Redmond
WASHINGTON

City of Redmond
Environmental Sustainability Action Plan

SEPTEMBER 2020

Contents

Acronyms & Abbreviations

BMP	**Best management practices** are those that, based on available science, lead to successful achievement of intended outcomes.
BIBI	**Benthic index of biotic integrity** is an indicator of stream health.
BAU	**Business as usual** is a scenario that assumes that current activities do not significantly change relative to current, normal conditions and circumstances.
C&D	**Construction and demolition** is the general class of debris materials generated during the con-struction, renovation, and demolition of buildings, roads, and bridges.
CETA	**Clean Energy Transformation Act** is a Washington State mandate that applies to all electric utilities serving retail customers in Washington. It sets specific milestones to reach a required 100% clean electricity supply by 2045.
EVs	**Electric vehicles** are vehicles that derive all or part of their power from electricity.
GHG	**Greenhouse gas** is a gas that traps heat in the air and causes climate change.
K4C	**King County-Cities Climate Collaboration** is a partnership between King County and 17 local government partners, including Redmond, that facilitates information sharing and provides outreach and funding to coordinate and enhance local government climate and sustainability action.
KC	**King County**
KPI	**Key performance indicators** are values used to monitor and measure the trends and effective-ness of overall sustainability performance.
LEED	**Leadership in Energy and Environmental (LEED) Design** is an internationally recognized green building certification system providing third-party verification that a building or community is designed and built using strategies aimed at improving performance across multiple sustainability metrics, including energy savings, water efficiency, GHG emissions reduction, improved indoor envi-ronmental quality, and stewardship of resources.
LID	**Low impact development** are systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or use of stormwater in order to protect water quality and associated aquatic habitat.
$MTCO_2e$	**Metric tons of carbon dioxide equivalent** is a common unit of measurement for greenhouse gases that includes consideration of the major greenhouse gases, including carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).
PSE	**Puget Sound Energy** is an energy utility that provides electrical power and natural gas to the Redmond community.
ROI	**Return on investment** is the methodology for identifying and quantifying the net financial benefits of projects and initiatives.
ROW	**Right of way** is land owned by a public agency and used or planned to be used as a public thoroughfare.
SOV	**Single-occupancy vehicles** are vehicles designed to accommodate one or more people, but are being used by only one person (the driver).
TDM	**Transportation Demand Management i**s the application of policies, strategies, and incentives to maximize the efficiency of the transportation system through enhanced mobility, reduced conges-tion, and low-carbon transportation.
TDR	**Transfer of Development Rights** is a voluntary, incentive-based, and market-driven approach to preserve land and steer development growth away from rural and resource lands.
U.S. EPA	**U.S. Environmental Protection Agency** is a federal executive agency tasked to protect hu-man health and the environment and provide clean air and water for all. U.S. EPA conducts environ-mental assessments, research, and education and charged with enforcing national standards under a variety of environmental laws and regulations.
VMT	**Vehicle miles traveled** is a metric used in transportation planning to measure the cumulative miles traveled by all vehicles in a geographic region over a given time period.

Key Definitions

Climate resilience

Climate resilience is defined as the capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from climate impacts and disruptions.[1]

Climate change

Climate change refers to the long-term changes in the average weather patterns that have come to define Earth's local, regional, and global climates. These changes have a broad range of observed effects that are synonymous with the term.

Changes observed in Earth's climate since the early 20th century are primarily driven by human activities, particularly fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere and raise Earth's average surface temperature. Key indicators of climate change from the data record include: global land and ocean temperature increases; rising sea levels; ice loss at Earth's poles and in mountain glaciers; frequency and severity changes in extreme weather such as hurricanes, heatwaves, wildfires, droughts, floods and precipitation; and cloud and vegetation cover changes.[2]

Environmental sustainability

Environmental sustainability refers to fostering practices that reduce pollution, waste, and damages to the natural surroundings. The objective of having a healthy environment is for resources to exist for future generations.

Global warming potential

Global warming potential (GWP) is a measure that allows comparison of global warming impacts among different types of greenhouse gases. Different greenhouse gases can have different impacts on the Earth's warming; for example, compared to carbon dioxide (CO_2), methane (CH_4) has a higher radiative efficiency but stays in the atmosphere for a shorter timeframe.

Green building

Green building is the practice of creating structures that use environmentally responsible and resource-efficient processes throughout a building's lifecycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high-performance building.

Green space

Green space is an open space that is covered with grass, trees, shrubs, or other vegetation. Examples of green spaces include parks, community gardens, and cemeteries.

Greenhouse gas (GHG)

A greenhouse gas is a gas that traps heat in the air and causes climate change. Major greenhouse gases include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

Metric tons of carbon dioxide equivalent ($MTCO_2e$)

$MTCO_2e$ is a standardized unit of measure that represents an amount of a GHG whose atmospheric impact is equivalent to that of a single unit mass of carbon dioxide (CO_2) and is based on its global warming potential.

Renewable energy

Renewable energy is energy that is derived from natural sources or processes that are naturally and constantly replenished. Examples include wind and solar energy.

Social equity

In this report, social equity refers to 1) fairness, 2) distribution of resources to reduce inequalities, and 3) redistribution of resources to level the playing field. The City has ensured equity and inclusion as a part of the process in developing the plan through seeking to engage communities that typically are not represented in Redmond's environmental sustainability conversations.

Zero waste of resources

Zero waste of resources has been defined in various ways by various entities. For the Redmond ESAP, we used King County's definition, which is that "materials of economic value, whether for reuse, resale, or recycling, won't be put in the garbage or end up in the landfill."

1 Definition from U.S. Climate Resilience Toolkit: https://toolkit.climate.gov/content/glossary.

2 Definition from National Aeronautics and Space Administration (NASA) Global Climate Change: https://climate.nasa.gov/resources/global-warming-vs-climate-change/.

Executive Summary

Overview

The Redmond Environmental Sustainability Action Plan (ESAP) provides a foundational blueprint for achieving Redmond's vision for an environmentally sustainable community over the next 30 years. The plan aims to guide Redmond City government, residents, and businesses toward meeting their needs and maintaining a high quality of life, without compromising the ability of future generations to do the same, and while advancing the protection and enhancement the city's precious ecosystems and resources.

The Redmond ESAP is guided by the environmental sustainability vision outlined in the City's recent Community Strategic Plan (see text box at right). Objectives stated within the Community Strategic Plan include the following:

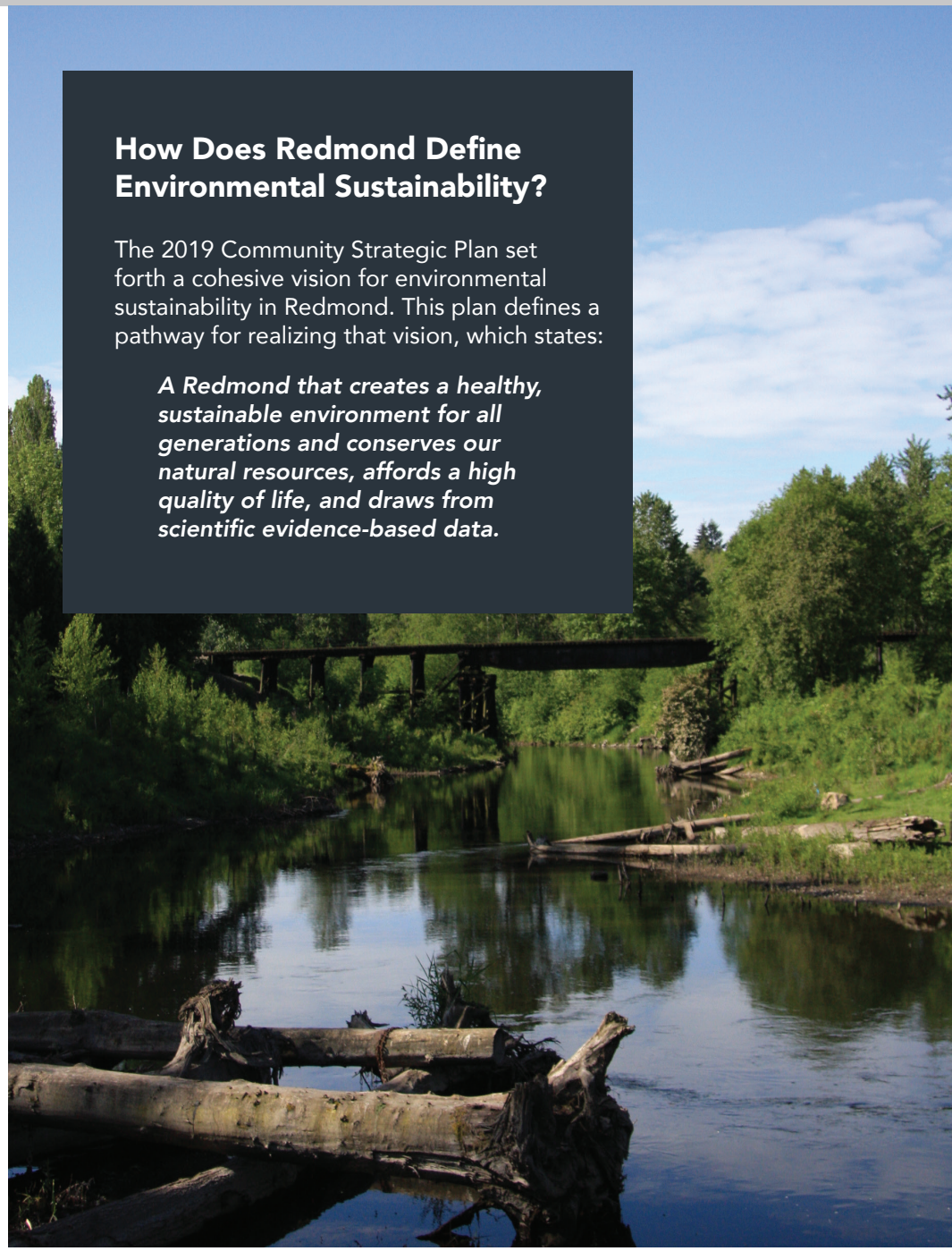
- Reduce greenhouse gas emissions, create a climate resilient community, and lead by example.
- Enhance green space, tree canopy, habitat and water quality, biological condition of streams, and natural drainage systems.
- Increase waste diversion and promote more sustainable consumption practices.
- Reduce emissions from buildings and transportation infrastructure.

The Redmond ESAP offers an initial framework for coordinated and beneficial sustainability action across the city and community. Robust involvement, participation, and partnerships among Redmond City staff, community stakeholders, organizations, and businesses to carry out the environmental sustainability strategies and actions in this plan will be critical for meeting our sustainability goals in a manner that reflects community values and is based on well-informed decisions and strategic financial investments.

How Does Redmond Define Environmental Sustainability?

The 2019 Community Strategic Plan set forth a cohesive vision for environmental sustainability in Redmond. This plan defines a pathway for realizing that vision, which states:

> ***A Redmond that creates a healthy, sustainable environment for all generations and conserves our natural resources, affords a high quality of life, and draws from scientific evidence-based data.***



Why Now?

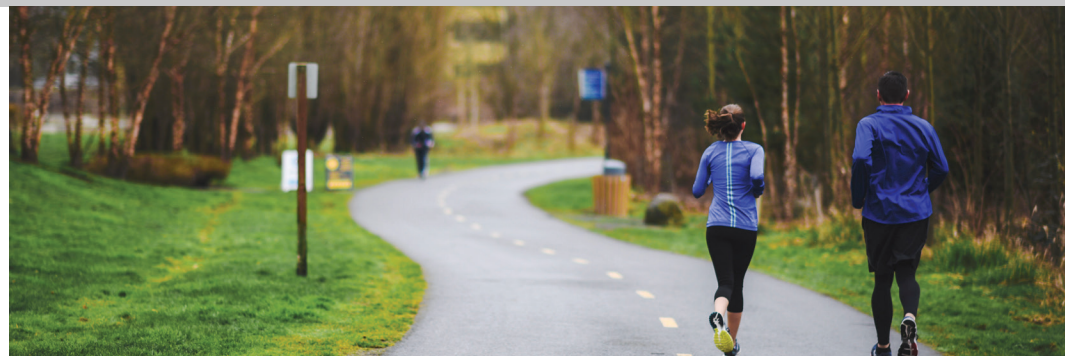
Under the current business-as-usual scenario, **Redmond can expect to see more cars on the road, more energy used by buildings, and more waste in our landfills.** This plan focuses on impactful and meaningful opportunities to address environmental impacts and foster resilience to future environmental changes. It prioritizes actions that not only move the needle on environmental outcomes, but also demonstrate Redmond's innovation and leadership in sustainability.

The Redmond community has already made great progress in environmental sustainability. However, there is still more that must be done. In 2014, Redmond developed the Climate Action Implementation Plan, the City's first strategic plan to reduce community greenhouse gas emissions and integrate sustainability practices into City operations. This ESAP builds on that work and unifies the City's various strategic planning efforts to create a cohesive sustainability strategy for Redmond.

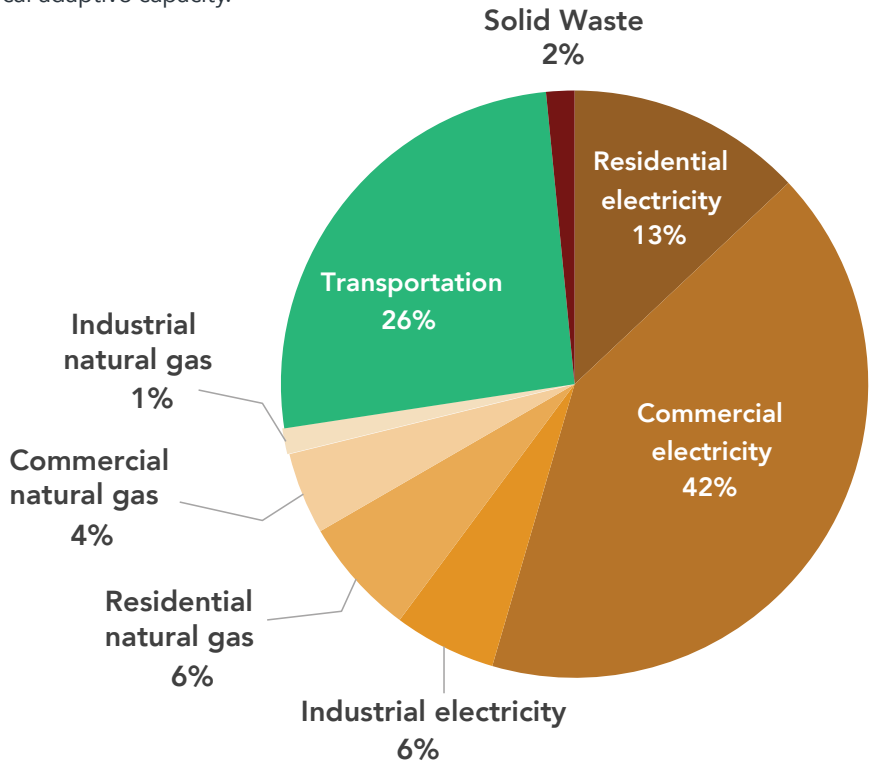
While community greenhouse gas (GHG) emissions have declined over time on a per-capita basis, total community emissions have increased and are projected to increase further due to a growing population. According to Redmond's 2017 greenhouse gas inventory, the vast majority (81%) of Redmond's GHG emissions stem from three sources: residential energy use, commercial energy use, and transportation (see figure below). In 2017, Redmond's GHG emissions footprint was the second highest since Redmond began calculating emissions.

Greenhouse gas emissions produced by Redmond and other communities contribute to damaging climate change impacts. **Regional climate change models project that the Puget Sound area and King County will see:**

- Warmer air temperatures by 4.2°F to 5.5°F by the 2050s.
- Shifts in seasonal precipitation patterns, with a 22% decrease in summer precipitation by the 2050s.
- Increases in the intensity of heavy rainfall and extreme storm events by 22% by the 2080s.
- Increases in the exposure to droughts and wildfires, with an expected four-fold increase in annual area burned for Washington state's forests by the 2040s.[3]



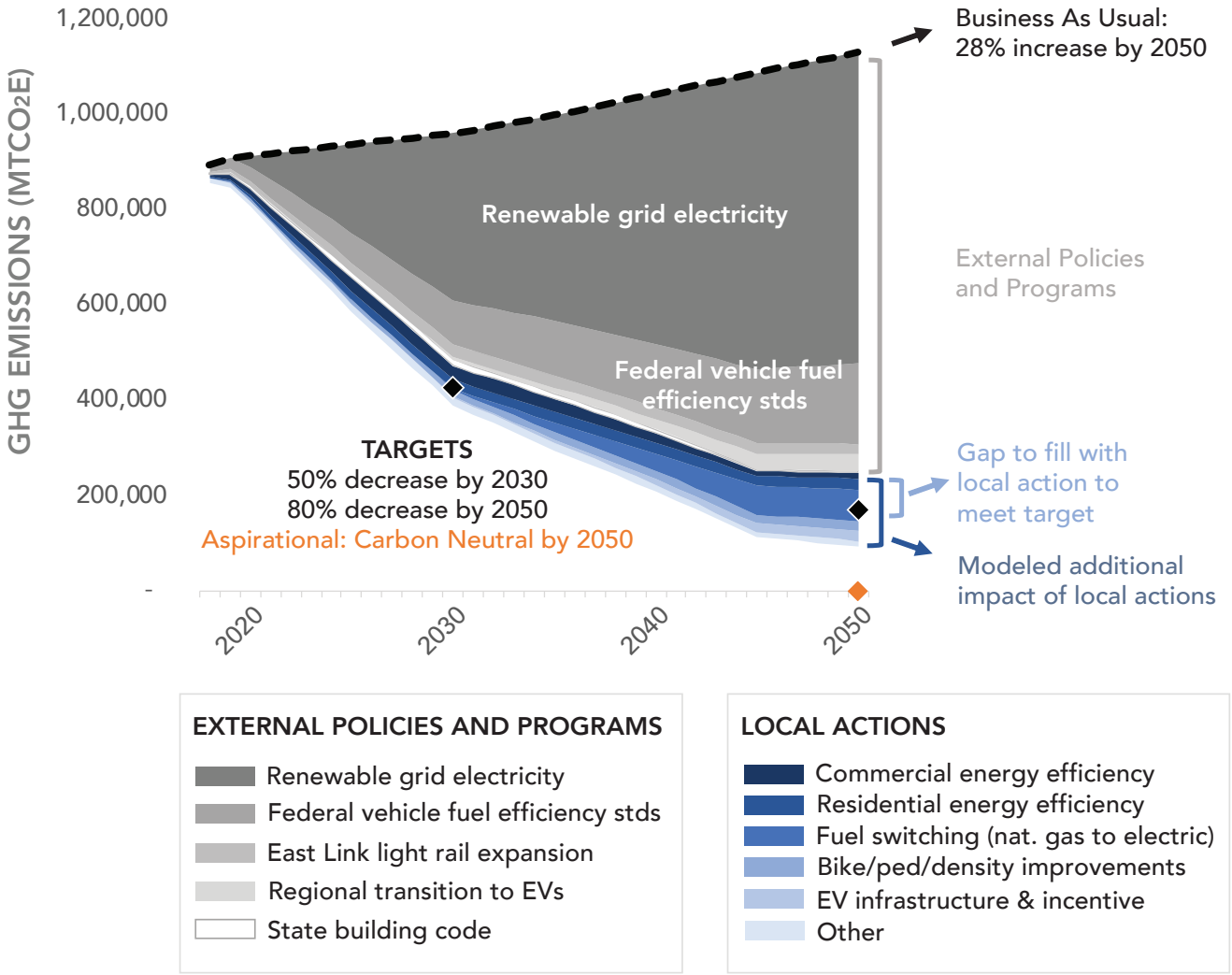
These future climate impacts could adversely affect the region's economies, cultural heritage, infrastructure, and public health. Addressing these risks will require urgent and significant investments in resilience and sustainability strategies that enhance local adaptive capacity.[4]



3 King County. 2019. Climate change infographics. https://www.kingcounty.gov/services/environment/climate/our-changing-climate/infographics.aspx.

4 May, C., C. Luce, J. Casola, M. Chang, J. Cuhaciyan, M. Dalton, S. Lowe, G. Morishima, P. Mote, A. Petersen, G. Roesch-McNally, and E. York. 2018. Northwest. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 1036–1100. doi: 10.7930/NCA4.2018.CH24.

This Redmond ESAP builds on the foundation of sustainability projects, programs, and activities already completed and underway within the Redmond City government and community. The plan brings together activities and objectives from related City, community, and partner organization plans and programs—including efforts at the county, regional, and state levels. The result is a set of strategies, actions, key performance indicators (KPIs), and associated near- and long-term targets for realizing the city's long-term sustainability vision. These targets reflect state, regional, and peer city targets, as well as locally-specific analyses and considerations of strategy effectiveness. For example, the figure below illustrates the GHG emissions target and strategies and actions needed to achieve the community GHG emissions reduction target.



Plan Development

Over the span of multiple months, hundreds of Redmond community members informed development of the ESAP through community surveys, public workshops, stakeholder focus group meetings, and engagement with community groups. **The plan incorporates feedback from:**

- Over **200 community members** who responded to online surveys and participated at pop-up events.
- Over **60 community stakeholders and City staff members** who participated in a series of facilitated workshops.
- Representatives from **local organizations, business, and institutions** who attended meetings and presentations related to the plan.

Formation of the plan was also informed by the following approaches:

- **Characterizing and building on progress to-date** and existing sustainability plans and programs.
- Emphasizing **affordability, equity, and co-benefits**.
- Customizing strategies to fit **Redmond's unique context**.
- An **analysis of action cost and impact** toward meeting Redmond's environmental sustainability goals and visions.

Goals, Strategies, and Actions

GOALS & KPI(s)	STRATEGIES	KEY ACTIONS
Transportation & Land Use		
Goal: Reduce transportation emissions and enhance community mobility. **KPI(s):** Total and per-capita passenger VMT, transportation GHG emissions, registered electric vehicles, mode share	• Increase the equitable use of non-SOV modes of transportation such as biking, walking, and public transit through programmatic and infrastructure interventions. • Leverage sustainable land use policy to encourage non-SOV modes of transportation. • Shift to more efficient and lower-carbon vehicle fuels such as electric. • Reduce energy consumption and emissions associated with City fleet use and commuting.	Increase new mobility options, diversify housing choices, improve bike/pedestrian infrastructure, increase transit ridership, expand telecommuting and alternative work schedules
Buildings & Energy		
Goal: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency. **KPI(s):** Community energy and fossil fuel use, electricity fuel mix (percent renewable)	• Support building sustainability education, technical assistance, and code advancement. • Advance green building with City facilities. • Shift to renewable energy sources and building decarbonization. • Prepare the energy grid for future conditions. • Expand performance benchmarking and improvements.	Expand solar-ready building infrastructure, incentivize renewable energy production, create a reliable energy grid, implement energy and water conservation retrofits
Materials Management & Waste		
Goal: Move towards more sustainable consumption and zero waste. **KPI(s):** Community waste diversion rate, solid waste GHG emissions	• Increase diversion of community waste (recycling, composting). • Reduce community waste generation (reuse, repurpose, upcycle). • Reduce waste and environmental impact from City purchasing and operations. • Address construction and demolition (C&D) waste.	Expand curbside recycling and composting options and policies, continue targeted education and outreach programs, facilitate construction and demolition waste recycling
Natural Systems		
Goal: Enhance green space, tree canopy, habitat quality, and natural drainage systems. **KPI(s):** Stormwater management; stream health; tree canopy cover	• Protect and enhance equitably accessible native habitats and open space and support local agriculture.. • Enhance resilience of natural areas and systems to climate change. • Expand green infrastructure and associated services. • Increase citywide tree canopy.	Enforce critical area codes and regulations, conduct native habitat outreach and education, implement natural drainage and watershed restoration projects, introduce targeted tree canopy plans and policies
Water Management		
Goal: Protect and conserve water resources, including water quality and quantity. **KPI(s):** Potable water consumption, water quality	• Achieve a secure and sustainable water supply that is equitable, affordable, and accessible. • Conserve community water resource and maximize water efficiency savings. • Protect the quality and quantity of drinking water sources.	Evaluate risks to water availability, protect groundwater resources, expand public education on water conservation, improve septic system infrastructure
Climate Change & Resilience		
Goal: Reduce GHG emissions and enhance communitywide resilience to climate impacts. **KPI(s):** Community GHG emissions, per-capita community GHG emissions, municipal GHG emissions	• Ensure all City services and infrastructure are resilient to climate change impacts. • Enhance resilience of populations disproportionately impacted by climate change. • Institutionalize consideration of sustainability and climate change across City activities and decision-making. • Pursue cross-sectoral, communitywide solutions to address climate change and cross-cutting sustainability issues.	Participate in regional resilience initiatives, assess climate vulnerabilities, enhance wildfire response and equipment, monitor and report greenhouse gas emissions, ensure equitable climate policy and implementation

Next Steps and Implementation

This Redmond ESAP is only the beginning of an ongoing, adaptive process of evaluating and advancing the city's environmental sustainability. The plan includes an implementation, monitoring, and evaluation strategy and framework for launching and guiding successful execution of the plan. This section of the plan outlines specific next steps; important implementation considerations such as partnerships, equity, and affordability; and procedures for evaluating and updating the plan over time. As details are outlined during this implementation phase, more specific quantitative goals and milestones will be created, driving the pace and effectiveness of strategy implementation.

A Letter from the Mayor

Preserving and protecting the environment is one of our greatest priorities in Redmond. I believe Redmond can be a leader locally, regionally, and nationally and that is why I've included sustaining our environment as an initiative in my vision for the City.

Over the past few years, residents have volunteered thousands of hours to plant trees and enhance our natural spaces, leaders in Redmond's business community have made bold clean energy commitments, and the City retrofitted its facilities to save energy and money.

Yet against this backdrop, our climate is rapidly changing, and the science is clearer than ever; now is the time for bold climate action. That's why residents, businesses, community groups, and the City embarked on the development of Redmond's first comprehensive sustainability strategy.

The Environmental Sustainability Action Plan is our community's roadmap to preserve our natural resources and create a healthy, equitable and resilient Redmond for all. It puts us on a journey towards an inclusive future powered by clean energy, diverse clean transportation options, less waste in our landfills, and a thriving natural environment.

The goals and actions outlined in these pages are ambitious, and implementation will not be simple, but together we can make the vision of a sustainable and resilient Redmond a reality. Our work begins now, and I look forward to celebrating the many collaborations and innovative ways our community will come together.

Mayor Angela Birney

Acknowledgments

The City of Redmond expresses sincere gratitude to the following staff, community members, and organizations for their contributions in developing this Environmental Sustainability Action Plan.

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Sustainable Redmond

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Zach Benzadni
RYPAC and Student Sustainability Ambassador

Introduction & Purpose

The City of Redmond is located in the scenic and economically important region between the Cascade mountain range and the Puget Sound, at the north end of Lake Sammamish. Redmond is approximately 17 square miles and lies 15 miles east of Seattle and is the terminus of SR 520. The city boasts a high quality of life, good schools, a healthy economic base, a robust park system providing multiple active and passive recreational activities, diverse options for shopping and dining, safe neighborhoods, and a balance for quality development while protecting the natural environment. Redmond is also home to many important national technology and biomedical companies.

This Redmond Environmental Sustainability Action Plan (ESAP) provides a foundational blueprint for achieving Redmond's vision of an environmentally sustainable community over the next 30 years. It aspires to foster and advance the city's natural resources, quality of life, and economic and social prosperity—specifically by realizing the environmental sustainability vision outlined in the City's Community Strategic Plan (see text box at right). Objectives within the Community Strategic Plan include the following:

- Reduce greenhouse gas emissions, create a climate resilient community, and lead by example.
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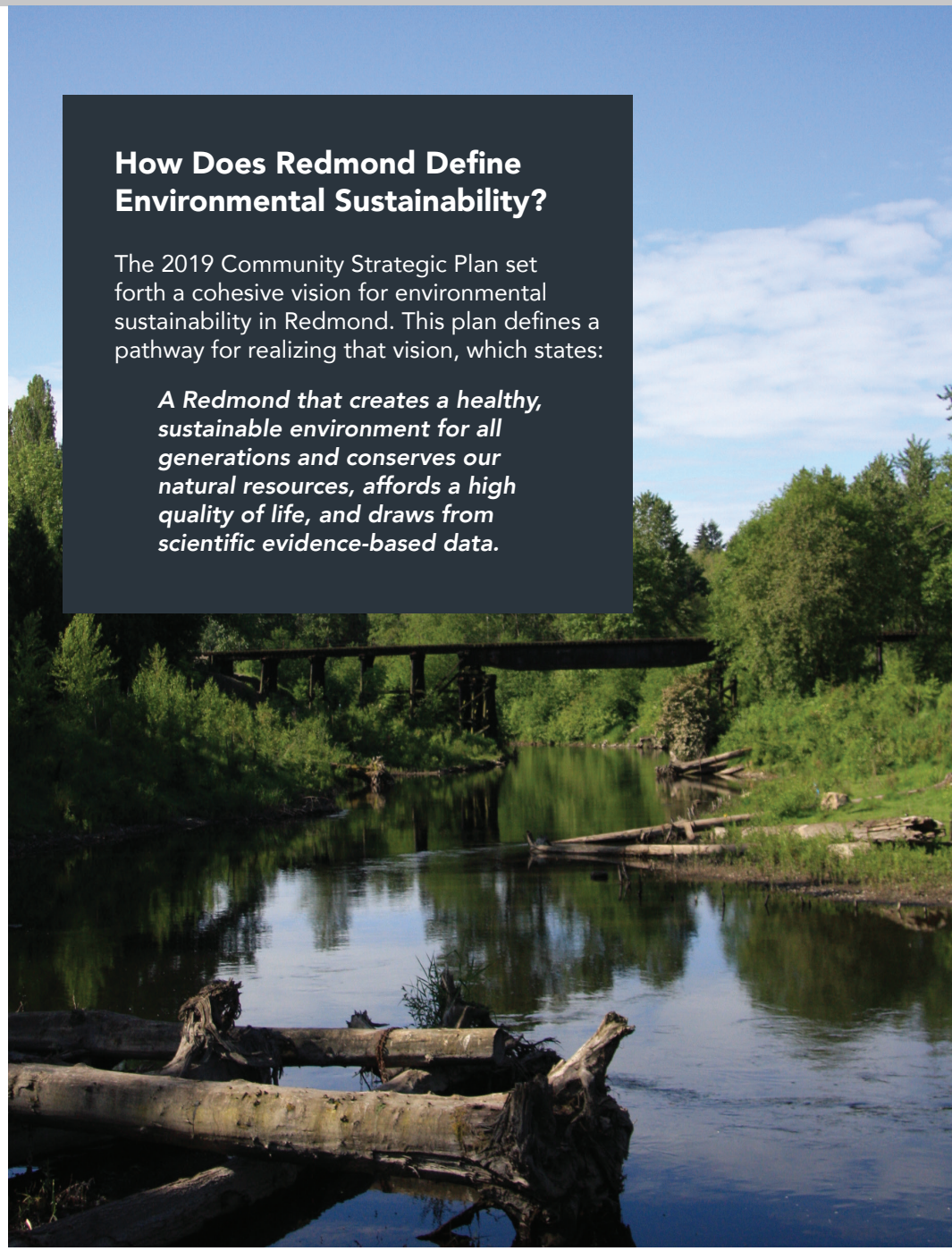

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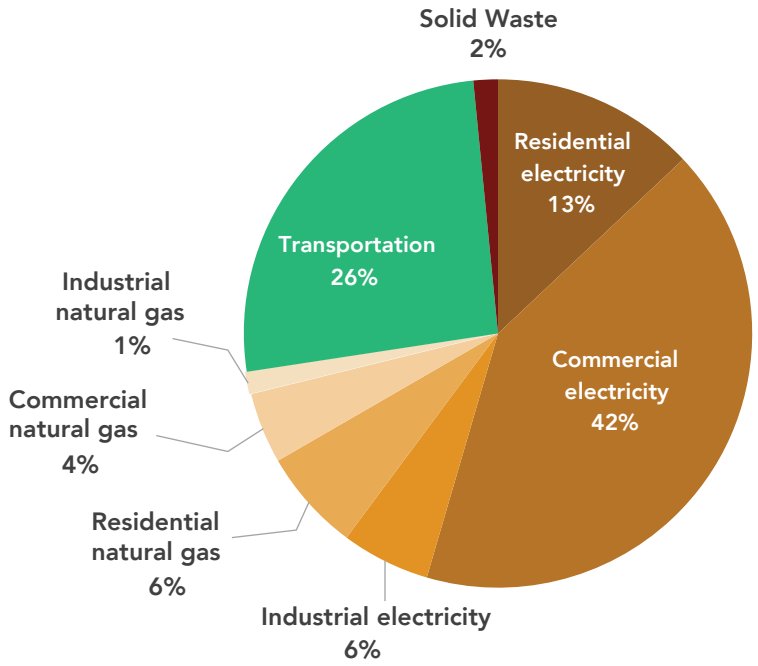


Climate change has already affected King County, and future changes will continue to exacerbate these impacts. These climate impacts threaten the region's economies, cultural heritage, infrastructure, and public health and will require urgent and significant investments in resilience and sustainability strategies that enhance local adaptive capacity.[5] **As summarized in the adjacent page, regional climate change models project that the Puget Sound area and King County will see:**

- Warmer air temperatures by 4.2°F to 5.5°F by the 2050s.
- Shifts in seasonal precipitation patterns, with a 22% decrease in summer precipitation by the 2050s.
- Increases in the intensity of heavy rainfall and extreme storm events by 22% by the 2080s.
- Increases in the exposure to droughts and wildfires, with an expected four-fold increase in annual area burned for Washington state's forests by the 2040s.[6]

Under a business-as-usual scenario, Redmond can expect to see more cars on the road, more energy used by buildings, and more waste in our landfills. The environmental impacts of these practices will continue to threaten the Redmond community and its livelihood. This plan focuses on impactful and meaningful opportunities to address environmental impacts and foster resilience to future environmental changes. It prioritizes actions that not only move the needle on environmental outcomes, but also demonstrate Redmond's innovation and leadership in sustainability.

5 May, C., C. Luce, J. Casola, M. Chang, J. Cuhaciyan, M. Dalton, S. Lowe, G. Morishima, P. Mote, A. Petersen, G. Roesch-McNally, and E. York. 2018. Northwest. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 1036–1100. doi: 10.7930/NCA4.2018.CH24.

6 King County. 2019. Climate change infographics. https://www.kingcounty.gov/services/environment/climate/our-changing-climate/infographics.aspx.

Redmond—and the broader King County region—can expect to see a variety of climate change impacts in the coming years. This infographic from King County explains some of those impacts and how they could affect our environment, economy, and health.

CHANGES ARE ALREADY AFFECTING OUR ENVIRONMENT, ECONOMY, AND HUMAN HEALTH. THE CHOICES WE MAKE TODAY ABOUT REDUCING GREENHOUSE GASES WILL AFFECT THE SEVERITY OF FUTURE IMPACTS.

INCREASED HEAT

Average annual air temperature in the Puget Sound region is increasing (+1.3°F, 1895-2014), and is projected to be 5.5°F warmer in the 2050s.

+5.5°F

LESS SNOW

AVERAGE CASCADE SNOWPACK

25% 1950s-2006

55% 2080s

RISING SEA LEVEL

SEATTLE SEA LEVEL RISE

9 inches 1899-2016

24 inches 2100

24
12
0

PUBLIC HEALTH IMPACTS DUE TO HEAT

MORE ILLNESSES

MORE HOSPITALIZATIONS AND DEATHS

HEAVY RAIN EVENTS ARE INCREASING

By the 2080s, our heaviest rain events are expected to be 22% heavier.

MORE FREQUENT COASTAL FLOODING

INCREASED WILDFIRE THREAT

4-fold increase in annual area burned projected for Washington's forests by the 2040s.

EXTREME RIVER CONDITIONS

SUMMER: LOWER FLOWS + WARMER WATER

FALL/WINTER: HIGHER FLOWS + FLOODING

INCREASED COSTS TO SHELLFISH GROWERS

DUE TO OCEAN ACIDIFICATION

ACIDITY

IF WE DON'T ACT NOW, THE COSTS AND CONSEQUENCES WILL GROW.

ENVIRONMENT

Increasing stress for salmon.

Impacts on forests from insects, disease and fire.

Changes in habitat important to local species.

More harmful algal blooms in lakes and Puget Sound.

ECONOMY

Greater risks to homes, businesses, and infrastructure from increased coastal and river flooding.

Marine-based economies suffer as fish and shellfish diminish.

Increased summer drought stress.

HEALTH

Health impacts from heat exposure.

Changes in illnesses carried by ticks and mosquitos.

Increased risks for people with asthma and heart illness due to more summer air pollution.

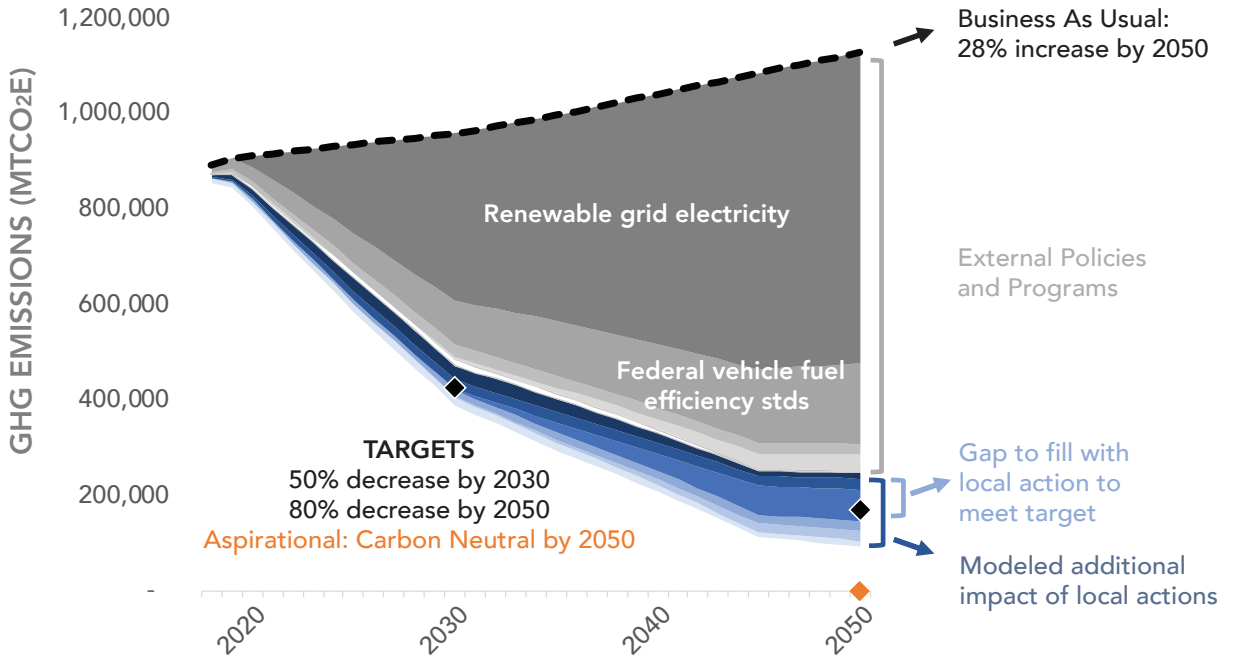
Greater risk of injury and property damage from more extreme weather events.

1711_6802w_climate_change_what_meanIpgrai

Learn more about what King County is doing to confront climate change at **kingcounty.gov/climate**
For detailed source information, go to: **kingcounty.gov/exec/climatechange/sources**

Graphic from King County, https://www.kingcounty.gov/services/environment/climate/our-changing-climate/impacts.aspx.

This Redmond ESAP builds on the foundation of sustainability projects, programs, and activities already completed and underway within the Redmond City government and community. The plan brings together activities and objectives from related City, community, and partner organization plans and programs—including efforts at the county, regional, and state levels. The result is a set of strategies, actions, key performance indicators (KPIs), and associated near- and long-term targets for realizing the city's long-term sustainability vision. These targets reflect state, regional, and peer city targets, as well as locally-specific analyses and considerations of strategy effectiveness. For example, the figure below illustrates Redmond's GHG emissions reduction target and strategies and actions needed to achieve the community GHG emissions reduction target. Achieving these targets will not be easy, but the rewards for Redmond—from reduced local air pollution and traffic congestion, to cleaner and more efficient homes and businesses, to more beautiful natural spaces to enjoy—are well worth the effort.



The Need for Resiliency in a Time of Uncertainty

"COVID-19 is the story of the year. Climate change is the story of the decade."

COVID-19 has affected the world's social safety nets and economic systems. The pandemic highlights the importance of community resilience to prepare our residents, businesses, and public services for disruptions to our day-to-day lives through proactive planning and preparedness.

COVID-19 has also illuminated how both public health crises and environmental issues exacerbate existing social disparities—especially for low-income people, frontline workers, communities of color, elderly populations, and youth.

This plan acknowledges the importance of resiliency and the interconnectedness of sustainability goals to other important community priorities such as public health, economic stability, affordability, and quality of life. Indeed, many sustainability strategies and actions in this plan realize additional non-environmental benefits for the community—such as public health benefits from reduced local air and water pollution, regional economic benefits from green jobs, public safety benefits from climate change preparedness actions, and quality of life benefits from more beautiful green spaces and walkable communities.

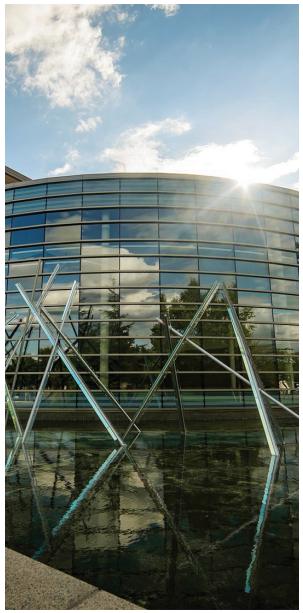
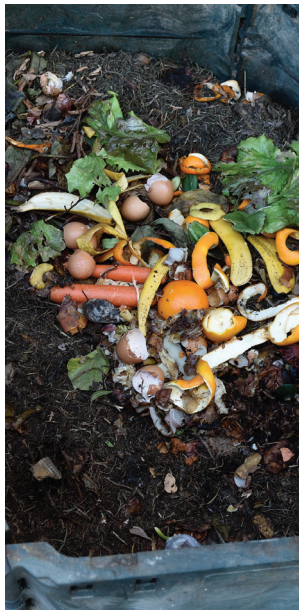
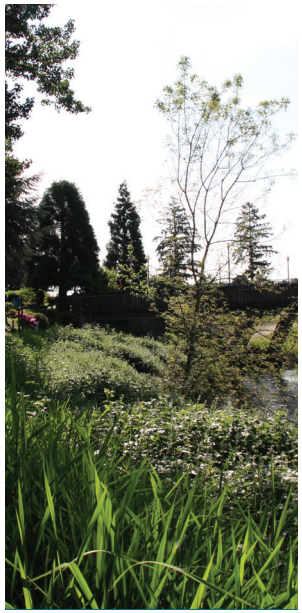
It is clear that life may not return to the previous "normal." Many things have changed in our daily lives: alternative work schedules and telecommuting have become the standard, and people are making sincere efforts to stay in touch with friends and family like never before. Redmond has already made adaptations to living in a world of uncertainty and the City will continue to build on these new processes to make a lasting change. We have altered the way we approach work, school, transportation, and public health. So, while the pandemic is tragic, the virus has certainly brought perspective to the ways our societies work and underscored the need to trust science in guiding early and decisive action to protect our populations from harm.

This plan also recognizes the challenges ahead in realizing our sustainability vision in the midst of economic, social, and public health crises. All strategies and actions in the plan have been carefully assessed within the context of Redmond—including consideration of costs impacts to the City and returns on investment. It will be imperative as the plan is implemented to closely monitor, evaluate, and adjust course if needed to ensure that achieving our sustainability goals continues to benefit the entire Redmond community.

Implementation of this plan will also be informed by local economic conditions. While the city has limited control over the global economy, the city can take steps toward guiding a clean recovery at the local level that supports long-term resilience and prioritizes community health and wellbeing. We will capitalize on the actions already underway at the City, and will ramp up efforts strategically through an initial focus on foundational actions and actions that fit the community's current needs. For example, we will prioritize short-term actions that support cost savings to business and residents and foster equitable distribution of benefits.

Plan Structure

The plan is broken into six key environmental sustainability chapters. Each sustainability chapter contains an overview of the topic area, City and community's progress to date, goals and targets, and strategies and actions for reaching those targets.

Transportation & Land Use

Reducing emissions and enhancing mobility through improved vehicle efficiency, improved land use, and cleaner modes of transport.

Buildings & Energy

Increasing the use of renewable energy sources, reducing overall energy consumption, and promoting green buildings.

Materials Management & Waste

Reducing waste generation, increasing recycling and composting, and moving towards more sustainable consumption and zero waste.

Natural Systems

Preserving and enhancing green space, tree canopy cover, and natural habitat while maintaining natural drainage systems.

Water Management

Protecting and conserving water resources to ensure a high-quality, sustainable supply.

Climate Change and Resilience

Reducing greenhouse gas emissions and infrastructure are prepared for climate change impacts.

Plan Development Process

The Redmond ESAP reflects and brings together City and community priorities developed through a 10-month robust involvement and assessment process. The process included the following key elements, described below:

- Compilation of a **sustainability inventory** that identifies activities, contexts, challenges, and baseline conditions for sustainability in Redmond.
- **Involvement of internal City staff and external community stakeholders** to inform and solicit input throughout the plan's development.
- **Development, assessment, and prioritization** of **strategies and actions** for meeting sustainability goals.

The primary objective of this process was to inform and build a plan that is comprehensive, grounded in Redmond's unique context (for example, Redmond has relatively high commercial energy use due to the presence of several large technology companies), and reflects community priorities and needs. In addition to these plan development objectives, the process also aimed to:

- **Promote alignment** between previous and current sustainability priorities and activities.
- **Lay the groundwork** for an ongoing conversation and collaboration with the Redmond community and City government around sustainability needs and outcomes.
- Build **community support** for the Environmental Sustainability Action Plan in Redmond that will continue to maintain partnerships to accomplish sustainability goals.

Plan Development Process Overview

BASELINE ASSESSMENT

Sustainability Inventory

Initial Community Survey

Staff & Stakeholder Workshops (#1)

Pop-up Events

ACTION DEVELOPMENT

Staff & Stakeholder Workshops (#2)

Community Survey (#2)

Pop-up Events

ACTION ASSESSMENT

Multi-criteria and Quantitative Analysis

Staff & Stakeholder Workshops #3

DRAFT PLAN

Online Open House and Community Survey

FINAL PLAN

Sustainability Inventory

A sustainability inventory was compiled at the onset of the planning process to summarize Redmond's past, current, and potential future sustainability-related activities and context. The inventory also outlined potential challenges to accomplishing sustainability goals. The sustainability inventory utilized a multi-method approach to identify specific activities, context, and challenges, relying on a **literature review** of City plans and reports, **interviews** with key City staff, interdepartmental City staff **workshops**, and a **quantitative assessment** of baseline conditions and future trends in key sustainability performance indicators (KPIs). This inventory was the first of its kind for Redmond and is attached as Appendix B.

Internal & External Involvement

The plan incorporates community ideas and priorities, as well as recurring themes that resulted from community and stakeholder involvement during the planning process. Key elements of the involvement process included various channels of communication such as listservs and engagement through the City website; City staff and external stakeholder workshops; community surveys; and targeted engagement with local businesses, organizations, and decisionmakers.

Key Elements of the Involvement Process

CHANNELS OF COMMUNICATION

The City communicated with community members throughout the planning process through a **variety of channels**, including:

- Let's Connect Redmond
- Listservs
- Community organizations
- Informational flyers
- Meetings and events

CITY STAFF & STAKEHOLDER WORKSHOPS

The City facilitated **three workshops** with City staff and select representatives from sectors such as land use and transportation, natural systems, advocacy and equity groups, business representatives, education, youth, and residents. Workshop objectives were to:

- Understand the baseline conditions and progress to date, characterize Redmond's unique context, and brainstorm potential strategies and actions.
- Identify criteria for action evaluation and identify sustainability goals and targets.
- Review, prioritize, and outline implementation details for plan strategies and actions.

COMMUNITY SURVEYS

The City administered **three online communitywide surveys** through the City's "Let's Connect" page:

- Initial survey in November 2019 to gauge community priorities, concerns, and ideas.
- A second survey in March 2020 to solicit feedback on the potential strategies and actions being considered to help reach the City's goals.
- A third survey in June and July 2020 to solicit feedback on the draft plan.

ENGAGEMENT WITH ELECTED OFFICIALS

Throughout the planning process, the project team **reported back to City Council**. These reports included:

- Key takeaways and themes from involvement events
- Emerging data trends for the City
- Focus areas and associated goals and targets
- Potential strategies and actions for achieving goals

ENGAGEMENT TOOLKIT & POP-UP EVENTS

An **engagement toolkit** was developed that included marketing and informational materials and interactive activities for engaging and informing the public about the plan. The City **attended local meetings** with RYPAC, OneRedmond, Master Builders Association, and People for Climate Action–Redmond, **participated in events, and tabled at local destinations** to solicit quick feedback and raise awareness about the plan, such as at grocery stores and Redmond Lights. These efforts allowed project staff to reach audiences at a broader level and engage community members where they are.

ONLINE OPEN HOUSE

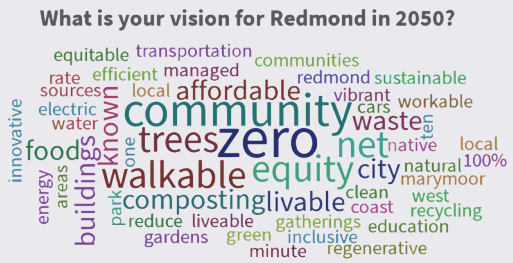
The City is hosting an **interactive online open house** to present the draft plan to the community and solicit feedback. The open house was moved to a virtual platform due to COVID-related gathering restrictions.

What Did We Hear?

Highlights from Public & Stakeholder Engagement

Vision for Redmond

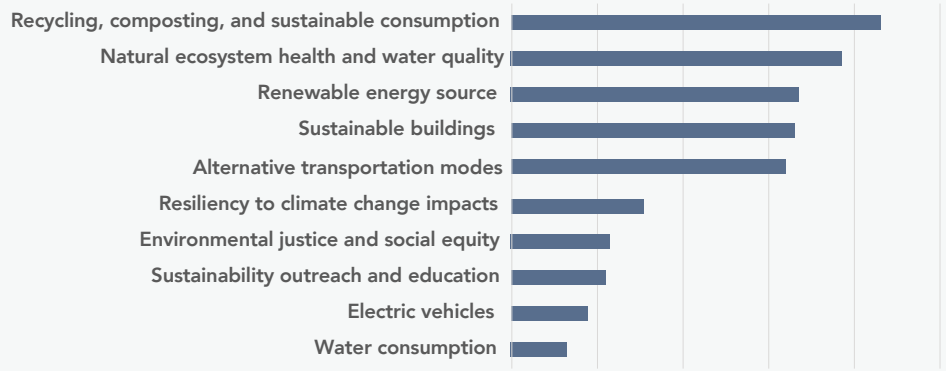
The first stakeholder workshop asked attendees about their vision for the City in 2050 (see outcomes at right). Key themes included community, equity, walkability, trees, affordability, composting, and livability.



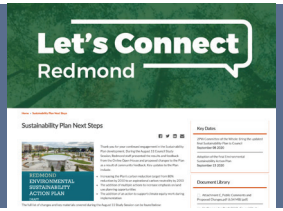
Community Priorities

An online survey and City and stakeholder workshops asked about key sustainability priorities. Top priorities included sustainable materials management (recycling, composting, sustainable consumption), natural ecosystem health and water quality, and renewable energy.

PRIORITY RANKING



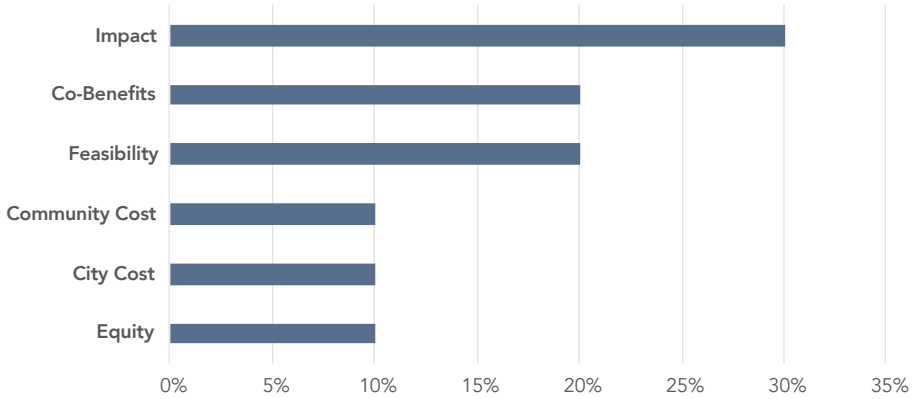
Redmond's Let's Connect page was used to share project updates and materials, deploy community surveys, and serve as a platform for community members to engage with the project.



Criteria for Selecting Actions

An online survey and City and stakeholder workshops asked about key sustainability priorities. Top priorities included sustainable materials management (recycling, composting, sustainable consumption), natural ecosystem health and water quality, and renewable energy.

CRITERIA WEIGHTINGS



CRITERIA DEFINITIONS

IMPACT	extent to which action could help achieve plan goals.
FEASIBILITY	likelihood that action will be successful given political, social, and technological barriers.
CO-BENEFITS	extent to which action carries additional benefits or helps meet other City goals.
COST	City and community resources required to implement action.
EQUITY	whether costs and benefits of action will be distributed fairly across communities or whether actions will avoid disproportionately affecting the most vulnerable in our communities.

Action Development and Prioritization

An initial comprehensive list of 80-100 potential actions per focus area were compiled and developed through review of existing Redmond plans and programs; consultation with City staff and key community stakeholders; community input through interactive activities and online surveys; review of sustainability and climate action plans from other cities; and input from a team of technical consultants.

The City built from this initial list to assess, refine, and prioritize to a proposed **shortlist of actions** for consideration in the Environmental Sustainability Action Plan. The process included workshops with City staff and community stakeholders, input from an online community survey, a qualitative multi-criteria analysis, and a quantitative assessment of anticipated City costs and impact. These methods are described in more detail below.

Multi-Criteria Analysis

The City contracted with a team of technical subject matter experts to conduct a **qualitative multi-criteria analysis** of the comprehensive actions list. Evaluation criteria and weightings for the analysis were identified and refined through public, stakeholder, and City staff engagement (see table below). The analysis revealed total priority scores for each action, which were considered by the City, consultant team, and stakeholders in arriving at the proposed set of actions in the plan.

CRITERION	WEIGHT	DEFINITION/SUBCRITERIA
Impact	30%	How likely is it the action will work to address plan goals and targets? Is the action addressing a major sustainability need (e.g., does it represent a high GHG emissions source?
Feasibility	20%	Is it possible to implement the action with current capacities within the City? Are there regulatory, political, or technological constraints?
City Cost	10%	What is the relative ease of covering the costs of the action with City budget, grants, etc.? Is the cost of inaction significant?
Co-benefits or Synergies	20%	Does the action address multiple goals, or other CIty or community objectives? Does the action work with other City activities to amplify the collective impact?
Community Support & Cost	10%	How affordable is the action to residents/businesses? Is there strong support for action from the resident and business community?
Equity	10%	Does the action address the needs of vulnerable and historically marginalized populations? Does the action reduce vulnerability for all populations? Is it fair?

Cost Assessment

A quantitative cost assessment estimated City costs associated with implementation of the top priority actions as identified from the multi-criteria analysis. Costs over the life of the plan—30 years—were broken into aggregate categories:

- City staff time (expressed in annual full-time-equivalents, or FTE)
- Annual costs of operating and maintaining the action (outside of City staff time)
- Upfront costs including capital costs and one-time costs, including studies
- Number of years that the program will operate

Outcomes from the cost analysis—indicated in the Strategies and Actions section of the plan—were reviewed and considered by City staff, stakeholders, and subject matter experts in arriving at the **final list of actions** in the plan.

While community cost and affordability considerations were included in the qualitative multi-criteria analysis, the project scope did not include a quantitative *community* cost analysis. Thus, the City will work in partnership with the community to ensure that action implementation integrates community concerns and does not unfairly impact vulnerable populations within Redmond. Actions that may require target stakeholder involvement, code or policy changes, or more robust costs analysis have been identified in the implementation matrix (Appendix A).

Many actions identified within the plan will result in long-term cost savings and efficiencies for community members, including energy efficiency upgrades, electric vehicles, and resiliency initiatives. Actions that provide cost savings benefits were prioritized for near-term implementation to support the needs of our community during these challenging economic times.

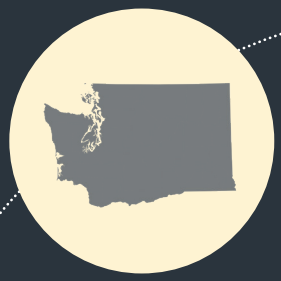
Impact Analysis

The City also commissioned a quantitative, visual assessment of the ability of proposed ESAP strategies and actions to meet identified sustainability targets. The analysis was based on available data, literature, case studies, and subject matter insight, and was reviewed by City staff, community stakeholders, and subject matter experts in arriving at the strategies and actions of the plan. See the Action Impact and Cost Assessments section for more information on this analysis.

Local and Regional Sustainability Context

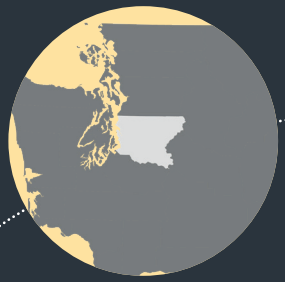
The ESAP integrates other local, state, and national plans, policies, and partnerships to ensure that the Redmond ESAP leverages and synergizes with other efforts in the region. Couching the plan within the context of these local, regional, state, and national efforts supports development of an effective, streamlined, and coordinated plan to enhance the greatest sustainability impact.

Related plans and policies reviewed and integrated into this plan include the following:



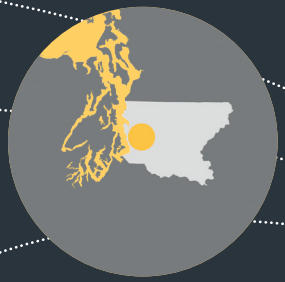
STATE & NATIONAL

- Shoreline Master Program
- Clean Water Act
- Clean Air Act
- Vehicle Fuel Economy Standards



KING COUNTY

- Puget Sound Regional Council Vision 2050
- King County-Cities Climate Collaboration (K4C)
- Metro Connects Plan
- Comprehensive Solid Waste Management Plan



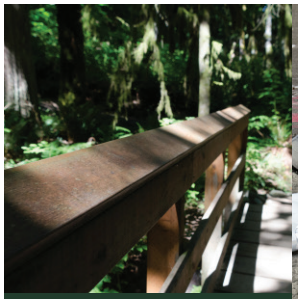
REDMOND

- Community Strategic Plan
- Comprehensive Plan
- Comprehensive Flood Management Plan
- Climate Action Implementation Plan
- Comprehensive Emergency Management Plan
- Transportation Master Plan
- Watershed Management Plan
- Tree Canopy Strategic Plan
- Regional Stormwater Facilities Plan
- Utilities Strategic Framework

The Pathway to Sustainability

Successes and Accomplishments

Sustainability is not new to Redmond; the City and community have been working toward a more sustainable Redmond for years.



The City has 22 parks sites certified as wildlife-friendly spaces.

City Hall has LEED Silver and ENERGY STAR certifications.

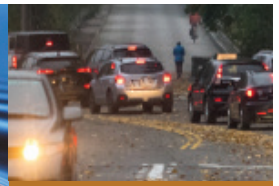
The City recently improved efforts to reduce pollution risks to the City's aquifer. In 2018, the City issued 21 spill kits, moved 2,366 gallons of hazardous materials to secondary containment, and removed 1,360 gallons of hazardous materials from sites.

The City hosts Green Redmond Day, where 11,000+ volunteers have contributed over 33,000 hours since the program's inception, resulting in almost 1,200 trees and 23,550 shrubs and small plants planted across 15 parks.

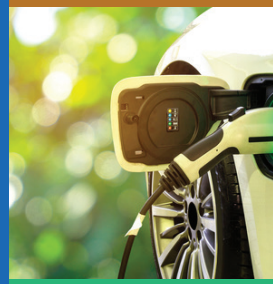
The City has executed a contract with Puget Sound Energy to receive 100% renewable electricity for its government operations through the Green Direct Program. PSE anticipates delivering 100% renewable energy for City operations by January 1, 2021.

The City provides recycling and composting education to the community. The community diverted 33% more organic waste from the landfill between 2013 and 2018.

The City offers water conservation information and rebates through Cascade Water Alliance. Offerings include toilet, showerhead, and irrigation retrofits and rebates, water audits, classes for professional landscapers, and incentive-based water pricing to promote water conservation.



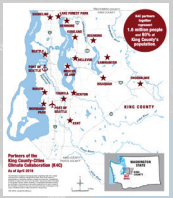
Redmond has over 1,700 electric vehicles registered by Redmond residents-the third largest city in the state for EV registrations.



The City government currently operates 28 hybrid vehicles.

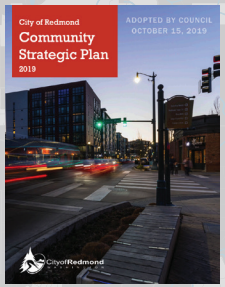
How We Got Here

This plan builds on a rich history of sustainability action in Redmond. Key sustainability milestones include participation in regional partnerships, development of the Climate Action Implementation Plan, and prioritization of environmental sustainability in the recent Community Strategic Plan.



2011

Redmond is a founding member of the **King County-Cities Climate Collaborative (K4C)**, a voluntary but formal partnership between cities and King County on climate change outreach, coordination, solutions, and funding.

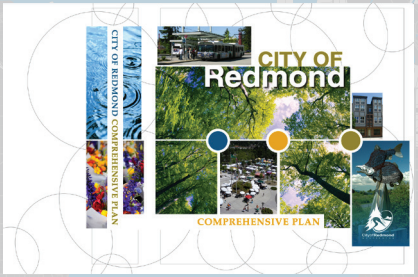


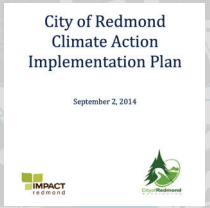
2019

The **Community Strategic Plan** outlines a vision to create a city with two vibrant urban centers, enhanced livability and connections, and high quality services.

2011

The **Redmond Comprehensive Plan** provides a 20-year vision for how the City will grow and develop through year 2030.





2014

The **Redmond Climate Action Implementation Plan** presents a framework for confronting climate change and engaging the community.

2020

Redmond adopts the **Environmental Sustainability Action Plan**, a roadmap for realizing the City's long-term sustainability vision.

Goals and Targets

Redmond's environmental sustainability goals and targets were developed through an iterative process that included consideration of regional and peer city targets, existing City planning documents, community and City staff preferences and perceptions, and analysis of what is achievable through the identified strategies and actions of the plan.

FOCUS AREA & GOAL	METRIC	TARGET	SUPPORTING SOURCE/RATIONALE
Transportation & Land Use: Reduce transportation emissions and enhance community mobility.	**Per-capita passenger vehicle miles traveled** (VMT)	30% reduction by 2035 50% reduction by 2050	Washington State RCW 47.01.440 statewide per-capita goals
	Electric vehicle use (% of VMT by EVs)	100% light duty by 2050 60% medium duty by 2050 40% heavy duty by 2050	K4C target
Buildings & Energy: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.	**Community energy consumption** (MMBTU)	25% reduction by 2030 45% reduction by 2050	K4C target
	Fossil fuel consumption (MMBTU)	20% reduction by 2030 80% reduction by 2050	K4C target
	Electricity fuel mix	100% renewable electricity by 2050	K4C target; consistent with WA Clean Energy Transformation Act (CETA)
Materials Management & Waste: Move towards more sustainable consumption and zero waste.	**Community waste diversion rate** (% total waste diverted from landfill)	70% waste diversion rate by 2030 Zero waste of resources (80%) by 2050**	King County 2019 Comprehensive Solid Waste Management Plan
Natural Systems: Enhance green space, tree canopy, habitat quality, and natural drainage systems.	**Tree canopy cover** (%)	40% by 2049	Redmond Community Strategic Plan
	BIBI index of streams	60 by 2060*	Community Strategic Plan and Redmond Watershed Management Plan
	Surface water quality index (# out of 100)	80 by 2060	Existing Redmond target (stations scoring 80 and above generally meet expectations for water quality)
	Accessible habitat and wetlands (acres)	2,600 by 2050	WA Wetland Rating System Criteria H 2.1; assumes 25% of city meets definition of accessible habitat
Water Management: Protect and conserve water resources, including water quality and quantity.	**Potable water consumption** (per capita gallons per day)	TBD by Water Reduction Strategy	N/A
	Sanitary sewer inflow/infiltration (gallons per acre per day)	1,100 by 2050	KC recommendations; KC Code (KCC), Section 28.84.050 K.3 I/I allowance
	Stormwater retrofits for flow (total acres)	5,646 by 2050	Current Redmond target
	Stormwater retrofit for quality (total acres)	7,463 by 2050	Current Redmond target
Climate Change: Reduce GHG emissions and enhance communitywide resilience to climate impacts.	**Community GHG emissions** ($MTCO_2e$)	50% reduction by 2030 80% reduction by 2050*** *Carbon neutrality by 2050 (aspirational)*	K4C target
	Municipal GHG emissions ($MTCO_2e$)	50% reduction by 2030 Carbon neutral by 2050	Lead by example

*This goal may be refined in the future due to updates to the Redmond Watershed Management Plan. **This goal may be refined in the future due to updates to regional zero waste and circular economy planning efforts. ***This goal may be refined in the future due to updates in the K4C goal to reflect current IPCC recommendations.

Working Towards Carbon Neutrality

In 2014, the City of Redmond entered a joint commitment as part of the King County-Cities Climate Collaboration (K4C) to work with other area cities to reduce carbon pollution. The K4C set a shared goal to reduce greenhouse gas emissions by 50% by 2030 and 80% by 2050 compared to 2007 levels. This goal was based on the best available science from the Intergovernmental Panel for Climate Change (IPCC), which reported that an 80% reduction in emissions by 2050 would be needed to avoid 2°C of global average warming—the temperature threshold that triggers significant climate change impacts.

Since the K4C target was set, a new special IPCC report found that curbing average warming to 2°C is not enough—the world would need to limit warming to 1.5°C to avoid the most extreme climate change impacts. If emissions continue at the current rate globally, we will reach this 1.5°C threshold between 2030 and 2052.

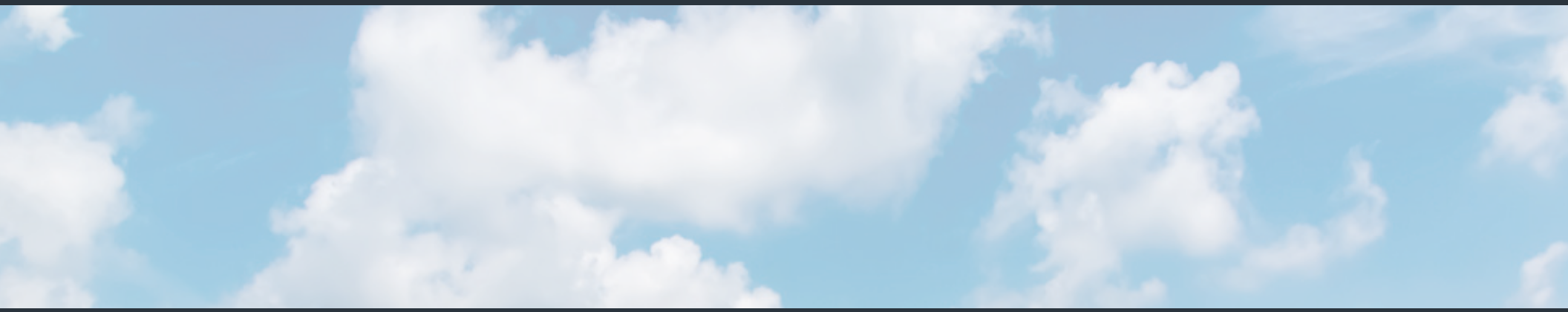
To limit warming to less than 1.5°C and avoid disastrous climate impacts, global human-caused greenhouse gas emissions must decline by 45% by 2030 and reach net zero (carbon neutrality) around 2050. This decline in emissions must be faster and more precipitous than the 80% reduction goal set by the K4C.

As part of the K4C collaboration, the City has committed to an 80% reduction in GHG emissions by 2050. This plan sets a path toward going further—achieving an estimated 89% reduction by 2050. However, the City of Redmond and the Redmond community also recognizes these recent IPCC findings and the need for swifter and more decisive action. Thus, to the extent possible, the City will also strive to achieve a longer-term goal of communitywide and municipal carbon neutrality by 2050.

Achieving carbon neutrality will not be easy, and will require significant changes in the way the City and community of Redmond does business. Residents and businesses will need to significantly lower building and vehicle energy use, energy sources will need to shift entirely from fossil fuels like gasoline and natural gas to renewables like solar and wind power, and investments will be needed in lower-carbon energy, transportation, and building infrastructure.

We estimate that the strategies and actions in this plan will position Redmond to exceed the countywide goal of an 80% reduction in emissions by 2050. However, achieving carbon neutrality by 2050 will require examination of other options that were not quantified through this planning process, such as storing and sequestering carbon in Redmond's trees and soils. A key action in this plan will be to examine these other options to assess and hone Redmond's approach for meeting the critical global goal of carbon neutrality. The City will develop a full analysis of the strategies and actions that must be implemented to achieve carbon neutrality during the 2025 ESAP refresh—detailed in the Implementation and Evaluation Planning section.

Learn more about the 1.5°C special report from the IPCC at **www.ipcc.ch/sr15/chapter/spm/**



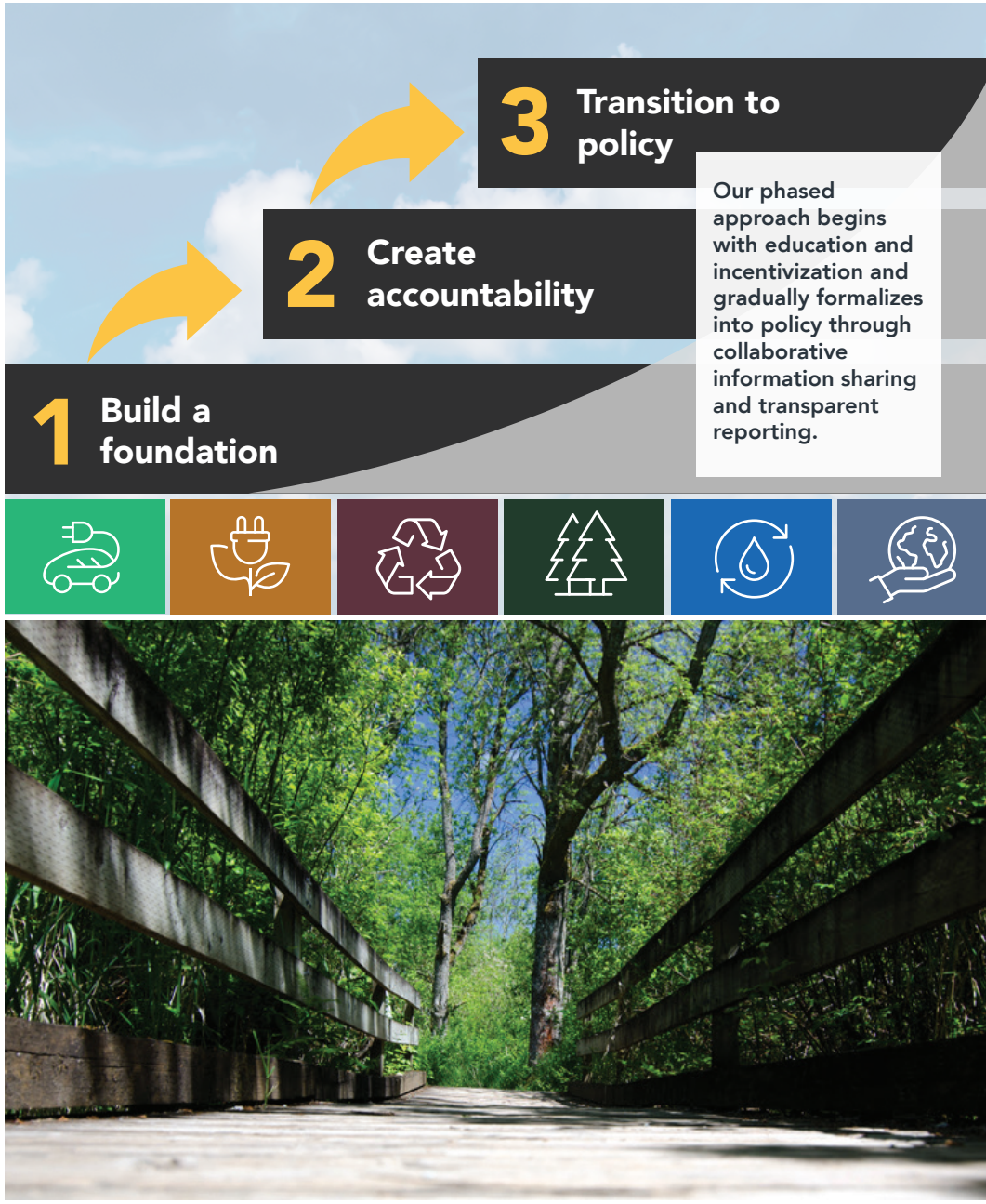
Strategies and Actions

A Strategic, Phased Approach

The City proposes a strategic, phased approach to attaining long-term sustainability goals over the next 30 years. The implementation plan—namely, the timing of actions—reflect the following high-level phasing:

- **Build a foundation through education, incentives, partnerships, and assessment.** For important larger changes that could be complex or costly for the community—such as comprehensive recycling and composting or transitioning off of fossil-fueled buildings—Redmond will begin by building a foundation for facilitating change. By starting with initial steps such as education, outreach, technical assistance, pilot programs, partnership building, and studies, the City will ensure that the community is equipped with the information and tools it needs to ensure a seamless and informed transition to attaining long-term goals.
- **Create accountability**. The second phase will focus on leveraging data transparency and information sharing to facilitate a culture of partnerships and continual improvement. Starting with City operations, Redmond will lead by example to report progress and encourage community engagement. This focus on accountability ensures that all parties are clear on what is needed to move the needle on sustainability goals and builds capacity and preparation for a potential transition to regulatory policies.
- **Transition to policies, requirements, and mandates.** The plan recommends transitioning to policy mechanisms such as requirements and mandates after more voluntary options have been explored and implemented. Although "softer" mechanisms such as education, outreach, and incentives have been shown to provide some impact in realizing sustainability goals, studies indicate that stronger actions such as requirements and policies are often needed to secure long-term impact.

This approach will remain nimble and responsive to annual performance monitoring to determine whether progress is advancing sufficiently towards established goals. Some action areas may have efforts already underway that allow it to progress and leverage stronger policy sooner.



Strategy Focus: Greenhouse Gas Emissions

Outcomes from the impact analysis for reducing greenhouse gas emissions revealed a recommended phased approach for meeting Redmond's long-term emissions targets. The indicated timing of this plan reflect this phased approach.

1

Transition to utility-scale clean electricity.

In the long-term, phasing out fossil fuel-sourced electricity will be important for achieving long-term emissions reductions in both the building and transportation sectors. This is especially true for Redmond, which has a significant proportion of emissions from commercial electricity. The Clean Energy Transformation Act (CETA) will be crucial for achieving this strategy, which requires WA electric utilities to provide 100% carbon-free electricity by 2045

2

In the meantime, make buildings and transportation more energy-efficient and renewable-focused.

While electricity is transitioning to a renewable fuel mix, improvements in building and vehicle energy efficiency can help fill the gap in short-term emission reduction needs. For buildings, this includes making both existing and new buildings more energy efficient and expanding rooftop solar power. For transportation, this focuses on shifting from single occupancy vehicles to lower-carbon modes and driving more fuel-efficient vehicles.

3

As the electricity fuel mix gets cleaner, shift drastically to electricity-based fuels for passenger vehicle and space and water heating.

As the electricity fuel mix becomes more renewable, the shift from fossil fuels such as natural gas and gasoline to electricity will be increasingly impactful. By 2030, electricity will be more carbon-friendly on a per-unit basis than natural gas. Transitioning to electric vehicles, increasing electric space and water heating in new construction, and switching to efficient electric heat pumps in existing construction will all work to amplify the impact of the clean electricity transition.

4

Continue to transition to zero waste and sustainable consumption.

While solid waste only makes up a small proportion of the city's overall emissions, the upstream emissions impacts of material consumption are substantial and should not be overlooked. Strategies in the residential and commercial sectors to prevent and divert food, yard, and construction and demolition waste from landfills help avoid the generation of potent methane greenhouse gas production in landfills.

5

Pursue local carbon sequestration projects to meet long-term targets.

Although not explicitly modeled, local carbon sequestration projects—such as efforts to maintain and grow local tree canopies—can help "close the gap" to achieve remaining long-term emission reduction needs.

Strategies At-A-Glance

TRANSPORTATION AND LAND USE	
T1	Increase the equitable use of non-SOV modes of transportation such as biking, walking and public transit through programmatic and infrastructure interventions.
T2	Leverage sustainable land use policy to encourage non-SOV modes of transportation.
T3	Shift to more efficient and lower-carbon vehicle fuels, such as electric.
T4	Reduce energy consumption and emissions associated with City fleet use and commuting.
BUILDINGS AND ENERGY	
B1	Support building sustainability through education, technical assistance, and code advancement.
B2	Advance green building within City facilities.
B3	Shift to renewable energy sources and building decarbonization.
B4	Prepare the energy grid for future conditions.
B5	Expand performance benchmarking and improvements.
MATERIALS MANAGEMENT AND WASTE	
M1	Increase diversion of community waste while reducing cross-contamination within waste streams (garbage, organics, recyclables).
M2	Reduce community waste generation (reuse, repurpose, upcycle).
M3	Reduce waste and environmental impact from City purchasing and operations.
M4	Address construction and demolition (C&D) waste.
NATURAL SYSTEMS	
N1	Protect and enhance equitably accessible native habitats and open space and support local agriculture.
N2	Enhance resilience of natural areas and systems to climate change.
N3	Expand green infrastructure and associated services.
N4	Increase citywide tree canopy.
WATER MANAGEMENT	
W1	Achieve a secure and sustainable water supply that is equitable, affordable, and accessible.
W2	Conserve community water resource and maximize water efficiency savings.
W3	Protect quality and quantity of drinking water resources.
CLIMATE CHANGE	
C1	Ensure all City services and infrastructure are resilient to climate change impacts.
C2	Enhance resilience of populations that will be disproportionately impacted by climate change.
C3	Institutionalize consideration of sustainability and climate change across City activities and decision-making.
C4	Pursue cross-sectoral, communitywide solutions to address climate change and cross-cutting sustainability issues.

Leading by Example

Implementation of the ESAP is a community-wide effort and it will be more important than ever for the City to demonstrate the benefits and importance of bold climate action. The City has undertaken numerous activities over the past decade to support its vision of a sustainable community, including:

- Becoming a founding member of the King County-City Climate Collaborative (K4C).
- Creating a detailed model to enhance the City's ability to protect and manage Redmond's aquifer and provide clean drinking water for years to come.
- Rehabilitating the lower portion Bear Creek to improve salmon habitat and passage.
- Purchasing 100% renewable electricity for City facilities through PSE's Green Direct Program starting in 2021.
- The ESAP builds on this leadership and identifies a clear pathway for a City-led response to climate change, such as:
- Committing to green building standards for new municipal owned buildings.
- Transitioning the City's fleet to clean, alternative fuel vehicles.
- Expanding telecommuting and alterative work schedules for City employees.
- Implementing solar and microgrid projects on City facilities.
- Developing and enforcing green purchasing procedures and policies.

It will also be important to pursue partnerships and collaborative opportunities throughout implementation. The City will explore collaborative partnership opportunities like public-private partnerships, innovative funding mechanisms, and collaborations with educational institutions to further support City-led work and create win-win solutions for the community.

How to Read Strategies and Actions

Each focus area section is structured as follows. Additional action implementation information can be found in the Implementation Matrix in Appendix A.

WHAT IS INCLUDED?	Defines the focus area and types of strategies included.
FOCUS AREA GOAL	Presents the overarching sustainability goal(s) of the focus area.
HOW IS REDMOND DOING?	Highlights key focus area trends, achievements, and relevant City and community activities. For key metrics, it includes graphs with the following projection scenarios: • **Business-As-Usual (BAU):** An estimate of how the metric would change over time without the influence of exter-nal or internal policies or programs. Population and job growth are key drivers of business-as-usual projections. • **Adjusted Business-As-Usual (ABAU):** The influence of policies and programs external to Redmond—such as state renewable portfolio standards and federal fuel efficiency standards—on the trajectory for the sustainability metric. • **Target:** Mid- and long-term sustainability targets for the metric.
HOW WE'LL GET THERE	Presents key focus area strategies and their anticipated contribution toward attaining short- and long-term targets.
ACTION ROADMAP	Details the actions of the plan. See example below.
WHAT YOU CAN DO	Provides ways Redmond community members can be a part of plan implementation and success.

ELEMENT	DEFINITION
	Relative investment of City resources for implementing plan, as indicated based on action cost analysis (see "Cost Analysis" section for more information). The cost per action falls into three ranges (in net present value):  = $0 to $100K  = $100K to $500K  = $100K to $500K
	Relative estimated impact towards achieving goals (see "Action Impact and Cost Assessment" section for more information).
	Action contributes to equitable distribution of benefits.
	Action links and/or contributes to other City initiatives or priorities (e.g., economic or public health benefits).
	Action is foundational for realizing long-term impact.
	Timeframe for initiating action implementation.  = underway  = 0 to 5 years  = 5 to 10 years  = 10+ years

Action Impact and Cost Assessments

Impact Assessment

The planning process included estimation of outcomes from action implementation. The analysis assessed the potential of ESAP implementation to meet regional commitments and established targets. As relevant, these estimations are visualized in a "wedge analysis" that depicts a high-level estimate of how much the actions will collectively contribute towards meeting the city's communitywide goals and targets.

METHODOLOGY

Actions in the ESAP were broadly classified and modeled into "impact bundles." The bundles represent variables related to key sustainability indicators. For example, actions that reduce building energy demand were classified under a "Reduced Building Energy Demand" bundle. These bundles represent key areas for reducing Redmond's environmental impact.

This analysis assessed the following primary scenarios:

- **Business-As-Usual (BAU):** An estimate of how the metric would change over time without the influence of external or internal policies or programs. Population and job growth is the key driver of business-as-usual projections. This scenario is indicated by **black dotted lines** in the wedge graphics.
- **Adjusted Business-As-Usual / External Factors:** The influence of policies external to Redmond—such as state renewable portfolio standards and federal CAFE fuel efficiency standards—on Redmond's projected environmental trends. These are denoted in **gray** in the wedge graphics (colored dotted lines in the target/business-as-usual graphics).
- **ESAP Actions:** The estimated impact of priority actions in the ESAP. These are denoted in **color** in the wedge graphics.

The analysis was conducted to 2050—the long-term target year for communitywide sustainability goals, including the greenhouse gas emission reduction target. The ESAP utilized 2011 as the baseline year due to considerations of data consistency and accuracy.

CONSIDERATIONS

Other considerations in conducting the impact analysis include:

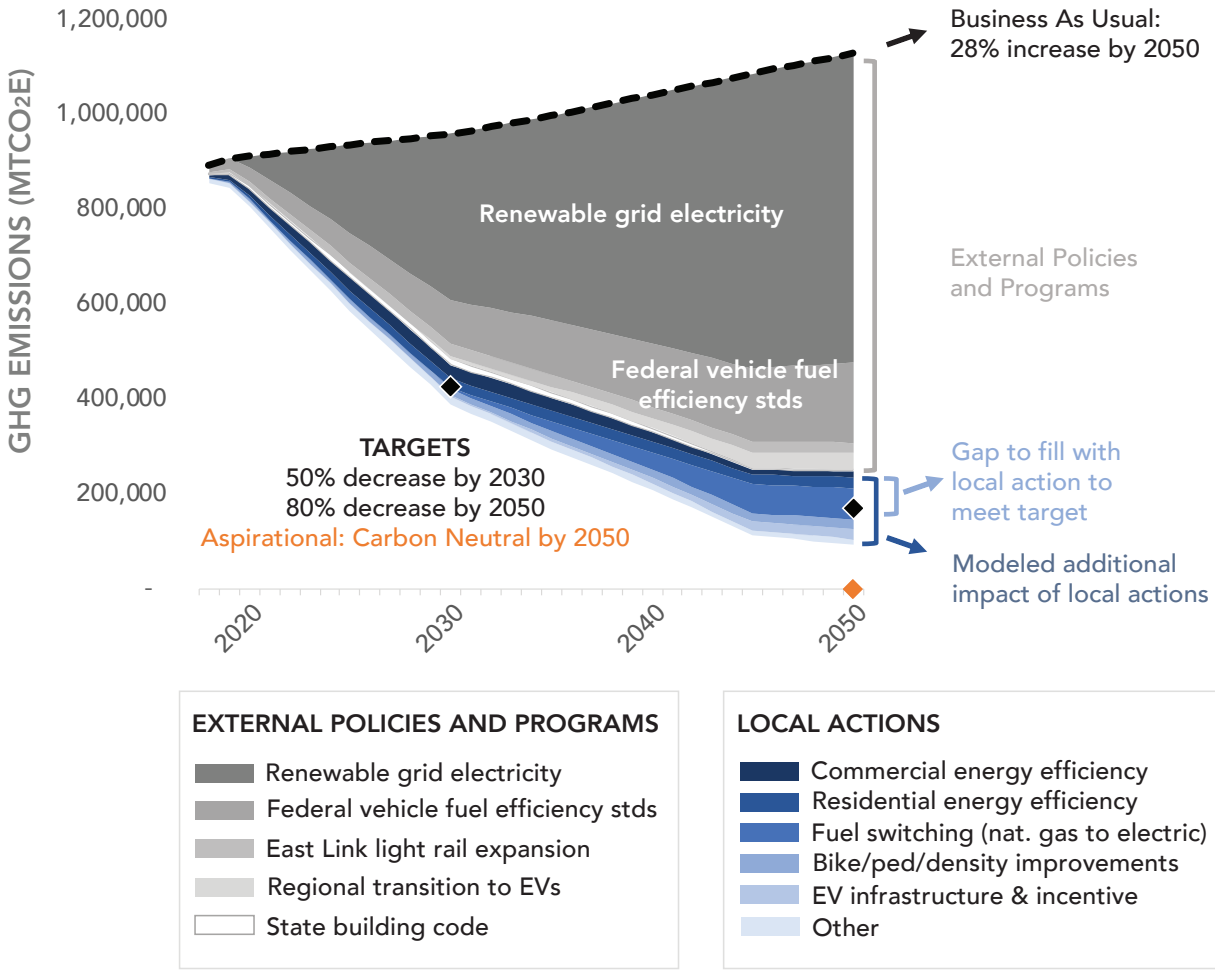
- **Data availability.** The outputs of the analysis are only as precise and accurate as the inputs. This means that, where possible, the use of locally precise and accurate data is preferred. However, in many cases, local data were not available. In that case, data from the national level or from other regions were considered in combination with input from local experts.
- **Uncertainty.** Modeling action impacts can be challenged by uncertainty in the cause-effect relationship of actions. For example, what is the emission reduction outcome of an action that calls for the introduction of a rebate for home energy audits? This value is contingent on many factors, including outreach, buy-in, behavior change, and measure efficacy.

This impact analysis did not attempt to answer each of these questions. Instead, this analysis was intended to provide a high-level estimate of potential outcomes from ESAP implementation. It is assumed that more detailed action evaluation would be performed upon implementation of the individual action. The ESAP evaluation cycle and metric tracking will be used to determine if the actions identified are moving the City far enough towards goals or if additional strategies need to be considered.

FINDINGS EXAMPLE: CLIMATE CHANGE

Detailed outcomes from the impact analysis are provided in each of the focus area sections of the plan. As an example, analytical outcomes for achieving Redmond's community GHG emissions reduction target are provided in the figure below. In the example, the modeled actions of the plan are anticipated to exceed indicated 2030 and 2050 targets.

Example wedge graphic for depicting outcomes from the quantitative impact analysis. The business-as-usual scenario is depicted as a dotted line, impact of external policies and activities are indicated in gray shades, the impact of local actions are depicted in colored shades, and targets are indicated by diamonds.



Cost Assessment

A cost assessment estimated City costs associated with implementation of the top priority actions from the multi-criteria analysis. Estimated costs over the life of the plan—30 years—were broken into aggregate categories:

- **City staff time** (expressed in annual full-time-equivalents, or FTE).
- **Annual costs** of operating and maintaining the action (outside of City staff time).
- **Upfront costs** including capital costs and one-time costs, including studies needed.
- **Number of years** that the action would operate.

For each action, these costs were summed over the project period of 30 years to create **net present value cost estimates** using a three percent discount for each year in the future that the cost will occur. The discount rate balances out costs in the distant future that are arguably less certain by adjusting downward (discounting) for each year in the future. The net present value calculation achieves two goals:

- Compares program costs for the **full planning horizon**, and not just on a year to year basis.
- Allows for a fair, **'apples to apples' comparison** across focus areas, and including both longer term and shorter-term actions.

The goal of the cost analysis was to **estimate the City resources required to complete each action**. This set the stage for prioritizing actions in the context of both cost and impact. The cost assessment was developed and then reviewed by City staff, understanding that the level of detail was not the same as required when developing cost estimates for budgeting purposes. Also, costs were only counted in terms of the cost to the City of Redmond, and not to partner organizations, private sector firms, or directly to the public. Relative costs to the community were considered as part of the multi-criteria analysis and will be undertaken upon implementation of individual actions.

Outcomes from the cost assessment—indicated as **piggybank icons** in the focus area sections of this plan—were reviewed and considered in arriving at the final list of actions in the plan.

The Cost of Inaction

Although not explicitly modeled in this planning process, multiple scientific studies estimate the cost of climate inaction to be significant and that proactive resilience actions are the best way to achieve long-term cost savings. In a recent U.S. Environmental Protection Agency Report, models estimate that the costs of climate inaction for the Pacific Northwest include an additional:

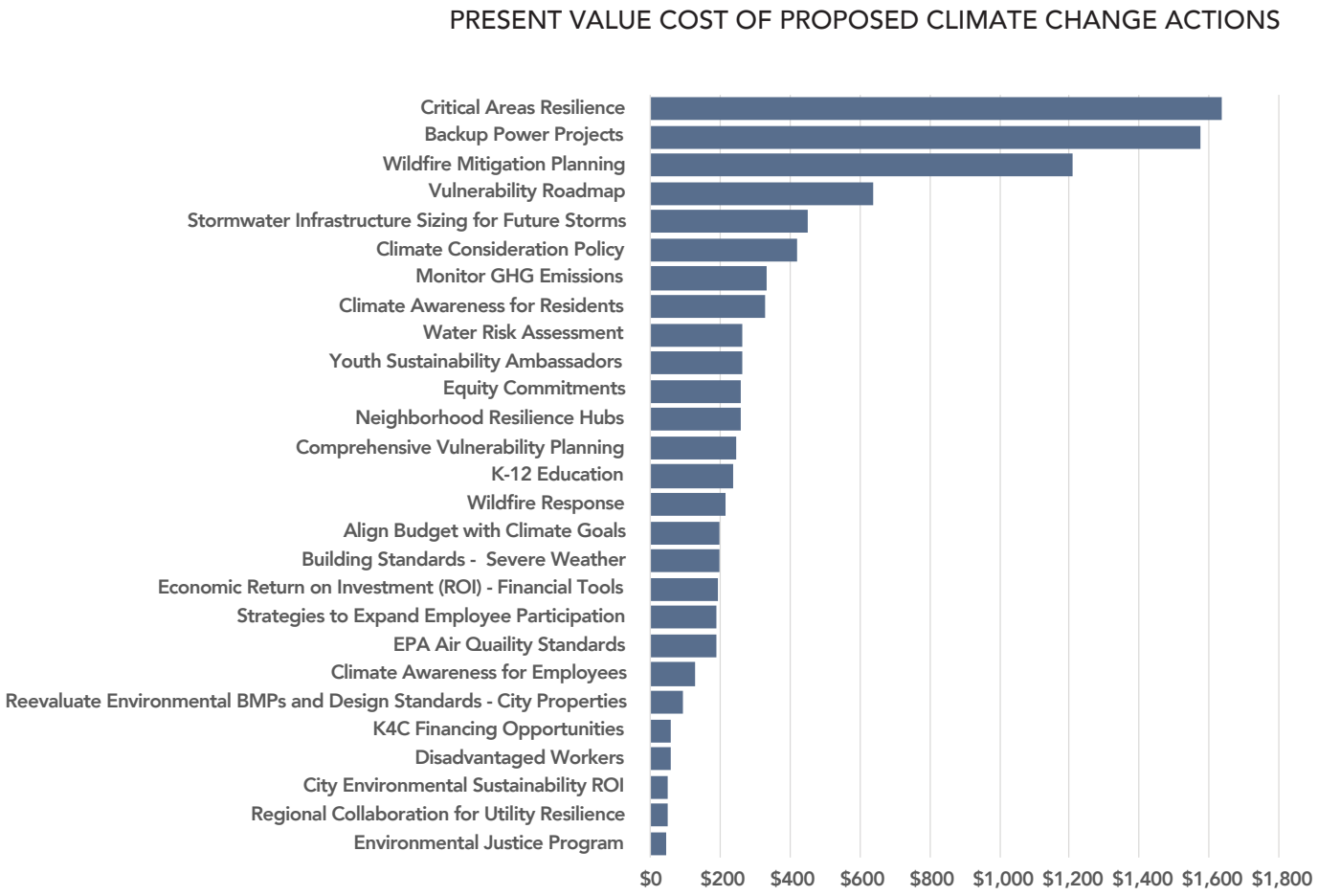
- $600 million cumulatively spent on **wildfire response** by the end of the century.
- $84 million per year spent on addressing **urban drainage and flooding** by 2050.
- $950 million per year in economic damages and 64 additional pre-mature deaths per year related to **poor air quality**.
- $360 million per year in **road repair costs** associated with climate change and extreme events by 2050.

