other creative ways to add vegetation in dense urban areas is a must. A healthy ecosystem and wildlife habitat is more than just one single tree on a street corner."***
>
> *– Survey respondent*

3 *Ecosystem Services & Biodiversity (ESB)*. Food and Agriculture Organization of the United Nations. Retrieved from **https://www.fao.org/ecosystem-services-biodiversity/background/en/**

STRATEGY #1: MAINTAIN AND INCREASE TREE CANOPY AND URBAN FOREST HEALTH.

Targets:

- Increase urban forest sequestration 5% by 2050 compared to 2019 levels.
- Restore 240 acres of urban forest by 2039.

ID	Action	Benefits
ES 1.1	**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.	
ES 1.2	**Expand forest restoration efforts** Continue to expand the acreage in Parks under ecological restoration through the **Green Shoreline Partnership** and regional carbon credit programs.	
ES 1.3	**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.	
ES 1.4	**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.	
ES 1.5	**Climate resilient parks design** Include landscape features and amenities that increase tree canopy, carbon sequestration potential, and climate resilience in the design of Parks projects and City facilities.	
ES 1.6	**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.	

ID	Action	Benefits
ES 1.7	**Update street tree list and planting practices** 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.	
ES 1.8	**Utilize forest carbon credits** Offset remaining emissions from municipal operations by 2030 using carbon credits generated through local forestry projects.	
ES 1.9	**Develop a community tree planting program** Develop a program to provide trees for planting at schools, churches, institutions, businesses, or residential properties in Shoreline along with training in tree planting and care focusing on identified urban heat islands and environmental health disparity areas.	
ES 1.10	**Provide community education on tree protection education** Provide education and resources for private property owners and arborist companies to encourage tree retention, care, and planting of additional trees on private property. Consider promoting habitat certification programs, conservation easements or other conservation programs to encourage protection of existing natural areas on private and institutional property.	
ES 1.11	**Increase tree protection requirements during development** Identify opportunities to increase tree retention and canopy cover on private property during development, especially in areas with documented urban heat impacts or environmental health disparities and implement recommendations. Segue with efforts to increase climate resilience in urban design standards below.	
ES 1.12	**Fund habitat projects on private property** Adapt the City's **Environmental Mini Grant** and **Soak It Up** programs to support the creation of habitat features that enhance stormwater management and carbon sequestration at schools, churches, and other large, privately-owned open spaces in the City. Include educational features in projects where possible.	
ES 1.13	**Enhance tree-related code enforcement** Increase monitoring and enforcement of survivability for trees planted during private development.	

STRATEGY #2: INCREASE SOIL SEQUESTRATION IN NATURAL AND LANDSCAPED AREAS.

ID	Action	Benefits
ES 2.1	**Increase requirements for compost usage in new construction** Study and implement requirements that increase compost use for soil amendment in private development and City projects. Pilot the use of biochar and mycelia-inoculated compost mixes to increase soil health in City projects.	
ES 2.2	**Provide community compost education and resources** Provide education and a bulk purchase program to encourage compost use as a soil amendment in private landscapes at schools, businesses, churches, homes, and other private property in the city.	

COMMUNITY RESILIENCE AND PREPAREDNESS

Climate impacts, such as higher temperatures and more frequent wildfire smoke, are already happening in Shoreline. Frontline communities experience these impacts most severely and often have less access to resources and services to prepare and adapt to them.

Climate change highlights and amplifies existing social and racial injustices. A person's vulnerability to climate impacts is influenced by a range of factors, such as race and ethnicity, wealth and income, lack of English proficiency, existing health conditions, and access to healthcare.[4] It is especially important to center frontline communities in planning for the impacts of climate change.

The actions in this focus area build off the City's 2020 Climate Impacts & Resiliency Study and focus on addressing the impacts of urban heat, wildfire smoke, and flooding on vulnerable community members. These actions will **increase resilience** to current and future climate impacts, **strengthen emergency preparedness** in consideration of predicted climate impacts, and **increase community awareness of climate change impacts and mitigation strategies.**

Community Priorities

Community Resilience and Preparedness priorities identified by the community include:

- Implement resilience actions such as creating cooling centers, resilience hubs, shelter services, and more affordable housing
- Prevent cost increases to renters that result from actions that upgrade buildings
- Model these actions for the community in City buildings and programs

> **What does a resilient community look like to you?**
>
> ***"A community that has infrastructure and services in place to adapt to climate change."***
>
> *– Workshop participant*
>
> ***"A diverse community of people and healthy habitat for all, that can thrive and survive as life goes on."***
>
> *– Workshop participant*

4 *An Unfair Share: Exploring the disproportionate risks from climate change facing Washington state communities*. UW Climate Impacts Group, UW Department of Environmental and Occupational Health Sciences. 2018. Retrieved from **https://cig.uw.edu/projects/an-unfair-share/**

STRATEGY #1: ENSURE THAT NEW BUILDINGS, LAND USE DECISIONS, AND PUBLIC INFRASTRUCTURE IMPROVEMENTS INCREASE RESILIENCE TO CURRENT AND FUTURE CLIMATE IMPACTS.

ID	Action	Benefits
CRP 1.1	**Expand Climate Impacts Tool usage** Continue to implement recommendations from the Climate Impacts & Resiliency Study, including use and refinement of the Climate Impacts tool to inform planning of City capital improvements and development of land use policies. Develop a process to regularly update data on climate-related vulnerabilities including urban heat, surface water vulnerabilities, and environmental health disparities.	
CRP 1.2	**Develop recommended design 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 trees, green stormwater infrastructure, reduced impervious surface area, cool roofs, green corridors, or high-albedo pavement.	
CRP 1.3	**Climate resilient urban design standards** 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.	
CRP 1.4	**Increase incentives for resilience retrofits** Increase incentives and promotion of green stormwater and urban forest retrofits on developed properties, with emphasis on areas prone to urban heat and flooding or identified environmental health disparities. Segue with related urban forest efforts.	
CRP 1.5	**Community "nature-scaping" education** Provide more support and education to encourage private landowners to adapt to and mitigate climate change via "nature-scaping," natural yard care, green stormwater retrofits, and habitat restoration on their property (see CRP-1.4 and ES-1.12 above).	

STRATEGY #2: STRENGTHEN COMMUNITY AND MUNICIPAL EMERGENCY PREPAREDNESS IN CONSIDERATION OF PREDICTED CLIMATE IMPACTS SUCH AS EXTREME HEAT, FLOODING, WILDFIRE SMOKE, AND DROUGHT.

ID	Action	Benefits
CRP 2.1	**Provide preparedness resources for heat, wildfire smoke, and flooding events** Increase equitable access to emergency preparedness resources for vulnerable populations and areas, especially those related to flooding, extreme heat, and wildfire smoke. Develop and distribute tools and resources for the community to stay safe during extreme heat or wildfire smoke events. For example, consider providing filter-fan kits for vulnerable populations.	
CRP 2.2	**Address climate impacts in emergency preparedness planning** Collaborate with Emergency Management staff to identify gaps in emergency management services, City operations, and planning related to climate impacts.	
CRP 2.3	**Provide community cooling centers** Develop a plan to provide community cooling centers for extreme heat events in partnership with local community groups and organizations.	
CRP 2.4	**Create neighborhood resilience hubs** Assist Emergency Management staff to support development of neighborhood resilience hubs and community resource mapping efforts. Resilience hubs are existing community-serving facilities that are enhanced to support residents and coordinate resource distribution and services before, during, or after a natural hazard event.	
CRP 2.5	**Increase access to garden space** Support the creation of community gardens and increase access to community garden space, especially for low-income, immigrant, and other vulnerable populations.	
CRP 2.6	**Increase shelter and housing services** Continue to increase shelter services and affordable housing to reduce exposure to extreme heat and wildfire smoke.	

STRATEGY #3: INCREASE COMMUNITY AWARENESS OF CLIMATE CHANGE IMPACTS AND MITIGATION AND SUPPORT COMMUNITY-BASED EFFORTS THAT INCREASE RESILIENCE.

ID	Action	Benefits
CRP 3.1	**Provide mini-grants for community climate projects** Focus our Environmental Mini-Grant program exclusively on projects that either reduce GHG emissions or build community climate resilience and increase funding for community-driven projects.	
CRP 3.2	**Provide community education on climate action** Provide community-based education and engagement activities to increase awareness of climate impacts and opportunities for action.	
CRP 3.3	**Create a community task force** Create a community task force to guide CAP implementation and increase community ownership and participation and build partnerships with community organizations, businesses, and other groups.	
CRP 3.4	**Create a community ambassador program** Create a neighborhood and youth ambassador program to train and give people the tools and resources to work with their peers to implement many of the actions identified in this plan and create green job training opportunities for youth from frontline communities.	

IMPLEMENTATION PLAN

The strategies and actions in this plan move us toward a low-emissions, resilient, and equitable Shoreline. To ensure that this vision is realized, **we need to ensure that we implement the actions in this plan successfully**. The City of Shoreline will lead the implementation of the plan, but success will depend on partnership and collaboration with residents, businesses, and other community partners.

Accountability, Monitoring, and Evaluation

The City of Shoreline's Environmental Services Program Manager will oversee the implementation of the Climate Action Plan. This will include:

- Overseeing future **GHG inventories** to monitor emissions reductions and evaluate progress toward plan targets.
- Establishing performance indicators and reporting to the City Council on the **progress and challenges** associated with plan implementation.
- Developing **recommendations** for new or ongoing programs, services, practices, and priorities related to reducing emissions, increasing sequestration, and improving resilience.
- Ensuring optimal **coordination** between City departments and **integration** with other plans and planning efforts.

This plan update is a living document and will continue to evolve. As we monitor our progress toward plan targets, we will adjust or add climate strategies and actions and update the implementation matrix and indicators as needed to stay on track to meet our overall goals for emissions reductions, ecosystem health, and resilience.