This planning process included a qualitative assessment of the cost of inaction through the multi-criteria analysis of potential actions, prioritizing actions that may have consequential cost impacts should they not be implemented.

FINDINGS EXAMPLE: CLIMATE CHANGE AND RESILIENCE

Estimated outcomes from the cost assessment are provided in each of the focus area sections of the plan (indicated as piggybank icons in the action roadmap). An example of the estimated analysis outcomes for the Climate Change and Resilience focus area is provided below.

Example estimated cost assessment outcome for the Climate Change and Resilience focus area.



Transportation and Land Use

What is included?

Transportation and land use are critical elements of a sustainable, livable, equitable, and accessible Redmond. Currently, transportation contributes to approximately 26% of Redmond's community GHG emissions. This section includes actions that promote and support alternative transportation, improve land use planning, and encourage use of clean and energy-efficient vehicles.

Transportation and Land Use Goal: Reduce transportation emissions and enhance community mobility.

How is Redmond doing?

KEY ACHIEVEMENTS

- The City of Redmond purchased its first hybrid vehicle in 2005, and currently operates and maintains **28 hybrid vehicles**.
- The City currently **tracks fleet fuel use**, miles driven, and vehicle type.
- The City **reduced its fleet's carbon footprint** 14% since 2011 while saving thousands of dollars in fuel expenses.
- Redmond is currently exploring the use of publicly-owned land offered at a discounted price to support the development of **deeply affordable housing**.[7]
- The Department of Public Works installed two **electric vehicle chargers** in the Maintenance and Operations Center (MOC) yards, explored building a sustainable campus, and researched alternative fuels.
- Redmond installed multiple **electric vehicle charging stations** in public parking lots.
- Redmond's **Transportation Master Plan's** three-year action plan is 40% complete and 45% is in progress, signaling advanced progress in implementation.
- The City recently constructed a **sidewalk and bicycle lane** on the west side of Red-Wood Road near 109th Street.[8]The City has a **Green Building Incentive Program** that includes density bonuses for increasing residential and commercial development on sites near transit and for affordable housing.Redmond currently has **over 1,700 registered EVs,** as well as **31 public EV charging stations** throughout the city.

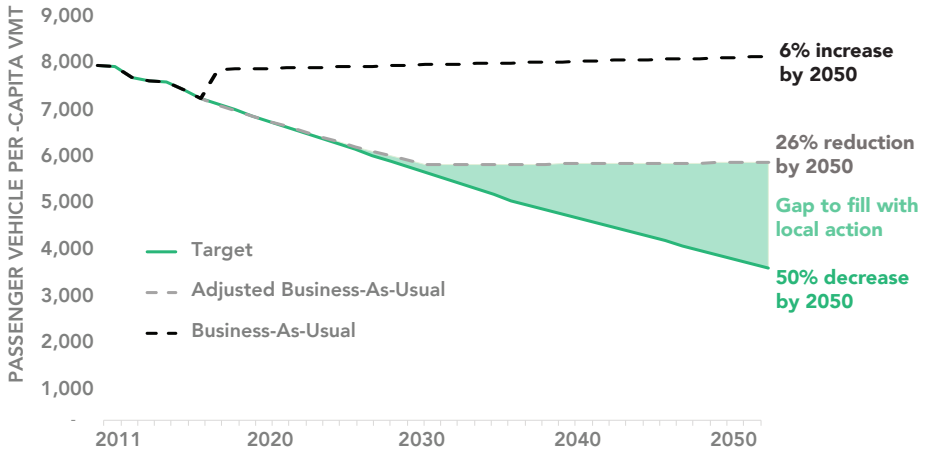
7 https://www.redmond.gov/DocumentCenter/View/9277/Community-Strategic-Plan-2019?bidId=
8 https://www.redmond.gov/DocumentCenter/View/7570/Three-Year-Action-Plan-2016-to-2018-Update-PDF?bidId=

Key Performance Indicators

Performance Measure	Status	Historic Trend	Trend Insights
Community vehicle miles traveled	Worsening		**Increasing.** Community VMT increased 2% from 2011 to 2017. This increase is largely driven by passenger vehicles—medium and heavy truck usage has declined over the same period.
Per-capita vehicle miles traveled	Improving		**Decreasing.** Per-capita VMT has declined 9.4% from 2011 to 2017. This reduction could be due to shifts to transit, walking, and biking.
Transportation GHG emissions *($MTCO_2e$)*	Improving		**Decreasing.** Community transportation emissions decreased 4% from 2011 to 2017. This trend is primarily driven by increases in vehicle fuel efficiency.
Mode share *(% single occupancy commuting)*	Worsening		**Decreasing.** Between 2010 and 2018, the percentage of commuters that did *not* drive alone decreased 1%. Changes to infrastructure, policies, and land-use patterns will be needed to make progress on this metric.
Municipal fleet emissions *($MTCO_2e$)*	Improving		**Decreasing.** Redmond vehicle fleet emissions have decreased 14% since 2011.

Business As Usual: Where We're Heading

Overall, we anticipate that community VMT will continue to steadily increase with continued economic growth in King County and the Puget Sound region. On a per-capita basis, we anticipate VMT to increase slightly to total a 6% increase by 2050. In the adjusted business-as-usual scenario, Redmond's per-capita VMT declines 26% by 2050—primarily due to the anticipated East Link light rail extension.



Targets: Where We Want to Be

TARGET INDICATOR	TARGET VALUE	SOURCE/RATIONALE
Reduce per-capita vehicle miles travelled (VMT)	30% reduction by 2035 50% reduction by 2050	Washington State RCW 47.01.440 statewide per-capita goals
Increase electric vehicle use (% of VMT by EVs)	100% light duty by 2050 60% medium duty by 2050 40% heavy duty by 2050	K4C Target
Reduce transportation GHG emissions ($MTCO_2e$)	47% reduction by 2035 71% reduction by 2050	Needed to meet overarching community GHG emission goal

Strategies: How We'll Get There

Sustainability improvements to the transportation sector will require a transition to clean, low-emission vehicles while enhancing community mobility and reducing vehicle use. Transportation-related greenhouse gas emissions account for nearly 25% of Redmond's communitywide emissions, so making progress toward reducing commuting miles and increasing equitable access to goods and services are essential to effective climate action.

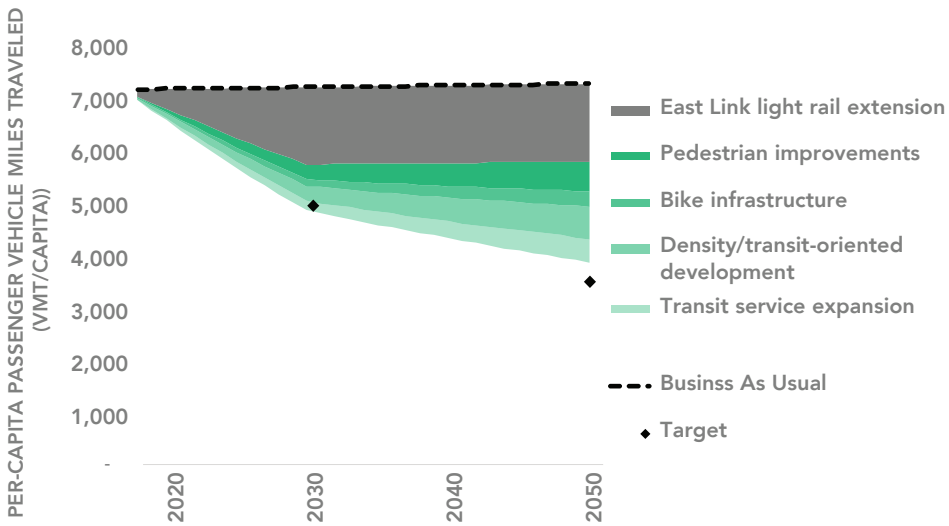
Key considerations for transitioning to more sustainable transportation and land use in Redmond include the following:

- **Transportation emissions are a result of vehicle fuel efficiency, the carbon content of the fuel, and vehicle use.** Gains in the first two areas may be potentially offset by losses in the third (VMT). Transitioning to electric vehicles are not enough to decarbonize the transportation sector completely in the near-term. Therefore, it is important that while Redmond transitions to electric vehicle, the community simultaneously reduces vehicle travel through better land use planning and by promoting non-SOV modes like transit, walking, and biking.
- **Redmond is preparing for the opening of the Link Light Rail and therefore should work with City planners and developers to intensify transit-oriented development near these stations.** Redmond should partner with transit agencies to maintain and enhance multimodal transit services and related facilities, including better first-last mile access to transit.
- **Transportation costs are a significant expense for households, and car ownership is expensive for low-income families.** Personal and single-occupancy electric vehicle adoption does not address these existing inequities. Furthermore, not all Redmond residents will live near the light rail stations and transportation costs tend to be lower for those living in neighborhoods where it is safe to walk, bike, or take transit. Promoting these modes of transportation through strategic land use planning and reducing vehicle use both reduces emissions and is more equitable.

Given these considerations, this plan sets forth the following high-level strategies for attaining transportation and land use goals and targets.

STRATEGIES	
T1	Increase the equitable use of non-SOV modes of transportation such as biking, walking, and public transit through programmatic and infrastructure interventions.
T2	Leverage sustainable land use policy to encourage non-SOV modes of transportation.
T3	Shift to more efficient and lower-carbon vehicle fuels, such as electric.
T4	Reduce energy consumption and emissions associated with City fleet use and commuting.

We estimate that implementing these strategies, in conjunction with external actions, could lead to a 45% reduction of per-capita VMT by 2050. We acknowledge that the City will need to continue to monitor and amend its approach to ultimately meet the state's target of 50% reduction by 2050. Key actions in achieving the City's goals include the East Link light rail extension, bike and pedestrian improvements, increased urban density and transit-oriented development, and transit service expansion.



Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy T1: Increase the equitable use of non-SOV modes of transportation, such as biking, walking, and public transit.						
T1.1	**Implement Growth and Transportation Efficiency Center program**	Develop a framework and implementation plan for the City's Growth and Transportation Efficiency Center (GTEC) program in order to integrate transportation demand management (TDM) actions with infrastructure improvements, facilitate growth, and maximize the efficiency of transportation infrastructure.				
T1.2	**Commuter mobility partnerships**	Partner with organizations such as the Transportation Management Association (TMA) to increase commuter mobility and efficient use of transportation systems through services, incentives, education, and the promotion of single occupancy vehicle alternatives to residents.				
T1.3	**Multimodal transit/ facilities**	Partner with transit agencies to maintain and enhance multimodal transit services and related facilities, including better first-last mile access to transit and preparing for Link Light Rail.				
T1.4	**Pilots for trip reduction**	Continue piloting trip reduction initiatives such as app-based carpooling and scooter/bike share.				
T1.5	**Reevaluate TDM performance measures**	Reevaluate and revise TDM performance measures as needed to ensure they are directly linked to Redmond's livability, sustainability, and affordability.				
T1.6	**Mobility data publication**	Continue to refine and improve mobility-for-all targets and data tracking systems. Make the programs and data available for the public.				
T1.7	**Improve student alternative transport**	Improve alternative transportation options for local schools.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
T1.8	**Increase new mobility options**	Encourage and foster the use of new mobility options, such as bike share, electric bike and scooters, and ride hailing.				
T1.9	**Bike storage incentives and requirements**	Develop incentives for current development and mandates for new development to increase the number of safe bicycle storage spaces around planned light rail stations.				
T1.10	**Active mobility infrastructure investments**	Identify and implement pedestrian and bicycle infrastructure investments that promote connectivity, safety, and mobility for all.				
T1.11	**Comprehensive transportation outreach and education**	Develop education and outreach programs and materials for transportation initiatives related to reducing emissions and community mobility.				
Strategy T2: Leverage sustainable land use policy to encourage non-SOV modes of transportation.						
T2.1	**Downtown Redmond parking**	Implement Downtown Strategic Parking Management Plan's Conditions Report subsequent phases to evaluating parking needs and management.				
T2.2	**Transportation Master Plan implementation**	Support development of the Transportation Master Plan and the implementation of a complete streets policy.				
T2.3	**Unbundled parking**	Develop an ordinance requiring unbundled parking in all rental housing so residents that do not own a car will not have the cost of parking bundled in their rent.				
T2.4	**Diversify housing options**	Allow for AOU, duplexes, 4+8 unit apartments/ condos, ADUs, and retrofits in single family zones to promote affordable higher density housing and commercial development.				
T2.5	**Parking maximums/ minimums**	Develop parking maximum and minimum requirements in urban areas and along transit corridors.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
T2.6	**Increase "Spine Network" goal 2030**	Identify new partnerships and funding sources to support an increased "spine" bike network above the current expectation of 51% completion by 2030, and identify opportunities to provide bicycling facilities that will be comfortable for more riders, such as cycletracks and multi-use paths.				
T2.7	**Create more walkable communities**	Review and update land use and zoning policy to promote a more walkable built environment.				
T2.8	**Ten-minute communities**	Review and update land use, zoning, and planning policy to prioritize the development of affordable 10-minute communities that prioritize accessibility and meet commercial, recreational, and transportation needs.				
Strategy T3: Shift to more efficient and lower-carbon vehicle fuels such as electric.						
T3.1	**Freight VMT/idling**	Identify and implement opportunities for reducing freight VMT and idling, especially from delivery trucks.				
T3.2	**Advanced clean car standards**	Continue to support the State in adopting clean vehicle standards.				
T3.3	**EV demand eval & parking requirements**	Review EV infrastructure strategy and predictions for EV adoption with input from PSE and other regional stakeholders, including evaluation of EV parking supply and demand and ways to make charging more accessible.				
T3.4	**Electrical code for EVs**	Update electrical code to ensure adequate electrical capacity is available to serve one electric vehicle charging station per parking space.				
T3.5	**EV charging business partnerships**	Partner with organizations such as OneRedmond to encourage businesses to install charging stations at workplaces and to provide support for commercial entities interested in providing charging stations for their employees.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy T4: Reduce energy consumption and emissions associated with City fleet use, contracting, and commuting.						
T4.1	**Municipal fleet conversion**	Continue implementing the Green Fleet Purchasing Policy.				
T4.2	**Telecommuting and alternative work schedules**	Expand telecommute and flexible schedules for City employees and encourage Redmond businesses to adopt.				
T4.3	**Emission standards for contractors**	Develop and incorporate contractor fuel emission reduction standards into City bids and contracts.				

What You Can Do

TAKE PUBLIC TRANSPORTATION AND CARPOOL

Utilizing public transit, even once a week, can help lower your environmental footprint and reduce traffic congestion.

Related action(s):

- Implement Growth and Transportation Efficiency Center program
- Commuter mobility partnership
- Pilots for trip reduction
- Improve student alternative transport

ENJOY ACTIVE TRANSPORTATION

Walking, biking, or other types of active transportation can reduce emissions, improve local air quality, and improve health and wellbeing.

Related action(s):

- Increase new mobility options
- Increase "Spine Network" goal 2030
- Bike storage incentives and requirements
- Create more walkable communities
- Active mobility infrastructure investments

PURCHASE AN ELECTRIC VEHICLE

If able, purchasing an electric vehicle can significantly reduce GHG emissions—especially as electricity sources become increasingly renewable.

Related action(s):

- EV charging business partnerships
- EV demand eval & parking requirements
- Electrical code for EVs
- Municipal fleet conversion

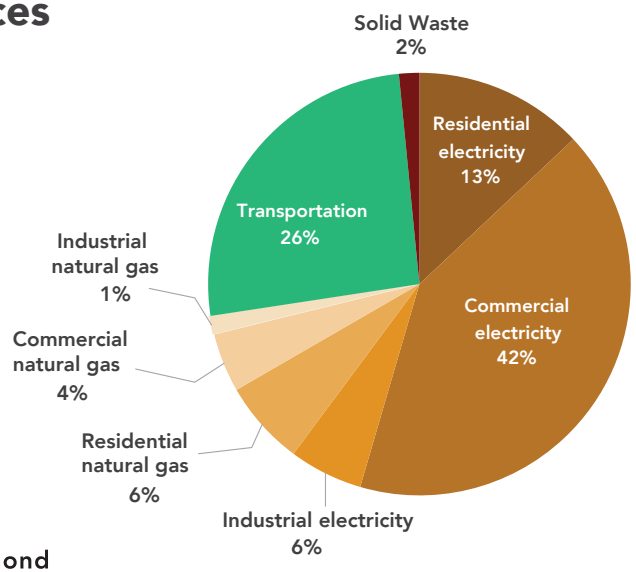
Buildings and Energy

What is included?

Buildings and energy represent the largest source of GHG emissions in Redmond—accounting for over 70% of total emissions. The largest sources within this sector are from commercial electricity and residential natural gas consumption, largely used for heating, cooling, and powering appliances and equipment. The large contributions from this sector reveal an opportunity for renewable energy and energy efficiency measures to dramatically reduce Redmond's community GHG emissions. Renewable energy sources are clean, inexhaustible, and increasingly cost competitive. Investing in solar, wind, and other advanced forms of energy generation can also create local jobs, support economic development, and reduce air pollution.

Buildings & Energy Goal: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.

Current Communitywide GHG Emissions Sources

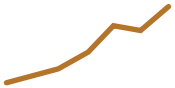


How is Redmond doing?

KEY ACHIEVEMENTS

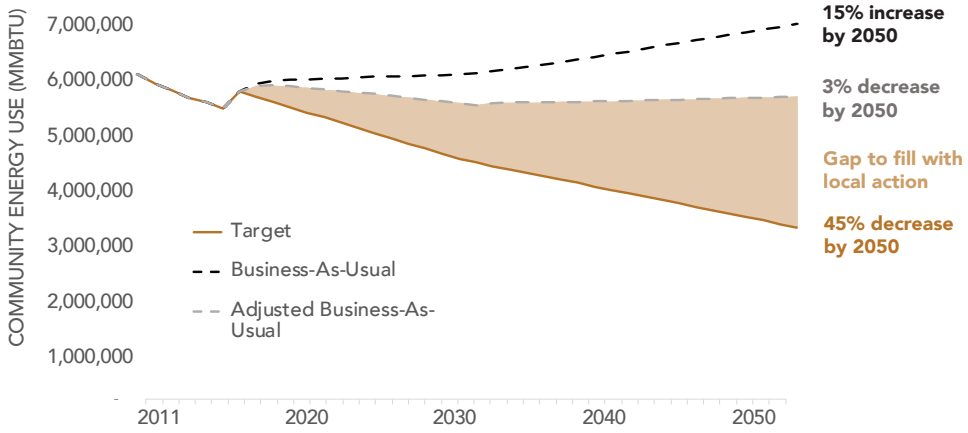
- The City of Redmond has partnered with Puget Sound Energy to work towards purchasing **100% of its electricity** for government operations from **local renewable energy resources.**
- City Hall has **LEED Silver and ENERGY STAR certifications.**
- The **Green Building and Green Infrastructure Incentive Program** provides incentives for implementing green building development techniques across a variety of building types.
- The City has conducted various **Energy Service Company (ESCO) projects** to offer comprehensive energy solutions to improve efficiency and reduce consumption at City facilities. Projects include LED lighting, replacing heat pumps, energy efficient windows at the pool, water filtration systems at the pool, and heat systems for the pool.
- The City has worked with PSE to provide **energy-efficient lightbulbs at a highly reduced price** at community events. PSE also conducts outreach to small businesses to offer retrofit services for energy efficiency.
- Redmond is working on **building automation controls** in municipal facilities to reduce energy waste.
- The City worked with Puget Sound Energy to complete a **District Energy study** for the Overlake area.

Key Performance Indicators

Performance Measure	Status	Historic Trend	Trend Insights
Building energy GHG emissions *($MTCO_2e$)*	Worsening		**Increasing.** Energy-related emissions increased 12% between 2011-2017. Drivers of this trend include increases in natural gas use and the increased use of fossil fuels such as coal and natural gas in generating electricity.
Community energy use *(MMBTU)*	Improving		**Decreasing.** Despite population growth, community-wide energy use decreased 5% since 2011—a reduction of over 300,000 MMBTU.
Carbon Intensity of Energy *($MTCO_2e$/MMBTU)*	Worsening		**Increasing.** The carbon intensity, or the amount of carbon pollution per unit of energy, has increased since 2011 due to increased natural gas use and fluctuations in PSE's electricity fuel mix.
Natural gas use *(therms)*	Worsening		**Increasing.** Natural gas usage has increased 6% since 2011—an increase of over 1,000,000 therms. This increase may be driven by reductions in natural gas prices.
Electricity use *(kWh)*	Improving		**Decreasing.** Despite population growth, electricity use has decreased 10% since 2011—a reduction of over 126,000,000 kWh. This reduction may be driven by switching to natural gas or energy efficiency improvements.
PSE Green Power purchases *(kWh)*	Improving		**Increasing.** Since 2011, Redmond has increased the amount of renewable electricity purchased from PSE's Green Power Purchasing Program by 129%—an increase of over 11,000,000 kWh.

Business As Usual: Where We're Heading

Population and economic growth drives community energy consumption upward under a business-as-usual scenario. However, technological advancments made in energy efficiency and implementation of the state building energy code will counter this effect. In the adjusted business-as-usual scenario, Redmond's community energy consumption is projected to decrease by 34% by 2050 compared to 2011 levels—leaving approximately 10% of additional reductions needed by local action to meet the regional target.



Targets: Where We Want to Be

TARGET INDICATOR	TARGET VALUE	SOURCE/RATIONALE
Reduce community energy consumption (MMBTU)	25% reduction by 2030 45% reduction by 2050	K4C target
Reduce fossil fuel consumption (MMBTU)	20% reduction by 2030 80% reduction by 2050	K4C target
Electricity fuel mix	100% renewable electricity by 2050	K4C target; consistent with WA Clean Energy Transformation Act (CETA)
Reduce building energy GHG emissions ($MTCO_2e$)	75% reduction by 2035 99% reduction by 2050	Needed to meet overarching community GHG emission goal

Strategies: How We'll Get There

Reductions in GHG emissions from the built environment and energy sectors will also require a **reduction in energy demand.** To reduce energy demand, Washington State and King County have set aggressive targets. For example, Washington State's energy code (adopted by the State Building Code Council) is designed to help achieve the goal of building zero fossil-fuel greenhouse gas emission **new buildings** by the year 2031.[9] Furthermore, King County's 2015 Strategic Climate Action Plan calls for reducing energy use in all existing buildings 25% below 2012 levels by 2030.10 Actions to reduce energy consumption include efforts to adopt building codes and other policies that enhance energy efficiency, rebates and financing to offset the cost of residential upgrades to more efficient appliances, and energy efficient retrofits at municipal facilities.

Important phasing considerations for reducing energy consumption include the following:

- While PSE is making the transition to 100% renewable electricity, reductions in building energy demand will provide **near-term emission reductions** and **facilitate the ability for PSE to meet demand** with cleaner fuel mixes (e.g., reduces the need for dirtier "peaker" plants).
- Due to their long lifetimes and the rate of growth in Redmond, it will be important to integrate more energy-efficiency technologies and infrastructure into **new construction** in the near-term through policies and incentives.

While the energy sector transitions to clean, renewable energy, Redmond can help its residents get off fossil fuels and onto the **clean electricity grid**. Approximately 43% of King County residents rely on natural gas for house heating fuel.[11] Coding requirements, contractor trainings, and permitting incentives can help reduce dependence on natural gas and increase the impact of electric heat pumps and other electric upgrades.

Important phasing considerations for transitioning to cleaner energy fuel sources include the following:

- According to projected trends in PSE's electricity fuel mix, switching from natural gas to electricity-based space and water heating will be **most crucial starting in 2030**.
- Due to the relatively long lifetimes of buildings and equipment, implementing actions in the near-term to **set the stage for a quick and painless transition from natural gas to electricity** in the future will be crucial for ensuring deep and longer-term emission reductions. These actions include introducing education and incentives for contractors and building owners and requirements for new construction.

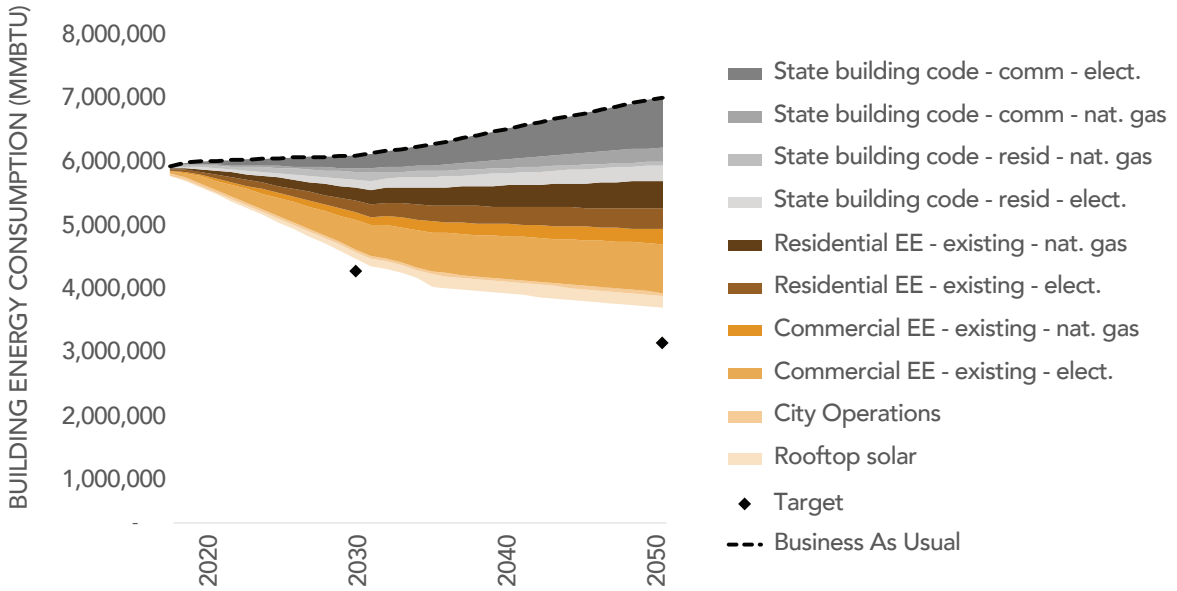
This plan sets for the following high-level strategies for attaining buildings and energy goals and targets.

STRATEGIES	
B1	Support building sustainability through education, technical assistance, and code advancement.
B2	Advance green building with City facilities.
B3	Shift to renewable energy sources and building decarbonization.
B4	Prepare the energy grid for future conditions.
B5	Expand performance benchmarking and improvements.

9 https://app.leg.wa.gov/RCW/default.aspx?cite=19.27A.020
10 https://your.kingcounty.gov/dnrp/climate/documents/2015_King_County_SCAP-Full_Plan.pdf
11 https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_1YR_B25040&prodType=table

We estimate that Redmond will be able to achieve a 22% reduction in energy use by 2030. Additional or expanded strategies will be needed to achieve the target of a 25% reduction in building energy consumption by 2030. This current target—adopted by the K4C partnership—is especially challenging when addressing energy consumption in existing construction. Energy reduction in existing construction requires technology upgrades and retrofits, which can be expensive for home and building owners. Actions to address energy consumption for existing construction in this plan include performance benchmarking requirements and retrofit programs and incentives.

Achieving the energy consumption goal will also largely depend on state building code, which calls for a 70% reduction in new building energy use by 2031 compared to 2017 levels. The City will also look to incorporate new energy-related actions as new technology becomes available. The graph below shows the impact of various strategies to reach our energy consumption and GHG goals.



Comm = commercial | elect. = electricity | nat. gas = natural gas | EE = energy efficiency

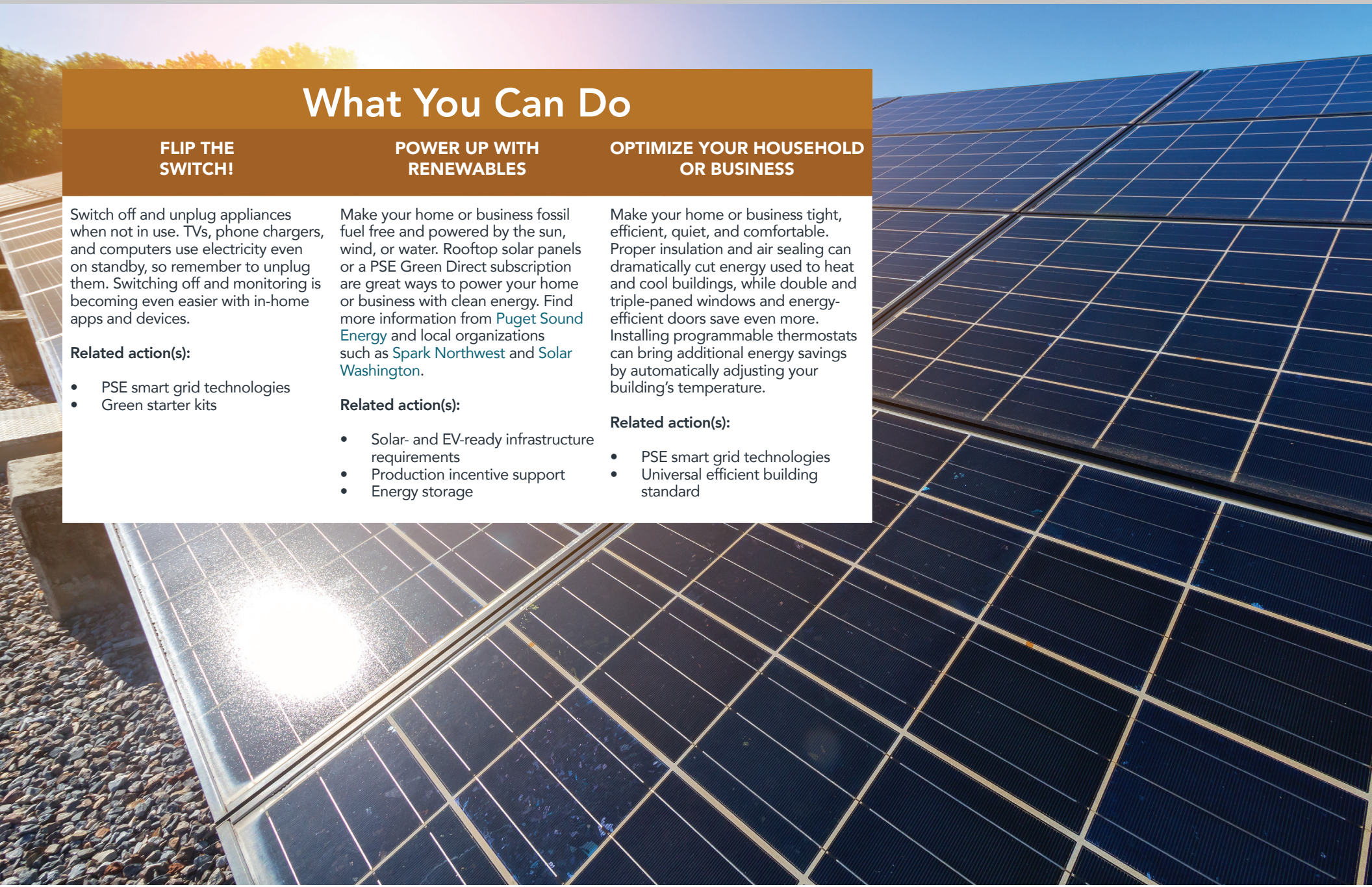
Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy B1: Support building sustainability through education, technical assistance, and code advancement.						
B1.1	**Production incentive support**	Support Washington State renewable energy production incentives that encourage the development of residential and commercial solar and other distributed generation and storage projects.				
B1.2	**Support/ advocate for new codes**	Work with advocacy organizations and Regional Code Council (RCC) to support and implement state energy code advancement.				
B1.3	**Green starter kits**	Coordinate with regional programs such as EnviroStars to promote and distribute sustainability starter kits to businesses and homes looking to go green.				
B1.4	**Solar- and EV-ready infrastructure requirements**	Require "solar-ready" and EV-ready infrastructure for all new commercial and residential development.				
B1.5	**Green certification incentives**	Reevaluate, promote, and incentivize through zoning code green certification programs for commercial and multi-family buildings and development, including Built Green, LEED, and Salmon-Safe Urban Development Certification.				
B1.6	**Low-interest loans**	Explore low interest loan options to finance energy efficiency upgrades for commercial and residential buildings.				
B1.7	**Universal efficient building standard**	Adopt a universal standard for energy-efficient buildings, such as the International Residential (IRC) codes for sustainable residential buildings, that considers feasibility and affordability for building owners and tenants				
B1.8	**Pipelines for employment**	Collaborate with higher education institutions to develop pipelines for employment in green construction industry professional services.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
B1.9	**Phase out HFCs**	Work with King County to phase out the use and disposal of hydrofluorocarbons (HFCs) such as from vehicle and building air conditioning units.				
B1.10	**Height/sf incentives for energy upgrades**	Create and implement a program offering additional height and floor area incentives for significant upgrades in energy and water use.				
Strategy B2: Advance green building within City facilities.						
B2.1	**Financing for energy efficiency**	Assess various options for financing and grants to energy efficiency projects for municipal buildings.				
B2.2	**Energy and water retrofits**	Continue to implement energy and water conservation retrofits and operational improvements for municipal facilities, street lights and traffic signals, and pump stations.				
B2.3	**Facilities Strategic Maintenance Plan**	Coordinate and implement recommendations from the Facilities Strategic Maintenance Plan that support sustainability. Evaluate option for an internal Revolving Fund as a dedicated source of capital, funded by savings from energy efficiency upgrades.				
B2.4	**Resource Conservation Management Plan**	Develop a Resource Conservation Management Plan and general government policy to guide energy efficiency investments, operations, and behaviors in City facilities.				
B2.5	**Information technology improvements**	Implement solutions to reduce energy demand from the City's IT infrastructure.				
B2.6	**New City building green certification**	Develop a policy that requires all new municipal owned buildings to be constructed to a minimum certification level, such as the Gold level as defined by the U.S. Green Building Council's (USGBC) Leadership in Energy & Environmental Design (LEED) for New Construction.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
B2.7	**Existing City building green certification**	Implement updates needed for existing City buildings to achieve ENERGY STAR or equivalent recognition. Continue to track progress in a platform such as EPA Portfolio Manager.				
B2.8	**Embodied and operational carbon**	Introduce a policy or program to address embodied and operational carbon in municipal operations.				
Strategy B3: Shift to renewable energy sources and building decarbonization.						
B3.1	**Financial tools for renewables**	Employ financial tools or group purchases to incentivize the installation of on-site renewable energy. Group purchasing can greatly reduce the costs of installing renewables by securing bulk purchasing discounts.				
B3.2	**Cross-departmental task force**	Develop a cross-departmental task force that works to address challenges related to land use code in siting renewable energy and other sustainability facilities in the city.				
B3.3	**Fuel switching pilot program**	Pilot a voluntary program that focuses on residential and commercial fuel switching from natural gas to electric.				
B3.4	**Green building training**	Educate City planning and permitting staff on codes and approaches for incentivizing decarbonization, such as through electric heat pumps. Update permitting process if needed to quickly review and flag decarbonization projects.				
B3.5	**Fuel switching contractor training**	Conduct contractor training and development of sales packages for building owners wanting to get off fossil fuels.				
B3.6	**Incentivize electrification**	Implement incentives such as expedited and free permitting for switching from fossil fuel (e.g., natural gas) to renewable electricity.				
B3.7	**All-electric new construction**	Evaluate natural gas consumption and emissions trends and explore incentives for all-electric construction. Consider restrictions on new natural gas hookups in developments and buildings under a phase-in schedule that considers technological feasibility, need based on community-wide emissions and pair with relevant exemptions.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy B4: Prepare the energy grid for future conditions.						
B4.1	**PSE smart grid technologies**	Partner with PSE to implement in Redmond their smart grid technologies meant to improve reliability and management of the grid.				
B4.2	**Energy storage**	Introduce a policy to streamline permitting and interconnection processes for energy storage projects.				
Strategy B5: Expand performance benchmarking and improvements.						
B5.1	**Energy use disclosure**	Require energy use disclosure and benchmarking for buildings, starting with commercial and multifamily buildings over a size threshold.				
B5.2	**Efficiency requirements above cost/sf threshold**	Require that all permitted residential and nonresidential building improvements over a square footage or cost threshold evaluate and enhance energy efficiency.				
B5.3	**Point-of-sale weatherization**	Introduce point-of-sale efficiency and performance standards for residential and commercial buildings, with affordable pathways for small businesses and lower and moderate-income households.				
B5.4	**Large commercial/ industrial efficiency and tune-up requirements**	Building on proposed WA state policy, develop a phased timeline when all existing non-residential commercial and industrial buildings over a square footage threshold must meet energy performance standards and implement efficiency upgrades and improvements that provide a positive return on investment.				



What You Can Do

FLIP THE SWITCH!

Switch off and unplug appliances when not in use. TVs, phone chargers, and computers use electricity even on standby, so remember to unplug them. Switching off and monitoring is becoming even easier with in-home apps and devices.

Related action(s):

- PSE smart grid technologies
- Green starter kits

POWER UP WITH RENEWABLES

Make your home or business fossil fuel free and powered by the sun, wind, or water. Rooftop solar panels or a PSE Green Direct subscription are great ways to power your home or business with clean energy. Find more information from Puget Sound Energy and local organizations such as Spark Northwest and Solar Washington.

Related action(s):

- Solar- and EV-ready infrastructure requirements
- Production incentive support
- Energy storage

OPTIMIZE YOUR HOUSEHOLD OR BUSINESS

Make your home or business tight, efficient, quiet, and comfortable. Proper insulation and air sealing can dramatically cut energy used to heat and cool buildings, while double and triple-paned windows and energy-efficient doors save even more. Installing programmable thermostats can bring additional energy savings by automatically adjusting your building's temperature.

Related action(s):

- PSE smart grid technologies
- Universal efficient building standard

Materials Management & Waste

What is included?

Although the disposal of solid waste only contributes approximately 2% of Redmond's community GHG emissions, the upstream impacts of goods and services we consume as a society can be significant. Because the City cannot directly influence how goods are produced outside of Redmond, diverting more waste away from the landfill is one of the most direct strategies Redmond can focus on to reduce the environmental impacts of the city's consumption. Furthermore, without current state and federal policies in place to incentivize waste reduction, action at the local level is especially impactful. Strategies and actions in this sector focus on managing and reducing waste generation, increasing waste diversion, and encouraging recycling and composting activities.

Materials Management and Waste Goal: Move towards more sustainable consumption and zero waste of resources.

How is Redmond doing?

KEY ACHIEVEMENTS

- The City participates in the **E-Cycle Washington** electronic waste recycling program.
- **All Redmond residential accounts have both recycling and yard waste composting** included with their garbage service at no additional charge.
- As of 2019, over 200 businesses and apartments/condo complexes participate in the City of Redmond's **commercial organics composting program**. This includes 12 schools, Redmond Town Center, 35 apartment/condo complexes, a senior living community, the farmer's market, a food bank, and City facilities.
- **Battery recycling** is available for the public at select City facilities.
- For participants in the Commercial and Multi-Family organics program, the City offers up to three 64-gallon **food recycling carts** at no charge. [12]
- The City practices **grass composting** at City Hall.In 2019, staff connected with 1,000 residents to **help keep food from going to waste**, including a public art "strawberry" made up of post-it pledges.
- In 2019, 64 businesses and multi-family properties utilized **City assistance to improve their recycling,** resulting in an increase of 25 tons of recycling per year.
- In 2019, the City of Redmond's **Derby Days Event achieved a 47% diversion rate**, meaning nearly half of the waste from the event was either recycled or composted.
- **Cooking oil recycling** is available to City residents at the Senior Center parking lot.**All City facilities** have both recycling and composting.

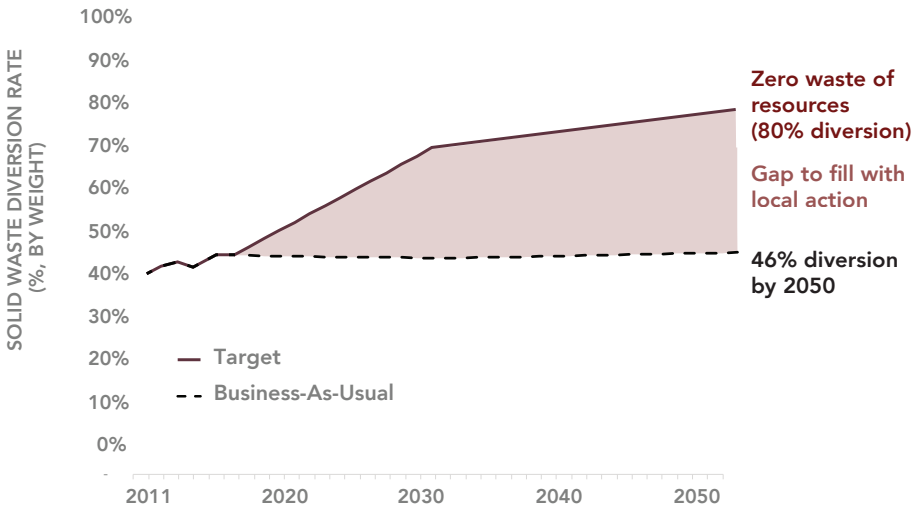
12 2018 Clean and Green Performance Measures

Key Performance Indicators

Performance Measure	Status	Historic Trend	Trend Insights
Community diversion rate *(% of waste recycled or composted)*	Improving		**Increasing.** Community diversion rate has increased from 40% to 45% from 2011 to 2017.
Solid waste GHG emissions *($MTCO_2e$)*	Improving		**Decreasing.** Solid waste GHG emissions have declined 5% between 2011 and 2017. Increases in community waste diversion may have contributed to this trend.
Commercial and multi-family complexes participation in organics service *(# of complexes)*	Improving		**Increasing.** Participation in organics service in commercial and multi-family sectors has increased 16% from 2011 to 2018.
Organic waste diversion *(tons diverted)*	Improving		**Increasing.** Organics waste diversion increased 50% from 2011 to 2018. Much of this increase is likely due to expanded outreach and offerings for customers.
Commercial garbage production *(weight of garbage generated per commercial employee)*	Improving		**Decreasing.** Commercial garbage production has generally decreased on a per-employee basis since 2011.
Residential garbage production *(average weight of garbage collected per single family account per week)*	Maintaining		**Maintaining.** Single family residents have reduced garbage production 10% since 2011.

Business As Usual: Where We're Heading

The community waste diversion rate is anticipated to remain fairly constant at 46% under the business-as-usual scenario. Due to a lack of policies at the state and federal level, the Redmond community will rely on local actions to achieve short- and long-term waste diversion goals.



Targets: Where We Want to Be

TARGET INDICATOR	TARGET VALUE	SOURCE/RATIONALE
Increase community waste diversion (% diversion)	70% waste diversion rate by 2030 Zero waste of resources (80%) by 2050*	King County 2019 Comprehensive Solid Waste Management Plan
Reduce solid waste GHG emissions ($MTCO_2e$)	50% reduction by 2030 42% reduction by 2050	Needed to meet overarching community GHG emission goal

*This goal may be refined in the future due to updates to regional zero waste and circular economy planning efforts.

Strategies: How We'll Get There

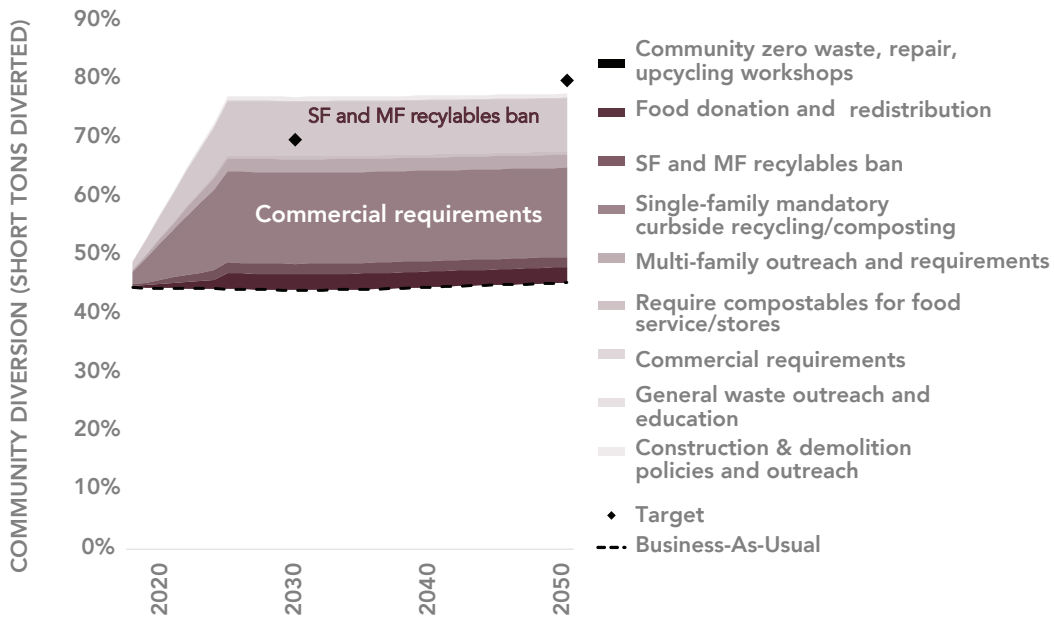
While solid waste related emissions account for only 2% of Redmond's communitywide GHG emissions, many solid waste actions offer environmental, economic, and social co-benefits. Upstream lifecycle impacts of goods and services we buy can be significant—especially for carbon-intensive products. Furthermore, actions such as rescuing edible food from the landfill and redistributing to food donation programs not only reduces methane emissions, but helps to address food insecurity in local communities.

Key phasing for transitioning to more sustainable management of solid waste include the following:

- **Expand incentives, education, and outreach** initially to ensure all sectors understand what can be recycled and methods for doing so properly.
- **Phase in mandatory separation and recycling requirements** to ensure achievement of target diversion rates.

Given these considerations and phasing, this plan sets forth the following high-level strategies for attaining materials management and waste goals and targets:

STRATEGIES	
M1	Increase diversion of community waste while reducing cross-contamination within waste streams (garbage, organics, recyclables).
M2	Reduce community waste generation (reduce waste, reuse, repurpose, and upcycle).
M3	Reduce waste and environmental impact from City purchasing and operations.
M4	Address construction and demolition (C&D) waste.



We estimate that implementing these strategies, in conjunction with external actions, could lead to a 77% diversion rate of community waste by 2030—exceeding the goal of 70% diversion by 2030. Key strategies for meeting this target include introducing recycling requirements for commercial properties and banning recyclables from the garbage for single family (SF) and multi-family (MF) properties.

Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy M1: Increase diversion of community waste while reducing cross-contamination within waste streams (garbage, organics, recyclables).						
M1.1	**Regional composting**	Work with K4C to develop a composting master plan to expand community and regional composting infrastructure.				
M1.2	**Multi-family outreach**	Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.				
M1.3	**New construction waste stream efficiency and opportunity**	Work with multifamily developers, owners and residents, as well as commercial buildings, to develop requirements for new construction to provide sufficient space and safety for recycling and food waste collection, along with garbage.				
M1.4	**Food donation**	Support a food donation program for grocery stores to send surplus food.				
M1.5	**Citywide compostables requirement**	Require compostable and paper disposables in restaurants and stores.				
M1.6	**Incentive based models**	Conduct comparative research to understand where other cities have had success with incentive-based models such as disposal fee.				
M1.7	**End use market for recyclables**	Partner regionally to bolster the market for recycled materials, to accommodate increased flows from implementation of diversion actions. Include options for addressing non-recyclable plastics.				
M1.8	**City recycle reuse**	Explore ways the City can recycle and reuse during its normal maintenance.				
M1.9	**Recyclables ban**	Prohibit disposal of targeted recoverable traditional recyclable materials and organics in single- and multi-family garbage.				
M1.10	**Commercial recycling requirements**	Require commercial property owners/managers to provide recycling and organics collection containers and service that are as convenient as garbage containers and adequate to serve the number of tenants.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
M1.11	**Mandatory curbside collection for residences**	Explore the introduction of mandatory curbside collection of recyclables and organics for all single and multi-family residences. Develop a right-sized program for Redmond.				
M1.12	**Solid waste disposal**	Encourage and assist exploration for sustainable solid waste disposal options to prepare for post-2040, in addition to expanding Cedar Hills.				
Strategy M2: Reduce community waste generation (reduce waste, reuse, repurpose, and upcycle).						
M2.1	**Waste reduction outreach**	Build and implement community outreach and education plans around proper waste reduction, recycling, composting, with a focus on food waste.				
M2.2	**Stewardship policies**	Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing.				
M2.3	**Community zero waste, repair, upcycling workshops**	Host zero waste, repair/reuse, or upcycling community workshops.				
M2.4	**Styrofoam policy and engagement**	Engage businesses that use styrofoam in Redmond. Explore styrofoam reduction through policy mandates and implement, as appropriate.				
M2.5	**Zero waste assistance**	Provide zero waste building planning assistance.				
Strategy M3: Reduce waste and environmental impact from City purchasing and operations.						
M3.1	**Reduce City landfill waste**	Provide composting and recycling at all City buildings and for all municipal operations, including specialized items.				
M3.2	**Increase use of electronic documents**	Enhance systems for electronic documentation and file sharing.				
M3.3	**City food waste recycling**	Continue food waste recycling at City Hall, the Maintenance and Operations Center, Public Safety Building, Senior Center, Teen Center, and all city fire stations.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
M3.4	Green purchasing/ procurement	Develop and enforce green City purchasing procedures and policies, including for green cleaning materials and support of end-use markets for recycled materials.				
M3.5	**Fleet hazardous waste**	Set a policy/goal for hazardous waste generated by the city's Purchasing and Fleet divisions (separate) to be zero or near zero.				
Strategy M4: Address construction and demolition (C&D) waste.						
M4.1	**Contractor outreach**	Conduct contractor outreach and job site technical assistance to encourage reduction, reuse, and recycling of C&D waste.				
M4.2	**C&D diversion requirements**	Develop comprehensive policies around C&D recycling and recovery. Prohibit disposal of recoverable C&D materials.				
M4.3	**C&D recycling service**	Require recycling service for C&D materials at all job sites.				
M4.4	**C&D reuse partnerships**	Coordinate with King County and area cities to develop end-use markets for recyclable/recycled C&D materials.				

What You Can Do

BUY SMART AND LESS

Buying smart, buying less, and buying local can significantly lower your environmental impact. When looking for new clothing, electronics, household goods, or electronics, prioritize items that are high quality, long-lasting, and repairable.

Related action(s):

- Waste reduction outreach
- Food donation

PURCHASE LOCAL

Purchasing locally helps support local businesses while promoting more sustainable consumption. By shopping locally, you cut down on travel miles needed to manufacture, ship, and purchase goods and services.

Related action(s):

- Waste reduction outreach
- Community zero waste, repair, upcycling workshops

BRING REUSABLE BAGS TO SHOP

Bringing your own bags and food containers can help reduce the waste associated with disposable plastic and paper bags and containers from grocery stores and restaurants.

Related action(s):

- Waste reduction outreach
- Stewardship policies
- Styrofoam policy and engagement

Natural Systems

What is included?

Sustainability priorities within the city's natural systems include protection and enhancement of native habitats and tree canopy and improvements to water quality, natural drainage systems, habitat quality, and green spaces. Increased urbanization paired with climate change will continue to threaten Redmond's natural systems by impacting their ability to provide water, stormwater treatment, recreation, and carbon sequestration. Redmond will leverage this plan to strategically preserve and enhance its natural systems by raising awareness about the important role of natural systems and fostering the connection between people and nature. Proper management of these systems can build community, enhance recreational opportunities, and ensure current and future generations have access to clean air, water, and habitat.

Natural Systems Goal: Enhance green space, tree canopy, habitat quality, biological condition of streams, and natural drainage systems.

How is Redmond doing?

KEY ACHIEVEMENTS

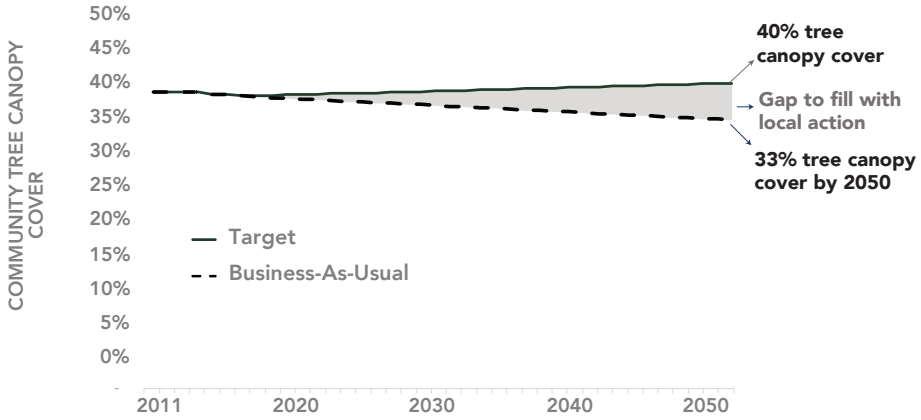
- The City hosts **Green Redmond Day,** where 11,000+ volunteers have cumulatively contributed over 33,000 hours of service. This program has resulted in almost 12,00 trees and 23,550 shrubs and small plants planted across 15 parks.
- Between 2013 and 2018, the annual number of **volunteer hours** performed for stewardship efforts **increased 37%** to 3,932 hours. Redmond has been continuously certified by the Washington State Department of Natural Resources as a **Tree City USA.**The City has 22 parks sites certified as **wildlife-friendly spaces** (Wildlife Habitat Certification).Mackey Creek and Clise Creek stream restoration to prevent flooding, enhance stream and buffer habitat.
- Bear Creek enhancement project at NE 95th Street to provide off-channel habitat for juvenile salmon and enhance instream and buffer habitat.
- Installed 37 log jams in Bear Creek at Keller Farm to improve habitat for adult and juvenile salmon.
- Removed fish barrier at Mackey Creek to provide upstream fish passage.
- Between 2013 and 2018, the City had **36% more acres enrolled in active management for restoration** and is currently focusing more effort on maintaining acres already enrolled versus enrolling new acres.
- The City cleaned **100% of stormwater catch basins** within six months of inspection. Periodic cleaning improves the ability to catch debris, enhances water quality, and ensures that stormwater is effectively drained.
- The City adopted the **Tree Canopy Strategic Plan** in 2019 that outlines strategies to achieve the 40% tree canopy coverage goal over the next 30 years.
- In 2013, the City completed a **Citywide Watershed Management Plan** that establishes a framework to guide actions to restore the City's surface waters based on a holistic approach to surface water management.

Key Performance Indicators

Performance Measure	Status	Historic Trend	Trend Insights
Tree canopy cover *(%)*	Worsening		**Declining.** Tree canopy cover declined from 38.7% to 38.1% since 2011—likely due to development of forested areas and increases in urban density.
Catch basins inspection *(# inspected)*	Improving		**Increasing.** Catch basin inspection and cleaning has increased 174% between 2013 and 2018**.** This is primarily due to regulatory requirements and operational efficiency.
Catch basin cleaning *(% of catch basins cleaned within six months of inspection)*	Improving		**Increasing.** In 2018, all NPDES stormwater catch basins that contained debris were cleaned.
Stormwater flow control *(% of area with adequate stormwater flow control)*	Improving		**Increasing.** Between 2013 and 2018, the City increased stormwater flow control by 5%. The City improved quality of infrastructure (e.g., vaults, ponds, infiltration facilities) being provided across the City to protect our urban streams and drainage systems from excessive erosion and flooding.
Stormwater flow water quality treatment *(% of area with adequate stormwater quality treatment)*	Improving		**Increasing.** Between 2011 and 2018, the percentage of the city having adequate runoff treatment increased from 32.63% to 38.88%.
Stream habitat quality *(% of stream length with good in-stream habitat)*	Maintaining		**Maintaining.** There has been a slight increase in the quality of in-stream habitat between 2011 and 2018.
Stream health *(% of streams that are considered healthy in an urban setting)*	Maintaining		**Maintaining.** A BIBI score of 36 or greater represents Redmond's indication of a healthy stream. In 2017, sampling methods changed to align with Ecology's protocol. Minor changes were made in 2018 to accurately reflect only core stream BIBI scores.

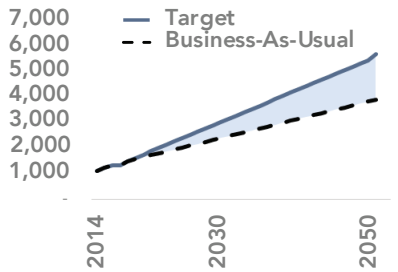
Business As Usual: Where We're Heading

Tree canopy cover is projected to steadily decrease in the business-as-usual scenario due to continued development and urban density.

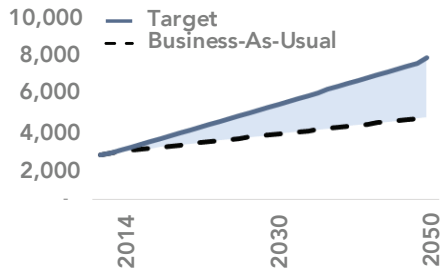


For the last few year, the City has been implementing stormwater projects that increase proportion of stormwater runoff in the city that recieves flow control and water quality treatment prior to flowing into surface water bodies. The trend over the past few years is slightly below where it needs to be to achieve the target of providing flow control and water quality treatment to 100% of the areas that need it by 2050. To reach the targets outlined in this plan, stormwater flow and and quality need to increase the number of acres retrofitted by over 1,800 and 2,800, respectively.

STORMWATER RETROFIT FOR FLOW



STORMWATER RETROFIT FOR QUALITY



Targets: Where We Want to Be

Targets for improving the city's natural systems are presented below. The tree canopy cover target is aligned with the Redmond Tree Canopy Strategic Plan. The B-IBI index targets are aligned with the Redmond Watershed Management Plan, last adopted in 2013. The B-IBI index targets may be refined in the future with Watershed Management Plan updates. The surface water quality index target and targets for stormwater retrofits for flow control and water quality treatment are aligned with the goals from the 2018 Redmond EUSD Core Services performance measures report. Based on scientific literature, and to reach our sustainability goals, Redmond is utilizing an accessible habitat and wetlands indicator.13 Accessible habitat is defined as the amount of habitat that can be reached from the wetland without crossing a human land use (e.g., roads, fields, and development). Some lower intensity human land uses such as parks do not completely isolate a habitat. As a result, low and moderate intensity land uses can still be categorized as accessible habitat. This addresses the issue that some lower intensity land uses do still provide habitat, but not the same level of habitat as undisturbed areas. The accessible habitat and wetlands target is based on reviewing the amount of habitat fragments within 0.2 miles of existing accessible habitat.

13 (Eigenbrod et al. 2008),

TARGET INDICATOR	TARGET VALUE	SOURCE/RATIONALE
Increase Tree canopy cover (%)	40% by 2049	Redmond Community Strategic Plan
***Increase BIBI index of four streams (Highest Restoration Watersheds)**	60 by 2050	Redmond Watershed Management Plan, Utilities Strategic Plan, and Community Strategic Plan
***Increase BIBI index of twelve streams**	60 by 2060	
Increase surface water quality index (# out of 100)	80	Existing Redmond target (stations scoring 80 and above generally meet expectations for water quality).
Stormwater retrofit for flow control (%)	100% by 2063	Established Redmond target
Stormwater retrofit for water quality treatment (%)	100% by 2063	
Accessible habitat and wetlands (acres)	2,600 by 2050	Assumes 25% of total city acreage meets definition of accessible habitat. Reflect connecting habitat fragments within 0.2 miles of existing accessible habitat, based on Washington State Wetland Rating System Criteria H 2.1

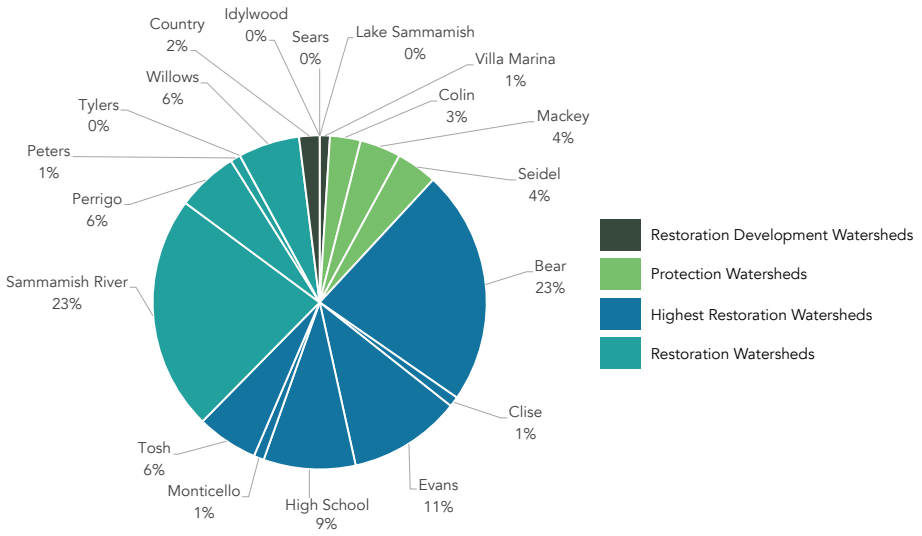
*These goals may be refined in the future due to updates to the Redmond Watershed Management Plan.

Strategies: How We'll Get There

This plan sets forth the following high-level strategies for attaining natural systems goals and targets.

STRATEGIES	
N1	Protect and enhance equitably accessible native habitats and open space and support local agriculture.
N2	Enhance resilience of natural areas and systems to climate change.
N3	Expand green infrastructure and associated services.
N4	Increase citywide tree canopy.

By implementing these strategies, we anticipate that Redmond will continue to maintain and enhance existing habitat quality and quantity through watershed restoration—improving the biological conditions of streams and increasing the amount of accessible habitat and wetlands. We estimate approximately 16% of the city area is accessible habitat. We expect that largest relative increases in accessible habitat will stem from the Bear, Sammamish River, and Evans, and High School watersheds because these watersheds have the highest quantity of existing habitat fragments within 0.2 miles of existing accessible habitat (see figure below).



Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy N1: Protect and enhance native habitats and open space and support local agriculture.						
N1.1	**Enforce critical areas code and regulations**	Strengthen, revise, and enforce codes for critical areas including, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, unstable slopes, and associated areas and ecosystems.				
N1.2	**Watershed approach for restoration**	Use watershed approach for habitat restoration planning and activities and update Redmond's Watershed Management Plan on a regular basis (plan states every 5 years).				
N1.3	**Urban agriculture expansion**	Partner with nonprofits, low income communities, and underrepresented communities to expand urban agriculture opportunities in community gardens, schools, and parks and on rooftops.				
N1.4	**Habitat protection zoning**	Support planning and zoning efforts that protect natural resources, including water resources, open space, and habitats.				
N1.5	**Community education and outreach**	Educate community on importance of local, native, and drought-tolerant habitats and planting.				
N1.6	**Urban forestry staff**	Hire additional staff to implement the goals and strategies associated with increasing canopy cover across the city and to update the 20-yr plan.				
N1.7	**Private development restoration requirements**	Require private development to address restoration issues onsite and explore options for enhanced requirements.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
N1.8	**Address developed areas that flood**	Establish development standards, prioritize habitat, establish ecosystem minimums for habitat development, and/or purchase areas for development and retrofit of developed areas that flood or have degraded habitat and water quality.				
Strategy N2: Enhance resilience of natural areas and systems to climate change.						
N2.1	**Forest Management Plan implementation**	Continue to make progress on and update the -20-year Forest Management Plan developed by the Green Redmond Partnership to restore and enhance natural areas, assess current urban forest health, and outline future urban forest goals and strategies.				
N2.2	**Drought/heat tolerant plantings**	Acquire plants grown from regional seed to support continued genetic diversity of native species and resilience of native habitat and soil and are able to be drought-tolerant, climate-adapted, and efficiently sequester carbon.				
N2.3	**Improve fish passage**	Remove barriers to fish migration and prevent the creation of new barriers.				
N2.4	**Green space access**	Implement the Parks, Arts, Recreation, Culture and Conservation (PARCC) Plan to ensure access to green space, with a focus on areas of poor or unequal access.				
N2.5	**Update critical habitat**	Update priority habitat corridors for preserving and enhancing critical habitat for wildlife and incorporate into departmental plans and codes such as critical areas.				
N2.6	**Drought-tolerant and lawn removal incentives**	Establish incentives/rebates for drought tolerant residential landscaping and removal of grass lawns.				
Strategy N3: Expand green infrastructure and associated services.						
N3.1	**IPM Plan for city owned properties**	Use Redmond Park's Integrated Pest Management (IPM) plan for city-owned properties.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
N3.2	**Environmental BMP & design standard implementation & enforcement**	Implement and enforce Environmental Best Management Practices & Design Standards on development and redevelopment projects.				
N3.3	**Proactively maintain stormwater infrastructure**	Proactively maintain stormwater infrastructure including pipes, catch basins, vaults, ponds, and swales.				
N3.4	**Stormwater capital improvement plan updates**	Update the stormwater capital improvement plan at least annually and implement the flood reduction, water quality improvement, and habitat enhancement CIPs according to the established schedule.				
N3.5	**Restore Redmond's watersheds**	Implement the recommendations of the Redmond's Watershed Management Plan.				
N3.6	**Update the City's Watershed Plan**	Update the Watershed Plan and utilize the best available science and technology to evaluate the previous plan's goals.				
N3.7	**Stormwater flow control retrofits**	Construct or retrofit stormwater flow control / infiltration facilities.				
N3.8	**Stormwater treatment retrofits**	Construct or retrofit stormwater runoff treatment facilities.				
N3.9	**Regional stormwater facilities plan**	Coordinate development of the City's urban centers with stormwater management improvements to meet the City's water quality goals, support new development that is required by the Growth Management Act, and do so in a cost-effective way.				
N3.10	**Drainage system resilience**	Prepare natural drainage systems for changes in precipitation patterns.				
N3.11	**Urban biodiversity mapping**	Inventory and map urban biodiversity for the prioritization of enhancement, protection, and re-connection.				
N3.12	**Stormwater retrofit incentives**	Plan, create incentives for, and support green stormwater retrofit projects such as rain gardens and other low-impact designs.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
N3.13	**Assess health of city-owned ROW trees**	Assess the health of natural systems for parks and ROW trees (urban forests will be part of 20-year plan). Develop goals, risk tolerances, and restoration strategies to manage tree species and canopy cover.				
Strategy N4: Increase citywide tree canopy.						
N4.1	**Planting in open space park lands**	Increase canopy on City property by planting open space areas in parks consistent with park master plans, street trees, riparian and restoration plantings.				
N4.2	**Reevaluate tree regulations**	Reevaluate tree regulations to protect existing canopy and to ensure trees are replanted with a "right sized tree." Develop best practices for tree health and maintenance.				
N4.3	**Tree canopy LiDAR dataset**	Acquire updated LiDAR dataset to reset canopy baseline.				
N4.4	**Neighborhood matching grants for tree canopy cover**	Encourage use of Neighborhood Matching Grants to maintain and increase canopy in neighborhoods, especially for low-cost or no-cost trees, where canopy is needed based on tree canopy plans for neighborhoods.				
N4.5	**Tree canopy policies**	Add new policies to the comprehensive plan describing the tree canopy goal, timeframe, and other key strategies that includes maintaining and updating canopy data and tracking tree removal and replacement.				
N4.6	**Targeted parcel acquisition**	Evaluate acquisition of forest parcels, especially in neighborhoods or zones with less canopy, to preserve current urban forest cover.				
N4.7	**Tree canopy dashboard**	Develop an outward facing dashboard that allows public to see tree canopy performance measures for stormwater, heating/cooling, air quality, public health, economic development and climate.				
N4.8	**Tree canopy plans for neighborhoods**	Work with neighborhoods in ongoing efforts to increase canopy and forest health in their neighborhoods.				

What You Can Do

GREEN YOUR YARD

Planting native plants and trees in your yard can help increase green space in your neighborhood, which can improve habitat quality and water quality. Participate in neighborhood initiatives to increase tree canopy in your community.

Related action(s):

- Community education and outreach
- Drought-tolerant and lawn removal incentives
- Drought/heat tolerant plantings
- Urban biodiversity mapping
- Tree canopy policies
- Neighborhood matching grants
- Tree canopy plans for neighborhoods

DON'T USE HARMFUL CHEMICALS IN YOUR YARD OR HOME

Using harmful pesticides in your yard may keep away the insects and pests, but these pesticides are likely to flow and affect surface water quality and groundwater quality. Try washing your car at a commercial car wash, on the lawn, or in an area that doesn't drain to surface water bodies

Related action(s):

- Community education and outreach
- Drainage system resilience
- Integrated pest management (IPM) plan for city owned properties

HELP YOUR COMMUNITY!

Redmond offers a variety of volunteer opportunities for anyone interested in caring for open space. Adopt a trail to clean up on a regular basis, try collecting native seeds, and keep an eye out for noxious weeds.

Related action(s):

- Reduce conservation obstructions
- Community education and outreach
- Urban agriculture
- Drought/heat tolerant plantings

Water Management

What is included?

Clean, safe, and reliable drinking water is critical to successful, growing communities. Redmond is fortunate to have ample supplies of water that, if protected and used in a sustainable manner, will last long into the future. Redmond is working to implement sustainable water resource management practices and regulations to achieve greater conservation and more efficient use of our water supply. Healthy water quality and a sustainable water supply depend on the entire community, from our municipal partners and utilities—who develop and approve infrastructure and policy—to the businesses and residents who use water resources. Water is a precious natural resource and the actions in this section will ensure that Redmond's future generations have clean and abundant water.

Water Management Goal: Protect and conserve water resource quality and quantity.

How is Redmond doing?

KEY ACHIEVEMENTS

- The City recently updated **groundwater protection areas** (Wellhead Protection Zones) and established updated Critical Aquifer Recharge Area (CARA) boundaries to enhance management of a clean water supply. The City conducts **quality testing and water level measurements** for approximately 100 monitoring wells, including testing of one third of monitoring wells for groundwater quality and collecting depth-to-water measurements semi-annually. The City **reduces pollution risks to the City's aquifer**. In 2018, inspection staff issued 21 spill kits, and six drainage maps; moved 2,366 gallons of hazardous materials to secondary containment, and removed 1,360 gallons of hazardous materials from sites.[7]
- **Artificial turf** has been installed at 100% of City-owned fields—saving precious water resources.The City offers **water conservation information and rebates** through Cascade Water Alliance. Offerings include toilet, showerhead, and irrigation retrofits and rebates, residential water audits, classes and consultants for professional landscapers, and incentive-based water pricing to promote water conservation.
- The City Parks Department utilizes a **centralized water control system** called Maxicom to monitor and control landscape irrigation. The City replaced annual planting beds with **drought-tolerant perennials**, transitioned to as-needed irrigation, and utilizes drought-resistant landscaping on City Hall Campus.

Key Performance Indicators

Performance Measure	Status	Historic Trend	Trend Insights
Pollution prevention site visits *(% of high-risk sites visited and provided technical assistance)*	Improving		**Increasing.** Pollution prevention efforts continue to reduce pollution risks to our aquifer. The number of high-risk sites visited and provided technical assistance rose sharply from 2013 to 2015 and has held at100% over the last four years. Increased awareness of risks to polluting water resources has resulted in an improved focus on implementation of pollution prevention BMPs.
Groundwater quality *(% of groundwater quality samples that meet Groundwater Quality Standards)*	Maintaining		**Maintaining.** Temporary construction dewatering activities affected groundwater flow patterns and source areas through mid-2019 causing locations not typically sampled under normal flow conditions to be monitored. A subset of wells that were sampled each year from 2016 showed a higher % of compliance. Monitoring wells above groundwater quality standards were impacted by metals.
Groundwater quality *(% of groundwater quality samples that meet Primary Drinking Water Standards)*	Maintaining		**Maintaining.** Primary drinking water standards are consistently met at most monitoring wells. Typical impacts are metals, less typical impacts have included total coliforms.
Aquifer recharge *(change in Aquifer Recharge Area)*	Declining		**Declining.** Recharging the City's aquifers is important to maintaining water supply. Additions of impervious area since 2013 has reduced recharge to our aquifer. Increasing use of pervious pavement and retrofits for infiltration of runoff are starting to slow the trend. Where feasible, the City promotes the use of infiltration systems to preserve and restore recharge.

Business-As-Usual: Where We're Heading

For the foreseeable future, about 40% of Redmond's drinking water will be supplied by our local groundwater system, with the remaining water resource coming from the Tolt Watershed in the Cascade Mountains. We will continue to emphasize protecting our groundwater resources from two challenges. First, when groundwater is not adequately recharged at the same rate it is pumped out of the ground, shortages can occur. Maintaining a sustainable infiltration rate in our urban areas not only protects our drinking water supply, but reduces potential for flooding and surface water pollution. Second, industrial and other potential groundwater contaminants are abundant in urban areas and when groundwater becomes contaminated, it can become unusable as a drinking water source for many years. Keeping contaminants out of the aquifer is essential and will require widespread participation in water quality protection actions.

In 2019, the City's supply wells pumped over one billion gallons from the aquifer. To supply these needs, the City of Redmond pumps almost 3 million gallons per day and purchases over 4 million gallons per day from the Cascade Water Alliance during the peak season. Community potable water consumption will continue to steadily increase with continued population and economic growth in King County and the Puget Sound region.Recognizing that water is vital for the prosperity of all life in the Puget Sound region as well as for a sustainable drinking water supply, stimulating efficient water use is a central part of Redmond's water resource management efforts. Any future reductions will largely be dependent on residential and commercial water reduction strategies such as water fixture upgrades, education programs, and increases in recycled water use. To reach more ambitious goals, Redmond should continue to expand regulatory requirements to become more stringent and implement operational efficiency upgrades. Redmond is a member of the Cascade Water Alliance (CWA) and some of these reductions may be addressed through participation in CWA's programs. During development of the Water Use Reductions Strategy, Redmond will consider whether to align with CWA conservation goals or take more aggressive water use reduction approaches.

Targets: Where We Want to Be

Redmond single-family residents are currently exceeding the national and Washington State averages for domestic residential water use (55 gallons per day per capita [GPDC] versus 82 GPDC and 101 GPDC, respectively). When other commercial and industrial uses are considered, Redmond is still exceeding national and Washington State averages (73 GPDC versus 81 GPDC and 120 GPDC, respectively). However, the more we continue to conserve, the more sustainable will be our supply.

As a member of Cascade Water Alliance, Redmond subscribes to their water efficiency savings goal, which calls for a cumulative savings of 0.6 million gallons per day on an average annual basis and 1 million gallons per day on an average peak season basis for the period 2014 through 2019. In addition to participating in Cascade Water Alliance efficiency savings programs and goals, Redmond plans to develop a water service area centric water consumption reduction goal. Redmond will take the first step in developing this goal by completing a comprehensive Water Use Reduction Strategy, which will specify the detailed water use reduction actions to expand on the broad strategies outlined in this plan. The Water Use Reduction Strategy will include evaluation of the appropriate GPDC target for implementation.

TARGET INDICATOR	TARGET VALUE
Reduce per-capita gallons of potable water consumed.	**Develop a comprehensive Water Use Reduction Strategy that identifies a quantitative target.**

Strategies: How We'll Get There

This plan sets forth the following high-level strategies for attaining water management goals and targets.

STRATEGIES	
W1	Achieve a secure and sustainable water supply that is equitable, affordable, and accessible.
W2	Conserve community water resource and maximize water efficiency savings.
W3	Protect quality and quantity of drinking water resources.

We anticipate that the identified strategies above will achieve the targets set in the Water Use Reduction Strategy. Additional strategies or actions may be identified in the Water Use Reduction Strategy and will further improve our commitment to a sustainable water supply. This includes developing a plan to have all public golf courses use recycled water for all irrigation, complete water fixture upgrades, utilize water-efficient landscaping practices, expand grey water reuse, and continue water conservation education and outreach programs.

Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy W1: Achieve a secure and sustainable water supply that is equitable, affordable, and accessible.						
W1.1	**Align with regional planning**	Ensure continued alignment of City water management actions with regional planning framework, City policies, sustainability practices, and state and federal environmental regulations.				
W1.2	**Climate risks to water availability**	Evaluate risks to water availability due to changes in precipitation patterns (more frequent drought conditions, high precipitation events, low recharge).				
Strategy W2: Conserve community water resource and maximize water efficiency savings.						
W2.1	**Community awareness program**	Conduct climate-science based community awareness programs for water conservation practices.				
W2.2	**Water-efficient landscaping**	Continue to install and implement water-efficient landscaping and practices for streetscapes (including traffic circles), park sites, City facilities, and City-maintained plantings.				
W2.3	**"One water" education**	Expand public education on water conservation and the "one water" concept that all water is reusable.				
W2.4	**New standards for resilience in water systems**	Study and determine if new standards need to be adopted to strengthen infrastructure to address increased flooding, such as larger bridges and culverts and other stormwater conveyance systems.				
W2.5	**Water Usage Reduction Strategy**	Create a Water Usage Reduction Strategy to provide the strategic framing for all other water efficiency strategies and actions.				
W2.6	**Grey water for irrigation**	Study code barriers and code/policy incentives for promoting greywater reuse over traditional irrigation. Establish a plan to upgrade irrigation controls and operational efficiency on City properties using grey water.				
W2.7	**Golf course recycled water**	Partner with King County to use recycled water for irrigation of golf courses. Develop a plan to have all public golf courses 100% irrigation with recycled water.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy W3: Protect quality and quantity of drinking water resources.						
W3.1	**Identify groundwater impacts**	Protect groundwater by identifying impacts to groundwater through inspection and education.				
W3.2	**Groundwater contamination management**	Refine a plan to manage existing groundwater contamination. Identify and address groundwater resources at risk. Include a monitoring and tracking program.				
W3.3	**Groundwater Monitoring Program**	Monitor groundwater monitoring well network to identify impacts to water quality and quantity early, monitor emerging contaminants, and provide an early warning to supply wells.				
W3.4	**Update TCD code**	Conduct a triple bottom line analysis of temporary construction dewatering (TCD) to determine policy options to reduce tensions between water resources management and compact growth.				
W3.5	**Septic/sewer system improvements**	Eliminate direct discharge into the stormwater system from the sanitary and private septic/sewer systems.				
W3.6	**Water efficiency standards**	Increase water efficiency and resiliency standards for new development such as requiring dual piping so new buildings are rainwater and reclaimed water ready.				
W3.7	**Irrigation water efficiency**	Revise City codes to promote greater irrigation water efficiency. Considerations could include rate change, irrigation standards, equipment upgrades, and scaling up properties.				
W3.8	**Septic elimination / sewer system expansion**	Encourage conversion from on-site wastewater disposal systems as sewer lines become available so that all septic systems in the city are eventually eliminated.				
W3.9	**Landscaping and irrigation standards**	Require drought-tolerant planting and efficient irrigation systems on all new development.				

What You Can Do

INSTALL EFFICIENT APPLIANCES AND FIXTURES

Install water-efficient toilets, showerheads, and faucet aerators. Before buying, check how much water and energy new appliances, faucets, and water heaters will use. Remember, cheaper up-front purchases could cost more in water and electricity bills over time.

Related action(s):

- Community awareness program
- Water usage reduction strategy

SAVE WATER AT THE TAP

Check all faucets, toilets, and showerheads for leaks. Have your irrigation system audited for leaks, broken equipment, overspray, or inefficient watering schedules.

Related action(s):

- Water-efficient landscaping
- Water usage reduction strategy

PRACTICE XERISCAPE LANDSCAPING

Xeriscaping is the process of landscaping or gardening that reduces or eliminates the need for additional water. Choose the right Northwest-friendly plants and watch them thrive in our environment. Group plants with the same watering needs together to avoid overwatering some while underwatering others. Try collecting water from your roof and directing the runoff to plants and trees.

Related action(s):

- Water usage reduction strategy
- Reuse education
- Water-efficient landscaping

Climate Change and Resilience

What is included?

Climate change has already impacted and will continue to threaten Redmond, King County, and the broader Puget Sound region. Warmer temperatures, shifting hydrology and precipitation regimes, more regional wildfires, and more intense and frequent extreme weather events will negatively impact the Redmond community and our neighbors, affecting our collective health, safety, economy, and environment for today and tomorrow. This section includes actions to collectively lower greenhouse gas emissions and build resilience to climate-related impacts.

Climate Change and Resilience Goal: Reduce communitywide GHG emissions and enhance community-wide resilience to climate impacts.

How is Redmond doing?

KEY ACHIEVEMENTS

- **Per-capita community GHG emissions have declined 4%** since 2011.
- **Redmond's municipal operations greenhouse gas emissions have decreased** overall since 2011. In 2017, total Redmond GHG emissions were among the lowest in the past seven years.[14] Current emission-reducing activities including, anti-idling campaigns, green purchasing policies, a bus pass program for City employees, and energy efficiency best practices.
- As a part of the **K4C partnership**, Redmond is supporting 2019 policy and legislative advocacy that include: comprehensive science-based limits, market-based price on carbon pollution, expansion of funding for public transit, green buildings, and renewable energy.[15]
- Several of **Redmond's programs and plans** address climate change issues. For example, the City's Geological Hazards Protection and Final Comprehensive Flood Hazard Management plans account for community safety during natural disasters.
- The City is a **member of ICLEI-Local Governments for Sustainability** and utilizes its ClearPath platform to **track and report GHG emissions** over time.

14 https://www.redmond.gov/665/Climate-Action-Plan
15 https://your.kingcounty.gov/dnrp/climate/documents/2019-K4C-Legislative-Interests.pdf

Key Performance Indicators

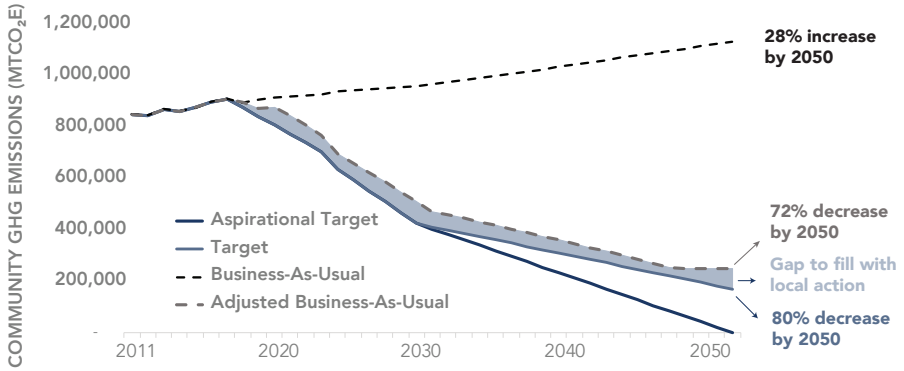
Performance Measure	Status	Historic Trend	Trend Insights
Community GHG emissions *($MTCO_2e$)*	Worsening		**Increasing.** Some progress, but 7% overall increase from 2011 to 2017.[16] Largely driven by population growth and building energy-related emissions, highlighting the need to focus on energy-related emission sources.
Per-capita community GHG emissions *($MTCO_2e$/capita)*	Improving		**Declining.** Between 2011 and 2017, per-capita emissions have declined 4%. This trend indicates that overall community GHG emission increases may be largely driven by population and economic growth in the city.
Municipal GHG emissions *($MTCO_2e$)*	Improving		**Declining.** Between 2011 and 2017 municipal GHG emissions declined 5%. The decline in emissions is largely driven by energy-efficient upgrades and reductions in fleet fuel consumption.[17]

16 Although Redmond has been tracking GHG emissions since 2008, 2011 was chosen as the base year for emissions trends forecasting and target setting due to disparities in transportation modeling approaches prior to 2010. The prior VMT model (prior to 2011) produced VMT estimates that are inconsistent with the per-capita VMT that would be expected for the King County region.

17 Data for 2013 were removed due to inconsistencies in Puget Sound Energy utility data that year.

Business As Usual: Where We're Heading

Despite projected population and economic growth in King County and the Puget Sound region ("Business-As-Usual" scenario), there will be an anticipated net decrease of GHG emissions, due largely to state requirements for electric utilities to phase out fossil fuel sources by 2045 and anticipated federal vehicle fuel economy standards ("Adjusted Business-As-Usual Scenario"). Local action will still be critical to meet long-term greenhouse gas emission reduction goals.



Targets: Where We Want to Be

The K4C collaboration—of which Redmond is a member—has a target of reducing GHG emissions by 50% and 80% by 2030 and 2050, respectively. While the 2014 Redmond Climate Action Implementation Plan did not commit a specific GHG emission reduction target, this plan presents the following recommended targets for Redmond greenhouse gas emissions, with an additional aspirational goal of achieving carbon neutrality by 2050, in line with Washington state GHG reduction targets.

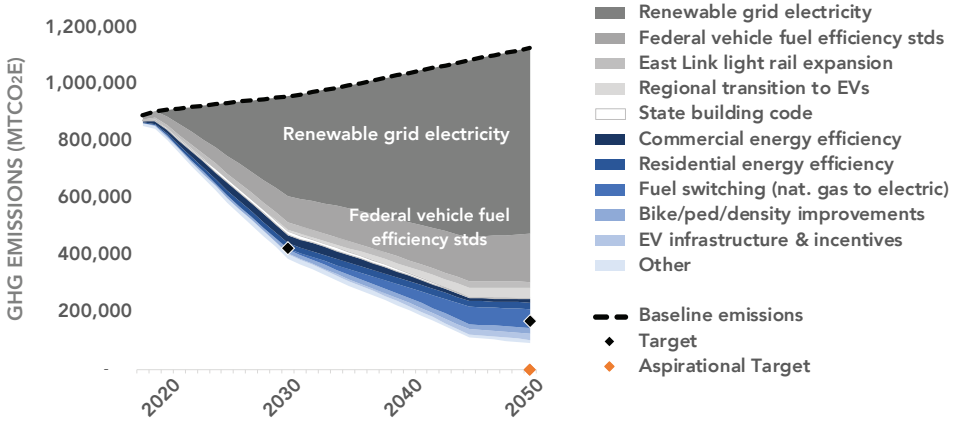
FOCUS AREA GOAL	SUB-GOAL	TARGET
Reduce GHG emissions and enhance communitywide resilience to climate impacts.	Reduce communitywide greenhouse gas emissions.	50% reduction by 2030 80% reduction by 2050 100% reduction (carbon neutrality) by 2050 – aspirational goal
Reduce municipal GHG emissions and enhance the City's resilience to climate impacts.	Reduce municipal greenhouse gas emissions.	50% reduction by 2030 100% reduction (carbon neutrality) by 2050

Strategies: How We'll Get There

This plan sets for the following high-level strategies for attaining climate change and resilience goals and targets. We recognize that this section is cross-cutting and spans multiple topic areas of sustainability, so strategies and actions in other focus areas of this plan will also contribute towards the goals, targets, and strategies in this focus area.

STRATEGIES	
C1	Ensure all City services and infrastructure are resilient to climate change impacts.
C2	Enhance resilience of populations that will be disproportionately impacted by climate change.
C3	Institutionalize consideration of sustainability and climate change across City activities and decision-making.
C4	Pursue cross-sectoral, communitywide solutions to address climate change and cross-cutting sustainability issues.

We estimate that implementing these strategies, in conjunction with anticipated external programs, policies, and trends, could reduce communitywide GHG emissions by almost 90% by 2050. More information about each of these emissions-reducing strategies are provided in their respective focus area sections (Transportation and Land Use, Buildings and Energy, and Materials Management and Waste).



Action Roadmap

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
Strategy C1: Ensure all City services and infrastructure are resilient to climate change impacts.						
C1.1	**Regional collaboration for utility resilience**	Participate in regional efforts that increase Redmond's capacity to respond to climate change impacts to City-run utility services.				
C1.2	**Reevaluate environmental BMPs and design standards for all City properties**	Build City buildings and infrastructure to be resilient to climate change (e.g. bridges, culverts, stormwater facilities, groundwater) through best management practices and design standards.				
C1.3	**Wildfire response**	Ensure local fire department has the equipment and training to manage wildfires.				
C1.4	**Backup power projects**	Identify and prioritize solar and microgrid power projects at critical City-owned facilities and at targeted districts.				
C1.5	**Wildfire mitigation planning**	Identify permanent funding from the City of Redmond to support forest health improvements to reduce wildfire risk and expand public awareness campaigns on wildfires.				
Strategy C2: Enhance resilience of populations that will be disproportionately impacted by climate change.						
C2.1	**Equity commitments**	Commit to climate policy through an equity lens. Reassess current City programs (including the actions in this plan) to evaluate and state equity goals in the face of climate change and sustainability issues.				
C2.2	**Vulnerability roadmap**	Conduct a communitywide climate vulnerability assessment to identify and implement resilience-building actions.				
C2.3	**Comprehensive vulnerability planning**	Ensure all City plans (e.g., Comprehensive Plan, Emergency Management Plan) account for vulnerable populations and communities.				
C2.4	**Impacts to communities of concern**	Ensure that the City provides opportunities to gather public feedback and understand the impacts of plan implementation on communities of concern.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
C2.5	**Disadvantaged workers**	Ensure contracts for City construction projects for energy efficiency, fuel conversion, and green energy provide opportunities for local hiring and disadvantaged worker employment.				
C2.6	**Critical areas resilience**	Evaluate and respond to impacts in Critical Areas due to larger storms and warmer, drier summer weather (steep slopes, wetlands, upland riparian areas, upland restoration areas, instream habitat, aquifer recharge areas).				
C2.7	**Neighborhood visioning & resilience hubs**	Support neighborhoods in the development of Neighborhood Visioning Plans. Plans should share sustainability findings and identify infrastructure such as corner stores to serve as "resilience hubs" that sustain neighborhoods in the event of an emergency.				
C2.8	**Severe weather building standards**	Develop building standards that include greater resistance to high winds and flooding.				
Strategy C3: Institutionalize consideration of sustainability and climate change across City activities and decision-making.						
C3.1	**Align budget with climate goals**	Align City budget decisions around climate mitigation and climate resiliency initiatives.				
C3.2	**GHG monitoring & dashboard**	Continue to benchmark, report, and regularly monitor community and municipal GHG emissions. Consider building a public-facing dashboard that includes information on Redmond's GHG emissions and personal carbon footprints.				
C3.3	**Leverage smart cities strategies**	Leverage the rollout of smart cities strategies to advance sustainability objectives and improve tracking, emissions reductions, and cost savings.				
C3.4	**Carbon neutrality plan for City operations**	Develop a plan for City operations to achieve carbon neutrality.				
C3.5	**Climate awareness for employees**	Build City employees climate change awareness in their role for considering climate impacts in their day-to-day decisions at work.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
C3.6	**Strategies to expand employee participation**	Develop a cross-departmental working group or program to expand participation in climate solution strategies and environmental sustainability programming among City staff by the Sustainability Manager.				
C3.7	**Climate consideration policy**	Implement a policy requiring all major City capital projects, procurements, and policies consider and attempt to mitigate climate change impacts, including contracting as possible with women & minority-owned businesses.				
C3.8	**City environmental sustainability ROI**	Develop and implement standard for creating project specific return-on-investment determinations for environmental sustainability throughout a project lifecycle.				
C3.9	**Economic ROI tools to encourage climate protection**	Create financial tools that capture the full lifecycle costs and benefits of City decisions, including the ROI of energy efficiency projects and the environmental costs of products and services.				
Strategy C4: Pursue cross-sectoral, communitywide solutions to address climate change and cross-cutting sustainability issues.						
C4.1	**Countywide commitment to renewable energy resources**	Build on existing state renewable energy commitments, including the Washington State Renewable Portfolio Standard (RPS), to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources.				
C4.2	**K4C financing opportunities**	Request K4C to hire a financial expert to develop strategies for King County and its cities and utilities to create financing opportunities for climate change mitigation and implementation projects (e.g., state and federal policy changes).				
C4.3	**EPA air quality standards**	Partner with Puget Sound Clean Air Agency to track and monitor Redmond's air quality and potentially reevaluate plans to ensure they align with 100% of US EPA National Ambient Air Quality Standards.				
C4.4	**K-12 education**	Support an educational agenda to enhance outreach and awareness efforts for K-12 schools on environmental stewardship and partner with organizations to help implement.				

#	Action	Description	Investment	Impact	Co-Benefits	Timeframe
C4.5	**Climate policy advocacy**	Advocate for climate policy at the state level.				
C4.6	**Climate awareness for residents**	Provide educational resources (e.g., GHG monitoring tools) and opportunities to help residents become aware of and engage in implementation of the Redmond sustainability initiatives.				
C4.7	**Youth sustainability ambassadors**	Train youth, through the school systems, to be youth sustainability ambassadors.				
C4.8	**Community check-ins**	Provide ample opportunities to engage the community around sustainability issues and needs, and incorporate feedback into ongoing sustainability programs and initiatives. Include periodic community surveys to solicit feedback and understand concerns, such as costs.				
C4.9	**Local carbon sequestration evaluation**	Evaluate the potential to sequester carbon through local projects, such as enhancing local tree canopy and green infrastructure, and implement actions to achieve further emission reductions.				
C4.10	**Environmental justice program**	Develop an environmental justice program that identifies the communities suffering from environmental burdens, such as air quality hotspots. Explore partners to work with to close the gap on these inequities and reduce burdens.				

What You Can Do

CONSUME LESS MEAT

According to the Intergovernmental Panel on Climate Change, eating less meat in your diet can reduce your carbon footprint by up to 35%. Reducing meat consumption is beneficial because livestock management is one of the biggest contributors to global GHG emissions.

Related action(s):

- Monitor GHG emissions
- K-12 Education

MEASURE YOUR GHG FOOTPRINT

You can stay informed by measuring and tracking your own GHG footprint. There are many different tools out there, including The Nature Conservancy's Carbon Footprint Calculator[18] and UC Berkeley's CoolClimate Carbon Footprint Calculator.[19]

Related action(s):

- Monitor GHG emissions
- Climate awareness for residents

JOIN NEIGHBORHOOD RESILIENCE GROUPS

Connecting with other residents in your neighborhood can increase social cohesion, which is a characteristic of resilient communities. Collective investments and support of local businesses can empower communities to be more resilient to future climate change.

Related action(s):

- Equity commitments
- Vulnerability roadmap
- Neighborhood resilience hubs
- Comprehensive vulnerability planning
- Climate awareness for residents
- Environmental justice program

18 https://www.nature.org/en-us/get-involved/how-to-help/carbon-footprint-calculator/
19 https://coolclimate.berkeley.edu/calculator

Implementation and Evaluation Planning

While the other sections of the ESAP outline an overarching pathway to meet Redmond's sustainability goals over the next 30 years, this section identifies the framework and near-term schedule for implementation efforts. The City's implementation activities will remain adaptive in an effort to remain responsive to changes in technology, available budget and grants, regional and local opportunities, and staff resources.

The Implementation section contains the following components:

- **Equity.** Key considerations and metrics the City will integrate into implementation activities to support Redmond's vulnerable and underserved populations.
- **Accountability and Collaboration.** An overview of the key partners and stakeholder groups to be formed to support ESAP implementation.
- **Funding Mechanisms.** A summary likely funding sources to support implementation activities.
- **Monitoring and Evaluation.** The City's framework for monitoring and evaluating ESAP progress and updating the plan as necessary.
- **Risks and Barriers.** An overview of potential risks and barriers that should be considered during implementation, such as affordability and engagement.
- **Near-Term Strategy and Proposed 2021-2022 Priorities.** A summary of key tasks to be accomplished in the first two years of ESAP implementation.

Equity

The City is committed to implementing the ESAP in an equitable manner that addresses Redmond's unique equity issues and concerns. The City has numerous programs and planning efforts underway to ensure Redmond is an inclusive and welcoming City for all, including its Human Services Commission and grant program, an internal Welcome Redmond committee, and the City's 2021 Comprehensive Plan update which identifies both equity and sustainability as core pillars of the City's vision for the future. The sections below identify opportunities to support equitable implementation of the ESAP.

When planning for implementation, the City should consider equity impacts and potential benefits. For example, the City of Portland developed the following equity considerations as part of their Climate Action Plan:

EQUITY CONSIDERATIONS	
Disproportionate impacts	Does the proposed action generate burdens (including costs), either directly or indirectly, to communities of color or low-income populations? If yes, are there opportunities to mitigate these impacts?
Shared benefits	Can the benefits of the proposed action be targeted in progressive ways to reduce historical or current disparities?
Accessibility	Are the benefits of the proposed action broadly accessible to households and businesses throughout the community — particularly communities of color, low-income populations, and minority, women and emerging small businesses?
Engagement	Does the proposed action engage and empower communities of color and low-income populations in a meaningful, authentic and culturally appropriate manner?
Capacity building	Does the proposed action help build community capacity through funding, an expanded knowledge base or other resources?
Alignment & partnership	Does the proposed action align with and support existing communities of color and low-income population priorities, creating an opportunity to leverage resources and build collaborative partnerships?
Relationship building	Does the proposed action help foster the building of effective, long-term relationships and trust between diverse communities and local government?
Economic opportunity & staff diversity	Does the proposed action support communities of color and low-income populations through workforce development, contracting opportunities or the increased diversity of city and county staff?
Accountability	Does the proposed action have appropriate accountability mechanisms to ensure that communities of color, low-income populations, or other vulnerable communities will equitably benefit and not be disproportionately harmed?

Equity Indicators

Progress toward advancing equity through implementation of the ESAP should be assessed as part of the monitoring and evaluation process. Specific criteria and indicators will be determined and formalized through the Comprehensive Plan update and ESAP implementation. Potential indicators include:

EQUITY PROCESS & OUTCOME INDICATORS	
Transportation Cost Burden	Median household transportation costs as a percentage of median household income
Access to Public Transit	Percent of population within 1/2 mile of transit
Energy & Housing Cost Burden	Percent of population with disproportionate energy/ housing costs as a percentage of household income
Infrastructure	Number of solar and wind installations, by neighborhood
Economic Development and Jobs	New, local green jobs created, by demographic group
Housing	Number of community workforce agreements for sustainability-focused redevelopment projects
Food Security	Number of households identified as food insecure
Emergency Management	Emergency shelter availability/capacity/access
Planning and Decision Making	Number of healthcare and mental health facilities

Accountability and Collaboration

Implementation of the ESAP will require even greater participation and engagement from a diverse range of community stakeholders working collaboratively to create a more sustainable community. As the City moves from ESAP development to implementation, key partners will include internal and external advisory groups, and partnerships with key organizations across the community.

ESAP Advisory Committee

The City will build on the work of the ESAP Stakeholder Working Group and transition to an ESAP Advisory Committee (Advisory Committee). This will ensure a forum is in place for community engagement and oversight of ESAP implementation. The Advisory Committee will include a diverse stakeholder group that represents Redmond residents and business community with interest, experience, or expertise on environmental/sustainability-relevant topics or related policy work; and represent key community or civic organizations that may play a role in implementation.

The Advisory Committee will meet quarterly to advise the City on topics such as:

- Providing recommendations regarding progress and implementation of key actions within the plan.
- Ensuring that the ESAP stays up to date over time, with a focus on the five-year plan update cycle.
- Reviewing and making recommendations as part of the GHG inventory update process.

City Sustainability Team

The City will form an internal City Environmental Sustainability Action Team (Sustainability Team) to assist in coordinating implementation of the plan actions. The Sustainability Team will include representatives from key departments across the City and will be led by the Sustainability Program Manager. The team will meet quarterly to facilitate information sharing, streamline implementation activities, support monitoring and measurement activities, and embed sustainability expertise throughout the City.

Key Partners

Implementation of the ESAP relies on collaboration and partnerships with internal and external stakeholders, agencies, and organizations to help meet Redmond's ambitious sustainability goals. The City will continue to work with key partners in the community and across the state, as it cannot achieve its goals alone. The City will focus first on education and outreach with local community groups to implement ESAP strategies. Engaging with our key partners will be critical in determining the scope, reach, and scale of actions. We will work to understand the barriers and additional considerations needed for implementation. City staff can identify projects that align with both ESAP goals and community investment goals, and work to maximize the cost and impact. Relationships with existing community groups are essential to effectively implement strategies, address equity, and spread awareness.

As noted in the Implementation Matrix in Appendix A, as the City moves from ESAP planning to implementation, key stakeholders and partnerships include, but are not limited to:

- Cascade Water Alliance
- Hope Link
- King County-Cities Climate Collaboration
- MasterBuilders Association
- Microsoft
- Natural and Built Environment
- Nelson Legacy Group
- Olympian Precast OneRedmond
- Redmond Parks and Trail Commission Pedestrian Bicycle Advisory Committee
- People for Climate Action-Redmond Redmond Planning Commission
- Postdoc Brewery Protetron Circuits PTSA Redmond High School & Wilder ElementaryPuget Sound Energy
- RYPAC
- Sound TransitStudent Sustainability Ambassadors
- Sustainable Redmond
- Waste Management

Accountability

Adoption of this Environmental Sustainability Action Plan demonstrates the City's commitment to addressing the challenge of climate change and sustainability in the Redmond community. Establishing a more formal City commitment to ESAP goals, such as through an ordinance, would be seen by many as reinforcing the importance of this plan and could help ensure implementation of ESAP actions and measurable progress toward meeting ESAP goals over time. A formal commitment can also be a considerable asset in the pursuit of grant funds and other funding sources to assist in the implementation of the plan.

Funding

This ESAP will not be implemented in its entirety all at once; it will take time, investment, and ongoing work within the community.

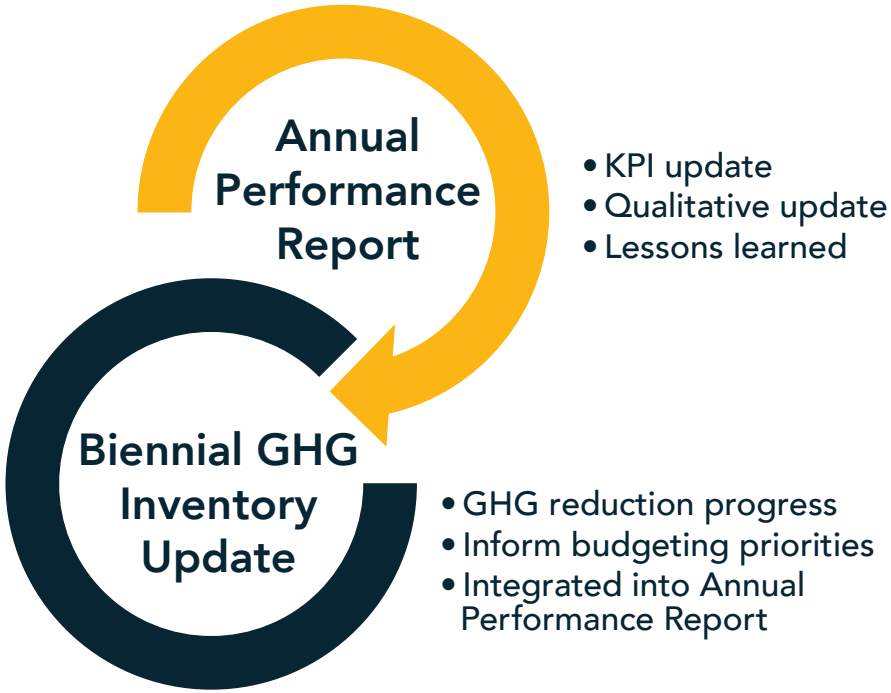
Current and potential funding sources include:

- City general fund
- Solid Waste Utility revenues
- Stormwater Utility revenues
- Water Utility revenues
- Federal and state grants
- Revolving loan funds
- Community foundation and other philanthropic grant opportunities
- Newly identified funding sources

Monitoring and Evaluation

City staff will conduct ongoing monitoring, evaluation, and reporting on ESAP implementation to transparently track progress towards overall goals and targets. This is a critical element of the City's implementation approach and ensures programs and activities are best serving the community and supporting progress towards the City's sustainability targets. The City will leverage two key mechanisms to monitor progress, including public annual progress and evaluation reports and biennial GHG inventory updates. These efforts will inform the periodic review and refresh of the ESAP, which will be completed every five years.

Key Elements of the City's Ongoing Monitoring and Evaluation Framework



Annual Progress Evaluation and Reports

The City will complete annual progress updates which will include qualitative descriptions of progress toward implementation of actions within the plan, coupled with quantitative updates on key performance indicators (KPIs) to track progress towards goals and target outcomes of the plan. Examples of KPIs include community electricity and natural gas consumption, vehicle miles traveled, and waste diversion rates. The majority of indicators will be updated annually, although some indicators may be updated less frequently depending on how often new data is available.

City staff will publish annual progress reports for City Council and the public to highlight achievements made over the past year, track progress towards targets, review barriers, and other relevant updates. Progress reports will include a detailed update of KPIs and strategy level progress updates. Monitoring KPIs will help track progress on ESAP actions and highlight areas where the City is tracking towards its goals or increased programming may be necessary.

To facilitate a process of continuous improvement, the City will hold annual Sustainability Team meetings to identify goals, review progress, and identify course corrections and next steps. The City Sustainability Team will then develop work plans to support ongoing progress towards plan goals and inform budget offers.

BIENNIAL GHG EVALUATION & IMPLEMENTATION PLANNING

The City will complete comprehensive GHG inventory updates to provide the high-level view of the Redmond's emissions and provide an overall update on progress towards GHG reduction goals. GHG inventories not only inform progress towards meeting reduction targets, but also highlight areas that need additional action. The comprehensive GHG inventory will be completed every two years, and will be integrated into the annual progress reports to inform Sustainability Team work plans and identify and align funding needs with the budgeting process.

City staff will publish annual progress reports for City Council and the public to highlight achievements made over the past year, track progress towards targets, review barriers, and other relevant updates. Progress reports will include a detailed update of KPIs, emissions analysis, and strategy level progress updates. Monitoring KPIs will help track progress on ESAP actions and highlight areas where the City is tracking towards its goals or increased programming may be necessary.

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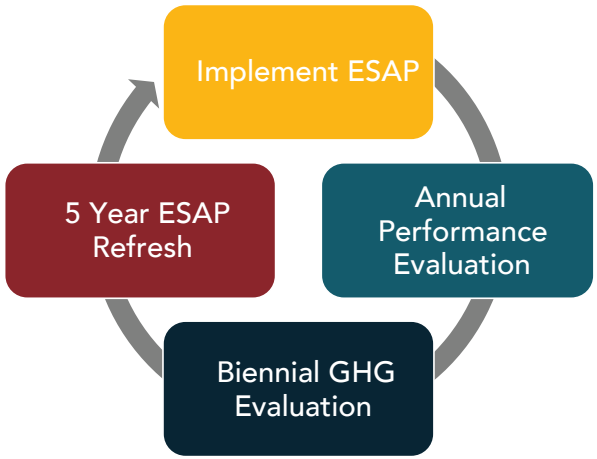


PERIODIC ESAP REFRESH

This ESAP was designed to be a living document. The strategies and actions in this foundational ESAP reflect the latest available technologies and best practices in the sustainability and climate action and adaptation field. However, to continue meeting the goals of this plan effectively, the Redmond community must have the ability to adapt as new technologies change and best practices evolve.

The results of the GHG monitoring and evaluation of actions using key performance indicators will be used to inform the ESAP updates. The ongoing monitoring and evaluation practices will reveal what is working, what is not working, and what course corrections may be warranted. Updating the ESAP every five years will allow Redmond to adaptively manage its sustainability actions and ensure that the plan continues to optimally serve the community.

Risks and Barriers

Funding and budget. To ensure that the ESAP does not add undue financial burdens for Redmond's communities, Redmond must employ creative funding sources and take advantage of evolving markets and technology. The strategies and actions of this ESAP will also require funding over the entire course of implementation, creating a competing demand on City and community resources. The costs must be weighed against the long-term consequences of inaction.

Leverage existing policies. Much of Redmond's sustainability and greenhouse gas emission goals will be achieved by working with energy, transportation, water, and solid waste related markets and businesses, and not against them. The City acknowledges that there were barriers in engaging with local businesses and understands the significant impact of regulations and policies—especially on the small business community. In order to meet the goals and targets in the ESAP, Redmond must depend on state policies, such as the Clean Energy Transformation Act (CETA), and cultivate partnerships with businesses, community groups, regional agencies, and utilities.

Affordability. To avoid potential risks around affordability, Redmond will build its partnerships and prioritize education and outreach before implementing significant policy. The City can help residents and businesses take advantage of tax credits, remove regulations inhibiting new technology, and help with up-front financing. Additionally, the City must look at investing in change at key leverage points, such as during construction, which reduces the cost of action. Redmond will continue to embrace innovation and creativity and work with local partners to help mitigate potential risks and barriers to the community.

Coordination with other plans. This plan overlaps with many other City plans; identifying common goals should be the highest priority. Close collaboration will highlight when seemingly unrelated projects have sustainability impacts, or where small investments can yield large returns. While environmental sustainability is a long-term, complicated endeavor, creative solutions will ensure that the benefits outweigh the costs.

Near-Term Strategy and Proposed 2021-2022 Priorities

The focus for the first two years of implementation will be on establishing the institutional foundation for plan implementation and taking initial steps on key priority actions. Early priorities include:

- **Formation of the ESAP Advisory Committee** to receive guidance and oversight of plan implementation and future plan updates as described in the plan.
- **Creating an internal City Environmental Sustainability Action Team** to assist in coordinating the implementation of plan actions.
- **Identifying and pursuing potential funding sources** for individual actions and identify additional funding needs and opportunities for ongoing plan implementation.
- Determining and formalizing Redmond's approach to **incorporating equity considerations** into plan implementation.
- **Developing and launching an online platform** to educate the public about the plan.
- **Commencing priority near-term** ESAP actions (outlined in the following section).

Proposed 2021-2022 Key Actions

This ESAP includes over 100 ongoing or near-term actions to be implemented during the first five years in order to establish a strong foundation for sustainability programming. Given the economic challenges and uncertainty due to the COVID pandemic, the City developed a near-term implementation plan which includes the proposed actions the City will undertake over the next two years. It also identifies the lead department within the City that will work with internal and external stakeholders to implement the respective action. In total, the City 2021-2022 Implementation Plan include approximately 47 actions that are already underway, about 13 new actions to begin in year one, and 20 new actions in year two, pending budget approval . Identified actions meet one or more of the following criteria:

- **Already underway**. Actions that are already planned for or currently underway.
- **Easy, early wins**. Relatively straightforward actions that demonstrate sustainability and help the City hit the ground running on making progress toward sustainability goals.
- **Foundational steps**. Actions that set the stage or guide direction for other actions.
- **Complex, but important initiatives**. Actions that will make a big difference but may be challenging or resource intensive to implement, so getting started as early as possible will be important.
- **Windows of opportunity**. Actions that align with or could synergize with other City plans, projects, or initiatives, and so should be implemented concurrently.

Many actions identified below can be implemented with existing staff capacity and baseline budgets, but multiple new and expanding actions will require increased investment and staff resources. The actions outlined below that require funding have been integrated into the proposed 2021-2022 budget offers. Adjustments to budget and staffing levels will impact the City's ability to implement these actions over the next two years and the final 2021-2022 implementation plan will be adjusted to align with the adopted budget and new grant funding opportunities.

Proposed Key Actions

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
Building & Energy – Ongoing Actions				
B1.2	**Support/advocate for new codes**	Work with advocacy organizations and Regional Code Council (RCC) to support and implement state energy code advancement.	Ongoing	Planning - Building
B2.1	**Financing for energy efficiency**	Assess various options for financing and grants to energy efficiency projects for municipal buildings.	Ongoing	Parks - Facilities
B2.2	**Energy and water retrofits**	Continue to implement energy and water conservation retrofits and operational improvements for municipal facilities, streetlights and traffic signals, and pump stations.	Ongoing	Parks - Facilities Public Works (multiple groups)
B2.3	**Facilities Strategic Maintenance Plan**	Coordinate and implement recommendations from the Facilities Strategic Plan that support sustainability. Evaluate option for an internal Revolving Fund as a dedicated source of capital, funded by savings from energy efficiency upgrades.	Ongoing	Parks - Facilities
B2.4	**Resource Conservation Management Plan**	Develop a Resource Conservation Management Plan and general government policy to guide energy efficiency investments, operations, and behaviors in City facilities.	Ongoing	Parks - Facilities
B4.1	**PSE smart grid technologies**	Partner with PSE to implement in Redmond their smart grid technologies meant to improve reliability and management of the grid.	Ongoing	Executive - Sustainability Manager
B1.1	**Production incentive support**	Support Washington State renewable energy production incentives that encourage the development of residential and commercial solar and other distributed generation and storage projects.	Ongoing	Executive - Sustainability Manager
B2.5	**Information technology improvements**	Implement solutions to reduce energy demand from the City's IT infrastructure.	Ongoing	TIS
Climate Change & Resilience – Ongoing Actions				
C2.1	**Equity commitments**	Commit to climate policy through an equity lens. Reassess current City programs (including the actions in this plan) to evaluate and state equity goals in the face of climate change and sustainability issues.	Ongoing	Planning – Human Services
C3.1	**Align budget with climate goals**	Align City budget decisions around climate mitigation and climate resiliency initiatives.	Ongoing	Finance
C3.2	**GHG monitoring & dashboard**	Continue to benchmark, report, and regularly monitor community and municipal GHG emissions. Consider building a public-facing dashboard that includes information on Redmond's GHG emissions and personal carbon footprints.	Ongoing	Executive - Sustainability Manager

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
C4.1	**Countywide commitment to renewable energy resources**	Build on existing state renewable energy commitments, including the Washington State Renewable Portfolio Standard (RPS), to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources.	Ongoing	Executive - Sustainability Manager
C4.2	**K4C financing opportunities**	Request K4C to hire a financial expert to develop strategies for King County and its cities and utilities to create financing opportunities for climate change mitigation and implementation projects (e.g., state and federal policy changes).	Ongoing	Executive - Sustainability Manager
C4.5	**Climate policy advocacy**	Advocate for climate policy at the state level.	Ongoing	Executive
C3.3	**Leverage smart cities strategies**	Leverage the rollout of smart cities strategies to support projects that improve sustainability tracking, emissions reduction, and cost savings related activities.	Ongoing	TIS
C1.1	**Regional collaboration for utility resilience**	Participate in regional efforts that increase Redmond's capacity to respond to climate change impacts to City-run utility services.	Ongoing	Public Works - EUSD
C4.4	**K-12 Education**	Support an educational agenda to enhance outreach and awareness efforts for K-12 schools on environmental stewardship and partner with organizations to help implement.	Ongoing	Public Works - EUSD Parks - Recreation Executive - Sustainability Manager
Materials Management & Waste – Ongoing Actions				
M3.3	**City food waste recycling**	Continue food waste recycling to City Hall, the Maintenance and Operations Center, Public Safety Building, Senior Center, Teen Center, and all city fire stations.	Ongoing	Public Works - EUSD
M1.2	**Multi-family outreach**	Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.	Ongoing	Public Works - EUSD
M1.3	**New construction waste stream efficiency and opportunity***	Work with multifamily and commercial developers, owners and residents to develop requirements for new construction to provide sufficient space and safety for recycling and food waste collection, along with garbage.	Ongoing	Public Works - EUSD
M3.1	**Reduce City landfill waste**	Provide composting and recycling at all City buildings and for all municipal operations, including specialized items.	Ongoing	Public Works - EUSD
M1.1	**Regional composting**	Work with K4C to develop a composting master plan to expand community and regional composting infrastructure.	Ongoing	Public Works - EUSD
M2.2	**Stewardship policies**	Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing	Ongoing	Public Works - EUSD
M2.1	**Waste reduction outreach**	Build and implement community outreach and education plans around proper waste reduction, recycling, composting, with a focus on food waste.	Ongoing	Public Works - EUSD
M3.2	**Increase Use of Electronic Documents**	Enhance systems for electronic documentation and file-sharing.	Ongoing	TIS

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
Natural Systems – Ongoing Actions				
N2.2	**Drought/heat tolerant plantings**	Acquire plants grown from regional seed to support continued genetic diversity of native species and resilience of native habitat and soil and are able to be drought-tolerant, climate-adapted, and efficiently sequester carbon.	Ongoing	Parks - Operations
N2.1	**Forest Management Plan implementation**	Continue to make progress on and update the 20-year Forest Management Plan developed by the Green Redmond Partnership to restore and enhance natural areas, assess current urban forest health, and outline future urban forest goals and strategies.	Ongoing	Parks - Operations
N4.1	**Planting in open space park lands**	Increase canopy on City property by planting open space areas in parks consistent with park master plans, street trees, riparian and restoration plantings.	Ongoing	Parks - Operations
N2.4	**Green space access**	Implement the Parks, Arts, Recreation, Culture and Conservation (PARCC) Plan to ensure access to green space, with a focus on areas of poor or unequal access.	Ongoing	Parks - Planning
N3.1	**IPM Plan for city owned properties**	Use Redmond Park's Integrated Pest Management (IPM) plan for city-owned properties.	Ongoing	Parks - Facilities Public Works - EUSD
N1.1	**Enforce critical areas code and regulations**	Strengthen, revise, and enforce codes for critical areas including, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, unstable slopes, and associated areas and ecosystems.	Ongoing	Planning - Building Public Works - EUSD
N3.2	**Environmental BMP & design standards implementation & enforcement**	Implement and enforce Environmental Best Management Practices & Design Standards on development and redevelopment projects.	Ongoing	Public Works - EUSD Planning - CDI
N4.4	**Neighborhood matching grants for tree canopy cover**	Encourage use of Neighborhood Matching Grants to increase canopy in neighborhoods, especially for low-cost or no-cost trees, where canopy is needed based on tree canopy plans for neighborhoods.	Ongoing	Planning - Division Public Works - EUSD
N4.2	**Reevaluate tree regulations**	Reevaluate tree regulations to protect existing canopy and to ensure trees are replanted with a "right sized tree." Develop best practices for tree health and maintenance.	Ongoing	Planning - CDI
N3.3	**Proactively maintain stormwater infrastructure**	Proactively maintain stormwater infrastructure including pipes, catch basins, vaults, ponds, and swales.	Ongoing	Public Works - EUSD
N3.4	**Stormwater capital improvement plan updates**	Update the stormwater capital improvement plan at least annually and implement the flood reduction, water quality improvement, and habitat enhancement CIPs according to the established schedule.	Ongoing	Public Works - EUSD
N2.3	**Improve fish passage**	Remove barriers to fish migration and prevent the creation of new barriers.	Ongoing	Public Works - EUSD

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
N4.3	**Tree canopy LiDAR dataset**	Acquire updated LiDAR dataset to reset canopy baseline.	Ongoing	TIS - GIS Parks
Transportation & Land Use – Ongoing Actions				
T3.2	**Advanced clean car standards**	Continue to support the State in adopting clean vehicle standards.	Ongoing	Executive - Sustainability Manager
T2.1	**Downtown Redmond parking**	Implement Downtown Strategic Parking Management Plan's Conditions Report subsequent phases to evaluate parking needs and management.	Ongoing	Planning - Long Range Planning
T1.3	**Multimodal transit/facilities**	Partner with transit agencies to maintain and enhance multimodal transit services and related facilities, including better first/last mile access to transit and preparing for opening of Link Light Rail.	Ongoing	Planning - TP&E
T3.1	**Freight VMT/idling**	Identify and implement opportunities for reducing freight VMT and idling, especially from delivery trucks.	Ongoing	Planning - TP&E
T1.1	**Implement Growth and Transportation Efficiency Center program**	Develop a framework and implementation plan for the City's Growth and Transportation Efficiency Center (GTEC) program in order to integrate TDM actions with infrastructure improvements, facilitate growth, and maximize the efficiency of transportation infrastructure.	Ongoing	Planning - TP&E
T1.7	**Improve student alternative transport**	Improve alternative transportation options for local schools.	Ongoing	Planning - CDI
T1.6	**Mobility data publication**	Continue to refine and improve mobility for all targets and data tracking systems. Make the programs and data available for the public.	Ongoing	Planning - TP&E
T1.4	**Pilots for trip reduction**	Continue piloting trip reduction initiatives such as app-based carpooling and scooter/bike share.	Ongoing	Planning - CDI & TP&E
T1.5	**Reevaluate TDM performance measures**	Reevaluate and revise TDM performance measures as needed to ensure they are directly linked to Redmond's livability and sustainability, and affordability.	Ongoing	Planning - Division
T4.1	**Municipal fleet conversion**	Continue implementing the Green Fleet Purchasing Policy.	Ongoing	Public Works and Fire Fleets
Water Management – Ongoing Actions				
W1.1	**Align with regional planning**	Ensure continued alignment of City water management actions with regional planning framework, City policies, sustainability practices, and state and federal environmental regulations.	Ongoing	Public Works - EUSD
W2.1	**Community awareness program**	Conduct climate-science based community awareness programs for water conservation practices.	Ongoing	Public Works - EUSD
W3.2	**Groundwater contamination management**	Refine a plan to manage existing groundwater contamination. Identify and address groundwater resources at risk. Include a monitoring and tracking program.	Ongoing	Public Works - EUSD

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
W3.1	**Identify groundwater impacts**	Protect groundwater by identifying impacts to groundwater through inspection and education.	Ongoing	Public Works - EUSD
W3.4	**Update TCD code**	Conduct a triple bottom line analysis of temporary construction dewatering (TCD) to determine policy options to reduce tensions between water resources management and compact growth.	Ongoing	Public Works - EUSD
W2.2	**Water-efficient landscaping**	Continue to install and implement water-efficient landscaping and practices for streetscapes (including traffic circles), park sites, City facilities, and City-maintained plantings.	Ongoing	Parks - Operations
Building & Energy – Year 1 Actions				
B3.2	**Cross-departmental task force**	Develop a cross-departmental task force that works to address challenges related to land use code in siting renewable energy and other sustainability facilities in the city.	Year 1	Executive - Sustainability Manager
B3.4	**Green building training**	Educate City planning and permitting staff on codes and approaches for incentivizing decarbonization, such as through electric heat pumps. Update permitting process if needed to quickly review and flag decarbonization projects.	Year 1	Executive - Sustainability Manager Planning
B3.2	**Cross-departmental task force**	Develop a cross-departmental task force that works to address challenges related to land use code in siting renewable energy and other sustainability facilities in the city.	Year 1	Executive – Sustainability Manager
B3.3	**Fuel switching pilot program**	Pilot a voluntary program that focuses on residential and commercial fuel switching from natural gas to electric.	Year 1	Executive – Sustainability Manager
B1.5	**Green certification incentives**	Reevaluate, promote, and incentivize through zoning code green certification programs for commercial and multi-family buildings and development, including Built Green, LEED, and Salmon-Safe Urban Development Certification.	Year 1	Planning - CDI
Climate Change & Resilience – Year 1 Actions				
C2.4	**Impacts to communities of concern**	Ensure that the City provides opportunities to gather public feedback and understand the impacts of plan implementation on communities of concern.	Year 1	Executive - Sustainability Manager
C2.2	**Vulnerability roadmap**	Conduct a communitywide climate vulnerability assessment (e.g. urban heat islands, air pollution) to identify and implement resilience-building actions.	Year 1	Executive - Sustainability Manager
C3.4	**Carbon neutrality plan for City operations**	Develop a plan for City operations to achieve carbon neutrality.	Year 1	Executive - Sustainability Manager

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
C3.5	**Climate awareness for employees**	Build City employees climate change awareness in their role for considering climate impacts in their day-to-day decisions at work.	Year 1	Executive - Sustainability Manager
C3.6	**Strategies to expand employee participation**	Develop a cross-departmental working group or program to expand participation in climate solution strategies and environmental sustainability programming among City staff by the Sustainability Manager.	Year 1	Executive - Sustainability Manager
C4.6	**Climate awareness for residents**	Provide educational resources (e.g., GHG monitoring tools) and opportunities to help residents become aware of and engage in implementation of the Redmond Climate Action Implementation Plan and sustainability initiatives.	Year 1	Executive - Sustainability Manager
C4.9	**Local carbon sequestration evaluation**	Evaluate the potential to sequester carbon through local projects, such as enhancing local tree canopy and green infrastructure, and implement actions to achieve further emission reductions.	Year 1	Executive - Sustainability Manager
Transportation & Land Use – Year 1 Actions				
T4.2	**Telecommuting and alternative work schedules**	Expand telecommute and flexible schedules for city employees and encourage Redmond businesses to adopt.	Year 1	Human Resources Planning - Economic Development Team
Water Management – Year 1 Actions				
W2.4	**New standards for resilience in water systems**	Study and determine if new standards need to be adopted to strengthen infrastructure to address increased flooding, such as larger bridges and culverts and other stormwater conveyance systems.	Year 1	Public Works - EUSD
Building & Energy – Year 2 Actions				
B1.3	**Green starter kits**	Coordinate with regional programs such as EnviroStars to promote and distribute sustainability starter kits to businesses and homes looking to go green.	Year 2	Executive - Sustainability Manager
B3.1	**Financial tools for renewables**	Employ financial tools or group purchases to incentivize the installation of on-site renewable energy. Group purchasing can greatly reduce the costs of installing renewables by securing bulk purchasing discounts.	Year 2	Executive - Sustainability Manager
B5.1	**Energy use disclosure**	Require energy use disclosure and benchmarking for buildings, starting with commercial and multifamily buildings over a size threshold.	Year 2	Executive - Sustainability Manager
B1.4	**Solar- and EV-ready infrastructure requirements**	Require "solar-ready" and EV-ready infrastructure for all new commercial and residential development.	Year 2	Planning - CDI
Climate Change & Resilience – Year 2 Actions				
C2.3	**Comprehensive vulnerability planning**	Ensure all City plans (e.g., Comprehensive Plan, Emergency Management Plan) account for vulnerable populations and communities.	Year 2	Planning - Human Services

#	ACTION SHORT NAME	DESCRIPTION	PHASING	LEAD CITY DEPARTMENT
Materials Management & Waste – Year 2 Actions				
M2.3	**Community zero waste, repair, upcycling workshops**	Host zero waste, repair/reuse, or upcycling community workshops.	Year 2	Public Works - EUSD
Natural Systems – Year 2 Actions				
N4.5	**Tree canopy policies**	Add new policies to the comprehensive plan describing the tree canopy goal, timeframe, and other key strategies that includes maintaining and updating canopy data and tracking tree removal and replacement.	Year 2	Planning - CDI
N2.5	**Update critical habitat**	Update priority habitat corridors for preserving and enhancing critical habitat for wildlife and incorporate into departmental plans and codes such as critical areas.	Year 2	Public Works - EUSD
N3.11	**Urban biodiversity mapping**	Inventory and map urban biodiversity for the prioritization of enhancement, protection, and re-connection.	Year 2	Public Works - EUSD
N1.2	**Watershed approach for restoration**	Use watershed approach for habitat restoration planning and activities and update Redmond's Watershed Management Plan on a regular basis (plan states every 5 years).	Year 2	Public Works - EUSD
Transportation & Land Use – Year 2 Actions				
T1.8	**Increase new mobility options**	Encourage and foster the use of new mobility options, such as bike share, electric bike and scooters, and ride hailing.	Year 2	Planning - TP&E
T3.4	**Electrical code for EVs**	Update electrical code to ensure adequate electrical capacity is available to serve one electric vehicle charging station per parking space.	Year 2	Planning - Building
T3.5	**EV charging business partnerships**	Partner with the OneRedmond to encourage businesses to install charging stations at workplaces and to provide support for commercial entities interested in providing charging stations for their employees.	Year 2	Planning Executive - Sustainability Manager
Water Management – Year 2 Actions				
W2.3	**"One water" education**	Expand public education on water conservation and the "one water" concept that all water is reusable.	Year 2	Public Works - EUSD
W2.5	**Water Usage Reduction Strategy**	Create a Water Usage Reduction Strategy to provide the strategic framing for all other water efficiency strategies and actions.	Year 2	Public Works - EUSD

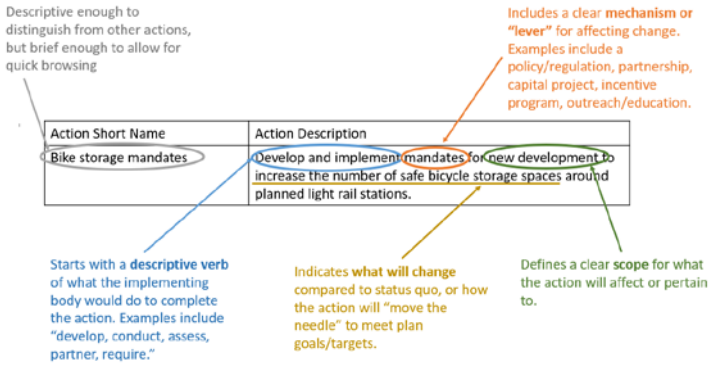
Appendix A
Implementation Matrix

Focus Area: Topic

Focus Area Goal: Goal under specified topic

Strategy #	Strategy	Action #	Action Short Name	Action Description	Lever	Community, Municipal, or Regional Action	Implementation Information				
							Timeframe	Lead Department	Other Stakeholders	Barriers to Implementation	Next Steps
List the strategy that the action will fall under in this column. Example- M2. Strategies are listed at the top of the focus area tab.	This column will automatically populate with the name of the strategy that a user list for column, "Strategy #".	Number of the action under strategy. This must be a positive integer and unique to the strategy.	Short Name of Action.	Action Description.	What tool, policy, or program could implement this action?	What is the scope of the action? Focused on municipal/government operations, does the action affect/involve the broader community, or does it require collaboration or oversight from regional or state agencies?					

Example of a Well-Defined Action



Focus Area: Transportation & Land Use

Focus Area Goal: Reduce transportation emissions and enhance community mobility.

*Note that this is a working document. It reflects the comments submitted by stakeholders, City staff, and the consultant team throughout the development of the Plan.

#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
Strategy T1: Increase the equitable use of non-SOV modes of transportation such as biking, walking, and public transit.									
T1.01	**Implement Growth and Transportation Efficiency Center program**	**Develop a framework and implementation plan for the City's Growth and Transportation Efficiency Center (GTEC) program in order to integrate transportation demand management (TDM) actions with infrastructure improvements, facilitate growth, and maximize the efficiency of transportation infrastructure.**	SPP	C	Ongoing	Planning - Long Range Planning		Will want to facilitate growth and maximize the efficiency of transportation infrastructure as Redmond's urban centers transition from a suburban to a more urban environment.	- Conduct community outreach.
T1.02	**Commuter mobility partnerships**	**Partner with organizations such as the Transportation Management Association (TMA) to increase commuter mobility and efficient use of transportation systems through services, incentives, education, and the promotion of single occupancy vehicle alternatives to residents.**	SPP	C	Ongoing	Planning - TP&E	King County; GRTMA, Master Builders	Some of this work is already underway. Could fund through King County Metro's matching grant with City of Redmond through business tax.	- Look at upcoming contract to make sure sustainability goals are incorporated.
T1.03	**Multimodal transit/facilities**	**Partner with transit agencies to maintain and enhance multimodal transit services and related facilities, including better first/last mile access to transit and preparing for opening of Link Light Rail.**	SPP	R	Ongoing	Planning - TP&E	Sound Transit; KC Metro; Master Builders	Opportunity in Education Hill to be feeder to Marymoor Station. Consider the development of multimodal "mobility hubs" to provide seamless transfers between transit and low-carbon local transportation modes.	- Outreach to other agencies (e.g., Sound Transit, KC Metro).
T1.04	**Pilots for trip reduction**	**Continue piloting trip reduction initiatives such as app-based carpooling and scooter/bike share.**	Vol	C	Ongoing	Planning - CDI; Planning - TP&E	GoRedmond; KC Metro	GoRedmond has some funding sources for pilots. There is an annual grant w/ KC Metro matched with Redmond business tax. Offers employer grants (up to 100% coverage up to $5k).	
T1.05	**Reevaluate TDM performance measures**	**Reevaluate and revise TDM performance measures as needed to ensure they are directly linked to Redmond's livability, sustainability, and affordability.**	SPP	C	Ongoing	Planning - TP&E	Schools and public health agencies	Have a program for KC Metro, for example. Should be a component of broader TDM strategy. Partner with schools and public health agencies. Include consideration of commute alternative incentives for residents and low-income workers, access to destinations, mode shift/mode share, VMT reductions, and GHG reductions. Potential targets include: 1) Livability: Availability of commute alternative incentives for residents and low-income workers (typically not provided with workplace TDM benefits), Access to destinations (see also 10-Minute Neighborhoods strategy); 2) Sustainability: mode shift/mode share targets, VMT reductions, GHG reductions.	
T1.06	**Mobility data publication**	**Continue to refine and improve mobility for all targets and data tracking systems. Make the programs and data available for the public.**	SPP	C	Ongoing	Planning - TP&E			
T1.07	**Improve student alternative transport**	**Improve alternative transportation options for local schools.**	Cap	C	Ongoing	Planning - CDI	School districts	Could be affordability issue given high costs and low payback. Could be lower-cost options like walking school buses. Safe Routes to school program, Neighborhood Traffic Calming program and associated TDM activities already exist. Include working with school districts to ensure that school property renovations support walking, biking, carpooling, and busing to schools, and supporting discounted or free transit passes for students and school-age youth.	- Outreach to school districts.
T1.08	**Increase new mobility options**	**Encourage and foster the use of new mobility options, such as bike share, electric bike and scooters, and ride hailing.**	Vol	C	Near-term (0-5 years)	Planning - TP&E; Parks - Planning		Need to think about drop-off zones for new buildings (e.g., UPS, rideshare). Where appropriate, require or incentivize the use of drop-off zones for new buildings (for delivery drivers, rideshare, etc.).	- Explore models of programs/policies that have been successful in other communities.
T1.09	**Bike storage incentives and requirements**	**Develop incentives for current development and mandates for new development to increase the number of safe bicycle storage spaces around planned light rail stations.**	Vol	C	Near-term (0-5 years)	Planning TP&E	Ped/Bike Advisory Committee; Sound Transit; Cascade Bicycle Coalition; Feet First	Important to coordinate with Sound Transit. Location should be further specified in development of incentives - for example, within a 1/3 mile radius of each station, within defined station planning areas, etc. Important to consider how bike storage impacts square footage requirements.	- Discuss with Sound Transit.
T1.10	**Active mobility infrastructure investments**	**Identify and implement pedestrian and bicycle infrastructure investments that promote connectivity, safety, and mobility for all.**	Cap	C	Mid-term (5-10 years)	Planning - TP&E; Parks - Planning		City has budget in current cycle to support this. Could find support from businesses if know what this meant (depending on next steps). Could be supported through CIPs and existing funding for ADA ramp installation.	- Develop interdepartmental team - Expand and maintain sidewalk and trail connections, reducing barriers to ensure ADA accessibility, and installing wayfinding signs, where useful. Use an equity tool or equivalent process to ensure that investments in sidewalk connectivity, ADA accessibility, and pedestrian safety benefit all communities.

Focus Area: Transportation & Land Use

Focus Area Goal: Reduce transportation emissions and enhance community mobility.

*Note that this is a working document. It reflects the comments submitted by stakeholders, City staff, and the consultant team throughout the development of the Plan.

#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
T1.11	**Comprehensive transportation outreach and education**	**Develop education and outreach programs and materials for transportation initiatives related to reducing emissions and community mobility.**	Vol	C	Mid-term (5-10 years)	Planning - CDI	Business community; Neighborhood groups	Requires culture change. Will need everyone at the table, including the business community and representatives of different viewpoints. Could consider creative mechanisms - provide pictures, videos, etc. of what people found. Important to look at density so people understand the impacts and benefits to their neighborhoods. Need to think about how marketed to different audiences.	- Expand the existing adult bicycle education program and conduct focused marketing in conjunction with major new infrastructure projects, such as the Overlake ped-bike bridges and related ped-bike improvements.
Strategy T2: Leverage sustainable land use policy to encourage non-SOV modes of transportation.									
T2.01	**Downtown Redmond parking**	**Implement Downtown Strategic Parking Management Plan's Conditions Report subsequent phases to evaluating parking needs and management.**	Reg	C	Ongoing	Planning - Long Range Planning		Work would involve: 1) Identifying past planning efforts and existing policies and regulations that influence the management and creation of parking today; and 2) surveying and inventorying existing parking resources and the management of those resources.	- Identify past planning efforts and existing policies and regulations that influence the management and creation of parking today - Survey and inventory existing parking resources and the management of those resources.
T2.02	**Transportation Master Plan implementation**	**Support development of the Transportation Master Plan and the implementation of a complete streets policy.**		C	Ongoing	Planning - TP&E			
T2.03	**Unbundle parking**	**Develop an ordinance requiring unbundled parking in all rental housing so residents that do not own a car will not have the cost of parking bundled in their rent.**	Reg	C	Near-term (0-5 years)	Planning - Economic and Code Development	Landlords	This is already being done, but is currently only market-driven.	- Conduct outreach to landlords.
T2.04	**Diversify housing options**	**Allow for AOU, duplexes, 4+8 unit apartments/ condos, ADUs, and retrofits in single family zones to promote affordable higher density housing/commercial development.**	Reg	C	Mid-term (5-10 years)	Planning - Long Range Planning	King County Housing Authority; Regional Coalition for Housing; UW Runstad Center	Currently doing affordability work as part of Housing Choices Initiative. Gets down to neighborhoods. Important to have people in the room who can draw up what talking about (e.g., duplex that looks like single family home). The "truth-tellers" - implications for loopholes, reality check. Examples of encouraging regulation include fast tracking of ADUs and reducing permit fees for ADUs and pre-defined specifications, prefab kits. Could partner with UW Runstad Center to cross-pollinate and leverage their research on housing topics.	- Complete housing choices business case analysis (currently underway). - Engage with communities for visioning, reality-check implications of loopholes. - Develop policies to diversify housing opportunities: Examples of encouraging regulation include fast tracking of ADUs, reducing permit fees for ADUs, and pre-defined specifications and prefab kits.
T2.05	**Parking maximums/minimums**	**Develop parking maximum and minimum requirements in urban areas and along transit corridors.**	Reg	C	Mid-term (5-10 years)	Planning - Long Range Planning	Developers	Would build on current parking management programs.	- Conduct outreach to developers
T2.06	**Increase "Spine Network" goal 2030**	**Identify new partnerships and funding sources to support an increased "spine" bike network above the current expectation of 51% completion by 2030 and identify opportunities to provide bicycling facilities that will be comfortable for more riders, such as cycle tracks/multi-use paths.**	SPP	C	Mid-term (5-10 years)	Planning - TP&E	City of Bellevue; King County (e.g., East Trail); Bike/ped organizations and advocacy groups	Currently in process of growing this network. TP&E within the City is working on part of this with other partners across the City. Have TMP and bike plan to prioritize segments of bike trails. RCC III should be on the spine and is scheduled to happen in starting in 2023. It's a multi-use regional trail. Need to ensure a safe way to separate bikers from cars. Eastside Greenway Alliance generates small amount of private funding from large employers. Microsoft currently invests in bicycling facilities via the Community Facilities District 2016-1.	- Invest in a small street sweeper to maintain bicycle facilities. - Review current TMP and bike plan to prioritize actions.
T2.07	**Create more walkable communities**	**Review and update land use and zoning policy to promote more walkable built environment.**	Reg	C	Mid-term (5-10 years)	Planning - Transportation Planning; Planning - TP&E; Public Works - Street Maintenance	City of Bellevue	Work would include: 1) changing zoning regulations to promote more mixed-use and higher-density development. 2) updating street standards to improve pedestrian connectivity. 3) creating "ten-minute communities" where jobs, housing, and retail are all located within walking distance. Would require working with Transportation Master Plan to identify pieces to adopt in zoning code. Some areas (Overlake) are less walkable. Will need to coordinate with Bellevue.	- Create an interdepartmental working team/task force to ensure all perspectives are considered.
T2.08	**Ten-minute communities**	**Review and update land use, zoning, and planning policy to prioritize the development of affordable 10-minute communities. These walkable communities prioritize accessibility and meet commercial, recreational, and transportation needs.**		C	Mid-term (5-10 years)	Planning - Long Range Planning			
Strategy T3: Shift to more efficient and lower-carbon vehicle fuels such as electric.									

Focus Area: Transportation & Land Use

Focus Area Goal: Reduce transportation emissions and enhance community mobility.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
T3.01	**Freight VMT/idling**	**Identify and implement opportunities for reducing freight VMT and idling, especially from delivery trucks.**		C	Ongoing	Planning - TP&E	E-retailers (e.g., Amazon)	Would likely need to be a regional effort, but could be a local program (e.g., Seattle taxis). Would be nice to tell success stories from Microsoft shuttle service. Could include evaluation of "last mile" delivery GHGs from Amazon and other e-retailers.	
T3.02	**Advanced clean car standards**	**Continue to support the State to retain and improve upon its 2018 decisions to adopt California's Advanced Clean Car Standards.**	Reg	R	Ongoing	Executive - Sustainability	K4C	Actions should look to reduce GHG emissions and improve air quality, including advocating through K4C to advocate for strengthening standards.	
T3.03	**EV demand eval & parking requirements**	**Review EV infrastructure strategy and predictions for EV adoption with input from PSE and other regional stakeholders, including evaluation of EV parking supply and demand and ways to make charging more accessible.**	Reg	C	Ongoing	Planning - CDI; Public Works - TOSE	Puget Sound Energy; Regional EV advocacy groups	Ties into other sectors (parking, street management, etc.). Will need a communication component (smart cities). Will need to think about equity - especially for multi-family housing. Make sure don't pay for something they are not using. Will need to partner with PSE as electrical demand increases.	- Identify spheres of responsibility (PSE vs. Redmond). 1) Include in the strategy an evaluation of EV parking demand and supply to determine actions moving forward. Increase EV charging requirement percentages accordingly. 2) Identify ways to make EV charging more accessible, including developing an EV charging station map, introducing development incentives to ensure access to residents without garages or that live in multi-family housing, and introducing local incentives to support low-income residents and workers to purchase EVs, such as modest mid-stream incentives for car dealers to sell electric vehicles, a sales tax rebate, bulk purchasing, or incentives for visitors to rent efficient vehicles.
T3.04	**Electrical code for EVs**	**Update electrical code to ensure adequate electrical capacity is available to serve one electric vehicle charging station per parking space.**	Reg	C	Near-term (0-5 years)	Planning - Economic and Code Development	Developers	Less expensive to do upfront in new construction than to retrofit later. Current code does NOT require EV-ready construction. Would want to make sure coordinate with TOSE/TIS (internal City departments) work on smart cities. May want to make a communication and power group. Have to identify service levels, who will manage operating and maintaining. Will want to ensure that construction documents show the location of equipment and conduit for future installation of electric vehicles charging stations.	- Consider convening a communication and power management group.
T3.05	**EV charging business partnerships**	**Partner with organizations such as OneRedmond to encourage businesses to install charging stations at workplaces and to provide support for commercial entities interested in providing charging stations for their employees.**	Vol	C	Near-term (0-5 years)	Executive - Sustainability	Regional EV advocacy groups	Could consider charging for use by non-residents at multi-family properties.	
Strategy T4: Reduce energy consumption and emissions associated with City fleet use, contracting, and commuting.									
T4.01	**Municipal fleet conversion**	**Continue implementing the Green Fleet Purchasing Policy.**	Reg	M	Ongoing	Public Works - Fleet; Fire Department		Early action on this will ensure consideration when making long-term purchasing decisions. Have something in place now - in draft form, brief. Calls for purchasing alternative fuel vehicles when fits the need. Does not cover fire vehicles currently. Fire is purchasing some alternative fuel vehicles. Not sure if it's official policy. Plan should commit to replacing municipal vehicles with alternative fuel/low-carbon vehicles in a manner that minimizes greenhouse gas emissions and considers life-cycle economics, including right-sizing the vehicle fleet and adopting renewable diesel for diesel-powered vehicles. Could be funded through mix of General Funds and Utility funds.	- Build on current draft policy, get approval. - Engage/include Fire Department.
T4.02	**Telecommuting and alternative work schedules**	**Expand telecommute and flexible schedules for City employees and encourage Redmond businesses to adopt.**	Vol	B	Near-term (0-5 years)	Human Resources; Planning - CDI	King County Employers; Master Builders	COVID has shown the potential for successful telecommuting. Could look at Santa Clara County as an example. This would primarily be City-based but will include working with employers to encourage this behavior. City could think about option for public meetings and telecommuting. Encouraging virtual connectivity (e.g., fiber network). Will need to make sure that transit systems take this into account.	- Partner with King County on their telecommute and flex time program. - Outreach to employers.
T4.03	**Emission standards for contractors**	**Develop and incorporate contractor fuel emission reduction standards into City bids and contracts.**	Reg	M	Mid-term (5-10 years)	Finance - Procurement; Executive - Sustainability	City Contractors	Would need to be tied to actions in Climate Change focus area. Affordability may be an issue for contractors. Would want to understand impacts. Ensure construction contractors doing work on the city's behalf are using fuel efficient and low polluting vehicles and equipment when feasible and practicable.	- Outreach to contractors to address affordability/cost impacts.

Focus Area: Buildings & Energy

Focus Area Goal: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
B1: Support building sustainability, education, technical assistance, and code advancement.									
B1.01	**Production incentive support**	**Support Washington State renewable energy production incentives that encourage the development of residential and commercial solar and other distributed generation and storage projects.**	Vol	C	Ongoing	Executive - Sustainability; Planning		Local renewable will be important early as utility-scale fuel mix gets cleaner. Aim to avoid additional metering fees or other disincentives. One option could be to waive all permit fees.	- Work with K4C members and City's staff to educate state policymakers and engage in rulemaking, as needed.
B1.02	**Support/ advocate for new codes**	**Work with advocacy organizations and Regional Code Council (RCC) to support and implement state energy code advancement.**	Reg	C	Ongoing	Planning - Code and Permits	State Building Code Council (SBCC)	Engage with the State Building Code Council (SBCC) to support and advocate code advancement.	
B1.03	**Green starter kits**	**Coordinate with regional programs such as EnviroStars to promote and distribute sustainability starter kits to businesses and homes looking to go green.**	Vol	C	Near-term (0-5 yea	Executive - Sustainability			
B1.04	**Solar- and EV-ready infrastructure requirements**	**Require "solar-ready" and EV-ready infrastructure for all new commercial and residential development.**	Reg	C	Near-term (0-5 years)	Planning - Codes and Permits; Executive - Sustainability		Already have an EV ready ordinance for new single family construction. Must have space in electrical box for charging. May not be happening in residential sector. Also have guidance adopted from PSRC for EV charging siting/infrastructure. Will need to consider impact on affordable housing (connections will be integrated into rents). Could tie in with incentives for solar to address siting considerations. Seattle has Solar Ready requirements in the Seattle Energy Code. May need to consider educating the public on what solar- and EV-ready includes (e.g., guidelines, definitions, and potential cost on housing) For solar- and EV-ready codes, they typically require that the infrastructure is in place to facilitate the possibility of a charging station or solar panel in the future. Here are some of the requirements you may find: 1) Charging stations are required only for a certain percentage of parking spaces, 2) each parking spot must have a dedicated electrical circuit with the capacity to eventually become a charging station, 3) parking spaces must have an electrical conduit and wire to run electricity to charging stations in the future, 4) roof design and specifications, 5) the main electrical panel for building shall have reserved circuit breaker space to allow for future solar electric installation.	- Evaluate the City's existing EV and solar ready code language and identify industry best practices. - Work with stakeholders to vet new language, either through independent process or comprehensive code update efforts.
B1.05	**Green certification incentives**	**Reevaluate, promote and incentivize through zoning code green certification programs for commercial and multi-family buildings and development, including Built Green, LEED, and Salmon-Safe Urban Development Certification.**	Vol	C	Near-term (0-5 years)	Planning - CDI		Already have incentives under RCZ green building code. Salmon Safe could be a multi-benefit approach to achieving Water, Waste, & Ecosystem/Open Space goals. Could consider Built Green as a certification program and as a partner to coordinate incentives throughout this focus area. Could consider including methods to reduce embodied carbon during reevaluation.	
B1.06	**Low-interest loans**	**Explore low interest loan options to finance energy efficiency upgrades for commercial and residential buildings.**	Vol	C	Near-term (0-5 years)	Executive - Sustainability	Local lenders (foundations, banks)	Work could involve: 1) Encouraging energy audits to help businesses and residents identify opportunities to retrofit and become more energy-efficient; and 2) Working with foundations and banks to develop a ROI tool and low-interest financing mechanism for residents and businesses to complete audits, energy efficiency upgrades, and installation of renewable energy. Zero interest loans could be effective.	- Outreach to lenders
B1.07	**Universal efficient building standard**	**Adopt a universal standard for energy-efficient buildings, such as the International Residential (IRC) codes for sustainable residential buildings, that considers feasibility and affordability for building owners and tenants.**	Reg	C	Near-term (0-5 years)	Executive - Sustainability; Planning - CDI		This would likely require a targeted stakeholder process.	- Targeted stakeholder engagement
B1.08	**Pipelines for employment**	**Collaborate with higher education institutions to develop pipelines for employment in green construction industry professional services.**	SPP	M	Near-term (0-5 years)	Human Resources	Higher education institutions		
B1.09	**Phase out HFCs**	**Work with King County to phase out use and disposal of hydrofluorocarbons (HFCs) such as from vehicle and building air conditioning units.**	SPP	R	Near-term (0-5 years)	Executive - Sustainability	King County		

Focus Area: Buildings & Energy

Focus Area Goal: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
B1.10	**Height/sf incentives for energy upgrades**	**Create and implement a program offering additional height and floor area incentives for significant upgrades in energy and water use.**	SPP	C	Mid-term (5-10 years)	Planning - Long Range Planning		Pilot program is low-effort and foundation for further policies. The TCD Business Case outcomes and Comp Plan update may result in increased height in certain zones. The incentives make sense to couple with new height increases. This is a big carrot that the City has the power to trade to developers for real energy and carbon improvements. Details will be important. Height incentives beyond the current code may require transitioning to new building materials, probably steel, rather than wood. Will need to consider impacts that materials have on height allowances (e.g., steel requires 12 stories to work).	
B2: Advance green building within City facilities.									
B2.01	**Financing for energy efficiency**	**Assess various options for financing and grants to energy efficiency projects for municipal buildings.**	Reg	M	Ongoing	Executive - Sustainability: Parks - Facilities			
B2.02	**Energy and water retrofits**	**Continue to implement energy and water conservation retrofits and operational improvements for municipal facilities, street lights and traffic signals, and pump stations.**	Cap	M	Ongoing	Parks - Facilities; Executive - Sustainability			
B2.03	**Facilities Strategic Maintenance Plan**	**Coordinate and implement recommendations from the Facilities Strategic Maintenance Plan that support sustainability. Evaluate option for an internal Revolving Fund as a dedicated source of capital, funded by savings from energy efficiency upgrades.**	Cap	M	Ongoing	Parks - Facilities; Executive - Sustainability; Finance		Portions of plan have been funded and in progress over next couple years. Includes behavioral/management aspect and building-focused aspect.	- Expanding mechanical TIS systems (automated systems) - starting with a handful of systems/facilities and then will expand.
B2.04	**Resource Conservation Management Plan**	**Develop a Resource Conservation Management Plan and general government policy to guide energy efficiency investments, operations, and behaviors in City facilities.**	SPP	M	Ongoing	Parks - Facilities; Executive - Sustainability		Foundational action for all municipal energy efficiency measures. Could include options for an internal Revolving Fund as a dedicated source of capital, funded by savings from energy efficiency upgrades.	
B2.05	**Information Technology improvements**	**Implement solutions to reduce energy demand from the City's IT infrastructure.**	Cap	M	Ongoing	TIS; Executive - Sustainability			
B2.06	**New City building green certification**	**Develop a policy that requires all new municipal owned buildings shall be constructed to a minimum certification level, such as the Gold level as defined by the U.S. Green Building Council's (USGBC) Leadership in Energy & Environmental Design (LEED) for New Construction.**	Reg	M	Near-term (0-5 years)	Public Works - CIP; Parks - Facilities	Third-party building operators		
B2.07	**Existing City building green certification**	**Implement updates needed for existing City buildings to achieve ENERGY STAR or equivalent recognition. Continue to track progress in platform such as EPA Portfolio Manager.**	Reg	M	Near-term (0-5 years)	Parks - Facilities		Every municipal building should be benchmarked in portfolio manager to see how it compares to other similar buildings nationally. Portfolio Manager is not currently being managed/monitored.	- Identify someone to manage Portfolio Manager and identify trends.
B2.08	**Embodied and operational carbon**	**Introduce a policy/program to address embodied and operational carbon in municipal operations.**	Reg	M	Mid-term (5-10 years)	Executive - Sustainability; Public Works - EUSD		Research in this areas is still developing. There is not universal agreement regarding how to track embodies carbon and tools are still under development.	
B3: Shift to renewable energy sources and building decarbonization.									
B3.01	**Financial tools for renewables**	**Employ financial tools or group purchases to incentivize the installation of on-site renewable energy. Group purchasing can greatly reduce the cost of installing renewables by securing bulk purchasing discounts.**	Vol	C	Near-term (0-5 years)	Executive - Sustainability	Spark Northwest	Spark Northwest would be a good nonprofit resource to reach out to regarding community solar potential programs. Seattle City Light runs an example program. Focus on solar incentives to qualifying low- and moderate-income residents. Will need to consider the City's role and may require an external partner to help facilitate group purchases.	
B3.02	**Cross-departmental task force**	**Develop a cross-departmental task force that works to address challenges related to land use code in siting renewable energy and other sustainability facilities in the city.**	SPP	M	Near-term (0-5 years)	Executive - Sustainability; All departments	Developers	Planning and building are sometimes not aligned (e.g., EV ordinance).	
B3.03	**Fuel switching pilot program**	**Pilot a voluntary program that focuses on residential and commercial fuel switching from natural gas to electric.**	Vol	C	Near-term (0-5 years)	Executive - Sustainability	Local restaurants/kitchens		

Focus Area: Buildings & Energy

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
B3.04	**Green building training**	**Educate City planning and permitting staff on codes and approaches for incentivizing decarbonization, such as through electric heat pumps. Update permitting process if needed to quickly review and flag decarbonization projects.**	SPP	M	Near-term (0-5 years)	Planning	K4C member cities	Has implications for what documents required through permitting process. Right now operate to base code – would need different forms. Limited staff time to attend off site training. Could consider including resources and training for staff on best practices for considering and reducing embodied carbon. Work with stakeholder to discuss building code scope and funding mechanisms.	- Complete survey to identify priority educational opportunities. - Identify and partner with instructors to conduct educational programming. - Coordinate with other K4C members to share resources.
B3.05	**Fuel switching contractor training**	**Conduct contractor training and development of sales packages for building owners wanting to get off fossil fuels.**	Vol	C	Mid-term (5-10 years)	Executive - Sustainability; Planning		Consider sponsorship of training for Women-and Disadvantaged contractors to get training and preferential pricing from heat pump manufacturers.	
B3.06	**Incentivize electrification**	**Implement incentives such as expedited and free permitting for switching from fossil fuel (e.g., natural gas) to renewable electricity.**	Reg	C	Mid-term (5-10 years)	Planning - CDI; Executive - Sustainability		Emphasize transition to electric heat pumps, including consideration of a requirement for heat pump technology when natural gas equipment is at end of life and needs to be replaced.	
B3.07	**All-electric new construction**	**Evaluate natural gas consumption and emissions trends and explore incentives for all-electric construction. Consider restrictions on new natural gas hookups in developments and buildings under a phase-in schedule that considers technological feasibility, need based on community-wide emissions and pair with relevant exemptions.**	Reg	C	Long-term (10+ years)	Planning - CDI; Planning - Building; Executive - Sustainability	Puget Sound Energy; Local restaurants/kitchens	Stakeholders will be critical in determining the scope of this action. City of Berkeley, new Chapter 12.80 to the Berkeley Municipal Code (BMC) prohibiting natural gas infrastructure in new buildings with an effective date of January 1, 2020. And City of Seattle a new Chapter 22.940 to the Seattle Municipal Code, an ordinance relating to prohibiting natural gas piping systems in new buildings. Concern about people's ability to do this and financial considerations. The scope of the restriction will be important - e.g., does it include gas stoves? Commercial kitchens and some individuals prefer gas. Action would include: 1) determining if more stringent steps to curb natural gas use are necessary based on: city natural gas emissions/trends in comparison to regional commitments, PSE's updated IRP (2021 plan will include how PSE will meet CETA), PSE's implementation of no net leakage commitment of methane by 2022; and 2) if more stringent steps are not necessary, reevaluate with ESAP updates based on GHG projections and progress towards overall emissions goals.	- Initiate conversations with stakeholders.
B4: Prepare the energy grid for future conditions.									
B4.01	**PSE smart grid technologies**	**Partner with PSE to implement in Redmond their smart grid technologies meant to improve reliability and management of the grid.**	SPP	C	Ongoing	Executive - Sustainability	Puget Sound Energy		- Focus on smart meters (PSE would facilitate, if not done already. Could be focused on commercial customers first.)
B4.02	**Energy storage**	**Introduce a policy to streamline permitting and interconnection processes for energy storage projects.**	Cap	C	Mid-term (5-10 years)	Executive - Sustainability; Planning - CDI			
B5: Expand performance benchmarking and improvements.									
B5.01	**Energy use disclosure**	**Require energy use disclosure and benchmarking for buildings, starting with commercial and multifamily buildings over a size threshold.**	Reg	C	Near-term (0-5 years)	Executive - Sustainability	Building owners, managers & tenants	Will need to consider mechanism for gathering information from tenant. Could build from Seattle's ordinance and new WA state policy. Cost for City to implement and monitor is a concern. Could also be challenging for property owners that lease their space to businesses (and thus do not control use of resources).	- Outreach to building owners, managers & tenants.
B5.02	**Efficiency requirements above cost/sf threshold**	**Require that all permitted residential and nonresidential building improvements over a square footage or cost threshold evaluate and enhance energy efficiency.**	Reg	C	Mid-term (5-10 years)	Planning - CDI; Planning - Building	Tenants	All significant building investments should be getting the buildings closer to where needed to meet long-term targets. Any replacement HVAC system should show that it can help the building comply with a future target efficiency level. For example, if we want to get off fossil fuels there should be no more new purchases of fossil fuel boilers. Affordability could be a concern - could impact smaller tenants (depending on size threshold). Could include requirements for furnace and hot water heater upgrades and roof/attic insulation.	
B5.03	**Point-of-sale weatherization**	**Introduce point-of-sale efficiency and performance standards for residential and commercial buildings, with affordable pathways for small businesses and lower and moderate-income households.**	Reg	C	Mid-term (5-10 years)	Planning - CDI; Executive - Sustainability	Realtors	Search for examples from other jurisdictions. ShiftZero is good resource. Possibly RMI or NBI as well. Architecture2030 has developed and published 'model ordinances' on this topic. This could have impact to home sales and be burdensome to realtors and sellers/buyers. The City is currently working towards point-of-sale sewer inspections. Could be a synergy with this. Currently a requirement for side sewer inspection for residential building application (modifications). Could also look at these kind of trigger points.	- Explore examples from other jurisdictions and model ordinances. - Assess potential impact to home sales and housing affordability.

Focus Area: Buildings & Energy

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B5.04	**Large Commercial/Industrial Efficiency Requirement and Tune-Up Ordinance**	**Building on proposed WA state policy, develop a phased timeline when all existing non-residential commercial and industrial buildings over a square footage threshold must meet energy performance standards and implement efficiency upgrades and improvements that provide a positive return on investment.**	Reg	C	Long-term (10+ years)	Executive - Sustainability; Planning - Building	Building owners, managers & tenants	Could build from Seattle's lessons learned. Could have affordability consequences for small commercial users (e.g., shopping centers). Would require stakeholder engagement. Options include expanding upon the size threshold to include more buildings or ramping up more quickly. Consider tightening standards in the future.	- Engage relevant stakeholders.

Focus Area: Materials Management & Waste

Focus Area Goal: Move towards more sustainable consumption and zero waste.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Initial Steps*
Strategy M1: Increase diversion of community waste while reducing cross-contamination within waste streams (garbage, organics, recyclables).									
M1.01	**Regional composting**	**Work with K4C to develop a composting master plan to expand community and regional composting infrastructure.**	SPP	R	Ongoing	Public Works - EUSD, Solid Waste	King County; Cedar Grove; Waste Management; K4C	Planning precedes implementation. Will need infrastructure to accommodate increased flow from other actions. Redmond can participate in regional infrastructure, but does not have control over.	
M1.02	**Multi-family outreach**	**Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.**	Vol	C	Ongoing	Public Works - EUSD, Solid Waste	Foodlife Line; LWSD; PTSA	Opportunities include toolkits, technical assistance, and direct resident education.	
M1.03	**New construction waste stream efficiency and opportunity**	**Work with multifamily developers, owners and residents, as well as commercial buildings, to develop requirements for new construction to provide sufficient space and safety for recycling and food waste collection, along with garbage.**	Reg	C	Ongoing	Public Works - EUSD, Solid Waste		Leverage code language from other cities who have implemented this change.	- Examine example code language.
M1.04	**Food donation**	**Support a food donation program for grocery stores to send surplus food.**	Vol	C	Near-term (0-5 years)	Public Works - EUSD, Solid Waste	Foodlife Line; LWSD; PTSA		
M1.05	**Citywide compostables requirement**	**Require compostable and paper disposables in restaurants and stores.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste		Will require coordination with organics processor. Expect additional food waste with compostables form take-out restaurants.	
M1.06	**Incentive based models**	**Conduct comparative research to understand where other cities have had success with incentive-based models such as disposal fee.**	SPP	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste		It's hard to compare, simply because most WA municipalities and the UTC won't allow fees to go much beyond a "cost of service" model. But, there is ample evidence that incentives - PAYT for example - do work for diversion. Also, embedding recycling fees in disposal fees to make recycling look "free" served to increase volume. Differential tipping fees for certain materials IS working in other areas. So, wood, for example, may cost less to dispose if it is source-separated at the transfer station; same with Gypsum. C&D recycling in general is a good example of lower tipping fees attracting volume - actual recycling rates notwithstanding.	
	End use market for recyclables	**Partner regionally to bolster the market for recycled materials, to accommodate increased flows from implementation of diversion actions. Include options for addressing non-recyclable plastics.**	SPP	R	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste	King County	Recyclables market should consider including hard-to-recycle items (e.g., e-waste, office furniture, scrap metal).	
M1.08	**City recycle reuse**	**Explore ways the City can recycle and reuse during its normal maintenance.**	SPP	M	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste		Should not be used for fill in wetlands and Redmond's CARA (has happened before). This could be a potential barrier and future risk consideration when implementing this action. For example, grinding roadways prior to overlay can provide recycled asphalt product (RAP) for future use. This is being done in Kennewick.	
M1.09	**Recyclables ban**	**Prohibit disposal of targeted recoverable traditional recyclable materials and organics in single- and multi-family garbage.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste		Would need to ensure contamination is not an issue.	
M1.10	**Commercial recycling requirements**	**Require commercial property owners/managers to provide recycling and organics collection containers and service that are as convenient as garbage containers and adequate to serve the number of tenants.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste		Ordinance should require property owners and businesses to provide color-coded and clearly labeled indoor and outdoor containers; clear signage; and tenant and employee education.	
M1.11	**Mandatory curbside collection for residences**	**Explore the introduction of mandatory curbside collection of recyclables and organics for all single and multi-family residences. Develop a right-sized program for Redmond.**	SPP	C	Long-term (10+ years)	Public Works - EUSD, Solid Waste		Will need to ensure that contamination does not become an issue. How do you prevent "bad actors"? Fines? That's why focusing on education/awareness as precursor action is important. Would also look at what other cities have done.	
M1.12	**Solid waste disposal**	**Encourage and assist exploration for sustainable solid waste disposal options to prepare for post-2040, in addition to expanding Cedar Hills.**	SPP	C	Long-term (10+ years)	Public Works - EUSD, Solid Waste			
Strategy 2: Reduce community waste generation (reduce waste, reuse, repurpose, and upcycle).									
M2.01	**Waste reduction outreach**	**Build and implement community outreach and education plans around proper waste reduction, recycling, composting, with a focus on food waste.**	Vol	C	Ongoing	Public Works - EUSD, Solid Waste	Zero Waste Washington; RidWell; Free Food for All; Foodlife Line; LWSD; PTSA	Could partner with other organizations such as Zero Waste Washington, RidWell, Free Food for All. Includes for multi-family, commercial, and single-family sectors. Consider how increased recycling/composting may lead to increased contamination. City could look into cart tagging and requiring residents and business to pay their waste separately instead of a bundled rate.	

Focus Area: Materials Management & Waste

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M2.02	**Stewardship policies**	**Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing.**	SPP	R	Ongoing	Executive - Sustainability		Already doing a lot with limited staff, capacity might be a barrier to take on further actions.	- Ensure sufficient City capacity to carry out.
M2.03	**Community zero waste, repair, upcycling workshops**	**Host zero waste, repair/reuse, or upcycling community workshops.**	Vol	C	Near-term (0-5 years)	Public Works - EUSD, Solid Waste	Microsoft Redmond Zero Waste community groups	Microsoft (and other businesses) may have programs on zero-waste certification for their own campuses. There is a Redmond Zero Waste group on Facebook.	
M2.04	**Styrofoam policy and engagement**	**Engage businesses that use styrofoam in Redmond. Explore styrofoam reduction through policy mandates and implement, as appropriate.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste	Local food service businesses; King County	Exploration is early action before introducing mandates. Leverage resources and insights from cities and organizations who have implemented this change (e.g., City of Tacoma).	
M2.05	**Zero waste assistance**	**Provide zero waste building planning assistance.**	Vol	C	Mid-term (5-10 years)	Planning - Building			
Strategy 3: Reduce waste and environmental impact from City purchasing and operations.									
M3.01	**Reduce City landfill waste**	**Provide composting and recycling at all City buildings and for all municipal operations, including specialized items.**	Reg	M	Ongoing	Public Works - EUSD, Solid Waste			
M3.02	**Increase use of electronic documents**	**Enhance systems for electronic documentation and file-sharing.**	Cap	M	Ongoing	TIS			
M3.03	**City food waste recycling**	**Continue food waste recycling at City Hall, the Maintenance and Operations Center, Public Safety Building, Senior Center, Teen Center, and all city fire stations.**	SPP	M	Ongoing	Public Works - EUSD, Solid Waste	Foodlife Line; LWSD; PTSA		
M3.04	**Green purchasing/procurement**	**Develop and enforce green City purchasing procedures and policies, including for green cleaning materials and support end-use markets for recycled materials.**	Reg	M	Near-term (0-5 years)	Finance - Purchasing; Executive - Sustainability; Public Works - EUSD, Solid Waste		Important for leading by example.	- Establish a list of environmentally preferable products and educate staff. - Transition to expanded green purchasing and procurement policies and enforcement strategies to ensure adherence.
M3.05	**Fleet hazardous waste**	**Set a policy/goal for hazardous waste generated by the city's Purchasing and Fleet divisions (separate) to be zero or near zero.**	Reg	M	Mid-term (5-10 years)	Public Works - Operations			
Strategy 4: Address construction and demolition (C&D) waste.									
M4.01	**Contractor outreach**	**Conduct contractor outreach and job site technical assistance to encourage reduction, reuse, and recycling of C&D waste.**	Vol	C	Near-term (0-5 years)	Public Works - EUSD, Solid Waste	OneRedmond; Habitat for Humanity; Zero Waste Washington	OneRedmond might have the ability to connect with contractors and conduct this outreach (or some infrastructure). Habitat for Humanity could help with outreach as well. Zero waste Washington might have materials related to this.	- Build internal City capacity to manage. - Conduct an evaluation to determine how the City plans to implement a C&D program.
M4.02	**C&D diversion requirements**	**Develop comprehensive policies around C&D recycling and recovery. Prohibit disposal of recoverable C&D materials.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste	Developers, King County	Similar considerations of lead entities and partners as other C&D actions. King County just developed a new County ordinance that Redmond could use as a framework. Consider how requirements impact homebuilding, avoid paperwork fatigue and impact on small home building sites.	
M4.03	**C&D recycling service**	**Require recycling service for C&D materials at all job sites.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste	Habitat for Humanity; Primate businesses (e.g., DTG Recycling Group)	Already have City budget in this cycle for zero waste. Plan to focus on C&D in future. Habitat for Humanity may be interested in future demolition projects, also potentially conduct contractor outreach as intermediate step after identification of demolition. Could partner or solicit advice from some private businesses (e.g., DTG Recycling Group).	
M4.04	**C&D reuse partnerships**	**Coordinate with King County and area cities to develop end-use markets for recyclable/recycled C&D materials.**	SPP	R	Mid-term (5-10 years)	Public Works - EUSD, Solid Waste	King County		

Focus Area: Natural systems

Focus Area Goal: Enhance green space, tree canopy, habitat quality, and natural drainage systems.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City stakeholders	Other Stakeholders	Barriers to Implementation & Other Considerations*	Next Steps*
N1: Protect and enhance equitably accessible native habitats and open space and support local agriculture.									
N1.01	**Enforce critical areas code and regulations**	**Strengthen, revise, and enforce codes for critical areas including, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, unstable slopes, and associated areas and ecosystems.**	Reg	M	Ongoing	Public Works - EUSD; Planning - CDI		Codes currently being examined are not specific to critical areas, but could expand to include this in the conversation. The code should define trees by type, size and age and clearly state that Arborvitea and other like species are not acceptable tree replacements. Environmentally sensitive critical areas are challenges for home builders. Interpretation and implementation by staff must be consistent. Increasing density requirements without also enforcing current code requirements equitably and consistently will increase development challenges. Consider including incentives, points, and design flexibility, along with more training of staff and dialogue with building community and commercial and multi-family property owners are needed.	
N1.02	**Watershed approach for restoration**	**Use watershed approach for habitat restoration planning and activities and update Redmond's Watershed Management Plan on a regular basis (plan states every 5 years).**	Reg	C	Near-term (0-5 years)	Public Works - EUSD			
N1.03	**Urban agriculture expansion**	**Partner with nonprofits, low income communities, and underrepresented communities to expand urban agriculture opportunities in community gardens, schools, and parks and on rooftops.**	SPP	B	Mid-term (5-10 years)	Public Works - EUSD; Planning - Long Range Planning	King County; Tilth Alliance; City of Seattle; Farmers & local food initiatives	Could do education at farmers markets. Already have City-supported community P-Patch. Tilth Alliance encourages good practices such as no pesticides, invasive, etc. Could partner with the City of Seattle and King County Local Food Initiative to develop a programs and plans for culturally-appropriate and local foods (e.g. P-Patch community gardens on public lands). There is a farmers-in-residence program. Could discuss with King County local food initiative and local permitting office. Martin Park as possibility for the future.	
N1.04	**Habitat protection zoning**	**Support planning and zoning efforts that protect natural resources, including water resources, open space, and habitats.**	Reg	M	Mid-term (5-10 years)	Public Works - EUSD			
N1.05	**Community education and outreach**	**Educate community on importance of local, native, and drought-tolerant habitats and planting.**	Vol	C	Mid-term (5-10 years)	Public Works - EUSD	Sammamish Valley Agricultural Production District of King County; Youth organizations	Education should focus on biodiversity, ecosystems/open space and health, cost/benefits of lawn installation and maintenance, water quality, habitat, and stormwater issues within watersheds. Potential youth organizations to engage include the Tomorrow Project and Sustainability Ambassadors.	
N1.06	**Urban forestry staff**	**Hire additional staff to implement the goals and strategies associated with increasing canopy cover across the city and to update the 20-yr plan.**	SPP	C	Mid-term (5-10 years)	Public Works - EUSD; Parks - Planning		This team/person can lead finding community partners and funding to increase community outreach, adoption of policies/goals and education.	

Focus Area: Natural systems ***Focus Area Goal: Enhance green space, tree canopy, habitat quality, and natural drainage systems.***								*Note that this is a working document. It reflects the comments submitted by stakeholders, City staff, and the consultant team throughout the development of the Plan.	
#	**Action Short Name**	**Action Description**	**Lever**	**C/M/B/R**	**Timeframe**	**City stakeholders**	**Other Stakeholders**	**Barriers to Implementation & Other Considerations***	**Next Steps***
N1.07	**Private development restoration requirements**	**Require private development to address restoration issues onsite and explore options for enhanced requirements.**	Vol	C	Mid-term (5-10 years)	Planning - Economic Development and Code		A majority of private development is multi-family and commercial areas that are already urbanized. Need to provide examples/options for private developments to address restoration (e.g., stormwater management updates, restoration of critical area buffers).	
N1.08	**Address developed areas that flood**	**Establish development standards, prioritize habitat, establish ecosystem minimums for habitat development, and/or purchase areas for development and retrofit of developed areas that flood or have degraded habitat and water quality.**	SPP	C	Mid-term (5-10 years)	Public Works - EUSD; Planning - Long Range Planning			
N2: Enhance resilience of natural areas and systems to climate change.									
N2.01	**Forest Management Plan implementation**	**Continue to make progress on and update the 20-year Forest Management Plan developed by the Green Redmond Partnership to restore and enhance natural areas, assess current urban forest health, and outline future urban forest goals and strategies.**	SPP	C	Ongoing	Parks - Planning; Public Works - EUSD			
N2.02	**Drought/heat tolerant plantings**	**Acquire plants grown from regional seed to support continued genetic diversity of native species and resilience of native habitat and soil and are able to be drought-tolerant, climate-adapted, and efficiently sequester carbon.**	Vol	C	Ongoing	Public Works - EUSD		Would be helpful to include an education component and ensure that implementation is "easy." The City can provide lists of acceptable plantings, guidelines for planting, etc. Helps support genetic diversity of native species in order to try and build in resilience of local habitats.	
N2.03	**Improve fish passage**	**Remove barriers to fish migration and prevent the creation of new barriers.**	Reg	C	Ongoing	Public Works - EUSD	Other regulatory agencies; Tribes; Trout Unlimited; King County	The City has already inventoried barriers and is starting to address them. Consideration of lakes? This one is more focused on streams, but could be helpful to also focus on lakes (e.g. connectivity between lakes and streams). Could be funded by grant funding from other stakeholders, like regulatory agencies, Tribes, Trout Unlimited. King County could partner on bigger lakes and connectivity issues.	- Continue to pursue grant funding - Manage database - Prioritize barriers to remove (Willows and others upcoming) - remove one barrier per year - look at condition assessment and capacity
N2.04	**Green space access**	**Implement the Parks, Arts, Recreation, Culture and Conservation (PARCC) Plan to ensure access to green space, with a focus on areas of poor or unequal access.**	Reg	C	Ongoing	Planning - Long Range Planning; Parks - Planning	King County; WA State		
N2.05	**Update critical habitat**	**Update priority habitat corridors for preserving and enhancing critical habitat for wildlife and incorporate into departmental plans and codes such as critical areas.**	SPP	C	Near-term (0-5 years)	Public Works - EUSD; Planning - CDI		This action is tied to critical areas code (under GMA), which has minimum requirements that his action could expand on. Bear Creek work would be an example. Would be shift from watershed focus. Have a wildlife habitat plan that was never adopted.	- Identify who in City will lead/support the work - Review draft wildlife habitat plan
N2.06	**Drought-tolerant and lawn removal incentives**	**Establish incentives/rebates for drought tolerant residential landscaping and removal of grass lawns.**	Vol	C	Mid-term (5-10 years)	Public Works - EUSD		Will be important to provide examples of alternatives. Consider design flexibility and a menu of options rather than mandating one-type of improvement. This could help with affordability concerns and challenging site designs.	
N3: Expand green infrastructure and associated services.									
N3.01	**IPM Plan for city owned properties**	**Use Redmond Park's Integrated Pest Management (IPM) plan for city-owned properties.**	Reg	M	Ongoing	Public Works - EUSD; Parks			

Focus Area: Natural systems ***Focus Area Goal: Enhance green space, tree canopy, habitat quality, and natural drainage systems.***								*Note that this is a working document. It reflects the comments submitted by stakeholders, City staff, and the consultant team throughout the development of the Plan.	
#	**Action Short Name**	**Action Description**	**Lever**	**C/M/B/R**	**Timeframe**	**City stakeholders**	**Other Stakeholders**	**Barriers to Implementation & Other Considerations***	**Next Steps***
N3.02	**Environmental BMP & design standard implementation & enforcement**	**Implement and enforce Environmental Best Management Practices & Design Standards on development and redevelopment projects.**	Reg	C	Ongoing	Public Works - EUSD; Planning - CDI	Developers		
N3.03	**Proactively maintain stormwater infrastructure**	**Proactively maintain stormwater infrastructure including pipes, catch basins, vaults, ponds, and swales.**	SPP	C	Ongoing	Public Works - EUSD			
N3.04	**Stormwater capital improvement plan updates**	**Update the stormwater capital improvement plan at least annually and implement the flood reduction, water quality improvement, and habitat enhancement CIPs according to the established schedule.**	Cap	M	Ongoing	Public Works - EUSD	King County and other related agencies.		
N3.05	**Restore Redmond's watersheds**	**Implement the recommendations of the Redmond's Watershed Management Plan.**	Cap	B	Ongoing	Public Works - EUSD		Includes development and implementation of watershed-specific restoration plans and adding stormwater facilities to provide flow control and water quality treatment for all surfaces that require these facilities.	
N3.06	**Update the City's Watershed Plan**	**The City will update the Watershed Plan and utilize the best available science and technology to evaluate the previous plan's goals.**	SPP	M	Near-term (0-5 years)	Public Works - EUSD			
N3.07	**Stormwater flow control retrofits**	**Construct or retrofit stormwater flow control and infiltration facilities.**	Cap	C	Near-term (0-5 years)	Public Works - EUSD		This strategy would be dependent on each of the basin plans.	
N3.08	**Stormwater treatment retrofits**	**Construct or retrofit stormwater runoff treatment facilities.**	Cap	C	Near-term (0-5 years)	Public Works - EUSD		This strategy would be dependent on each of the basin plans.	
N3.09	**Regional stormwater facilities plan**	**Coordinate development of the City's urban centers with stormwater management improvements to meet the City's water quality goals, support new development that is required by the Growth Management Act, and do so in a cost-effective way.**	Reg	C	Near-term (0-5 years)	Public Works - EUSD; Planning - Long Range Planning			
N3.10	**Drainage system resilience**	**Prepare natural drainage systems for changes in precipitation patterns.**	Cap	C	Near-term (0-5 years)	Public Works - EUSD	King County	Will be doing FEMA mapping for Bear Creek soon. Code currently calls for designing to future flows. Could look at future changes as part of that process. City currently has this in code, but needs guidance on how to implement.	- Conduct analysis of what is needed to make the system more resilient (partner regionally on this). - Integrate into current Bear Creek FEMA mapping work. - Develop guidance on how to implement (e.g., providing rainfall event for 100-yr flow)

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N3.11	**Urban biodiversity mapping**	**Inventory and map urban biodiversity for the prioritization of enhancement, protection, and re-connection.**	SPP	M	Near-term (0-5 years)	Public Works - EUSD	Audubon Society	Eastside Audubon Society could be leveraged or consulted. They publish wildlife and nature guidebooks and could have urban biodiversity data.	
N3.12	**Stormwater retrofit incentives**	**Plan, create incentives for, and support green stormwater retrofit projects such as rain gardens and other low-impact designs.**	Vol	C	Mid-term (5-10 years)	Public Works - EUSD		Incentives should consider design flexibility and a menu of options rather than mandating one-type of improvement. This could help with affordability concerns and challenging site designs. The community could utilize compost, generated from the City of Redmond's organics collection program in green stormwater solutions and other low-impact design projects. Could incorporate trees into these areas and develop a list of trees suitable for rain gardens. This will help to increase canopy cover and provide additional stormwater management. Interest from the community in outreach and education on native planting, drought tolerant, landscaping, and green infrastructure (e.g., rain barrel requirements and standards).	
N3.13	**Assess health of city-owned ROW trees**	**Assess the health of natural systems for parks and ROW trees (urban forests will be part of 20-year plan). Develop goals, risk tolerances, and restoration strategies to manage tree species and canopy cover.**	SPP	B	Mid-term (5-10 years)	Public Works - EUSD		Healthy forests provide a wide array of benefits to the city, its residents and wildlife.	
N4: Increase citywide tree canopy.									
N4.01	**Planting in open space park lands**	**Increase canopy on City property by planting open space areas in parks consistent with park master plans, street trees, riparian and restoration plantings.**	Vol	B	Ongoing	Parks; Public Works - EUSD			
N4.02	**Reevaluate tree regulations**	**Reevaluate tree regulations to protect existing canopy and to ensure trees are replanted with a "right sized tree." Develop best practices for tree health and maintenance.**	Reg	C	Ongoing	Planning - CDI		Tree replacement is and will be increasing difficult in the urban Overlake, Marymoor and Downtown areas. The City could create a fund for developers to pay into as an alternative to onsite replacement. The City could then use the funds to plant in less dense areas of the City. Avoid a fee-in-lieu plan in which trees are planted far from the impacted neighborhood which would increase disparities.	
N4.03	**Tree canopy LiDAR dataset**	**Acquire updated LiDAR dataset to reset canopy baseline.**	SPP	M	Ongoing	Public Works - EUSD			
N4.04	**Neighborhood matching grants for tree canopy cover**	**Encourage use of Neighborhood Matching Grants to maintain and increase canopy in neighborhoods, especially for low-cost or no-cost trees, where canopy is needed based on tree canopy plans for neighborhoods.**	Vol	C	Ongoing	Planning; Public Works - EUSD	Building owners & tenants; Residents	The program currently permits "environmental projects (trailhead enhancements, composting) and "program and projects in conjunction with Natural Resources." They are $5K grants. Develop opportunities for tenants to work with owners so ensure equity in the process.	

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#	**Action Short Name**	**Action Description**	**Lever**	**C/M/B/R**	**Timeframe**	**City stakeholders**	**Other Stakeholders**	**Barriers to Implementation & Other Considerations***	**Next Steps***
N4.05	**Tree canopy policies**	**Add new policies to the comprehensive plan describing the tree canopy goal, timeframe, and other key strategies that includes maintaining and updating canopy data and tracking tree removal and replacement.**	Reg	B	Near-term (0-5 years)	Parks; Planning	EnerGov GIS; Homebuilding associations	Thinking about this for private development. Ensure that the City maintains no net loss of significant trees within the city over the long term. If not, then larger trees may be replaced with smaller diameter trees which negatively impacts tree canopy. Use EnerGov GIS service to understand short-term canopy changes. Could partner with the homebuilding community to ensure retention is occurring in areas otherwise not best suited for homes. Additions to the Tree Canopy Strategic Plan should: a) establish tree canopy targets for all parts of the city, b) emphasize the preservation of healthy, native, and climate-resilient trees, c) maximize carbon sequestration, climate change resilience, and equitable distribution of tree-related benefits across the city, d) promote species diversity and tree longevity, and e) monitor canopy changes.	
N4.06	**Targeted parcel acquisition**	**Evaluate acquisition of forest parcels, especially in neighborhoods or zones with less canopy, to preserve current urban forest cover.**	SPP	C	Mid-term (5-10 years)	Parks; Planning		Feasibility and cost concerns. As more infrastructure ages and land use changes, consider acquisition of non-forest parcels for a "tree bank" that could result in co-benefits.	
N4.07	**Tree canopy dashboard**	**Develop an outward facing dashboard that allows public to see tree canopy performance measures for stormwater, heating/cooling, air quality, public health, economic development and climate.**	SPP	B	Mid-term (5-10 years)	Parks; Public Works - EUSD; Executive - Sustainability			
N4.08	**Develop tree canopy plans for neighborhoods**	**Work with neighborhoods in ongoing efforts to increase canopy and forest health in their neighborhoods.**	SPP	C	Mid-term (5-10 years)	Planning			

Focus Area: Water Management

Goal: Protect and conserve water resources, including water quality and quantity.

*Note that this is a working document. It reflects the comments submitted by stakeholders, City staff, and the consultant team throughout the development of the Plan.

#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Next Steps*
W1: Achieve a secure and sustainable water supply that is equitable, affordable, and accessible									
W1.01	**Align with regional planning**	**Ensure continued alignment of City water management actions with regional planning framework, City policies, sustainability practices, and state and federal environmental regulations.**	Reg	M	Ongoing	Public Works - EUSD	Cascade Water Alliance		
W1.02	**Climate risks to water availability**	**Evaluate risks to water availability due to changes in precipitation patterns (more frequent drought conditions, high precipitation events, low recharge).**	SPP	M	Mid-term (5-10 years)	Public Works - EUSD	Cascade Water Alliance	Supply is stable now, but climate risks should be identified in the mid term to inform longer term supply planning. There is currently a regional effort, Cascade Water Suppliers Forum, that looks at many issues like water supply and availability. Potential partner with Redmond.	
W2: Conserve community water resource and maximize water efficiency savings.									
W2.01	**Community awareness program**	**Conduct climate-science based community awareness programs for water conservation practices.**	Vol	C	Ongoing	Public Works - EUSD; Executive - Sustainability	Cascade Water Alliance	Cascade Water Alliance does not currently provide education on gray water. There is an opportunity to define this more clearly. Water conservation education should be climate-based and should highlight the water-energy nexus.	
W2.02	**Water-efficient landscaping**	**Continue to install and implement water-efficient landscaping and practices for streetscapes (including traffic circles), park sites, City facilities, and City-maintained plantings.**	Cap	M	Ongoing	Parks; Public Works - Operations; Executive - Sustainability	Landscape architects; Nurseries; Irrigation system installers	Landscape management occurring in multiple departments, specific policies/operations may not be consistent. This could be a driver to centralize landscaping, but this will take serious effort to implement. Parks has smart watering system, other departments may not be using the same technology or methods (e.g. drought tolerant plants). Considering mitigation - around park sites that currently damages. Mitigate negative impacts to water systems from other actions. Includes replacing annual planting beds with drought-tolerant perennials and turning on irrigation systems only when needed. Landscape architects, nurseries, irrigation system installers - planning, potential changes in regulatory framework to have them on-board	
W2.03	**"One water" education**	**Expand public education on water conservation and the "one water" concept that all water is reusable.**	Vol	C	Near-term (0-5 years)	Public Works - EUSD	Cascade Water Alliance	Cascade Water Alliance is working towards refining and expanding programs in schools. The City could aid in resource distribution and facilitating partnerships. Could also add other topics as it makes sense (e.g. pollution prevention and source protection).	- Would start with "one water" since this is more holistic, and then integrate water conservation.
W2.04	**New standards for resilience in water systems**	**Study and determine if new standards need to be adopted to strengthen infrastructure to address increased flooding, such as larger bridges and culverts and other stormwater conveyance systems.**	Reg	C	Near-term (0-5 years)	Public Works - EUSD			
W2.05	**Water Usage Reduction Strategy**	**Create a Water Usage Reduction Strategy to provide the strategic framing for all other water efficiency strategies and actions.**	SPP	M	Near-term (0-5 years)	Public Works - EUSD		The more we reduce water usage, it will affect utilities. This will need to be done strategically, so might be foundational to other tasks. Open House participants supported this action and showed additional interest in landscaping and irrigation standards for existing developments.	
W2.06	**Grey water for irrigation**	**Study code barriers and code/policy incentives for promoting greywater reuse over traditional irrigation. Establish a plan to upgrade irrigation controls and operational efficiency on City properties using grey water.**	Reg	B	Mid-term (5-10 years)	Public Works - EUSD	WA Department of Health	Important to consider health impacts.	