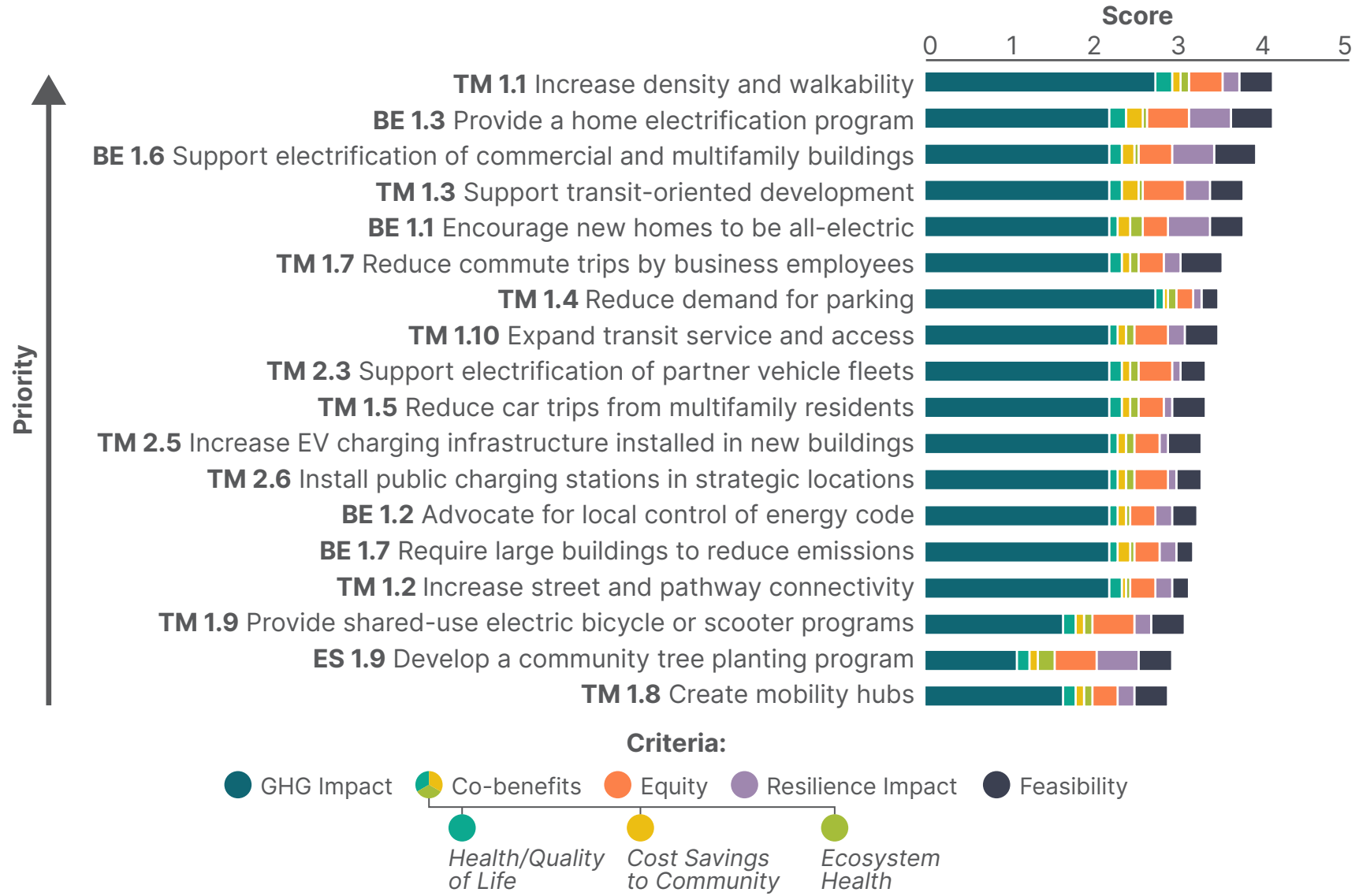
Multi-Criteria Analysis

To guide action implementation, we conducted a multi-criteria analysis (MCA) for a short list of 35 high-priority actions, selected by City staff and informed by community input. The MCA provided a ranking of these actions based on the following weighted criteria.

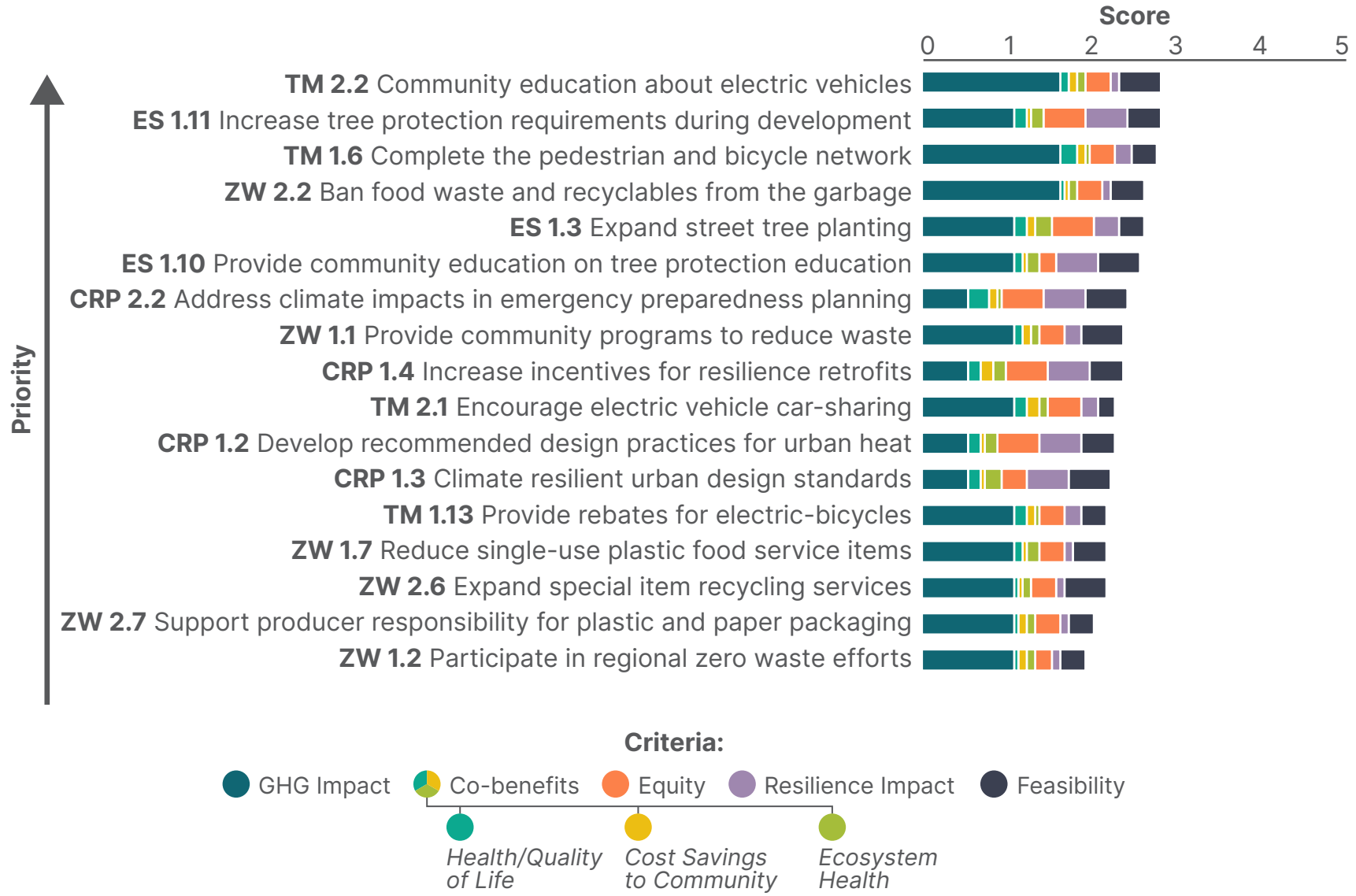
Criteria	Weight	Definition
GHG Emissions Impact	55%	Reduces GHG emissions
Co-benefits	15%	Provides co-benefits related to improving health/ quality of life, providing cost savings to community, and/or supporting ecosystem health
Equity	10%	Benefits or supports communities that face historic inequities
Resilience Impact	10%	Increases community resilience to climate impacts
Feasibility	10%	Is possible to implement based on level of community support and political, technical, and regulatory feasibility/barriers