Focus Area: Water Management

Goal: Protect and conserve water resources, including water quality and quantity.

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#	Action Short Name	Action Description	Lever	C/M/B/R	Timeframe	City stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations*	Next Steps*
W2.07	**Golf course recycled water**	**Partner with King County to use recycled water for irrigation of golf courses. Develop a plan to have all public golf courses 100% irrigation with recycled water.**	SPP	C	Long-term (10+ years)	Public Works - EUSD	King County	There could be cost impacts for setting this up. Concerns of aquifer health and drinking water impacts. Also around human health. Potential loss of revenues for water utilities could affect infrastructure planning. Would need a permitting process for this other utility.	
W3: Protect quality and quantity of drinking water resources.									
W3.01	**Identify groundwater impacts**	**Protect groundwater by identifying impacts to groundwater through inspection and education.**	SPP	M	Ongoing	Public Works - EUSD			
W3.02	**Groundwater contamination management**	**Refine a plan to manage existing groundwater contamination. Identify and address groundwater resources at risk. Include a monitoring and tracking program.**	SPP	M	Ongoing	Public Works - EUSD		Incorporate monitoring of contaminants of emerging concern, such as pharmaceuticals and microplastics, into the plan.	
W3.03	**Groundwater Monitoring Program**	**Monitor groundwater monitoring well network to identify impacts to water quality and quantity early, monitor emerging contaminants, and provide an early warning to supply wells.**	Reg	M	Ongoing	Public Works - EUSD		Program could include the monitoring and evaluation of temporary construction dewatering impacts to aquifers.	
W3.04	**Update TCD code**	**Conduct a triple bottom line analysis of temporary construction dewatering (TCD) to determine policy options to reduce tensions between water resources management and compact growth.**	Reg	M	Ongoing	Public Works - EUSD		Could expedite this due to current economic concerns.	
W3.05	**Septic/sewer system improvements**	**Eliminate direct discharge into the stormwater system from the sanitary and private septic/sewer systems.**	Reg	C	Ongoing	Public Works - EUSD	WA DOH		
W3.06	**Water efficiency standards**	**Increase water efficiency and resiliency standards for new development such as requiring dual piping so new buildings are rainwater/reclaimed water ready.**	Reg	C	Mid-term (5-10 years)	Public Works - EUSD		Consider incentives to encourage new construction to install rainwater harvesting for toilet flushing.	
W3.07	**Irrigation water efficiency**	**Revise City codes to promote greater irrigation water efficiency. Considerations could include: rate change, irrigation standards, equipment upgrades, and scaling up properties.**		C	Mid-term (5-10 years)	Planning - CDI; Public Works - EUSD		Could target specific industries (e.g. irrigation installers). Consider including standards for soil amendment, reduction of turfgrass, and emphasis on drought tolerant plantings.	
W3.08	**Septic elimination / sewer system expansion**	**Encourage conversion from on-site wastewater disposal systems as sewer lines become available so that all septic systems in the city are eventually eliminated.**	Reg	M	Long-term (10+ years)	Public Works - EUSD; Planning - Long Range Planning	Builders and developers; neighborhoods and residents	Assessment in the mid-term; implementation might be long-term.	- Identify and implement preliminary steps that are needed to support longer-term goal.
W3.09	**Landscaping and irrigation standards**	**Require drought-tolerant planting and efficient irrigation systems on all new development.**	Reg	C	Long-term (10+ years)	Public Works - EUSD; Planning CDI		Perhaps over time, City of Redmond could develop some basic standards for **existing** systems, such as: 1) a minimum distribution uniformity (a measure of the evenness the irrigation system applies water). 2) monitoring to ensure there are no major leaks or line breaks. 3) installation of a rain sensor shut off device, and ensuring minimal overspray onto sidewalks or impervious surfaces. Such standards could be confirmed and submitted to the City at the beginning of the irrigation season.	

Focus Area: Climate Resilience & Cross-Cutting

Focus Area Goal: Reduce GHG emissions and enhance communitywide resilience to climate impacts.

#	Action Short Name	Action Description	Lever	C/M/B/R	Tie to Existing City Plans	Status	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations	Next Steps
Strategy C1: Ensure all City services and infrastructure are resilient to climate change impacts.											
C1.01	**Regional collaboration for utility resilience**	**Participate in regional efforts that increase Redmond's capacity to respond to climate change impacts to City-run utility services.**	SPP	R	Tie into other focus areas and more specific utility plans.	Expand existing	Ongoing	Public Works - EUSD	King County; UW Climate Impacts Group; Cascade Water Alliance: Puget Sound Regional Climate Preparedness Collaborative		
C1.02	**Reevaluate environmental BMPs and design standards for all City properties**	**Build City buildings and infrastructure to be resilient to climate change (e.g. bridges, culverts, stormwater facilities, groundwater) through best management practices and design standards.**	Cap	M		New action	Mid-term (5-10 years)	Public Works - EUSD; Public Works - Engineering; Public Works - Operations	Developers; People for Climate Action	Ensure stormwater infrastructure is adequately sized for future storms. People for Climate Action have some experts on BMPs in membership, they could participate in public forums.	
C1.03	**Wildfire response**	**Ensure local fire department has the equipment and training to manage wildfires.**	Cap	M		Expand existing	Mid-term (5-10 years)	Fire Department			
C1.04	**Backup power projects**	**Identify and prioritize solar and microgrid power projects at critical City-owned facilities and at targeted districts.**	Cap	M		New action	Mid-term (5-10 years)	Public Works - Operations; Parks - Facilities	Puget Sound Energy		
C1.05	**Wildfire mitigation planning**	**Identify permanent funding from the City of Redmond to support forest health improvements to reduce wildfire risk and expand public awareness campaigns on wildfires.**	SPP	M		New action	Mid-term (5-10 years)	Fire Department		Resources include Wildfire Plans, Firewise Plans. Include linkages between public health, quality of life, and ecological resources.	
Strategy C2: Enhance resilience of populations that will be disproportionately impacted by climate change.											
C2.01	**Equity commitments**	**Commit to climate policy through an equity lens. Reassess current City programs (including the actions in this plan) to evaluate and state equity goals in the face of climate change and sustainability issues.**	Reg	M		Expand existing	Ongoing	Executive - Sustainability; Finance - Procurement	Climate Solutions	Vulnerability Roadmap may be a good first step. Climate Solutions - were identified in Green 2.0 report to further equity commitments. They have an equity commitment document. For example, use equitable development principles and scorecard to evaluate each project for equity, community participation, and resilience (see: http://thealliancetc.org/wp-content/uploads/2016/06/EquitableDevelopmentScorecard.pdf).	
C2.02	**Vulnerability roadmap**	**Conduct a communitywide climate vulnerability assessment (e.g. urban heat islands, air pollution) to identify and implement resilience-building actions.**	SPP	C		New action	Near-term (0-5 years)	Planning - Human Services; Executive - Sustainability; Planning - Long Range Planning	WA Department of Health; UW Climate Impacts Group	May be needed in order to make comprehensive plan changes. Equity commitments may come after vulnerability map.	
C2.03	**Comprehensive vulnerability planning**	**Ensure all City plans (e.g., Comprehensive Plan, Emergency Management Plan) account for vulnerable populations and communities.**	SPP	B	Emergency Management Plan; Comprehensive Plan	New action	Near-term (0-5 years)	Planning - Human Services, Executive - Sustainability Other departments, as plans come up	WA DOH	Can consult the WA DOH Health Disparities Map: https://www.doh.wa.gov/DataandStatisticalReports/WashingtonTrackingNetworkWTN/InformationbyLocation/WashingtonEnvironmentalHealthDisparitiesMap	
C2.04	**Impacts to communities of concern**	**Ensure that the City provides opportunities to gather public feedback and understand the impacts of plan implementation on communities of concern.**	SPP	C			Near-term (0-5 years)	Executive - Sustainability			
C2.05	**Disadvantaged workers**	**Ensure contracts for City construction projects for energy efficiency, fuel conversion, and green energy provide opportunities for local hiring and disadvantaged worker employment.**	Reg	M		Continue existing	Mid-term (5-10 years)	Executive - Sustainability; Finance - Procurement	City contractors	Could include targeted education in schools and workforce development.	
C2.06	**Critical areas resilience**	**Evaluate and respond to impacts in Critical Areas due to larger storms and warmer, drier summer weather (steep slopes, wetlands, upland riparian areas, upland restoration areas, instream habitat, aquifer recharge areas).**	Cap	C		New action	Mid-term (5-10 years)	Public Works - EUSD			

Focus Area: Climate Resilience & Cross-Cutting

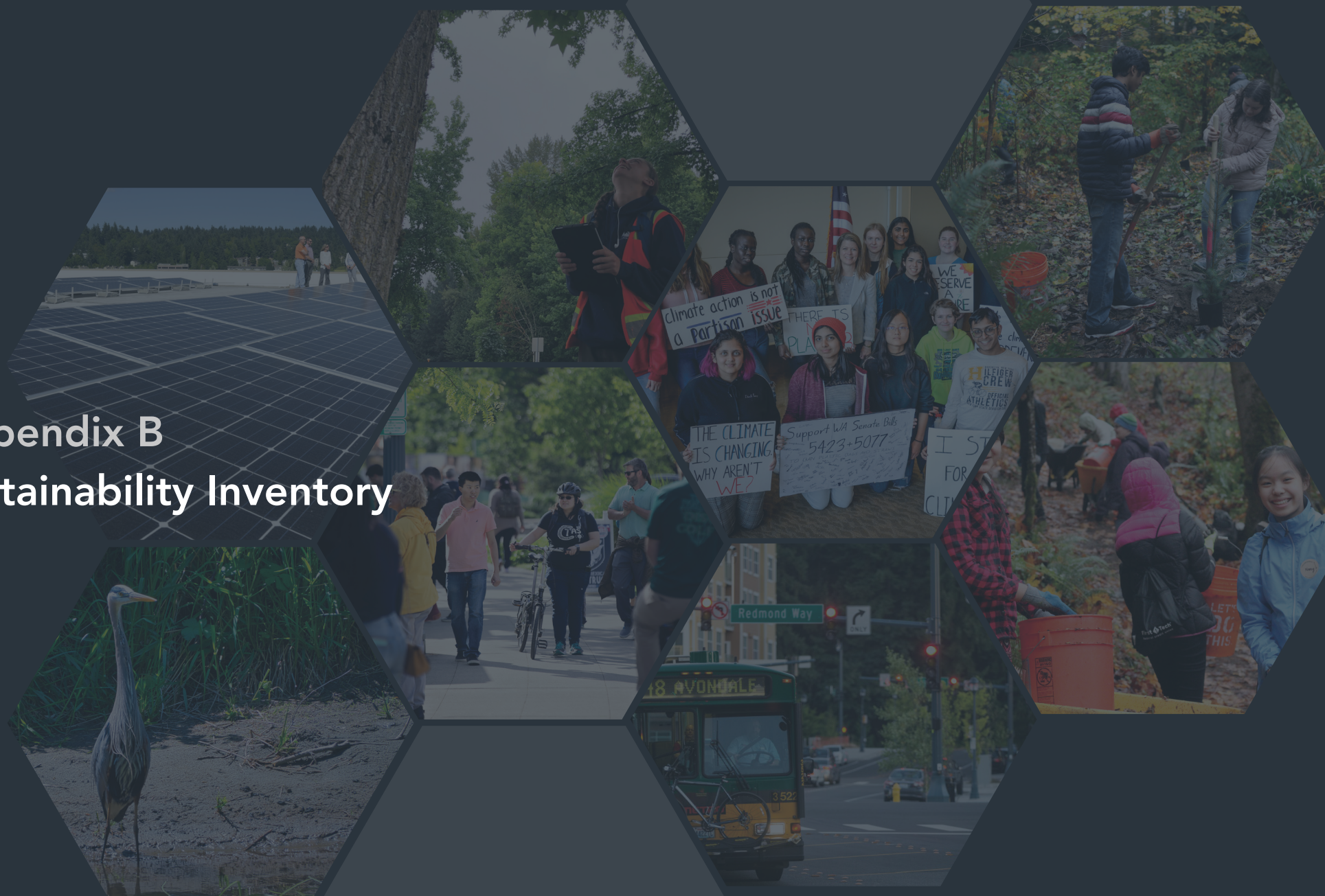
Focus Area Goal: Reduce GHG emissions and enhance communitywide resilience to climate impacts.

#	Action Short Name	Action Description	Lever	C/M/B/R	Tie to Existing City Plans	Status	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations	Next Steps
C2.07	**Neighborhood visioning & resilience hubs**	**Support neighborhoods in the development of Neighborhood Visioning Plans. Plans should share sustainability findings and identify infrastructure such as corner stores to serve as "resilience hubs" that sustain neighborhoods in the event of an emergency.**	Cap	C		New action	Mid-term (5-10 years)	Planning	Local businesses & neighborhoods		- Partner with local businesses and communities to identify pilots.
C2.08	**Severe weather building standards**	**Develop building standards that include greater resistance to high winds and flooding.**	Reg	C		New action	Long-term (10+ years)	Planning - Building	Developers	There is likely to be multiple considerations before building standards are updated, including educational/awareness programs, more understanding of climate impacts, ROI tools developed, and coordination with County and State codes. Might be incorporated into new IBC	- Education/awareness
Strategy C3: Institutionalize consideration of sustainability and climate change across City activities and decision-making.											
C3.01	**Align budget with climate goals**	**Align City budget decisions around climate mitigation and climate resiliency initiatives.**	Reg	M		Expand existing	Ongoing	Finance		This could be a focal point for the City's budgeting by priorities process. Each biennium evaluation criteria is developed for the 6 City priorities and that criteria is used to score budget offers under consideration.	
C3.02	**GHG monitoring & dashboard**	**Continue to benchmark, report, and regularly monitor community and municipal GHG emissions. Consider building a public-facing dashboard that includes information on Redmond's GHG emissions and personal carbon footprints.**	Vol	B		Expand existing	Ongoing	Executive - Sustainability		Transportation reports GHG emissions every year - based on regional information (Transportation Master Plan performance metric). This needs to be very public facing - shouldn't be embedded deep into websites. Utilize social media to promote and graphic design City folks to help with the presentation of the dashboard. Could work with teachers to help.	
C3.03	**Leverage smart cities strategies**	**Leverage the rollout of smart cities strategies to support projects that improve sustainability tracking, emissions reduction, and cost savings related activities.**	SPP	C		Expand existing	Ongoing	Executive - Sustainability; TIS	Puget Sound Energy	No current efforts related to this. City did work with PSE to complete a District Energy study for the Overlake area, but results were not actionable for the City. Could assess as part of comprehensive plan update	- Focus on smart meters (PSE would facilitate, if not done already. Could be focused on commercial customers first.)
C3.04	**Carbon neutrality plan for City operations**	**Develop a plan for City operations to achieve carbon neutrality.**	SPP	M			Near-term (0-5 years)	Executive - Sustainability			
C3.05	**Climate awareness for employees**	**Build City employees climate change awareness in their role for considering climate impacts in their day-to-day decisions at work.**	Vol	M		New action	Near-term (0-5 years)	Executive - Sustainability; Sustainability Team			
C3.06	**Strategies to expand employee participation**	**Develop a cross-departmental working group or program to expand participation in climate solution strategies and environmental sustainability programming among City staff by the Sustainability Manager.**	Vol	M	Climate Action Implementation Plan	New action	Near-term (0-5 years)	Executive - Sustainability Program			
C3.07	**Climate consideration policy**	**Implement a policy requiring all major City capital projects, procurements, and policies consider and attempt to mitigate climate change impacts, including contracting as possible from women & minority-owned businesses.**	Reg	B		New action	Near-term (0-5 years)	Finance - Purchasing	Resource Conservation Office; Lake Washington school district; Architectural firms	Information should be made publicly available and involve an explicit GHG emissions analysis. See Seattle Executive Order 2018-01: Climate Impact Assessment as an example.	

Focus Area: Climate Resilience & Cross-Cutting

Focus Area Goal: Reduce GHG emissions and enhance communitywide resilience to climate impacts.

#	Action Short Name	Action Description	Lever	C/M/B/R	Tie to Existing City Plans	Status	Timeframe	City Stakeholders	External Stakeholders/Partners	Barriers to Implementation & Other Considerations	Next Steps
C3.08	**City environmental sustainability ROI**	**Develop and implement standard for creating project-specific return on investment determinations for environmental sustainability throughout a project's lifecycle.**	Reg	M	Community Strategic Plan	New action	Near-term (0-5 years)	Executive - Sustainability; Public Works - Engineering; Parks - Facilities; Finance		Come from each individual project, but the evaluation process could have a sustainability lever/criteria to rank projects. Long Range Planning department helps coordinate evaluation of projects across directors. Include sustainability criteria in the "business case" part of the project.	
C3.09	**Economic ROI tools to encourage climate protection**	**Create financial tools that capture the full lifecycle costs and benefits of City decisions, including the ROI of energy efficiency projects and the environmental costs of products and services.**	Reg	M		Expand existing	Mid-term (5-10 years)	Executive - Sustainability; Planning - CDI; Finance		Tools available at the federal level - need to incorporate into the City's projects/needs. Awareness building for City employees, training tools, policies around this (e.g. climate consideration policy).	
Strategy C4: Pursue cross-sectoral, community wide solutions to address climate change and cross-cutting sustainability issues.											
C4.01	**Countywide commitment to renewable energy resources**	**Build on existing state renewable energy commitments, including the Washington State Renewable Portfolio Standard (RPS), to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources.**	SPP	C		Continue existing	Ongoing	Executive - Sustainability	K4C		
C4.02	**K4C financing opportunities**	**Request K4C to hire a financial expert to develop strategies for King County and its cities and utilities to create financing opportunities for climate change mitigation and implementation projects (e.g., state and federal policy changes).**	Vol	R		Continue existing	Ongoing	Executive - Sustainability	K4C		
C4.03	**EPA air quality standards**	**Partner with Puget Sound Clean Air Agency to track and monitor Redmond's air quality and potentially reevaluate plans to ensure they align with 100% of US EPA National Ambient Air Quality Standards.**	SPP	R		New action	Near-term (0-5 years)	Executive - Sustainability	Puget Sound Clean Air Agency (PSCAA); U.S. Environmental Protection Agency	No monitoring station in Redmond operated by PSCAA (also related to environmental justice program action). EPA monitors 6 types of air quality parameters. Will need to determine City's appropriate role.	- Determine City's role and outreach to PSCAA. - Partner in the near-term; re-evaluation of plans (if relevant) might be more of an ongoing action.
C4.04	**K-12 education**	**Support an educational agenda to enhance outreach and awareness efforts for K-12 schools on environmental stewardship and partner with organizations to help implement.**	Vol	C		New action	Ongoing	Parks - Recreation; Public Works - EUSD; Executive - Sustainability	Cascade Water Alliance; Nature Vision - Water Utilities (CWA paid through utilities funds)		
C4.05	**Climate policy advocacy**	**Advocate for climate policy at the state level.**	Vol	C			Ongoing	Executive			
C4.06	**Climate awareness for residents**	**Provide educational resources (e.g., GHG monitoring tools) and opportunities to help residents become aware of and engage in implementation of the Redmond Climate Action Implementation Plan and sustainability initiatives.**	Vol	C		New action	Near-term (0-5 years)	Executive - Sustainability; Parks;		There are several programs that do citizen or community science efforts (see citizenscientist.gov for other funding resources).	
C4.07	**Youth sustainability ambassadors**	**Train youth, through the school systems, to be youth sustainability ambassadors.**	Vol	C		New action	Near-term (0-5 years)	Parks - Recreation; Executive - Sustainability	School districts		
C4.08	**Community check-ins**	**Provide ample opportunities to engage the community around sustainability issues and needs, and incorporate feedback into ongoing sustainability programs and initiatives. Include periodic community surveys to solicit feedback and understand concerns, such as costs.**	SPP	C			Near-term (0-5 years)	Executive - Sustainability			
C4.09	**Local carbon sequestration evaluation**	**Evaluate the potential to sequester carbon through local projects, such as enhancing local tree canopy and green infrastructure, and implement actions to achieve further emission reductions.**	SPP	C			Near-term (0-5 years)	Executive - Sustainability			
C4.10	**Environmental justice program**	**Develop an environmental justice program that identifies the communities suffering from environmental burdens, such as air quality hotspots. Explore partners to work with to close the gap on these inequities and reduce burdens.**	SPP	C		New action	Mid-term (5-10 years)	Executive - Sustainability; Planning - Human Services	PSCAA; King County; Front & Centered; School districts; Tribes; Human Services Commission	Environmental hazards have been known to lead to negative health effects such as asthma and cancer and such health effects shorten the lifespan of residents living in affected neighborhoods. Bridges to be built with organizations representing frontline communities (often in Seattle and King County)	- Connect with organizations representing frontline communities.



Appendix B
Sustainability Inventory

Sustainability Inventory Memorandum

To: Amanda Balzer, City of Redmond

Jenny Lybeck, City of Redmond

From: Andrea Martin, Cascadia Consulting Group

Date: September 2, 2020

Re: Redmond Environmental Sustainability Action Plan – Sustainability Inventory

Contents

Overview

This memorandum summarizes findings from an inventory of Redmond's past, current, and potential future sustainability-related activities and context. The goal of this document is to compile what Redmond has already accomplished, has not yet accomplished, and could accomplish—as well as challenges that may contribute to these outcomes. Understanding this background and context will help inform and guide an effective Environmental Sustainability Action Plan (ESAP) that reflects Redmond's strengths, challenges, and opportunities.

The inventory includes findings from the following research activities, described in more detail in the *Methodology* section of this memorandum:

- A **literature review** of City plans, policies, progress reports, and other available documentation.
- One-on-one **interviews** with key City staff to gather insights and reflections.
- Two half-day interdepartmental **City staff workshops**.
- A **quantitative assessment** of Redmond's baseline conditions, including charting historical and likely future trends for key sustainability indicators.

Document Roadmap

Findings in this memorandum are generally organized (and color-coded) by the following six proposed focus areas for the ESAP:

Focus Area	What's Included
Climate change	Opportunities for reducing GHG emissions and building resilience to climate change impacts
Transportation & land use	Strategies for reducing transportation emissions and enhancing community mobility
Building & energy	Options for increasing renewable energy use and energy efficiency
Materials management & waste	Pathways toward sustainable consumption, zero waste, and increased recycling
Natural systems	Enhancing green space and natural drainage systems through low impact development and enhanced urban tree canopy cover
Water management	Protecting and conserving water resources, including water quality and quantity

Sections of the memorandum are as follows:

- A **Key Findings** section that presents in 11x17 table form a compendium of the relevant City policies, plans, and programs; current City activities; metrics; progress to date; challenges and gaps; and potential strategies and actions for each focus/goal area of the ESAP.
- A **Focus Area Summary and Metrics** section that presents a summary of findings organized by focus area, including quantitative analysis outcomes for key sustainability metrics/indicators.
- An **Activity Detail** appendix that provides summaries of all relevant City programs, policies, and plans, organized by focus area.

Key Findings

The following pages provide summary tables of inventory findings, organized into the following topics for each focus/goal area of the Environmental Sustainability Action Plan:

- **Relevant Plans, Programs, and Policies** that inform current or future direction of sustainability-related activities in the City.
- **City Progress to Date**, including sustainability achievements that City has already made and notable sustainability activities within the City.
- **Identified Challenges and Gaps** that could hinder progress towards sustainability goals.
- **Potential Strategies, Actions, and Opportunities**—as identified through City staff engagement and review of City documentation—to consider when developing strategies and actions for the ESAP. Final strategies and actions will be developed through internal and external workshops and included in the final ESAP.

Focus areas of the ESAP are as follows:

Focus Area	What's Included
Climate change	Opportunities for reducing GHG emissions and building resilience to climate change impacts
Transportation & land use	Strategies for reducing transportation emissions and enhancing community mobility
Building & energy	Options for increasing renewable energy use and energy efficiency
Materials management & waste	Pathways toward sustainable consumption, zero waste, and increased recycling
Natural systems	Enhancing green space and natural drainage systems through low impact development and enhanced urban tree canopy cover
Water management	Protecting and conserving water resources, including water quality and quantity

Goal areas within each focus area were identified through consideration of other City goals (e.g., in the Community Strategic Plan), goal areas present in other city sustainability plans, and feedback from City staff.

Climate Change

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Key Achievements/ Progress to Date	Challenges/Gaps	Potential Actions for ESAP
Reduce municipal and communitywide greenhouse gas emissions.	• Climate Action Implementation Plan • Community Strategic Plan 2019 - Environmental Sustainability section • King County-Cities Climate Collaboration (K4C) • Resolution 1387 – GHG & Energy Consumption Reduction Strategies • Resolution 1416- K4C Joint Commitment Letter • Resolution 1436- Adopting Government Operations Greenhouse Gas Emissions Reduction Targets • Resolution 1476- Commitment to Climate Action Through Support of the Paris Climate Agreement	• Conduct regular reporting on factors that contribute to Redmond's carbon footprint. • Capital energy efficiency projects • Greening of city fleet • K4C participation • Participation in PSE Green Direct Program	• Annual city operation greenhouse gas emissions • Annual communitywide greenhouse gas emissions • % reduction in greenhouse gas from city operations • % reduction in greenhouse gas from community operations • # of catalytic actions implemented	• K4C won a 2016 Climate Leadership Award from the U.S. EPA • Meeting 2020 target for Government operations GHG emissions reduction • Meeting 2020 target for Community GHG emissions reduction	• Difficulty capturing all the emissions produced by the city and community. • Not enough people, funding, and resources to implement sustainable actions that reduce emissions. • Climate action typically lacks comprehensive social and equity components. • Lack of resources to analyze data for current baseline information. • Not enough corporate engagement. • Redmond is typically more conservative than other area cities.	• Energy efficiency upgrades and conservation in community and municipal buildings and equipment. • Generation and use of renewable energy. • Reduce emissions from transportation. • Increase access and use of alternative transportation. • Reduce waste generation and increase waste diversion. • Maintain a public-facing dashboard for tracking and reporting progress. **Several actions overlap with the other focus areas**
Increase resiliency to climate change impacts.	• Climate Action Implementation Plan • Community Strategic Plan 2019 - Environmental Sustainability section • K4C • Geological hazards protection/code • Final Comprehensive Flood Hazard Management Plan • Comprehensive Emergency Management Plan • Natural Environment elements of Comprehensive Management Plan	• Electric code updates for new construction (e.g., electric charging equipment requirements). • Community-wide education and outreach activities about climate change. • Plans have been created to address drainage, flooding, and areas susceptible to erosion and earthquakes.	• Status of the Public Works emergency plan and utility-specific plans	• None identified	• Lack of current baseline information. • Difficult to plan for climate change uncertainties. • Identification and proper engagement with vulnerable populations is needed. • Not enough corporate engagement. • Resistance to climate action strategies that require significant change.	• Strengthen ecosystem resilience to climate change by protecting and restoring forests, watersheds, and open spaces. • Ensure a secure and reliable water supply that is accessible and affordable. • Diversify and expand Redmond's energy portfolio. • Encourage land use planning that minimizes travel distance and increases community resilience. • Improve local food generation through various policies and partnerships.

Transportation and Land Use

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Key Achievements/ Progress To Date	Challenges/Gaps	Potential Actions for ESAP
Support, promote, and incentivize alternative transportation, including biking, walking, and transit	• Greening of City Fleet Goal Plan • Transportation Demand Management/Commute Trip Reduction Program (Go Redmond Program) • Bus Pass Program (Commuter Assistance Office) • Redmond School Pool Program • Transportation Master Plan	• Implementing a "10-minute community" pilot program. • Redmond is exploring to decrease required parking at sites near future light rail stations. • Citywide Go Redmond program provides resources, subsidies, and incentives to those who live or work in Redmond. • The City issues bus passes to regular and supplemental employees for commuting and attending meetings. • School pool	• % of employees in Redmond who have access to formal transportation programs. • # of active users in Go Redmond. • # of employees commuting by bus/ bike/carpool. • # of trips taken by alternative transportation.	• Go Redmond won the 2018 ACT (Association for Commuter Transportation) award for Redmond's work in alternative commuting options. • Silver-Level Bicycle Friendly Community. • Over 4,500 student participants in Redmond School Pool Program. • On Walk to School Day, nearly 1,000 students saved over 2,000 lbs. of emissions. • The website GoRedmond.com provides the community resources on alternative transportation. • Between 2008-2018, the percentage of commuters that did not drive alone increased 8%.	• Purchasing requirements for a government agency somewhat limits what Redmond can buy. • Driving can be more comfortable, and alternatives are limited, which may discourage people from using alternatives. • $30 car tab (I-976) limits significant funding for transportation.	• Expand and promote innovative travel demand management programs. • Improve alternative transportation options with local schools beyond school pools. • Improve biking infrastructure. • Complete streets non-motorized trails.
Improve land-use planning that encourages affordable, mixed-use development	• Downtown Parking Strategic Management Plan • Redmond Comprehensive Plan and Zoning code	• Redmond is currently identifying publicly-owned land that be offered at a discounted price to support development of deeply affordable housing.	• # of and % of land use applications using the Green Building Zoning Code provision. • # of vehicles on propane auto-gas. • #affordable units/ #total units		• Spread-out land use encourages driving. • Cost of land.	• Subsidize affordable housing in denser areas to reduce commuting distances. • Adjust land use policies to allow for denser development and increase supply. • Maintain and enhance multimodal transit services and related facilities. • Expand incentives for transit-oriented development near future light rail stations.
Encourage use of clean, energy-efficient vehicles	• Anti-Idling Campaign Program	• Purchase of electric vehicles and hybrid electrics • Provides education and outreach to employees and trained inspectors to recognize excessive idling. • Anti-idling campaign resulted in the addition to standard city contracts to require contractors to minimize idling on city construction sites. • Parks & Recreation staff reminds fleet users to reduce the time spent defrosting a vehicle to reduce idling. • The City currently has 43 electric/hybrid vehicles (approximately 12% of the entire fleet). • The City is converting fleet vehicles to propane.	• # of city fleet vehicles on propane auto-gas. • # of electric vehicles registered within the City. • # of dollars in fuel cost savings due to City fleet conversion • % GHG emissions reductions.	• Redmond currently operates and maintains 28 hybrid vehicles. • The City was awarded the Annual Best Achievement in Propane Autogas from Western Washington Clean Cities. • The City reduced their fleet carbon footprint significantly and saved thousands of dollars in fuel expenses.	• Limited transition of heavy-duty vehicles to electric (technological constraints). • The City workforce typically drives inefficient vehicles or must drive long distances.[1] • $30 car tab (I-976) limits significant funding for transportation.	• Increase anti-idling campaign. • Build more public EV charging infrastructure.

[1] Note that the SWOT outcomes and staff interview responses did not undergo a formal fact checking or vetting process.

Building and Energy

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Key Achievements/ Progress To Date	Challenges/Gaps	Potential Actions for ESAP
Increase energy efficiency and encourage reductions in building energy consumption	• Energy Efficiency projects • Green Building Program • "Green" City Facilities Project • ClearPath Benchmarking Platform • EPA's ENERGY STAR Portfolio Manager for energy consumption tracking for city facilities • EnviroStars Certification • Puget Sound Energy's Green Direct Program • Energy Efficiency subsection of utilities element in Comprehensive Plan • Environmental Stewardship subsection of Natural Environment element in Comprehensive Plan	• Hartman Park and Lawn Park energy efficiency lighting installation. • Energy-efficient heat pumps and lighting installation. • LED street light retrofits and controls installation. • Systematic update of Farrel- McWhirter park facility or energy conservation. • Create residential energy use outreach partnership with PSE and C-7 cities group. • The Green Building Program Plan provides incentives to implement green building development. • Redmond was awarded an energy efficiency and solar grant worth $350,000 from Washington Department of Commerce for solar panels and LED street light retrofits.	• Trends and % reduction of consumption data (kWh, natural gas, solar, etc.). • Total # of green certified structures in the City. • # of LEED, ENERGY STAR, and other green building certifications of city facilities. • Total # of green certified structures in the City. • Annual city operations energy consumption. • Annual community energy consumption.	• City Hall has LEED and ENERGY STAR certifications. • Replaced all City owned traffic lights with LED lights, saving 1.8 million kWh per year. • Allocated $272,000 towards facility upgrades and energy retrofits. • Energy-related emissions increased 12% between 2011-2017. • Despite population growth, community-wide energy use decreased 5% since 2011--a reduction of over 300,000 MMBTU.	• The City of Redmond has several municipal buildings that have HVAC systems in need of repair; however, there is little funding to invest in repair and upgrades. • City environmental team does not have the resources to complete projects; stronger leadership is needed to make an impact on environmental issues. • Limited information on the return on investment (ROI) or business case can make promoting energy efficiency in buildings difficult. • The dynamics between tenants and landlords can cause entities to not take responsibility for making buildings more energy efficient.	• Create business case for energy efficiency. • Assess various options for financing and grants to energy efficiency projects for municipal buildings. • Implement technology solutions to reduce energy demand across City facilities. • Expand training for building code staff on energy efficiency requirements. • Create infrastructure for district energy in urban centers. • Introduce behavior change programs for using less energy in businesses and households. • Promote green energy certification. • Provide incentives to switch from natural gas to electric appliances. • Provide financial incentives for promoting and accrediting green buildings. • Introduce a policy/program to address embodied and operational carbon. • Renegotiate Puget Sound Energy flat rate contract. • Continue reducing the impact of athletic field lighting. • Required efficiency upgrades with redevelopment or tenant improvement thresholds. • Adopt IRC additional sustainable building codes. • Create a revolving energy efficiency fund.
Increase the generation and use of renewable energy	• "Green" City Facilities Project • Puget Sound Energy's Green Direct Program • PSE's Green Power Program • Environmental Stewardship subsection of Natural Environment element in Comprehensive Plan	• Solar panel installation at City Hall.	• % Energy produced from renewable sources. • kWh of renewable energy generation. • Composition of electricity fuel mix.	• Since 2011, Redmond has increased the amount of renewable electricity purchased from PSE's Green Power Purchasing Program by 129%--an increase of over 11,000,000 kWh. • City signed on to PSE's Green Direct program. • Natural gas usage has increased 6% since 2011—an increase of over 1,000,000 therms. • The carbon intensity, or the amount of carbon pollution per unit of energy, has increased since 2011 due to increased natural gas use and fluctuations in PSE's electricity fuel mix.	• The upfront cost of renewable energy infrastructure can be expensive. • The natural variability of wind and solar power introduces challenges for balancing energy supply and demand. • Renewable energy storage technology is still growing and can be expensive.	• Incentivize the installation of on-site renewable energy. • Require "Systems Ready" infrastructure for alternative/renewable energy systems.

Materials Management and Waste

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Progress To Date	Challenges/Gaps	Potential Actions for ESAP
Reduce waste generation and increase waste diversion.	• King County Comprehensive Solid Waste Management Plan • Community Strategic Plan 2019 - Environmental Sustainability section, Waste and Materials Management • Recycled materials green purchasing program • Food waste program expansion • Solid waste and recycling programs • EnerGov and Electronic Plans Submittal • Composting, yard, and food waste program • Environmental Stewardship subsection of Natural Environment Element of the Comprehensive Plan • Solid Waste subsection of utilities element of the Comprehensive Plan	• Support the E-Cycle (electronic waste) Washington recycling program. • Implemented curbside organic waste disposal service for single-family homes and has commercial and multi-family complexes participating in organics service. • Made recycling collection bins available at public buildings for residents to safely dispose of batteries. • Manages a comprehensive contract with Waste Management for the collection and disposal of garbage, recycling, and organics. • Offers up to three 64-gallon food recycling carts at no additional charge for residential curbside collection. • Three community solid waste and recycling collection events provided per year. • Electronic Plan review	• # of commercial and multi-family complexes participating in organics service. • Tons of organics diverted from waste stream as a result of participation. • Pounds of garbage generated per commercial employee. • The average weight (lbs.) of garbage collected per single family account per week. • Tons of greenhouse gas emissions reduced from solid waste stream.	• 99% of King County single-families with curbside garbage collection use organic waste disposal and 186 commercial and multi-family complexes participate in organics service. • Adopted a 10% price premium for recycled materials (can buy recycled even if it costs up to 10% more). • Increased the tons of organics diverted from the waste stream by 33% between 2013-2018. • Community diversion rate has increased from 40% to 45% from 2011 to 2017. • Participation in organics service in commercial and multi-family sectors has increased 16% from 2011 to 2018.	• The pounds of garbage generated per commercial employee is worsening, including a 10% increase from 2013 to 2018. • Recycling and/or composting can be perceived as inconvenient. • No way to track city operations waste, recycling and compost generation due to the Waste Management contract language (includes City's waste generation but doesn't quantify).	• Establish benchmarks to increase recycling rates. • Create a committee to establish service and capacity needs. Have the committee work together to decide which transfer capacity option is best for Redmond's portion of the solid waste system service area. • Implement innovative technologies to reduce impacts from trash generation. • Build community outreach and education plan around waste reduction. • Create a construction and demolition waste recycling program. • The City can encourage the use of the E-Cycle Washington program, rather than hosting its own collection events.
Support sustainable material production and consumption.	• King County Comprehensive Solid Waste Management Plan • Community Strategic Plan 2019 - Environmental Sustainability section, Waste and Materials Management • Recycled materials green purchasing program • EnerGov and Electronic Plans Submittal	• All employees can submit documents to city staff electronically without the need to submit multiple hard copies to various departments. • Staff have the ability to review plans electronically. • Funding established to purchase recycled materials for capital improvement projects. • Purchasing of electric blowers, mowers, and other small equipment.	• Provide a minimum # of community outreach and education programs. • Reduce # of in person plan submittals and hard copy prints.	• The City's purchasing policy for recycled materials includes a 10% price premium. • Provided waste education and outreach during 2019 with plans to continue through 2020. • Commercial garbage production has decreased on a per employee basis since 2011. • Single family residents have reduced garbage production 10% since 2011.	• Waste management plans and programs generally lack social or equity considerations/components. • Purchasing requirements and vendor contracts for a government agency limits what Redmond can do.	• Encourage the use of zero or low volatile organic compound (VOC) cleaning products. • Implement a gasoline lawn mower exchange program. • Promote the circular economy (e.g., bike share, tool libraries, used furniture and clothing stores) • Require compostable and paper disposables in municipal, commercial and industrial facilities. • Partner with Amazon on packaging alternatives. • Support a food donation program for grocery stores to send surplus food.

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Progress To Date	Challenges/Gaps	Potential Actions for ESAP
Protect existing open spaces, forests, and resources.	• Tree Canopy Strategic Plan • Citywide Watershed Management Plan • Street Trees program • Tree Protection Ordinance • Tree Fund • Tree City USA participation • Tosh, Bear, and Evans Creek Restoration Projects • Wildlife Certification for Parks • Water Resources Strategic Plan • Natural Environment element in Comprehensive Plan	• Green Redmond Day. • Has begun restoration projects at Bear, Tosh and Evans Creek. • A Tree Removal Permit is mandatory for the removal of any significant tree within the City. • Develop, implement and evaluate a Watershed Effectiveness Monitoring Plan. • Develop and implement a Watershed Adaptive Management Strategy. • Manage parks to maintain wildlife certification. • Conducts regular maintenance and timely inspections for of playground areas.	• # of active volunteer forest stewards. • Annual # of volunteer hours performed for stewardship opportunities. • % of citizens surveyed, satisfied with maintenance of parks, trails and green spaces. • Acres of tree plantings and maintenance by WCC Crew.	• 11,000+ volunteers have contributed over 30,00 hours for Green Redmond Day. • Green Redmond Day has resulted in almost 12,00 trees, 23,550 shrubs and small plants planted. • Tree City USA Certification • 22 parks certified as wildlife friendly spaces. • A 37% increase in annual # of volunteer hours performed for stewardship efforts (2013-2018). • 100% City-owned fields are composed of artificial turf. • Reduced herbicide use by approximately 33%.	• Private property requirement needed to meet overall Wildlife Habitat Certification. • Urban encroachment in natural areas.	• Protect and increase forested areas in the watershed. • Require sustainable landscaping at city parks and facilities. • Acquire and preserve the remaining forest land in Redmond.
Protect and restore stream corridors, buffers, and wetland and riparian habitats.	• Citywide Watershed Management Plan • Tosh, Bear, and Evans Creek Restoration Projects • Wildlife Certification for Parks • Water Resources Strategic Plan • Natural Environment element in Comprehensive Plan • Critical areas registrations	• Maintain the # of acres enrolled in active management for restoration, focusing more effort on maintaining acres already enrolled versus enrolling new acres. • Maintain the % of stream length with good in-stream habitat.	• # of acres enrolled in active management for restoration.	• A 36% increase in acres enrolled in active management (2013-2018). • A 1% increase in stream length with “good” in-stream habitat (2013-2018). • Maintained the % of streams that are considered healthy in an urban setting.	• Tribal members cannot exercise subsistence-level fishing rights due to declining fish species. • Growth Management Act (GMA) planning has placed the main responsibility for mitigating stormwater impacts related to development on developers. This has resulted in construction of stormwater infrastructure generally unaligned with watershed needs. • Design and install side channels that can be used by fish for foraging and for refuge during storm events.	• Require Salmon Safe Certification for City parks and facilities/properties. • Introduce drought- and heat-tolerant vegetation species; wildlife corridors, land acquisition, buffers. • Increase funding for stream/habitat projects. • Increase stream length with “good” in-stream habitat.
Increase citywide tree canopy.	• Tree Canopy Strategic Plan • Street Trees program • Tree Protection Ordinance • Tree Fund • Tree City USA participation	• Over 8,000 trees are managed and maintained by City. • Planting of trees throughout the City in city-owned property funded by fees collected from the Tree Fund.	• Annual # and % of approved developments achieving at least 35% tree retention. • The # and % of landmark trees approved for removal. • The annual # of replacement trees planted. • The annual # of tree removal permits issued. • % of total Redmond land area covered by tree foliage.	• Tree canopy cover declined from 38.7% to 38.1% since 2011—likely due to development of forested areas and increases in urban density. This is equivalent to a rate of at a rate of approximately 12-13 acres per year.	• Tree canopy coverage is declining in Redmond due to continuous development and redevelopment of vacant or underutilized areas. • Urban encroachment in natural areas. • Tree regulations are out of date. Current regulations were developed around 20 years ago.	• Increase education and awareness regarding the diverse benefits trees bring to the community. • Increase City-led tree planting and restoration efforts on public properties. • Develop incentives for voluntarily planting trees on private property. • Create tree planting programs that provide discounted trees to plant in neighborhoods or yards. • Reevaluate tree regulations. • Cap tree loss per parcel at 35%. Do not allow each redevelopment to only retain 35% trees.

Water Management

Goal	Relevant City Policies/Plans/Programs	Current City Activities	Current Metrics	Progress To Date	Challenges/Gaps	Potential Actions for ESAP
Improve surface and drinking water quality.	• Water Resources Strategic Plan • Community Strategic Plan 2019 • IDDE Program • Wellhead Protection Program • Water System Plan • Water subsection of utilities element in Comprehensive Plan	•Completes quality testing and water level measurements for groundwater monitor wells semi-annually.	• % monitoring wells meeting water quality standard • % groundwater samples with negative changes in condition • The # of annual water quality incidents or reports investigated or responded to • Benthic Index of Biotic Integrity (BIBI) scores • Amount of water delivered from City water wells compared to Cascade Water Alliance water supply • # of investigations taken to address potential issues at the monitoring or supply wells	• Completed quality testing and water level measurements for approximately 90 monitor wells in 2019. • Finished the groundwater model development and established updated Critical Aquifer Area (CARA) boundaries for effective water management. • Pollution prevention efforts continue to reduce pollution risks to our aquifer. The number of high-risk sites visited and provided technical assistance rose sharply in 2013-2015 to 100% in the last four years. • Temporary construction dewatering activities affected groundwater flow patterns and source areas through mid-2019 causing locations not typically sampled under normal flow conditions to be monitored during TCD. A subset of wells that were sampled each year from 2016 showed a higher % of compliance. Monitoring wells above groundwater quality standards were impacted by metals. • Primary drinking water standards are consistently met at most monitoring wells. Typical impacts at some locations are metals. Less typical impacts have included total coliforms.	• Land acquisition may be required in certain areas and may be difficult if located on private property. • Funding and permitting for water management improvements can be difficult to obtain/secure. • Stormwater pipe infrastructure such as flow splitters, stream inlets, and pond controls were identified as not functioning as designed.	• Reduce the risk of surface water and groundwater, contamination. • Monitor surface water, and groundwater conditions. • Construct or retrofit stormwater flow control and infiltration facilities.
Improve stormwater management.	• Water Resources Strategic Plan • Community Strategic Plan 2019 • Stormwater Maintenance Program • Individual Basin Plans (Monticello, Tosh) • Stormwater subsection of Utilities Element in Comprehensive Plan	• Conducted the first year of a 2-year basin inspection cycle. • Cleans catch basins within 6 months of inspection. • Improving stormwater flow control (vaults, ponds, infiltration facilities, etc.) to protect urban streams from excessive erosion from high speed flows and improving drainage capacity to prevent drainage systems from excessive flooding. • Creation of a City "Spill Hotline" to receive internal and external pollution incident reports or concerns within Redmond.	• % of city with adequate stormwater flow control • % of the City that has adequate runoff treatment • % stormwater treated by green infrastructure • # of responses that prevented or significantly minimized pollutant discharges to stormwater systems. • # of road closures due to storm-related flooding • # of water main breaks per mile of pipe and average repair time • # of sanitary sewer overflows from the public sewer systems	• 80% of stormwater assets meet service standards and are in "fair" or "better" condition • In 2018, all NPDES stormwater catch basins that contained were filled with debris were cleaned. • Catch basin inspection and cleaning has increased 174% between 2013-2018. This is primarily due to regulatory requirements and operational efficiency. • Between 2013-2018, the City increased stormwater flow control by 5%. The City improved quality of infrastructure (e.g., vaults, ponds, infiltration facilities) being provided across the City to protect our urban streams and drainage systems from excessive erosion and flooding. • Between 2011 and 2019, the percentage of the city having adequate runoff treatment increased from 32.63% to 38.88%.	• Regional stormwater facilities may be difficult and costly to site, particularly for large facilities or in areas with existing development. • Funding and permitting for stormwater management improvements can be difficult to obtain/secure. • Climate change will affect how the City delivers utility services and impact water supply and stormwater management practices. • Building stormwater facilities to manage future rainfall events due to changes in precipitation patterns.	• Reduce the risk of stormwater contamination. • Monitor stormwater conditions. • Manage flooding and adverse impact to floodplains. • Plan for resiliency/ climate change.
Expand and improve infrastructure that enables and expands water conservation.	• Water Resources Strategic Plan • Community Strategic Plan 2019 • Cascade Water Alliance • Water Conservation Program • Water subsection of utilities element in Comprehensive Plan	• Offers toilet, showerhead, and irrigation retrofits and rebates, residential water audits, classes and consultants for professional landscapers, and incentive-based water pricing to promote water conservation through Cascade Water Alliance. • Partners with Cascade Water Alliance and the Department of Ecology to do outreach and education on the benefits of grey water systems. • Utilizes a centralized water control system called Maxicom which controls the irrigation of landscapes for city facilities. • Replaced annual planting beds with drought-tolerant perennials and transitioned to manually turning on irrigation systems, when needed.	• Water usage (gallons) • Number of high-priority septic systems remaining in City limits		• Funding for water conservation improvements can be difficult to obtain/secure.	• Encourage the use of on-site rainwater harvesting with rain barrels or large cisterns. • Find ways to reduce water usage and using recycled water for some of the operations. • Partner with the Department of Ecology to do outreach on the benefits of gray water systems. • Partner with King County and Cascade Water Alliance to develop framework to incorporate reclaimed water infrastructure in future water planning. • Remove barriers in City policy for rainwater harvesting, grey water and reclaimed water use.

Methodology

The inventory includes findings from the following research activities, described in more detail below:

- A **literature review** of City plans, policies, progress reports. and other available documentation.
- One-on-one **interviews** with key City staff to gather insights and reflections.
- Two half-day interdepartmental **City staff workshops**.
- A **quantitative assessment** of Redmond's baseline conditions, including charting historical and likely future trends for key sustainability indicators.

Literature Review

Background research included review of available information and documentation related to City activities. Redmond City staff provided a spreadsheet outlining many existing City activities, programs, and plans, including links to the following documentation:

General
Community Strategic Plan Comprehensive Plan (including elements from Natural Environment, Land Use, Transportation, Utilities, and Capital Facilities)
Climate Change
Climate Action Implementation Plan Final Comprehensive Flood Hazard Management Plan
Transportation and Land Use
Downtown Parking Strategic Management Plan – Existing Conditions Report
Materials Management and Waste
Collaborative King County Solid Waste and Recycling Plan
Natural Systems
Tree Canopy Strategic Plan Citywide Watershed Management Plan Tosh Creek Watershed Restoration Plan Monticello Basin Plan Tree Preservation Ordinance
Water Management
Water Resources Strategic Plan Regional Stormwater Facilities Plan

Interviews[2]

The project team also conducted one-on-one interviews with key City staff. Interviews included questions related to existing City activities, potential opportunities, and challenges and concerns. Interviewees included:

- Cathy Beam, Principal Planner
- Erik Scairpon, Police Captain
- Gary Schimek, Environmental and Utilities Services Manager
- Jonny Chambers, Technology and Information Services Director
- Lee Ann Skipton, Facilities Manager
- Ernie Fix, Maintenance and Operations Supervisor
- Carol Helland, Deputy Director Planning
- Yuri Bergeron, Maintenance Technician
- Brian Donnelly, Maintenance Technician
- Jason Harnasch, Source Control Administrator

City Staff Workshops

We also consulted outcomes from two half-day workshops with City staff. Workshops included the following activities:

- A **SWOT analysis** to characterize Redmond's unique strengths, weaknesses, opportunities, and threats.
- Review of existing and proposed sustainability-related **progress, goals, and targets**.
- Review and refinement of **conceptual diagrams** that characterize the threats and factors in Redmond that affect progress toward various sustainability goals, and potential strategies to address those factors.

Attendees at the City staff workshops are listed below.

Workshop #1: Internal Operations Focus	Workshop #2: Community Focus
Meg Angevine, Parks Maintenance Peter Holte, Watershed Planning, Stormwater Scott McQuary, Spill Response Lucas Cometto, Purchasing Stacey Auer, Solid Waste & Recycling Teresa Kluver, Parks Operations Tom Hardy, Stream Habitat Jeff Aken, Parks Planning Eric O'Neal, Parks Projects Jason Alexander, Fire Aaron Moldver, Solid Waste, Stormwater, Groundwater Aila Macri, Stormwater, O&M	Lee Ann Skipton, Facilities Jon Spangler, Construction Cathy Beam, Planning Jozanne Moe, Building Steve Hitch, Stormwater Management Anne Dettlebach, Stormwater Management Emily Flannigan, Streams, Habitat, Stormwater Aaron Moldver, Solid Waste, Stormwater, Groundwater Jill Smith, Communications Caroline Chapman, Trip Reduction Carolyn Hope, Parks Planning Angie Venturato, Groundwater Protection Tally Young, Source Control Inspection Teresa Reed-Jennings, Water Utility and Reclaimed Water Jessica Atlakson, Groundwater/Surface Water Gary Schimek, Environment and Utilities

[2] Note that the SWOT outcomes and staff interview responses did not undergo formal fact checking or vetting process.

Focus Area Summary and Metrics

The following sections present a detailed compilation of inventory findings for each of the six focus areas, including quantitative analysis outcomes for key sustainability metrics/indicators. Findings are organized as follows:

- **Relevant Plans, Programs, and Policies** that inform current or future direction of sustainability-related activities.
- **City Progress to Date**, including sustainability achievements that City has already made notable sustainability activities within the City.
- **Identified Challenges and Gaps** that could hinder progress towards sustainability goals.
- **Potential Strategies, Actions, and Opportunities,** as identified through City staff engagement and review of City documentation, to consider when developing strategies and actions for the ESAP.
- **Metrics Snapshot** that illustrates **Past Trends** and **Projected Future Trends** for relevant sustainability metrics. Projected future trends are provided for three scenarios:
    - A **Business-As-Usual** scenario that assumes the City takes no further action to further sustainability goals.
    - An **Adjusted Business-As-Usual** scenario that takes into account existing and anticipated external policies and activities.
    - A **Target** scenario that can be used to compare projected future trends to relevant adopted targets, such as those set by Washington State or King County (K4C, PSRC).

Climate Change

Relevant Plans, Programs, and Policies
• The **Climate Action Implementation Plan (2014)** is a framework for addressing climate change and recommends strategies to mitigate carbon emissions within city operations and the community. The goal is to reduce their greenhouse gas emissions by 25% of their 2008 amount by 2020. • The **Community Strategic Plan (2019)** focuses on decreasing carbon footprint and providing access for businesses and community programs to reduce carbon footprint. It aims to have a City with two vibrant urban centers in Downtown and Overlake with connected neighborhoods and quality services. • The **King County-Cities Climate Collaboration (K4C)** is a partnership between various local governments in Washington to collectively reduce greenhouse gas emissions in King County through the achievement of the joint county-city climate commitments. • The City has created plans such as the **Geological Hazards Protection, Final Comprehensive Flood Hazard Management Plan** and **Comprehensive Emergency Management Plan** to ensure the safety of community members in the event of a natural disaster. Actions in the Natural Resources section of the Climate Action Implementation Plan also aim to make Redmond more resilient to climate change.
City Progress to Date
• Current emission-reducing activities include anti-idling campaigns, green purchasing policies, bus pass program, energy efficiency practices. • Between 2011-2017 municipal GHG emissions declined 5%. The decline in emissions is largely driven by energy-efficient upgrades and reductions in fleet fuel consumption. • As a part of the K4C partnership, Redmond is supporting 2019 policy and legislative advocacy that include: comprehensive science-based limits, market-based price on carbon pollution, expansion of funding for public transit, green buildings, and renewable energy.[3] • Several of Redmond's current programs and plans address climate change issues (e.g., stormwater management, energy conservation). These plans are detailed in their respective focus area sections. • The City uses ClearPath platform to track GHG emissions over time.
Identified Challenges and Gaps
• Limited funding compared to other initiatives such as stormwater management, solid waste management, and open space (as indicated by the 2019-2020 Clean and Green budget).[4] • Limited ability to mobilize hard-to-reach and vulnerable populations. • Difficult to bring the right City staff/leadership to the table. • Lack of funding, personnel, and other resources. • Large project backlog. • Uncertainty around climate change science. • Limited corporate engagement. • Resistance to change. • City does not encourage reuse of materials or resources.

[3] K4C State Policy and Legislative Interests for 2019. https://your.kingcounty.gov/dnrp/climate/documents/2019-K4C-Legislative-Interests.pdf

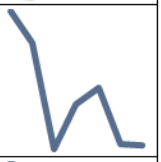
[4] City of Redmond Clean & Green Results. https://www.redmond.gov/DocumentCenter/View/4577/CLEAN-AND-G.REEN-PDF

Potential Strategies, Actions, and Opportunities
• Increase funding and capacity for the City of Redmond to make progress on climate action goals. • Emphasize the return on investment for municipal energy efficiency initiatives. • Build awareness of climate change and provide clear direction on how to address it. • Encourage and formalize employee schedules to expand participation among City staff.

Metrics Snapshot

Past Trends

- Community GHG emissions increased 7% from 2011 to 2017.[5] This trend is largely driven by population growth and building energy changes, highlighting the need to focus on energy-related emission sources.
- Between 2011-2017, per-capita emissions have declined 4%. This trend indicates that overall community GHG emission increases may be largely driven by population and economic growth in the city.
- Between 2011-2017 municipal GHG emissions declined 5%. The decline in emissions is largely driven by energy-efficient upgrades and reductions in fleet fuel consumption.

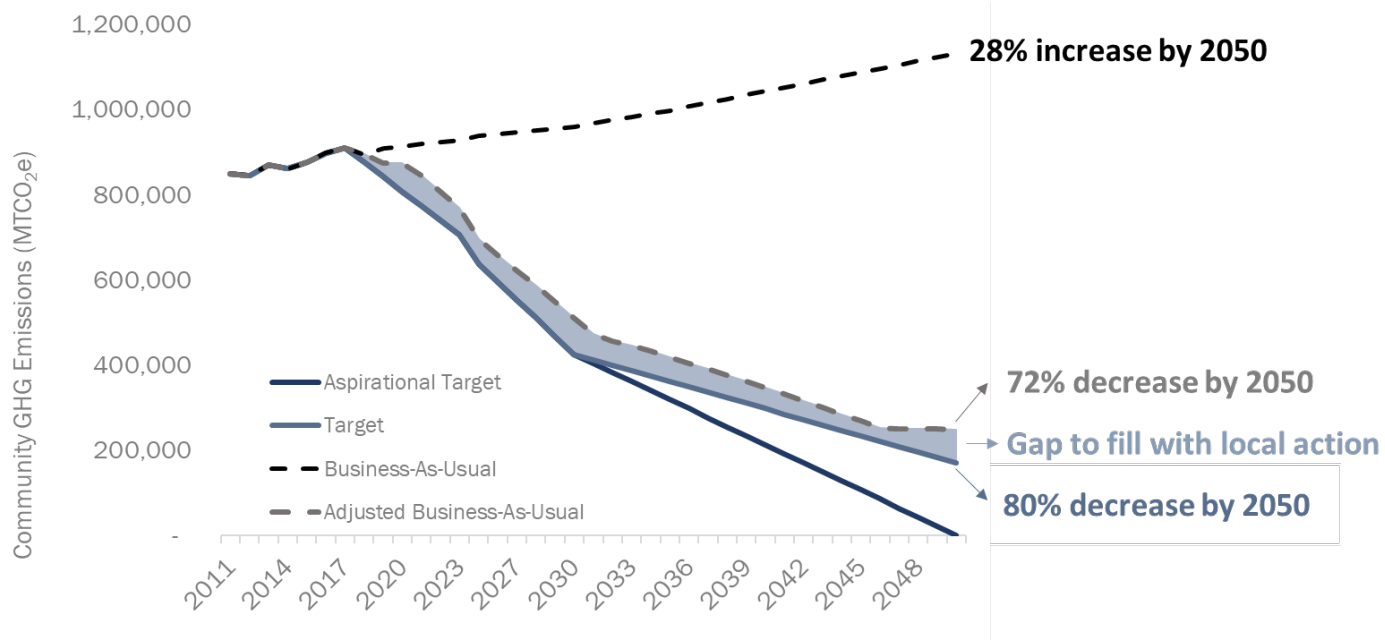
Performance Measure	Actual							Rating	Trend
	2011	2012	2013	2014	2015	2016	2017		
Community GHG Emissions ($MTCO_2e$)	848,793	844,811	869,132	860,653	874,752	897,352	909,748	Worsening	
Energy-Related GHG Emissions ($MTCO_2e$)*	586,468	584,950	616,704	604,484	621,431	644,384	656,202	Worsening	
Transportation-Related GHG Emissions ($MTCO_2e$)	242,486	240,395	233,451	236,383	237,448	233,784	233,698	Improving	
Solid Waste-Related GHG Emissions ($MTCO_2e$)	14,876	14,483	13,952	14,592	10,547	13,734	14,061	Maintaining	
Per-Capita Community GHG Emissions ($MTCO_2e$/capita)	16	15	16	15	15	15	15	Maintaining	
Municipal GHG Emissions ($MTCO_2e$)	8,162	8,190	7,321	8,170	8,126	8,074	7,743	Improving	

**Energy consumption data were interpolated in 2013 due to changes in PSE's accounting systems.*

[5] Although Redmond has been tracking GHG emissions since 2008, 2011 was chosen as the base year for emissions trends forecasting and target setting due to disparities in transportation modeling approaches prior to 2010. The prior VMT model (prior to 2011) produced VMT estimates that are inconsistent with the per-capita VMT that would be expected for the King County region.

Projected Future Trends in Community GHG Emissions ($MTCO_2e$)

Despite projected population and economic growth in King County and the Puget Sound region ("Business-As-Usual" scenario), there will be an anticipated net decrease of GHG emissions, due largely to state requirements for electric utilities to phase out fossil fuel sources by 2045 and anticipated federal vehicle fuel economy standards ("Adjusted Business-As-Usual Scenario"). Local action will still be critical to meeting long-term greenhouse gas emission reduction goals.



Transportation and Land Use

Relevant Plans, Program, and Policies

- The **Greening of City Fleet Goal Plan** focused on transitioning the municipal fleet towards hybrids and electric cars.
- **Go Redmond Program** is a comprehensive program that provides incentives, alternatives, and various resources to help both residents and workers use non-single rider transportation. This program started as R-TRIP back in the 1990s but has evolved into a multifaceted program.
- The **Redmond School Pool Program** (a part of Go Redmond Program) focuses on schools. This program has implemented events to encourage walking to school and track school community successes through data collection.
- The **Anti-Idling Campaign Program** was introduced under the Climate Action Implementation Plan to bring awareness about the negative impact of idling.
- The **Downtown Parking Strategic Management Plan** - Existing Conditions Report Plan is currently being conducted to understand parking patterns, which will inform the future construction of downtown and promote walkability.
- The **Green Redmond Partnership** preserves land in the City.
- **The City of Redmond Transportation Master Plan** was first completed in 2005 and has since been updated due to new ordinances such as complete streets and approval of the East Link Light rail.

City Progress to Date

- Redmond purchased its first hybrid in 2005, and currently operates and maintains 28 hybrid vehicles.
- The City currently tracks fleet fuel use, miles driven, and vehicle type**.**
- The City was awarded the Annual Best Achievement in Propane Autogas from Western Washington Clean Cities.
- The City reduced its fleet's carbon footprint significantly and saved thousands of dollars in fuel expenses.
- Redmond is currently identifying publicly owned land that is offered at a discounted price to support the development of deeply affordable housing.[6]
- As part of the transportation demand management program refresh, a study will be implemented to evaluate a 10-minute community pilot program that reduces vehicle reliance.
- A downtown Redmond parking study is in progress inform revisions to parking standards, including decreasing the required parking at sites proximate to light rail stations.
- The Department of Public Works installed two electric vehicle chargers in the MOC yards, explored building a sustainable campus, and researched alternative fuels.
- Redmond has installed electric vehicle charging stations in parking lots, utilizes drought-resistant landscaping, and grass composting on City Hall Campus.
- There is irrigation monitoring and low flow fixtures in restrooms for water conservation.
- The Transportation Master Plan's three-year action plan is 40% complete and 45% is in progress, signaling advancement in the past few years.
- The City constructed a sidewalk and bicycle lane on the west side of Red-Wood Road near 109th Street.[7]
- Redmond Fire Department Training's 8 (of 9) vehicles are hybrid electric.
- City Hall's Motor Pool vehicles are electric or hybrid except for one.

Identified Challenges and Gaps

- Limited transition of heavy-duty vehicles to electric.
- Purchasing requirements for a government agency somewhat limits what Redmond can buy – the affordable option is not always the most sustainable one.
- Inefficient vehicles driven by the community. Often must drive due to circumstances (long distances).[8]
- Driving is more comfortable, and alternatives are limited, so this discourages people from using alternatives.[8]
- $30 car-tab (I-976) limits significant funding for transportation.

[6] City of Redmond Community Strategic Plan. https://www.redmond.gov/DocumentCenter/View/9277/Community-Strategic-Plan-2019?bidId=

[7] City of Redmond Three-Year Action Plan Status. https://www.redmond.gov/DocumentCenter/View/7570/Three-Year-Action-Plan-2016-to-2018-Update-PDF?bidId=

[8] Redmond ESAP SWOT Analysis- Workshop 2. https://maps.groupmap.com/maps/wiLQbMrZgyk1/participants/w25W60MPCiaY. Note that the SWOT outcomes have not undergone a formal fact checking or vetting process.

- Need to move towards transit-oriented development, much of the City is still car oriented.
- Affordability to live in Redmond.

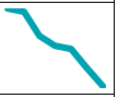
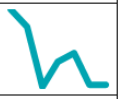
Potential Strategies, Actions, and Opportunities

- Subsidize affordable housing in denser areas to limit commuting distances.
- Adjust land-use policies to allow denser development and increase housing supply.
- Create a structure to support telecommuting schedules and encourage Skype meetings for City employees.
- Expand and promote innovative travel demand management programs.
- Increase the anti-idling campaign.
- Focus on maintaining and enhancing multimodal transit services and related facilities.
- Improve alternative transportation options with local schools.
- Build more EV charging infrastructure.
- Improve E-bike infrastructure.
- Upcoming light rail expansion presents an opportunity for transit-oriented development.
- Research solar powered emergency light bars to prevent truck idling without compromising safety.[9]
- Purchase recycled asphalt, versus hydro-excavating cold mix.[9]

Metrics Snapshot

Past Trends

- There has been a 2.1% overall increase in community vehicle miles traveled (VMT) from 2011 to 2017. This increase is largely driven by passenger vehicles—medium and heavy truck usage has declined over the same period.
- There has been a 9.4% decrease from 2011-2017. This decline could be due to shifts to transit, walking, and biking.
- Community transportation emissions decreased 4% from 2011-2017. This trend is primarily driven by increases in vehicle fuel efficiency.
- Between 2010 and 2018, the percentage of commuters that did not drive alone declined by almost 1%.
- Redmond vehicle fleet emissions have decreased 14% since 2011.

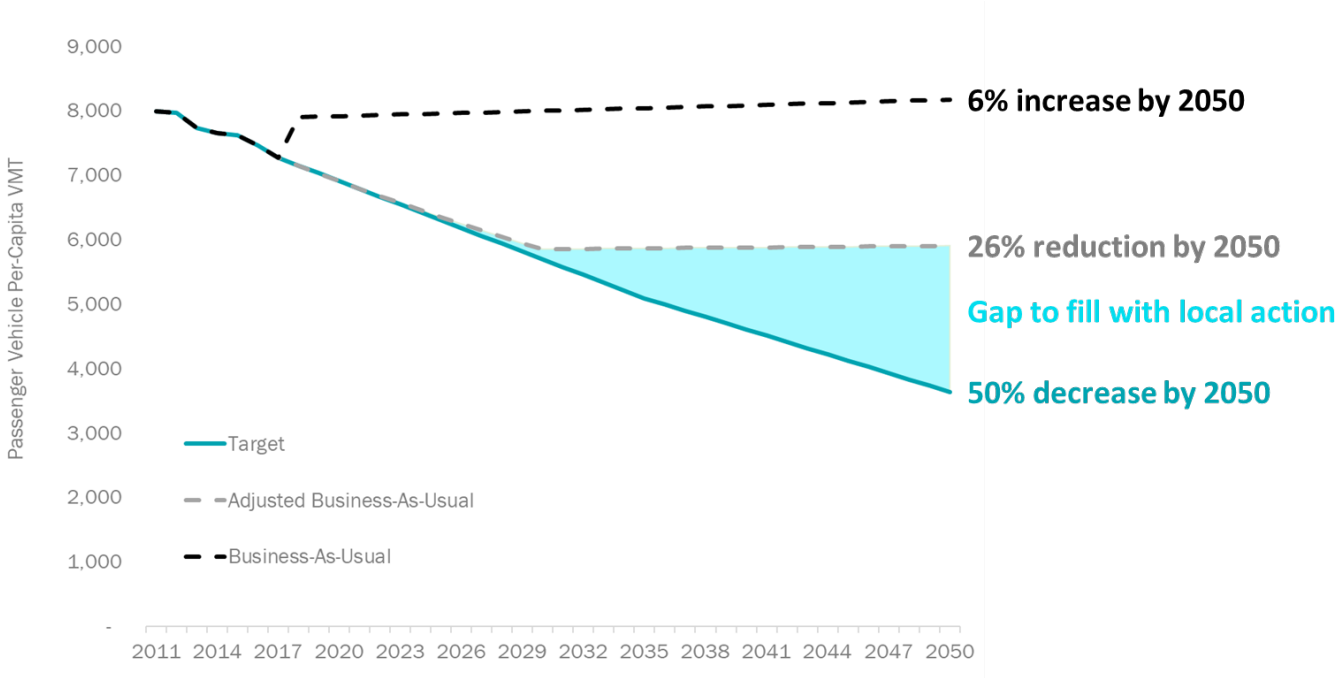
Performance Measure	Actual							Rating	Trend
	2011	2012	2013	2014	2015	2016	2017		
Community VMT	480,000,000	480,000,000	470,047,000	480,048,000	490,000,000	490,000,000	490,000,001	Worsening	
Per Capita VMT	8,704	8,671	8,418	8,320	8,280	8,091	7,889	Improving	
Transportation GHG Emissions	242,486	240,395	233,451	236,383	237,448	233,784	233,698	Improving	
Mode Share (% of commuters that do not drive alone to work)*		37.0%		38.3%		38.7%	35.6%	Worsening	
Vehicle fleet emissions	1,637	1,512	1,481	1,422	1,450	1,492	1,406	Improving	

**2017 data not available; entry represents data for 2018.*

[9] Redmond Staff Interview.

Projected Future Trends in Community Per-Capita Vehicle Miles Traveled (VMT)

Overall, we anticipate that community VMT will continue to steadily increase with continued economic growth in King County and the Puget Sound region. On a per-capita basis, we anticipate VMT to increase slightly to total a 6% increase by 2050. In the adjusted business-as-usual scenario, Redmond's per-capita VMT will reduce 26% by 2050—primarily due to the anticipated East Link light rail extension.



Buildings and Energy

Relevant Plans, Program, and Policies

- The **Green Building Program** provides incentives to implement green building and green infrastructure development techniques. This program fosters the sound development of new buildings to minimize environmental impacts.
- The **Energy Efficiency Conservation Block Grant Program** is funded by the federal government to support mayors across the US in accelerating local energy and climate initiatives. Redmond was awarded $272,000 and used it to implement the Impact Redmond website and other outreach and education materials.
- The **EnviroStars Certification Program** recognizes businesses on their green practices.
- Redmond is a part of the **Puget Sound Energy Green Direct** program, which allows the City to buy their electricity from local and renewable sources,[10] lowering electricity costs and reduce greenhouse gas emissions.

City Progress to Date

- The City of Redmond's previous Mayor (John Marchione) stated that the City of Redmond will partner with Puget Sound Energy to purchase 100% of its electricity for government operations from local renewable energy resources.
- City Hall has LEED and ENERGY STAR Certifications, providing an example to the community that Redmond is taking steps towards a more sustainable future.
- Through the Green Building Program plan, there are incentives to implement green building development techniques in all types of buildings within the City.
- The City has conducted various Energy Service Company (ESCO) projects to offer comprehensive energy solutions to improve efficiency and reduce consumption. Projects include LED lighting, replacing heat pumps, energy efficient windows at the pool, water filtration systems at the pool, heat systems for the pool.
- The City has had PSE at community events to sell energy efficiency lightbulbs at a highly reduced price. Further, PSE has implemented outreach to small businesses to offer retrofit services for energy efficiency.
- Redmond is working on building automation controls in municipal entities to reduce energy waste.
- The **ClearPath** platform tracks greenhouse gas inventories, forecasts, and monitoring at the community-wide or government-operations scales.
- Redmond has an **ENERGY STAR Portfolio Manager** account where they can record and track their consumption data of its municipal buildings, water and sewer facilities.

Identified Challenges and Gaps

- Several municipal buildings have HVAC upgrades or repair needs (75 units); however, limited funding and more energy efficient models can be more expensive.
- Need to demonstrate ROI and business case for sustainability projects.
- Limited ability to retrofit or improve energy efficiency when renting/leasing buildings.
- No formal process/tool/policy to include climate resilience considerations in capital projects.
- Limited staff dedicated to sustainability.
- Need for strong leadership around sustainability issues.
- Need for SMART targets and goals for sustainability.
- Shifting mindset to use less energy is challenging.

Potential Strategies, Actions, and Opportunities

- Implement technology solutions to reduce energy demand in the Technology and Information Services Department.[11]
- Expand training for building code staff on energy efficiency requirements.[11]
- Create infrastructure for district energy in urban centers.[11]
- Incentivize the installation of on-site renewable energy.[11]
- Introduce behavior change programs for using less energy in businesses and households.[11]
- Promote green energy certification.[11]

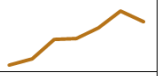
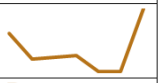
[10] PSE's Green Direct program is fully subscribed. https://www.pse.com/press-release/details/green-direct-announcement
[11] Redmond Staff Interview.

- Pass City policies such as offering incentives for solar-ready roofs to encourage renewables (this is already in place for single-family residential buildings).[11]
- Adopt additional sustainability IRC building codes.[11]
- Require energy efficiency improvements with tenant improvements and/or re-development thresholds.[11]
- Introduce a policy/ program to address embodied and operational carbon.
- Provide incentives to switch from natural gas to electric appliances.
- Provide financial incentives for promoting and accrediting green buildings.

Metrics Snapshot

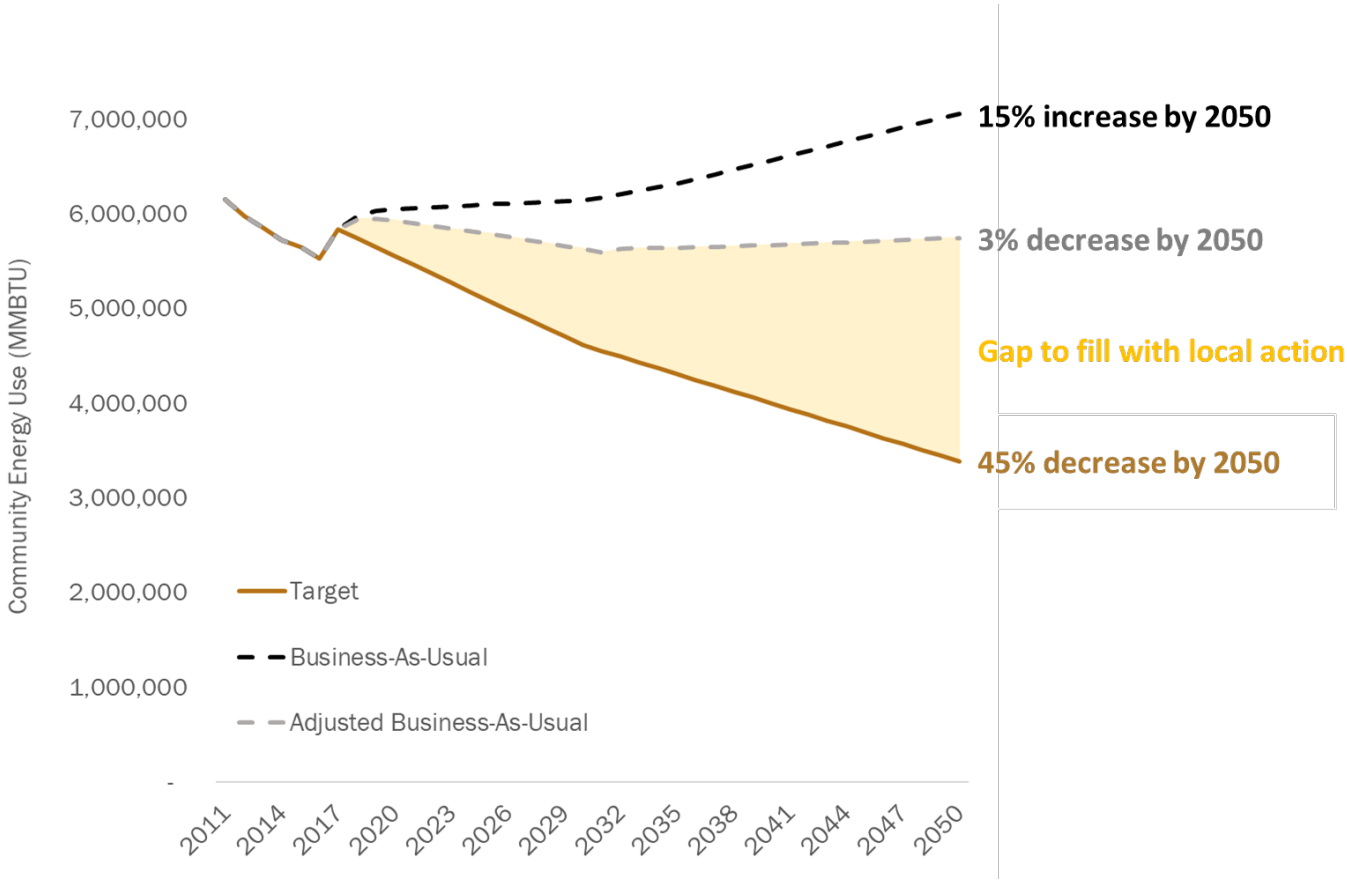
Past Trends

- Despite population growth, community-wide energy use decreased 5% since 2011--a reduction of over 300,000 MMBTU.
- Since 2011, Redmond has increased the amount of renewable electricity purchased from PSE's Green Power Purchasing Program by 129%--an increase of over 11,000,000 kWh.
- Natural gas usage has increased 6% since 2011—an increase of over 1,000,000 therms.
- The carbon intensity, or the amount of carbon pollution per unit of energy, has increased since 2011 due to increased natural gas use and fluctuations in PSE's electricity fuel mix.
- Energy-related emissions increased 12% between 2011-2017.

Performance Measure	Actual							Rating	Trend
	2011	2012	2013	2014	2015	2016	2017		
Community Energy Use (MMBtu)	6,149,141	5,975,911	5,847,145	5,718,379	5,647,249	5,526,547	5,831,673	Improving	
Carbon Intensity of Energy (MTCO2e/MMBtu)	0.10	0.10	0.11	0.11	0.11	0.12	0.11	Worsening	
Natural Gas Use (therms)	19,998,834	18,780,738	18,848,424	18,916,109	18,161,796	18,161,380	21,153,894	Worsening	
Electricity Use (kWh)	1,216,965,826	1,201,884,354	1,162,132,444	1,122,380,533	1,123,642,040	1,088,252,516	1,089,975,618	Improving	
PSE Green Power Purchases (kWh)	9,255,190	10,148,312	11,171,525	13,875,955	17,612,479	17,859,485	21,232,687	Improving	
Energy GHG Emissions (MTCO2e)	586,468	584,950	616,704	604,484	621,431	644,384	656,202	Improving	

Projected Future Trends: Community Energy Use

Population and economic growth drives community energy consumption upward under a Business-As-Usual scenario. However, technological advancements made in energy efficiency and implementation of the state building energy code will counter this affect; in the adjusted business-as-usual scenario, Redmond's community energy consumption is projected to decrease by 3% by 2050 compared to 2011 levels—leaving approximately 42% of additional reductions needed by local action to meet the regional target.



Materials Management and Waste

Relevant Plans, Program, and Policies

- The **King County Solid Waste Management Plan (2019)** identifies strategies for managing King County's solid waste over the next six to 20 years.
- The **Community Strategic Plan (2019)** includes objectives, strategies, and measures for increased waste diversion.
- The **Recycled Materials Green Purchasing** program aims to reduce the amount of waste that is produced through purchasing and utilizing new technology.
- The **Food Waste Program Expansion** program increased food waste recycling in City facilities.
- The **Solid Waste and Recycling** program aims to minimize the solid waste stream through maximizing waste reduction and recycling.
- The **EnerGov and Electronic Plans Submittal** program improves the efficiency of the plan submittal process and minimizes paper waste.
- The **Composting, Yard, and Food Waste** program encourages the re-use and recycling of green waste products.

City Progress to Date

- The City participates in the E-Cycle (electronic waste) Washington recycling program.
- King County implemented organic waste disposal service for 99% of single-families with curbside garbage collection and has 186 commercial and multi-family complexes participating in organics service.
- The City adopted a 10% price premium for recycled materials.
- The City has recycling collection bins available at public buildings for residents to safely dispose of batteries.
- The City manages a comprehensive contract with Waste Management for the collection and disposal of garbage, recycling, and organics.
- Community diversion rate has increased from 40% to 45% from 2011 to 2017.
- The City offers up to three 64-gallon food recycling carts at no charge (collected 2x/week by Waste Management).
- Tons of organics diverted from the waste stream increased by 33% between 2013-2018.[12]

Identified Challenges and Gaps

- Recycling and composting can be perceived as inconvenient.
- Waste management plans and programs generally lack social or equity considerations/components.
- Waste diversion may be challenged due to the reliance on China's recycling facilities and potential future restrictions on what is accepted.
- The pounds of garbage generated per commercial employee is worsening (10% increase between 2013-2018).[12]
- City does not encourage reuse of materials or resources.[13]

Potential Strategies, Actions, and Opportunities

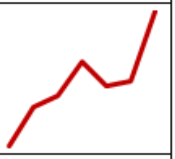
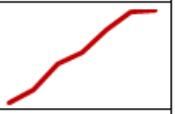
- Create a community lot for recycling firewood like Factoria's hazardous waste center.[13]
- Support King County Goal of diverting 70% of garbage through recycling.[14]
- Convene a committee to establish service and capacity needs. Have the committee work together to decide which transfer capacity option is best for our portion of the solid waste system service area.
- Build community outreach and education plan around waste reduction. [15]
- Implement Innovative Technologies to Reduce Impacts from Trash Generation.[15]
- Encourage the use of zero or low volatile organic compound cleaning products.[15]
- Create a construction and demotion waste recycling program.[15]
- Encourage the use of e-cycle Washington rather than hosting events.[16]
- Promote the circular economy (e.g., car and bike share, tool libraries, used furniture and clothing stores).[16]
- Require compostable and paper disposables in restaurants and stores.[16]
- Support a food donation program for grocery stores to send surplus food.[16]

[12] 2018 Clean and Green Performance Measures.
[13] Redmond Staff Interview.
[14] 2019 Comprehensive Solid Waste Management Plan.
[15] Environmental Initiative Spreadsheet.
[16] Redmond Conceptual Model on Materials Management and Waste.

Metrics Snapshot

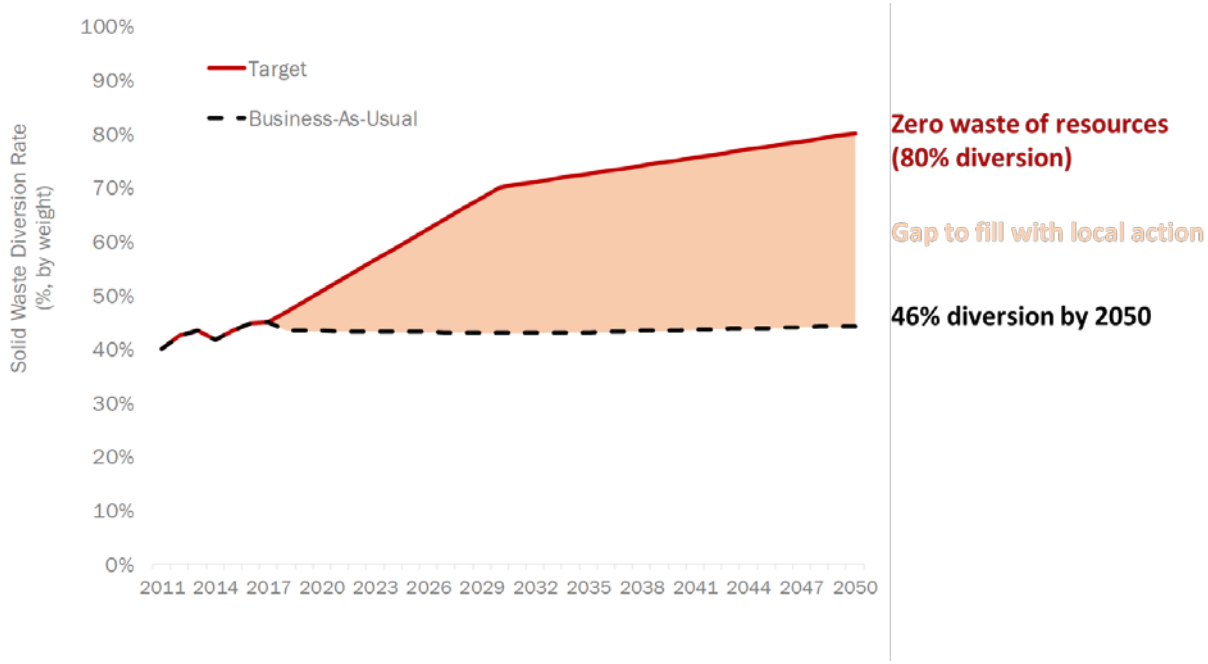
Past Trends

- Community diversion rate has increased from 40% to 45% from 2011 to 2017.
- Solid waste GHG emissions have declined 5% between 2011-2017. Increases in community waste diversion may have contributed to this trend.
- Participation in organics service in commercial and multi-family sectors has increased 16% from 2011 to 2018.
- Organics waste diversion increased 50% from 2011 to 2018. Much of this increase is likely due to expanded outreach and offerings for customers.
- Commercial garbage production has generally declined over time.
- Single family residents have reduced garbage production 10% since 2011.

Performance Measure	Actual							Rating	Trend
	2011	2012	2013	2014	2015	2016	2017		
Community Diversion Rate (%)	40%	42%	43%	42%	49%	45%	45%	Improving	
Solid Waste-Related GHG Emissions (MTCO2e)	14,876	14,483	13,952	14,592	13,200	13,734	14,061	Maintaining	
Commercial and multi-family complexes participation in organics service (# of complexes)	117	150	160	190	169	173	235	Improving	
Organic waste diversion (tons diverted)	263	326	448	495	600	690	698	Improving	
Commercial garbage production (weight of garbage generated per commercial employee)	470	438	408	424	387	394	381	Improving	
Residential garbage production (Average weight of garbage collected per single family account per week)	20	20	20	20	19	19	18	Improving	

Projected Future Trends: Waste Diversion

The community waste diversion rate is anticipated to remain fairly constant at 46% under the Business-As-Usual scenario. Due to a lack of policies at the state and federal level, the Redmond community will rely on local actions to achieve short- and long-term waste diversion goals.



Natural Systems

Relevant Plans, Program, and Policies

- The **Tree Canopy Strategic Plan** is an inter-departmental strategic plan to increase tree canopy across the city that includes a canopy coverage goal, proposed timeline, and methods for achieving the goal. (2019)
- The **Citywide Watershed Management Plan** identifies the target restoration conditions and provides a framework for addressing multiple regulatory drivers and development opportunities to support and restore healthy surface waters. (2015)
- The **Tosh Creek Restoration Plan** identifies projects to fully restore Tosh Creek to make it healthy for aquatic life and a valuable natural asset for the residents of Redmond. (2013)
- The **Bear Creek Restoration Plan** identifies improvements to instream habitat complexity, floodplain connection, and riparian buffer planting. (2014)
- The **Monticello Basin Plan** identifies projects to fully restore Monticello Creek to make it healthy for aquatic life and a valuable natural asset for the residents of Redmond. (2013)
- The **Tree Preservation Ordinance** avoids the removal of trees, landmark trees, protected trees, and critical areas in order to maintain the quality of the city's urban environment.
- The **Green Redmond Partnership** is a volunteer-based program to bring forested parkland into active management through the removal of non-native, invasive plants and the addition of native trees and shrubs.
- The **Street Trees** program proactively manages and maintains nearly 8,000 trees along major arterials and downtown to promote long-term health and address visibility and safety.
- The **Tree Fund** plants trees throughout the City in city-owned property, NGPEs and NGPAs funded by fees collected in the fee-in-lieu program for tree removal/replacement.
- The **Keller Farm Wetland Mitigation Bank** provides environmental restoration to Keller Farm Wetland and establishes a state-certified wetland mitigation bank.

City Progress to Date

- Developed Green Redmond Day where 11,000+ volunteers have contributed over 30,00 hours. This program has resulted in almost 12,00 trees, 23,550 shrubs and small plants planted and spanned across 15 parks.
- Has been continuously certified by the Washington State Department of Natural Resources as a Tree City USA.
- The City has 22 parks sites certified as wildlife-friendly spaces (Wildlife Habitat Certification).
- Artificial Turf has been installed at 100% of City-owned fields.
- Between 2013 and 2018, the annual number of volunteer hours performed for stewardship efforts increased 37% to 3,932.[17]
- Between 2013 and 2018, the City had 36% more acres enrolled in active management for restoration and is currently focusing more effort on maintaining acres already enrolled versus enrolling new acres. [17]
- The City conducts regular maintenance and timely inspections for 100% of playground areas.[17]
- The City saw a 1% increase in % of stream length with good in-stream habitat between 2013-2018.[17]
- The City tracks the % of streams that are considered healthy in an urban setting.[17]
- The City switched from sand to salt for snow and ice response and recalibrated the Climate, Community and Biodiversity Standard (CCB) application to meet national highway standards.[18]

Identified Challenges and Gaps

- Current conditions of Redmond creeks have caused Tribal members not to be able to exercise subsistence-level fishing rights due to declining fish species.
- The life expectancy of stormwater pipe and infrastructure is highly dependent upon the pipe material.
- Currently, tree canopy coverage is declining in Redmond, at a rate of approximately 12-13 acres per year due to continuous development and redevelopment of vacant or underutilized areas.[17]
- Land acquisition or restoration projects may be challenged due to natural systems and certain areas of land being located on privately owned land.
- Target for % of total Redmond land area covered by tree foliage needs to be updated.

[17] 2018 Clean and Green Performance Measures Excel Spreadsheet.

[18] Redmond Staff Interview.

- Stormwater pipe infrastructure such as flow splitters, stream inlets, and pond controls were identified as not functioning as designed.
- The potential for redevelopment is a significant driver in watershed restoration project selection by the City.
- Private property requirement needed to meet overall Wildlife Habitat Certification.
- Reevaluation of tree regulations- they were developed around 20 years ago.[19]
- Insufficient pollution regulations.[20]
- Urban encroachment in natural areas.[19]

Potential Strategies, Actions, and Opportunities

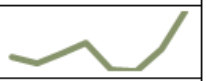
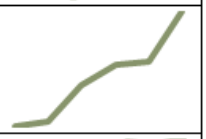
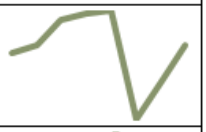
- Educate the public on moss on handrails and island, which could decrease daily maintenance. [19]
- Educate the public on dumping yard waste into natural areas. Specifically, educate people on picking up after pet's waste and leaving bags around.[19]
- Increase Redmond's tree canopy coverage to 40% over a period of 30 years.[18]
- Provide education and outreach to improve community-wide understanding of the diverse benefits naturals systems bring to the community.[18]
- Increase City led tree planting and restoration efforts on public properties.[18]
- Incentivize voluntary tree planting on private property.[18]
- Develop a Tree planting program that would provide discounted trees to plant in your neighborhood or yard.[18]
- Require sustainable landscaping at all city parks and facilities[21]
- Acquire and maintain Salmon Safe Certification for all City Parks and facilities.[19]
- Implement the Sammamish River Compensatory Floodplain Storage Project (NE-55) to increase flood storage areas and reduce runoff volumes and peak flows.[21]
- Encourage local food production.[21]
- Construct or retrofit stormwater flow control and infiltration facilities.[22]
- Protect and increase forested areas near local watersheds.[22]
- Design and install side channels that can be used by fish for foraging and for refuge during storm events. [22]
- Construct or retrofit stormwater runoff treatment facilities[22]
- Develop educational material and perform outreach efforts, such as presentations at community meetings, to educate residents about water quality, habitat, and stormwater issues within their home watersheds. [22]
- Enhance buffers through weed removal and light planting.[22]
- Increase Runoff Treatment Facility Inspections[22]
- Acquire and preserve the remaining forest land in Redmond. [23]
- Incentivize businesses and developments to participate in restoration efforts, such as creating a recognition program that protects/restores natural orca sites.[20]
- Develop a program that allows for private sponsorship of restoration projects.[19]
- Introduce drought- and heat-tolerant species; wildlife corridors, land acquisition, and buffers throughout the City.[19]
- Improve land use policy to minimize natural habitat loss. [19]

[19] Redmond Staff Interview.
[20] Redmond Conceptual Models from Natural Systems.
[21] Environmental Initiative Spreadsheet.
[22] City of Redmond Watershed Management Plan. https://www.wastormwatercenter.org/files/library/redmond-watershed-plan.pdf
[23] Redmond ESAP SWOT Analysis- Workshop 2. https://maps.groupmap.com/maps/wiLQbMrZgyk1/participants/w25W60MPCiaY. Note that the SWOT outcomes have not undergone a formal fact checking or vetting process.

Metrics Snapshot

Past Trends

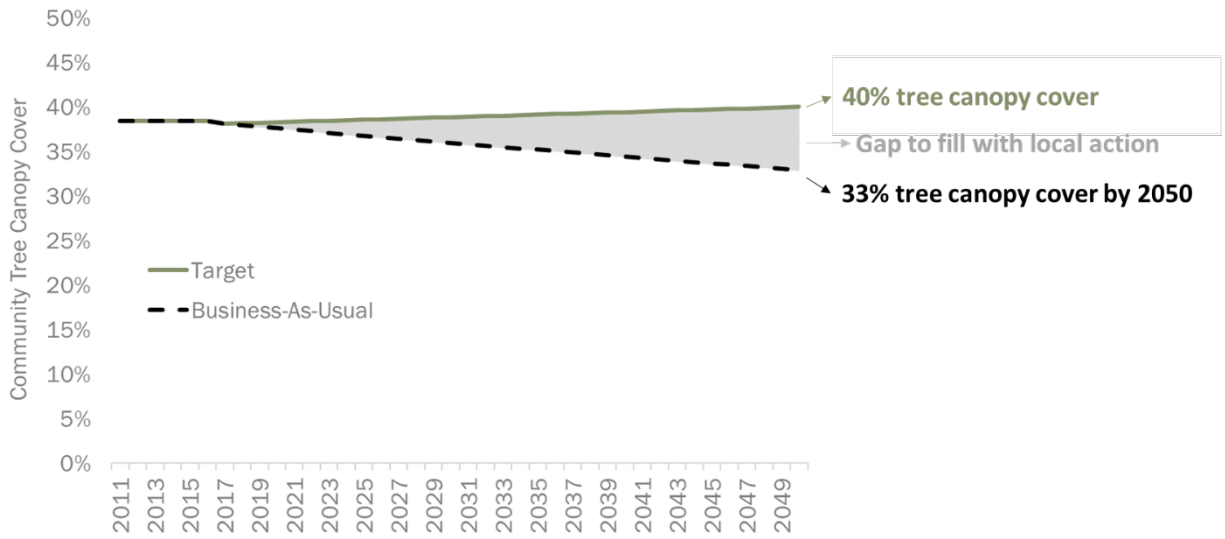
- Tree canopy cover declined from 38.7% to 38.1% since 2011—likely due to development of forested areas and increases in urban density. This is equivalent to a rate of at a rate of approximately 12-13 acres per year.
- In 2018, all NPDES stormwater catch basins that contained were filled with debris were cleaned.
- Between 2013-2018, the City increased stormwater flow control by 5%. The City improved quality of infrastructure (e.g., vaults, ponds, infiltration facilities) being provided across the City to protect our urban streams and drainage systems from excessive erosion and flooding.
- Between 2011 and 2019, the percentage of the city having adequate runoff treatment increased from 32.63% to 38.88%.
- Catch basin inspection and cleaning has increased 174% between 2013-2018. This is primarily due to regulatory requirements and operational efficiency.
- The quality of in-stream habitat has remained fairly constant over time.
- The percentage of streams considered healthy has fluctuated between 0% and 17% percent over time.

Performance Measure	Actual								Rating	Trend
	2011	2012	2013	2014	2015	2016	2017	2018		
Tree canopy cover (%)	38.7%	38.7%	38.7%	38.7%	38.4%	38.4%	38.1%		Improving	
Catch basins inspection (# inspected)	2,186	1,617	2,471	3,569	958	825	2,988	6,759	Improving	
Catch basin cleaning (% of catch basins cleaned within six months of inspection)	N/A	N/A	N/A	N/A	97.0%	74.0%	99.0%	100.0%	Improving	
Stormwater flow control (% of area with adequate stormwater flow control)	N/A	N/A	17.9%	18.2%	20.4%	21.7%	21.9%	25.0%	Improving	
Stormwater flow water quality treatment (% of area with adequate stormwater quality treatment)	32.6%	33.0%	32.8%	35.3%	37.4%	37.3%	37.5%	38.8%	Improving	
Stream habitat quality (% of stream length with good in-stream habitat)	20.7%	20.9%	21.7%	21.9%	22.0%	18.6%	19.8%	20.9%	Maintaining	
Stream health (% of streams that are considered healthy in an urban setting)	N/A	N/A	0.0%	10.0%	0.0%	17.0%	0.0%	0.0%	Maintaining	

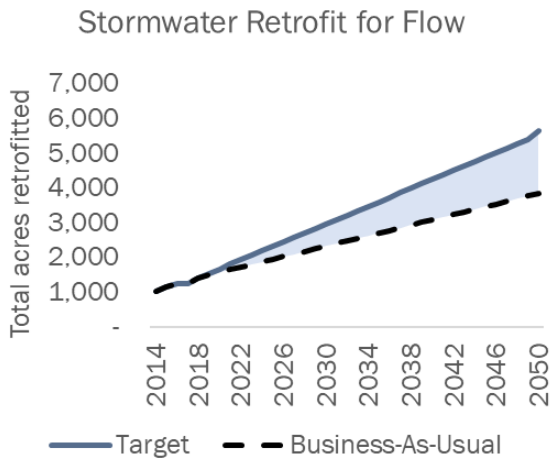
Projected Future Trends: Tree Canopy Cover

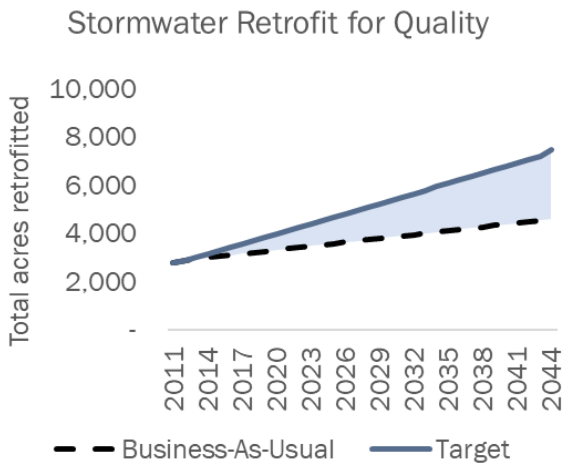
Tree canopy cover is projected to steadily decrease in the Business-As-Usual scenario due to continued development and urban density.

For the last few year, the City has been implementing stormwater projects that increase proportion of stormwater runoff in the city that receives flow control and water quality treatment prior to flowing into surface water bodies. The trend over the past few years is slightly below where it needs to be to achieve the target of providing flow control and water quality treatment to 100% of the areas that need it by 2050.To reach the targets outlined in this plan, stormwater flow and quality need to increase the number of acres retrofitted by over 1,800 and 2,800, respectively.



Projected Future Trends: Stormwater Management





Water Management

Relevant Plans, Program, and Policies

- The **Water Resources Strategic Plan** outlines missions, goals, objectives, strategies, and tactics for water resources efforts in Redmond and how they align with the overall City vision and other City functional areas. (2015)
- The **Redmond Community Strategic Plan** is the work plan for the City and guides its work. The plan includes objectives, strategies, measures, and action regarding infrastructure, environmental sustainability, housing, technology, increase waste diversion, and cultural inclusion. (2019)
- The **Regional Stormwater Facilities Plan** coordinates the development of the City's urban areas with stormwater management improvements that provide water quality benefits for receiving waters while taking advantage of cost-effective strategies for capital construction. (2010)
- The **Illicit Discharge Detection and Elimination (IDDE)** program prevents contamination and/or degradation of storm, surface, groundwater, and eliminates improper or illicit connections to stormwater drainage systems that discharge unauthorized non-stormwater.
- The **Groundwater Wellhead Protection** program identifies, prevents, and manages threats to maintain groundwater quality and quantity. (2003)
- **Cascade Water Alliance** offers water saving retrofits and rebates, residential water audits, and incentive-based water pricing to promote the efficient use of potable water.
- The **Water Conservation** program aims to reduce water in park facilities through technology and landscaping practices.
- The **Stormwater Maintenance** program proactively maintains water infrastructure including, pipes, catch basins, vaults, ponds, and swales.

City Progress to Date

- The City recently conducted groundwater modeling and established updated Critical Aquifer Recharge Area (CARA) boundaries for effective water management.
- The City conducts quality testing and water level measurements for approximately 100 monitor wells, including testing of 1/3 of monitor wells for groundwater quality and measures all wells for depth-to-water semi-annually.
- The City offers water conservation information and rebates through Cascade Water Alliance, including toilet, showerhead, and irrigation retrofits and rebates, residential water audits, classes and consultants for professional landscapers, and incentive-based water pricing to promote water conservation.
- The City partners with Cascade Water Alliance and the Department of Ecology to conduct outreach and education on the benefits of grey water systems.
- The City utilizes a centralized water control system called Maxicom that controls landscape irrigation.
- The City replaced annual planting beds with drought-tolerant perennials and transitioned to as-needed irrigation.
- The City conducted the first year of a two-year inspection cycle in which approximately 11,434 catch basins are inspected- 63% Increase between 2013-2018.[24]
- The City currently has 80% of stormwater assets that meet the level of service standards and are in fair or better condition.
- The City cleaned 100% of catch basins within six months of inspection.[24]
- The City increased the % of City with adequate stormwater flow control by 5% between 2013-2018.[24]
- The City recently improved efforts to reduce pollution risks to the City's aquifer. In 2018, Inspection staff issued 21 spill kits, and 6 drainage maps, 2,366 gallons of hazardous materials were moved to secondary containment and removed 1,360 gallons of hazardous materials from sites. [24]

[24] 2018 Clean and Green Performance Measures.

Identified Challenges and Gaps
• The City currently has no true decant facility.[25] • Regional stormwater facilities may be difficult and costly to site, particularly for large facilities or in areas with existing development.[26] • The execution of regional stormwater controls requires substantial planning, financing, and permitting. Land acquisition must be in place ahead of future projected growth.[26] • Negative stigma of reuse.[27] • High cost of reuse systems.[25] • Inefficient behaviors. [25] • More summer droughts. [25] • Higher intensity rainfall events.[25] • Reclaimed water infrastructure impacts water infrastructure and revenue projections, which impacts ability to plan. • The life expectancy of stormwater pipe is highly dependent upon the pipe material. [25] • The City needs a secondary decant facility in the south end to address the increase in development. Multiple campuses are needed to increase processing of solid waste, in addition having a satellite office would increase incident response times.[29]
Potential Strategies, Actions, and Opportunities
• Create a dewatering facility specific to hydro-digging to reduces the impact on the decant facility.[25] • Enclose the mineral bins to prevent runoff into the storm system and to keep materials covered and dry.[25] • Focus on addressing the crossover between public and private water and wastewater systems. • Retire/Eliminate lift stations to increase efficiency and reduce land-use (e.g. Kirkland 132nd Boarder). [29] • Use reclaimed water from the Purple Pipes for certain utility projects. [29] • Reduce the risk of surface water, groundwater, and stormwater contamination.[28] • Monitor surface water, groundwater and stormwater conditions to ensure quality and quantity. [25] • Manage existing (subsurface) contamination. [25] • Protect and restore aquifer recharge. [25] • Proactively maintain water resources infrastructures. [25] • Manage flooding and adverse impact to floodplains. [25] • Plan for future development and retrofit developed areas that flood or have degraded water quality and habitat. • Protect and restore stream corridors, buffers, wetlands, and riparian habitat. [25] • Develop a public outreach campaign to educate the community on water resource protection and recovery. • Encourage the use of on-site rainwater harvesting with rain barrels or large cisterns.[29] • Partner with the Department of Ecology to do outreach on the benefits of gray water systems. [25] • Find ways to reduce water usage, such as using recycled water for various City operations. For example, the Maintenance and Operations Center is aging and currently, there are no plans in place to reduce its impact or improve sustainability. [25] • Provide educational materials on reuse options & benefits. [25] • Expand education & rebates for efficient irrigation.[30]

Metrics Snapshot

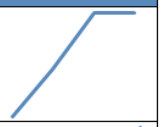
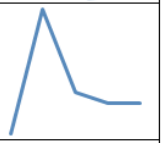
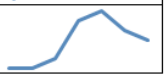
Past Trends

- Pollution prevention efforts continue to reduce pollution risks to our aquifer. The number of high-risk sites visited and provided technical assistance rose sharply in 2013-2015 to 100% in the last four years.

[25] Redmond Staff Interview.
[26] Regional Stormwater Facilities. https://www.redmond.gov/497/Regional-Stormwater-Facilities and https://www.redmond.gov/DocumentCenter/View/1066/Regional-Water-Facilities-Plan--Feb2010-PDF
[27] Redmond Conceptual Models from Water Management.
[28] Water Resources Strategic Plan. http://www1.redmond.gov/common/pages/UserFile.aspx?fileId=161330
[29] Environmental Initiatives Spreadsheet.
[30] Redmond Conceptual Models from Water Management.

Increased awareness of risks to polluting water resources has resulted in an improved focus on implementation of pollution prevention BMPs.

- Temporary construction dewatering activities affected groundwater flow patterns and source areas through mid-2019 causing locations not typically sampled under normal flow conditions to be monitored during TCD. A subset of wells that were sampled each year from 2016 showed a higher % of compliance. Monitoring wells above groundwater quality standards were impacted by metals.
- Primary drinking water standards are consistently met at most monitoring wells. Typical impacts at some locations are metals. Less typical impacts have included total coliforms.
- Recharging the City's aquifers is important to maintaining water supply. Additions of impervious area since 2013 has reduced recharge to our aquifer. Increasing use of pervious pavement and retrofits for infiltration of runoff are starting to slow the trend. Where feasible, the City promotes the use of infiltration systems to preserve and restore recharge.

Performance Measure	Actual									Rating	Trend
	2011	2012	2013	2014	2015	2016	2017	2018	2019		
Pollution prevention site visits (% of high-risk sites visited and provided technical assistance)	N/A	54%	12%	45%	70%	100%	100%	N/A	N/A	Improving	
Groundwater quality (% of groundwater quality samples that meet Groundwater Quality Standards)	N/A	N/A	N/A	60.0%	51.0%	51.0%	44.0%	45.0%	65.0%	Maintaining	
Groundwater quality (% of groundwater quality samples that meet Primary Drinking Water Standards)	N/A	N/A	N/A	N/A	86.0%	92.0%	88.0%	87.5%	87.5%	Maintaining	
Aquifer recharge (change in Aquifer Recharge Area)	N/A	N/A	256,800	1,262,136	1,522,780	996,400	754,202	N/A	N/A	Worsening	

Cross-Cutting Topics

Relevant Plans, Program, and Policies
• **Climate Action and Implementation Plan (CAIP)** • **Community Strategic Plan (2019)**
Identified Challenges and Gaps
• The City of Redmond is behind on current climate action commitments.[31]* • Many of the City plans fail to be actionable and scalable. [31] • Redmond should look to be a leader in environmental sustainability. [31] • Sustainable growth or degrowth can be challenging to achieve or implement. [31] • Difficulty to adapt to climate impacts due to the various uncertainties. [31] • Implementing climate action may be challenged during elections and administration changes. [31] • Implementing local climate action may be restricted by NIMBYism or public resistance. [31] • Uncertainty in public health impacts like vector borne diseases, heat-illnesses, and influenzas. [31] • Redmond needs to improve external communication with diverse and underrepresented communities. [31] • The City has long-term contracts with vendors that limits flexibility. [31] • Redmond will need to consider its influence on the population of people who work in Redmond do not live in Redmond. [31] • Redmond needs to improve sustainability messaging from leaders- integrating a top-down approach is beneficial.[32] • Improve translation and alternative language options- Currently, the City does not have the best alternatives to offer if English is not the first language. • Part of the community does not have a voter or taxpayer voice because they are on a visa, but they are still are an important stakeholder. The City should look to improve engagement opportunities with these community members.[32]
Potential Strategies, Actions, and Opportunities
• The City should work with and highlight business within the city who are sustainability leaders.[74] • Develop and continuously host climate education events within the community to improve support and communication.[74] • Create a PTA sustainability chair to improve climate outreach and action within Redmond school districts.[74] • Adopt a policy where a sustainability criteria or checklist is required for all contracts and vendors. [72] • Utilize public-private partnerships for sustainability actions to reduce financial or development barriers.[72] • Ensure allocation of funds and staff-time for climate and sustainability related projects, policies, and programs.[72]

[31] Redmond Stakeholder Workshop SWOT Analysis. https://maps.groupmap.com/maps/DFxf3XSZAxKE/participants/w6HgaPsC2Z0J. Note that the SWOT outcomes have not undergone a formal fact checking or vetting process.

[32] Redmond Staff Interview.

Appendix: Activity Detail

Climate Change

City of Redmond - Climate Action Implementation Plan
Primary Goal: The Climate Action Implementation Plan focuses on reducing greenhouse gas emissions for the City of Redmond. This plan is a framework for addressing climate change and recommends strategies to mitigate carbon emissions within city operations and the community. The goal is to reduce their greenhouse gas emissions by 25% of their 2008 amount by 2020.
Who's Involved: Planning Department
Timeline: Adopted on September 2, 2014. Data collection began in 2008; plan implementation began in 2014. Implementation is ongoing.
Pertinent Activities/Elements: • **Mobility:** *City-focused* actions include anti-idling campaign; diesel vehicle retrofits; hybrid fleet vehicles; fleet green purchasing policy; commute trip reduction incentives including bus pass program; workday adjustments (Fire department transitioned from 24 to 48-hour shifts); Complete Streets ordinance; Transportation Master Plan; bike parking requirements for new development. *Community-focused* actions include Go Redmond, formerly known as R-TRIP, (offers information, programs, and incentives to help residents and commuters to avoid drive alone options); installation of electric vehicle infrastructure; enhanced car share options. • **Buildings and energy:** *City-focused* actions include LED lights for traffic signals and crosswalks; higher density, mixed-use development in downtown cores; LEED silver and ENERGY STAR certified buildings (including City Hall). *Community-focused* actions include Puget Sound Energy Green Power Purchasing program; home energy reports; energy section of the Comprehensive Plan; electric code changes for new construction (electric charging equipment requirements). • **Waste and recycling:** *City-focused* actions include reducing paper use through technology; recycled materials purchasing policy; food waste recycling expansion; styrofoam recycling. *Community-focused* actions include residential and commercial recycling programs; yard and food waste recycling; SIRE (information management system allows for the entire City Council agenda process to be automated, which reduces processing time, materials, and money associated with paper printing costs. • **Natural resources:** *City-focused* actions include water-saving parks practices; low impact development; artificial field surfacing; tree preservation policies, and Maxicom. Community-focused actions include water conservation programs; Green Redmond Partnership; safe yard care practices; Tree City USA designation; street tree program; Citywide Watershed Plan. *Community-focused* actions include education and outreach activities about sustainability; climate change; and ways to reduce environmental impact.
Metrics: • # of strategies implemented • Annual city operations GHG emissions • Annual communitywide GHG emissions • % reduction in GHG emissions

Community Strategic Plan - Environmental Sustainability Section[33]
Primary Goals: Vision statement is "a Redmond that creates a healthy, sustainable environment for all generations and conserves our natural resources, affords a high quality of life, and draws from scientific evidence-based data."
Who's Involved: City of Redmond Parks & Recreation, Public Works, Planning
Timeline: Adopted October 2019; implementation from 2019 to 2024.
Pertinent Activities/Elements: • Establish systematic program operations and reporting on our factors that contribute to our carbon footprint • **Mobility:** *City-focused* actions provide housing choices that fosters a walkable city and accessible to all income levels. *Community-focused* actions include evaluating options to pilot a 10-minute community; assessing parking in studies to decrease required parking near light rail stations; and completing park improvements. Implementing the fleet greening strategy – complete policy and fostering infrastructure that makes Redmond safe, multi-modal, smart, green, and has high value for long-term infrastructure investments that support the future needs. • **Buildings and energy:** *City-focused* actions are Conducting an audit for the best opportunities; developing and implementing standard for creating project specific return on investment determination; and organizing staff for ongoing Environmental Sustainability Program. *Community-focused* actions will include exploring infill housing options and retrofits to increase dwelling units within existing building envelope.
Metrics: • # of vehicle trips • % reduction in greenhouse gas emissions from city operations in alignment with the City's Climate Action Implementation Plan • Increase the tree canopy to 40% • Increase the # of healthy streams (BIBI Index over 35 for 12 streams) • % of water quality tests that meet compliance regulations Establish benchmarks to decrease the waste stream and increase recycling rates • % of community responding they feel safe and welcome in their neighborhood during the day and at night • # of total residents participating in community events and activities • % of Redmond residents that rate Redmond's different modes of transportation as excellent or good • Walkability: % of population with convenient access to parks and trails (ability to walk less than 1/4 mile to a park or trail from home or office)

[33] City of Redmond Community Strategic Plan. https://www.redmond.gov/DocumentCenter/View/9277/Community-Strategic-Plan-2019?bidId=

King County-Cities Climate Collaboration (K4C) [34]
Primary Goal: . The City is a founding member of K4C, the collaboration has adopted joint county-city commitments, to collectively reduce greenhouse gas emissions in King County.
Who's Involved: Planning Department; King County; Regional cities
Timeline: Established in 2014 and deadlines for goals are set for 2030 and 2050.
Pertinent Activities/Elements: • Participate on Steering Committee to identify common projects and approve spending. • Representation at Mayoral summits. • Implementation of pathways, policy commitments, and catalytic projects/programs for: shared goals; climate policy; transportation and land use; energy supply; green buildings and energy efficiency; consumption and materials management; forests and farming; government operations; and collaboration. • **Climate Adaptation:** *City-focused* actions. *Community-focused* actions include Establishing a public facing dashboard for tracking progress and using the information to inform regional climate action. • **Mobility:** *City-focused* actions. *Community-focused* actions include. • **Buildings and energy:** *City-focused* actions are Building on existing state renewable energy commitments including the Washington State Renewable Portfolio Standard (RPS) to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources. In partnership with utilities, developing a package of county and city commitments that support increasingly renewable energy sources. *Community-focused* actions Building on existing state renewable energy commitments including the Washington State Renewable Portfolio Standard (RPS) to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources.
Metrics and Accomplishments: • # of catalytic actions implemented • Won national recognition for its work - a 2016 Climate Leadership Award from the U.S. Environmental Protection Agency (EPA)[35]

Other Activities and Information

Pertinent Activities/Elements:
• Examples include:
  o Relative to a 2007 baseline, King County set targets for a reduction in countywide sources of GHG emissions of 25% by 2020, 50% by 2030, and 80% by 2050. King County is accountable for emissions inventorying and reporting.
  o Redmond is part of the Regional Code Collaboration and work to adopt code pathways that build on the Washington State Energy Code, leading the way to "net-zero carbon" buildings.
  o Developing a multi-city partnership to help build a regional energy efficiency retrofit economy.

[34] King County-Cities Climate Collaboration.https://kingcounty.gov/services/environment/climate/actions-strategies/climate-strategies/partnerships-collaborations/k4c.aspx

[35]King County-Cities Climate Collaboration wins national 2016 Climate Leadership Award. https://www.kingcounty.gov/depts/dnrp/newsroom/newsreleases/2016/March/09-Climate-Leadership-Award.aspx

Transportation and Land Use

Go Redmond (Commute Trip Reduction, Bus Pass Program)
Primary Goal: This program reduces single occupancy vehicle trips to improve traffic and air quality. Its aim is to eliminate single-occupancy commutes, greenhouse gas emissions, and vehicle trips.
Who's Involved: Planning Department
Timeline: Go Redmond is originally known as R-TRIP which started back in 1998. This program is ongoing.
Pertinent Activities/Elements: [36, 37] • Go Redmond program offers resources, subsidies, and incentives to those who live or work in Redmond. All relevant information can be found on this site. • **Mobility:** *City-focused* actions include developing Innovative Outreach Materials and Events, City issues bus passes to regular and supplemental employees for commuting and attending meetings, and fund the incentives and subsidies provided to those who live or work in Redmond. *Community-focused* actions include implementing Commute Trip Reduction State Law; City Transportation Management Programs, and piloting trip reduction initiatives such as app-based carpooling, adult bike education classes, and first/last mile options. Incentives for the community include one-month ORCA bus passes, vanpool incentives, monthly drawings to incentive non-drive along trips, employers may also provide awards on top of these ones provided by the City of Redmond.
Metrics/Accomplishments: *Metrics* • % of Redmond commute trips using alternatives to single occupancy vehicles among Redmond residents • % of employees in Redmond who have access to formal transportation programs • # of active users in Go Redmond • Increase in employees commuting by bus passes • # of trips taken by transit/year *Accomplishments* • Go Redmond won the Bike Award at the 2018 ACT (Association for Commuter Transportation) conference for work in commuting options under the bicycling category.[38] • The League of American Bicyclists has named the City of Redmond a silver-level Bicycle Friendly Community.[39]

Go Redmond School Program
Primary Goal: Encourage students at Redmond schools to walk, bike, carpool and take transit to reduce neighborhood traffic congestion, lower local air pollution, and foster walking culture.
Who's Involved: Department of Planning and School Districts
Timeline: Established in 2014. This program is ongoing.
Pertinent Activities/Elements: • Through the online website, Redmond School Districts offer safety tips for families with children who walk to school, promote events such as walk to school days, and provide education outreach resources to encourage walking.
Metrics/Accomplishments: *Metrics* • # of participants • # of trips reduced

[36] EIS spreadsheet and Chapter 4.5: Transportation Demand Management.
[37] https://www.redmond.gov/DocumentCenter/View/835/TMPChapter4_7PDF?bidId=
[38] Chapter 4.7: Transportation Demand Management. https://www.goredmond.com/go-redmond-wins-award
[39] League of American Bicyclists names Redmond a silver-level Bicycle Friendly Community. http://www.redmond-reporter.com/news/league-of-american-bicyclists-names-redmond-a-silver-level-bicycle-friendly-community/?amp

Accomplishments

- The program already had over 4,500 students participate and have seen increase in participation.
- An average of $2200 was awarded per school for their efforts to promote alternative transportation to students.[40]
- A "Walk to School Day" event had 997 students participants saving over 2,000 lbs. of pollutants from entering our environment.
- Walkable Washington used Redmond's School Pool Program as a successful example for a case study.[41]

Anti-Idling Campaign Program
Primary Goal: Reduce emissions from municipal and community vehicles (Implemented under the Climate Action Implementation Plan).
Who's Involved: Parks and Recreation
Timeline: Established in 2014. This program is ongoing.
Pertinent Activities/Elements:[42] • Provide education and outreach to employees and trained inspectors to recognize excessive idling. • A statement has been added to standard City contracts requiring contractors to minimize idling on city construction sites. • Parks & Recreation reminds fleet users to reduce the time spent defrosting a vehicle, which reduces idling.
Metrics/Accomplishments: • Reduction in time spent idling • Increased awareness among city employees

Downtown Parking Strategic Management Plan – Existing Conditions Report Plan[43]
Primary Goal: Provide planning and policy context for parking in Downtown Redmond by identifying past planning efforts and existing policies and regulations that influence the management and creation of parking today.
Who's Involved: Planning Department
Timeline: Community Strategic Plan is ongoing, and this specific study is in progress as of October 2019.
Pertinent Activities/Elements: [44, 43] • Survey and inventory existing parking resources and the management of those resources. • Data collection, potential strategies, open house, council briefings, refine strategies, implementation plan. • The Existing Conditions Report will be the foundation on which subsequent phases are based upon and would be made up of two primary components: 1) Identifying past planning efforts and existing policies and regulations that influence the management and creation of parking today. 2) Survey and inventory existing parking resources and the management of those resources.
Metrics/Accomplishments: • Incorporated survey results into Downtown Parking Strategic Management • 74% of respondents say there is not enough parking in downtown Redmond

[40] SchoolPool - the Results Are In! https://www.goredmond.com/blog/june-13-2019-325pm/schoolpool-results-are
[41] Redmond School Pool Case Study. http://www.feetfirst.org/wp-content/uploads/2016/04/FF-Walkable-WA-Redmond-Schoolpool.pdf
[42] Climate Action Implementation Plan https://www.redmond.gov/DocumentCenter/View/1675/Climate-Action-Implementation-Plan-PDF
[43] Redmond Downtown Parking Management Strategic Plan. https://www.redmond.gov/985/Downtown-Parking-Management-Strategic-Pl
[44] Redmond Downtown Parking Management Strategic Plan PPT. https://www.redmond.gov/DocumentCenter/View/8264/Presentation---52919

6 Year Transportation Improvement Program
Primary Goal: Represent Redmond's current complete list of needed projects and programs for the next six years, identifying secured or reasonably expected revenues and expenditures for projects.
Who's Involved: Planning Departments
Timeline: Ongoing
Pertinent Activities/Elements: [45,46] • Continue updating with added transportation programs and projects.
Metrics/Accomplishments: • Final comprehensive collection of transportation improvement projects.

Transportation Master Plan
Primary Goal: The Transportation Master Plan is a framework approach highlighting strategies to shape the development of transportation within the city.
Timeline: Ongoing
Pertinent Activities/Elements: • The 5 strategies are preparing for the light rail, ensuring strong support for urban centers, improving travel choices and mobility, increasing neighborhood connections, and enhancing freight mobility. • A three-year action plan was created to implement the Transportation Master Plan. • The plan's council actions, studies and plans, major capital projects, and related policies have been completed or in progress.
Metrics/Accomplishments: • 45 % of the three-year action plan is in progress, 40% is complete, 9% has not started, and 6 % has been deferred.[47] • Percentage of all travel on an average weekday taken by means other than single-occupancy vehicles. • Peak hour average travel delay per mile. • Rate of transportation infrastructure development relative to the rate of land use development.

[45] City of Redmond Downtown Parking Management Strategic Plan PPT. https://www.redmond.gov/DocumentCenter/View/8264/Presentation---52919

[46] City of Redmond Downtown Parking Management Strategic Plan. https://www.redmond.gov/985/Downtown-Parking-Management-Strategic-Pl

[47] City of Redmond Redmond Three Year Action Plan. https://www.redmond.gov/706/Three-Year-Action-Plan

Buildings and Energy

Green Building Program
Primary Goal: The Green Building Program is a plan that provides incentives to implement green building and green infrastructure development techniques. The aim is to reduce carbon footprint by promoting energy efficient design and construction of existing and proposed developments and minimize the negative impacts on the natural environment.
Who's Involved: Planning Department
Timeline: April 16, 2011 (program has ended)
Pertinent Activities/Elements: • **Building and energy:** *City-focused* actions include review Green Infrastructure and Incentive Program (Green Building Program) regulations for updates. Identification of most used incentives. Green Building and Green Infrastructure Incentive Program[48]: provides incentives to implement green building development techniques in all types of development within the City; reduces the carbon footprint of existing and proposed developments by promoting energy efficient design and construction methods; implements green development techniques; and lowers development costs related to construction and the provision of utilities.
Metrics/Accomplishments: • # of and % of land use applications using this Zoning Code provision • Total # of green certified structures in the City

Energy Efficiency Conservation Block Grant Program[49]
Primary Goal: Reduce energy consumption through allocations to municipal facility upgrades and energy retrofits.
Who's Involved: Department of Public Works and Funding provided by Federal American Recovery and Reinvestment Act (ARRA)
Timeline: 2009 (program ended)
Pertinent Activities/Elements: • Received a grant worth $272,000 for facility upgrades and energy retrofits. • Create residential energy use outreach partnership with PSE and C-7. • Increase energy efficiency in Old Redmond Schoolhouse and the Public Safety Building Boiler Room. • Redmond created a website called "Impact Redmond" which provided resources for energy efficiency.
Metrics/Accomplishments: • # of kWh saved

[48] City of Redmond Zoning Code. https://www.redmond.gov/DocumentCenter/View/7543/Redmond-Zoning-Code-effective-2019-03-16-PDF

[49] Energy Efficiency and Conservation Block Grant Program. https://www.energy.gov/eere/wipo/energy-efficiency-and-conservation-block-grant-program

"Green" City Facilities Projects
Primary Goal: Implement and certify city facilities to show leadership.
Who's Involved: Planning Department
Timeline: Ongoing
Pertinent Activities/Elements: • City Hall LEED and ENERGY STAR Certifications. • Green Power purchase for City Hall. • Solar panels on City Hall. • Grass Lawn building green roof. • On-going utility conservation. • LCD monitors installed.
Metrics/Accomplishments: • # of LEED, ENERGY STAR, and other green building certifications of city facilities

ENERGY STAR Portfolio Manager
Primary Goal: The ENERGY STAR Portfolio Manager account tracks and assesses the City facilities' energy consumption and qualify buildings for ENERGY STAR certification.
Who's Involved: Parks Department
Timeline: Ongoing
Pertinent Activities/Elements: • Create spreadsheet the City facilities' data for energy consultant. • Establish ENERGY STAR Portfolio Manager account for tracking and monitoring energy consumption. • Processes include reviewing energy data for accuracy.
Metrics/Accomplishments: *Metrics* • % completion of database • # of city facilities qualified for ENERY STAR certification

EnviroStar Certification Programs
Primary Goal: A program that recognizes businesses on their green practices and establishes routine, ongoing systems in place to reclaim and/or properly manage all materials and wastes and go beyond compliance.
Who's Involved: Public Works Department
Timeline: Certification began in 2013. This program is ongoing.
Pertinent Activities/Elements: • City Hall certified since 2018. • Public Works Staff is an auditor for local businesses.
Metrics/Accomplishments: *Metrics* • Annual usage data for fertilizers and pesticides. • Annual usage data for compost and other soil amendments. • # of staff training records. *Accomplishments* • Redmond City Hall received distinction of a Champion Level EnviroStars participant.

Comprehensive Plan Energy Section
Primary Goal: The City works with energy provider, Puget Sound Energy, to increase the development and use of renewable and transition away from carbon-intensive energy sources.
Who's Involved: PSE, Planning Department
Timeline: Ongoing
Pertinent Activities/Elements: • Partner with PSE to allow residents to purchase solar, wind, and biomass generated energy. • Participated in green challenges with PSE. [50] • Renegotiate Puget Sound Energy flat rate contract. • Implement energy efficiency programs for city facilities. • Reduce the impact of athletic field lighting. • Implement technology solutions to reduce energy demand in the Information Services Division. • Expand training for building code staff on energy efficiency requirements. • Expand green purchasing and procurement policies. • Require the development and redevelopment of city facilities to incorporate green features. • Require "Systems Ready" infrastructure for alternative energy systems. • Create infrastructure for district energy in urban centers.
Metrics/Accomplishments: • % of renewable energy the Redmond – city and community wide- uses. • The trends of this % of renewable energy.

[50] City of Redmond participates in Puget Sound Energy's Take Charge Green Power Challenge. http://www.redmond-reporter.com/news/city-of-redmond-participates-in-puget-sound-energys-take-charge-green-power-challenge/

Materials Management and Waste

King County Comprehensive Solid Waste Management Plan [51]
Primary Goal: This comprehensive plan identifies strategies to manage King County's solid waste for the next six years with consideration of the next 20 years. The plan continuously updates to guide actions across King county. The plan addresses the regional landfill facilities, transfer facilities, landfills and recycling and waste programs/services.
Who's Involved: Public Works (lead City department; engages with public and private entities)
Timeline: Adopted in 2108 by King County Council; includes long-term (20-year) desired outcomes with short-term (6-year) goals.
Pertinent Activities/Elements: • Implement actions to divert 70% of garbage through recycling. • Convene a committee of Northeast Cities to establish service and capacity needs in Northeast King County. Have the committee work together to decide which transfer capacity option is best for the solid waste system service area. • Expand the Cedar Hills landfill to create additional solid waste disposal capacity at least through 2040. • Explore solid waste disposal options to prepare for post-2040, in addition to expanding Cedar Hills.
Metrics/Accomplishments: • Formation of the E-Cycle Washington program, which implements e-waste recycling service at no cost for Washington residents, small businesses, small governments, nonprofit organizations, and school districts. • 99% of King County single-family customers with curbside garbage collection have access to organics (yard waste and food scraps) collection service. • New recycling and transfer stations built, which include a flat tipping floor, areas for the collection of a wide array of recyclables, design features that reduce water and energy use, and solid waste compactors.

Community Strategic Plan - Environmental Sustainability, Waste and Materials Management [52]
Primary Goals: • Decrease waste and increase recycling rates. • Increase community awareness and education level. • Establish benchmarks to increase recycling rates.
Who's Involved: Public Works Department
Timeline: Began in 2019, quarterly progress reports, annual plan updates.
Pertinent Activities/Elements: • Community outreach and education around waste reduction.
Metrics/Accomplishments: • Community recycling rate • # of outreach and education programs

[51] King County Comprehensive Solid Waste Management Plan. https://your.kingcounty.gov/dnrp/library/solid-waste/about/planning/2019-comp-plan.pdf

[52] City of Redmond Community Strategic Plan. https://www.redmond.gov/DocumentCenter/View/167/2018-Council-Strategic-Plan?bidId=

Recycled Materials Green Purchasing Program
Primary Goal: Reduce the amount of waste that is produced through purchasing and utilizing new technology.
Who's Involved: Public Works Department and Finance Department
Timeline: Ongoing
Pertinent Activities/Elements: • The city's purchasing policy is to prefer recycled materials up to a 10% price premium • Set aside money to purchase recycled materials for capital improvement projects.
Metrics/Accomplishments: • Follow City's purchasing policy where recycled materials are preferred up to a 10% price premium.

City Facility Food Waste Program Expansion
Primary Goal: Expand food waste recycling.
Who's Involved: Public Works Department
Timeline: Completed
Pertinent Activities/Elements: • Expand food waste recycling to City Hall, the Maintenance and Operations Center, Public Safety Building, Senior Center, Teen Center, and all city fire stations.
Metrics/Accomplishments • The City expanded food waste recycling to City Hall, the Maintenance and Operations Center (MOC), Public Safety Building, Senior Center, Teen Center, and all city fire stations

Redmond Community Solid Waste and Recycling Programs
Primary Goals: • Minimize the solid waste stream. • Maximize waste reduction and recycling. • Dispose of the remaining waste in a manner that is safe and practical. • Provide cost effective and efficient customer service to ratepayers.
Who's Involved: Public Works Department
Timeline: Ongoing—The City's ten-year contract with Waste Management to collect garbage, recycling (paper, plastics, glass, metal, etc.) and organics continues through 2026.
Pertinent Activities/Elements: • Management of the comprehensive contract with Waste Management for the collection and disposal of garbage, recycling, and organics. • Three community collection events provided per year. • Outreach, education, and technical assistance provided to individuals and businesses. • Reginal coordination with King County. • Litter pick-up service. • Block Styrofoam recycling is available at the City Hall loading dock. • Recycling collection bins are available at Redmond public buildings to provide safe disposal of batteries to residents. • Assistance is provided to businesses on what the they can recycle, and free tools are available on how to recycle more and reduce waste.
Metrics/Accomplishments: • Single family waste stream and recycling rates. • Tons of organics diverted from waste stream as a result of participation. • Pounds of garbage generated per commercial employee. • Single-family residential recycling rate is 62% • In 2012, Redmond residents recycled approximately 12,000 tons of materials.

Composting, Yard, and Food Waste Program
Primary Goal: Increase the re-use and/or recycling of green waste products.
Who's Involved: Parks Department and Public Works Department
Timeline: Ongoing
Pertinent Activities/Elements: • Recycle/compost community green waste, including reuse of wood chips. • Create a manure recycling program from Farrel-McWhirter Farm. • Businesses can request up to three 64-gallon food recycling carts that are picked up two times a week by Waste Management at no additional charge. • The City offers free kitchen compost containers.
Metrics/Accomplishments: • # of businesses/multi-family complexes participating in organic services. • In 2017, 1.4 million pounds of food scrap waste was diverted from the landfill.[53] • Currently, 195 businesses, 28 multi-family developments, 9 City facilities, and 11 schools participate in the commercial organics composting program.[53]

EnerGov and Electronic Plans Submittal
Primary Goal: Increase efficiency of the plan submittal process and minimize paper waste.
Who's Involved: All City departments
Timeline: Ongoing
Pertinent Activities/Elements: • All employees, developers, applicants, etc. to submit plans to City staff electronically without the need to submit multiple hard copies to various departments. • Staff have the ability to review plans electronically.
Metrics/Accomplishments • Reduce # of in person plan submittals and hard copy prints. • The Parks and Recreation Department's Recreation Guides are only available online and registration is 100% electronic. • Fire Department medical incident reports are generated by tablet and aid cars basic life support reports are also generated electronically which saves over 8,000 printed reports per year.

[53] Commercial Organics Composting Factsheet. https://www.redmond.gov/DocumentCenter/View/1608/Commercial-Composting-Fact-Sheet-PDF?bidId=

Natural Systems

Green Redmond Partnership [54]
Primary Goal: A volunteer program with a goal of actively managing 1,035 acres of forested parkland through restorative practices such as adding native trees and shrubs, while removing invasive or non-native species.
Who's Involved: Parks Department, Green Cities Network, and local residents/volunteers.
Timeline: The volunteer program began in 2009 and spans over 20 years.
Pertinent Activities/Elements: • Green Redmond Day— A large scale volunteer planting event that occurs in three Redmond parks (Hartman Park, Perrigo Park, and Viewpoint Open Space).
Metrics/Accomplishments: • More than 11,124 volunteers have contributed over 30,00 hours. This resulted in almost 12,00 trees, 23,550 shrubs and small plants planted, and the project covered 15 parks. • Annual # of volunteer hours performed for environmental stewardship events. • Total acres of forested parkland brought into active management.

Street Trees Program [55]
Primary Goal: Continuous and proactive maintenance and management of trees along common street arterials and downtown to encourage long-term tree health and address visibility and safety.
Who's Involved: Planning and Parks Department
Timeline: This program will occur indefinitely, with the maintenance of trees occurring annually.
Pertinent Activities/Elements: • Over 8,000 trees are managed and maintained.
Metrics/Accomplishments: • % of street trees evaluated and pruned annually.

Tree Protection Ordinance [56]
Primary Goal: Avoid the removal of trees, landmark trees, protected trees, and critical areas in order to maintain the quality of the city's urban environment. Preserve the aesthetic, ecological, and economic benefits of forests and tree covered areas
Who's Involved: Planning Department, Residents, Commercial sector, and the Industrial sector.
Timeline: The ordinance is indefinite. However, a Tree Removal Permit is only valid for 60 days after being issued.
Pertinent Activities/Elements: • The ordinance involves reviewing development requests and tree cutting permits to ensure tree protection goals are met. • A Tree Removal Permit is mandatory for the removal of any significant tree within the City of Redmond.
Metrics/Accomplishments: • Annual # and % of approved developments achieving at least 35% tree retention. • The # and % of landmark trees approved for removal. • The annual # of replacement trees planted. • The annual # of tree removal permits issued. • The # of trees that a property is allowed to remove is dependent on unit type (i.e. single family, multi-family, commercial, etc.) and the size of the lot.

[54] Green Redmond Partnership. https://forterra.org/subpage/green-redmond-partnership

[55] Street Trees Zoning Code. http://online.encodeplus.com/regs/redmond-wa/doc-viewer.aspx?secid=3669#secid-3669

[56] Tree Removal Factsheet. https://www.redmond.gov/DocumentCenter/View/7500/Tree-Removal-Handout-PDF

Tree Canopy Strategic Plan [57]
Primary Goal: An inter-departmental plan to increase tree canopy to achieve a variety of environmental benefits, including water and air quality, aesthetics and increased property values, mitigating climate change and improving wildlife habitat.
Who's Involved: Planning and Parks Department
Timeline: The planning process began in 2017 during the Park, Arts, Recreation, Culture and Conservation (PARCC) Plan update. The plan was completed in 2019, with the goal of increasing tree canopy coverage over the next 30 years.

Pertinent Activities/Elements:
• Implementation of the various goals are divided into three, 10-year phases.
  o Years 1-10 focus primarily on public education, data collection, and achieving no net loss in tree canopy cover.
  o Years 11-20 focus on specific strategies aimed at increasing tree canopy on public and private lands.
  o Years 21-30 continue to focus on strategies to increase tree canopy while also ensuring proper maintenance of the trees.

Metrics/Accomplishments: • The estimated cost to achieve the 40% tree canopy goal is roughly $80,000 per acre. Over the 30-year timeline, the estimated costs of implementation are $600,000 to $1,400,000 per year (relative to 2018 dollars). • % of total Redmond land area covered by tree foliage.

Tree Fund
Primary Goal: Planting of trees throughout the City in city-owned property, NGPEs and NGPAs funded by fees collected in the fee-in-lieu program for tree removal/replacement.
Who's Involved: Planning Department
Timeline: Ongoing
Pertinent Activities/Elements: • Annual or bi-annual plantings using tree fund dollars.
Metrics/Accomplishments: • Annual # of trees planted • Annual # of trees represented in tree fund contributions

Tree City USA
Primary Goal: A nationwide program that provides the framework necessary for communities to manage and expand their public trees.
Who's Involved: Parks Department
Timeline: Ongoing
Pertinent Activities/Elements: • Maintain certification as a Tree City USA • Annual application process demonstrating fulfillment of criteria.
Metrics/Accomplishments: • Maintenance of Tree City USA certification.

[57] Tree Canopy Strategic Plan. https://www.redmond.gov/DocumentCenter/View/9576/Tree-Canopy-Strategic-Plan

Citywide Watershed Management Plan[58]
Primary Goal: Generate a base of scientific information that can be used for evaluating the relative potential of the City's Watershed. Identify a subset of watersheds where there is the greatest potential to restore beneficial uses in the associated waterbodies as the highest priority for rehabilitation
Who's Involved: Public Works Department
Timeline: Began in 2013 and has a target of restoring all waterbodies in Redmond by 2110.
Pertinent Activities/Elements: • Identify specific tools to rehabilitate the watersheds ranked as highest priority and complete the rehabilitation measures by 2060, Guide City activities that do not focus on the environment but nevertheless affect it, to ensure that activities foster healthier watersheds. • Further align City actions with a regional planning framework, City policies, sustainability practices, and state and federal environmental regulations. • Guide the use of City financial resources to achieve the greatest environmental benefits. • Develop, implement and evaluate Effectiveness Monitoring Plan. • Develop and implement an Adaptive Management Strategy. • Identify and review all major capital projects and land use planning decisions (referenced in WMP) each year. • Identify specific tools to rehabilitate the watersheds ranked as highest priority and complete the rehabilitation measures by 2060. • Annual assessment and summary of activities in each priority watershed. • Update of WMP every 5 years.
Metrics/Accomplishments: Metrics: *(Metrics are provided as available below and reflect the data values available at the time of original inquiry in 2019.)* • Surface water quality index score o 62 points (no trend determined) • Surface water biology index score o 19 points and 0%, both determined to be steady. • Stream buffer coverage o 52% covered (no trend determined) and 14 acres planted (positive trend). • Fish migration barriers and accessible stream length o 29% of stream length fully accessible (positive trend) and 9 barriers removed (positive trend). • In-stream habitat complexity o 22% of stream length rated "good" (no trend) and 1,470 ft of stream increased to "good" (steady trend). Accomplishments: • Monticello Creek Watershed Improvements o 2nd year of street sweeping pilot in progress. o Draft scope of work for basin plan completed. o Basin plan - with recommended list of capital projects - to be complete in 2020.

[58] City of Redmond Watershed Management Plan. https://www.redmond.gov/DocumentCenter/View/11707/Watershed-Management-Plan-2013-PDF

Artificial Field Surfacing
Primary Goal: All city-owned soccer, softball, and baseball fields will have artificial turf to ensure an ecologically friendly, year-round place for residents to enjoy. The fields will also conserve water and limit greenhouse gas emissions from maintenance vehicles.
Who's Involved: Parks Department
Timeline: Ongoing
Pertinent Activities/Elements: • Artificial turf installations.
Metrics/Accomplishments: • 100% of City-owned fields are composed of artificial turf.

Landscape Management
Primary Goal: Pesticide use reduction, water conservation, and successful plant establishment.
Who's Involved: Parks Department
Timeline: Ongoing
Pertinent Activities/Elements: • Use of alternate weed control methods (burners, etc.). • Use of woody mulch = fewer weeds and greater water conservation. • Utilizes a centralized water control system called Maxicom which controls the irrigation of landscapes.

Tosh Creek Watershed Restoration Plan [59]
Primary Goal: Identify projects to fully restore Tosh Creek to make it healthy for aquatic life and a valuable natural asset for the people who live, work and play in Redmond.
Who's Involved: Public Works Department
Timeline: Began in 2013.
Pertinent Activities/Elements: • Conduct existing conditions assessment. • Conduct watershed modeling. • Conduct stream and watershed needs assessment. • Develop list of potential retrofit projects. • Develop list of prioritized projects. • Develop and implement capital project list. • Develop and implement adaptive management strategy.
Metrics/Accomplishments: Metrics: • B-IBI measurements • In-stream water quality measurements Accomplishments (by date completed): • 2015 – 2016: Stopped flooding of the 50th Way stream. • 2016 – 2017: Repaired broken pipes, control structures, and swales. • 2017: Constructed 159th Vault and 156th Flow Splitter. • 2017 – 2019: Stream stabilization and buffer restoration. • 2019: Onyx Pond and Prescott Vault expansion.

[59] Tosh Creek Watershed Restoration Plan. http://www1.redmond.gov/common/pages/UserFile.aspx?fileId=159601

Bear Creek Restoration [60]
Primary Goal: Improve instream habitat complexity, floodplain connection, and riparian buffer planting.
Who's Involved: Public Works Department
Timeline: Construction began in 2013 and concluded at the end of 2014.
Pertinent Activities/Elements: • Bear Creek side channel restoration and instream LWD at Fairwinds NGPE with King County. • Bear Creek restoration adjacent to the Keller farm. • 83-acre Wetland mitigation bank at the Keller farm. • 500-ft of LWD and off-channel restoration and mitigation downstream of NE 95th Street on Bear Creek.
Metrics/Accomplishments: • Completed: 12-acres of Lower Bear Creek channel relocation; 2,500 logs, 3,500-ft of new channel; 1,300-ft of off-channel habitat; and 2-acres of riparian planting in Bear Creek Park.

Evans Creek Restoration Project
Primary Goal: Improve instream habitat complexity, floodplain connection, and riparian buffer.
Who's Involved: Public Works Department
Timeline: Construction start is anticipated in 2023 with completion in 2024.
Pertinent Activities/Elements: • Evans creek channel relocation. • Wetland enhancement. • 12 acres of riparian planting.

Stream and Habitat Restoration Program
Primary Goal: Protect and restore stream corridors, buffers, and wetland and riparian habitats.
Who's Involved: Public Works Department
Timeline: Ongoing
Pertinent Activities/Elements: • Use watershed approach for habitat restoration planning and activities. • Lead and seek regional support on habitat restoration efforts for Sammamish River, Bear Creek and Evans Creek. • Consider addressing causes of degradation such as excessive flows prior to conducting direct habitat restoration. • Remove barriers to fish migration and prevent the creation of new barriers. • Encourage private development to address restoration issues onsite. • Enhance the long-term protection of riparian habitats through land use protections, community education and outreach, and encouraging stewardship. • Provide maintenance of habitat restoration areas to ensure long term success. • Focus mitigation efforts onsite where feasible. Where onsite mitigation is unlikely to be successful, creative opportunities to restore and maintain habitat through offsite mitigation and partnerships are explored, for example, mitigation banking. • Actively plant buffers and address invasive species.
Metrics/Accomplishments: • % of surface water buffers covered with tree foliage • % of total Redmond land area covered by tree foliage • % of streams that are considered healthy in an urban setting • % of stream length with good stream habitat • Average stream health score

[60] Lower Bear Creek Rehabilitation Project.
https://www.govlink.org/watersheds/8/pdf/1409_4364_WRIA8factSHT_BEAR_CREEK_WEB.pdf

Keller Farm Wetland Mitigation Bank [61]
Primary Goal: Establish a state-certified wetland mitigation bank.
Who's Involved: Planning Department
Timeline: Began in 2015
Pertinent Activities/Elements: • Actively participate in the Inter Agency Review Team. • Process appropriate city permits.
Metrics/Accomplishments: • % completion towards bank construction • MBI certification

Wildlife Habitat Certification for Parks
Primary Goal: Certification of City of Redmond as wildlife habitat friendly community.
Who's Involved: Parks Department
Timeline: Ongoing
Pertinent Activities/Elements: • Manage parks to maintain wildlife certification.
Metrics/Accomplishments: • 22 parks sites certified and maintained as wildlife friendly spaces.

Monticello Basin Plan
Primary Goal: Identify and plan for projects to fully restore Monticello Creek to make it healthy for aquatic life and a valuable natural asset for the people who live, work, and play in Redmond.
Who's Involved: Public Works Department
Timeline: Began in 2013
Pertinent Activities/Elements: • Conduct existing conditions assessment. • Conduct watershed modeling. • Conduct stream and watershed needs assessment. • Develop list of potential retrofit projects. • Develop list of prioritized projects. • Develop and implement capital project list. • Develop and implement adaptive management strategy.
Metrics/Accomplishments: • B-IBI measurements • In-Stream Water Quality measurements

[61] Keller Farm Wetland Mitigation Bank. https://www.redmond.gov/DocumentCenter/View/4668/Keller-Farm-Wetland-Mitigation-Bank-Notice-of-Application-Project-Details-PDF

Water Management

Water Resources Strategic Plan [62]

Primary Goal: This strategic plan outlines strategies and actions for water resource efforts, including policy decisions, prioritization and effectively budget water resource funds. The main goals of the plain were to maintain the groundwater supply as a safe, cost effective and ready supply of drinking water, and water for ecosystem services.

Who's Involved: Public Works Department

Timeline: The Water Resources Strategic Plan started in 2015 and runs through 2020, with an additional 3-year action plan that spans from 2015-2017.

Pertinent Activities/Elements:

- Protect the quality of surface waters and groundwater.
- Maintain adequate quantity of surface waters and groundwater.
- Manage stormwater to prevent flooding and erosion.
- Restore stream habitats.

Metrics/Accomplishments:

(Metrics are provided as available below and reflect the data values available at the time of original inquiry in 2019.)

- Surface Water Quality: Average Water Quality Index Score.
  - 62 points (no trend determined)
- Surface Water Biology: Average Benthic Index of Biologic Integrity (BIBI) score and % of Class II streams considered healthy.
  - 19 points and 0%, both determined to be steady.
- Stream Buffer Canopy Coverage: % of regulatory stream buffer area covered by tree canopy and acres of riparian buffer planted/year.
  - 52% covered (no trend determined) and 14 acres planted (positive trend).
- Stream Accessibility: % of Class II stream length fully accessible by fish and # of Class II stream fish barriers removed/year.
  - 29% of stream length fully accessible (positive trend) and 9 barriers removed (positive trend).
- In-Stream Habitat Complexity: % of stream length with "good" in-stream habitat and length of stream increased to at least "good" complexity/year.
  - 22% of stream length rated "good" (no trend) and 1,470 ft of stream increased to "good" (steady trend).
- Runoff Flow Control: % of City with adequate stormwater flow control.
  - 18% of city (steady trend).
- Stormwater System Capacity: # of times a street travel lane is closed due to flooding (new measure), % of the pipe network having adequate capacity, and % of culverts with adequate capacity.
  - 99.5% of pipe network has adequate capacity (steady trend) and 91% of culverts analyzed had adequate capacity (most culverts were not analyzed).
- Runoff Treatment: % of City with adequate stormwater water quality treatment.
  - 33% of city (steady trend).
- Groundwater Recharge: Change in recharge area.
- Site Inspection: Site compliance rate at re-inspection and % of high-risk sites visited.
- Groundwater Quality: % of monitoring wells meeting water quality standard and % of groundwater samples with adverse changes in condition
  - Maintaining. Primary drinking water standards are consistently met at most monitoring wells. Typical impacts at some locations are metals. Less typical impacts have included total coliforms. Additionally, a subset of wells that were sampled each year from 2016 showed a higher % of compliance. Monitoring wells above groundwater quality standards were impacted by metals.

[62] Water Resources Strategic Plan. http://www1.redmond.gov/common/pages/UserFile.aspx?fileId=161330

Redmond Community Strategic Plan [63]
Primary Goal: Improving water quality.
Who's Involved: Public Works and Parks Department
Timeline: This plan was implemented in 2018 and will continue throughout the next two years.
Pertinent Activities/Elements: • Complete wellhead code updates for Critical Aquifer Area (CARA) and reclaimed water for City Council adoption.
Metrics/Accomplishments: • % of groundwater wells that meet groundwater standards. • Groundwater model finished and CARA boundaries established.

Illicit Discharge Detection and Elimination (IDDE) Program and Environmental Quality Incident Response Program[64]
Primary Goal: To reduce the amount of stormwater pollution reaching streams, groundwater, Lake Sammamish, and any of Redmond's creeks from stormwater drainage systems.
Who's Involved: Public Works Department
Timeline: Ongoing
Pertinent Activities/Elements: • The program focuses on the removal of improper connections to storm drainage systems, elimination of illegal dumping into storm drains, and elimination of discharge into the stormwater system from the sanitary and private septic/sewer systems. • Maintaining a City "Spill Hotline" to receive internal and external pollution incident reports or concerns within Redmond. • Educating City employees, businesses, and the general public about the problems associated with illegal dumping and their effect on local water systems. • Developing a storm system map showing outfalls, adopting laws prohibiting illicit dumping into to storm systems. • Developing a plan to detect and address non-stormwater discharges.
Metrics/Accomplishments: • The # of annual water quality incidents or reports investigated and/or responded to. • # of responses that prevented or significantly minimized pollutant discharges to stormwater systems.

[63] City Redmond Community Strategic Plan. https://www.redmond.gov/DocumentCenter/View/167/2018-Council-Strategic-Plan?bidId=

[64] City of Redmond IDDE. https://www.redmond.gov/411/Spill-Response-IDDE

Groundwater Wellhead Protection Program [65]
Primary Goal: Sustain quality and quantity of Redmond's groundwater resources through identification, prevention and management of threats to our aquifer and environment.
Who's Involved: Public Works
Timeline: Approved in 2003 and ongoing.
Pertinent Activities/Elements: • Identifying groundwater resources at risk. • Identifying impacts to groundwater. • Developing a plan to prevent contamination. • Creating and implementing a monitoring program. • Managing existing contamination. • If/when a potential impact or groundwater supply risk is identified, Wellhead Protection Program staff work with Redmond's Water/Wastewater Division to meet Source Water Protection regulations before a municipal supply well can be negatively impacted.
Metrics/Accomplishments: • Site compliance rate. • % of high-risk sites visited and provided assistance. • % of groundwater wells that meet water quality and drinking water standards. • Change in recharge area. • Quality testing and water level measurements completed for approximately 90 monitor wells. • Twice a year, approximately one third of monitor wells are tested for groundwater quality and all of the wells are measured for depth-to-water.

Regional Stormwater Facilities Plan[66]
Primary Goal: Coordinate development of the City's urban centers with stormwater management improvements to meet the City's water quality goals, support new development that is required by the Growth Management Act, and do so in a cost-effective way.
Who's Involved: Public Works.
Timeline: Began in 2010.
Pertinent Activities/Elements: • Construct six regional facilities in the City Center, construct two regional facilities in the Overlake Urban Center and complete additional facilities City-wide.
Metrics/Accomplishments: • % of the city that has adequate flow control • % of the City that has adequate runoff treatment • % of pipe infrastructure having adequate capacity

[65] Groundwater Wellhead Protection Program. https://www.redmond.gov/831/GroundwaterWellhead-Protection
[66] Regional Stormwater Facilities. https://www.redmond.gov/497/Regional-Stormwater-Facilities and https://www.redmond.gov/DocumentCenter/View/1066/Regional-Water-Facilities-Plan--Feb2010-PDF

Cascade Water Alliance [67]
Primary Goal: Promote the efficient use of potable water by customers.
Who's Involved: Cascade Water Alliance is a municipal corporation comprised of seven municipalities (five cities and two water and sewer districts) in the Puget Sound region.
Timeline: Ongoing
Pertinent Activities/Elements: • Offers toilet, showerhead, and irrigation retrofits and rebates, residential water audits, classes and consultants for professional landscapers, and incentive-based water pricing. • Partner with Cascade Water Alliance and the Department of Ecology to provide outreach on the benefits of grey water systems.

Water Conservation Program
Primary Goal: Reduce use of water in both park facilities and municipal landscapes.
Who's Involved: Parks Department.
Timeline: Ongoing
Pertinent Activities/Elements: • Use of Maxicom, a centralized water control system for irrigation of landscapes. • Installation of water-efficient fixtures in city facilities. • Encourage the use of on-site rainwater harvesting with rain barrels. • Replace annual planting beds with drought-tolerant perennials and turn on irrigation systems only when needed.
Metrics/Accomplishments: • Water consumption (gallons) maintained or reduced as area of responsibility expands

Stormwater Maintenance Program
Primary Goal: Manage stormwater runoff to protect people, property and the environment—including private stormwater systems.
Who's Involved: Public Works Department and Private Stormwater Systems.
Timeline: Ongoing
Pertinent Activities/Elements: • Proactively maintain water resources infrastructure including pipes, catch basins, vaults, ponds, swales, etc.

Metrics/Accomplishments:
• # of catch basins inspected for maintenance needs
  o 2018 Target: 5,717 (6,759 current)
• % of catch basins cleaned within four months of inspection
  o 2018 Target: 100% (100% current)

[67] Cascade Water Alliance. https://cascadewater.org/

Appendix C
Workshop Summaries

Redmond Environmental Sustainability Plan

Stakeholder Workshop #1 Outreach Summary | December 2019

Overview

This document summarizes activities and outcomes from the first stakeholder workshop for the Environmental Sustainability Plan update. This was an initial **Redmond Stakeholder Workshop** for select representatives from sectors such as land use and transportation, natural systems and water, advocacy and equity groups, business communities, education, youth, and residents (i.e., stakeholders).

Key objectives in the first stakeholder workshop were:

- **Inform** stakeholders about environmental stewardship in Redmond and the planning process.
- **Gather input** on the stakeholders' vision, values, motivators, perceptions, and priorities regarding environmental sustainability in Redmond.

This document begins with an overarching summary of all input, followed by a breakdown of key activities and outcomes from each workshop activity. Detailed outcomes are included as appendices.

Overarching Summary

Key takeaways from the workshop include:

- A desire for **healthy**, **affordable, equitable, and thriving** Redmond.
- Need to **define costs**—how do we account for costs beyond money or resources, such as environmental protection or health of the community.
- There are **many tradeoffs** that are complex and have varying levels of impact.
- Redmond should be **a leader in sustainability** while balancing the need for an affordable, thriving city.

Participants are eager to define cost, criteria, and goals and move toward action that will create a **sustainable community for all.**

Event Details

Date: Tuesday, November 19 from 4:00 – 6:00 PM |
Location: Marymoor Community Center

Attendees: 25 invited stakeholders (select representatives from the land use and transportation, natural systems and water, advocacy and equity groups, business communities, education, youth, and residents). A full list of attendees is provided in Appendix A.

Objectives: The initial Stakeholder Workshop provided an opportunity for key stakeholders to hear about the Redmond Environmental Sustainability Plan and provide input on sustainability practices in Redmond.

Stakeholders will convene two more times after this initial meeting to discuss strategy development and prioritization. Over this time period, participants will:

- Provide input on goals, priorities, and strategies.
- Share information about the plan, process, and opportunities to involve constituents, employees, and networks.

Objectives of this initial workshop were to:

- **Understand plan objectives, development process, and purpose of the stakeholder group** in relation to the Redmond Environmental Sustainability Plan and its progress to date.
- **Identify** sustainability goals, priorities, and barriers to actions.
- **Brainstorm** an initial list of strategies.
- **Agree** on a list of criteria for prioritizing actions.
- **Develop shared values and build relationships** that support future partnership and collaboration between stakeholders.
- **Build shared understanding** of what other participants are doing.

Agenda/Activities: To meet these objectives, the workshop included the following agenda items and activities:

- **Group Brainstorm: What Else is Redmond Already Doing?** Attendees were asked to brainstorm and think about the different initiatives that Redmond is taking to address environmental issues.

PARTICIPATING ORGANIZATIONS

Sound Transit*
Cascade Water Alliance*
Sustainable Redmond
People for Climate Action- Redmond
Natural and Built Environment
King County Housing Authority *
Prototron Circuits
Post Doc Brewery*
Nelson Legacy Group
Waste Management*
PTSA Sustainability Chair - Redmond High School
Old Firehouse Teen Center/RYPAC
Sustainability Ambassadors
PTSA Sustainability Chair - Wilder Elementary
Hopelink
Planning Commissioner
Parks and Trail Commissioner
Redmond Library*
LWSD Transportation *
Nussbaum Group*
Pedestrian Bicycle Advisory Committee
Pedestrian Bicycle Advisory Committee & Food Systems
One Redmond

*Accepted invitation/interested but unable to attend

- **Individual Exercise: Sustainability Visioning and Priorities:** Attendees discussed their vision of Redmond and what steps should be taken in order to achieve this vision.
- **SWOT Analysis:** Attendees participated in online polling to gauge perceived strengths, weaknesses, opportunities, and threats of Redmond's environmental stewardship.
- **Actions Ideation:** Attendees assembled into small groups to identify possible actions that would help meet the vision they described in the individual exercise. Each group member provided ideas for their own vision, as well as those of their group mates.
- **Next Steps and Reflections:** Attendees discussed as a larger group how they would like to work together.

Outcome Summary: The workshop revealed the following key themes and findings. More detailed outcomes are provided in Appendix A.

Sustainability in Redmond—What's happening now

Before discussing the vision for Redmond's future, participants brainstormed on activities, organizations, and programs that are currently addressing sustainability in the Redmond community:

- Green Redmond
- Stormwater management and salmon-safe projects
- Trash separation at schools
- K4C
- Reducing food waste and food donations
- Partner with the KC conservation district
- Food plus compostable
- Bike to work day, and tracking
- HOA volunteer contribution and invasive plant removal
- Green city initiative
- Golf course
- Rapid line B line
- Light rail coming
- Waste education parties
- Wildlife protection program
- Redmond recycle
- Farmland and reclaimed water use
- Grey water
- Website tools that tell you where to dispose
- Microsoft waste programs
- Considering district energy in the past
- Microsoft is doing direct energy purchases
- Encourage solar installations
- Central connected trail through downtown
- Bikes
- Microsoft has zero waste, vanpools, etc.
- Green building certifications?

- Local Improvement Districts
- LED streetlight replacements
- KC waste days
- Inclusionary housing, affordable housing progress
- Tension between affordability and additional regulation--has to be sustainable long-term
- Maintain housing density and preserve natural areas
- Balance between livability, working ability in downtown Redmond, and short commute times
- EV charging station infrastructure
- Electric bike charging

Stakeholder's Future Vision for the Redmond's Environmental Sustainability Plan

Participants shared the changes they'd like to see in Redmond that should be added to the Environmental Sustainability Action Plan:

- Stakeholders suggested ideas that highlighted protecting the natural landscapes, walkability, electric vehicles infrastructure, carbon-neutral goals, education, and equity.
- Sustainability: many stakeholders recommended goals relating to greenhouse gas reductions and actions to achieve carbon neutrality.
- Energy Goals: stakeholders suggested making new buildings net-zero and requiring LEED Gold.
- Mobility and Land Use: several participants highlighted making Redmond walkable and fostering high-density retail downtown to encourage foot traffic. Stakeholders also want to see more electric vehicle charging stations.
- Natural System: several participants emphasized the need for tree canopies to increase, an informed Parks and Recreation staff, and protection of species.
- Waste Management: many participants emphasized the importance of waste management and implementing the following practices: recycling, composting, and aiming for zero waste.
- Leadership: participants want strong leadership on environmental stewardship through legislation and line item budget for environmental initiatives.
- Equity: many highlighted their concern for the lack of equity in sustainability initiatives.
- Education: Involving the younger generation to learn about environmental issues, engaging residents to learn more about the City goals, and providing resources such as mobile applications to share knowledge.
- In general, many of the goals and actions that participants have recommended were already being implemented or related to current initiatives un the Redmond Environmental Sustainability Plan.

Priorities & Future Vision

Stakeholders shared what motivates their commitment to sustainability and their vision for a more sustainable future. Their motivations and vision generally aligned with one (or more) of eight themes:

- Community
- Climate change
- Thriving economy
- Sustainable buildings
- Transportation
- Natural systems
- Education
- Waste management

> *"Actionable items that all residents and businesses can participate in."*
>
> -Stakeholder Workshop Participant

Key stakeholder **priorities** included:

- Natural ecosystem health and water quality
- Greenhouse gas emissions
- Recycling and composting
- Energy efficient buildings
- Alternative transportation modes
- Renewable Energy Sources
- Resiliency to climate change impacts

Attendees expressed desire to **work toward a future** with the following characteristics:

- Low-carbon or carbon-neutral
- Resource-efficient and zero-waste
- Thriving economy
- Healthy communities
- Walkable
- Equitable
- Affordable
- Vibrant

After participants discussed in groups, they shared their **ideas for needed actions** to achieve their visions:

- Require energy audits
- PSE energy assessments
- Pilot/demonstration projects along with increased education and outreach
- Energy audits at point of sale
- Example cities that meet the goals Redmond wants to achieve
- Get the schools more involved
- Actionable and scalable plans, consistency in what is being asked of businesses
- Prepare for major change (light rail is coming)
- Constrained urban growth areas, make sure actions take this into account
- Long-term planning with infrastructure included---dedicate budget to each action
- Data-driven decision-making, understand the landscape before making a decision
- Everything has a cost; that shouldn't be a reason for not acting and creating the best future

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

Participants were asked to participate in identifying the strengths, weaknesses, opportunities, and threats that characterize Redmond's unique contexts and ability to achieve its sustainability goals. Six questions guided this activity:

Strengths (Assets & Resources)	• What are some areas where you think Redmond has made great progress? • What are some of the City's attributes that allow for progress to be made?
Opportunities	• What could we do to exploit our advantages? • What weaknesses does Redmond have relative to other cities trying to advance sustainability?
Weaknesses (Limitations, restrictions, and challenges)	• What attributes have made or will make progress towards sustainability challenging?
Threats	• What could negatively impact our progress?

Many of the **identified strengths and opportunities** aligned with what participants shared in the visioning activity:

- community awareness
- multi-modal projects and infrastructure
- a supportive city council

Many of the identified **weaknesses** and **threats** were conditions that participants would like to change in their future vision of Redmond:

- Weaknesses:
  - High traffic volumes and/or high drive alone rate
  - analysis paralysis (or action paralysis)
  - resistance to change
  - level of community knowledge for environmental sustainability practices is varied
- Threats:
  - unchecked development sprawl
  - uncertainty of climate impacts
  - environmental degradation
  - rapid population growth

The full results of the SWOT analysis are available in Table 2 of Appendix A.

What Elements Belong in the Redmond Sustainability Plan

Attendees responded to six online polling questions:

- Participants shared words or ideas for what the ideal Redmond would look like in the future. Key terms included **community, equity, walkable, composting, net zero, trees, and affordable**.
- **The majority (83.3%) participants have heard of at least one or more of Redmond's environmental activities.** Only 4 (17.7%) participants have not heard about these activities.
- **Over half the participants (59%) want the Redmond community to be very invested** in being a national leader in sustainability action, no matter the cost.
- Participants selected **top two sustainability issues** that should be prioritized in the plan: **natural ecosystem health and water quality, and greenhouse gas emissions.** Closely following behind were recycling and composting and energy-efficient buildings.
- Participants noted that the three criteria to prioritize are: **impact, feasibility, and co-benefits**.

Appendix A. Detailed Outcomes from Redmond Stakeholder Workshop

List of Attendees

- Tom Hinman, Sustainable Redmond
- Nancy Shimeall, People for Climate Action- Redmond
- Angela Rozmyn, Natural and Built Environment
- Elizabeth Christian, PTSA Sustainability Chair - Redmond High School
- Kai Schwartz, Old Firehouse Teen Center/RYPAC
- Peter Donaldson, Sustainability Ambassadors
- Amrit Bhuie, PTSA Sustainability Chair - Wilder Elementary
- Nicola Salarpi, Hopelink
- Aparna Varadharajan, Planning Commissioner
- Susan Robertson, Parks and Trail Commissioner
- Julie M. Calligaro, Resident
- Steve Thompson, Resident
- Monica Catunda, Resident
- Jennifer Beyer, Resident
- Paul Stull, Resident
- David Morton, Resident
- Gary Smith, Resident
- Robert Oikawa, Pedestrian Bicycle Advisory Committee & Food Systems
- Clarke Jewell, One Redmond
- Sid Shende, RYPAC
- Jim Stanton, Microsoft
- Eric Campbell, Main Street Property Group
- Mark Hoyt, Trammel Crow Residential
- Joe Skewis, Prototron Circuits
- Amy Webber, Nelson Legacy Group

Actions and Priorities

Table 1. Themes and comments from, "What actions and priorities do you have for Redmond to achieve the future vision discussed in the workshop?"

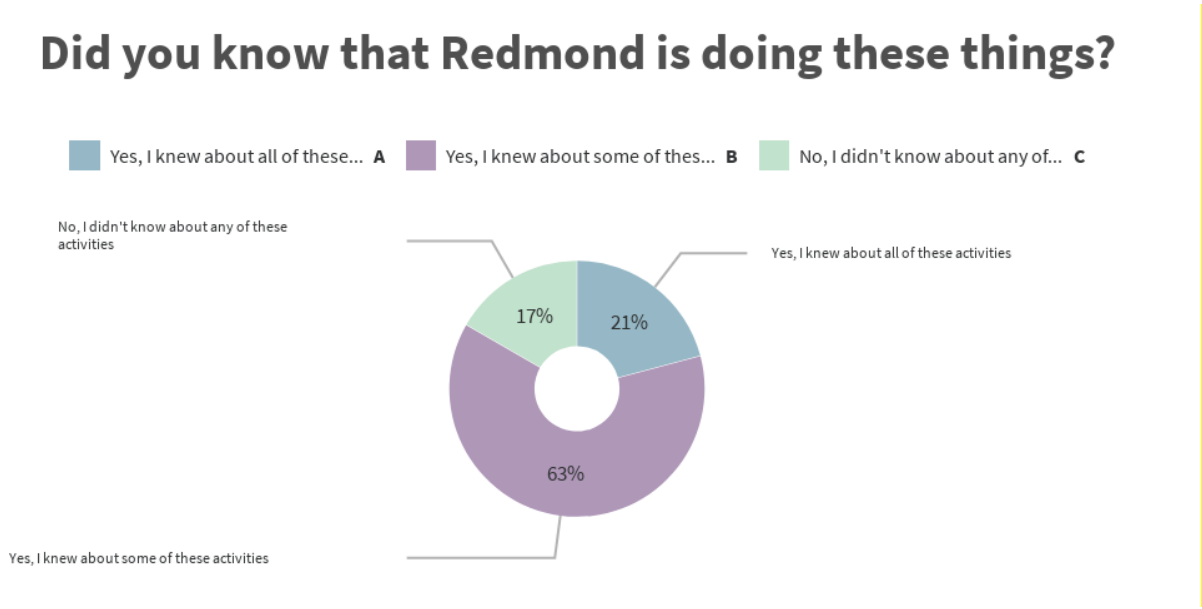
Climate Change	• Support behavior through simple actions. • Involve residents and businesses through education. • Foster leadership to meet carbon emission goals.
Transportation	• Decrease cars; multi modal. • Make development in downtown denser to encourage walking. • Electrification of transportation sector. Install vehicle charging units through the City.
Sustainable Buildings	• Require all new buildings to be LEED certified and net-zero. • Implement comprehensive plan and zoning updates to foster sustainability development. • Provide energy audits to buildings to identify retrofit opportunities.
Equity	• Equity was mentioned many times through the comments and activities; however, specific actions were not listed on how to achieve equity.
Education	• Connect schools with the clean energy program provided by Bonneville Power Administration. • Educate public to create shared vision and engagement and the current city goals. • Establish a day of celebration where the City highlights environmental initiatives. • Fund grassroots education organizations. • Offer education on identifying native species. • Provide schools with resources about sustainability and the environment.
Waste Management	• Strive for zero-waste goals for the City. • Achieve 100% recycling rate. • Implement large scale compost systems and infrastructure. • Reduce food waste across the community.
Natural Systems	• Creation working groups to collect information about local species. • Eliminate evasive species. • Protect park lands. • Increase tree canopy.

Table 2. Comments from the Strength Weaknesses Opportunities Threats (SWOT) analysis activity.

Strengths	Weaknesses
• City has funding • Sammamish River Trail • Protected park land and open space • Jobs: population ratio • Good employment • Multi-cultural, diverse • Climate action plan listed • Marymoor Park • Education potential • Town center/ density • Light rail coming • Developing at a time where much is known about the balance between growth and sustainability • Compact • Bike friendly • Climate legislation at state level supporting green initiatives • Supportive city council • Forward thinking; educated • Educated residents • Community awareness	• Old housing stock • Students drive to school • Zoning model and HOA is old style • Climate equity • Everyone commutes • Can't afford to live in the City • Residents not engaged • Actionable and scalable plans • Note enough corporate engagement • Level of environmental knowledge is limited • Presentation of information by the City • Last mile transit • Short term thinking • Traffic • Resistance to change • Discussion can lead to analysis paralysis • Commitments to sustainability but not actually implemented • More conservative-leaning than other cities
Opportunities	**Threats**
• Support City's business efforts • Improve public health • Develop national leadership on environmental sustainability • Work with high performing companies in the area • E-bike infrastructure • Affordable housing density • PTA sustainability chair • Partnering with neighbor cities and alignment with regional activities • STEM education • Upcoming light rail expansion • Connect housing with business/office construction • Engage residents to leverage knowledge	• Unchecked development sprawl • Special interest favoring developers like trees • Impact mitigation • Uncertainty of climate impacts • Siloed City standards • Lack of consensus on climate change • Lack of parking • Salmon population decline/ climate change • Loss of trees and environmental degradation of animals • Cost to implement • Suburban standards • Way of life • Admin costs • Code restraints • NIMBY • Resistance to change • Rapid population growth • Upcoming election growth – could shift political support or divert attention from sustainability

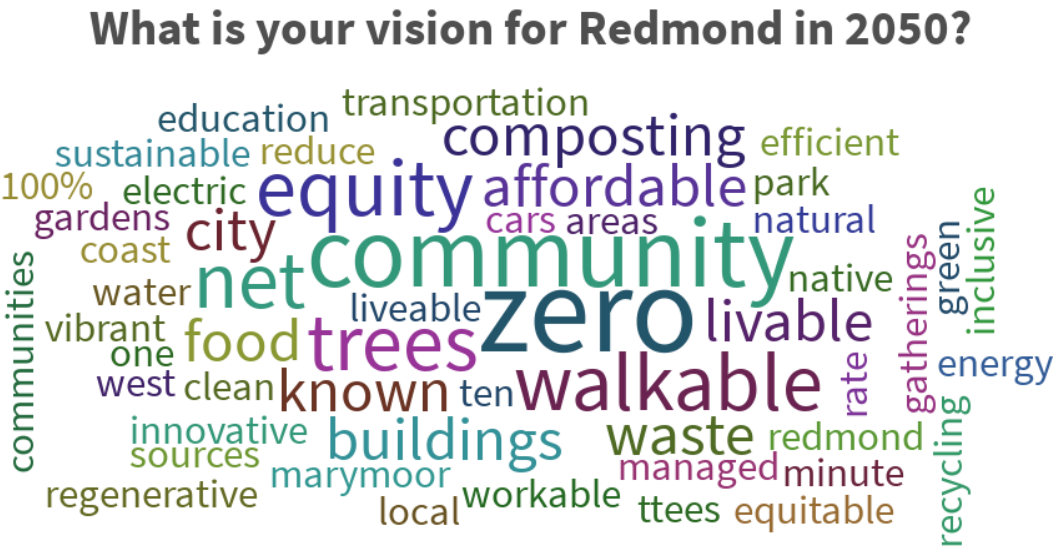
The following charts visualize outcomes from the polling exercises.

Polling Question 1:



The majority (83.3%) of workshop participants are aware of Redmond's sustainability actions and initiatives. *Note: the pie chart above has rounded all percentages to the nearest whole number.*

Polling Question 2:

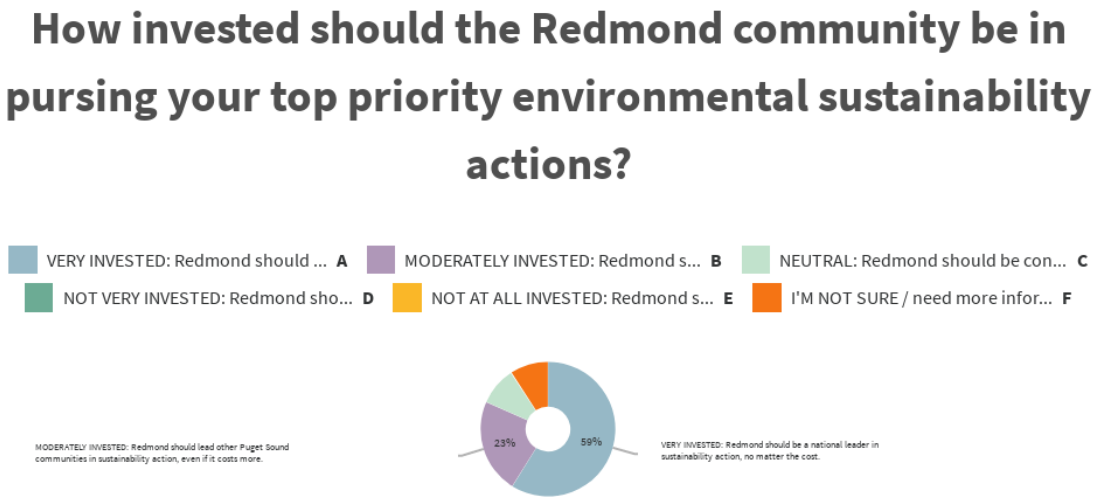


For this question, participants chose words or phrases to demonstrate their vision for the future. As the word cloud indicates, visions include a walkable, community-focused, equitable city with trees and net zero emissions, among other characteristics.

Polling Question 3:

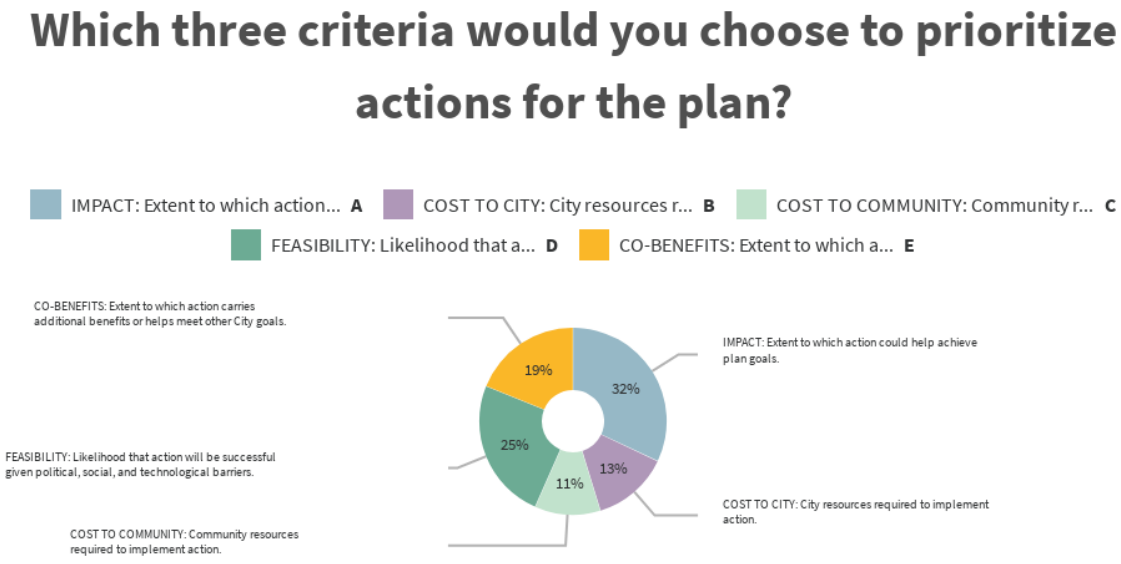
The top two areas participants selected were natural ecosystem health and water quality (22%) and greenhouse gas emissions (18%). Not recorded in the pie chart above are renewable resources (7%) and environmental justice and social equity (4%).

Polling Question 4:



Participants indicated that Redmond should be very invested (59%) in the top priority environmental sustainability actions. Not recorded in the pie chart above are participants who are unsure (9%) or neutral (9%).

Polling Question 5:



Participants selected impact (32%), feasibility (25%), and co-benefits (19%) as the top three criteria to prioritize action for the plan.

Redmond Environmental Sustainability Action Plan

Stakeholder Workshop #2 Summary | February 10, 2020

Overview

This document summarizes the activities and outcomes from the second City stakeholder workshop for the Redmond Environmental Sustainability Action Plan update. Participants included residents, students, and many other representatives interested or working in sectors relevant to the six focus areas: climate change, transportation and land use, materials management, water management, natural systems, and buildings and energy. Additionally, there were select representatives from the City of Redmond as well as a representative from Greene Economics that helped serve as notetakers and facilitators.

Focus Area	Notetaker
Climate change	Sarrynna Sou (Cascadia)
Transportation & land use	Miguela Marzolf (Cascadia)
Building & energy	Nick Entinger (Redmond) Angie Venturato (Redmond)
Materials management & waste	Mike Chang (Cascadia)
Natural systems	Aila Macri (Redmond) Jessica Atlakson (Redmond)
Water management	

Key objectives in the second City staff workshop were as follows:

- **Review the preliminary list of goals, strategies, and actions** for incorporation into the Environmental Sustainability Action Plan.
- **Conduct an initial screening and prioritization** of actions to inform development of a shortlist.

Agenda/Activities: To meet these objectives, the workshop included the following agenda items and activities:

- **Welcome and Introductions:** Attendees were asked to introduce themselves and their affiliations.
- **Background and Progress To-Date:** We began with a brief polling exercise to get general background information on the attendees (see **Poll Everywhere**). Participants were then provided a PowerPoint presentation with a brief overview on the plan, relevant updates, and a quick discussion on the audience's perspective on Redmond as a leader in sustainability actions. The second part of the presentation gave an overview of the sustainability inventory, the multicriteria analysis, and transitioned into action development.
- **Focus Area Exercise: Action Review:** Each table group read through the entire list of actions once together, to gain a high-level picture of the proposed strategies and actions and jot down any initial reactions to the following questions:
    - Do any actions NOT make sense to you? What needs to be changed or clarified?
    - Which actions are most needed and/or represent a promising opportunity for Redmond?
    - Do any of the actions concern you? What are your concerns, and what may be some ways to address them?
- **Quick Action Prioritization:** Attendees participated in a prioritization sticker exercise to indicate which actions they believe must be included, which actions they felt most comfortable leaving out,

and actions they supported in focus areas they were not assigned to. Once completed, each focus area group gave a brief report of the outcomes of their sticker exercise.

- **Next Steps, Overview; Feedback Survey and Adjourn:** Attendees participated in a final polling exercise to gain feedback on new topics and actions identified during the workshop. Feedback surveys were distrusted and completed by all attendees.
- **Toolkit Training:** After the workshop, those who were interested received a brief training on how to engage the general public through the ESAP planning process. Attendees were given an engagement toolkit packet along with copies of ESAP factsheets and postcards to share at upcoming community events, neighbors, friends, and other gatherings.

List of Attendees and Focus Area Assignments

- Jennifer Beyer—**Climate Resilience**
- Peter Donaldson —**Climate Resilience**
- Nancy Shimeall—**Climate Resilience**
- Gary Smith—**Climate Change**
- Paul Stull—**Climate Change**
- Devesni Thakur —**Climate Change**

- Zack Benzadni —**Transportation and Land Use**
- Eric Campbell —**Transportation and Land Use**
- Denis Martynowych—**Transportation and Land Use**

- David Hoffman—**Buildings and Energy**
- Joe Skewis **– Buildings and Energy**
- Jackie Thompson – **Buildings and Energy**
- Aparna Varadharajan—**Buildings and Energy**
- Amy Webber—**Buildings and Energy**

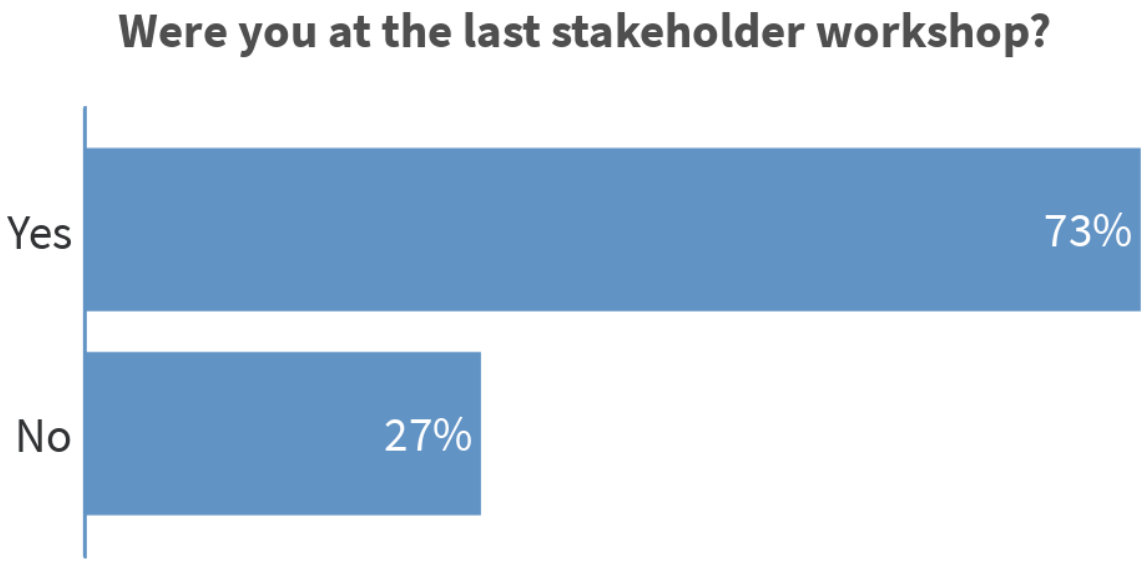
- Julie Calligaro —**Materials Management and Waste**
- David Morton—**Materials Management and Waste**
- Madeline Schroeder —**Materials Management and Waste**

- Mike Brent —**Natural Systems/Water Management**
- Monica Catunda —**Natural Systems/Water Management**

Poll Everywhere

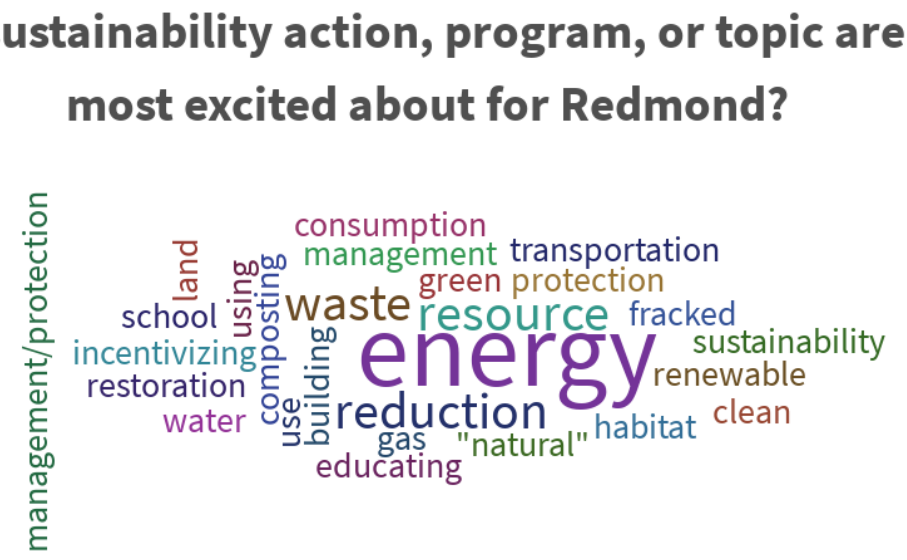
Attendees participated in the following polling exercises:

Question 1:



The majority (73%) of participants had attended the previous stakeholder workshop. (n=11)

Question 2:

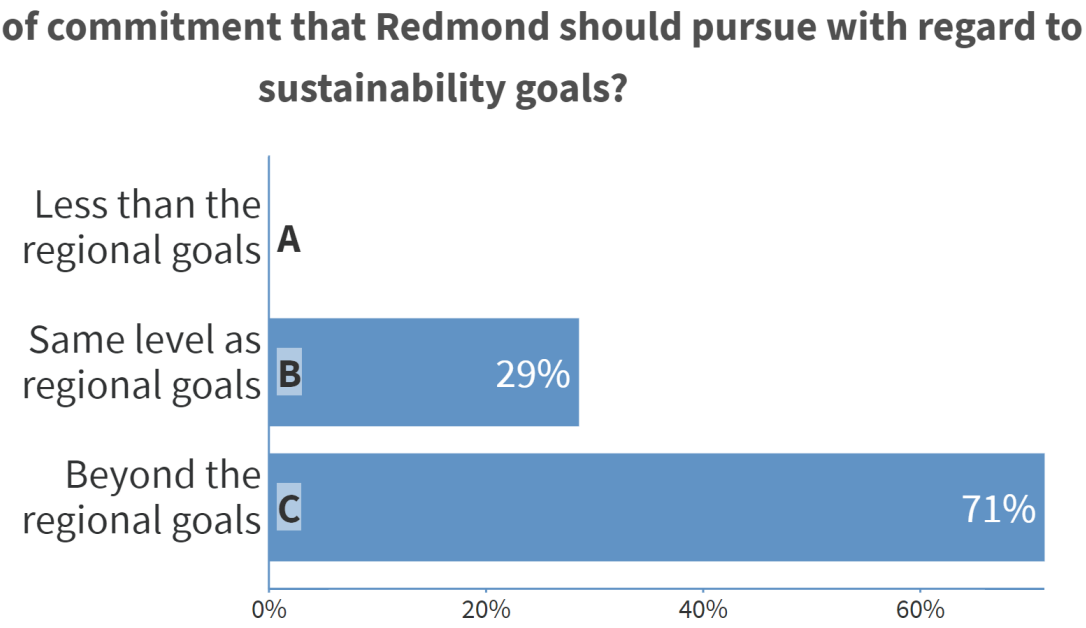


For this question, participants chose words or phrases to demonstrate their priority and interest regarding current sustainability actions, programs, and topics. As the word cloud indicates, interests include the energy, GHG reduction, waste, transportation, and resource management and protection.