We developed the weightings used in this analysis with input from Community Climate Advisors and the broader community. See below for the MCA results and see "**Appendix C: Multi-Criteria Analysis**" for more details on this analysis.

Multi-Criteria Analysis Results



Multi-Criteria Analysis Results (cont.)



Community Support and Engagement: What You Can Do

Community involvement and participation will be crucial for the success of the plan and its goals. For example, many business and building owners are already investing significantly in energy efficiency upgrades to comply with the Clean Buildings Act and will continue to be key partners for electrification efforts. The City will continue to collaborate with residents and businesses to implement these actions equitably, inclusively, and effectively. All plan actions will benefit from community support, but the following actions will especially rely on broad community engagement:

Transportation and Mobility:

- Reduce driving by taking transit, walking, biking, telecommuting, or using shared-mobility services (TM 1.5, 1.9, 1.10, 1.13, 2.1).
- Replace gasoline- or diesel-powered vehicles with **electric options** (TM 2.2, 2.4).
- Use an e-bike for short trips (TM 1.5, 1.9, 1.10, 1.13).

Buildings and Energy:

- **Utilize federal** or **utility incentives** to increase your home's energy efficiency. If renting, talk to your landlord or property manager about available incentives (BE 1.3).
- When replacing your furnace or water heater, choose an efficient, electric heat pump (B 1.3, 1.5, 1.6).
- Replace gas appliances with electric options (BE 1.5).
- Find out your **home's solar potential** and talk to your utility about installing solar panels. If renting, consider participating in **Seattle City Light's Green Up program** to support community solar projects (BE 3.1).

Zero Waste:

- Take steps to **reduce the amount of food you waste** (ZW 1.1).
- Avoid single-use plastic items and switch to reusable options when possible (ZW 1.1).
- Extend the life of furniture, clothing, and appliances by repairing them (ZW 1.1).
- Compost all food scraps, food-soiled paper, and yard debris and recycle all accepted plastic, paper, glass, and metal containers. Find out what you can **recycle and compost here**. If renting, contact your property manager about setting up compost service (ZW 2.3, 2.4, 2.5).

Ecosystems and Sequestration:

- Protect existing trees and natural areas on your property. If you have room, consider planting more trees (ES 1.10, 1.11, 1.12, 1.13).
- Remove invasive species, lawn, and hardscaped areas on your property and add native plants. Amend landscape beds with compost or natural mulch wherever possible.
- Volunteer with the **Green Shoreline Partnership** to restore urban forest habitat in our parks (ES 1.1, 1.2).

Community Resilience and Preparedness:

- Ensure your household is prepared for extreme heat, wildfire smoke, and flooding events. Get involved with the **CERT program** to volunteer during emergencies (CRP 2.1, 2.3, 2.4, 3.2).
- Consider participating in the Soak It Up Rebate program to install a rain garden on your property to reduce drainage issues and protect clean water (CRP 1.4, 1.5).
- Talk to your friends, family, and community about climate change and the actions we can take to reduce emissions and prepare for climate impacts (CRP 3.2, 3.4).
- Support local businesses that are taking action to protect the environment and fight climate change. Visit **envirostars.org** to find a list of local businesses that have earned EnviroStars recognition for their environmental leadership.

Equity Considerations

The CAP aims to address the interrelated crises of climate change and racial and social inequities that have impacted frontline communities most. An equity-centered approach to the development and implementation of the plan is essential to realizing the City's goals of climate action and anti-racism. Examples of equity considerations in implementation of the plan include:

- **Impacts**: Does the action generate disproportionate burdens (including costs), directly or indirectly, to communities of color, low-income populations, or other frontline communities? If so, how can these impacts be mitigated?
- **Benefits**: Can the benefits produced by an action intentionally reduce historical or current disparities? Are the benefits of an action dispersed equitably?
- **Accessibility**: Are the action's benefits broadly accessible to households and businesses throughout the community, especially communities of color, low-income populations, frontline communities, and minority-owned, women-owned, and emerging small businesses?
- **Alignment and partnership**: Does the action align with and support existing priorities of communities of color, low-income populations, or other frontline communities? Are there opportunities to collaborate with community-based organizations or leverage partnerships and resources?
- **Accountability**: Does the action have appropriate accountability mechanisms to ensure that communities of color, low-income populations, or other frontline communities will benefit equitably and not experience disproportionate burdens or impacts?