Question 3:

As the word cloud indicates, interests include partnerships, technology, schools, urgency, and waste options.

Question 4:



The majority of attendees want the Redmond community to pursue goals that are more ambitious than regional goals, such as from King County or Puget Sound Regional Council.

Quick Action Prioritization

Each participant was given five green stickers, three red stickers, and access to blue stickers. On plotter poster versions of the action lists, participants did the following:

- Using the *green stickers*, participants indicated the five actions that they thought MUST be in the final list of actions no matter what's in the "Sticker" column.
- Using the *red stickers*, participants indicated the three actions that they would be most comfortable leaving out. They indicated their justification for removal in the "Sticker Rationale" column of the plotter paper.
- Using the *blue stickers*, participants indicated actions they supported in a focus area other the one they were a part of during the workshop.

Actions with Green Stickers

Focus Area	Action	Number of Green Stickers
Climate Change	**C1.1.5** Participate in regional efforts that increase Redmond's capacity to respond to climate change impacts to City-run utility services, such as the Puget Sound Regional Emergency Preparedness Collaborative.	2
	C1.2.34 Build city buildings and infrastructure to be resilient to climate change (e.g. bridges, culverts, stormwater facilities, groundwater) through best management practices and design standards.	1
	C2.1.21 Commit to climate policy through an equity lens. Reassess current City programs to evaluate and state equity goals in the face of climate change and sustainability issues.	2
	C2.1.11 Ensure access to high speed internet across the City.	1
	C2.2.7 Evaluate and respond to impacts in critical areas due to larger storms and warmer, drier summer weather (steep slopes, wetlands, upland riparian areas, upland restoration areas, instream habitat).	1
	C2.3.10 Identify and build up infrastructure of neighborhood resilience hubs, such as "corner stores," to sustain neighborhoods in the event of an emergency.	1
	C2.3.99 Ensure all City plans (e.g., Comprehensive Plan, Emergency Management Plan) account for vulnerable populations and communities.	1
	C3.3.22 Continue to benchmark, report, and regularly monitor community and municipal GHG emissions. Consider building a public-facing dashboard that includes information on Redmond's GHG emissions and personal carbon footprints.	1
	C4.1.29 Assess online tools that allow residents to view and share greenhouse gas emissions data to inform and influence their choices. Determine how this could be offered.	1
	C4.1.30 Develop and require all new buildings over a size threshold and major infrastructure projects to undergo a climate change impact assessment as part of the regulatory planning process.	2
	C4.2.26 Support an educational agenda for K-12 schools on environmental stewardship.	3
	C4.3.27 Provide educational resources and opportunities to help residents become aware of and engage in implementation of the Redmond Climate Action Implementation Plan and sustainability initiatives.	2

Focus Area	Action	Number of Green Stickers
Transportation and Land Use	**T1.1.1** Offer incentives and education to encourage active transportation in Overlake given the opening of two ped-bike bridges connecting the SR 520 trail to transit and economic centers and several City ped-bike improvements in the area (40th St trail undercrossing, 31st St improvements, 51st St improvements, 40th St multiuse trail).	2
	T1.1.9 Establish partnerships and develop joint projects with King County Public Health, K4C, and other agencies to promote active transportation and improve public health outcomes through transportation improvements and services.	1
	T1.4.23 Provide free fares for youth riding transit, provided by the City.	3
	T1.6.43 Diversify housing opportunities: AOU, duplexes, 4+8 unit apartments/ condos in single family zones to promote higher density housing/commercial development.	1
	T1.6.99 Build density requirements to achieve density goals by loosely classifying zones into three zones: urban, peri-urban, and rural.	1
Materials Management and Waste	**M1.1.3** Require compostable and paper disposables in restaurants and stores.	1
	M1.2.5 Support a food donation program for grocery stores to send surplus food.	2
	M1.2.7 Require all businesses, multifamily properties, City facilities, and schools in Redmond to participate in the Food Scraps Collection Program.	3
	M1.4.14 Support state and local development of end-use markets for recyclable/ recycled products and compost through city county purchasing policies.	1
	M1.6.24 Explore local and regional examples of communities who have mandated recycling and composting in multi-family and commercial buildings. Then do community outreach in Redmond to develop a right sized program and integrate findings.	1
	M1.8.30 Work with multifamily developers, owners and residents to develop requirements for new construction to provide sufficient space for recycling and food waste collection, along with garbage. Do the same with commercial buildings. Leverage code language from other cities who have implemented this change.	1
	M2.1.40 Provide zero waste building planning assistance.	1
	M2.1.32 Build community outreach and education plans around proper waste reduction, recycling, composting.	1
	M2.1.42 Continue to integrate "toward zero waste" principles into outreach and education materials in multiple languages.	1
Water Management	**W1.2.2** Evaluate risks to water availability due to changes in precipitation patterns (more frequent drought conditions, high precipitation events low recharge).	1
	W3.1.4 Expand sub-metering and evaluate smart water meter technologies.	2
	W4.3.31 Provide storm water quality treatment to 100 percent of City right-of-way.	2
	W3.4.7 Create more rain gardens.	3
Natural Systems	**N1.1.40** Increase preservation of open spaces, forests, parks, and agriculture, such as through improved land use policy or the use of a Transfer of Development Rights (TDR) program.	1
	N1.2.8 Host more native vegetation planting parties in collaboration with schools.	2

Focus Area	Action	Number of Green Stickers
	N1.3.11 Establish workforce training programs for landscape managers on the installation and care of native plants.	1
	N1.3.12 Hire a person/team at the City to implement the goals and strategies associated with increasing canopy cover across the city and to update the 20 yr plan. This team/person can be the lead on finding community partners and funding to increase community outreach, adoption of policies/goals and education.	3
	N1.3.18 Work at the site scale to address causes of degradation such as excessive flows prior to conducting direct habitat restoration.	1
	N1.4.22 Design and install side channels that can be used by fish for foraging and for refuge during storm events.	1
	N1.7.36 Reduce grass lawns and convert to native and drought-resistant plant communities or community gardens.	3
	N2.2.47 Update priority habitat corridors for preserving and enhancing critical habitat for wildlife and incorporate into departmental plans and codes such as critical areas.	1
	N3.3.65 Continue to reduce toxic herbicide use by the City and its residents.	3
Buildings and Energy	**B1.1.4** Adopt optional International Residential Code (IRC) codes for sustainable residential buildings.	2
	B1.2.11 Develop a Building Tune-Ups Ordinance requiring commercial buildings 50,000 sf or larger to identify low- or no-cost building operations and maintenance improvements.	2
	B1.3.18 Update energy code to expand sub-metering and smart meter technologies.	2
	B1.4.12 Partner with a environmental non-profit to develop a simple cost benefits analysis for businesses and residents to improve their energy efficiency. Demonstrate ROI and business case for energy efficiency projects.	2
	B1.4.13 Work with foundations and banks to develop a low-interest financing mechanism for residents and businesses to complete energy efficiency upgrades and install renewable energy.	2
	B1.4.17 Explore partnerships with Puget Sound Energy's Industrial System Optimization Program to provide specialized engineering analysis of industrial processes and identification of a set of modifications to improve efficiency.	1
	B1.5.25 Encourage energy audits to help businesses and residents identify opportunities to retrofit and become more energy-efficient.	3
	B1.6.20 Conduct targeted outreach to renters and affordable housing customers for energy efficiency rebate opportunities.	1
	B2.1.31 Introduce a policy to streamline permitting and interconnection processes for energy storage projects.	2
	B2.2.34 Incentivize the installation of on-site renewable energy.	3
	B2.3.40 Provide expedited and free permitting for fuel switching to renewable electricity.	1
	B3.5.50 To ensure long-term sustainability and energy reduction develop performance outcomes for new buildings and require the developer monitor and report outcomes to the City.	2
	B3.6.63 Partner with PSE to implement in Redmond their smart grid technologies meant to improve reliability and management of the grid.	4

Actions with Red Stickers

Focus Area	Action	Number of Red Stickers	Red Sticker Rationale
Climate Change	**C2.2.9** Building standards - severe weather	1	Add resistance to fire in order to support.
	C2.2.35 Urban heating and cooling strategies	2	To just "develop a guide" is not strong enough language to impact or define the issue. Why is this important? Impactful?
	C2.3.12 Map My Neighborhood – Emergency Preparedness	1	Already actions here that collect this data via city task force do see extra benefit.
	C2.3.20 Emergency Air Quality Response Team	2	Fees that situation isn't dire enough to narrate or allocation of that much manpower.
	C3.2.24 Climate consideration policy	3	To just "introduce" or "consider" is not enough; must be strong and "attempt" are not effective.
Transportation and Land Use	**T2.2.50** Electric Vehicle, E-Bike, and E-scooter Group Buy Program	3	Not high priority – could be directed to fleet management.
	T2.3.57 Ban ICE vehicles	1	Work on incentives for other modes.
	T2.3.60 Statewide ICE ban	3	Not a high priority- do not waste political capitol.
	T2.4.99 Comprehensive transportation outreach and education	1	(No comment)
Materials Management and Waste	**M1.1.1** Cleaning products	1	"low VOC cleaners" don't belong in "compost" and organics sub-strategy.
	M1.6.23 Incentive based models	1	There are already so many programs, focus on existing waste reduction programs, not add new ones.
	M1.7.25 Landfill expansion	1	People should be reducing waste, reusing, and recycling so much that no more landfill space is needed.
	M1.8.30 New construction waste stream efficiency and opportunity	1	Unsure of how this could be expanded in a high-impact way.
	M2.5.43 Styrofoam policy and engagement	2	Styrofoam can technically be recycled; Other products have a bigger carbon footprint than Styrofoam.
	M5.3.68 CLT buildings	1	Low impact.
	M1.8.30 New construction waste stream efficiency and opportunity	1	Unsure if this could be expanded in a high impact way.
	M2.5.43 Styrofoam policy and engagement		Styrofoam if city doesn't require fuel switching.
Water Management	**W3.2.10** Grey water for irrigation	1	Health considerations.
	W3.3.11 New standards for resilience in water systems	1	Being done regionally.
	W3.4.22 Golf course recycle water	3	Health considerations.
Natural Systems	**N1.1.41** Green cemeteries	3	Not well defined.
	N1.7.37 Increase local Agricultural production	1	City of Redmond is GMA urban.
	N3.1.55 Adopt green streets plan	1	Not a community interest.
	N4.1.68 Improve air quality	1	(No comment)
Buildings and Energy	**B1.1.5** Requirements for EE above cost/sf threshold	1	(No comment)
	B1.1.29 Solar-ready infrastructure requirements	1	(No comment)
	B1.2.8 Point of sale weatherization	1	(No comment)
	B1.2.9 Rental efficiency Requirements	3	(No comment)
	B1.4.13 Low-interest loans	1	Who proves $
	B2.3.37 Financial tools/group purchases for renewables	2	$ from who?

Focus Area	Action	Number of Red Stickers	Red Sticker Rationale
	B2.3.39 Fuel switching contractor training & sales package	5	NO realistic given renewables development timeline, grid needs.
	B2.3.40 Expedited permitting for electrification	1	Superflow if city doesn't require switching fuels.
	B2.1.33 All-electric and PV-ready new construction	3	Unrealistic given timelines to build added power infrastructure.
	B3.3.46 Salmon-Safe UD certification	1	Democratize this.

Actions with Blue Stickers

Focus Area	Action	Number of Blue Stickers
Transportation and Land Use	**T1.6.99** Zones for density goals	1
	T1.7.99 Telecommuting and alternative work schedules	1
	T2.3.54 Increase anti-idling campaign	1
	T2.3.57 Ban ICE vehicles	1
Natural Systems	**N1.2.8** Planting parties	1
	N1.3.11 Native plant installation	1
	N1.3.12 Urban forestry department/dedicated staff	1
	N1.7.36 Reduce grass lawns	1
	N2.2.46 Drought-tolerant and lawn removal incentives	1
	N5.1.80 Increase number of large statured and heritage trees	1
	N5.1.85 Best practices for tree health and maintenance	1
	N5.1.86 Increased canopy in neighborhoods	1
	N5.1.87 Parcels for a "Tree Bank"	1
	N5.1.89 Increase trees in open space park lands	1
Buildings and Energy		

New Actions Added by Stakeholders

During the action review, each focus area identified new actions to be added and attendees performed the sticker prioritization exercise on the proposed new actions.

Focus Area	Action	Number of Green Stickers	Number of Blue Stickers	Number of Red Stickers
Climate Change	Hiring a sustainability manager	1		
Transportation and Land Use	Add bike/ ped corridor to reduce non-vehicle transportation	1		
	Bike/ ped separation	4		
	Encourage PSE to develop an EV charging electrification plan		1	
	Evaluate EV parking demand versus supply to determine actions moving forward.	2		
	Delivery hubs to reduce vehicle mileage.			
Materials Management and Waste	Investigate options for addressing non-recyclable plastics. Lawn/ Left blower electrification and exchange program. 1 G	1		
Water Management	Implement Integrated pest management on city property.			
	Revise City codes to promote greater water efficiency related to irrigation.	2		

Buildings and Energy	Outreach on next generation nuclear	2	1
	Facility management benchmarking: Facility management reporting and optimization	2	
	School programs: Outreach and socialization through school student groups	2	
	Explore CAA model to transition from PSE.	3	
	Provide incentives for commercial buildings to conduct ongoing facility management and optimization.	2	
	Pilot programs- Test pilot programs in neighborhoods or HOA's	2	

Post-Workshop Survey Results

The workshop concluded with a feedback survey that was given to each attendee to garner feedback about their focus area including their opinions on the current list of actions, primary takeaways from the workshop, and additional partners/stakeholders to consult.

Climate Change

Question	Response	# of Responses
How would you describe current state of your table's list of actions?	The actions list is comprehensive.	0
	The actions list works well for Redmond.	0
	The actions list will be comprehensive and/or work well for Redmond once the group's questions and comments are addressed.	5
	The actions list is far from ready and will need significant work to be comprehensive and/or work for Redmond.	0
If you chose "D" above, please elaborate.	• N/A	
What is your primary takeaway from the workshop?	• Data and scientific-based impacts are needed to make process effective. • Language is vague. • Partnerships will be key. • Good outreach to community, except businesses. • Many actions overlap categories; partnerships are/will be key. • Great to be honored with the responsibility to give input. • We need data and scientific based impacts projected in order to really make this process effective. Language in our items is vague and low impact ("consider," "attempt," etc.). • Learning from peers is helpful (borrowing sub-strategies from other cities).	
Who else from the community should be consulted about these potential strategies and actions?	• Experts • Marginalized communities • Low income • Tribal members • Redmon High school • Business • Businesses • Underrepresented groups • Experts • Marginalized citizens	
What do you hope happens next regarding the Environmental Sustainability Action Plan?	• More time. • Redmond can and must lead the region. • Quick action on hiring environmental sustainability manager. • More detail/definitions for unclear language/terms (e.g. urban heating, urban cooling), stronger, less vague language. • We need it filled in with impacts and data basis for assumptions in projected GHG chart. • More fine tuning, but really nice!	

Do you have any other thoughts or comments to share?	• Thank you- powerful workshop • More detailed actions and definitions • Bring in Drawdown and make these actions relevant to Redmond • Thank you. • Possibly include thoughts/discussion about climate solutions from drawdown that may be relevant to City of Redmond/region. • Retiring coal plants are going to be replaced by PSE's gas plans ("natural" is fracked) and their fossil fuel sources for energy will continue to be 60% of their energy mix. LNG tank, north lateral pipeline, larger I-5 corridor pipeline, etc.

Transportation and Land Use

Question	Response	# of Responses
How would you describe current state of your table's list of actions?	The actions list is comprehensive.	1
	The actions list works well for Redmond.	1
	The actions list will be comprehensive and/or work well for Redmond once the group's questions and comments are addressed.	2
	The actions list is far from ready and will need significant work to be comprehensive and/or work for Redmond.	0
If you chose "D" above, please elaborate.	• N/A	
What is your primary takeaway from the workshop?	• Redmond is thinking holistically! • Progress is possible. These meetings have demonstrated that the City is committed to environmental sustainability, so it's reassuring and invigorating, to put it bluntly. • There is a lot of actions; however, data needs to be gathered to make each action more defined.	
Who else from the community should be consulted about these potential strategies and actions?	• I would reach out to Microsoft, Google, and City of Bellevue about EV research and resources. • More involvement from teens/youth. More involvement from nonprofit orgs (Sustainable Redmond and People for Climate Action). More involvement from private sector. • Make the most of opportunity to partner with Sound Transit.	
What do you hope happens next regarding the Environmental Sustainability Action Plan?	• Refine into an actionable strategic plan with key performance indicators underpinned and guided by good data. • Demonstration of direct action and lots of stakeholder interaction. • That all actions that are suggested have been stressed tested to ensure that benefits/outcomes outweigh potential costs.	
Do you have any other thoughts or comments to share?	• I would suggest that more people from the business community be involved in the stakeholder group. • Make sure key staff have a vision/picture of what an equitable, thriving, creative, vibrant net zero carbon Redmond looks like in 2030 and they make a backwards plan to today.	

Material Management and Waste

Question	Response	# of Responses
How would you describe current state of your table's list of actions?	The actions list is comprehensive.	1
	The actions list works well for Redmond.	1
	The actions list will be comprehensive and/or work well for Redmond once the group's questions and comments are addressed.	3
	The actions list is far from ready and will need significant work to be comprehensive and/or work for Redmond.	0
If you chose "D" above, please elaborate.	•	
What is your primary takeaway from the workshop?	• Thanks for the opportunity to provide input. • Lots of good ideas, but significant fine-turning is needed to reach large impacts. • We need more info to make good decisions/prioritize. Maybe a resource list we could consult prior to the meeting if we have time.	
Who else from the community should be consulted about these potential strategies and actions?	• Rachel Malloy, Howard Harrison. • Waste management and multifamily properties (huge for determining feasibility of programs). • Waste Management and businesses which process waste/recyclables/compost.	
What do you hope happens next regarding the Environmental Sustainability Action Plan?	• Less development of the city. More trees, streams, and fish. • Fine-tuning of chosen initiatives. • Need more specifics.	
Do you have any other thoughts or comments to share?	• Community solar. • Thank you.	

Water Management/ Natural Systems

Question	Response	# of Responses
How would you describe current state of your table's list of actions?	The actions list is comprehensive.	1
	The actions list works well for Redmond.	1
	The actions list will be comprehensive and/or work well for Redmond once the group's questions and comments are addressed.	3
	The actions list is far from ready and will need significant work to be comprehensive and/or work for Redmond.	0
If you chose "D" above, please elaborate.	•	
What is your primary takeaway from the workshop?	• Redmond is ambitious. • Great to see the combined input of the community input and the internal city's feedback. • I learned about the needs of Redmond and met some nice people.	
Who else from the community should be consulted about these potential strategies and actions?	• More business. • Open houses would be great and surveys. • Businesses in Redmond should be consulted, as well as environmental groups.	
What do you hope happens next regarding the Environmental Sustainability Action Plan?	• Continue pressing forward • Consolidated and prioritized plan. City's owned items identified. • Engage more in developing the plan with other organizations—businesses, schools, environmental organizations.	
Do you have any other thoughts or comments to share?	• Loved the opportunity of getting involved. And thank you for all the work that was put into the exercise! • There are several items that involve education, many of these could be done together—for example, water management could be explained at the same time planting parties are going on.	

Buildings and Energy

Question	Response	# of Responses
How would you describe current state of your table's list of actions?	The actions list is comprehensive.	0
	The actions list works well for Redmond.	1
	The actions list will be comprehensive and/or work well for Redmond once the group's questions and comments are addressed.	2
	The actions list is far from ready and will need significant work to be comprehensive and/or work for Redmond.	2
If you chose "D" above, please elaborate.	• Our input may mesh with other groups and so is incomplete in scope needs staging. • Need metrics.	
What is your primary takeaway from the workshop?	• Problem is HUGE – complex – nuanced. • Need a change in philosophy—move from construction to facility management. Work on commercial/corporate standards separately. • A good start but need for measurement metrics and engaging businesses more proactively. • Voluntary policy development is accepted easier than regulatory.	
Who else from the community should be consulted about these potential strategies and actions?	• H.S. Teachers. • Businesses, institutions, neighborhoods. • Large and small businesses. • Homeowners, developers, businesses (small).	
What do you hope happens next regarding the Environmental Sustainability Action Plan?	• Draft mission statement with bold plans prioritized. • Please use our feedback to add specific metrics. • Quantify/measurable outcomes and timelines. • More details on charging stations for cars and bikes.	
Do you have any other thoughts or comments to share?	• This is so fragmented. • Neighborhood based approach for community building/planning for sustainability is key. • Specific actionable statements/goals. Gap analysis to back up goals. Timeline with attainable milestones. Simple and implementable.	

Redmond Environmental Sustainability Action Plan

Stakeholder Workshop #3 Summary | May 2020

Overview

This document summarizes the activities and outcomes from the third community stakeholder workshop for the Redmond Environmental Sustainability Action Plan. Participants included residents and other representatives interested or working in sectors relevant to the six focus areas: climate change and resilience, transportation and land use, building & energy, materials management & waste, natural systems, and water management. Additionally, there were select representatives from the City of Redmond as well as representatives from the consulting team, including from Cascadia Consulting Group, Greene Economics, and Herrera Environmental Consultants.

Focus Area	What's Included
Climate change and resilience	Opportunities for reducing GHG emissions and building resilience to climate change impacts
Transportation & land use	Strategies for reducing transportation emissions and enhancing community mobility
Building & energy	Options for increasing renewable energy use and energy efficiency
Materials management & waste	Pathways toward sustainable consumption, zero waste, and increased recycling
Natural systems	Enhancing green space and natural drainage systems through low impact development and enhanced urban tree canopy cover
Water management	Protecting and conserving water resources, including water quality and quantity

Key objectives in the third stakeholder workshop were as follows:

- **Review the qualitative multi-criteria analysis, quantitative impact assessment, and economic analysis** conducted to evaluate and prioritize the ESAP actions list.
- **Review and provide feedback on the revised list of goals, strategies, and actions** for incorporation into the draft Redmond ESAP.
- **Review City Staff implementation matrix** which includes partners, timelines, leading department etc.

Activities

To meet these objectives, the workshop included the following agenda items and activities:

- **Background and Progress To-Date:** The consultant team presented the process and outcomes from the qualitative multi-criteria analysis, quantitative impact assessment, and economic analysis.
- **Refine Action List:** Participants were asked to review the prioritized action list and provide feedback, informed by outcomes from the quantitative and qualitative analyses. Participants were asked to provide any final concerns, priorities, or comments with regards to the proposed list for inclusion in the draft ESAP. Participants were asked to complete a survey about the state of the action list.

- **Implementation Matrix:** Participants were asked to begin outlining implementation details for priority actions. Details include consideration of action sequencing/timing, critical partners, barriers and other considerations, and immediate next steps.

All activities were conducted in a **virtual online meeting** due to COVID-19 restrictions.

List of Invitees

Stakeholders invited to the workshop are listed below. The majority of participates also attended the previous two stakeholder workshops for this planning process.

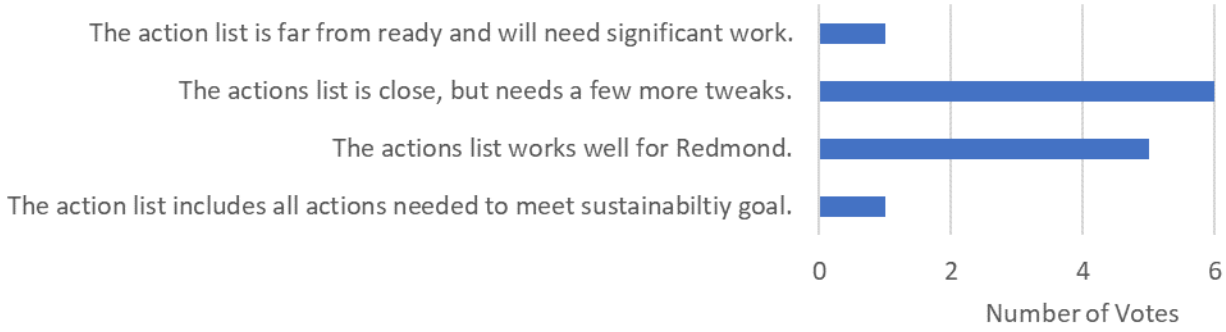
Focus Area	Invitee	Affiliation	Attended?
Climate Change & Resilience	Peter Donaldson	Sustainability Ambassadors	✓
	David Morton	Resident	✓
	Gary Smith	Resident; Parks and Trails Commissioner	✓
	Nicola Salarpi	Hopelink	✓
	Nancy Shimeall	People for Climate Action	
	Jennifer Beyer	Resident	
	Paul Stull	Resident	
	David Hoffman	Puget Sound Energy	
Building & Energy	Aparna Varadharajan	Resident; Planning Commissioner	✓
	Amy Webber	Nelson Legacy Group	✓
	Steve Thompson	Resident	✓
	Joe Skewis	Prototron Circuits	
	David Hoffman	Puget Sound Energy	✓
	Angela Rozmyn	Natural and Built Environments	✓
	Jim Stanton	Microsoft	✓
	M. Hoyt	Trammel Crow Residential	✓
	Jenna Smith	King County Housing Authority	
Transportation & Land Use	Eric Campbell	Main Street Property Group	✓
	Denis Martynowych	Sound Transit	
	Robert Oikawa	Ped/Bike Advisory Committee	
	Tom Hinman	Sustainable Redmond	✓
	Elizabeth Christian	PTSA Sustainability Chair (Redmond High School)	
Materials Management & Waste	Madeline Schroeder	Resident	✓
	David Morton	People for Climate Action	✓
	Julie Calligaro	Resident	✓
	Amrit Bhuie	PTSA Sustainability Chair (Wilder Elementary School)	✓
	Emily Newcomer	Waste Management	
Water Management & Natural Systems	Susan Robertson	Resident; Parks and Trail Commissioner	
	Megan Mollman	Resident	✓
	Monica Catunda	Resident	✓
	Paul Stull	Resident	
	Mike Brent	Cascade Water Alliance	✓

Outcomes

Refine Actions List

Comments from stakeholders were recorded within the action list documents. The City and consultant team integrated these comments into the final action list presented in the draft ESAP.

Based on the participant survey, the majority of participants indicated that the action list works well for Redmond and is close, but needed a few more tweaks.



When asked about desired next steps, responses included the following:

- *Except for a few tweaks, I think they're ready to incorporate into the plan.*
- *COVID - 19 will impact the economy and high likely impact funding - I believe the city should collaborate with the private sectors such as corporations since everyone is planning the same thing so we do not replicate our efforts instead we can get the things done in a collaborative way.*
- *I wish the action plan had more concrete steps, but I trust that those who continue to work on it will develop these to a fuller extent.*
- *Engage stakeholders more broadly for their inputs.*
- *Circling back on implementation (at least time frames) and some details for near-term plans*
- *More discussion on the priority ranking, timing of implementation, impacts and barriers. It's great to shoot for the moon, but we need to be realistic.*
- *Looking forward to supporting the design and implementation of K1-2 Education and Youth sustainability ambassadors*
- *Let's begin implementing the Plan*
- *Introduce the Environmental Sustainability Manager publicly once she's fully on board*
- *I think it's ready to go.*

Implementation Plan

Input received during the implementation planning session were recorded in a comprehensive implementation matrix, which will be presented as an appendix in the final ESAP.

Redmond Environmental Sustainability Action Plan

Draft for Public Comment – Online Open House Feedback Summary and Proposed Changes

August 6, 2020

Introduction

This document summarizes public comments received for the draft Environmental Sustainability Action Plan (ESAP) Online Open House. Public comments were collected July 1-31, 2020. through the online platform, Konveio. For detailed responses, letters, and survey results, please see attached appendices starting on page 10.

Response Overview

Number of Users: 453
Number of Sessions: 746
Typical Time Spent per Session: 5 minutes

General Plan Support and Effectiveness

- The **majority (89%) of respondents indicated that they "strongly support" or "support" the draft ESAP**, with (70%) stating that Redmond should be a **national leader in sustainability**, no matter the cost. [1]
- The **majority of respondents (92%) stated that they were willing to pay an increase in utility and property taxes to help fund implementation of the plan**, with (60%) indicated they would be willing to pay $200 to $300 per year.[2]

Overarching Feedback

Responses to the questions "Do you have any additional feedback on the Plan? Are there any additional actions that should be included in the Plan?" and individual responses within each focus area revealed the following overarching themes and recommended actions. The themes found in the table below have been ordered from most to least prominent and were included if mentioned by 4 or more individuals.

** Themes with an asterisk were those mentioned in both the summary survey and in individual focus area sections. Others were predominantly in the summary survey.*

[1] Note that only about 37 (out of over 41 respondents) responded to this question.
[2] Note that only about 37 (out of over 41 respondents) responded to this question.

Theme	Feedback	Recommended Response
Outreach and Engagement*	Many respondents stated that they would like more effort in the outreach and engagement process. Respondents indicated that the City has historically lacked effective and equitable engagement with the community.	Add action to check in with community on Online Open House feedback themes throughout implementation. Add information about education and outreach during implementation in the Plan appendix implementation matrix.
Equity and Environmental Justice*	Many respondents indicated that the plan needed to be more explicit in how our environmental sustainability decisions impact equity. Need to find a way to assess decisions through an equity lens.	Add action to check in with community on impacts to communities of concern throughout implementation. Equity lens action included in "Equity commitments" action under Strategy C2.
Goals and Targets*	Interest in seeing more aggressive actions and targets. Some respondents were interested in more interim goals (e.g., 1, 2, 5, 10 years).	Set an aspirational carbon neutrality goal for community. Add action to evaluate carbon sequestration potential and opportunities. Interim goals to be evaluated through implementation planning efforts.
City Leadership	Respondents wanted the City to be a leader in plan implementation. Many respondents indicated that the City should integrate climate change and sustainability into all City decisions.	Set an aspirational carbon neutrality goal for City operations. Add action to create a detailed plan for path to carbon neutrality for City operations.
Fuel Switching	A majority of respondents indicated support for natural gas reduction and renewable energy generation. Some respondents requested more information on how to make these choices within their households.	No change, addressed in "All-electric new construction" action. Bolster Buildings and Energy "What You Can Do" section to provide more information and resources.

Theme	Feedback	Recommended Response
Emissions Evaluations	A majority of respondents supported the requirement of an emissions analysis for all project applications (e.g. include estimates of emissions generated/reduced).	No change, addressed in "Climate consideration policy" action. Include in Plan appendix implementation matrix suggestion that information be publicly available and involve an emissions analysis.
Land Use and Development	Many respondents wanted more emphasis on how the plan will address development, congestion, T.O.D., and accessibility – density are large concerns for the community. Strong support for housing affordability options but would like it to be intermixed throughout Redmond to avoid negative stigma around project areas.	Add "10-minute communities" action and action related to comprehensive planning process. Review actions to ensure Plan sufficiently covers integration of affordable housing. Add action related to green space access.
Costs	Concern about costs of implementation and to citizens (especially low-income).	Action with cost concerns will be subject to additional affordability analysis through implementation process. Continue periodic community surveys to solicit well rounded feedback and better understand cost concerns. Information to be used to inform implementation planning.

Individual Sector Responses

This section summarizes public comments received relevant to individual plan sectors. **Buildings and Energy, Transportation and Land Use, and Natural Systems** were the focus areas with the largest number of public comments (see table below).

Sector	Total Comments
Buildings and Energy	90
Climate Change and Resilience	38
Materials Management and Waste	46
Natural Systems	48
Transportation and Land Use	79
Water Management	28

Key themes from individual sector response are summarized below.

Buildings and Energy

Theme	Feedback	Recommended Response
HFCs/Refrigerants	Interest in monitoring and reducing refrigerants, with a focus on regulating the use and disposal.	Add action to address this emissions source.
Natural Gas Ban	Strong support for natural gas bans and fuel-switching retrofits.	No change, addressed in "All-electric new construction" action.
Local Renewables & Solar	Strong support for local production of renewables, rather that purchased from elsewhere. High support for solar and related incentives.	No change, addressed under "Financial tools for renewables." Evaluate whether additional actions are needed.
Embodied Carbon	Concern about embodied carbon in all new construction, not just municipal.	Add to Plan appendix implementation matrix as consideration for current green building actions.
Specificity/ Impact	Some respondents requested more specificity to the actions in this section, specifically around building code scope and funding mechanisms. Respondents would also like to see more stringent requirements (i.e., regulations instead of incentives).	Clarify language around what solar and EV-ready requires in Plan appendix implementation matrix. Add explicit language in Plan implementation section that stakeholders will be critical in determining the scope of actions (e.g., fuel switching). Add to Plan appendix implementation matrix as

Theme	Feedback	Recommended Response
		consideration for current green building actions.
Energy Performance Standards	Strong support for require energy performance standards for new and existing buildings and identifying permanent funding sources for upgrades.	No change, addressed under "Universal efficient building standard" and "Efficiency requirements above cost/sf threshold."
Green Building	Interest in using Built Green as a building certification program.	Add Built Green as an option in "Green certification incentives" action.
Community Solar/Public Utility	Interest in Redmond creating a public utility district and/or creating a community solar program to increase renewable energy generation and access.	No change, addressed in "Financial tools for renewables" action. Add clarification about what "group purchases" means.

Climate Change and Resilience

Theme	Feedback	Recommended Response
See "Goals and Targets" overarching theme.		
Performance Measurement	Support on frequent publishing of community GHG emissions and sustainability metrics to the public.	No change, addressed under "GHG monitoring & dashboard" action and the implementation section.
Emergency Management	Concern about Redmond's capacity to understand and respond to extreme events (e.g., extreme heat, flooding, mental health), especially to vulnerable communities.	No change, addressed in Climate Resilience focus area.
Neighborhood Climate Change Capacity	Interest in incorporating climate change and sustainability findings into a Neighborhood Visioning Plan.	Add to language regarding Neighborhood Visioning Plans to "Neighborhood resilience hubs" action.

Materials Management and Waste

Theme	Feedback	Recommended Response
C&D Diversion	Strong support for C&D diversion requirements.	Add action regarding additional coordination with King County and neighboring cities to encourage C&D reuse market.

Theme	Feedback	Recommended Response
Food Waste	Strong support in reducing community-wide food/organics waste. Respondents agreed that Redmond should look to expand participation in local composting services.	Add language to Solid Waste strategies to ensure focus on food waste. Update action language to clarify where food waste is involved (e.g., "Waste reduction outreach action").
Make Recycling Easier	Support for actions that encourage recycling, such as used oil recycling centers, better outreach and education, year-round drop-off facilities for hard-to-recycle goods,	Add as consideration for "Recyclables market" action to include hard-to-recycle items in the Plan appendix implementation matrix.
Contamination	Concern about recycling/composting contamination. Interest in cart tagging and requiring residents and business to pay the true cost of waste services – rather than a bundled cost.	Add as consideration for "Waste reduction outreach" action in the Plan appendix implementation matrix.
Community Buy-in	Concern that requirements may have pushback from the community. The City should focus on partnerships and education – with a focus on equitable outreach (e.g., translated recycling and composted information).	Add Foodlife Line, LWSD, PTSA as potential partners in the Plan appendix implementation matrix.

Natural Systems

Theme	Feedback	Recommended Response
Tree Protection	Strong support for increasing tree canopy and enforcing tree protection standards. A majority of respondents were concerned about the recent reduction in tree canopy.	No change, addressed under strategy N5. Ensure sufficient focus on maintaining current canopy vs. adding new.
Confusion on Tree Canopy Calculation	Respondents were confused on the calculation of tree canopy and felt that it was overestimated (e.g., incorporating areas outside of city limits such as Farrel-McWhirter and Juel Park).	No change, this information has been shared with staff working on tree canopy and will be evaluated as part of future Tree Canopy Strategic Plan updates.
Tree Retention	Concern that tree replacement is less effective than tree retention. Respondents showed strong support for increasing the protection of current trees.	No change, addressed under "Reevaluate tree regulations" and "Targeted parcel acquisition."
Natives	Support for native species and drought-tolerant plantings.	Add language to "Community education and outreach" action in strategy N1.

Theme	Feedback	Recommended Response
Education and Outreach	Interest in more community outreach and education on native planting, drought-tolerant landscaping, and green infrastructure (e.g., rain barrel requirements and standards).	Add as consideration to "Stormwater retrofit incentives" action in Plan appendix implementation matrix.

Transportation and Land Use

Theme	Feedback	Recommended Response
See "Land Use & Development" overarching theme		
City Departments	Interest in seeing what departments will lead actions.	No change, addressed in the Plan appendix implementation matrix.
VMT Reduction/TDM	Strong support for VMT reduction and TDM actions.	No change, addressed in "Reevaluate TDM performance measures" action.
Parking	Strong support for reducing free on-street parking and raising parking rates – some concern on the equity impacts.	No change, addressed in "Parking maximums/ minimums" action and "Downtown Redmond parking." Clarify that these actions cover this topic.
Biking	Respondents indicated interest in more bike related actions, with an emphasis on bike infrastructure, wayfinding, and safety.	No change, addressed in "Increased spine network" and "Active mobility infrastructure investments" actions.
Multimodal	Respondents supported multimodal development and expressed interest in explicitly addressing complete streets through policy or design.	Add continue existing action to support development of Transportation Master Plan and implementation of complete streets policy.

Water Management

Theme	Feedback	Recommended Response
Groundwater quality metric	Concern about TCD impact to aquifer.	Covered in (TCD) temporary construction dewatering action "update TCD code". Add to considerations for "Groundwater monitoring program" action in Plan appendix implementation matrix.
Contaminates/Toxins	Support on monitoring, reducing, and/or banning contaminates and toxins into water	Add language in "groundwater monitoring program" action -

Theme	Feedback	Recommended Response
	resources (e.g., glyphosate, microplastics, pharmaceuticals)	"Include monitoring for emerging contaminants." Add evaluation of glyphosates into "Adopt Integrated Pest Management Plan" action.
"One water" education	Strong support for education, specifically around schools.	No change, addressed in "one water" education action.
Climate-based water management education	Strong support for water conservation and education using climate science.	Add "climate-science based" into action language into actions related to Strategy W2.
Landscaping and irrigation standards	Support for this action. Additional interest in standards for existing developments.	Add as consideration for "Water Use Reduction Strategy" action in Plan appendix implementation matrix.
Golf course water conservation	Strong support for golf course water conservation and reuse.	No change, addressed in "golf course recycled water" action.

Green Redmond Pledge Highlights

When asked what individual actions residents would pledge to, **100% of respondents** indicated their support for the following actions: [3]

Focus Area	Individual Actions
Buildings and Energy	Flip the switch on devices and appliances when not in use
	Power my household or business with renewable energy
	Optimize my household or business with energy efficient construction and/or technology
Natural Systems	Plant native plants and trees in my yard
	Avoid harmful pesticides and cleaning chemicals
	Participate in a volunteer event for open spaces
Transportation and Land Use	Take public transportation and carpool
	Utilize active transportation
	Purchase an electric vehicle

Focus Area Resource Highlights

When asked, "If you wanted to learn more about the Environmental Sustainability Action Plan, how would you want to learn about it? Check all that apply", the top three responses were:

- City of Redmond website
- Community events and workshops
- Social media (Facebook, Instagram, Twitter, etc.)

[3] Individual pledges were not given for the Climate Change and Resilience, Materials Management and Waste, and Water Management focus areas.

Respondent Demographics

- **Who:**
  - Own, rent, or live in Redmond (47%)
  - Work in Redmond (25%)
  - Retired (6%)
- **Neighborhoods (top three):**
  - Education Hill (31%)
  - I don't live in Redmond (17%)
  - Bear Creek, Grass Lawn, Idylwood, and Overlake (8%).
- **Race/Ethnicity:**
  - White (72%)
  - Latinx (1%)
  - Asian American/Pacific Islander (1%)
  - Prefer not to say (6%)
  - Other (6%)
    - European American
- **Age (top three):**
  - 51-60 years old (26%)
  - 41-50 years old and 61-70 years old (21%)
  - 70+ years old (18%)

Plan Development

The Redmond Environmental Sustainability Action Plan reflects and brings together City and community priorities developed through a year-long robust involvement and assessment process. The process included the following key elements:

- Compilation of a sustainability inventory that identifies activities, contexts, challenges, and baseline conditions for sustainability in Redmond.
- Involvement of internal City staff and external community stakeholders to inform and solicit input throughout the plan's development.
- Identification and analysis of strategies and actions for meeting sustainability goals through multi-criteria analysis and quantitative impact and cost assessments.

Timeline

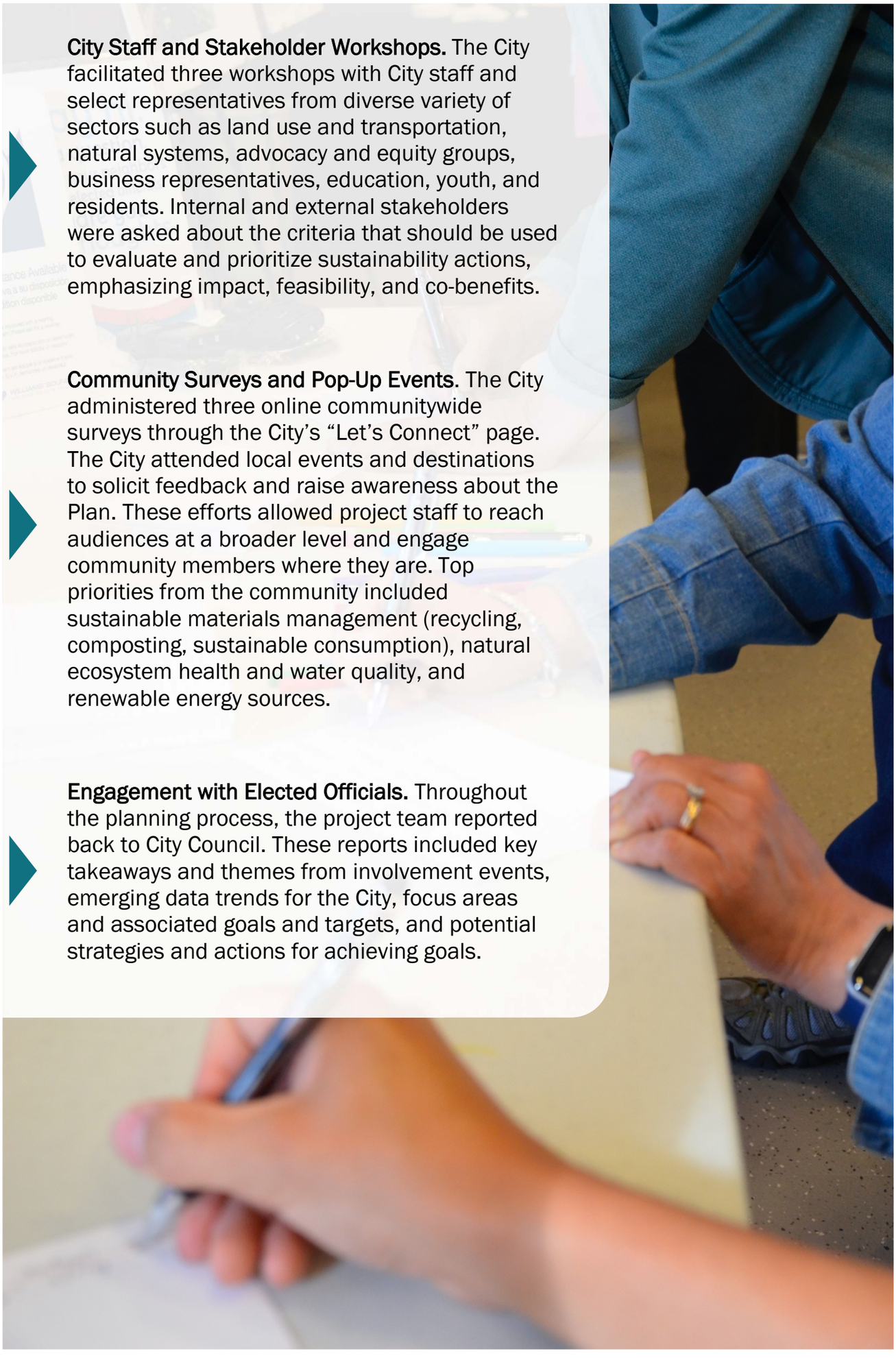
Public & Stakeholder Engagement

This plan incorporates community ideas and priorities, as well as recurring themes that resulted from community involvement during the planning process. Key elements of the involvement process are outlined below.

City Staff and Stakeholder Workshops. The City facilitated three workshops with City staff and select representatives from diverse variety of sectors such as land use and transportation, natural systems, advocacy and equity groups, business representatives, education, youth, and residents. Internal and external stakeholders were asked about the criteria that should be used to evaluate and prioritize sustainability actions, emphasizing impact, feasibility, and co-benefits.

Community Surveys and Pop-Up Events. The City administered three online communitywide surveys through the City's "Let's Connect" page. The City attended local events and destinations to solicit feedback and raise awareness about the Plan. These efforts allowed project staff to reach audiences at a broader level and engage community members where they are. Top priorities from the community included sustainable materials management (recycling, composting, sustainable consumption), natural ecosystem health and water quality, and renewable energy sources.

Engagement with Elected Officials. Throughout the planning process, the project team reported back to City Council. These reports included key takeaways and themes from involvement events, emerging data trends for the City, focus areas and associated goals and targets, and potential strategies and actions for achieving goals.



A Strategic, Phased Approach

The strategies included in this plan are a set of actions aimed to foster sustainability within the City of Redmond over the next 30 years. These strategies cover a broad range of areas to ensure the City does not focus its resources on one approach.

The City proposes a strategic, phased approach to attaining long-term sustainability goals over the next 30 years. The implementation plan—namely, the timing of actions—reflect the following high-level phasing:

- **Build a foundation through education, incentives, partnerships, and assessment:** Starting with initial steps such as education, outreach, technical assistance, pilot programs, partnership building, and studies, the City will ensure that the community is equipped with the information and tools it needs to ensure a seamless and informed transition to attaining long-term goals.
- **Create accountability:** The City will leverage data transparency and information sharing to facilitate a culture of partnerships and continual improvement. Starting with City operations, Redmond will lead by example to report progress and encourage community engagement.
- **Transition to policies, requirements, and mandates.** Although "softer" mechanisms such as education, outreach, and incentives have been shown to provide some impact in realizing sustainability goals, studies have indicated that stronger actions such as requirements and policies are ultimately needed to secure long-term impact.

#001

Posted by **Shelly Bowman** on **07/13/2020** at **11:29am** [Comment ID: 106] - Link
Type: Suggestion
Agree: 0, Disagree: 0
I fear a 30 year plan is not, and does not sound, aggressive enough and citizens will feel we have plenty of time to change our behavior. The time to make change is now. I understand most the aggressive action will actually take place in the 1st 10 years; howecer, I would feel more comfortable with this stated. Sustainability Plan: 10 Year Action, 10 Year Adjustment, 10 Year Maintenance for 100% Sustainability.

#002

Posted by **Brian Tosch** on **07/30/2020** at **12:12am** [Comment ID: 325] - Link
Type: Suggestion
Agree: 1, Disagree: 0
We should set these high level goals here. Net 0 carbon by no later than 2040 and I think we should be way more aggressive than that. I would include all community GHG sources and not just city operations.

#003

Posted by **Larissa Ruiz** on **07/20/2020** at **1:06pm** [Comment ID: 296] - Link
Agree: 0, Disagree: 0
I like this. I think Education is key to any initiative.

#004

Posted by **Nirali Shah** on **07/05/2020** at **6:11pm** [Comment ID: 44] - Link
Type: Question
Agree: 1, Disagree: 0
How was 30 years determined? Should certain areas consider more aggressive timelines?

> Reply by **RedmondAdmin** on **07/07/2020** at **11:31am** [Comment ID: 49] - Link
> *Type: Answer*
> *Agree: 4, Disagree: 0*
> The International Panel on Climate Change identifies 2050 as the year we must globally achieve key GHG reductions in order to avoid extreme climate impacts. While Redmond's Sustainability Plan has a 30 planning horizon, the majority of the actions are noted for implementation within the next 10 years.

#005

Posted by **Nirali Shah** on **07/05/2020** at **6:08pm** [Comment ID: 43] - Link
Type: Question
Agree: 1, Disagree: 0
Is this Sustainability Action Plan only targeting the incorporated areas of Redmond?

> Reply by **RedmondAdmin** on **07/07/2020** at **11:16am** [Comment ID: 48] - Link
> *Type: Answer*
> *Agree: 3, Disagree: 0*
> That's correct, the ESAP only targets the incorporated areas of Redmond. Unincorporated Redmond falls under King County's Strategic Climate Action Plan, which is currently being updated. You can learn more about King County's efforts here - https://www.kingcounty.gov/services/environment/climate/actions-strategies/climate-strategies/strategic-climate-action-plan.aspx

#006

Posted by **David Morton** on **07/30/2020** at **5:40pm** [Comment ID: 341] - Link

Type: Suggestion
Agree: 1, Disagree: 0
Plan Implementation and Updating -- Develop a transparent framework for implementing and updating the Climate Action Plan. Consider equity, safety, health and community engagement goals. Update the Climate Action Plan every two years.

#007

Posted by **Brian Tosch** on **07/30/2020** at **12:13am** [Comment ID: 326] - Link
Type: Suggestion
Agree: 2, Disagree: 0
We should recognize that in 30 years the residents of Redmond will be almost entirely different people. Therefore we are building this for them and not catering to the short term goals of current residents.

Goals and Targets

Redmond's environmental sustainability goals and targets, summarized below, were developed through an iterative process that included consideration of regional and peer city targets, existing City planning documents, community and City staff preferences and perceptions, and analysis of what is achievable through the identified strategies and actions of the plan.

City staff will conduct ongoing monitoring, evaluation, and reporting on ESAP progress to evaluate progress towards overall goals and targets. Progress toward meeting ESAP targets and goals will be evaluated and tracked on an action-by-action basis.

Metric	Target	Reference/Source
Transportation & Land Use: Reduce transportation emissions and enhance community mobility.		
Per-capita passenger vehicle miles traveled (VMT)	30% reduction by 2035 50% reduction by 2050	Washington State RCW 47.01.440 statewide per-capita goals
Electric vehicle use (% of VMT by EVs)	100% light duty 60% medium duty 40% heavy duty by 2050	K4C Target
Buildings & Energy: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.		
Community energy consumption (MMBTU)	25% reduction by 2030 45% reduction by 2050	K4C Target
Fossil fuel consumption (MMBTU)	20% reduction by 2030 80% reduction by 2050	K4C Target
Electricity fuel mix ($MTCO_2e$ per MMBTU)	100% renewable electricity by 2050 (0 $MTCO_2e$ per MMBTU)	K4C Target; consistent with WA Clean Energy Transformation Act (CETA)
Materials Management & Waste: Move towards more sustainable consumption and zero waste.		
Community waste diversion rate (% of total waste diverted from landfill)	70% by 2030 80% (zero waste of resources) by 2050	King County 2019 Comprehensive Solid Waste Management Plan
Natural Systems: Enhance green space, tree canopy, habitat quality, and natural drainage systems.		
Tree canopy cover (%)	40% by 2049	Redmond Community Strategic Plan
BIBI index of streams:	60 by 2060	Redmond Community Strategic Plan and Redmond Watershed Management Plan
Surface water quality index (# out of 100)	80 by 2060	Existing Redmond target (stations scoring 80 and above generally meet expectations for water quality)
Accessible habitat and wetlands (acres)	2,600 by 2050	Assumes 25% of total city acreage meets definition of accessible habitat. Based on Washington State Wetland Rating System Criteria H 2.1
Water Management: Protect and conserve water resources, including water quality and quantity.		
Potable water consumption (per capita gallons per day)	TBD by Water Reduction Strategy	N/A
Sanitary sewer inflow/infiltration (gallons per acre per day)	1,100 by 2050	King County recommendations; King County Code (KCC), Section 28.84.050 K.3 I/I allowance
Stormwater retrofits for flow (total acres retrofitted)	5,646 by 2050	Current Redmond target
Stormwater retrofit for quality (total acres retrofitted)	7,463 by 2050	Current Redmond target
Climate Change: Reduce GHG emissions and enhance communitywide resilience to climate impacts.		
Community GHG emissions ($MTCO_2e$)	50% reduction by 2030 80% reduction by 2050	K4C Target

#001

Posted by **Steve Hitch** on **07/08/2020** at **12:16am** [Comment ID: 54] - Link
Type: Question
Agree: 1, Disagree: 0
I feel like there are over 10,000 acres in Redmond. What is the real maximum for these total acre targets?

#002

Posted by **SiteAdmin** on **06/23/2020** at **2:30pm** [Comment ID: 7] - Link
Agree: 0, Disagree: 0

#003

Posted by **Rachel A Molloy** on **07/20/2020** at **2:37am** [Comment ID: 279] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Worth noting that the SR15 for global warming to be limited to 1.5 °C, "Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050." There is emerging science now pointing to 2025 as potentially locking in 1.5 °C ...we may find we may find we need additional accelleration clauses or triggers within this document standardizing beyond even multi-year reviews.

#004

Posted by **Steve Hitch** on **07/08/2020** at **12:19am** [Comment ID: 55] - Link
Type: Question
Agree: 0, Disagree: 0
How does a city measure this?

> Reply by **RedmondAdmin** on **07/08/2020** at **11:09pm** [Comment ID: 59] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> The City will rely on publicly available vehicle registration data from the state to monitor this metric.

#005

Posted by **Steve Hitch** on **07/08/2020** at **12:19am** [Comment ID: 56] - Link
Type: Suggestion
Agree: 2, Disagree: 0
It would be helpful to put the number 60 into some context.

Action Analysis and Prioritization

From an initial list of nearly 150 actions, the City assessed, refined, and prioritized a comprehensive shortlist of actions for consideration in the final plan. This process included workshops with City staff and community stakeholders, input from an online community survey, a qualitative multi-criteria analysis, and a quantitative assessment of anticipated costs and impact.

The qualitative multi-criteria analysis utilized criteria and weightings identified and refined through public, stakeholder, and City staff engagement, summarized below:

Criterion	Weight	Definition
Impact	30%	How likely is it the action will work to address plan goals and targets? Is the action addressing a major sustainability need, such as a high greenhouse gas emissions source)?
City cost	10%	What is the relative ease of covering the costs of the action with City budget, grants, etc.? Is the cost of inaction significant?
Feasibility	20%	Is it possible to implement the action with current capacities within the City? Are there regulatory, political, or technological constraints?
Community support and cost	10%	How affordable is the action to residents/businesses? Is there strong support for action from the resident and business community?
Equity	10%	Does the action address the needs of vulnerable and historically marginalized populations? 001 Does the action reduce vulnerability for all populations? Is it fair?
Co-benefits or synergies	20%	Does the action address multiple goals, or other City or community objectives? Does the action work with other City activities to amplify the collective impact?

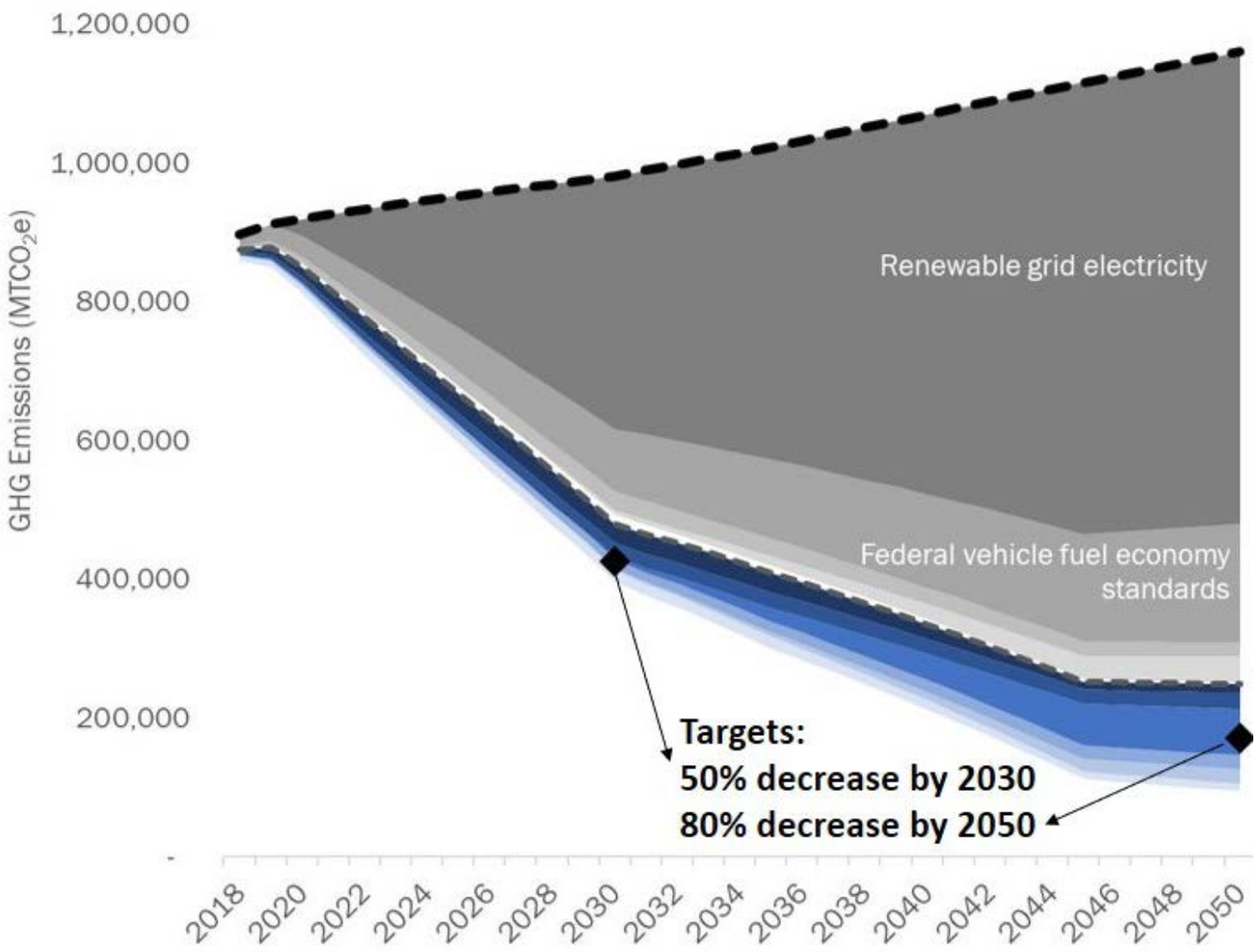
#001

Posted by **Steve Hitch** on **07/08/2020** at **12:23am** [Comment ID: 57] - Link
Type: Suggestion
Agree: 0, Disagree: 0
I am happy to see this criterion.

Quantitative Impact Analysis

The City commissioned a quantitative **impact assessment** of the potential of ESAP implementation to meet sustainability targets. These estimations were visualized graphically to depict a high-level estimate of how much the actions will collectively contribute towards meeting the city's communitywide goals and targets.

The chart below shows how external policies and local actions will contribute to meeting the city's greenhouse gas emissions reduction goal.



002

Local actions

- Commercial energy efficiency programs/policies
- Residential energy efficiency programs/policies
- Building Electrification
- Bike/pedestrian improvements & increased density
- Electric vehicle infrastructure & incentives
- Other

External policies & programs

- Renewable grid electricity
- Federal vehicle fuel economy standards
- East Link light rail expansion
- Regional electric vehicle use
- State building code

#002

Posted by **Rachel A Molloy** on **07/20/2020** at **2:39am** [Comment ID: 280] - Link

Agree: 0, Disagree: 0

Glad to see this charted out for the community, this has been helpful for other communities in tracking and successfully achieving their goals and targets.

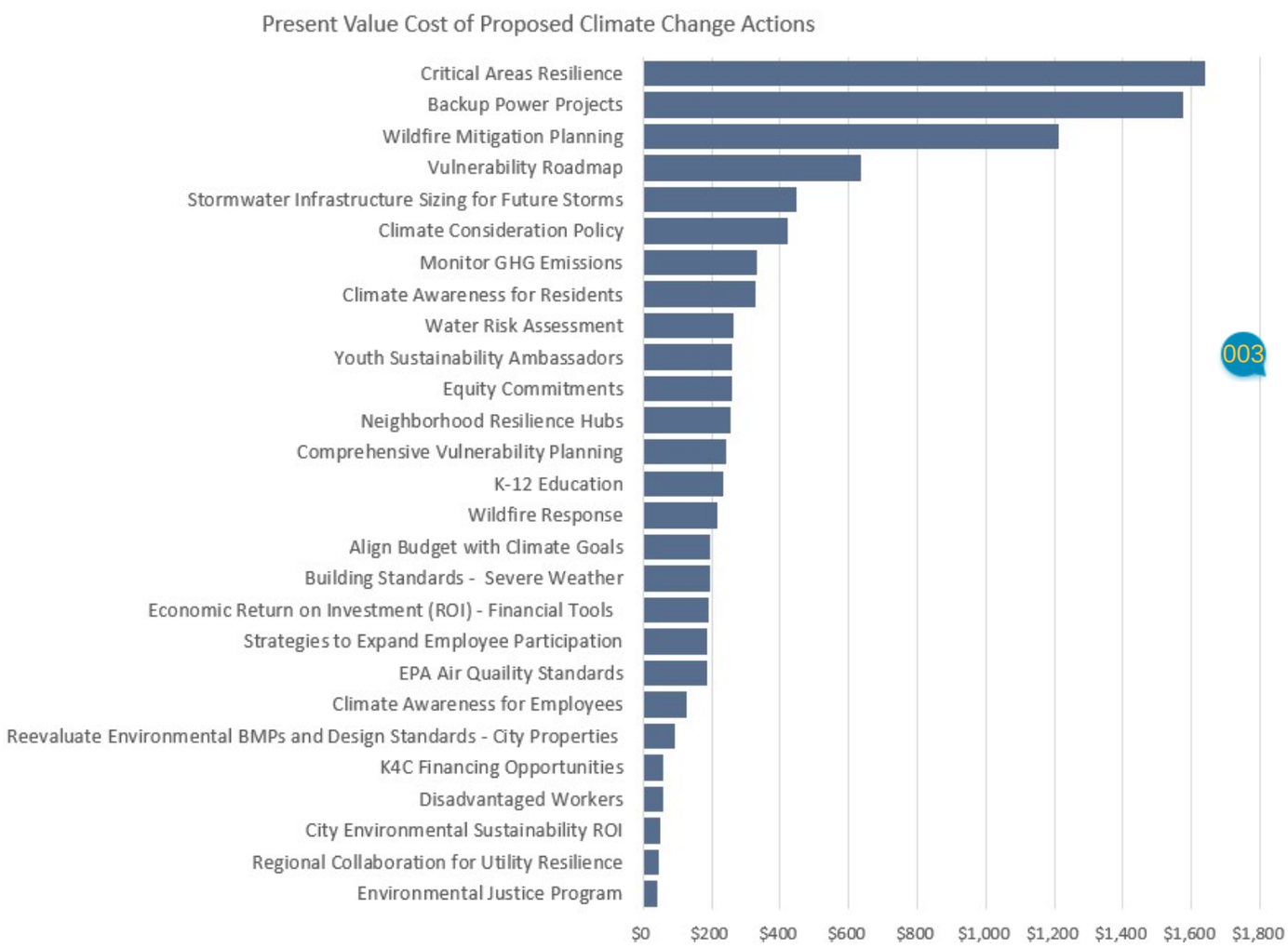
Quantitative Cost Analysis

A quantitative cost analysis estimated City costs associated with implementation of the top priority actions from the multi-criteria analysis. Costs over the life of the plan—30 years—were broken into aggregate categories:

- City staff time
- Annual costs of operating and maintaining the action
- Upfront costs including capital costs and one-time costs
- Number of years that the action would operate

Outcomes from the cost analysis were reviewed and considered in arriving at the final list of actions in the plan. Additional affordability considerations will be needed during implementation.

The chart below shows an example depiction of this analysis for the Climate Change and Resilience focus area of the plan.



#003

Posted by **Rachel A Molloy** on **07/20/2020** at **2:41am** [Comment ID: 281] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Are we accounting for excessive heat events and/or drought as well in these categories? Perhaps that is in the resilience hubs?

> Reply by **RedmondAdmin** on **07/21/2020** at **5:47pm** [Comment ID: 300] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Rachel, this section deals with estimated cost to the City to implement these actions. There are multiple actions that look at community resiliency, including the Neighborhood Resilience Hubs that you note. Another related action is the Vulnerability Roadmap, which will help us understand the populations and areas must susceptible to climate impacts (i.e. extreme heat events, drought, rain events, etc.).

Buildings and Energy

Goal: Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.

Buildings and Energy are the number one source of emissions in Redmond—accounting for over 70% of total emissions. The largest contributions stem from commercial electricity and residential natural gas. The plan prioritizes actions that reduce energy consumption, increase the use of clean energy, and transition away from fossil fuels.

Progress To-Date Highlights

- City Hall has **LEED and ENERGY STAR** certifications.
- The **Green Building and Green Infrastructure Incentive Program** provides incentives for implementing green building development techniques across a variety of building types.
- The City has conducted various **Energy Service Company (ESCO) projects** to offer comprehensive energy solutions to improve efficiency and reduce consumption.
- The City has worked with PSE to provide **energy-efficient lightbulbs at a highly reduced price** at community events. PSE also conducts **outreach to small businesses** to offer retrofit services for energy efficiency.
- The City worked with Puget Sound Energy to complete a **District Energy study** for the Overlake area.

Building energy GHG emissions ($MTCO_2e$). Energy-related emissions increased 12% between 2011-2017.

Community energy use (MMBTU). Despite population growth, community-wide energy use decreased 5% since 2011--a reduction of over 300,000 MMBTU.

Carbon intensity of energy ($MTCO_2e$/MMBTU). The amount of carbon pollution per unit energy has increased since 2011, likely due to increased natural gas use and changes to electricity fuel sources.

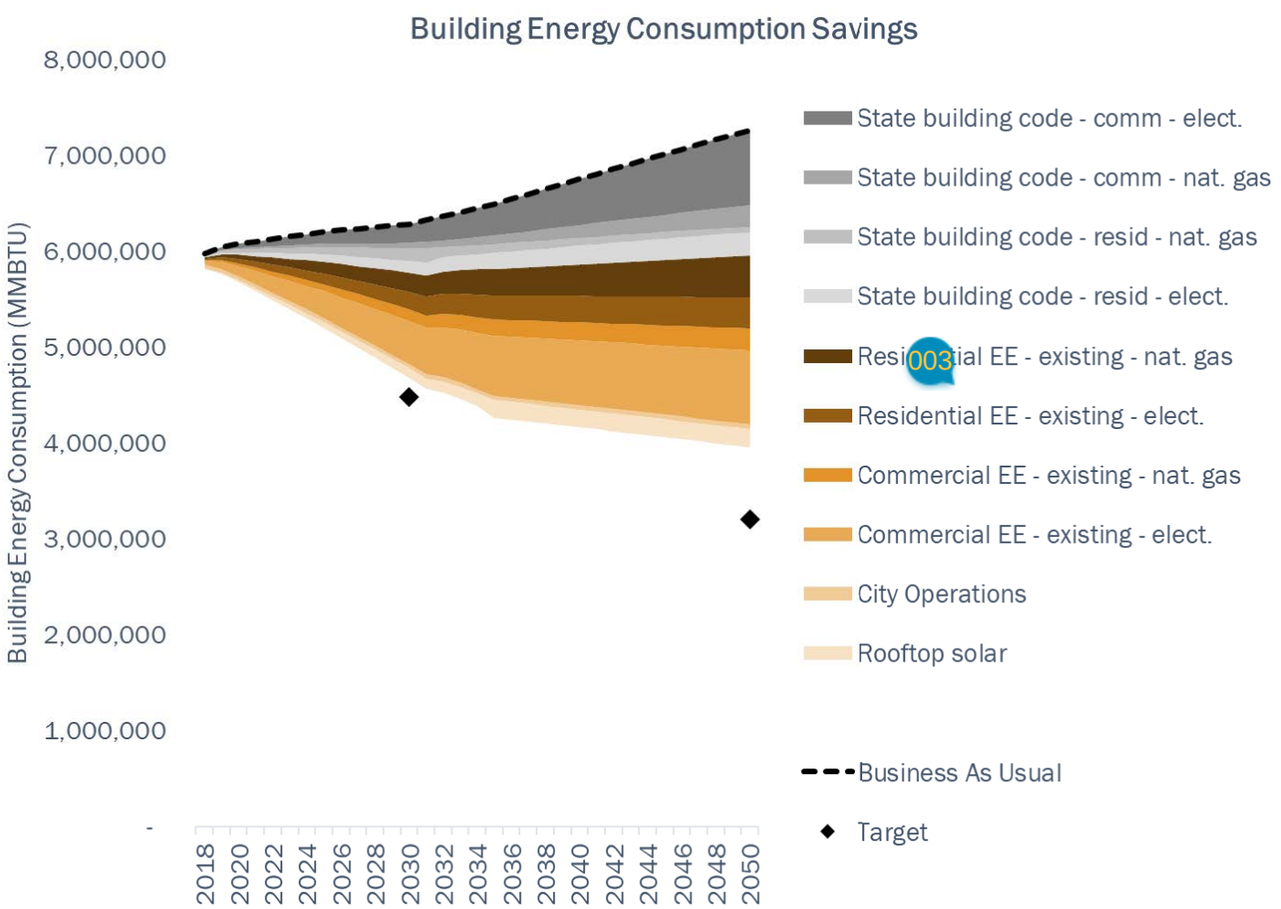
Sustainability Targets, Strategies, and Actions

Targets

Target Indicator	Target Value
Reduce community energy consumption (MMBTU)	25% reduction by 2030 45% reduction by 2050
Reduce fossil fuel consumption (MMBTU)	25% reduction by 2030 80% reduction by 2050
Clean electricity fuel mix (% renewable)	100% renewable electricity by 2050
Reduce building energy GHG emissions ($MTCO_2e$)	75% reduction by 2035 99% reduction by 2050

How Will We Get There?

The strategies and actions anticipate a 22% reduction in energy use by 2030. Additional strategies and/or expanded versions of current strategies will be needed to achieve the target of 25% by 2030. Reductions needed to meet the goal are largely dependent on state building code and reductions in commercial electricity consumption. The graph below shows the impact of various strategies to reach our energy consumption and GHG goals.



Comm = commercial | elect. = electricity | nat. gas = natural gas | EE = energy efficiency

#001

Posted by **Amy Webber** on **07/14/2020** at **6:50pm** [Comment ID: 157] - Link
Type: Question
Agree: 1, Disagree: 0
Has the City vetted each proposed action on its impact to affordable housing and affordable commercial spaces?

> Reply by **RedmondAdmin** on **07/16/2020** at **7:12pm** [Comment ID: 227] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Amy, the ESAP did not include a detailed affordability analysis, although it was a component of the multi-criteria analysis. Actions with affordability implications will go through the public stakeholder process as they are developed to ensure affordability and other important factors are vetted in partnership with the community.

#002

Posted by **Tom Hinman** on **07/14/2020** at **3:54pm** [Comment ID: 144] - Link
Type: Suggestion
Agree: 1, Disagree: 0
I hope these code changes really have the desired effect, but am a bit cynical on outcomes. There are a lot of eggs in that basket.

#003

Posted by **Steve Thompson** on **07/16/2020** at **1:19pm** [Comment ID: 185] - Link
Type: Suggestion
Agree: 3, Disagree: 0
When existing natural gas equipment (furnace or water heater) needs to be replaced, it should be replaced with a electric heat pump equipment. Heat pump efficiency has increased dramatically and will have lower operating costs which will offset the differential installation costs if done with replacement equipment is needed. It will also eliminate the negative significant climate and health impacts of fracked gas.

#004

Posted by **Dwight Rousu** on **07/09/2020** at **11:31pm** [Comment ID: 66] - Link
Type: Suggestion
Agree: 7, Disagree: -1
Setting goals for 30 years in the future is insufficient. 1) the problem is more urgent than that. Ten years or less is a critical for significant progress. 2) There should be interim goals for 1, 2,5,10, and 20 years to track if progress is being made, and to motivate timely actions.

#005

Posted by **Ted Scott** on **07/09/2020** at **7:10pm** [Comment ID: 64] - Link
Type: Question
Agree: 4, Disagree: 0
Could we be more aggressive? Could we switch city fleet vehicles and facilities maintenance to use electric rather than petroleum fuel?

> Reply by **RedmondAdmin** on **07/21/2020** at **7:18pm** [Comment ID: 303] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks for the question Ted. Absolutely - we've been on a path to electrify the City fleet for a number of years now and emissions from municipal vehicles have decreased by 14% since 2011 as a result. We've also included an action in the Transportation and Land Use focus area as there's still a lot of work to do - the action is titled Municipal Fleet Conversion.

#006

Posted by **Gina Clark** on **07/16/2020** at **6:08pm** [Comment ID: 200] - Link

Agree: 2, Disagree: 0

MBAKS would urge the city to also consider impacts of emobied carbon in new construction and not just municipal buildings. LEED currently has some points for embodied carbon but data gathering in this area is still ongoing. Could be a couple of years before a model with full points is developed.

#007

Posted by **David Morton** on **07/12/2020** at **7:28pm** [Comment ID: 89] - Link

Type: Suggestion

Agree: 5, Disagree: 0

Refrigerants called HFCs (hydrofluorocarbons) are potent GHGs that are not typically monitored in building emissions. Redmond must establish regulations for the use and disposal of HFCs, and for routinely scheduled assessment and fixing of HFC leaks in refrigerators, air conditioners, heat pumps and other refrigeration equipment.

Proposed Strategies and Actions

The list below presents proposed **strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Timeframe
Strategy B1: Engage and support building sustainability, education, technical assistance, and code advancement.		
Production incentive support 024	Support Washington State renewable energy production incentives that encourage the development of residential and commercial solar and other distributed generation and storage projects.	
Support/ advocate for new codes	Work with advocacy organizations and Regional Code Council (RCC) to support and implement state energy code advancement.	
Green starter kits	Coordinate with regional programs such as EnviroStars to promote and distribute sustainability 015 arter kits to 012 businesses and homes looking to go green.	
Solar- and EV-ready infrastructure requirements 025 023	Require "solar-ready" and EV-ready infrastructure for all new 022 mmercial and resi 019 tial development. 013	
Green certification incentives 028	Reevaluate, promote and incentivize through zoning code green certification programs for commercial and multi-family buildings and development, including LEED and Salmon-Safe Urban Development Certification. 010	
Low-interest loans	Explore low interest loan o 018 ns to finance energy efficiency upgrades for commercial and residential buildings 020	
Universal efficient building standard 029 026	Adopt a universal standard for energy-efficient buildings, such as the International Residential (IRC) codes for sustainable residential buildings.	008
Pipelines for employment	Collaborate with higher education institutions to develop pipelines for employment in green construction industry professional services.	
Height/sf incentives for energy upgrades	Create and implement a program offering additional height and floor area incentives fo 017 nificant upgrades in e 011 gy and water use.	
Strategy B2: Advance green building within City facilities. 014		
Financing for energy efficiency 027	Assess various options for fi 016 cing and grants to energy efficiency projects for municipal buildings.	
Energy and water retrofits	Continue to implement energy and water conservation retrofits and operational improvements for municipal facilities, street lights and traffic signals, and pump stations. 021	
Facilities Strategic Maintenance Plan	Coordinate and implement recommendations from the Facilities Strategic Maintenance Plan that support sustainability. Evaluate option for an internal Revolving Fund as a dedicated source of capital, funded by savings from energy efficiency upgrades.	009

#008

Posted by **Rosemarie Ives** on **07/19/2020** at **1:20am** [Comment ID: 243] - Link
Agree: 2, Disagree: 0
City should adopt an efficient building standard for all new construction asap.

#009

Posted by **Rosemarie Ives** on **07/19/2020** at **1:26am** [Comment ID: 245] - Link
Agree: 1, Disagree: 0
The city has been ignoring the ongoing maintenance of most of the city's buildings for the past 12 years according to the McKinstry report. Glad to see Facilities Maintenance Plan--now the city will have to make hard choices on how to implement in a timely mannier.

#010

Posted by **LEVI CASTO** on **08/01/2020** at **12:51am** [Comment ID: 354] - Link
Agree: 0, Disagree: 0
I don't think incentives are sufficient here - I believe that our building standards should be high enough that any new developments, aside from single family homes, should be eligible for third party certification just by following our code.

#011

Posted by **Rosemarie Ives** on **07/19/2020** at **1:24am** [Comment ID: 244] - Link
Agree: 0, Disagree: 0
I oppose the city giving more density. Developers should be making energy upgrades because it is the right thing to do and is great for their marketing.

#012

Posted by **Devon** on **07/19/2020** at **3:38am** [Comment ID: 261] - Link
Type: Suggestion
Agree: 1, Disagree: 0
This would be very helpful to the average homeowner looking to go green. Also useful would be a Green Contractor Directory of sorts.

#013

Posted by **Devon** on **07/19/2020** at **3:46am** [Comment ID: 262] - Link
Type: Question
Agree: 0, Disagree: 0
What about requiring residential/commercial geothermal installations on on new homes/buildings above the water table?

This would help reduce potent heat-trapping methane emissions form fracking/refinement/transport of Nat Gas.

#014

Posted by **David Morton** on **07/30/2020** at **4:33pm** [Comment ID: 336] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Facilities Operations and Maintenance -- Conserve energy and promote a healthy work environment by following LEED “Building Operations and Maintenance” certification standards.
https://www.usgbc.org/guide/om

#015

Posted by **Rachel A Molloy** on **07/20/2020** at **2:52am** [Comment ID: 284] - Link

Agree: 0, Disagree: 0
This has been a successful program in downtown Seattle, with broad energy and efficiency impacts that last, and I'd be excited to see it expanded here.

#016

Posted by **Tom Markl** on **07/04/2020** at **5:27pm** [Comment ID: 31] - Link
Type: Question
Agree: 0, Disagree: 0
From what source? Will need to be a government program.

> Reply by **Dwight Rousu** on **07/09/2020** at **11:44pm** [Comment ID: 68] - Link
> *Type: Question*
> *Agree: 1, Disagree: 0*
> If current advocacy of a state bank makes progress, could this be made part of their charter?
>
> > Reply by **RedmondAdmin** on **07/21/2020** at **7:38pm** [Comment ID: 304] - Link
> > *Type: Answer*
> > *Agree: 1, Disagree: 0*
> > Hi Tom and Dwight. The City would look to funding mechanisms like Energy Service Performance Contracting (a mechanism we've utilized multiple times for energy efficiency upgrades), and internal revolving loan funds which David referenced. Just a few examples, but hopefully that helps!

#017

Posted by **Tom Markl** on **07/04/2020** at **5:27pm** [Comment ID: 30] - Link
Agree: 2, Disagree: 0
Height incentives beyond the current code will require going to a new building materials, probably steel, rather than wood. Current allowed heights are generally eight stories. For steel to work, you need 12 stories of rentable space, plus something for parking - may 16 stories total. This would be a big change.

#018

Posted by **Tom Markl** on **07/04/2020** at **5:23pm** [Comment ID: 29] - Link
Type: Question
Agree: 0, Disagree: 0
Loans from whom? These loans will need to be from a government program.

> Reply by **RedmondAdmin** on **07/09/2020** at **12:09am** [Comment ID: 61] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks for the question Tom. The City will explore multiple financing options, including Property Assessed Clean Energy and Resiliency which was approved this year under HB 2405.
>
> Reply by **Dwight Rousu** on **07/09/2020** at **11:39pm** [Comment ID: 67] - Link
> *Type: Suggestion*
> *Agree: 0, Disagree: 0*
> If relevant: Puget Sound Credit Union has provided loans for home solar systems.

#019

Posted by **Tom Markl** on **07/04/2020** at **5:22pm** [Comment ID: 28] - Link
Type: Question
Agree: 2, Disagree: 0
What does "ready" mean? The wiring, the electrical box capability, the actual system? This could be very expensive and increase housing costs, and rental costs for merchants and apartment dwellers. The degree of "ready" required, needs careful

cost/benefit scrutiny.

> Reply by **RedmondAdmin** on **07/09/2020** at **12:02am** [Comment ID: 60] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks for your question Tom. Many actions within the draft ESAP, including this action, will require their own stakeholder process. It will be through this stakeholder process that the City will further refine the scope and evaluate the cost and equity considerations that you raise.

#020

Posted by **David Morton** on **07/12/2020** at **7:59pm** [Comment ID: 91] - Link
Type: Suggestion
Agree: 1, Disagree: 0
C-PACER Financing is now available. -- Encourage and support commercial buildings energy efficiency improvements, especially in underserved communities, thru a C-PACER (Commercial Property Assessed Clean Energy & Resilience) loan program. C-PACER financing programs were enabled by Washington State legislation in 2020 and such programs can now be set up by counties.

#021

Posted by **David Morton** on **07/30/2020** at **4:19pm** [Comment ID: 330] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Lighting Upgrades — Implement energy-efficient outdoor lighting, including light emitting diodes (LED) and dimming technologies when appropriate. Convert all street lights to LEDs. Use Dark Skies best practices when possible to reduce light pollution and minimize bird strike hazards. Avoid using LEDs that shine white to blue as they are harmful to wildlife. Yellow, amber or green hues are best.
https://www.darksky.org/light-pollution/light-pollution-solutions/
https://www.sciencedaily.com/releases/2018/06/180612090618.htm

#022

Posted by **Shelly Bowman** on **07/13/2020** at **12:55pm** [Comment ID: 113] - Link
Type: Suggestion
Agree: 5, Disagree: -1
Encourage all electric -Flash hot water tanks, heat pumps, LED lighting and natural lighting. Encouage ground heat pumps.. Tax gas (stoves, fire places, water tanks, etc). Add water catchment grey water uses and incentives for compostable toilets, green houses, raised garden beds with built in water lines. I realize this may not all fit in the box here, so.please put comments where appropriate. The point is highly sustainable building with completely innovative ideas

#023

Posted by **Gina Clark** on **07/16/2020** at **6:11pm** [Comment ID: 201] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Agree with the comments to more fully define solar and EV ready. Does this simply mean wiring for it? Ensuring the roof in any part of direct sunlight is stable enough to hold the weight of cells? Need more clarification and guidelines of requirements, definitions, and potential costs on housing.

#024

Posted by **David Morton** on **07/30/2020** at **4:39pm** [Comment ID: 337] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Renewable Electricity Supply -- Work to shift the electricity mix to 100% clean renewable power city-wide.

a) Seek the cooperation of local utilities and the Washington Utilities and Transportation Commission in the pursuit of all carbon-free sources of energy as rapidly as possible.
b) Research the opportunities for, and then implement if possible, a group purchase program for delivery of green (renewables) power on the electrical grid. Consider a community purchase agreement with green power producers.
c) Mitigate potential cost burdens to low-income households if the transition to renewable energy sources causes increased rates.

#025

Posted by **David Morton** on **07/12/2020** at **7:55pm** [Comment ID: 90] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Redmond should develop a Smart Building readiness program -- Modify the local commercial building code to "future proof" buildings through Smart Building (automation) readiness. Consider promoting, if not requiring, the following:
(a) installation of "smart" systems controls with variable and remote programming features, including utility demand control receptors;
(b) solar PV readiness;
(c) EV charging readiness;
(d) water efficiency readiness, including grey water reuse, rainwater collection, etc.

#026

Posted by **David Morton** on **07/12/2020** at **7:10pm** [Comment ID: 88] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Redmond must establish energy performance standards for new commercial buildings. Establish energy performance standards for new commercial building construction and major renovations. Prohibit the use of fossil fuel sources for space and hot water heating. Publicize, incentivize and publicly recognize high level certification achievements such as LEED Platinum or equivalent. Consider requiring such certification.

#027

Posted by **David Morton** on **07/12/2020** at **8:25pm** [Comment ID: 92] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Redmond should identify funding sources for energy-efficiency upgrades of City facilities such as:
a) an internal Revolving Loan Fund (RLF) to capture savings from efficiency upgrades and fund new projects. https://betterbuildingssolutioncenter.energy.gov/implementation-models/king-countys-financing-tool-reduce-energy-demand
b) the King County Green Bonds Program, which supports projects that help combat climate change. https://www.kingcounty.gov/services/environment/stewardship/sustainable-building/green-bonds.aspx and https://www.brookings.edu/blog/the-avenue/2016/10/25/green-bonds-take-root-in-the-u-s-municipal-bond-market/

#028

Posted by **Gina Clark** on **07/16/2020** at **6:13pm** [Comment ID: 202] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Built Green is not on this list. Built Green in our area is the largest Built Green program in the US, and has certified over 20,000 residential units since 2000. Using a green certifier can help to simplify this plan and coordinate incentives through sections/actions of the plan.

#029

Posted by **David Morton** on **07/12/2020** at **7:06pm** [Comment ID: 87] - Link

Type: Suggestion

Agree: 4, Disagree: 0

Redmond must establish energy performance standards for existing residences. Establish energy performance standards per square foot, including maximum greenhouse gas emissions, for existing single family and multifamily residences. Target a future date (e.g. 2025) for city-wide conformance with the standards at the time of building resale. In addition, whether at time of resale or not, implement prescriptive clean energy equipment requirements for the end of life replacement of furnaces and hot water heaters; enforce these through required replacement permits. Also, include prescriptive minimum requirements for roof/attic insulation levels at the time of a roof replacement; enforce these through required roof replacement permits.

Action	Description	Timeframe
Resource Conservation Management Plan	Develop a Resource Conservation Management Plan and general government policy to guide energy efficiency investments, operations, and behaviors in City facilities.	
Reduce energy intensity of technology	Implement solutions to reduce energy demand from the City's IT infrastructure.	
New City building green certification 058 052 050	Develop a policy that requires all municipal owned buildings shall be constructed to a minimum certification level, such as the Gold level as defined by the U.S. Green Building Council's (USGBC) Leadership in Energy & Environmental Design (LEED) for New Construction.	031
Existing City building green certification 049 048	Implement updates needed for existing City buildings to achieve ENERGY STAR or equivalent recognition. Continue to track progress in a platform such as EPA Portfolio Manager.	
Embodied and operational carbon 059 054	Introduce a policy/program to address embodied and operational carbon in municipal operations.	
Strategy B3: Shift to renewable energy sources and building decarbonization.		
Financial tools for renewables 057 056 055	Employ financial tools or group purchases to incentivize the installation of on-site renewable energy. 041 036 034	
Cross-departmental task force	Develop a cross-departmental task force that works to address challenges related to land use code in siting renewable energy and other sustainability facilities in the city.	
Fuel switching pilot program 061	Pilot a voluntary program that focuses on residential and commercial fuel switching from natural gas to electric. 040 038 047 046 042	
Green building training	Educate City planning and permitting staff on codes and approaches for incentivizing decarbonization, such as through electric heat pumps. Update permitting process if needed to quickly review and flag decarbonization projects. 044	
Fuel switching contractor training	Conduct contractor training and development of sales packages for building owners wanting to get off fossil fuels. 032	
Incentivize electrification 051	Implement incentives such as expedited and free permitting for switching from fossil fuel (e.g., natural gas) to renewable electricity. 043 037	030
All-electric new construction 060 053	Evaluate natural gas consumption and emissions trends and explore incentives for all-electric construction. Consider restrictions on new natural gas hookups in developments and buildings under a phase-in schedule that considers technological feasibility, need based on community-wide emissions and pair with relevant exemptions. 045 039 033 035	
Strategy B4: Prepare the energy grid for future conditions.		
PSE smart grid technologies	Partner with PSE to implement in Redmond their smart grid technologies meant to improve reliability and management of the grid.	

#030

Posted by **Rosemarie Ives** on **07/19/2020** at **1:33am** [Comment ID: 247] - Link
Agree: 0, Disagree: 0
I support a reduction in fee permits but not a total "forgiveness."

#031

Posted by **Rosemarie Ives** on **07/19/2020** at **1:32am** [Comment ID: 246] - Link
Agree: 2, Disagree: 0
This is good in theory. However with City Hall, in 2008 after the City received its LEED certification, the city installed blinds on the 85th Street side of the building which was not consistent with the plan for passive solar that the city was granted points for in the LEED assessment. Then the City allowed a six/seven story building to be constructed across 85th that blocks the sun. So City needs to go beyond just getting the certification, they need to stay true to the designation.

#032

Posted by **Devon** on **07/19/2020** at **3:59am** [Comment ID: 264] - Link
Agree: 1, Disagree: 0
Yes please!

#033

Posted by **Gina Clark** on **07/16/2020** at **6:18pm** [Comment ID: 205] - Link
Type: Suggestion
Agree: 0, Disagree: 0
MBAKS supports a phased-in approach.

#034

Posted by **Devon** on **07/19/2020** at **3:56am** [Comment ID: 263] - Link
Type: Question
Agree: 1, Disagree: 0
Several new Redmond Schools have been build "solar ready." Could this be utilized?

> Reply by **Stephanie Lecovin** on **07/20/2020** at **8:38am** [Comment ID: 294] - Link
> *Type: Question*
> *Agree: 1, Disagree: 0*
> I believe all new LWSD schools are built solar-ready, but they don't have the $$ to put in solar panels. Could there be a partnership with the City of Redmond to install solar panels?
>
> > Reply by **RedmondAdmin** on **07/21/2020** at **7:52pm** [Comment ID: 307] - Link
> > *Type: Answer*
> > *Agree: 0, Disagree: 0*
> > Great ideas Devon and Stephanie. Partnerships will be an important element of implementation of the Sustainability Plan and we look forward to exploring those in more depth moving forward.

#035

Posted by **Devon** on **07/19/2020** at **4:03am** [Comment ID: 266] - Link
Type: Question
Agree: 0, Disagree: 0
What about geothermal heating/cooling?

#036

Posted by **David Morton** on **07/12/2020** at **8:44pm** [Comment ID: 96] - Link
Type: Suggestion

Agree: 5, Disagree: 0
Redmond should a) Enable the implementation of "community solar" projects that benefit all residents. Offer discounts to low income and disadvantaged participants.
b) Support "Solarize" programs that advance group purchase discounts for solar installation on private roofs. https://sparknorthwest.org/programs/solar/solarize-northwest/

#037

Posted by **Devon** on **07/19/2020** at **4:02am** [Comment ID: 265] - Link
Type: Question
Agree: 0, Disagree: 0
Does this include home EV charger installation?

> Reply by **RedmondAdmin** on **07/21/2020** at **7:57pm** [Comment ID: 308] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Great question. This actions is focused on building fossil fuel consumption like heating, hot water, etc. Vehicle electrification/EVs are captured under the Transportation and Land Use focus area.

#038

Posted by **Tom Markl** on **07/04/2020** at **5:35pm** [Comment ID: 34] - Link
Type: Question
Agree: 2, Disagree: 0
Commercial kitchens and restaurants do not use electricity for cooking because it does not provide the speed and volume production they require. Many individuals find gas ranges more satisfactory for personal cooking in their homes. Would you exempt these?

> Reply by **RedmondAdmin** on **07/14/2020** at **8:16pm** [Comment ID: 174] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Tom, this is one of the measures where we would work with stakeholders to determine the scope of the pilot, including what equipment would be targeted and exempt. Restaurants would be a key stakeholder in those discussion for the exact reason you noted.

#039

Posted by **Tom Markl** on **07/04/2020** at **5:37pm** [Comment ID: 35] - Link
Type: Suggestion
Agree: 0, Disagree: -2
You will need to pair this with upgrades in the grid and distribution network to support the greater usage.

> Reply by **David Morton** on **07/13/2020** at **4:23pm** [Comment ID: 122] - Link
> *Type: Suggestion*
> *Agree: 4, Disagree: 0*
> This concern may be addressed by the following action called "PSE smart grid technologies."

#040

Posted by **Tom Markl** on **07/04/2020** at **5:32pm** [Comment ID: 33] - Link
Type: Suggestion
Agree: 1, Disagree: -2
Since this will require a front end cost for new equipment and higher continuing operating costs, since gas is cheaper to use, incentives may be necessary to facilitate conversion.