Implementation Matrix

The tables below highlight key implementation considerations, including action timelines, lead City departments and divisions, known costs and funding sources, key partners, priority scores, and other considerations. The tables include priority scores for the 35 actions that were evaluated in MCA, scoring from one to five. A priority score of five would represent a highly feasible, impactful, equitable action that has multiple co-benefits, while a one would represent an action that is unfeasible, not impactful, inequitable, and does not have co-benefits. This section also includes preliminary key performance indicators (KPIs) for select strategies. The implementation matrix is a living document and should be updated as needed, at minimum biennially alongside the City budget.

The framing used to define the timeline of each action is loosely defined as Short term = <5 years, Medium term = 5–15 years, and Long term = >15 years.

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations

Transportation and Mobility

STRATEGY #1: REDUCE COMMUNITY-WIDE DRIVING.

Key Performance Indicators:

- **KPI 1:** Walkscore™
- **KPI 2:** Per capita vehicle miles traveled (TM 1.1 - 1.14)
- **KPI 3:** Percentage of trips made by bicycle, walking, transit, or other shared-use option (TM 1.1 – 1.13)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
TM 1.1	**Increase density and walkability**	Long term	Planning and Community Development		Local and regional transit agencies	4.15	Align with TMP and Comprehensive Plan updates

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
TM 1.2	**Increase street and pathway connectivity**	Short/ Medium term	Public Works		Local and regional transit agencies, private developers	3.15	Align with TMP and Comprehensive Plan updates
TM 1.3	**Support transit-oriented development**	Long term	Planning and Community Development		Local and regional transit agencies, private developers	3.8	Align with TMP and Comprehensive Plan updates
TM 1.4	**Reduce demand for parking**	Medium term	Planning and Community Development, Public Works		Regional agencies, PSRC, private developers	3.5	Align with TMP and Comprehensive Plan updates
TM 1.5	**Reduce car trips from multifamily residents**	Short term	Planning and Community Development, Public Works		Private developers	3.35	Align with TMP and Comprehensive Plan updates
TM 1.6	**Complete the pedestrian and bicycle network**	Long term	Public Works			2.8	Align with TMP update
TM 1.7	**Reduce commute trips by business employees**	Short term	Public Works		King County, local businesses and employers	3.55	
TM 1.8	**Create mobility hubs**	Medium term	Public Works		Bikeshare and e-scooter companies, Metro Transit, Community Transit, Sound Transit	2.9	Align with TMP update

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
TM 1.9	**Provide shared-use electric bicycle or scooter programs**	Short term	City Manager's Office, Environmental Services		Regional jurisdictions, private providers, and community groups	3.1	
TM 1.10	**Expand transit service and access**	Medium term	Public Works		Local and regional transit agencies, WSDOT, PSRC	3.5	Align with TMP update
TM 1.11	**Increase bicycle parking infrastructure**	Short/ medium term	Public Works, Environmental Services, Administrative Services		Local businesses		
TM 1.12	**Provide bicycling education programs**	Short term	Environmental Services, Recreation, Cultural, and Community Services		Local non-profits and advocacy groups, schools, and businesses, RCCS summer camps.		
TM 1.13	**Provide rebates for electric bicycles**	Short term	Environmental Services		Local businesses	2.2	
TM 1.14	**Regional road usage fees**	Medium/ Long term	Public Works		Regional transportation agencies, WA State		Align with regional or state-level initiatives

STRATEGY #2: ACCELERATE ELECTRIC VEHICLE ADOPTION.

Key Performance Indicators:

- **KPI 1:** Percent of registered vehicles that are electric (TM 2.1 – 2.4)
- **KPI 2:** Number of public charging stations (TM 2.5 – 2.7)
- **KPI 3:** Percentage of the City's vehicle fleet that is EV/PHEV/alternative fuel (TM 2.8 – 2.11)
- **KPI 4:** Total fuel consumption for transportation and off-road equipment in the City fleet (TM 2.8 – 2.11)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
TM 2.1	**Encourage electric vehicle car-sharing**	Short term	Public Works, City Manager's Office		Private car share providers, surrounding jurisdictions and businesses	2.3	Align with TMP update
TM 2.2	**Community education about electric vehicles**	Short term	Environmental Services		K4C partner jurisdictions, local dealerships	2.85	
TM 2.3	**Support electrification of partner vehicle fleets**	Medium term	Environmental Services	Infrastructure Investment and Jobs Act, Inflation Reduction Act	Shoreline School District, Recology, North City Water District, Seattle City Light	3.35	
TM 2.4	**Provide rebates for electric vehicle purchases**	Long term	Environmental Services	Inflation Reduction Act	Seattle City Light, WA State, regional jurisdictions, and local businesses		Align with federal incentives from Inflation Reduction Act