> Reply by **Dwight Rousu** on **07/09/2020** at **11:52pm** [Comment ID: 69] - Link

Agree: 4, Disagree: 0

1) Heat pumps have been market price competitive with natural gas.
2) Current prices for natural gas ignore the social and environmental costs of their greenhouse gas emissions. Those should be in the equation.

#041

Posted by **Tom Markl** on **07/04/2020** at **5:29pm** [Comment ID: 32] - Link
Type: Question
Agree: 0, Disagree: 0
A group purchase will require an intermediary/facilitator. Do you envision the city doing this?

Reply by **RedmondAdmin** on **07/21/2020** at **7:49pm** [Comment ID: 306] - Link
Type: Answer
Agree: 1, Disagree: 0
Hi Tom, the City would explore multiple options, but a likely scenario includes a Solarize Campaign in partnership with Spark Northwest.

#042

Posted by **David Morton** on **07/13/2020** at **1:52am** [Comment ID: 99] - Link
Type: Suggestion
Agree: 4, Disagree: -3
Prohibit new building service hookups using fossil fuels, including fuel oil, propane, and natural gas.

#043

Posted by **Steve Thompson** on **07/16/2020** at **1:27pm** [Comment ID: 186] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Anytime NG equipment needs to be replaced, converting to electric heat pumps should be required. The efficiency of new heat pumps will reduce operating costs and eliminated the negative impacts of fossil fuel.

#044

Posted by **Steve Thompson** on **07/16/2020** at **1:39pm** [Comment ID: 187] - Link
Agree: 1, Disagree: 0
There are many good ways of reducing energy use which are being missed because of thinking "This is the way we have always done it." The city staff should be front line in sharing new options.

#045

Posted by **David Morton** on **07/30/2020** at **4:46pm** [Comment ID: 339] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Restrict New Fossil Fuels Service -- Prohibit new service hookups using fossil fuels, including fuel oil, propane, and "natural" gas.

#046

Posted by **David Morton** on **07/13/2020** at **1:50am** [Comment ID: 98] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Prohibit utility company incentives for switching from electric appliances to natural gas. Also prohibit utility disincentives for switching from natural gas appliances to electric.

#047

Posted by **David Morton** on **07/13/2020** at **1:49am** [Comment ID: 97] - Link

Type: Suggestion
Agree: 4, Disagree: 0
Redmond should establish a Clean Energy Assistance Fund (govt/private partnership) to help low income building owners invest in energy efficiency, clean fuel switching, and renewable energy projects. Consider a combination of funding sources such as donations, grants, private loans with very low interest rates, or low interest municipal bonds.

#048

Posted by **David Morton** on **07/30/2020** at **4:27pm** [Comment ID: 334] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Sustainable "Green" Building — Target net-zero energy use by implementing "green" building policies for new city buildings and major retrofits. Require clean energy, low-carbon footprint, and ultra-high efficiency in new government buildings. Consider LEED platinum certification or better.
https://www.usgbc.org/leed

#049

Posted by **David Morton** on **07/30/2020** at **4:24pm** [Comment ID: 332] - Link
Type: Suggestion
Agree: 0, Disagree: 0
City Building Performance Tracking -- Require energy benchmarking of city facilities and calculate Energy Star scores. Technical help is available from the Smart Buildings Center.
https://www.smartbuildingscenter.org/

#050

Posted by **David Morton** on **07/30/2020** at **4:26pm** [Comment ID: 333] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Sustainable "Green" Building — Target net-zero energy use by implementing "green" building policies for new city buildings and major retrofits. Require clean energy, low-carbon footprint, and ultra-high efficiency in new government buildings. Consider LEED platinum certification or better.
https://www.usgbc.org/leed

#051

Posted by **David Morton** on **07/30/2020** at **4:41pm** [Comment ID: 338] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Encourage Transitioning off Natural Gas --
a) In cooperation with utility companies, create incentives for switching from fossil fuels to electric equipment for space and water heating and cooking.
b) Prohibit utility company incentives for switching from electric heating and electric appliances to "natural" gas.

#052

Posted by **David Morton** on **07/30/2020** at **4:23pm** [Comment ID: 331] - Link
Type: Suggestion
Agree: 2, Disagree: 0
City Building Performance Tracking -- Require energy benchmarking of city facilities and calculate Energy Star scores. Technical help is available from the Smart Buildings Center.
https://www.smartbuildingscenter.org/

#053

Posted by **Amy Webber** on **07/14/2020** at **6:57pm** [Comment ID: 159] - Link
Agree: 0, Disagree: 0
Check with Carol Lewis on her work on implementing the new 2018 code and amendments. I believe there is a reduction of one credit under residential for all electric heating.

#054

Posted by **Tom Hinman** on **07/14/2020** at **4:03pm** [Comment ID: 145] - Link
Type: Suggestion
Agree: 2, Disagree: 0
How can this strategy get applied to private/residential settings? By education/emphasis if nothing more??

> Reply by **RedmondAdmin** on **07/21/2020** at **7:43pm** [Comment ID: 305] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks for the suggestion Tom. Absolutely, education is one strategy and we welcome other ideas to amplify this work.

#055

Posted by **Dwight Rousu** on **07/31/2020** at **4:38pm** [Comment ID: 349] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Investigate means for apartment dwellers to go renewable in collaboration with the apartment owners. This might require some creativity and incentives.

#056

Posted by **David Morton** on **07/12/2020** at **8:40pm** [Comment ID: 95] - Link
Type: Suggestion
Agree: 2, Disagree: -1
Redmond could promote community solar on City property.

#057

Posted by **David Morton** on **07/12/2020** at **8:37pm** [Comment ID: 94] - Link
Type: Suggestion
Agree: 5, Disagree: 0
Redmond should promote the creation of eco-districts where neighborhood areas work together with businesses, property owners, residents, and stakeholders and agree on a set of environmental goals for the neighborhood. New or redeveloping neighborhoods could expand or enhance green space, cluster buildings to share walls and save energy, reduce necessary infrastructure, share resources like district heating or community solar, and generally work together to shrink environmental impacts.

#058

Posted by **Karen Dawson** on **07/17/2020** at **6:53pm** [Comment ID: 237] - Link
Type: Suggestion
Agree: 3, Disagree: 0
As a part of the proposed new policy regarding all municipal owned buildings/new city building green certification, ensure that WDOE post construction soil standards are incorporated. Perhaps consider other soil-related requirements such as stipulating that soils come from the city's own recycling programs to ensure a closed loop cycle.
BMP T5.13 – Post Construction Soil Quality and Depth: https://fortress.wa.gov/ecy/madcap/wq/2014SWMMWWinteractive/Content/Topics/VolumeV2014/VolV%20Ch5%202014/VolV%20Ch5-3%202014/VolV%20Ch5-3-1%202014/Volv%20BMPt513%202014.htm
Another idea would be to build out rain gardens or food forests surrounding city properties to demonstrate to the city businesses and residents what can be done on their own properties or even at their apartments via a container garden to incorporate

green design elements, contribute to the city's stormwater management, climate resilience and maybe even reduce their shopping trips by growing food in their yard or on their balcony.

#059

Posted by **Gina Clark** on **07/16/2020** at **6:14pm** [Comment ID: 203] - Link
Agree: 1, Disagree: 0
Thank you for recognizing embodied carbon.

#060

Posted by **David Morton** on **07/13/2020** at **1:57am** [Comment ID: 100] - Link
Type: Suggestion
Agree: 6, Disagree: 0
Buildings Electrification Study -- Launch a study to determine the consumer and emissions impacts of electrifying residential and commercial buildings. The study should include an economic survey of building owners and residents that analyzes their ability to comply with some of the city actions being considered to reduce the climate impacts of buildings. Consider partnering with other cities in the region to share the study cost.

#061

Posted by **Gina Clark** on **07/16/2020** at **6:17pm** [Comment ID: 204] - Link
Type: Suggestion
Agree: 0, Disagree: 0
MBAKS is generally supportive as we were in Seattle. However, a phased approach will work best given available resources and technology, along with significant community and homeowner. Consider enhanced rebate programs for homes making the switch and close coordination with construction/homebuilding industry to anticipate costs, incentives.

Action	Description	Timeframe
Energy storage	Introduce a policy to streamline permitting and interconnection processes for energy storage projects.	
Strategy B5: Expand performance benchmarking and improvements.		
Leverage Smart Cities	Leverage the rollout of smart cities strategies to support projects that improve sustainability tracking, emissions reduction, and cost savings related activities. 064	
Energy use disclosure 070	Require energy use disclosure and benchmarking for buildings, starting with commercial and multifamily buildings over a size threshold.	
Efficiency requirements above cost/sf threshold 074	Require that all permitted residential and nonresidential building improvements over 067quare footage or cost 062 threshold evaluate and enhance energy efficiency 063	
Point of sale weatherization 071	Introduce point-of-sale efficiency and performance standards for residential and commercial buildings, with affordable pathways for small businesses and lower and moderate-income households.	
Large commercial/industrial efficiency and tune-up requirement 073 072	Building on proposed WA state policy, develop a phased timeline when all existing non-residential commercial and industrial buildings over a sq[illegible] footage t[illegible]shold must meet energy performance standards and implement efficiency upgrades and improvements as needed. 066 065	

069 068

#062

Posted by **Devon** on **07/19/2020** at **4:11am** [Comment ID: 267] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Homes/buildings built with energy efficiency in mind will be cheaper to live in - increasing their affordability.

#063

Posted by **Gina Clark** on **07/16/2020** at **6:21pm** [Comment ID: 206] - Link
Type: Suggestion
Agree: 0, Disagree: 0
New buildings and homes are already energy efficient and with the expanded requirements of the state energy and building code, will be regulated to keep improving energy and building efficiency. Existing homes and buildings are often the ones in need of upgrades and miss energy targets. Sufficient rebate programs, education, and public-private partnerships to support retrofit of existing homes, with exceptions for low-income, seniors, etc., should be considered.

#064

Posted by **Stephanie Lecovin** on **07/20/2020** at **8:47am** [Comment ID: 295] - Link
Type: Question
Agree: 0, Disagree: 0
Is this referring to smart meters and 5G? These have huge privacy, health, safety, environmental and property value concerns. Check out Environmental Health Trust for more info - ehtrust.org.

#065

Posted by **Amy Webber** on **07/14/2020** at **6:49pm** [Comment ID: 156] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Consider what mechanism will need to be in place in order to implement this policy. A building owner does not necessarily have any mechanism in a commercial lease to enforce changes put upon the property. I.e. a grocery store tenant owns, maintains, and is responsible for their own HVAC and mechanical equipment so if the requirement is put on the property/building owner there is no way to pass the requirement through to the tenant. Make sure you capture the users.

#066

Posted by **Tom Markl** on **07/04/2020** at **5:44pm** [Comment ID: 37] - Link
Type: Suggestion
Agree: 0, Disagree: -1
Again, this means higher rents. This will further adversely impact small, local businesses that rent small spaces in larger complexes.

#067

Posted by **Tom Markl** on **07/04/2020** at **5:42pm** [Comment ID: 36] - Link
Agree: 1, Disagree: 0
The newest buildings are already the most efficient. This would be directed at older buildings. Older apartment buildings are generally the most affordable, so requiring upgrades will mean passing costs on to the tenants as higher rents. This could substantially reduce the availability of low income affordable housing.

#068

Posted by **Shelly Bowman** on **07/13/2020** at **1:13pm** [Comment ID: 115] - Link
Type: Suggestion

Agree: 3, Disagree: -1

Hopefully ideas and contractors can be shared from Microsoft Refresh..win win scenarios to help.our city quickly ramp up to a US leader..This showcases Microsofts technology and community caring. We should also be inviting the UW to showcase its solar developments etc, and we should help small and large businesses and families to learn and install sustainable innovations.

#069

Posted by **Shelly Bowman** on **07/13/2020** at **1:06pm** [Comment ID: 114] - Link

Type: Suggestion

Agree: 2, Disagree: 0

Innovative educational art/science display works. Examples- solar/wind trees where the leaves blow in the wind creating energy (i have seen thesemini.turbines, very cool) coupled with solar to light the sidewalks at night. Solar sidewalks that can light up snowflakes in winter and melt the ice for safe walking.

#070

Posted by **Amy Webber** on **07/14/2020** at **6:39pm** [Comment ID: 152] - Link

Type: Question

Agree: 0, Disagree: 0

What is the size threshold being proposed? What is the cost to collect all of this information and to what benefit? How will compliance be administered?

> Reply by **RedmondAdmin** on **07/14/2020** at **8:23pm** [Comment ID: 177] - Link
>
> *Type: Answer*
>
> *Agree: 0, Disagree: 0*
>
> A threshold has not been established, but would likely look beyond the current state energy use disclosure threshold of buildings 10,000 SF and above. The City would work with stakeholders to explore other existing programs and identify appropriate compliance mechanisms.

#071

Posted by **Amy Webber** on **07/14/2020** at **6:42pm** [Comment ID: 153] - Link

Agree: 2, Disagree: 0

Depending on the actual end requirements, this requirement could have a big impact on affordable housing.

#072

Posted by **David Morton** on **07/12/2020** at **8:31pm** [Comment ID: 93] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Redmond should have a commercial building tune-ups program -- Require large commercial buildings (e.g. over 10,000 sq.ft.) to have periodic energy audits (e.g. every 5 years) to identify low- or no-cost improvements to reduce energy and water use. — Work with partner organizations to promote building retro commissioning and operation and maintenance practices that improve affordability, comfort, indoor air quality and energy efficiency in all commercial and multifamily buildings.

#073

Posted by **David Morton** on **07/12/2020** at **6:52pm** [Comment ID: 86] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Redmond must establish performance standards for existing commercial buildings. For buildings over 20,000 sq. ft., establish energy performance standards per square foot, including maximum greenhouse gas emissions, for existing commercial buildings. Target a future date (e.g. 2030) for city-wide conformance with the standards. Set maximum allowed energy consumption levels at least ten percent lower than the federal 2012 CBEC average energy consumption level for the appropriate building

type. Consider tightening standards further in the future (e.g. 2040). For commercial buildings under 20,000 sq.ft., set up similar standards to be enforced at time of resale.

#074

Posted by **David Morton** on **07/13/2020** at **2:14am** [Comment ID: 101] - Link

Type: Suggestion

Agree: 1, Disagree: 0

Building Retrofit Demonstration Pilots — Support adaptive existing building pilot demonstration projects that consider affordability, comfort, safety and strategies to achieve ultra low or net-zero energy, water and waste.

Help Us Implement the Plan

Reaching Redmond's sustainability goals will require action from every individual in our community. Collective action can have a significant impact on lowering the community carbon footprint. There are numerous ways to take action to save energy, here are just a few that help to reduce emissions.

Flip the switch!

Switch off and unplug appliances when not in use. TVs, phone chargers, and computers use electricity even on standby, so remember to unplug them. Switching off and monitoring is becoming even easier with in-home apps and devices.

Related action(s):

- PSE smart grid technologies

Power up with renewables.

Make your home or business fossil fuel free and powered by the sun, wind, or water. Rooftop solar PV or a PSE Green Direct subscription are great ways to power your home or business with clean energy.

Related action(s):

- Solar- and EV-ready infrastructure requirements
- Production incentive support
- Energy storage

Optimize your household or business.

Make your home tight, efficient, quiet, and comfortable. Proper insulation and air sealing can dramatically cut energy used to heat and cool buildings, while double and triple-paned windows and energy-efficient doors save even more. Installing programmable thermostats can bring additional energy savings by automatically adjusting your building's temperature.

Related action(s):

- PSE smart grid technologies

Transportation and Land Use

Goal: Reduce transportation emissions and enhance community mobility.

Transportation and land use are critical elements of a sustainable, livable, equitable, and accessible Redmond. Currently, transportation and land use contribute to approximately 26% of Redmond's community GHG emissions. This section includes actions that promote and support alternative transportation, improve land use planning, and encourage use of clean and energy-efficient vehicles.

Progress To-Date Highlights

- The City currently **reduced its fleet's carbon footprint** by tracking fleet fuel use, miles driven, and vehicle type.
- Redmond is currently identifying publicly owned land that is offered at a discounted price to support the development of **deeply affordable housing**.
- The Department of Public Works installed **electric vehicle chargers** in the Maintenance and Operations Center (MOC) yards, public parking lots, explored building a sustainable campus, and researched alternative fuels.
- The City recently constructed a **sidewalk and bicycle lane** on the west side of Red-Wood Road near 109th Street.
- The City has a **Green Building Incentive Program** that includes density bonuses for increasing residential/commercial development on sites near transit and for affordable housing.

Community VMT. There has been a 2.1% overall increase from 2011 to 2017.

Per Capita VMT. There has been a 9.4% decrease from 2011-2017.

Transportation GHG emissions. Community transportation emissions decreased 4% from 2011-2017.

#001

Posted by **David Morton** on **07/12/2020** at **5:30pm** [Comment ID: 78] - Link
Type: Suggestion
Agree: 3, Disagree: 0
These planned actions must also be included in the City Comprehensive Plan --
A City Comprehensive Plan update should include:
a) measurable carbon emission reduction and climate mitigation plans;
b) keeping growth within existing King County Urban Growth Boundaries (http://mrsc.org/Home/Explore-Topics/Planning/General-Planning-and-Growth-Management/Comprehensive-Planning-Growth-Management.aspx);
c) protecting natural resources and increasing access to nature and open space within the Urban Growth Boundary;
d) density increases where work, shopping, schools, and play are close to where people live (i.e. within a 10 minute walk).

#002

Posted by **Shelly Bowman** on **07/13/2020** at **11:51am** [Comment ID: 107] - Link
Type: Suggestion
Agree: 5, Disagree: 0
I do not support a location of "Deeply Affordable Housing", but instead I support all areas to have all income affordability options. Project areas have a stigma. Intermixed areas create social diversity, pride, equity, opportunity.

#003

Posted by **Rosemarie Ives** on **07/19/2020** at **2:48am** [Comment ID: 258] - Link
Agree: 2, Disagree: 0
This is labeled "Transportation and Land Use" but there is nothing about land use--no indicators, no actions. Land use decisions are at the heart of everything else! Though I will read through the rest of this open house document and comment, without any discussion on land use, it feels like the City is being disingenuous and not really committed to making the really tough decisions demanded if we are to have any chance at being sustainable.

#004

Posted by **Gina Clark** on **07/16/2020** at **5:12pm** [Comment ID: 188] - Link
Type: Suggestion
Agree: 4, Disagree: 0
MBAKS suggests making amendments to this program to expand incentives, rethink land use citywide, and consider a third party certifier such as Built Green, LEED, or Living Building Challenge. This would allow the city to simplify the plan, better give cross focus area benefits. MBAKS would also urge the city to look to other jurisdictions, regions to expand the menu of incentives, to promote those incentives, and clearly list and explain the menu of incentives and benefits.

#005

Posted by **Anne Phillips** on **07/01/2020** at **1:14pm** [Comment ID: 10] - Link
Type: Suggestion
Agree: 5, Disagree: 0
I see Transportation ideas, but where's the Land Use? I would think that would be increasing density, increasing green spaces and urban forests, trying to connect homes and transit to reduce the need for driving cars.
Also, in a City plan, I would appreciate additional columns for which department will bear the responsibility for implementing each idea, some gauge of bang-for-buck and timeline.

#006

Posted by **David Morton** on **07/12/2020** at **6:03pm** [Comment ID: 82] - Link
Type: Suggestion
Agree: 7, Disagree: 0
Redmond must require emission evaluations (a standard GHG emissions analysis) for all project applications that require public notification. Include estimates of carbon emissions in all planning scenarios, Comprehensive Plan updates, and Transportation System Plan decisions. Partner with regional jurisdictions to predict and monitor GHG emissions impacts of land use and transportation decisions.

#007

Posted by **Yumi Shridhar** on **07/20/2020** at **1:13pm** [Comment ID: 297] - Link
Type: Suggestion
Agree: 2, Disagree: 0
I think that allowing deeply affordable housing in the core of downtown would be very beneficial to the community as downtown can be seen as a Transit Oriented Development (TOD) where people would not need to have a car to go grocery shopping or to go to work. This would help the lower income communities greatly so that they don't have to spend their needed money just to have a car to go to their jobs, they can easily walk to the transit center and take the bus to wherever they work.

#008

Posted by **Gina Clark** on **07/16/2020** at **5:15pm** [Comment ID: 189] - Link
Type: Suggestion
Agree: 3, Disagree: 0
This is one wise potential solution to expanding affordable housing and choice while also creating potential public-private partnerships. MBAKS would caution, however, to not segregate affordable options to certain acceptable pockets, no matter the AMI. Zoning improperly creates instant gentrification and isolation of certain "class" neighborhoods. Look to your neighbor Kirkland, Olympia, and a multitude of other cities who are moving towards integrating housing affordability and choice citywide, even in R1 zones.

> Reply by **Yumi Shridhar** on **07/20/2020** at **1:21pm** [Comment ID: 299] - Link
> *Agree: 1, Disagree: 0*
> I agree with Gina! For years, zoning was used as a tool for segregation that separated people based on class, and studies have shown that it has also separated people based on race. A continuation of this in in current planning would lead to a much larger wealth gap as people in the lower income areas would end up stuck in their areas, not able to move up in income. I believe that our city should look towards reformative planning and mix income levels so that slow down the process of gentrification and the damages that it could bring to our community.

#009

Posted by **David Morton** on **07/11/2020** at **9:06pm** [Comment ID: 74] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Redmond's transportation plan needs to be coordinated with other local governments and the Puget Sound Regional Council (PSRC). There needs to be a Regional Transportation Plan (RTP). Redmond must work with other local governments and the Puget Sound Regional Council (PSRC) to:
(a) Establish carbon emission reduction targets for transportation and land use.
(b) Agree on methods used to estimate carbon emissions.
(c) Work with King County staff to refine the regional travel demand model for motorized and non-motorized transportation.
(d) Research and develop possible first/last mile transportation alternatives.
(e) Ensure that emission reduction is a priority for PSRC funding. https://www.psrc.org/our-work/rtp

#010

Posted by **Rosemarie Ives** on **07/19/2020** at **1:04am** [Comment ID: 239] - Link
Type: Question
Agree: 0, Disagree: 0
"deeply" ??? affordable housing

A very expensive stretch for sidewalk and bicycle lane that connect to a short stretch of the same on the south and ends at 109th...

#011

Posted by **LEVI CASTO** on **07/31/2020** at **1:36pm** [Comment ID: 346] - Link
Type: Suggestion
Agree: 0, Disagree: 0
An incentive program isn't enough- any new building (excluding single-family housing) should be required to have third party sustainability certification

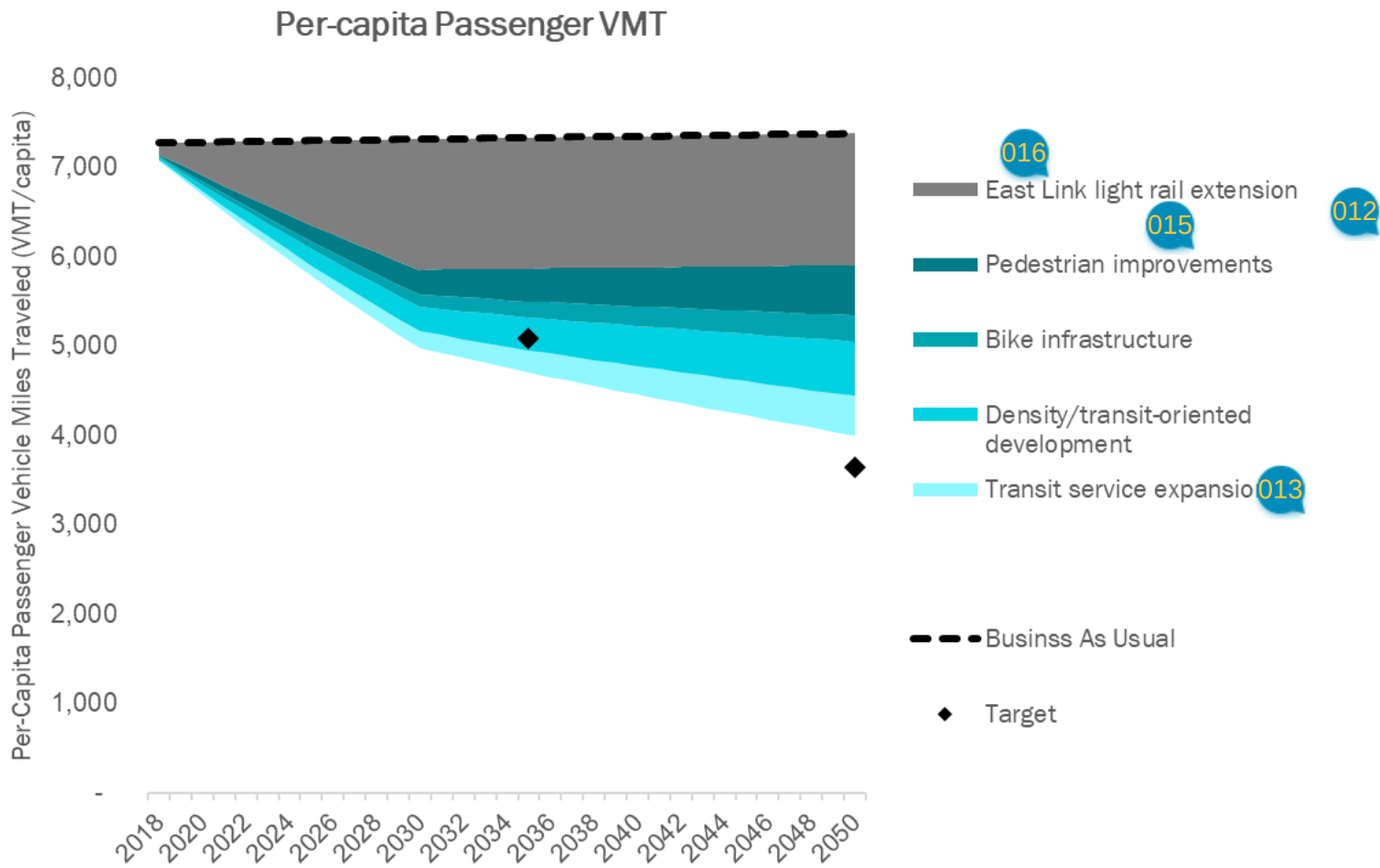
Sustainability Targets, Strategies, and Actions

Targets

Indicator	Target
Reduce per-capita vehicle miles travelled (VMT)	30% reduction by 2035 50% reduction by 2050
Increase electric vehicle use (% of VMT by EVs)	100% light duty by 2050 60% medium duty by 2050 40% heavy duty by 2050
Reduce transportation GHG emissions ($MTCO_2e$)	47% reduction by 2035 71% reduction by 2050

How Will We Get There?

We estimate that implementing these strategies, in conjunction with external actions, could lead to a 45% reduction of per capita VMT by 2050. We acknowledge that the City will need to continue to monitor and amend its approach to ultimately meet the state's target of 50% reduction by 2050. Key actions in achieving the city's goals include the East Link light rail extension, bike and pedestrian improvements, increased urban density and transit-oriented development, and transit service expansion (see figure below).



#012

Posted by **Shelly Bowman** on **07/13/2020** at **12:18pm** [Comment ID: 109] - Link
Type: Suggestion
Agree: 5, Disagree: 0
Changes to mass transit must take place based on COVID19 to make safe. And now more than ever, if it remains cheaper and faster to drive your own car(other than high commute times) Light Rail will need to change packing the train mentality and offer more space and safety to riders- more comfort.

#013

Posted by **Gina Clark** on **07/16/2020** at **5:23pm** [Comment ID: 191] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Transit service expansion should include a hub and spoke model that seeks to include internal, frequent circulators and spokes that feed into residential, commercial to better serve transportation demand and hubs. MBAKS also supports and is willing to help partner in expanding public-private partnerships for enhanced employee shuttle service and lobbying post-COVID for improved and expanded telecommuting policies to remove cars from the road, eliminate the need for increased parking.

#014

Posted by **Shelly Bowman** on **07/13/2020** at **12:11pm** [Comment ID: 108] - Link
Type: Suggestion
Agree: 4, Disagree: -1
100% must be achieved. Climate Change must be stopped and reversed. Partial results in 30 years is trying to achieve, not achieving, Sustainably. Less than is a slippery path of "good enough".

#015

Posted by **Devon** on **07/19/2020** at **3:12am** [Comment ID: 259] - Link
Type: Question
Agree: 2, Disagree: 0
Would the Link Light Rail have EV charging stations at either end? Commuter vans?

#016

Posted by **Rachel A Molloy** on **07/20/2020** at **2:48am** [Comment ID: 283] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Additional bike lockup facilities at transit and rail hubs would be appreciated. Or "last mile" incentives (scooter lockers, charging for PEVs, etc) when possible.

#017

Posted by **LEVI CASTO** on **07/31/2020** at **1:43pm** [Comment ID: 347] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Important to remember- new EVs are not always the more sustainable option compared to a used fossil fuel vehicle. EVs reduce the scope 1 emissions of the operation of the vehicle but are not without their less obvious GHG costs in scopes 2 and 3. The transition to EVs should be informed by this balance and socially equitable.

#018

Posted by **Brian Tosch** on **07/04/2020** at **2:04pm** [Comment ID: 12] - Link
Type: Suggestion
Agree: 3, Disagree: -1
These goals are not nearly aggressive enough. GHG should be net 0 by 2040 at the

latest.

> Reply by **David Morton** on **07/11/2020** at **6:59pm** [Comment ID: 72] - Link
> *Agree: 4, Disagree: 0*
> Brian's suggestion translates to 100% reduction of transport GHG emissions by 2040.

#019

Posted by **Rachel A Molloy** on **07/20/2020** at **2:46am** [Comment ID: 282] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Agree...given on-going science, we are already looking at 2040 as the new end dates. Additional research coming out of the pandemic reductions should help narrow in these dates, but sensitivities have not been in our favor.

#020

Posted by **Gina Clark** on **07/16/2020** at **5:19pm** [Comment ID: 190] - Link
Type: Suggestion
Agree: 2, Disagree: 0
MBAKS understands there's a fine line between targeted, stated goals, small business preservation, impacts on housing affordability and choice. MBAKS would suggest further exploration of these numbers to potentially achieve the 50% reduction levels by 2050 through collaboration with a third party certifier like Built Green, and potentially working with neighboring jurisdictions like Kirkland, Woodinville, Sammamish, Duvall, and Bellevue to collaborate in a more regional way to connect Environmentally Sustainability Plans, seek funding and grants together complete certain linked projects to achieve these sustainability goals while spreading cost.

#021

Posted by **David Morton** on **07/12/2020** at **5:50pm** [Comment ID: 80] - Link
Type: Suggestion
Agree: 6, Disagree: 0
Drivers of vehicles in Redmond must reduce vehicle miles traveled (VMT) --
a) Encourage business owners to offer Commute Trip Reduction (CTR) programs or similar incentives to their employees for using transit or rideshare options.
b) Promote alternatives to driving such as transit, car pooling, bikes, online meetings, telecommuting, carpooling, walking, etc.
c) Encourage public use of real-time apps for transit, shared ride, and other transportation modes.
https://www.chooseyourwaybellevue.org
https://www.codepublishing.com/WA/Issaquah/html/Issaquah10/Issaquah1046.html#10.46.020

#022

Posted by **Larissa Ruiz** on **07/20/2020** at **1:13pm** [Comment ID: 298] - Link
Agree: 0, Disagree: 0
I agree that we need faster and better public transportation systems to interconnect cities. Trains are a great way to achieve that.

Proposed Strategies and Actions

The list below presents proposed **strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Timeline
Strategy T1: Increase the equitable use of non-SOV modes of transportation, such as biking, walking, and public transit.		
Downtown Redmond parking	Implement Downtown Strategic Parking Management Plan's Conditions Report subsequent phases to evaluating parking needs and management.	036 028
Implement Growth and Transportation Efficiency Center program 048	Develop a framework and implementation plan for the City's Growth and Transportation Efficiency Center (GTEC) program in order to integrate transportation demand management (TDM) actions with infrastructure improvements, facilitate growth, and maximize the efficiency of transportation infrastructure.	032
Commuter mobility partnerships 063 056	Partner with organizations such as the Transportation Management Association (TMA) to increase commuter mobility and efficient use of transportation systems through services, incentives, education, and the promotion of single occupancy vehicle alternatives to residents.	031
Multimodal transit/facilities 065 058	Partner with transit agencies to maintain and enhance multimodal transit services and related facilities, including better first mile access to transit and preparing for opening of Link Light Rail. 044 038 042	034
Pilots for trip reduction 059	Continue piloting trip reduction initiatives such as app-based carpooling and scooter/bike share.	
Reevaluate TDM performance measures	Reevaluate and revise TDM performance measures as needed to ensure they are directly linked to Redmond's livability and sustainability.	
Mobility data publication	Continue to refine and improve mobility for all targets and data tracking systems. Make the programs and data available for the public.	
Improve student alternative transport	Improve alternative transportation options for local schools.	
Telecommuting and alternative work schedules 057	Expand telecommute and flexible schedules for City employees and encourage Redmond businesses to adopt. 045	025
Unbundle parking 060	Develop an ordinance requiring unbundled parking in all rental housing so residents that do not own a car will not have the cost of parking bundled in their rent.	029
Increase new mobility options	Encourage and foster the use of new mobility options, such as bike share, electric bikes and scooters, and ride hailing. 052	
Bike storage incentives and requirements 053	Develop incentives for current development and mandates for new development to increase the number of safe bicycle storage spaces around planned light rail stations.	035 026
EV charging business partnerships 066 062	Partner with organizations such as OneRedmond to encourage businesses to install charging stations at workplaces and to provide support for commercial entities interested in providing charging stations for their employees. 050	027
Diversify housing options	Allow for AOU, duplexes, 4+8 unit apartments/ condos, ADUs, and retrofits in single family zones to promote higher density housing/commercial development 040 051	
Parking maximums/minimums 054	Develop parking maximum and minimum requirements in urban areas and along transit corridors.	024
Increase "Spine Network" goal 2030 064	Identify new partnerships and funding sources to support an increased "spine" bike network above the current expectation of 51% completion by 2030 and identify opportunities to provide bicycling facilities that will be comfortable for more riders, such as cycletracks/multi-use paths. 047	037 033
Create more walkable communities 061	Review and update land use and zoning policy to promote more walkable built environment 049 043	030 023
Active mobility infrastructure investments	Identify and implement pedestrian and bicycle infrastructure investments that promote connectivity, safety, and mobility for all.	
Comprehensive transportation outreach and education 055	Develop education and outreach programs and materials for transportation initiatives related to reducing emissions and/or community mobility.	

#023

Posted by **Rosemarie Ives** on **07/19/2020** at **1:08am** [Comment ID: 240] - Link
Agree: 1, Disagree: 0
For years the City has said it wants downtown to be pedestrian friendly. All the signals cater to moving cars through intersections....cars first ahead of pedestrians.

#024

Posted by **Brian Tosch** on **07/04/2020** at **2:05pm** [Comment ID: 13] - Link
Type: Suggestion
Agree: 1, Disagree: 0
We should eliminate all parking minimums immediately

#025

Posted by **Brian Tosch** on **07/04/2020** at **2:08pm** [Comment ID: 15] - Link
Type: Suggestion
Agree: 3, Disagree: 0
The city needs to make sure everyone has access to fiber. City facilities should offer free Wifi to nearby areas

#026

Posted by **Brian Tosch** on **07/04/2020** at **2:10pm** [Comment ID: 17] - Link
Type: Suggestion
Agree: 1, Disagree: 0
The city can covert car parking to bike parking / storage now.

#027

Posted by **Tom Markl** on **07/04/2020** at **4:42pm** [Comment ID: 20] - Link
Agree: 1, Disagree: 0
I understand that Each EV charging station costs abut $20,000. So this needs to be phased in to be consistent with actual EV use.

#028

Posted by **Brian Tosch** on **07/04/2020** at **2:07pm** [Comment ID: 14] - Link
Type: Suggestion
Agree: 2, Disagree: 0
All parking should be paid and we should rapidly reduce available parking.

> Reply by **Marion Kee** on **07/19/2020** at **6:42pm** [Comment ID: 275] - Link
> *Agree: 0, Disagree: 0*
> Give me a shuttle bus that can get me from my transit desert at W Lk Samm Pkwy & NE 51st to downtown--and around downtown after I've got a full shopping bag and still need to hit the QFC before I can go home--and back to my cross street intersection, and I'll happily pay a reasonable fare and won't have to drive to go shopping! I'm hearing-impaired and have osteoporosis, so no bike for me. I'm in very good shape but the roundtrip to grocery stores and back is over 4 miles--fine without carrying groceries, not good with groceries to get home. Due to spinal problems I can't wear a backpack to carry my shopping. Yes, these are my challenges, and not yours. But if I need to take a car downtown, I believe you are well aware that that becomes part of a problem with too many vehicles downtown.

#029

Posted by **Tom Markl** on **07/04/2020** at **4:40pm** [Comment ID: 19] - Link
Agree: 0, Disagree: -1
Parking is already unbundled, that's why they park on the streets

#030

Posted by **Tom Markl** on **07/04/2020** at **4:45pm** [Comment ID: 21] - Link
Type: Suggestion
Agree: 1, Disagree: -1
Light rail only goes where the tracks are. Even with light rail, most people living in Redmond will still need a car to get to work. Why doesn't Redmond change it's codes so that Office can be built downtown. That way many people who live downtown can walk to work instead of driving.

#031

Posted by **Rosemarie Ives** on **07/19/2020** at **1:14am** [Comment ID: 242] - Link
Agree: 3, Disagree: 0
TMA needs to be administered by the City not by One Redmond, a business advocacy organization.

#032

Posted by **Rosemarie Ives** on **07/19/2020** at **1:12am** [Comment ID: 241] - Link
Agree: 3, Disagree: 0
What is a TECenter? City needs to get tough on businesses with over 50 employees who are subject to the law to have a trip reduction plan. If OneRedmond is still administering the TDM, they shouldn't because they are a business advocacy organization.

#033

Posted by **Brian Tosch** on **07/04/2020** at **2:09pm** [Comment ID: 16] - Link
Type: Suggestion
Agree: 1, Disagree: 0
We need to lower speed limits and close car lines for conversion to bike traffic.

#034

Posted by **LEVI CASTO** on **07/31/2020** at **11:40pm** [Comment ID: 351] - Link
Type: Suggestion
Agree: 0, Disagree: 0
There should be an agreement developed for fare transferability between transit agencies. As a UW student that frequently commutes between Seattle and Redmond without a car, paying fare once for KCMetro, again for Sound Transit, possibly again for the Link, and all three again to return is totally unsustainable. Utilizing public transit must be affordable to all.

#035

Posted by **Marion Kee** on **07/15/2020** at **5:07pm** [Comment ID: 180] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Please also continue pushing Sound Transit to provide more bicycle storage in its light rail station plans, storage that is secure.

#036

Posted by **Devon** on **07/19/2020** at **3:14am** [Comment ID: 260] - Link
Type: Suggestion
Agree: 3, Disagree: 0
EV charging in apartment/condo lots.

#037

Posted by **Marion Kee** on **07/15/2020** at **5:13pm** [Comment ID: 181] - Link
Agree: 0, Disagree: 0

I'm hearing-impaired and have other moderate conditions that raise my risk of injury if I get around by bike. I'm also a serious walker, since it keeps me in shape and gives me access to some shopping. Mixed-use paths are dangerous for me, because of the bike traffic. It's much safer to provide sidewalks plus bike paths (as done on Red-Wood Road.)

#038

Posted by **Marion Kee** on **07/15/2020** at **5:26pm** [Comment ID: 183] - Link
Agree: 3, Disagree: 0
I live in a transit desert (cross street: W Lk Samm Pkwy and NE 51st St.) Having a bus that would connect W Lk Samm Pkwy/west side of Marymoor Park with light rail would solve most of my first-mile access problem.

#039

Posted by **LEVI CASTO** on **07/31/2020** at **11:32pm** [Comment ID: 350] - Link
Type: Suggestion
Agree: 0, Disagree: 0
I'm not sure that I agree all parking should be paid, at least for the purpose of equity and serving all people regardless of economic status (the same way public transportation should be free as well). Perhaps another solution would be to restrict the number of new public parking spaces that can be included per development. Naturally, we should be incentivizing a departure from cars as a method of transport, but those of us that don't have much of a choice for whatever reason should still have access to parking without being deterred by fees.

#040

Posted by **LEVI CASTO** on **08/01/2020** at **12:21am** [Comment ID: 353] - Link
Type: Suggestion
Agree: 0, Disagree: 0
As a lifetime resident of Redmond, about to graduate college into a recession, I'd like to stay in my hometown, but fear that I'll be totally priced out due to Redmond's failure to serve the lowest income members of its community. The lack of affordable housing options in Redmond has been a complaint of mine since before 2016, when I was 17 years old. At that time, only 400 affordable housing units had been developed within Redmond since 1995, which was not (and still is not) nearly enough to accommodate the thousands that may wish to live in Redmond but cannot afford to. I'm glad to know that 10% of units within new residential developments must be affordable according to the city's eligibility requirements, but I'm still not convinced that this is enough to serve the low-income would-be-residents of Redmond that don't have much of a say in these situations. If we want the thousands that commute to Redmond for work to reduce their mileage, we should make it possible for them to live closer to their workplace.

#041

Posted by **David Morton** on **07/12/2020** at **4:51pm** [Comment ID: 75] - Link
Type: Suggestion
Agree: 6, Disagree: 0
Reduce free on-street parking, and raise parking rates.

#042

Posted by **David Morton** on **07/12/2020** at **5:01pm** [Comment ID: 76] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Redmond must work with other local governments and the Puget Sound Regional Council (PSRC) on a Regional Transportation Plan (RTP) to:
(a) Establish carbon emission reduction targets for transportation and land use.
(b) Agree on methods used to estimate carbon emissions.
(c) Work with King County staff to refine the regional travel demand model for motorized and non-motorized transportation.

(d) Research and develop possible first/last mile transportation alternatives.
(e) Ensure that emission reduction is a priority for PSRC funding. https://www.psrc.org/our-work/rtp

#043

Posted by **Marion Kee** on **07/15/2020** at **5:19pm** [Comment ID: 182] - Link
Agree: 4, Disagree: 0
Increasing density without adding more parks and other green spaces reduces livability. People need to be able to walk to parks. The pandemic is showing everyone how vital it is to have access to outdoor space that is not itself overcrowded. The City needs to keep looking for ways to put more parks where there are more people.

#044

Posted by **Tom Markl** on **07/04/2020** at **4:51pm** [Comment ID: 22] - Link
Agree: 2, Disagree: -1
The dispersed nature of the traditional single family neighborhoods in Redmond make "last mile" difficult and expensive to serve light rail. If you don't provide downtown parking for light rail, people will continue to drive to their destinations.

#045

Posted by **David Morton** on **07/30/2020** at **6:28pm** [Comment ID: 345] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Reduce Vehicle Miles Traveled --
a) Encourage business owners to offer Commute Trip Reduction (CTR) programs or similar incentives to their employees for using transit or rideshare options.
b) Promote alternatives to driving such as transit, car pooling, bikes, online meetings, telecommuting, carpooling, walking, etc.
c) Encourage public use of real-time apps for transit, shared ride, and other transportation modes.
https://www.chooseyourwaybellevue.org/
https://www.codepublishing.com/WA/Issaquah/html/Issaquah10/Issaquah1046.html#10.46.020

#046

Posted by **Tom Markl** on **07/04/2020** at **4:37pm** [Comment ID: 18] - Link
Type: Suggestion
Agree: 1, Disagree: -1
Apartment dwellers should be required to use the parking in their buildings (which costs money) rather than free street parking

#047

Posted by **Shelly Bowman** on **07/13/2020** at **12:36pm** [Comment ID: 112] - Link
Type: Suggestion
Agree: 3, Disagree: -1
Need more aggressive goal of 100% safe connected routes with wayfinding on routes and maps online showing where you are and what bike, walk, roll routes are nearby. All ages and abilities should be able to participate just like other successful bike/walk priority cities. Cars should not be prioritized anymore. Public transportation and non motorized priorities. Op

#048

Posted by **David Morton** on **07/11/2020** at **7:29pm** [Comment ID: 73] - Link
Type: Suggestion
Agree: 6, Disagree: 0
Transportation Demand Management (TDM) is possibly the most important action listed in "Transportation and Land Use."

Redmond must (continue to) implement a comprehensive Transportation Demand Management (TDM) program.
a) Integrate TDM standards into the city Comprehensive Plan.

b) Implement a TDM program for schools to reduce auto congestion.

http://mrsc.org/Home/Explore-Topics/Transportation/Congestion-and-Mobility/Transportation-Demand-Management.aspx

https://kingcounty.gov/depts/transportation/metro/employer-programs/commute-trip-reduction.aspx

https://www.wsdot.wa.gov/transit/ctr/rules-policy

https://www.goredmond.com/regulations

#049

Posted by **Amy Webber** on **07/14/2020** at **7:21pm** [Comment ID: 164] - Link
Agree: 0, Disagree: -1
To achieve a more walkable community you need to have jobs in close proximity. Not just retail and restaurant jobs. Office jobs. In order to have office jobs, you have to change zoning to allow office in areas like downtown.

#050

Posted by **David Morton** on **07/12/2020** at **6:12pm** [Comment ID: 83] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Redmond should have a Smart Building Readiness program -- Modify the local commercial building code to "future proof" buildings through Smart Building readiness. Consider promoting, if not requiring, the following:
(a) installation of "smart" systems controls with variable and remote programming features, including utility demand control receptors;
(b) solar PV readiness;
(c) EV charging readiness;
(d) water efficiency readiness, including grey water reuse, rainwater collection, etc.

#051

Posted by **Gina Clark** on **07/16/2020** at **5:37pm** [Comment ID: 197] - Link
Agree: 1, Disagree: 0
MBAKS fully supports.

#052

Posted by **Denis Martynowych** on **07/31/2020** at **2:50pm** [Comment ID: 348] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Although biking is mentioned (Bike Storage and Requirements and New Mobility Options), I don't see much emphasis on separated bike ways, bike networks, and other bike focused infrastructure that improves safety which is the largest barrier to increased bike use.

> Reply by **LEVI CASTO** on **07/31/2020** at **11:46pm** [Comment ID: 352] - Link
> *Agree: 0, Disagree: 0*
> Absolutely agree- for being the Bicycle Capital of the Northwest, Redmond sure could use improvement in its bike infrastructure. Extensive bike-friendly trails that are separated from traffic are essential to this.

#053

Posted by **Gina Clark** on **07/16/2020** at **5:36pm** [Comment ID: 196] - Link

Agree: 0, Disagree: 0
Would the bike storage count towards square footage?

> Reply by **RedmondAdmin** on **07/21/2020** at **6:40pm** [Comment ID: 301] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Great question, thanks Gina. At this point in the process we don't have those details scoped out. Once we move to implementation, actions like this will go through a stakeholder process where details like square footage will be fleshed out.

#054

Posted by **Gina Clark** on **07/16/2020** at **5:48pm** [Comment ID: 198] - Link
Agree: 0, Disagree: 0
MBAKS supports revisting parking requirements. It adds to the cost of housing and can delay projects.

#055

Posted by **Tom Hinman** on **07/14/2020** at **3:41pm** [Comment ID: 142] - Link
Type: Suggestion
Agree: 3, Disagree: 0
There are major challenges in engendering the culture change needed for the community to shift out of reliance on the auto. Collective impact of numerous personal choices could move the needle if there were options...like maybe a Mobility Hub on Ed Hill to feed light rail. This education and incentive item should be first on the listing, not the last.

#056

Posted by **Gina Clark** on **07/16/2020** at **5:26pm** [Comment ID: 192] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Often transit, as we know, is seen as a service for low-income residents only. Studies show investing in service that is cost-effective, on time, frequent (within 15 minutes), and within 1/4 mile of targeted, high traveled locations, will increase ridership across the board. This requires, however, a level of community engagement, transit mode choices, marketing and outreach.

#057

Posted by **Gina Clark** on **07/16/2020** at **5:29pm** [Comment ID: 194] - Link
Agree: 4, Disagree: 0
Excellent! MBAKS strongly supports this recommendation and will partner with the city to help make this happen.

#058

Posted by **David Morton** on **07/12/2020** at **5:53pm** [Comment ID: 81] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Redmond must have transit accessibility — Improve transit efficiency, reliability and service by working with Sound Transit & King County Metro. Include frequent service to the city’s employment centers, and prioritize benefits to transit-dependent residents. Link transportation funding and land-use planning to encourage transit-oriented development.

#059

Posted by **Gina Clark** on **07/16/2020** at **5:27pm** [Comment ID: 193] - Link
Type: Suggestion
Agree: 3, Disagree: 0

See previous comment about working with the business community to retain and improve flexible work schedules and telecommuting options post-COVID.

#060

Posted by **Gina Clark** on **07/16/2020** at **5:30pm** [Comment ID: 195] - Link
Agree: 0, Disagree: 0
Important to help renters in affordable situations and incentive reducing reliability on cars. However, be mindful of the cost-consequences on affordable housing in particular or overall rents.

#061

Posted by **David Morton** on **07/12/2020** at **5:16pm** [Comment ID: 77] - Link
Type: Suggestion
Agree: 6, Disagree: 0
Redmond must have compact & livable neighborhoods -- Use City land use regulations to:
a) Develop neighborhoods with multi-modal streets and transportation networks having walkable and bikeable access to services, nature, transit and civic destinations;
b) Concentrate growth in walkable urban villages and plan for transit-oriented development;
c) Allow single family upgrades to duplex, triplex, and fourplex configurations when defined standards for energy efficiency, sustainability and affordability are achieved, https://www.zillow.com/research/modest-densification-new-homes-25881/
d) Allow increases in density and FAR (floor area ratio) for commercial and multi-family projects when defined standards are achieved for open space, energy usage, sustainability and affordability;
e) Increase mixture of uses allowed within zones by revising existing codes or implementing a "Form Based Code" which emphasizes form rather than usage, https://en.wikipedia.org/wiki/Form-based_code;
f) Allow for off-site shared parking between compatible uses such as office and residential;
g) Protect green spaces, parks and wetlands (for sequestration value).

#062

Posted by **David Morton** on **07/12/2020** at **6:24pm** [Comment ID: 85] - Link
Type: Suggestion
Agree: 3, Disagree: 0
City of Redmond should reduce the commuting impact of City employees as well -- Implement a program to increase transit, ride-sharing, van-pools and alternatives to single vehicle commuting. Consider free transit passes for city employees and free EV charging stations for carpool/vanpool parking.

#063

Posted by **Steve Thompson** on **07/16/2020** at **1:08pm** [Comment ID: 184] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Increase the number of satellite park and ride locations with frequent bus transportation to the light rail stations. The current plan to have a large P&R at Marymore Village will grid lock existing streets.

#064

Posted by **Gina Clark** on **07/16/2020** at **6:01pm** [Comment ID: 199] - Link
Agree: 0, Disagree: 0
MBAKS supports a more varied "spine" network to include a variety of transportation choices.

#065

Posted by **David Morton** on **07/12/2020** at **5:40pm** [Comment ID: 79] - Link

Type: Suggestion

Agree: 5, Disagree: 0

Redmond must plan for multimodal transportation -- Implement a transportation system for transit, bicycle and pedestrian services to facilitate alternatives to single occupancy vehicles.

a) Adopt "multimodal level of service" (MMLOS) for evaluation and analysis of current and future street operations. (http://mrsc.org/Home/Explore-Topics/Transportation/Integrating-Transportation-Modes/Complete-Streets-Ordinances.aspx and http://old.smartgrowthamerica.org/complete-streets/a-to-z).

b) Adopt "Vision Zero" street design standards for new and retrofit street construction that is safer for biking, walking and alternative transportation modes. (https://www.visionzerostreets.org).

c) Where possible, make streets "greenways". (https://www.seattle.gov/transportation/projects-and-programs/programs/greenways-program)

#066

Posted by **David Morton** on **07/12/2020** at **6:17pm** [Comment ID: 84] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Redmond needs more EV charging.

a) Increase the number of charging stations in publicly accessible areas including transit hubs. Integrate charging infrastructure into street lights as done in Europe and LA. (https://electrek.co/2019/11/13/la-adds-hundreds-of-ev-chargers-to-streetlights-giving-renters-a-place-to-plug-in/).

b) Increase the number of fast chargers.

c) Work with employers, developers, transit providers, building owners and parking managers to install charging stations at residences, park & rides, and places of work.

d) Address barriers to charging from garage-free homes, multifamily dwellings and transit facilities. Look for ways to incentivize the process.

e) Consider the recommendations of the Rocky Mountain Institute - https://www.prweb.com/releases/rocky_mountain_institute_completes_comprehensive_transportation_electrification_strategy_with_seattle_city_light_a_first_for_a_municipal_utility/prweb16546682.htm.

Action	Description	Timeline
Strategy T2: Shift to more efficient and lower-carbon vehicle fuels such as electric.		
EV demand eval & parking requirements	Review EV infrastructure strategy and predictions for EV adoption with input from PSE and other regional stakeholders, including evaluation of EV parking supply/demand and ways to make charging more accessible.	
Freight VMT/idling	Identify and implement opportunities for reducing freight VMT and idling, especially those from delivery trucks.	
Advanced clean car standards	Continue to support the State to retain and improve upon its 2018 decisions to adopt California's Advanced Clean Car Standards.	
Electrical code for EVs	Update electrical code to ensure adequate electrical capacity is available to serve one electric vehicle charging station per parking space.	
Strategy T3: Reduce energy consumption and emissions associated with City fleet use, contracting, and commuting.		
Municipal fleet conversion	Continue implementing a Green Fleet Purchasing Policy. 067	
Emission standards for contractors	Develop and incorporate contractor fuel emission reduction standards into City bids and contracts.	

#067

Posted by **David Morton** on **07/30/2020** at **4:30pm** [Comment ID: 335] - Link

Type: Suggestion

Agree: 1, Disagree: 0

Fleet Fuel Efficiency — Develop a plan and aggressive timeline for transitioning the City's vehicle fleet off fossil fuels.

Help Us Implement the Plan

Reaching Redmond's sustainability goals will require action from every individual in our community. Collective action can have a significant impact on lowering the community carbon footprint. The following actions are important steps to reducing emissions.

070

Take public transportation and carpool

Utilizing public transit, even once a week, can help lower your GHG footprint and reduce traffic congestion.

Related action(s):

- Implement Growth and Transportation Efficiency Center program
- Commuter mobility partnership
- Pilots for trip reduction
- Improve student alternative transport

Active transportation

Walking, biking, or other types of active transportation can reduce emissions, improve local air quality, and improve health and wellbeing.

073

Related action(s):

- Increase new mobility options
- Increase "Spine Network" goal 2030
- Bike storage incentives and requirements
- Create more walkable communities
- Active mobility infrastructure investments

071

072

Purchase an electric vehicle

If able, purchasing an electric vehicle can significantly reduce GHG emissions—especially as electricity sources become increasingly renewable.

068

069

Related action(s):

- EV charging business partnerships
- EV demand eval & parking requirements
- Electrical code for EVs
- Municipal fleet conversion

#068

Posted by **Tom Hinman** on **07/14/2020** at **3:48pm** [Comment ID: 143] - Link
Type: Suggestion
Agree: 1, Disagree: 0
The focus on EVs and their infrastructure is notable, but an assessment of the actual GHG reduction expected under this strategy would be a useful addition to public knowledge.

#069

Posted by **Marion Kee** on **07/19/2020** at **6:47pm** [Comment ID: 276] - Link
Agree: 0, Disagree: 0
We are committed to replacing our short-trip car, a 2002 Prius, with a (used) electric vehicle. We plan to bite the bullet and upgrade our home electrical capacity to add a real charging station at home. For many years now we've paid PSE for 100% green power and will continue to do so after we've replaced our gasoline hybrid. Will the city be tracking the power generation sources for the EV charging stations that will be added in this plan? Will the city commit to green power?

> Reply by **RedmondAdmin** on **07/21/2020** at **7:08pm** [Comment ID: 302] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Marion, thanks for your commitment to sustainability. As the only energy utility serving the Redmond community, we work with PSE for aggregate community-wide electricity and natural gas consumption data. At this point in time we're unable to capture green power generation for specific accounts due to privacy concerns. This currently limits our ability to capture the information you note, but we're continuing to refine data collection and analysis efforts as requirements permit.
>
> To your second question, the City is a PSE Green Direct customer and 100% of our energy will be from renewable sources starting in 2021. We're looking forward to January!

#070

Posted by **Shelly Bowman** on **07/13/2020** at **12:27pm** [Comment ID: 111] - Link
Type: Suggestion
Agree: 2, Disagree: -1
Free wifi throughout the city to ensure all have access to bus, bike, walk, EV stations(including ebike, escooter, eboard, cell phone charging stations) locations, times, etc.

#071

Posted by **Marion Kee** on **07/19/2020** at **6:51pm** [Comment ID: 277] - Link
Agree: 1, Disagree: 0
Would appreciate some dedicated sidewalks and other spaces for pedestrians so there is less need to dodge scooters and bikes. It's stressful and dangerous to have wheeled vehicles mixed in with pedestrians yet moving so much faster than pedestrians do.

#072

Posted by **Shelly Bowman** on **07/13/2020** at **12:22pm** [Comment ID: 110] - Link
Type: Suggestion
Agree: 1, Disagree: 0
walkable "AND bikeable, rollable"

#073

Posted by **Anne Phillips** on **07/01/2020** at **1:15pm** [Comment ID: 11] - Link

Type: Suggestion
Agree: 2, Disagree: 0
I like the "Help Us" sections.

Materials Management & Waste

Goal: Move towards more sustainable consumption and zero waste of resources.

001 Solid waste contributes approximately 2% of Redmond's community GHG emissions. Although it only contributes 2%, materials management and waste are important considerations to reach sustainability goals by managing and reducing solid waste, increasing waste diversion, and encouraging recycling and composting activities. This section includes actions that support more sustainable consumption and waste management.

Progress To-Date Highlights

- The City participates in the **E-Cycle** (electronic waste) Washington recycling program.
- All Redmond residential accounts have both recycling and yard waste/composting included with their garbage service at no additional charge.
- Over 200 businesses and apartments/condo complexes participate in the City of Redmond's **commercial organics composting program**.
- The City offers up to three 64-gallon **food recycling carts** at no charge.
- In 2019, staff connected with **1,000 residents to help keep food from going to waste**, including a public art "strawberry" made up of post-it pledges.
- **Cooking oil recycling** is 002ilable to City residents at the Senior Center parking lot.

Community diversion rate (% of waste recycled or composted). Community diversion rate increased from 40% to 45% from 2011 to 2017.

Solid waste GHG emissions ($MTCO_2e$). Solid waste GHG emissions declined 5% between 2011-2017.

Organic waste diversion. Organics waste diversion increased 50% from 2011 to 2018.

#001

Posted by **David Morton** on **07/13/2020** at **4:40pm** [Comment ID: 123] - Link

Type: Suggestion

Agree: 1, Disagree: 0

Redmond must have a program to reduce emissions of HFCs.
HFC Emissions Reduction Program -- Work with other cities and the county to track and control life-cycle emissions of refrigeration equipment, (such as air conditioners, refrigerators and heat pumps).
a) Establish reclamation and disposal programs to ensure capture and removal of hydrofluorocarbons (HFCs) from retired refrigeration equipment, consistent with EPA regulations.
b) Ban the use of non-refillable cylinders for recovery, transport, distribution, and sale of high-GWP (global warming potential) HFCs, such as those used for automobile refrigerant refilling.
c) Require the reporting of any leakage or repair of HFC refrigerant systems (commercial, industrial and residential) and repair of refrigerant systems.
d) Require improved refrigerant management practices for leak detection, repair and disposal.
e) Require the use of EPA certified technicians for handling and recovery of HFC refrigerants.
f) Require owners and operators of large commercial and industrial refrigeration and air conditioning equipment to report information on amounts and types of refrigerant used, servicing, and maintenance into a central database.
g) Establish fines for individuals releasing HFCs into the air and for under-reporting.
https://climatecrisispolicy.org/topics/6/

#002

Posted by **Nirali Shah** on **07/05/2020** at **5:58pm** [Comment ID: 42] - Link

Type: Suggestion

Agree: 0, Disagree: 0

Can we add more locations for oil recycling within Redmond...esp in areas that aren't as close to downtown.

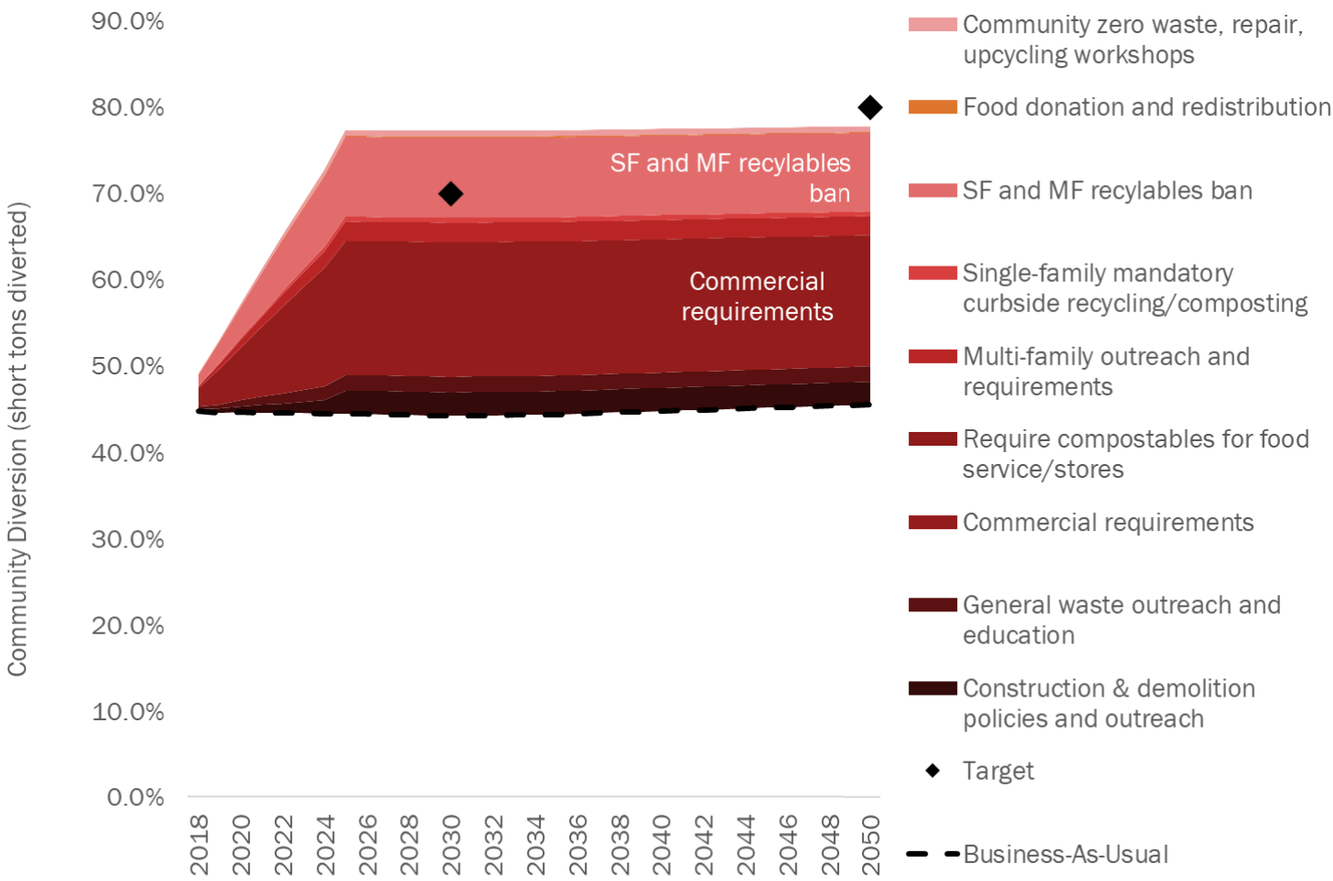
Sustainability Targets, Strategies, and Actions

Targets

Target Indicator	Target Value
Increase community waste diversion (% diversion) 003	70% waste diversion rate by 2030 80% waste diversion rate by 2050 (zero waste of resources)
Reduce solid waste GHG emissions ($MTCO_2e$)	50% reduction by 2030 42% reduction by 2050

How Will We Get There?

We estimate that implementing these strategies, in conjunction with external actions, could lead to a 77% diversion rate of community waste by 2030—exceeding the goal of 70% diversion by 2030. Key strategies for meeting this target include introducing recycling requirements for commercial properties and banning recyclables from the garbage for single family (SF) and multi-family (MF) properties.



#003

Posted by **Karen Dawson** on **07/17/2020** at **6:34pm** [Comment ID: 230] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Regarding waste diversion, it is important that the city consider and address contamination at the curbside. When the recycling or compost cart are contaminated with things that cannot be recycled or composted respectively, those materials are not truly diverted and still wind up in the landfill. But when that garbage is placed in the wrong container (either the recycling container or organics cart), a great deal of labor and direct cost is spent by processors to remove those materials, sort them, and pay for their disposal.

Proposed Strategies and Actions

The list below presents proposed **strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Investment
Strategy M1: Increase diversion of community waste while reducing cross-contamination within waste streams (garbage, organics, recyclables).		
Regional composting	Work with K4C to develop a composting master plan to expand community and regional composting infrastructure.	
Multi-family outreach	Provide recycling and composting education and outreach targeted at multifamily property managers and tenants.	
New construction waste stream efficiency and opportunity	Work with multifamily developers, owners and residents, as well as commercial buildings, to develop requirements for new construction to provide sufficient space and safety for recycling and food waste collection, along with garbage.	
Food donation	Support a food donation program for grocery stores to send surplus food.	
Incentive based models	Conduct comparative research to understand where other cities have had success with incentive-based models such as disposal fee.	
Require compostables city wide	Require compostable and paper disposables in restaurants and stores.	
Recyclables market	Partner regionally to bolster the market for recycled materials, to accommodate increased flows from implementation of diversion actions. Include options for addressing non-recyclable plastics.	
End-use markets	Support state and local development of end-use markets for recycled products and compost through city county purchasing policies.	
City recycle reuse	Explore ways the City can recycle and reuse during its normal maintenance.	
Mandatory curbside collection for residences	Explore the introduction of mandatory curbside collection of recyclables and organics for all single and multi-family residences. Develop a right-sized program for Redmond.	
Solid waste disposal	Encourage and assist exploration for sustainable solid waste disposal options to prepare for post-2040, in addition to expanding Cedar Hills.	
Strategy M2: Reduce community waste generation (reuse, repurpose, upcycle).		
City food waste recycling	Continue food waste recycling at City Hall, the Maintenance and Operations Center, Public Safety Building, Senior Center, Teen Center, and all city fire stations.	

#004

Posted by **Stephanie Lecovin** on **07/20/2020** at **7:58am** [Comment ID: 290] - Link
Type: Question
Agree: 0, Disagree: 0
Does Redmond already ban plastic bags and straws? Couldn't this be a near-term action?

> Reply by **RedmondAdmin** on **07/24/2020** at **12:54am** [Comment ID: 312] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Stephanie, great question. Redmond does not ban plastic bags or straws, but the state recently passed such legislation. Implementation of the ban was delayed due to COVID-19, so more work is still ahead in this space.

#005

Posted by **Marilyn Subala** on **07/10/2020** at **6:41pm** [Comment ID: 71] - Link
Agree: 5, Disagree: 0
Education can go a long way in motivating residents to put their recyclable and compostable waste, and trash into the proper receptacles, as long as they are provided in a safe and sanitary area.

#006

Posted by **Tom Markl** on **07/04/2020** at **5:13pm** [Comment ID: 27] - Link
Agree: 1, Disagree: -1
The largest opportunity is probably single family homes, since that is where the largest part of the population in Redmond lives. You need to add a single family "action" to address.

#007

Posted by **Shelly Bowman** on **07/13/2020** at **1:18pm** [Comment ID: 116] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Go further and state that Styrofoam and unnecessary use of foil and plastic wrap may not be used to make aclearer statements.

#008

Posted by **Tom Markl** on **07/04/2020** at **5:00pm** [Comment ID: 23] - Link
Agree: 0, Disagree: -2
The issue will not be space for the collection bin, but how do you get it from the apartment to the collection bin. Can't be a chute due to need for continual cleaning to avid smells and health issues. This will require a daily apartment-by-apartment manual collection process - very expensive. Individual apartment compliance will be a problem.

> Reply by **David Morton** on **07/13/2020** at **5:08pm** [Comment ID: 125] - Link
> *Type: Suggestion*
> *Agree: 5, Disagree: 0*
> Multifamily residents seem to be able to take garbage containers to an outside collection bin. They should also be able to take food waste containers to an outside collection bin.

#009

Posted by **Tom Markl** on **07/04/2020** at **5:04pm** [Comment ID: 24] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Also need to develop new manufacturing technologies to use recyclables. Most

production today is designed to use fresh raw materials.

#010

Posted by **Gina Clark** on **07/16/2020** at **6:57pm** [Comment ID: 222] - Link
Agree: 4, Disagree: 0
Foodlife Line has a tremendous and well-established food rescue program. Encourage collaborations with non-profits like Food Lifeline who have a tested and true program to help make this a reality.

#011

Posted by **David Morton** on **07/13/2020** at **4:47pm** [Comment ID: 124] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Strategy M1 intends to reduce landfill waste. All of us must reduce landfill waste:
a) Develop and implement a comprehensive waste management system.
b) Educate the public about smart consumption.
c) Require waste sorting at source, including composting.

d) Develop a plan to eliminate the need for landfills (as in Germany, Denmark etc.).
e) Impose large fees on garbage collection by volume to discourage landfill use.
f) Develop a plan for special handling of, or ban the use of, certain products (e.g. plastics).
g) Ban food waste from landfills and encourage the creation of a comprehensive composting system.

#012

Posted by **David Morton** on **07/13/2020** at **6:42pm** [Comment ID: 134] - Link
Type: Suggestion
Agree: 5, Disagree: 0
Composting and Recycling Education -- Promote recycling and composting through communications and engagement strategies. Ensure that large families, residents with limited English proficiency, renters and landlords have equitable access to information and services. https://www.kingcounty.gov/depts/dnrp/solid-waste/garbage-recycling/compost-more.aspx

#013

Posted by **Redmond Resident** on **07/25/2020** at **3:31am** [Comment ID: 320] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Instead of the quarterly Recycling Event, establish a permanent and year-round location for residents to drop off materials (e.g. plastics) that are not acceptable curbside. Example: Recology store in Bothell.

#014

Posted by **Karen Dawson** on **07/17/2020** at **6:36pm** [Comment ID: 231] - Link
Type: Suggestion
Agree: 2, Disagree: 0
If the curbside collection of organics becomes mandatory for residents, some mechanism for addressing contamination at the curbside needs to be in place by the city via the haulers such as a cart tagging program. When participation is mandatory, people sometimes are not invested in the program or its outcome and could be more likely to contaminate their bins with items that are not compostable, especially when the service is being offered for “free”.
I would refer the city to the City of Kirkland’s cart tagging program which Waste Management, Kirkland’s current hauler, and the city collaborate on.

Resources: Washington Organics Council Contamination Workgroup Report: https://static1.squarespace.com/static/585c2db75016e175c9d685b7/t/59932c0be4fcb58c9335fec5/1502817295485/Washington+State+Organics+Contamination+Reduction+Workgroup_FINAL.pdf

#015

Posted by **David Morton** on **07/13/2020** at **6:37pm** [Comment ID: 133] - Link

Type: Suggestion

Agree: 4, Disagree: 0

1) Educate the public about smart consumption.
2) Require waste sorting at the source (the home), including compostables.
3) Educate the public to:
a) Be mindful of the full lifecycle environmental consequences of our purchases, both upstream, downstream, and end of life.
b) Buy smart (e.g., plan before purchasing, buy local, buy dry goods in bulk instead of packages, give gifts of experience, purchase durable goods).
c) Reuse.
d) Borrow, share and rent items.
e) Fix and maintain (e.g., King County sponsored repair events, see link below)
f) Recycle and compost.

#016

Posted by **David Morton** on **07/14/2020** at **6:23pm** [Comment ID: 149] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Food waste must be composted, not sent to landfill or sewage treatment. Redmond must expand participation in local composting programs:
a) Encourage area residents to include food waste in yard waste bins.
b) Require businesses and multifamily buildings to separately collect food waste and other compostables.
c) Require sanitary conditions for food scrap collection for businesses and multifamily buildings.
d) Require waste collection companies to separately collect food waste and compostables.
e) Ensure that marginalized communities are not disproportionately burdened by localized impacts such as odor or frequent truck trips.
f) Encourage people to compost food waste rather than put it down an in-sink disposal.

#017

Posted by **Karen Dawson** on **07/17/2020** at **6:33pm** [Comment ID: 229] - Link

Type: Suggestion

Agree: 1, Disagree: 0

This will position the city well with the 2020 passing of HB 2713 regarding compost and use and position the city to utilize the new (2020) King County Universal Compost contract which allows cities to secure favorable bulk pricing for soil needs and offers free technical training for city staff.
HB 2713, regarding compost procurement and use, stipulates that municipalities must consider whether compost products can be used in government-funded projects when planning or soliciting and reviewing bids.
If compost products can be utilized in the project, the state agency or local government must do so, subject to a few exceptions. The law suggests purchasing an amount of finished compost product that is equal to or greater than 50 percent of the amount of organic residuals it delivered to the compost processor. https://www.biocycle.net/washington-states-compost-procurement-law/?utm_source=BioCycle+CONNECT&utm_campaign=532c5cfd34-EMAIL_CAMPAIGN_2020_03_20_08_35_COPY_01&utm_medium=email&utm_term=0_8396f01c15-532c5cfd34-513814179
Both actions make it easier for the City of Redmond to support its own and the broader region’s organics recycling and waste diversion goals by increasing its use of locally manufactured compost, created from its own municipal organics collection programs for

residents and businesses.
The City of Redmond has a robust organics recycling program and this is a great opportunity to bring those materials back to the city to ensure a sustainable program.

#018

Posted by **Karen Dawson** on **07/17/2020** at **6:58pm** [Comment ID: 238] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Regarding the true cost of garbage, recycling and composting for City of Redmond businesses and residents:
By embedding the costs of recycling and composting into garbage rates, the City of Redmond, Redmond businesses and Redmond residents do not know the true cost of those three distinctly unique services. There are consequences of embedding the recycling and composting rates into the garbage rates that may not be immediately obvious to the city or its businesses and residents. They include:
1) Bundling rates, instead of showing the true cost of service, provides a huge barrier to entry for local, privately-held companies to bid against the large, national, publicly-traded hauling companies. It forces the proposer to estimate what the participation rates will be in order to propose costs, presenting the bidder with tremendous financial risk. The incumbent hauler holds a tremendous advantage with regard to knowing the current diversion rates, information not privy to a new bidder. This allows large, national, publicly traded firms to monopolize local contracts.
2) With embedded rates, contamination increases. As seen in a recent study published by Cascadia Consulting for the City of Issaquah, one of the most frequent contaminants in the organics stream is “bags of garbage” – people simply throwing additional garbage bags that don’t fit into their garbage bin into the organics/compost cart. The “free” recycling and organics carts provided to residents and businesses in Redmond disincentivize parties from rightsizing their garbage container to match their garbage volume and effectively incentivizes them to use their “free” recycle and organics carts for leftover garbage. By showing the city, businesses and residents the true cost of each service, they can subscribe at the proper level for each service and ensure they keep each waste stream properly separated, avoiding contamination.
3) This issue can be addressed by the city by, in any future RFP for waste services, requiring that the true cost of service be provided to the city, businesses and residents for each waste stream.

Action	Description	Investment
Waste reduction outreach 035	Build and implement community outreach and education plans around proper waste reduction, recycling, composting. 023	
Stewardship policies	Support and advocate for strong product stewardship policies at the state and national levels, minimizing environmental impacts of product and packaging throughout all lifecycle stages, especially manufacturing.	
Increase use of electronic documents 029	Enhance systems for electronic documentation and file-sharing. 028	
Green purchasing/procurement	Develop and enforce green City purchasing procedures and policies, including for green cleaning materials.	
Community zero waste, repair, upcycling workshops	Host zero waste, repair/reuse, or upcycling community workshops.	
Styrofoam policy and engagement	Engage businesses that use styrofoam in Redmond. Explore styrofoam reduction through policy mandates and implement, as appropriate.	021 019
Zero waste assistance 031	Provide zero waste building planning assistance.	
Strategy M3: Reduce waste and environmental impact from City purchasing and operations.		
Reduce City landfill waste	Provide composting and recycling at all City buildings and for all municipal operations, including specialized items.	022
Increase use of electronic documents	Enhance systems for electronic documentation and file-sharing.	
Fleet hazardous waste	Set a policy/goal for hazardous waste generated by the city's Purchasing and Fleet divisions (separate) to be zero or near zero.	
Strategy M4: Address construction and demolition (C&D) waste.		
Contractor outreach	Conduct contractor outreach and job site technical assistance to encourage reduction, reuse, and recycling of C&D waste.	020
C&D diversion requirements 033 030	Develop comprehensive policies around C&D recycling and recovery. Prohibit disposal of 025 coverable C&D materials.	
Strategy M5: Reduce GHG emissions impacts associated with local consumption.		
C&D recycling service 034 032	Require recycling service for C&D materials at all job sites.	
Recyclables ban	Prohibit disposal of targeted recoverable traditional recyclable materials and org 026 cs 024 single- and multi-family garbage.	
Commercial recycling requirements	Require commercial property owners/managers to provide recycling and organics collection containers and service that are a 027 onvenient as garbage containers and adequate to serve the number of tenants.	

#019

Posted by **Karin Duval** on **07/13/2020** at **11:01am** [Comment ID: 102] - Link
Agree: 0, Disagree: 0
thank you

#020

Posted by **Karin Duval** on **07/13/2020** at **11:08am** [Comment ID: 104] - Link
Agree: 1, Disagree: 0
This is not a community that likes being told what to do. My suggestion would be to work with them to have them decide how best to do this.

#021

Posted by **Stephanie Lecovin** on **07/20/2020** at **7:55am** [Comment ID: 289] - Link
Type: Question
Agree: 0, Disagree: 0
Is there a reason why styrofoam in businesses (such as with take-out containers in restaurants) couldn't be banned in the near-term?

> Reply by **RedmondAdmin** on **07/24/2020** at **1:06am** [Comment ID: 314] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Stephanie, thanks for the question. The implementation timeframe for actions within the Plan are prioritized based on a number of factors including staff capacity, impact, and coordination/phasing with other actions. We certainly welcome additional feedback that should be considered with the implementation timing of the action.

#022

Posted by **Karin Duval** on **07/13/2020** at **11:07am** [Comment ID: 103] - Link
Agree: 4, Disagree: 0
For some reason, too many people do not know how to compost vs recycle. I know it is complicated - even Whole Foods discontinued composting because people just didn't seem to know how to do it. When you need to decide "Is this spoon trash, recyclable or compost?" it is too much. Everything that can be made compostable should be! Single use plastics must be minimized.

#023

Posted by **Devon** on **07/19/2020** at **4:27am** [Comment ID: 268] - Link
Type: Question
Agree: 1, Disagree: 0
Partnering with the LWSD or PTSA might be helpful to spread the word?

> Reply by **RedmondAdmin** on **07/24/2020** at **12:55am** [Comment ID: 313] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Great suggestion, thanks Devon.

#024

Posted by **Tom Markl** on **07/04/2020** at **5:11pm** [Comment ID: 26] - Link
Agree: 0, Disagree: 0
Enforcement will be necessary, difficult and unpopular.

> Reply by **David Morton** on **07/13/2020** at **5:31pm** [Comment ID: 127] - Link
> *Type: Suggestion*
> *Agree: 3, Disagree: 0*
> Education may reduce the need for enforcement. Redmond can promote

recycling and composting through communications, engagement, and education strategies. Ensure that large families, residents with limited English proficiency, renters and landlords have equitable access to information and services. https://www.kingcounty.gov/depts/dnrp/solid-waste/garbage-recycling/compost-more.aspx

#025

Posted by **Tom Markl** on **07/04/2020** at **5:10pm** [Comment ID: 25] - Link
Agree: 0, Disagree: 0
To do this, there needs to be an infrastructure system to collect the materials and businesses that can profitably reprocess or remanufacture. This system does not exist today . This system will be complex, take long time to develop, needs to be regional and, hence, requires the state to take the lead.

> Reply by **David Morton** on **07/13/2020** at **5:22pm** [Comment ID: 126] - Link
> *Type: Suggestion*
> *Agree: 6, Disagree: 0*
> DTG Recycle at 8504 192nd Ave NE, Redmond, WA 98053, accepts the following C&D waste materials: concrete, asphalt, roofing, wood, brush, stumps, and logs. True, you have to haul it there. It exists today.

#026

Posted by **Karin Duval** on **07/13/2020** at **11:11am** [Comment ID: 105] - Link
Agree: 1, Disagree: 0
Yes - it will be unpopular in the beginning, but other countries have been fining customers for improper disposal for decades - this is not new. We need to grow up a little bit and accept that we have more than rights - we have responsibilities.

#027

Posted by **Amy Webber** on **07/14/2020** at **7:13pm** [Comment ID: 162] - Link
Agree: 1, Disagree: 0
Commercial property owner's don't necessarily contract for the disposal service. i.e restaurants may have their own dumpster and pay for service direct. Make sure that the requirement is put on the actual user.

#028

Posted by **Tom Hinman** on **07/14/2020** at **5:08pm** [Comment ID: 146] - Link
Type: Suggestion
Agree: 1, Disagree: 0
More, free, shredding options for papers that remain and files being tossed.

#029

Posted by **Shelly Bowman** on **07/13/2020** at **1:27pm** [Comment ID: 117] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Work with businesses such as Home Depot to change packaging as leaders, have ads come electronically vs in the mail or paper. Have programs for elderly to learn to go paperless with bills. Work with health care to mail you drug or medical instructions vs putting in bag that gets thrown away. Woek with Amazon box in a box in a box to make sure they pay into and market sustainability.

#030

Posted by **Gina Clark** on **07/16/2020** at **7:01pm** [Comment ID: 223] - Link
Type: Suggestion
Agree: 3, Disagree: 0
MBAKS just spent 2 years working with King County to draft an updated C&D ordinance. Please work with the County to adopt the County ordinance. Please don't

add multiple layers of paper work to homebuilding. Another consideration is the state requirement of at least 2 bins on site to separate waste. This is a considerable challenge on smaller homebuilding sites. Most waste can be easily sorted by contractors hired to do this and then take to proper county disposal locations. Finally, ensure homeowners know the requirements...most homebuilders are well versed and choose not to pay fines and fees in this area. Many homeowners conducting projects or taking loads to disposal facilities are not.

#031

Posted by **Nirali Shah** on **07/05/2020** at **6:14pm** [Comment ID: 45] - Link
Type: Question
Agree: 1, Disagree: -1
Are there any thoughts on providing incentives for businesses and residents that are zero/low waste?

> Reply by **RedmondAdmin** on **07/08/2020** at **10:36am** [Comment ID: 58] - Link
> *Agree: 1, Disagree: -1*
> As the City builds out programming it will evaluate the needs and opportunities to support the transition to zero waste. This is a great suggestion to consider.

#032

Posted by **Tom Hinman** on **07/14/2020** at **5:12pm** [Comment ID: 147] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Might check with County for cooperative regional program that may already exist.

#033

Posted by **David Morton** on **07/13/2020** at **5:39pm** [Comment ID: 129] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Redmond must have a Construction Debris Landfill Reduction Program --
a) Provide technical assistance and resources to contractors to meet King County's construction and demolition debris requirements, giving priority to salvage and reuse activities.
b) Create and/or support local training programs for deconstruction to increase the amount of materials salvaged for reuse as an alternative to traditional demolition techniques.
c) Require a deconstruction management plan as part of any building demolition permit application to encourage construction waste diversion from landfill.
d) Promote reuse of salvaged materials and recycling through innovative policies.
For example, perhaps in cooperation with other local governments, consider:
(1) creating grading standards for salvaged structural lumber;
(2) providing a public information link to regional salvage materials buyers and sellers;
(3) creating sales tax discounts for resold salvaged materials;
(4) requiring construction debris haulers arriving at landfills to log and regularly report the load source, its materials composition mix, such that if materials in the load could have been salvaged or recycled, additional dump surcharges are added to pay for the load sorting and salvaging there at the landfill.
https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/construction-demolition.aspx

#034

Posted by **David Morton** on **07/13/2020** at **5:34pm** [Comment ID: 128] - Link
Type: Suggestion
Agree: 0, Disagree: 0
DTG Recycle at 8504 192nd Ave NE, Redmond, WA 98053, accepts the following C&D waste materials: concrete, asphalt, roofing, wood, brush, stumps, and logs. True, you have to haul it there. It exists today.

#035

Posted by **David Morton** on **07/14/2020** at **6:30pm** [Comment ID: 150] - Link

Type: Suggestion

Agree: 4, Disagree: 0

Food Waste — Prevent food waste by encouraging:
a) strategies such as proper food storage and meal planning,
b) donation of unused and excess food to organizations that feed hungry people,
c) collection of unused food from stores and restaurants,
d) gleaning of agricultural fields and gardens, and
e) use of EPA's food recovery hierarchy.
https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy

039 Help Us Implement the Plan

Reaching Redmond's sustainability goals will require action from every individual in our community. Moving towards more sustainable consumption habits and zero waste goals will require collective action. The following actions are important steps to reducing emissions.

Buying smart and less

Buying smart and buying less can lead to more sustainability and lower your GHG footprint. Buying smart and less can mean buying vintage or recycled clothing, higher quality clothes, and more local items.

Related action(s):

- Waste reduction outreach
- Food donation

Purchase local 038

Purchasing local helps support local businesses while promoting sustainability by having lower GHG emissions throughout the lifecycle of an item.

Related action(s):

- Waste reduction outreach
- Community zero waste, repair, upcycling workshops

Bringing reusable bags to shop 037 036

Bringing your own bags and food containers can help reduce the waste associated with disposable plastic and paper bags and containers from grocery stores and restaurants.

Related action(s):

- Waste reduction outreach
- Stewardship policies
- Styrofoam policy and engagement

#036

Posted by **Tom Hinman** on **07/14/2020** at **7:25pm** [Comment ID: 165] - Link
Type: Suggestion
Agree: 0, Disagree: 0
But every little bit helps....[;o)

#037

Posted by **Tom Hinman** on **07/14/2020** at **5:16pm** [Comment ID: 148] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Like straws, this packaging effort may not have the range of benefits some may think.

#038

Posted by **David Morton** on **07/14/2020** at **6:32pm** [Comment ID: 151] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Redmond must have Local Food Source Programs -- Develop programs to encourage:
a) home-grown and locally-sourced food by supporting farmers markets and community agriculture,
b) the purchase of healthy, low-carbon and minimally-processed foods for meetings, events and facilities,
c) local food production and distribution including community gardens, especially for marginalized communities,
d) the planting of fruit and nut trees, including in parks and public right-of-ways, and
e) use of low-carbon and locally-grown foods by public and private institutions.

#039

Posted by **David Morton** on **07/13/2020** at **6:28pm** [Comment ID: 132] - Link
Type: Question
Agree: 0, Disagree: 0
This section doesn't have a Green Redmond Pledge to sign. Should there be one?

Natural Systems

Goals: Enhance green space, tree canopy, habitat quality, biological condition of streams, and natural drainage systems.

The Natural Systems focus area includes a variety of sustainability considerations, including protection and enhancement of native habitats and tree canopy, improvements to water quality, natural drainage systems, habitat quality, and green spaces.

Progress To-Date Highlights

- The City has been continuously certified by the Washington State Department of Natural Resources as a **Tree City USA**.
- The City has 22 parks sites certified as **wildlife-friendly spaces** (Wildlife Habitat Certification).
- Between 2013 and 2018, the City had **36% more acres enrolled in active management for restoration** and is currently focusing more effort on maintaining acres already enrolled versus enrolling new acres.
- The City adopted the **Tree Canopy Strategic Plan** in 2019 to outline strategies to achieve the 40% tree canopy coverage goal over the next 30 years.
- In 2013, the City completed a **Citywide Watershed Management Plan** that establishes a framework to guide actions to restore the City's surface waters based on a holistic approach to surface water management.
- The City has completed the **Tosh Creek Watershed Restoration Plan** and begun implementing projects to restore the creek and is developing watershed restoration plans for other watersheds that are a high priority for restoration.

Tree canopy cover (%). Tree canopy cover declined from 38.7% to 38.1% since 2012.	
Stormwater flow control (% of area with adequate stormwater flow control). Between 2013-2018, the City increased stormwater flow control by 5%.	
Stream habitat quality (% of stream length with good in-stream habitat). There has been a slight decrease (<2%) in the quality of in-stream habitat between 2013-2018.	

#001

Posted by **Shelly Bowman** on **07/13/2020** at **1:34pm** [Comment ID: 118] - Link
Type: Suggestion
Agree: 3, Disagree: -1
We need to immediately revise code to eliminate tree Canopy lose and get a community wide rally to quickly achieve and maintain Tree Canopy to include reducing urban hot spots. We need to add complete transparency,reporting quarterly to the public about our success and pride in our community sustainable environmental health. We can build gree and stay green, but we need$$ upfront enforcing our code. Paying the price later is much greater than enforcement now.

#002

Posted by **Steve Hitch** on **07/07/2020** at **11:47pm** [Comment ID: 51] - Link
Type: Suggestion
Agree: 5, Disagree: 0
We should plant more trees and we should do a better job of enforcing tree protection standards as development proceeds.

#003

Posted by **Rosemarie Ives** on **07/19/2020** at **1:41am** [Comment ID: 248] - Link
Agree: 4, Disagree: 0
This number is unbelievable!!! The tree canopy has been decimated since 2009. The City has inappropriately included the Watershed, Farrel-McWhirter and Juel Park, all outside the city limits, in its calculation of its Tree Canopy.
With the kind of clear cutting of trees that has taken place, I doubt that Redmond meets the Tree City certification anymore.

#004

Posted by **David Morton** on **07/13/2020** at **7:38pm** [Comment ID: 135] - Link
Type: Suggestion
Agree: 4, Disagree: 0
A Technical Committee Report to the Planning Commission on April 3, 2020 proposes the following amendments to Redmond's Comprehensive Plan:

Proposed Tree Canopy Policies
Delete the following policies:

NE-113 Maintain no net loss of significant trees within the city over the long term.

If the City decides not to maintain no net loss of significant trees within the city over the long term, then many if not most trees with a 6" or greater trunk diameter will be replaced by trees with much skinnier trunks. This is REALLY BAD for a tree canopy!!!

This deletion from the Comp Plan must not happen.

#005

Posted by **Lois Jean Winters** on **07/13/2020** at **5:42pm** [Comment ID: 130] - Link
Type: Suggestion
Agree: 5, Disagree: 0
We need to think about tree removal as a consequence of development. For example the old Group Health site has been essentially denuded of trees. Totally un necessary to do and impossible to match the number of trees lost.Also should think about replacing trees in same area where they are removed. Trees taken out of Overlake area should be replaced in same area of city. Maybe have some shorter term goals in addition to long one of 30 years

#006

Posted by **David Morton** on **07/14/2020** at **12:00am** [Comment ID: 139] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Thank you Redmond for your Tree Canopy Strategic Plan!
A Tree Canopy Strategic Plan must:
a) establish tree canopy targets for all parts of the city,
b) emphasize the preservation of healthy, native, and climate-resilient trees,
c) maximize carbon sequestration, climate change resilience, and equitable distribution of tree-related benefits across the city,
d) promote species diversity and tree longevity, and
e) monitor canopy changes.

#007

Posted by **Rosemarie Ives** on **07/19/2020** at **1:48am** [Comment ID: 250] - Link
Agree: 6, Disagree: 0
I oppose the recent recommendation by the Planning Director and Public Works Director to delete "no nest loss of significant trees" from the plan adopted just last year. The City has over assumed that tree plantings can compensate for tree canopy loss. Science and Research does not support that premise. Tree retention must be part of the plan.

#008

Posted by **Rosemarie Ives** on **07/19/2020** at **1:44am** [Comment ID: 249] - Link
Agree: 3, Disagree: 0
36% is how many more acres? Using percentages can be misleading. Would like to read a status report on the the replacement mitigation since 2008 that would quantify mortality versus success in actual numbers.

#009

Posted by **Rosemarie Ives** on **07/19/2020** at **1:51am** [Comment ID: 251] - Link
Agree: 4, Disagree: 0
City has identified a goal of 40% tree canopy. The City should adopt a Canopy "Floor" that it will not go under. City claims a tree canopy of 38% including inappropriately Watershed, Farrell Mcwhirter and Juel Parks that are all outside the city limits.

#010

Posted by **Anonymous** on **07/14/2020** at **2:55pm** [Comment ID: 141] - Link
Type: Suggestion
Agree: 5, Disagree: 0
The city makes it nearly impossible for residents to remove trees, even ailing ones, but is clear-cutting green spaces left and right to build condos. Three green spaces within a half-mile stretch of 166th Ave NE have been removed in the last two years to build condos. 30 year plans are great, but not cutting down trees is better.