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
TM 2.5	**Increase EV charging infrastructure installed in new buildings**	Short term	Planning and Community Development			3.3	
TM 2.6	**Install public charging stations in strategic locations**	Short/ medium term	Environmental Services, Public Works, Administrative Services	Infrastructure Investment and Jobs Act, Inflation Reduction Act	Seattle City Light, WSDOT, local businesses	3.3	
TM 2.7	**Encourage charger installation in existing buildings**	Short term	Environmental Services	King County C-PACER	Building owners, affordable housing providers		
TM 2.8	**Electrify the City fleet**	Ongoing	Administrative Services	Inflation Reduction Act	Seattle City Light		
TM 2.9	**Electrify the City's heavy-duty vehicles and equipment**	Medium/ Long term	Administrative Services, Public Works	Inflation Reduction Act	Seattle City Light		
TM 2.10	**Increase charging infrastructure at City facilities**	Short/ Medium term	Administrative Services	Seattle City Light Fleet Electrification Program	Seattle City Light		
TM 2.11	**Electrify the City's off-road equipment**	Medium term	Administrative Services, Public Works				
TM 2.12	**Electrify leaf blowers and off-road equipment**	Short term	Environmental Services		Local businesses		

Buildings and Energy

STRATEGY #1: ELECTRIFY SPACE AND WATER HEATING FOR NEW AND EXISTING BUILDINGS.

Key Performance Indicators:

- **KPI 1:** Number of households using heating oil and natural gas (BE 1.3 – 1.5)
- **KPI 2:** Citywide natural gas consumption (BE 1.6 – 1.8)
- **KPI 3:** Natural gas consumption at City facilities (BE 1.9)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 1.1	**Encourage new homes to be all-electric**	Short term	Planning and Community Development		State Building Code Council, City of Seattle, Regional Code Collaboration	3.8	Align with Washington State Residential Energy Code update
BE 1.2	**Advocate for local control of energy code**	On-going	City Manager's Office, Planning and Community Development		K4C partners, Regional Code Collaboration	3.25	
BE 1.3	**Provide a home electrification program**	Short term	Environmental Services	Inflation Reduction Act, Community Development Block Grants, Energy Efficiency and Conservation Block Grants	K4C partners, Seattle City Light, affordable housing providers	4.15	Align with federal incentives and grants

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 1.4	**Identify funding sources for building electrification**	Short term	Environmental Services		K4C partners		
BE 1.5	**Provide incentives for electric appliances**	Short term	Environmental Services	Inflation Reduction Act, Community Development Block Grants, Energy Efficiency and Conservation Block Grants	Seattle City Light, building owners, affordable housing providers		Align with federal and utility incentives and action BE 1.3.
BE 1.6	**Support electrification of commercial and multifamily buildings**	Short/ Medium term	Environmental Services	Inflation Reduction Act, Community Development Block Grants, Energy Efficiency and Conservation Block Grants, King County C-PACER, private financing	K4C partners, Seattle City Light, local building owners, affordable housing providers	3.95	Align with federal incentives and State Clean Buildings Act
BE 1.7	**Require large buildings to reduce emissions**	Short term	Environmental Services, Planning and Community Development	King County C-PACER, Clean Buildings Incentive	K4C partners	3.2	Align with State Clean Buildings Act

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 1.8	**Support job training**	Medium term	Environmental Services	Inflation Reduction Act	K4C partners, local businesses and HVAC contractors, Shoreline Community College		
BE 1.9	**Electrify City facilities**	Medium term	Administrative Services	Energy Efficiency and Conservation Block Grants	Seattle City Light		

STRATEGY #2: INCREASE ENERGY EFFICIENCY OF NEW AND EXISTING BUILDINGS.

Key Performance Indicators:

- **KPI 1:** Estimated energy savings from local code amendments above state energy code requirements.
- **KPI 2:** Number of buildings participating in efficiency programs.

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 2.1	**Improve energy efficiency of new large buildings**	Ongoing	Planning and Community Development		K4C partners, Regional Code Collaboration		

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 2.2	**Support energy efficiency projects at large buildings**	Short/ Medium term	Environmental Services	Inflation Reduction Act, Community Development Block Grants, Energy Efficiency and Conservation Block Grants, King County C-PACER	K4C partners, City of Seattle, WA State, King County		Link with BE 1.6

STRATEGY #3: INCREASE RENEWABLE ENERGY GENERATION AND ACCESS.

Key Performance Indicators:

- **KPI 1:** Community-wide solar energy generation.
- **KPI 2:** Number of community solar installations benefitting low-income residents.

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 3.1	**Incentivize solar or renewable energy installations**	Short/ Medium term	Planning and Community Development	WSU Community Solar Expansion Project	Developers, affordable housing providers, Seattle City Light		
BE 3.2	**Increase requirements for new buildings to include solar panels**	Short/ Medium term	Planning and Community Development				

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 3.3	**Support renewable energy at affordable housing projects**	Short/ Medium term	Environmental Services	WSU Community Solar Expansion Project, C-PACER	Affordable housing providers, Seattle City Light		Link with BE 1.6
BE 3.4	**Support biogas pilot projects**	Short/ Medium term	Environmental Services		King County Solid Waste Division		

STRATEGY #4: SUPPORT AFFORDABLE GREEN BUILDINGS THAT CONSERVE WATER AND PROTECT HABITAT.

Key Performance Indicators:

- **KPI 1:** Number of green certified residential units and commercial square footage.

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 4.1	**Increase requirements for sustainable building practices**	Ongoing	Planning and Community Development		Regional Code Collaboration, K4C Partners, developers, green building certification programs		
BE 4.2	**Green building policy for City buildings**	Short term	Environmental Services, Administrative Services		Green building certification programs		

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
BE 4.3	**Expand incentives for sustainable building practices**	Ongoing	Planning and Community Development		K4C Partners, developers, green building certification programs		

Zero Waste

STRATEGY #1: REDUCE PER CAPITA WASTE GENERATION, ESPECIALLY WASTED FOOD.

Key Performance Indicators:

- **KPI 1:** Tons of solid waste sent to landfill (ZW 1.1 – 1.8)
- **KPI 2:** Number of waste reduction projects supported (ZW 1.1 – 1.8)
- **KPI 3:** Tons of solid waste prevented, or food rescued through prevention activities (ZW 1.1 - 1.7)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ZW 1.1	**Provide community programs to reduce waste**	Ongoing	Environmental Services	State and County solid waste grants	King County Solid Waste Division, WA State, Recology King County, businesses, community groups and non-profits	2.4	Align with County Re+ efforts

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ZW 1.2	**Participate in regional zero waste efforts**	Short/ Medium term	Environmental Services	State and County solid waste grants	King County, WA State, Recology, Cedar Grove Compost, businesses, community groups and non-profits	1.95	Align with County Re+ efforts
ZW 1.3	**Support food rescue networks**	Short/ Medium term	Environmental Services	State and County solid waste grants	Food rescue organizations, local food banks, Shoreline School District, businesses		
ZW 1.4	**Develop a deconstruction ordinance**	Short/ Medium term	Environmental Services	State and County solid waste grants	King County, building and construction industry		
ZW 1.5	**Waste reduction in City operations**	Ongoing	Administrative Services, Environmental Services	State and County solid waste grants			
ZW 1.6	**City sustainable purchasing**	Short term	Administrative Services, Environmental Services	State and County solid waste grants			
ZW 1.7	**Reduce single-use plastic food service items**	Short term	Environmental Services	State and County solid waste grants	Zero Waste Washington, K4C partners, local businesses	2.2	

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ZW 1.8	**Explore every-other-week garbage collection**	Short/ medium term	Environmental Services	State and County solid waste grants	King County, K4C partners		Align with county RE+ efforts

STRATEGY #2: INCREASE DIVERSION RATES AND ACCESS TO RECYCLING AND COMPOSTING SERVICES.

Key Performance Indicators:

- **KPI 1:** Number of residential and business customers using compost and recycling services (ZW 2.1 – 2.8)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ZW 2.1	**Require compost and recycling service at business and multifamily properties**	Short term	Environmental Services	State and County solid waste grants	King County, K4C partners, WA state, businesses, Recology, Cedar Grove Composting		Align with WA State requirements
ZW 2.2	**Ban food waste and recyclables from the garbage**	Short/ medium term	Environmental Services	State and County solid waste grants	King County, K4C partners, WA state, businesses, apartment property managers, Recology, Cedar Grove Composting	2.65	Align with WA State requirements and targets
ZW 2.3	**Community food waste drop off**	Short term	Environmental Services	State and County solid waste grants	King County, K4C partners, WA state, Recology, Cedar Grove Composting		

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ZW 2.4	**Provide equitable recycling and composting education**	Short term	Environmental Services	State and County solid waste grants	King County, K4C partners, WA state, businesses, apartment property managers, Recology		
ZW 2.5	**Support anaerobic digestion pilot projects**	Medium term	Environmental Services	State and County solid waste grants	King County, local businesses		
ZW 2.6	**Expand special item recycling services**	Short/ medium term	Environmental Services	State and County solid waste grants	Recology, businesses, property managers, Ridwell	2.2	
ZW 2.7	**Support extended producer responsibility systems**	Short/ medium term	Environmental Services		King County, K4C partners, WA State	2.05	Align with Re+ plan and state-level efforts
ZW 2.8	**Increase recycling and composting at City facilities**	Short term	Environmental Services				

Ecosystems and Sequestration

STRATEGY #1: MAINTAIN AND INCREASE TREE CANOPY AND URBAN FOREST HEALTH.

Key Performance Indicators:

- **KPI 1:** Urban tree canopy cover (ES 1.9 – 1.13)
- **KPI 2:** Acreage under ecological restoration (ES 1.1 – 1.8)
- **KPI 3:** Number of park and street trees planted by the City (ES 1.1 – 1.8)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ES 1.1	**Create nature patches**	Medium term	Parks, Fleet, and Facilities, Public Works Grounds Maintenance	Carbon credit programs	Green Shoreline Partnership, City Forest Credits		Align with PROS plan update
ES 1.2	**Expand forest restoration efforts**	Medium term	Parks, Fleet, and Facilities	USDA Urban and Community Forestry grants, King Conservation District Member Jurisdiction funds, carbon credit programs	Green Shoreline Partnership, City Forest Credits		Align with Urban Forest Strategic Plan and PROS plan updates

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ES 1.3	**Expand street tree planting**	Short/ Medium term	Parks, Fleet, and Facilities	USDA Urban and Community Forestry grants, King Conservation District Member Jurisdiction funds, carbon credit programs	City Forest Credits	2.65	Align with Urban Forest Strategic Plan update
ES 1.4	**Increase urban forestry funding**	Short/ Medium term	Parks, Fleet, and Facilities	USDA Urban and Community Forestry grants			
ES 1.5	**Climate resilient parks design**	Ongoing	Parks, Fleet, and Facilities	FEMA and stormwater management grants, City Forest Credits			Align with PROS plan update and Parks Bond implementation
ES 1.6	**Acquire parks and open spaces**	Ongoing	Administrative Services	King County Land Conservation Initiative, King County Parks Levy Grants, City Parks Alliance			
ES 1.7	**Update street tree list and planting practices**	Short term	Parks, Fleet, and Facilities, Public Works Engineering				

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ES 1.8	**Utilize forest carbon credits**	Medium/ Long term	Administrative Services		City Forest Credits, King County		
ES 1.9	**Develop a community tree planting program**	Short term	Environmental Services, Surface Water Utility		Green Shoreline Partnership, schools, community and faith-based groups, businesses.	2.95	
ES 1.10	**Provide community education on tree protection**	Short/ Medium term	Environmental Services, Surface Water Utility		Community groups, schools, arborist companies	2.6	
ES 1.11	**Increase tree protection requirements during development**	Short term	Planning and Community Development		K4C partners	2.85	
ES 1.12	**Fund habitat projects on private property**	Short/ Medium term	Surface Water Utility, Environmental Services	FEMA and stormwater management grants, City Forest Credits			
ES 1.13	**Enhance tree-related code enforcement**	Short term	Planning and Community Development				

STRATEGY #2: INCREASE SOIL SEQUESTRATION IN NATURAL AND LANDSCAPED AREAS.

Key Performance Indicators:

- **KPI 1:** Tons of compost and mulch applied in City maintenance activities and capital projects (ES 2.1 – 2.2)
- **KPI 2:** Number of properties using or receiving education on compost as a soil amendment (ES 2.1 – 2.2)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
ES 2.1	**Increase requirements for compost usage in new construction**	Short term	Planning and Community Development, Public Works		Compost manufacturers		
ES 2.2	**Provide community compost education and resources**	Short term	Environmental Services, Surface Water Utility		Compost manufacturers, schools, community gardening organizations, landscape supply businesses		

Community Resilience and Preparedness

STRATEGY #1: ENSURE THAT NEW BUILDINGS, LAND USE DECISIONS, AND PUBLIC INFRASTRUCTURE IMPROVEMENTS INCREASE RESILIENCE TO CURRENT AND FUTURE CLIMATE IMPACTS.

Key Performance Indicators:

- **KPI 1:** Number of plans, codes and standards updated to increase resilience (CRP 1.1 – 1.5)
- **KPI 2:** Number of City capital projects incorporating resilience features (CRP 1.1 – 1.5)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
CRP 1.1	**Expand Climate Impacts Tool usage**	Short term	Environmental Services, Surface Water Utility				Align with upcoming master plan and comprehensive plan updates
CRP 1.2	**Develop recommended design practices for urban heat**	Short term	Environmental Services, Public Works			2.3	
CRP 1.3	**Climate resilient urban design standards**	Short term	Public Works, Planning and Community Development			2.25	
CRP 1.4	**Increase incentives for resilience retrofits**	Short/ Medium term	Surface Water Utility, Environmental Services	FEMA and stormwater management grants, City Forest Credits	Schools and other large institutional landowners	2.4	Link with ES 1.12
CRP 1.5	**Community "nature-scaping" education**	Short/ Medium term	Surface Water Utility, Environmental Services		Schools, community gardening organizations		Link with CRP 1.4 and ES 1.12

STRATEGY #2: STRENGTHEN COMMUNITY AND MUNICIPAL EMERGENCY PREPAREDNESS IN CONSIDERATION OF PREDICTED CLIMATE IMPACTS SUCH AS EXTREME HEAT, FLOODING, WILDFIRE SMOKE, AND DROUGHT.

Key Performance Indicators:

- **KPI 1:** Number of households receiving preparedness resources/education (CRP 2.1)
- **KPI 2:** Public cooling center utilization (number of users, number opened) (CRP 2.3)
- **KPI 3:** Number of shelter beds (CRP 2.6)
- **KPI 4:** Number of affordable housing units (CRP 2.6)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
CRP 2.1	**Provide preparedness resources for heat, wildfire smoke, and flooding events**	Short term	Community Services, Surface Water Utility	FEMA Emergency Preparedness grants	Community Emergency Response Team (CERT) volunteers, King County		
CRP 2.2	**Address climate impacts in emergency preparedness planning**	Short term	Emergency Management	FEMA Emergency Preparedness grants	King County	2.45	
CRP 2.3	**Provide community cooling centers**	Short term	Community Services		King County Library System, Oaks Shelter		
CRP 2.4	**Create neighborhood resilience hubs**	Short/ Medium term	Emergency Management	FEMA Emergency Preparedness grants	CERT volunteers, King County		

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
CRP 2.5	**Increase access to garden space**	Medium term	Recreation, Cultural and Community Services, Administrative Services		Community organizations		
CRP 2.6	**Increase shelter and housing services**	Ongoing, long term	Community Services		Affordable housing providers, North Urban Human Services Alliance		

STRATEGY #3: INCREASE COMMUNITY AWARENESS OF CLIMATE CHANGE IMPACTS AND MITIGATION AND SUPPORT COMMUNITY-BASED EFFORTS THAT INCREASE RESILIENCE.

Key Performance Indicators:

- **KPI 1:** Mini-grant funding used for climate resilience or mitigation projects (CRP 3.1)
- **KPI 2:** Participants in City-led climate action programs. (CRP 3.1 – 3.4)

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
CRP 3.1	**Provide mini-grants for community climate projects**	Short term	Environmental Services		Community organizations		

ID	Action	Timeline	Lead City department(s)/ division(s)	Known costs and funding source(s)	Key partners	Priority score	Implementation considerations
CRP 3.2	**Provide community education on climate action**	Ongoing	Environmental Services		K4C partners		
CRP 3.3	**Create a community task force**	Short term	Environmental Services		Community organizations, businesses		
CRP 3.4	**Create a community ambassador program**	Short term	Community Services		Workforce development programs, Shoreline School District, Shoreline Community College		