Sustainability Targets, Strategies, and Actions

Targets

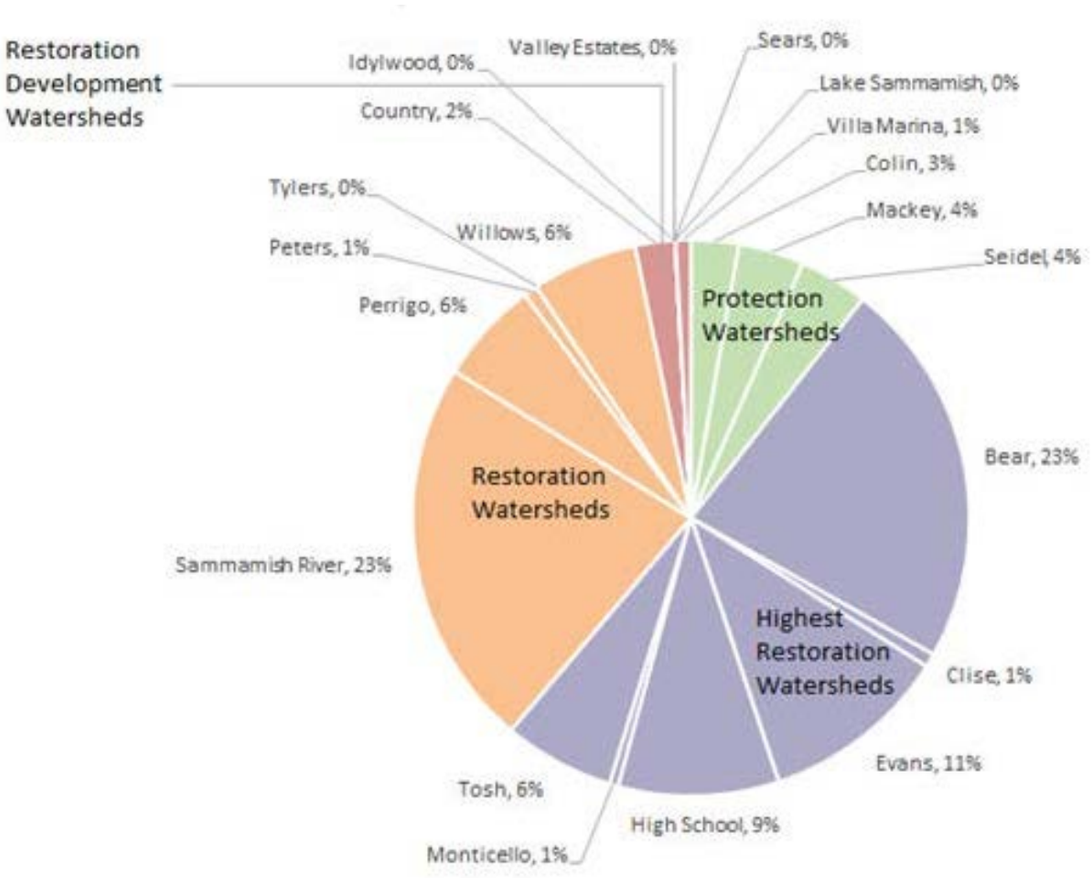
Target Indicator	Target Value
Increase Tree canopy cover (%)	40% by 2049
*Increase BIBI index of four streams (Highest Restoration Watersheds)	60 by 2050
*Increase BIBI index of twelve streams	60 by 2060
Increase surface water quality index (# out of 100)	80
Stormwater retrofit for flow control (%)	100% by 2063
Stormwater retrofit for water quality treatment (%)	100% by 2063
Accessible habitat and wetlands (acres)	2,600 by 2050

*These goals may be refined in the future due to updates to the Redmond Watershed Management Plan.

How Will We Get There?

By implementing the strategies and actions in this plan, we anticipate that Redmond will continue to maintain and enhance existing habitat quality and quantity through watershed restoration, which will improve the biological conditions of streams and increase the amount of accessible habitat and wetlands.

We estimate approximately 16% of the City area is accessible habitat. We expect that largest relative increases in accessible habitat will stem from the Bear, Sammamish River, and Evans, and High School watersheds because these watersheds have the highest quantity of existing habitat fragments within 0.2 miles of existing accessible habitat (see figure below).



#011

Posted by **Gina Clark** on **07/16/2020** at **6:27pm** [Comment ID: 207] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Simplifying the tree code is imperative so it is easier to understand, comply with, and implement with equitable results. Consider a broader tree canopy preservation approach that does place the full responsibility of tree protection on homeowners or builders, increasing cost and limiting private property use. Consider requirement a certain percentage of species diverse trees must be planted and retained in other zones: commercial, industrial, city core. Realization and education of community that trees and housing should not always be in conflict. They both need one another. Keep plat and housing design requirements flexible to accommodate tree preservation especially on smaller sites, more complicated environmental sites, and where density makes it impossible to preserve, allow for in-lieu fees to be used to plant in tree desserts throughout the city and enhance canopy in a more equitable way. Adopt right tree right place instead of always mandating where trees must located without consideration of design limitations.

> Reply by **RedmondAdmin** on **07/24/2020** at **12:46am** [Comment ID: 311] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks Gina. The City has a parallel effort looking at updating tree preservation regulations. We've passed your comments along, and you can also weigh in on that effort here - https://www.letsconnectredmond.com/trees

#012

Posted by **David Morton** on **07/13/2020** at **11:55pm** [Comment ID: 138] - Link
Type: Suggestion
Agree: 4, Disagree: 0
Another target indicator is soil. Redmond must maintain the health of its soil. Limit the use of pesticides, herbicides and chemical fertilizers which destroy carbon-sequestering microbes in the soil.

#013

Posted by **Kathy Dennis** on **07/09/2020** at **4:55pm** [Comment ID: 62] - Link
Type: Question
Agree: 0, Disagree: 0
What does accessible habitat mean? Accessible to people, animals?

> Reply by **RedmondAdmin** on **07/09/2020** at **7:14pm** [Comment ID: 65] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> This target refers to habitat accessible to animals. For instance, we want to provide connected habitat and avoid a freeway between patches of habitat or a development without a green belt.

Proposed Strategies and Actions

The list below presents proposed **strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Timeframe
Strategy N1: Protect and enhance equitably accessible native habitats and open space and preserve agricultural lands.		
Enforce critical areas code and regulations 019	Strengthen, revise, and enforce codes for critical areas including, fish and wi 015 e habitat conservation areas, frequently flooded areas, geologically hazardous areas, unstable slopes, and associated areas and ecosystems.	
Watershed approach for restoration 020	Use watershed approach for habitat restoration planning and activities and update Redmond's Watershed Management Plan on a regular basis (plan states every 5 years).	
Urban agriculture expansion	Partner with nonprofits, low income communities, and underrepresented communities to expand urban agriculture opportunities in community gardens, schools, and parks and on rooftops.	
Habitat protection zoning	Support planning and zoning efforts that protect natural resources, including water resources, open space, and habitats.	
Community education and outreach	Educate community on importance of local and native habitats. 017	
Urban forestry staff	Hire a person/team at the City to implement the goals and strategies associated with increasing canopy cover across the city and to update the 20-yr plan.	
Private development restoration requirements	Require private d 016 lopment to address restoration issues onsite and explore options for enhanced requirements.	014
Address developed areas that flood	Establish development standards, prioritize habitat, establish ecosystem minimums for habitat development, and/or purchase areas for development and retrofit of developed areas that flood or have degraded habitat and water quality.	
Strategy N2: Enhance resilience of natural areas and systems to climate change.		
Forest Management Plan implementation	Continue to progress on and update the 20-year Forest Management Plan developed by the Green Redmond Partnership to restore and enhance natural areas, assess current urban forest health, and outline future urban forest goals and strategies.	
Drought/heat tolerant plantings 021	Acquire plants grown from regional seed to support continued genetic diversity of native species and resilience of native habitat and soil and are able to be drought-tolerant, climate-adapted, and efficiently sequester carbon.	
Improve fish passage 018 022	Remove barriers to fish migration and prevent the creation of new barriers.	

#014

Posted by **Rosemarie Ives** on **07/19/2020** at **2:02am** [Comment ID: 253] - Link
Agree: 1, Disagree: 0
I oppose the "in lieu" fee. The city's ratio for tree replacement is a charade--a sapling of a deciduous tree will take decades upon decades to get around to producing the environmental benefit of a significant or a landmark tree. Require developers to plant on their property rather than passing on the responsibility and cost to the city to maintain in perpetuity. Encouraging native conifers to be planted on their property could produce a decent tree in 20/25 years.

#015

Posted by **Shelly Bowman** on **07/13/2020** at **1:43pm** [Comment ID: 119] - Link
Type: Suggestion
Agree: 8, Disagree: 0
Note that both trees and wildlife require clusters and diversity and snags and large heritage and Landmark trees. Planting trees isolated unable to touch root systems or have proximity communication reduces fight against weather, pests, famine, reproduction successes. We should define trees by type, size and age and clearly state that Arborvitea and other like species are not acceptable tree replacements.

#016

Posted by **Tom Markl** on **07/04/2020** at **6:02pm** [Comment ID: 38] - Link
Type: Question
Agree: 0, Disagree: 0
Private development is largely multi-family and commercial in areas that are already urbanized. What does restoration enhancement mean is this environment?

> Reply by **RedmondAdmin** on **07/09/2020** at **6:41pm** [Comment ID: 63] - Link
> *Type: Answer*
> *Agree: 2, Disagree: 0*
> Restoration requirements could take many forms. One example would be coming up to date with the most recent stormwater management requirements. A site that was developed 20 years ago was developed with different standards. If that site was redeveloped today it may require infiltration of stormwater or other flow control methods. Another example would be that the City requires, by code, the restoration of degraded critical areas buffers. If a development proposal occurs on a site with this condition, they are required to restore the buffer.

#017

Posted by **Phoebe Jenkins** on **08/01/2020** at **2:34am** [Comment ID: 355] - Link
Type: Suggestion
Agree: 0, Disagree: 0
I suggest the city partner with youth organizations such as the Tomorrow Project and Sustainability Ambassadors to help educate kids on these matters. In addition, kids of all ages should not only be taught about the climate emergency and large-scale environmental issues, but also exposed to regional issues and the efforts to address them. Learning about regional efforts and learning from younger people would make environmental matters more accessible to kids and build stronger connections between youth and the community.

#018

Posted by **Karen Dawson** on **07/17/2020** at **6:49pm** [Comment ID: 234] - Link
Type: Suggestion
Agree: 1, Disagree: 0
The city can utilize compost, generated from the City of Redmond’s organics collection program in fish passage improvement projects, green stormwater solutions and other

low-impact design projects.

#019

Posted by **Gina Clark** on **07/16/2020** at **6:32pm** [Comment ID: 208] - Link
Type: Suggestion
Agree: 3, Disagree: 0
One of the most difficult challenges homebuilders face are challenging sites limited by environmentally sensitive critical areas. The current code and building homes while protecting critical areas are often at odds, as is the interpretation and implementation by staff during review. It is becoming increasingly more difficult to build homes in Redmond with these challenges, and increasing density requirements without also enforcing current code requirements equitably and consistently will make those challenges increase exponentially. Incentives, points, and design flexibility, along with more training of staff and dialogue with building community are needed.

#020

Posted by **Gina Clark** on **07/16/2020** at **6:49pm** [Comment ID: 216] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Uncertain where to best place this comment. Consider expanded use of reclaimed water in ROW and city parks, such as Marymoor, to preserve the city's freshwater drinking source for human consumption and denser development.

#021

Posted by **Gina Clark** on **07/16/2020** at **6:35pm** [Comment ID: 209] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Support but also include an education component and ensure that implementation is "easy." Lists of acceptable plantings, guidelines for planting, etc.

#022

Posted by **Karen Dawson** on **07/17/2020** at **6:50pm** [Comment ID: 235] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Resource:
Article from Stormwater magazine: Compost: The Sustainable Solution - https://www.stormh2o.com/erosion-control/article/13024565/compost-the-sustainable-solution#:~:text=Compost%20is%20an%20incredibly%20versatile%20product%2C%20which%20provides,architects%2C%20public%20agencies%29%2C%20policy%20makers%2C%20and%20project%20
The Nature Conservancy & Washington State University: Solving Stormwater - https://www.washingtonnature.org/cities/solvingstormwater
Soils for Salmon: https://www.soilsforsalmon.org/

Action	Description	Timeframe
Update critical habitat	Update priority habitat corridors for preserving and enhancing critical habitat for wildlife and incorporate into departmental plans and codes such as critical areas.	
Drought-tolerant and lawn removal incentives 028	Establish incentives/rebates for drought tolerant residential landscaping and removal of grass lawns. 024	
Strategy N3: Expand green infrastructure and associated services.		
Adopt Integrated Pest Management (IPM) Plan for all city owned properties	Use Redmond Park's Integrated Pest Management (IPM) plan for city-owned properties.	
Environmental BMP & design standard implementation & enforcement	Implement and enforce Environmental Best Management Practices & Design Standards on development and redevelopment projects.	
Proactively maintain stormwater infrastructure	Proactively maintain stormwater infrastructure including pipes, catch basins, vaults, ponds, and swales.	
Stormwater capital improvement plan updates	Update the stormwater capital improvement plan at least annually and implement the flood reduction, water quality improvement, and habitat enhancement CIPs according to the established schedule.	
Restore Redmond's watersheds	Implement the recommendations of the Redmond's Watershed Management Plan to restore all surface water bodies in the City within the next 50 to 100 years.	
Stormwater flow control retrofits	Construct or retrofit stormwater flow control / infiltration facilities.	
Stormwater treatment retrofits	Construct or retrofit stormwater runoff treatment facilities.	
Update the City's Watershed Plan	The City will update the Watershed Plan and utilize the best available science and technology to evaluate the previous plan's goals.	
Regional stormwater facilities plan	Coordinate development of the City's urban centers with stormwater management improvements to meet the City's water quality goals, support new development that is required by the Growth Management Act, and do so in a cost-effective way.	
Drainage system resilience	Prepare natural drainage systems for changes in precipitation patterns. 023	
Urban biodiversity mapping	Inventory and map urban biodiversity for the prioritization of enhancement, protection, and re-connection.	
Stormwater retrofit incentives 029	Plan, create incentives for, and support green stormwater retrofit projects such as rain gardens and other low-impact designs. 027	
Assess health of city-owned ROW trees	Assess the health of natural systems for parks and ROW trees (urban forests will be part of 20-ye025lan). Develop goals, risk tolerances, and restoration strategies to manage tree species and canopy cover. 026	

#023

Posted by **Tom Hinman** on **07/14/2020** at **7:39pm** [Comment ID: 167] - Link
Type: Suggestion
Agree: 2, Disagree: 0
This could be one of the most important ways to deal with likely effects of climate change as precipitation rates may increase.

#024

Posted by **Devon** on **07/19/2020** at **4:36am** [Comment ID: 269] - Link
Agree: 1, Disagree: 0
Yes please!

#025

Posted by **Lois Jean Winters** on **07/13/2020** at **5:48pm** [Comment ID: 131] - Link
Type: Suggestion
Agree: 1, Disagree: 0
we could think about encouraging and implementing gray water use to water gardens and lawns in summer. would reduce demand for water as well as reduce use of storm water and sewage treatment needs

#026

Posted by **Gina Clark** on **07/16/2020** at **6:38pm** [Comment ID: 211] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Requirement for the city to also participate in active tree retention and replanting in ROW, on public property like parts, and around municipal buildings.

#027

Posted by **Gina Clark** on **07/16/2020** at **6:39pm** [Comment ID: 212] - Link
Type: Suggestion
Agree: 0, Disagree: 0
See above to help give design flexibility and menu of options.

#028

Posted by **Gina Clark** on **07/16/2020** at **6:37pm** [Comment ID: 210] - Link
Type: Suggestion
Agree: 2, Disagree: 0
MBAKS supports along with a community education component and strive to also reach existing and not just new residential. Consider design flexibility and menu of options rather than mandating one-type of improvement. For example, "The city requires the installation of rain barrels." What type? Where install on small lots? Other options to meet stated goal? Combination of drought tolerant planting and improvement to drip irrigation? Helps with affordability and challenging site design.

#029

Posted by **Karen Dawson** on **07/17/2020** at **6:51pm** [Comment ID: 236] - Link
Type: Suggestion
Agree: 2, Disagree: 0
The city can utilize compost, generated from the City of Redmond’s organics collection program in fish passage improvement projects, green stormwater solutions and other low-impact design projects.

Resources:
Article from Stormwater magazine: Compost: The Sustainable Solution - https://www.stormh2o.com/erosion-control/article/13024565/compost-the-sustainable-s

olution#:~:text=Compost%20is%20an%20incredibly%20versatile%20product%2C%20which%20provides,architects%2C%20public%20agencies%29%2C%20policy%20makers%2C%20and%20project%20
The Nature Conservancy & Washington State University: Solving Stormwater - https://www.washingtonnature.org/cities/solvingstormwater
Soils for Salmon: https://www.soilsforsalmon.org/

> Reply by **Phoebe Jenkins** on **08/01/2020** at **3:03am** [Comment ID: 356] - Link
> *Type: Suggestion*
> *Agree: 0, Disagree: 0*
> Helpful study of bark and compost filters on preventing salmon mortality: http://www.nanfa.org/ac/coho-pre-spawn-mortality.pdf

Action	Description	Timeframe
Strategy N4: Increase citywide tree canopy.		
Planting in open space park lands	Increase canopy on City property by planting open space areas in parks consistent with park master plans, street trees, riparian and restoration plantings. 036	
Reevaluate tree regulations	Reevaluate tree regulations to protect existing canopy and to ensure trees are replant038ith a "right sized tree."03332 Develop best practices for tree health and maintenance.031	030
Tree canopy LiDAR dataset	Acquire updated LiDAR dataset to reset canopy baseline.	
Neighborhood matching grants for tree canopy cover	Encourage use of Neighborhood Matching Grants to increase canopy in neighborhoods, especially for low-cost or no-cost trees, where canopy is needed based on tree canopy plans for neighborhoods.	
Tree canopy policies 041 040	Add new policies to the comprehensive plan describing the tree canopy goal, timeframe, and other key strategies that includes maintaining and updating canopy data and tracking tree removal and replacement.	
Targeted parcel acquisition	Evaluate acquisition of forest parcels, especially in neighborhoods or zones with less canopy, to preserve urban forest cover. 039 034	
Tree canopy dashboard	Develop an outward facing dashboard that allows public to see tree canopy performance measures for stormwater, heating/cooling, air quality, public health, economic development and climate.037	
Develop tree canopy plans for neighborhoods	Work with neighborhoods in ongoing efforts to increase canopy and forest health in their neighborhoods. 035	

#030

Posted by **Rosemarie Ives** on **07/19/2020** at **1:56am** [Comment ID: 252] - Link
Agree: 2, Disagree: 0
The denser the neighborhood, the greater need for higher retention of tree canopy. With more people in a dense area, there is need for more clean air, less CO2 emissions, and more aesthetics. Otherwise, we are saying that people in single family neighborhoods deserve cleaner air etc than people living downtown or in Overlake.

#031

Posted by **Tom Hinman** on **07/14/2020** at **7:48pm** [Comment ID: 169] - Link
Type: Suggestion
Agree: 2, Disagree: 0
A fee-in-lieu plan in which trees are planted far from the impacted neighborhood is neither just or equitable. Group Health is the case in point.

#032

Posted by **Tom Hinman** on **07/14/2020** at **7:44pm** [Comment ID: 168] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Urban trees are essential, if only in a park context, for quality of life in our urban centers. Hence, those that remain are more precious.

#033

Posted by **Gina Clark** on **07/16/2020** at **6:42pm** [Comment ID: 214] - Link
Type: Suggestion
Agree: 0, Disagree: 0
And just not "right sized" but also right place. Simply saying, "In all residential setbacks" does not give the flexibility for homes and trees to exist on smaller lots and can undercut building affordability. It can also result in homeowners removing trees if located in unsuitable areas.

#034

Posted by **Tom Hinman** on **07/14/2020** at **7:51pm** [Comment ID: 170] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Why not a joint forested park development of the "Unigard" property with the City of Bellevue for the benefit of Overlake area residents regardless of jurisdiction?

#035

Posted by **Tom Hinman** on **07/14/2020** at **7:54pm** [Comment ID: 171] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Neighborhood visioning/plan development with community members seems to be a dying art in Redmond. Perhaps this could help revive that process.

#036

Posted by **Gina Clark** on **07/16/2020** at **6:39pm** [Comment ID: 213] - Link
Agree: 1, Disagree: 0
MBAKS fully supports.

#037

Posted by **Gary D Smith** on **07/19/2020** at **5:14pm** [Comment ID: 272] - Link
Type: Question
Agree: 0, Disagree: 0

Great goals so the question is how to get there? In looking for answers, I'm somewhat confused by the labels on the 3 types of watersheds: Restoration, Highest restoration and Protection. Will continue reading.

#038

Posted by **Tom Markl** on **07/04/2020** at **6:07pm** [Comment ID: 39] - Link
Type: Suggestion
Agree: 0, Disagree: -2
Tree replacement is and will be increasing difficult in the urban Overlake, Marymoor and Downtown areas. Perhaps, create a fund for developers to pay into as an alternative to onsite replacement, for the City to use to plant in less dense areas of the City.

#039

Posted by **Gina Clark** on **07/16/2020** at **6:44pm** [Comment ID: 215] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Please work at times with the homebuilding community so, with the already limited amount of land to build, retention is occurring in areas otherwise not best suited for homes, and vice versa. Especially as the demand for housing continues to grow and housing choice should be expanded.

#040

Posted by **David Morton** on **07/14/2020** at **12:01am** [Comment ID: 140] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Thank you Redmond for your Tree Canopy Strategic Plan!
A Tree Canopy Strategic Plan must:
a) establish tree canopy targets for all parts of the city,
b) emphasize the preservation of healthy, native, and climate-resilient trees,
c) maximize carbon sequestration, climate change resilience, and equitable distribution of tree-related benefits across the city,
d) promote species diversity and tree longevity, and
e) monitor canopy changes.

#041

Posted by **David Morton** on **07/13/2020** at **11:53pm** [Comment ID: 137] - Link
Type: Suggestion
Agree: 3, Disagree: 0
A Technical Committee Report to the Planning Commission on April 3, 2020 proposes the following amendments to Redmond's Comprehensive Plan: Proposed Tree Canopy Policies -- "Delete the following policies: NE-113": "Maintain no net loss of significant trees within the city over the long term." If the City decides not to maintain no net loss of significant trees within the city over the long term, then many if not most trees with a 6" or greater trunk diameter will be replaced by trees with much skinnier trunks. This is REALLY BAD for a tree canopy!!! This deletion from the Comp Plan must not happen.

Help Us Implement the Plan

Reaching Redmond's sustainability goals will require action from every individual in our community. Collective action can have a significant impact on lowering the community carbon footprint. There are numerous ways to take action to save energy, here are just a few that help to reduce emissions.

Green your yard.

Planting native plants and trees in your yard can help increase green space in your neighborhood, which can improve habitat quality and water quality. Participate in neighborhood initiatives to increase tree canopy in your community.

Related action(s):

- Community education and outreach
- Drought-tolerant and lawn removal incentives
- Drought/heat tolerant
- Urban biodiversity mapping
- Tree canopy policies
- Neighborhood matching grants
- Develop tree canopy plans for neighborhoods

044

Don't use harmful chemicals in your yard or home.

043

Using harmful pesticides in your yard may keep away the insects and pests, but these pesticides are likely to flow and affect surface water quality and groundwater quality. Try washing your car at a commercial car wash, on the lawn, or in an area that doesn't drain to surface water bodies

Related action(s):

- Community education and outreach
- Drainage system resilience
- Adopt Integrated pest management (IPM) plan for all city owned properties

Help your community!

Redmond offers a variety of volunteer opportunities for anyone interested in caring for open space. Adopt a trail to clean up regular, try collecting native seeds, and keep an eye out for noxious weeds.

Related action(s):

- Reduce conservation obstructions
- Community education and outreach
- Urban agriculture
- Drought/heat tolerant

042

#042

Posted by **Devon** on **07/19/2020** at **4:44am** [Comment ID: 270] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Green Teams at local schools want to have on-site community gardens and help plant neighborhood trees. It would be great to coordinate with city efforts.

#043

Posted by **David Morton** on **07/13/2020** at **11:48pm** [Comment ID: 136] - Link
Type: Suggestion
Agree: 5, Disagree: 0
This is great advice for individual residents, but there should be an action item for this as well. Everyone must be aware of Soil Health -- Limit use of pesticides, herbicides and chemical fertilizers which destroy carbon-sequestering microbes in the soil.

#044

Posted by **Gary D Smith** on **07/19/2020** at **5:18pm** [Comment ID: 273] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Not clear how canopy performance will be measured, nor how it relates to economic development in particular. Pls give a specific example of tree canopy indicators.

Water Management

Goals: Protect and conserve water resource quality and quantity.

Protecting and conserving water resources, including our local groundwater resources and our watershed resources, is a critical component of environmental sustainability. Within this context, Redmond is working to implement sustainable water resource management practices and regulations to achieve greater conservation and more efficient use of our water supply.

Progress To-Date Highlights

- The City recently updated **groundwater protection areas** (Wellhead Protection Zones) and established upda002 Critical Aquifer Area (CARA) boundaries to enhance management of a clean water supply.
- The City conducts **quality testing and water level measurements** for approximately 100 monitoring wells.
- The City recently improved efforts to **reduce pollution risks to the City's aquifer**.
- The City partners with Cascade Water Alliance and the Department of Ecology to conduct **outreach and education** on the benefits of **grey water systems**.
- The City utilizes a **centralized water control system** called Maxicom that monitors and controls landscape irrigation.
- The City replaced annual planting beds with **drought-tolerant perennials** and transitioned to as-needed irrigation and utilizes drought-resistant landscaping on City Hall Campus.

Pollution prevention site visits (% of high-risk sites visited and provided technical assistance). In the last four years, the City has visited and provide prevention relief to 100% of at-risk water sites. These efforts helped reduce pollution risk to our water resources.

Groundwater quality (% of groundwater monitoring wells that meet groundwater quality standards). The City monitors the quality a variety of groundwater wells. The proportion of wells meeting groundwater requirements have remained steady.001

Groundwater quality (% of groundwater quality samples that meet drinking water standards). In the last five year, 100% of monitored groundwater wells have met requirements needed for healthy drinking water.

#001

Posted by **Gina Clark** on **07/16/2020** at **6:51pm** [Comment ID: 217] - Link
Type: Question
Agree: 0, Disagree: 0
I don't know, but are these municipal wells only or also private use?

> Reply by **RedmondAdmin** on **07/16/2020** at **7:19pm** [Comment ID: 228] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Hi Gina, this would be for municipal wells only. Thanks for the question!

#002

Posted by **Rosemarie Ives** on **07/19/2020** at **2:08am** [Comment ID: 254] - Link
Agree: 5, Disagree: 0
Considering that at least 40% of our drinking water comes from groundwater via five wells, I am very concerned about the City allowing developers east of the Sammamish River to continuously pump groundwater from their property so they can build underground parking. With what is going on in downtown and what is planned for Marymoor and areas east of downtown, I find it difficult to believe that our aquifer is not being adversely impacted and threatened.

Sustainability Targets, Strategies, and Actions

Target

Target Indicator	Target Value
Reduce per-capita gallons of potable water consumed.	Develop a comprehensive Water Use Reduction Strategy that identifies a quantitative target. 003

How Will We Get There?

Redmond single-family residents are currently exceeding the national and Washington State averages for domestic residential water use (55 gallons per day per capita [GPDC] versus 82 GPDC and 101 GPDC, respectively). When other commercial and industrial uses are considered, Redmond is still exceeding national and Washington State averages (73 GPDC versus 81 GPDC and 120 GPDC, respectively). However, the more we continue to conserve, the more sustainable our supply will be.

We anticipate that the identified strategies above will be sufficient in achieving our target. Any additional strategies or actions executed will further improve our commitment to environmental sustainability and set the community and City up for success for future planning.

This includes developing a plan to have all public golf courses use recycled water for all irrigation, providing water fixture upgrades, utilizing water-efficient landscaping practices, expanding grey water reuse, and expanding water conservation education and outreach programs.

#003

Posted by **Gina Clark** on **07/16/2020** at **6:55pm** [Comment ID: 221] - Link
Agree: 2, Disagree: 0
Community education, incentives, and rebate programs.

#004

Posted by **Steve Hitch** on **07/07/2020** at **11:52pm** [Comment ID: 52] - Link
Type: Suggestion
Agree: 0, Disagree: 0
What an adorable kiddo!

Proposed Strategies and Actions

The list below presents **proposed strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Timeframe
Strategy W1: Achieve a secure and sustainable water supply that is equitable, affordable, and accessible.		
Align with regional planning	Ensure continued alignment of City water management actions with regional planning framework, City policies, sustainability practices, and state and federal environmental regulations.	
Climate risks to water availability	Evaluate risks to water availability due to changes in precipitation patterns (more frequent drought conditions, high precipitation events, changing precipitation patterns, low recharge).	
Strategy W2: Conserve community water resource and maximize water efficiency savings.		
Community awareness program	Conduct community awareness programs for water conservation practices.	
Water-efficient landscaping	Continue to install and implement water-efficient landscaping and practices for streetscapes (including traffic circles), park sites, City facilities, and City-maintained plantings.	
"One water" education	Expand public education on water conservation and the "one water" concept that all water is reusable.	
New standards for resilience in water systems	Study and determine if new standards need to be adopted to strengthen infrastructure to address increased flooding, such as larger bridges and culverts and other stormwater conveyance systems.	
Water usage reduction strategy	Create a water usage reduction strategy to provide the strategic framing for all other water efficiency strategies and actions.	
Gray water for irrigation	Study code barriers and code/policy incentives for promoting graywater reuse over traditional irrigation. Establish a plan to upgrade irrigation controls and operational efficiency on City properties using grey water.	
Golf course recycle water	Partner with King County to use recycled water for irrigation of golf courses. Develop a plan to have all public golf courses 100% irrigation with recycled water.	
Strategy W3: Protect drinking water sources.		
Identify groundwater impacts	Protect groundwater by identifying impacts to groundwater.	
Groundwater contamination plan	Refine a plan to prevent and manage existing groundwater contamination. Identify and address groundwater resources at risk. Include a monitoring and tracking program.	
Groundwater Monitoring Program	Monitor groundwater monitoring well network to identify impacts to water quality and quantity early and provide an early warning to supply wells.	

#005

Posted by **Stephanie Lecovin** on **07/20/2020** at **8:29am** [Comment ID: 292] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Given the pervasive use of glyphosate and its toxicity/carcinogenicity to human health and pollinators, the City of Redmond should join many other U.S. cities in banning it!

> Reply by **Stephanie Lecovin** on **07/20/2020** at **8:31am** [Comment ID: 293] - Link
> *Type: Suggestion*
> *Agree: 1, Disagree: 0*
> And also provide incentives/resources for non-toxic Integrative Pest Management practices!

#006

Posted by **Michael Brent** on **07/24/2020** at **12:34pm** [Comment ID: 317] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Incorporate monitoring of contaminants of emerging concern, such as pharmaceuticals and microplastics, into the plan.

#007

Posted by **Devon** on **07/19/2020** at **4:48am** [Comment ID: 271] - Link
Type: Question
Agree: 1, Disagree: 0
Can this be taught in schools?

> Reply by **RedmondAdmin** on **07/24/2020** at **12:32am** [Comment ID: 310] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Great question - this is certainly something we raise with some local schools to see if there is interest.

> Reply by **Michael Brent** on **07/24/2020** at **12:29pm** [Comment ID: 316] - Link
> *Type: Suggestion*
> *Agree: 1, Disagree: 0*
> Cascade reaches approximately 17,000 students and hundreds of teachers each year with its water education programs in Redmond and other eastside cities. Our programs are predicated on the concept of water "systems" and the interconnectedness of those systems (i.e., water conservation = benefits to groundwater supplies; sustainable landscaping = healthier surface water systems, etc). We are very interested in how we can continue refining our programs for maximum effectiveness and would welcome input from our members and communities.

#008

Posted by **Gina Clark** on **07/16/2020** at **6:52pm** [Comment ID: 218] - Link
Agree: 2, Disagree: 0
MBAKS supports. One Water education is fantastic.

#009

Posted by **Rachel A Molloy** on **07/20/2020** at **3:03am** [Comment ID: 288] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Can we roll this into every single year-round community stage event? Seriously. it's an on-going city practice about to kick off...let's fully embrace the effort, everywhere, all year.

#010

Posted by **Gina Clark** on **07/16/2020** at **6:53pm** [Comment ID: 219] - Link
Agree: 1, Disagree: 0
MBAKS supports. See comments under Natural Systems. Especially critical to meet increased population and demand for housing, and preserve freshwater drinking sources for human consumption.

#011

Posted by **David Morton** on **07/14/2020** at **6:52pm** [Comment ID: 158] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Water Conservation -- In anticipation of dryer summers, promote:
a) efficient water use,
b) groundwater recharging by reducing impervious surfaces,
c) rainwater harvesting,
d) use of grey water systems, https://www.sustainable.com.au/greywater-treatment
e) drip-irrigation or no-irrigation landscaping and xeriscapes, and
f) partnerships with water suppliers such as the Cascade Water Alliance.

#012

Posted by **David Morton** on **07/14/2020** at **6:47pm** [Comment ID: 154] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Using climate science-based community education, Redmond must educate residents and businesses to conserve water and energy.

#013

Posted by **David Morton** on **07/14/2020** at **6:48pm** [Comment ID: 155] - Link
Type: Suggestion
Agree: 3, Disagree: 0
Using climate science-based community education, Redmond must educate residents and businesses to conserve water and energy.

Action	Description	Timeframe
Update TCD code	Conduct a triple bottom line analysis of temporary construction dewatering (TCD) to determine policy options to reduce tensions between water resources management and compact growth.	
Water efficiency standards	Increase water efficiency and resiliency standards for new development such as requiring dual piping so new buildings are rainwater/reclaimed water ready. 016	
Irrigation water efficiency	R019e City codes to promote greater irrigation water efficiency. Considerations could include: rate change, irrigation standards, equipment upgrades, and scaling up properties. 014	
Septic/sewer system improvements	Eliminate direct discharge into the stormwater system from the sanitary and private septic/sewer systems.	
Septic elimination / sewer system expansion	Encourage conversion from on-site wastewater disposal systems as sewer lines become available so that all septic systems in the city are eventually eliminated. 017	
Landscaping and irrigation standards	Require drought-tolerant planting and efficient irrigation systems on all new development. 018 015	

#014

Posted by **Michael Brent** on **07/24/2020** at **12:50pm** [Comment ID: 319] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Consider including standards for soil amendment, reduction of turfgrass, and emphasis on drought tolerant plantings.

#015

Posted by **Gina Clark** on **07/16/2020** at **6:54pm** [Comment ID: 220] - Link
Agree: 0, Disagree: 0
See comments under Natural Systems.

#016

Posted by **Michael Brent** on **07/24/2020** at **12:41pm** [Comment ID: 318] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Consider incentives to encourage new construction to install rainwater harvesting for toilet flushing.

#017

Posted by **Steve Barker** on **07/28/2020** at **3:31pm** [Comment ID: 321] - Link
Type: Question
Agree: 0, Disagree: 0
Water issues

#018

Posted by **Nirali Shah** on **07/05/2020** at **6:28pm** [Comment ID: 46] - Link
Type: Question
Agree: 2, Disagree: 0
Would this also be required for existing developments?

> Reply by **RedmondAdmin** on **07/10/2020** at **12:01pm** [Comment ID: 70] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Thanks for your question, Nirali. As the action is currently framed, it would target new development only. New development project have to go through the permitting process, which allows the City to enforce various standards and building requirements.
>
> > Reply by **Michael Brent** on **07/24/2020** at **12:19pm** [Comment ID: 315] - Link
> > *Type: Suggestion*
> > *Agree: 0, Disagree: 0*
> > Perhaps over time, COR could develop some basic standards for existing systems, such as a minimum distribution uniformity (a measure of the evenness the irrigation system applies water), confirmation of no major leaks or line breaks, installation of a rain sensor shut off device, and minimal overspray onto sidewalks or impervious surfaces. Such standards could be confirmed and submitted to COR at the beginning of the irrigation season (operators should be taking these steps anyway) with minimal time and expense.

#019

Posted by **Steve Barker** on **07/29/2020** at **11:34am** [Comment ID: 322] - Link
Type: Question
Agree: 1, Disagree: 0
Concerned about water

Help Us Implement the Plan

020

Reaching Redmond's sustainability goals will require action from every individual in our community. Collective action can have a significant impact on improving community water conservation. There are numerous ways to take action to save water, here are just a few that help to conserve water and increase water quality.

Install efficient appliances and fixtures.

Install water-efficient toilets, showerheads, and faucet aerators. Before buying, check how much water and energy new appliances, faucets, and water heaters will use. Remember, cheaper up-front purchases could cost more in water and electricity bills over time.

Related action(s):

- Community awareness program
- Water usage reduction strategy

Save water at the tap.

Check all faucets, toilets, and showerheads for leaks. Have your irrigation system audited for leaks, broken equipment, overspray, or inefficient watering schedules.

Related action(s):

- Water-efficient landscaping
- Water usage reduction strategy

Xeriscape landscaping

Choose the right Northwest-friendly plants and watch them thrive in our environment. Group plants with the same watering needs together to avoid overwatering some while underwatering others. Try collecting water from your roof and directing the runoff to plants and trees.

Related action(s):

- Water usage reduction strategy
- Reuse education
- Water-efficient landscaping

#020

Posted by **Shelly Bowman** on **07/13/2020** at **1:50pm** [Comment ID: 120] - Link
Type: Suggestion
Agree: 1, Disagree: -1
Please add to include quarterly metrics transparency to public. We should celebrate success, but quickly address failure to ensure full goal achievement and have no EXCUSES OR MISTAKES OR EXCEPTIONS. This should apply to all categories. We should never hear again in Redmond "we did not know." or "we did not inspect" or "many on site new, but their reporting did not get seriously addressed". With transparency and accuracy in metrics, the community can best monitor and manage the outcomes.

#021

Posted by **Steve Barker** on **07/29/2020** at **5:28pm** [Comment ID: 324] - Link
Agree: 0, Disagree: 0
Water for golf course

#022

Posted by **Steve Barker** on **07/29/2020** at **5:26pm** [Comment ID: 323] - Link
Agree: 0, Disagree: 0
Water for golf course!

Climate Change and Resilience

Goal: Reduce communitywide GHG emissions and enhance community-wide resilience to climate impacts. 002 001

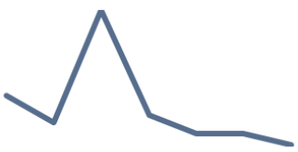
Climate change has already affected and will continue to affect Redmond, King County, and the broader Puget Sound region. Warmer temperatures, shifting hydrology and precipitation regimes, more regional wildfires, and more intense and frequent extreme weather events will negatively impact the Redmond community and our neighbors, affecting our collective health, safety, economy, and environment for today and tomorrow. This section includes actions to collectively lower greenhouse gas emissions and build resilience to climate-related impacts. 003

Progress To-Date Highlights

- **Redmond's municipal operations greenhouse gas emissions have decreased** overall since 2011. In 2017, total Redmond GHG emissions were among the lowest in the past 7 years. Current emission-reducing activities including, anti-idling campaigns, green purchasing policies, a bus pass program for City employees, and energy efficiency best practices.
- As a part of the **K4C partnership**, Redmond is supporting 2019 policy and legislative advocacy that include: comprehensive science-based limits, market-based price on carbon pollution, expansion of funding for public transit, green buildings, and renewable energy.
- Several of **Redmond's programs and plans** address climate change issues (e.g., stormwater management, energy conservation).
- The City is a member of **ICLEI-Local Governments for Sustainability** and utilizes its ClearPath platform to **track and report GHG emissions** over time. 004

Community GHG emissions ($MTCO_2e$). Some progress, but 7% overall increase from 2011 to 2017. The increase has been largely driven by population growth and building energy-use.

Per-capita community GHG emissions ($MTCO_2e$/capita). Between 2011-2017, per-capita emissions declined 4%. This trend indicates that overall community GHG emission increases may be largely driven by population and economic growth.



Municipal GHG emissions (MTCO2e). Between 2011-2017 municipal GHG emissions declined 5%.

#001

Posted by **David Morton** on **07/30/2020** at **5:46pm** [Comment ID: 342] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Performance Measurement — Annually inventory and publish community-wide greenhouse gas emissions. Use standard estimating techniques, emissions categories and the same baseline reference year as recommended by the K4C.

#002

Posted by **David Morton** on **07/30/2020** at **4:57pm** [Comment ID: 340] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Methane Leaks -- Establish a schedule for finding and eliminating methane leaks from landfills and from "natural" gas pipe lines.

#003

Posted by **Rachel A Molloy** on **07/20/2020** at **2:54am** [Comment ID: 285] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Partnering with city and area EMS and CERT for seamless integration on planning and response.

#004

Posted by **Rosemarie Ives** on **07/19/2020** at **2:09am** [Comment ID: 255] - Link
Agree: 2, Disagree: 0
Am glad to read about the city's association with ICLEI. I worked with them back in 2006 and 2007 on climate change initiatives.

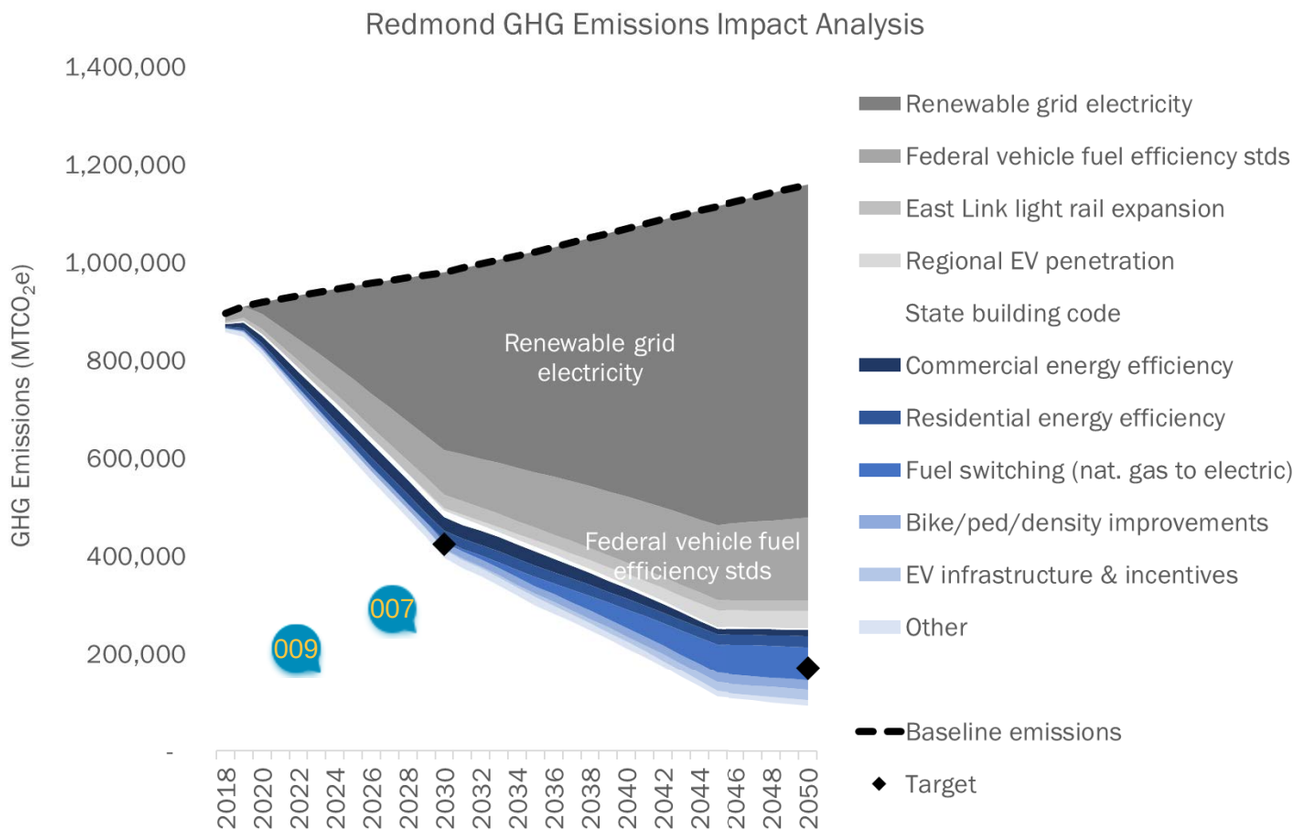
Sustainability Targets, Strategies, and Actions

Targets

Focus Area Goal	Sub-Goal	Target
Reduce GHG emissions and enhance communitywide resilience to climate impacts.	Reduce communitywide greenhouse gas emissions.	50% reduction by 2030 80% reduction by 2050

How will we Get There?

We estimate that implementing these strategies, in conjunction with anticipated external programs, policies, and trends, could reduce communitywide GHG emissions by 89% by 2050. More information about each of these emissions-reducing strategies are provided in their respective focus area sections (Transportation and Land Use, Buildings and Energy, and Materials Management and Waste).



#005

Posted by **Shelly Bowman** on **07/13/2020** at **1:58pm** [Comment ID: 121] - Link
Type: Suggestion
Agree: 3, Disagree: -1
Targets not aggressive enough. We all King County is mandating change and seeking vendors to deliver that change and marketing those companies in other countries and sharing best practices the cost will come down. It is enabling excuses and kicking the can that have made it so costly. Time to work harder and smarter and cut costs by driving costs. Please do not scare the public with high costs asthe alternatives of Climate Change are going to be trillions and loss of life through many extinctions, mass refugees through relocation, mass forced unpleasant changes.

#006

Posted by **Brian Tosch** on **07/05/2020** at **12:02pm** [Comment ID: 40] - Link
Type: Suggestion
Agree: 2, Disagree: -1
Where did this goal come from? It needs to be much more aggressive. >100% reduction by 2030 is the microsoft goal. Let's aim for that.

> Reply by **RedmondAdmin** on **07/07/2020** at **6:59pm** [Comment ID: 50] - Link
> *Type: Answer*
> *Agree: 2, Disagree: 0*
> Thanks for your suggestion, Brian. These targets were established through the King County Cities Climate Collaboration. If you haven't done so already, be sure to complete the survey so we can better understand the costs community members are willing to pay to support deeper reductions.

#007

Posted by **Stephanie Lecovin** on **07/20/2020** at **8:07am** [Comment ID: 291] - Link
Type: Question
Agree: 0, Disagree: 0
Is the impact of the food system on climate change considered in this graph? Could regenerative agriculture and a more localized food system, coupled with food waste reduction efforts, contribute more significantly to a decrease in emissions? This could include incentives (esp for people of color) to start small, regenerative farms, adding pea patches, and getting more local/organic foods into the schools.

#008

Posted by **Brian Tosch** on **07/05/2020** at **2:28pm** [Comment ID: 41] - Link
Type: Suggestion
Agree: 1, Disagree: 0
This big white space shows that we need a lot more short term action.

#009

Posted by **Brian Tosch** on **07/06/2020** at **1:07am** [Comment ID: 47] - Link
Type: Suggestion
Agree: 1, Disagree: 0
This big white space shows that we need a lot more short term action.

Proposed Strategies and Actions

The list below presents proposed **strategies and actions** for inclusion in the Redmond Environmental Sustainability Action Plan.

= Ongoing/Expanded = Near-term = Mid-term = Long-term
= Foundational Action

Action	Description	Partners	Timeframe
Strategy C1: Ensure all City services and infrastructure are resilient to climate change impacts. 021 019			
Regional collaboration for utility resilience	Participate in regional efforts that increase Redmond's capacity to respond to climate change impacts to City-run utility services. 015		
Reevaluate environmental BMPs and design standards for all City properties 022	Build city buildings and infrastructure to be resilient to climate change (e.g. bridges, culverts, stormwater facilities, groundwater) through best management practices and design standards.		
Wildfire response	Ensure local fire department has the equipment and training to manage wildfires.		
Backup power projects	Identify and prioritize solar and microgrid power projects at critical City-owned facilities and at targeted districts.		
Wildfire mitigation planning	Identify permanent funding from the City of Redmond to support forest health improvements to reduce wildfire risk and expand public awareness campaigns on wildfires.		
Strategy C2: Enhance resilience of populations that will be disproportionately impacted by climate change. 018			
Equity commitments 020	Commit to climate policy through an equity lens. Reassess current City programs to evaluate and state equity goals in the face of climate change and sustainability issues. 010		
Vulnerability roadmap	Conduct a communitywide climate vulnerability assessment (e.g. urban heat islands, air pollution) to identify and implement resilience-building actions. 017 014 013 011		
Comprehensive vulnerability planning	Ensure all City plans (e.g., Comprehensive Plan, Emergency Management Plan) account for vulnerable populations and communities.		
Disadvantaged workers	Ensure contracts for City construction projects for energy efficiency, fuel conversion, and green energy provide opportunities for local hiring and disadvantaged worker employment. 016		
Critical areas resilience	Evaluate and respond to impacts in Critical Areas due to larger storms and warmer, drier summer weather (steep slopes, wetlands, upland riparian areas, upland restoration areas, instream habitat, aquifer recharge areas).		
Neighborhood resilience hubs	Identify infrastructure to serve as neighborhood resilience hubs, such as "corner stores," and encourage them to sustain neighborhoods in the event of an emergency. 012		
Severe weather building standards	Develop building standards that include greater resistance to high winds and flooding.		

#010

Posted by **Steve Hitch** on **07/08/2020** at **12:06am** [Comment ID: 53] - Link
Type: Suggestion
Agree: 3, Disagree: 0
We need to understand how our environmental sustainability decisions impact equity. Need to find a way to assess decisions through an equity lens. What are the hidden populations in Redmond and how are they impacted as housing costs go up due to some of these well-meaning sustainability measures?

#011

Posted by **Devon** on **07/20/2020** at **1:28am** [Comment ID: 278] - Link
Type: Suggestion
Agree: 2, Disagree: 0
This roadmap should include managing the impacts of wildfire smoke pollution such as in 2018. Also extreme heat events. Both are expected to increase significantly in this area (how much depends on our actions now). This will affect business and schools which run outdoor programs as well as people living without adequate air cooling / filtering. Young, elderly, and those with underlying health conditions are most vulnerable to the effects.

#012

Posted by **Tom Hinman** on **07/14/2020** at **8:15pm** [Comment ID: 173] - Link
Type: Suggestion
Agree: 1, Disagree: 0
Same comment re Neighborhood visioning/plan effort...include this also.

#013

Posted by **Gina Clark** on **07/16/2020** at **7:03pm** [Comment ID: 225] - Link
Agree: 1, Disagree: 0
Vulnerability can often be by zip code. Less affluent areas being particularly susceptible to climate change impacts.

#014

Posted by **Tom Hinman** on **07/14/2020** at **8:13pm** [Comment ID: 172] - Link
Type: Suggestion
Agree: 2, Disagree: 0
Incorporate findings into a Neighborhood visioning/plan process similar to enhanced tree retention.

#015

Posted by **Gary D Smith** on **07/19/2020** at **5:36pm** [Comment ID: 274] - Link
Type: Question
Agree: 0, Disagree: 0
This first action in Strategy C4 has the only reference to Renewable Grid Electricity, and that's a countywide commitment. So is Redmond not considering the option of its own public utility district for renewable energy sources?

> Reply by **RedmondAdmin** on **07/24/2020** at **12:19am** [Comment ID: 309] - Link
> *Type: Answer*
> *Agree: 0, Disagree: 0*
> Great question Gary. You are correct, there are currently no actions associated with Redmond evaluating its own public utility. Please be sure to make a suggestion if you think that should be included.

#016

Posted by **Gina Clark** on **07/16/2020** at **7:04pm** [Comment ID: 226] - Link
Agree: 2, Disagree: 0
Along with targeted education in schools and workforce development.

#017

Posted by **Rachel A Molloy** on **07/20/2020** at **2:59am** [Comment ID: 286] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Vulnerability can also include our natural resources. Some of our flora and fauna communities are also susceptible to the heat, impacts, and changing conditions...we may need to look more at replantings on hillsides, tree removal of deadfalls before storms, waterway erosion shoring after heavy flooding events, etc...that also cumulatively impact area homes and people.

#018

Posted by **David Morton** on **07/14/2020** at **6:59pm** [Comment ID: 160] - Link
Type: Suggestion
Agree: 5, Disagree: 0
Emergency Management — Redmond must strengthen capacity to understand and respond to extreme heat, floods, landslides, respiratory-related illnesses, mental health impacts, and other problems. Increase the capabilities of service organizations and safety net providers to help respond, especially to most vulnerable populations.

#019

Posted by **David Morton** on **07/30/2020** at **4:11pm** [Comment ID: 329] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Renewable Energy — Purchase or generate 100 percent of all electricity required for City operations from renewable sources.

#020

Posted by **Gina Clark** on **07/16/2020** at **7:02pm** [Comment ID: 224] - Link
Agree: 2, Disagree: 0
MBAKS supports and encourages an equity and social justice lens on policy.

#021

Posted by **David Morton** on **07/30/2020** at **4:04pm** [Comment ID: 328] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Climate Change Readiness — Include climate change preparedness in all City operations, land use programs and decision-making, and monitor effectiveness.

#022

Posted by **Karen Dawson** on **07/17/2020** at **6:41pm** [Comment ID: 232] - Link
Type: Suggestion
Agree: 2, Disagree: 0
The City of Redmond has an opportunity to bring its organics recycling program full circle by incorporating compost in its parks, roads and stormwater projects. The benefits are innumerable including opportunities to store carbon, filter toxins, reduce irrigation needs and add valuable nutrients to the soil. The city can do this at its new and existing parks, roads, culverts, bridges, and more.
Additionally, the City can accomplish this by strictly enforcing the Washington State Department of Ecology's Post Construction Soil Standard: BMP T5.13 – Post Construction Soil Quality and Depth: https://fortress.wa.gov/ecy/madcap/wq/2014SWMMWWinteractive/Content/Topics/VolumeV2014/VolV%20Ch5%202014/VolV%20Ch5-3%202014/VolV%20Ch5-3-1%202014/Volv%20BMPt513%202014.htm

By enforcing that standard, especially on commercial and residential developments, the city will ensure it is using the best, most climate resilient, environmental practices and design standards as it relates to soil.
Additionally, with the passing of HB 2713, regarding compost procurement and use, and the King County Universal Compost Contract and its respective, free technical training for municipal staff, the city has great opportunities to leverage existing BMPs and programs to accomplish goals outlined in this sustainability plan.
Additionally, through stricter inspection and enforcement of projects, the city would see more compost use as projects strive to meet the existing post-construction soil standards and, in doing so, establish more robust end markets, protect waterways and natural habitats and manage stormwater; all key priorities articulated in this plan.

Action	Description	Partners	Timeframe
Strategy C3: Institutionalize consideration of sustainability and climate change across City activities and decision-making.			
Align budget with climate goals 031	Align City budget decisions around climate mitigation and climate resiliency initiatives. 026		
GHG monitoring & dashboard	Continue to benchmark, report, and regularly monitor community and municipal GHG emissions. Consider building a public-facing dashboard that includes information on Redmond's GHG emissions and personal carbon footprints.		
Leverage Smart Cities	Leverage the rollout of smart cities strategies to advance sustainability objectives and improve tracking, emissions reductions, and cost savings.		
Climate awareness 032 for employees	Build City employees climate change awareness in their role for considering climate impacts in their day-to-day decisions at work.		
Strategies to expand 029 employee participation	Develop a cross-departmental working group or program to expand participation in climate solution strategies and environmental sustainability programming among City staff by the Sustainability Manager.		024
Climate consideration policy	Implement a policy requiring all major City capital projects, procurements, and policies consider and attempt to mitigate climate change impacts, such as procurement from women & minority-owned businesses.		
City environmental sustainability ROI	Develop and implement standard for creating project specific return on investment determinations for environmental sustainability throughout a project's lifecycle.		
Economic ROI tools to encourage climate protection	Create financial tools that capture the full lifecycle costs and benefits of City decisions, including the ROI of energy efficiency projects and the environmental costs of products and services.		
Strategy C4: Pursue cross-sectoral, communitywide solutions to address climate change and cross-cutting sustainability issues.			
Countywide commitment to renewable energy resources	Build on existing state renewable energy commitments, including the Washington State Renewable Portfolio Standard (RPS), to partner with local utilities, state regulators and other stakeholders on a countywide commitment to renewable energy resources.		
K4C financing 030 opportunities 033	Request K4C to hire a financial expert to develop strategies for King County and its cities and utilities to create financing opportunities for climate change mitigation and implementation projects (e.g., state and federal policy changes).		
EPA air quality standards	Partner with Puget Sound Clean Air Agency to track and monitor Redmond's air quality and potentially reevaluate plans to ensure they align with 100% of US EPA National Ambient Air Quality Standards. 028		
K-12 education	Support an educational agenda to enhance outreach and awareness efforts for K-12 schools on environmental stewardship and partner with organizations to help implement.		
Climate awareness for residents	Provide educational resources (e.g., GHG monitoring tools) and opportunities to help residents become aware of and engage in implementation of 027 Redmond Climate Action Implementation Plan and sustainability initiatives. 025		
Youth sustainability ambassadors	Train youth, through the school systems, to be youth sustainability ambassadors.		023

#023

Posted by **Rosemarie Ives** on **07/19/2020** at **2:15am** [Comment ID: 257] - Link
Agree: 2, Disagree: 0
Am familiar with this --it's great!!!

#024

Posted by **Rosemarie Ives** on **07/19/2020** at **2:14am** [Comment ID: 256] - Link
Agree: 2, Disagree: 0
This sounds like a great idea....however, how are members of the committee going to deal with supervisors who may not be supportive ? What kind of authority will Sustainability Manager have over staff, especially department directors, who may be less then committed to sustainability and are advocating for "things" that may be contrary and threatening to sustainability efforts?

#025

Posted by **Tom Hinman** on **07/14/2020** at **8:22pm** [Comment ID: 176] - Link
Type: Suggestion
Agree: 4, Disagree: 0
This is important but difficult. It needs to happen if necessary culture changes are to take effect.....less driving, less wasteful consumption, etc.

#026

Posted by **Tom Hinman** on **07/14/2020** at **8:17pm** [Comment ID: 175] - Link
Type: Suggestion
Agree: 0, Disagree: 0
This should be an interesting process to witness.

#027

Posted by **Rachel A Molloy** on **07/20/2020** at **3:00am** [Comment ID: 287] - Link
Agree: 0, Disagree: 0
Very important to help homeowners and neighbors understand the part they plan in helping to lower our Redmond Community and City emissions together. Perhaps an integration with the youth ambassadors in that campaign and education effort.

#028

Posted by **David Morton** on **07/14/2020** at **7:10pm** [Comment ID: 161] - Link
Type: Suggestion
Agree: 7, Disagree: 0
PSCAA currently has no air quality monitoring station in Redmond. The closest air quality monitoring station is at Lake Hills Elementary School, 14310 SE 12th St. in Bellevue. The proposed partnership should begin with a request to PSCAA to actually put an air quality monitoring station in Redmond.

#029

Posted by **David Morton** on **07/30/2020** at **4:00pm** [Comment ID: 327] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Climate Impacts Reduction -- Require every department to regularly assess the impacts of all City policies and actions on climate change, and take action to reduce negative impacts.

#030

Posted by **David Morton** on **07/30/2020** at **5:51pm** [Comment ID: 344] - Link
Type: Suggestion

Agree: 1, Disagree: 0

Government Partnerships — Maintain an active role in the K4C. Partner with other local, regional and tribal governments to implement local, state and federal climate policies.

#031

Posted by **David Morton** on **07/30/2020** at **5:48pm** [Comment ID: 343] - Link

Type: Suggestion

Agree: 0, Disagree: 0

Budgeting -- Tie annual budget allocations to Climate Action Plan success. Success is defined by how well the city's GHG reduction trajectory aligns with the K4C goals.

#032

Posted by **Karen Dawson** on **07/17/2020** at **6:43pm** [Comment ID: 233] - Link

Type: Suggestion

Agree: 4, Disagree: 0

All City of Redmond councilmembers, staff, businesses and residents can have a positive impact on climate resilience in Redmond by the choices they make every day.
And some employees are uniquely positioned to have a positive impact, through the application of knowledge and best practices. For instance, with regard to mitigating climate change through carbon sequestration in soil, preserving water, preventing toxic runoff from entering local waterways, staff training on compost use, available through King County, could be very beneficial.
Not only would individual staff members learn about climate friendly practices for tasks they are already doing in Redmond parks and along Redmond roads, but their awareness and knowledge will likely be shared with other City of Redmond employees, businesses and residents, expanding the impact of that education and training, raising the city's collective awareness around climate.

#033

Posted by **David Morton** on **07/14/2020** at **7:16pm** [Comment ID: 163] - Link

Type: Suggestion

Agree: 3, Disagree: 0

Financing Energy Efficiency — Identify funding sources for energy-efficiency upgrades of City facilities such as:
a) an internal Revolving Loan Fund (RLF) to capture savings from efficiency upgrades and fund new projects. See King County loan fund link below,
b) the King County Green Bonds Program, which supports projects that help combat climate change,
c) public/private partnerships, and
d) non-governmental sources.
https://betterbuildingssolutioncenter.energy.gov/implementation-models/king-countys-financing-tool-reduce-energy-demand
https://www.kingcounty.gov/services/environment/stewardship/sustainable-building/green-bonds.aspx
https://www.brookings.edu/blog/the-avenue/2016/10/25/green-bonds-take-root-in-the-u-s-municipal-bond-market/

Action	Description	Partners	Timeframe
Environmental justice program	Develop an environmental justice program that identifies the communities suffering from environmental burdens, such as air quality hotspots. Explore partners to work with to close the gap on these inequities and reduce burdens. 035 034		

#034

Posted by **Tom Hinman** on **07/14/2020** at **8:24pm** [Comment ID: 178] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Incorporate into Neighborhood visioning/plan process suggested elsewhere.

#035

Posted by **David Morton** on **07/14/2020** at **7:30pm** [Comment ID: 166] - Link
Type: Suggestion
Agree: 5, Disagree: 0
Many people who are familiar with the stench from Watson Asphalt Paving Company are aware of an air quality hotspot downwind from and up to a distance of about a mile from that hot-mix asphalt facility. The community in the area have suffered from that environmental burden for decades. These inequities and burdens should be explored.

Help Us Implement the Plan

Reaching Redmond's sustainability goals will require action from every individual in our community. Collective action can have a significant impact on lowering the community carbon footprint. The following actions are important steps to reducing emissions.

Consume less meat.

According to the Intergovernmental Panel on Climate Change, eating less meat in your diet can reduce your carbon footprint by up to 35%. Reducing meat consumption is beneficial because livestock management is one of the biggest contributors to global GHG emissions.

Related action(s):

- Monitor GHG emissions
- K-12 Education

Measure your GHG footprint.

You can stay informed by measuring and tracking your own GHG footprint. There are many different tools out there, including The Nature Conservancy's Carbon Footprint Calculator and UC Berkeley's CoolClimate Carbon Footprint Calculator.

Related action(s):

- Monitor GHG emissions
- Climate awareness for residents

Neighborhood resilience groups. 036

Connecting with other residents in your neighborhood can increase social cohesion, which is a characteristic of resilient communities. Collective investments and support of local businesses can empower communities to be more resilient to future climate change.

Related action(s):

- Equity commitments
- Vulnerability roadmap
- Neighborhood resilience hubs
- Comprehensive vulnerability planning
- Climate awareness for residents
- Environmental justice program

#036

Posted by **Tom Hinman** on **07/14/2020** at **8:25pm** [Comment ID: 179] - Link
Type: Suggestion
Agree: 0, Disagree: 0
Incorporate into Neighborhood visioning/plan process suggested elsewhere.

From: Leah Missik <leah.missik@climatesolutions.org>
Sent: Friday, July 17, 2020 11:03 AM
To: Vanessa Kritzer <vkritzer@redmond.gov>; Vlad Gutman <vlad@climatesolutions.org>; Deepa Sivarajan <deepa.sivarajan@climatesolutions.org>
Cc: Kelly Hall <kelly.hall@climatesolutions.org>; Brian Emanuels <brian.emanuels@climatesolutions.org>
Subject: RE: Reconnecting and Redmond Environmental Sustainability Action Plan

Hi Councilmember Kritzer,

I wanted to follow up on the below meeting times and see if any worked for you. In addition, I wanted to provide some high-level comments on the draft Environmental Sustainability Action Plan, now that I have had a chance to go through it. My thoughts are below.

Transportation
We are glad that the Plan addresses vehicle electrification and reducing Vehicle Miles Traveled (VMT), as both strategies are needed to decarbonize and are complementary of each other. Residents should have the option to safely and conveniently get around without a personal vehicle, and all remaining vehicle travel (personal, transit, freight) will need to be electrified to meet the city's emissions reduction goals.

- Under strategy T1 - Increase the equitable use of non-SOV modes of transportation, such as biking, walking, and public transit – we suggest speed limit reductions, particularly in residential areas and corridors where people will be bicycling, walking, or accessing transit. This is a simple action that will improve safety and comfort for people using modes other than personal vehicles.
- Under strategy T2 - Shift to more efficient and lower-carbon vehicle fuels such as electric – in addition to supporting the Clean Car Standards, we suggest updating to include implementation of the Zero Emissions Vehicle (ZEV) Mandate that passed during the 2020 legislative session. We would also like to see support for passage of the Clean Fuel Standard and its implementation (thank you again for your support on this).
- We are happy to see EV-readiness as an action item. Ensuring that new construction that includes parking can accommodate future EV charging without expensive retrofits is strategic. We see this is currently listed in year 2 of the plan, but we would love to see this happen sooner since it's a practical, fairly simple solution. We have model code language to this effect, if you are interested, and would be happy to support any efforts to pass such an ordinance.
- Regarding municipal fleets, any Green Fleet Purchasing Policy must be ambitious and should stipulate the purchase of electric vehicles unless there is no available electric option for a particular use.

Buildings and energy
Direct use of gas in buildings is increasing, and currently accounts for 11% of Redmond's greenhouse gas pollution. Additionally, combusting gas in buildings causes significant health problems. For example, children living in a home with a gas stove have a 42% greater risk of developing asthma. We are strongly supportive of the plan's inclusion of building electrification alongside efficiency measures. As the plan aptly notes, given the longevity of infrastructure, actions need to be taken in the near-term to ensure deep and longer-term emissions reduction.

- For this reason, we suggest updating the action for "new city building certification." We support a policy stipulating that new municipal buildings be constructed to a minimum certification level, but just as important, these buildings should also be all-electric. This is an opportunity for the city to lead by example, especially given the other important actions listed regarding building electrification.

- We strongly support the building electrification measures listed in the plan under strategy B3. These are all crucial actions for decarbonization and for our health. We suggest accelerating the timelines for these items, particularly for the all-electric new construction item, which is currently associated with the 10+ years timeframe. As noted in the plan, we need to take near-term actions regarding new construction given that choices we make in development today will have impacts for decades. Furthermore, jurisdictions around the country are already taking this action, and there are Washington cities that are poised to do the same. Climate Solutions would be eager to work with you on this point.
- We are very supportive of the "fuel switching contractor training" action item. Building electrification presents an opportunity for local, green jobs. We want to ensure that there is a just transition for workers, and that jobs in this space are high-quality, protected, well-paying, and are accessible to people from marginalized communities. We urge you to target these communities and workers who need to transition with these programs.

Overall, we are impressed with the plan and are particularly excited about the elements detailed above. I also want to note that it will be important to ensure that the benefits from these actions are shared and equitably felt. The "environmental justice program" action is important, and co-developing it with impacted communities and environmental justice organizations is crucial. We suggest accelerating the timeline on this action as well, as its implementation can help guide further actions taken by the city.

Thanks again for sending along the draft plan. I would be interested to hear how it is being received. Sorry I could not tune into the council study session. Please feel free to let me know if you have any questions. I would love to further discuss the plan as well as hear from you what you're working on and how we can help.

Best,

Leah Missik | WA Transportation Policy Manager
Climate Solutions – Accelerating Clean Energy Solutions to the Climate Crisis
w: 206.454.3176 | c: 859.583.1054 | she her hers

ClimateCast | Facebook | Twitter

From: **Danielle Shaw (WCV)** <danielle@wcvoters.org>

Hi Vanessa,

Great to connect last week. Following up with some information I promised at the end of our call:

1. Redmond's Environmental Action Plan Targets

- Redmond's current draft targets are aligned with K4C – which makes complete sense for when this draft was started. However, the K4C targets set around 2014 are quickly growing out of date – the legislature passed updated climate goals this 2020 session and King County is currently working to update their county-wide goals through the Strategic Climate Action Plan (SCAP) process this year as well.

- So while the K4C emissions reduction goal is 80% by 2050, the state's updated limits are now net zero by 2050.

- We're also meeting with Rachel Brombaugh (acting Director for King County Exec's Climate and Energy Initiatives) who is leading the 2020 SCAP project to develop a Climate Action Toolkit available to all King County cities. But the big take away we already know – one priority action in the 2020 SCAP is to commit the County to partner with the 39 cities to analyze pathways to update the existing targets, including working with partners to adopt a new shared carbon neutral target.

- All to say – Redmond Council's push for net zero target in the plan is a great idea and aligns with what else is going on in King County and Washington State.

2. Racial Equity

- Environmental action plans and climate action plans should be considered a potential tool for local anti-racist resilient recovery; Climate-smart outcomes and equitable outcomes should indistinguishable.

- As Redmond develops a racial equity tool to review policies as you mentioned – that tool should be immediately used to review this plan. As a living document over the next 30 years, it's important to keep evolving even if that racial equity tool is not ready to use till after this plan is finalized.

3. **Community Engagement** – something WCV and WEC have been thinking about a lot, especially during this time of so much virtual engagement, and thinking which will continue to evolve as we learn more

- As Redmond's citizen advisory committee for the EAP continues their work, it's critical for success of the plan to keep asking how is the community centered in the plan:

- (1) Who's voice are being heard? Are any youth voices at the table? Do the demographics of citizen forum participants or the advisory committee match the demographics of Redmond, and are specifically elevating the most impacted by these actions – such as those who rent; those who rely on public transit; those with limited means to cover rising costs of utilities, healthcare, etc; those most vulnerable to pollution and health disparities

- (2) Are there barriers to engagement? Are day of week and time of day considerations made for accessibility, even rotating between different days and times to try and reach more folks? Is daycare and food provided or even compensation? Are written documents translated? Are spaces inviting or is there a culture that you have to have some expertise to contribute?

Of course you all know your community best and will have ideas that make the most sense for your community. But it something we should all be challenging ourselves on, especially in these very virtual-heavy times.

Lastly, I will shoot you another email next week related to life cycle analysis of building materials. I mentioned that our policy lead, Max Webster, has been doing a lot of work on this issue and has been working with a northwest coalition – both of which could be great resources for Redmond. Max is out of town right now but, when he gets back next week, I'll follow-up.

Hopefully this is helpful, but let me know if you have any questions. Have a wonderful weekend!

Best,

Danielle

Danielle Shaw • Government Affairs Manager

206.631.2627 • danielle@wcvoters.org

Pronouns: she, her, hers (learn more)

Washington Conservation Voters • wcvoters.org

1402 Third Avenue | Suite 1400 | Seattle, WA 98101

Government Affairs Committee Review of Environmental Sustainability Action Plan

PLAIN TYPE = ONEREDMOND QUESTIONS

ITALICS = WHAT ONEREDMOND UNDERSTOOD TO BE THE ANSWERS

Questions and areas of concern:

1. What anticipated impacts on timing and funding, will current and ongoing COVID-19 issue have on implementation of the Plan in the near term?

   Items for initial action will focus on synergies with existing or planned City programs and budgeted items. Do the easy ones first. So, impact should be minimal.

2. Has the City studied the potential impact to affordable housing and affordable commercial space with each planned action?
   a. Example: What is the impact of a weatherization standard on the average Redmond home and how does this affect the affordability?
   b. Example: EV ready in new construction, the cost of the requirement to fully install will factor into the rents which are ultimately passed on to the renter.

   The initial study of costs has focused on costs to the City government. The City will seek to understand the cost to businesses, builders, owners, renters, and homeowners by asking for input at open houses and from advisory groups. The desire is to understand the big areas of concern.

3. Several of the comments/questions posted have replies indicating that the specifics are to be determined pending future stakeholder input. What if these broad goals are not feasible and what if stakeholder input results in the city not being able to achieve the goal?

   The initial response from the community was resoundingly positive feedback for developing the Plan. The intent of staff is to make data driven decisions after studying each of the proposed actions. If something is not feasible to implement or the costs greatly exceed the perceived benefits, then items can be scrapped.

4. Several of the actions have land use implications and appear to want to place the burden on the property owner. How will the city administer these actions to capture the actual end user vs. putting the burden on property owners?

   Staff did not visualize a good way to put the burden on the user. The Committee recommended using the City business licensing process as the vehicle.

5. Has the City had discussions with PSE and vetted the proposed all electrification timing?

   a. Discuss PSE's energy use/supply
   b. Discuss Fuel Switching requirements

OneRedmond Comments - Submitted 8/11/2020

c. Discuss PSE's work to implement CETA

The PSE representative commented that there have been meetings with staff to discuss this. As a result, he said that the language in the Plan was now less punitive. He pointed out that this change comes with large costs. And, a fast adoption of all-electric will require new natural gas generating facilities to meet demand. Non-carbon-based generating facilities take much more time to site and construct along with the new transmission capacity required. He also pointed out the long lead times needed to get the permits to build the local infrastructure to support the electrification proposals.

Jenny and Amanda commented that staff is working with PSE on solutions to address these challenges and to understand the local infrastructure impacts.

It is clear that this area requires a wholistic look at the desired outcome and challenges that must be overcome.

6. Have you evaluated the impact of all-electric new construction on housing affordability and the applicability to commercial needs, e.g. restaurants?

   There is an understanding that some commercial applications will be able to accommodate all-electric and some will not. The objective will be to replace gas uses with electric where it can be done efficiently. Future open houses and advisory groups will help staff understand the answers to this question.

7. What universal efficient building standard is being proposed and how do the various standards impact the results achieved?

   Buildings are the biggest consumer of energy and the greatest area of opportunity. No building standard is being proposed yet, but there is an understanding of the need for a common standard, rather than rules the vary from jurisdiction to jurisdiction. The eastside cities are discussing coordination.

8. How will the City monitor and measure implementation of the plan to make sure it is having the impact anticipated and the actions are otherwise being achieved?

   There will be an annual report to Council on energy consumption by sector – commercial, residential, industrial. There will be performance evaluation metrics applied to building standards to determine if the desired results are being achieved. Energy usage information is provided by PSE.

9. Does the City have a plan to handle the increased bike and other wheeled traffic on sidewalks and ensure pedestrian safety?

   This needs to be developed. If the Committee members have pictures of things that have worked, staff would like to see them.

OneRedmond Comments - Submitted 8/11/2020

10. Why does Transportation and Land Use ignore Downtown employment? The zoning code currently prohibits office construction Downtown. We are building housing that requires residents to drive, bus or take a train to work, rather than walk or bike.

    SURPRISE. Jenny and Amanda said that they were told by Planning that the code does not preclude office. This resulted in a discussion in which Committee members identified code provisions that make office construction in the Downtown and Marymoor impossible.

11. What were Council's comments on the plan, and will their comments impact the proposed actions or the timing of implementation?

    The Council is very interested and would very much like to see the implementation accelerated. In addition, Council members suggested that rather than an 80% reduction in carbon emissions that, perhaps, staff should consider a plan to make Redmond carbon neutral.

July 2020 Online Open House - Share Your Feedback Survey Responses

Serial	Please rate your level of support for the draft Redmond Environmental Sustainability Action Plan.	How invested should Redmond be in implementation of the Environmental Sustainability Action Plan? Please select the option that best matches your view.	Redmond is exploring options for funding implementation of the Environmental Sustainability Action Plan. Options include possible increases to utility and property taxes. How much would your household be willing to pay to implement the actions	Would you like to be involved in the planning process for the Environmental Sustainability Action Plan? Please select all that apply.				
				Yes, I will visit the website to stay up-to-date	Yes please sign me up for email updates (please enter email address below)	Yes, I would like to attend another online/virtual community event	No, I am not interested in further involvement	Please enter your email address if you are interested in email updates (optional).
4	Somewhat support	Neutral: Redmond should be consistent with other Washington communities and their investment in sustainability	$100 to $200 per year	X	X	X		tommarkl@nelrem.com
5	Somewhat support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		nshimeall@gmail.com
6	Strongly oppose	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		brian@tosch.com
7		Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$200 to $300 per year					
8			I would not be willing to pay				X	
9	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year		X			duvalfowler@gmail.com
10	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$50 to $100 per year	X				
11	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		shellybowman@hotmail.com
12	Strongly support	Neutral: Redmond should be consistent with other Washington communities and their investment in sustainability	$200 to $300 per year			X		
13	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		davidwardmorton@yahoo.com
15	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		davidwardmorton@yahoo.com
16	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		davidwardmorton@yahoo.com
17	Somewhat support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more		X	X	X		qclark@mbaks.com
18	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		rachelamolloy@gmail.com
19	Somewhat support				X			ivesredmond@aol.com
20	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		devonkellogg@gmail.com

July 2020 Online Open House Share Your Feedback Survey Responses

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				Yes, I will visit the website to stay up-to-date	Yes please sign me up for email updates (please enter email address below)	Yes, I would like to attend another online/virtual community event	No, I am not interested in further involvement	Please enter your email address if you are interested in email updates (optional).
21	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$100 to $200 per year		X			rod-1974@outlook.com
22								
23	Somewhat oppose -							
24	Redmond seems love bikes and bike lanes. If we have them we need to make sure riders follow rules. It's hard to support more when there is no enforcement of current rules	Neutral: Redmond should be consistent with other Washington communities and their investment in sustainability	I would not be willing to pay				X	
25	Strongly support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$200 to $300 per year		X	X		aspenlb@msn.comC
26	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year			X		
27	Somewhat support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$100 to $200 per year	X				
28	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$50 to $100 per year	X				
29	Somewhat support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$1 to $50 per year	X				
30	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	I would not be willing to pay	X				
31	Strongly support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$1 to $50 per year	X	X			shute.heather@gmail.com
32	Strongly support	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$100 to $200 per year				X	
33	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year			X		

July 2020 Online Open House - Share Your Feedback Survey Responses

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34	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		davidwardmorton@yahoo.com
35	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$100 to $200 per year	X	X	X		jactive@gmail.com
36		Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year				X	
37	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year		X			regina.ball@hotmail.com
38	Somewhat support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$50 to $100 per year	X				
39	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X			jaegeller@live.com
40	Neutral	Moderately invested: Redmond should lead other Washington communities in sustainability, even if it costs more	$50 to $100 per year		X			aslaizans@live.com.au
41	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$1 to $50 per year		X			oberdp@comcast.net
42	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X				
43	Strongly support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X				
44	Somewhat support	Very invested: Redmond should be a national leader in sustainability, no matter the cost	$200 to $300 per year	X	X	X		levica99@gmail.com

July 2020 Online Open House - Share Your Feedback Survey Responses

Online Open House Feedback Survey Responses Summary

Serial	Do you have any additional feedback on the Plan? Are there any additional actions that should be included in the Plan?	Which of the following best describes you? Choose all that apply								Which of the following best represents your racial or ethn				
		Own, rent, or live in Redmond	Business Owner	Work in Redmond	Student	Retired	Other	Please specify:	Which neighborhood best describes where you live?	In what city do you live?	African American	Asian American / Pacific Islander	Arab American	Latinx	Native American	White / Caucasian
4			X	X					Downtown							X
5																
6		X	X	X					Idylwood							
7		X							Overlake							X
8		X							Downtown							X
9		X							Idylwood							X
10		X							Overlake							
11		X							Grass Lawn							X
12		X				X			Overlake							X
13	Actions that must be included in the Plan: Existing Commercial Buildings Performance Standards -- For buildings over 20.000 sq. ft., establish energy performance standards per square foot, including maximum greenhouse gas emissions, for existing commercial buildings. Target a future date (e.g. 2030) for city-wide conformance with the standards. Set maximum allowed energy consumption levels at least ten percent lower than the federal 2012 CBEC average energy consumption level for the appropriate building type. Consider tightening standards further in the future (e.g. 2040). For commercial buildings under 20,000 sq.ft., set up similar standards to be enforced at time of resale. Existing Residences Performance Standards -- Establish energy performance standards per square foot, including maximum greenhouse gas emissions, for existing single family and multifamily residences. Target a future date (e.g. 2025) for city-wide conformance with the standards at the time of building resale. In addition, whether at time of resale or not, implement prescriptive clean energy equipment requirements for the end of life replacement of furnaces and hot water heaters; enforce these through required replacement permits. Also, include prescriptive minimum requirements for roof/attic insulation levels at the time of a roof replacement; enforce these through required roof replacement permits. New Commercial Building Performance Standards -- Establish energy performance standards for new commercial building construction and major renovations. Prohibit the use of fossil fuel sources for space and hot water heating. Publicize, incentivize and publicly recognize high level certification achievements such as LEED Platinum or equivalent. Consider requiring such certification. HFC Regulations -- Establish regulations for the use and disposal of hydrofluorocarbons (HFCs), and for routinely scheduled assessment and fixing of HFC leaks in refrigerators, air conditioners, heat pumps and other refrigeration equipment. Transportation Demand Management Program — Implement comprehensive Transportation Demand Management (TDM) programs. http://mrsc.org/Home/Explore-Topics/Transportation/Congestion-and-Mobility/Transportation-Demand-Management.aspx a) Integrate TDM standards into the city Comprehensive Plan. b) Implement a TDM program for schools to reduce auto congestion. https://kingcounty.gov/depts/transportation/metro/employer-programs/commute-trip-reduction.aspx https://www.wsdot.wa.gov/transit/ctr/rules-policy https://www.goredmond.com/regulations Regional Transportation Plan (RTP) -- Work with other local governments and the Puget Sound Regional Council (PSRC) to: (a) Establish carbon emission reduction targets for transportation and land use. (b) Agree on methods used to estimate carbon emissions. (c) Work with King County staff to refine the regional travel demand model for motorized and non-motorized transportation.			X			X	I live 3 blocks outside of Redmond and I provide senior care to a Redmond resident.	I don't live in Redmond	I don't live in a city. I live in a rural area 3 blocks outside of Redmond in unincorporated King County.						
15				X			X	outside of Redmond and I provide senior care to	I don't live in Redmond	a city. I live in a rural area 3 blocks outside of						
16				X			X									
17				X												X
18	For me to be carbon neutral for our household currently, it costs about $300/month. Most of our emission reduction efforts have SAVED up money and paid for themselves in the efficiency savings.	X							Education Hill							X
19	What is terribly missing is the mention of land use decisions. Land use decisions are at the very heart of all the other sub sections and is the driver. If the City is authentic about "sustainability" if the City is willing to act ethically, it must move away from the "grow, grow,grow" mantra of the past 12 years. It is foolish to think that Redmond can continue to grow as it has over the past decade and be sustainable at the same time. Sustainability means to me that we need to make drastic changes now if we want to have a livable future. I find a 40 year horizon not compelling --something shorter would send a clearer message about what is important and urgent to do NOW>					X			Education Hill							X
20	I am thrilled to see Redmond focused on this critically important effort to reduce our GHG emissions. I hope this plan can become a reality at an even faster pace than described if at all possible. According to #IPCC SR1.5 a 20 year timeline to Zero emissions is crucial to our chances of avoiding dangerous global tipping points. I would love to know how to best support this effort. I am a mom, PTSA member, and soon to be a Climate Reality Leader. I am involved with PTSA child advocacy / lobby events and local LWSD Green Teams. Please let me know how I can help.	X		X			X	I have 2 kids in LWSD.	Education Hill							X

July 2020 Online Open House - Share Your Feedback Survey Responses

Online Open House Stakeholder Outreach Summary

Serial	Do you have any additional feedback on the Plan? Are there any additional actions that should be included in the Plan?	Which of the following best describes you? Choose all that apply									Which of the following best represents your racial or ethn					
		Own, rent, or live in Redmond	Business Owner	Work in Redmond	Student	Retired	Other	Please specify:	Which neighborhood best describes where you live?	In what city do you live?	African American	Asian American / Pacific Islander	Arab American	Latinx	Native American	White / Caucasian
21	More buildings = more cars = more traffic. There are buildings enough.	X		X					Bear Creek					X		X
22	Has there been a comprehensive analysis of the city's "carrying capacity?" It seems that such data would be the first step in identifying some basic facts about the city. I believe that communities are for its people. The city's primary objective should be to improve the quality of life for its residents. This ESAP should be all about ensuring that Redmond does not get overdeveloped, overbuilt, over populated and that its environment is not overstressed. Redmond and others in the region have spent most of its resources always focusing on accommodating whatever growth wants to occur when it wants to rather than on maintaining "the present" and making tough decisions to assure that the quality of life is not only maintained but be improved. What happened to the promise that "growth would pay for growth?" That has not been the case! Redmond has never passed the true costs onto developers. The result is that the people of Redmond end up paying more than their fair share and quality of life has deteriorated significantly in the last 10 years. Redmond is "urban sprawl" vertically. Because of the City's land use decisions.people living in our urban centers get less clean air, more CO2 emissions, less environmental aesthetics as in contrast to the people living in a single family neighborhood. The people of Redmond are "development fatigued" and "see it for what it is--a bad trade off." The City's public outreach is a charade...people don't believe that the city really wants their input. And frankly, so many of the surveys that the city has done in the last decade are "push pull" surveys that set respondents up to answer the way the City wants them to. And frankly, to participate in the "open house" on sustainability it took lots of time to basically react to the written word....But what is terribly missing is that there was/is no conversation...no real exchange of information and ideas. The City has a timeline and is pushing through it regardless of the public feeling disenfranchised. It will be interesting to see the actual number of participants in the open house who are not stakeholders or city officials.															
23	Much is dependent upon the decisions made by Redmond's elected leaders. Former Mayor Rosemarie Ives in 2005 signed onto the historic United States Mayors Climate Accord in support of the Kyoto Protocol treaty. At that same time, she was appointed to chair the US Conference of Mayors Taskforce on Sustainable Development because the City of Redmond under her leadership going back to 1992 had a track record for advancing and supporting strong environmental initiatives before being "green" became politically correct. Unfortunately, since 2008 the City leaders have chosen "symbolic" but ineffective policies. I hope that the ESAP will be a step in a better direction. However, the fact that any actions around land use are absent is seriously suspect. So many of the actions remind me of the little boy putting his finger in the hole in the dam...stopping the flow but never examining and addressing the root cause of the problem/crisis. City officials have "talked" green but seldom "walked the talk." The City has allowed unbridled growth where emissions have increased, traffic gridlock is worse than ever, significant and landmark trees have been clearcut, costs of living in Redmond have skyrocketed forcing long time residents to move out of town. The City has seemed to abandon metrics that truly measure levels of service. It feels like staff is focused on doing the task at hand with little if any consideration of what does the task mean for the people of Redmond and the common good.															
24	Do not tax us more for this plan. Find funds you currently have.	X							Education Hill							
25	I so appreciate that the city of Redmond has taken these steps toward addressing sustainability. I hope that the city will take the next step and implement all of these actions.	X				X			Education Hill							X
26	Thank you for all of the time and energy you've put into this plan! I really like the format for providing feedback. I have one more question. I thought Redmond had a fair amount of farmland...is that not true? I don't see regenerative/sustainable agriculture addressed in this plan. According to Paul Hawken, Zach Bush and others, regenerative agriculture and a more localized, sustainable food system have the potential to address climate change (and environmental justice issues) significantly. Can this be addressed? Thank you so much! As a side note - you left out a decade in your question "In which decade were you born?" I was born in 1972, but that's not listed.						X	Kirkland and serve as the Sustainability Chair for the LWSD PTSA	I don't live in Redmond	Kirkland						X
27				X					I don't live in Redmond	Lake Stevens						X
28		X							North Redmond			X				
29		X	X	X					Education Hill							X
30																
31		X							Bear Creek							
32		X							Willows & Rose Hill							X
33									Idylwood							X

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Serial	Do you have any additional feedback on the Plan? Are there any additional actions that should be included in the Plan?	Which of the following best describes you? Choose all that apply								Which of the following best represents your racial or ethn				
		Own, rent, or live in Redmond	Business Owner	Work in Redmond	Student	Retired	Other	Please specify:	Which neighborhood best describes where you live?	In what city do you live?	African American	Asian American / Pacific Islander	Arab American	Latinx	Native American	White / Caucasian
	(Additional) actions that should be included in the Plan: Climate Impacts Reduction -- Require every city department to regularly assess the impacts of all City policies and actions on climate change. Take action to reduce negative impacts. Climate Change Readiness — Include climate change preparedness in all City operations, land use programs and decision-making, and monitor effectiveness. Renewable Energy — Purchase or generate 100 percent of all electricity required for City operations from renewable sources. Lighting Upgrades — Implement energy-efficient outdoor lighting, including light emitting diodes (LED) and dimming technologies when appropriate. Convert all street lights to LEDs. Use Dark Skies best practices when possible to reduce light pollution and minimize bird strike hazards. Avoid using LEDs that shine white to blue as they are harmful to wildlife. Yellow, amber or green hues are best. https://www.darksky.org/light-pollution/light-pollution-solutions/ https://www.sciencedaily.com/releases/2018/06/180612090618.htm City Building Performance Tracking -- Require energy benchmarking of city facilities and calculate Energy Star scores. Technical help is available from the Smart Buildings Center. https://www.smartbuildingscenter.org/ Sustainable "Green" Building — Target net-zero energy use by implementing "green" building policies for new city buildings and major retrofits. Require clean energy, low-carbon footprint, and ultra-high efficiency in new government buildings. Consider LEED platinum certification or better. https://www.usgbc.org/leed Fleet Fuel Efficiency — Develop a plan and aggressive timeline for transitioning the City's vehicle fleet off fossil fuels. Facilities Operations and Maintenance -- Conserve energy and promote a healthy work environment by following LEED "Building Operations and Maintenance" certification standards. https://www.usgbc.org/guide/om Renewable Electricity Supply -- Work to shift the electricity mix to 100% clean renewable power city-wide. a) Seek the cooperation of local utilities and the Washington Utilities and Transportation Commission in the pursuit of all carbon-free sources of energy as															
34				X		X	X	I live 3 blocks east of Redmond, I provide senior care to a Redmond resident, and I'm a forest steward at Redmond's Martin Park.	I don't live in Redmond	I don't live in a city. I live in a rural area 3 blocks outside of Redmond in unincorporated King County.						
35		X				X			North Redmond							X
36		X							Education Hill							X
37	Thanks for making this a priority. My 13 year old daughters future depends on a healthy planet. Be bold and lets make a real impact.	X							Willows & Rose Hill							X
38	I volunteer for the Redmond Community Wildlife Habitat Team and our team would like to get involved to help with projects and educational outreach. Please contact us at RedmondCWHTeam@outlook.com so we can be of assistance.	X							Education Hill							
39	Including specifics for increasing wildlife habitat with native plants would be awesome!	X		X					Grass Lawn							X
40	If there is any way to re-allocate existing funds--that is shift budget priorities in favor of environmental sustainability without hitting taxpayers hard--that would be preferable.	X							Education Hill							X
41	Assist with solar collection and power buy back. Look into Vehicle to Grid buy back. Create incentives for electric vehicle ownership	X							Grass Lawn							X
42	We need to do this for our children's futures! Please promote the cost-saving aspects of climate actions.	X		X					Education Hill							
43	For the sake of ease of understanding and transferability to other cities, standard models of sustainability and the appropriate vernacular for their discussion should be further incorporated into the action plan. Sustainability is not only environmental, but social, economic, and more. If we are to set an example for other cities regionally and nationwide, we should do so using totally up-to-date language and organization of sustainability. Further, I'd like to see much more effort in the outreach involved in this plan. One of Redmond's greatest strengths is the incredible knowledge of its residents, and naturally, I'm sure the pandemic has complicated outreach efforts (typically I'd expect a booth at Derby Days or something) but Redmond has a history of failing to consider true stakeholder perspectives (remember when we were planning to fuse the senior center, teen center, community center, and aquatic facility?). There should be specific outreach efforts to every demographic through partnerships with local community organizations (such as MAPS and the Firehouse Teen Center) and a very strong advertisement campaign that extends beyond social media. Especially now that so many people (like me, a student studying sustainability) are at home and without much to do, I'm sure many of us Redmonders are willing and excited to contribute! Finally, we shouldn't be afraid to push the city to really lead on this issue. Redmond has a history of bending to corporate interests and acting slowly on progressive policy. This is a great opportunity to thwart that legacy and begin a new one! Beginning with some policies that hold big polluters and emitters accountable instead of extranneously attempting to change the behavior or regular folks.	X		X					Education Hill							X
44		X			X				Southeast Redmond							X

July 2020 Online Open House - Share Your Feedback Survey Responses

Serial	ic heritage? Other	I prefer not to say	Other (please specify):	In which decade were you born?	Is there any additional information about the draft plan that you would like translated?
4				Before 1950	
5					
6					
7				1960-1969	
8				1950-1959	
9				1960-1969	
10		X		I prefer not to say	
11				1960-1969	
12				Before 1950	
13	X		European American	1950-1959	
15	X		European American	1950-1959	No
16	X		European American	1950-1959	
17					No
18				1970-1979	No
19				Before 1950	No
20				1960-1969	No

Serial	ic heritage? Other	I prefer not to say	Other (please specify):	In which decade were you born?	Is there any additional information about the draft plan that you would like translated?
21				1970-1979	No
22					
23					
24		X		1980-1989	No
25				1950-1959	No
26				I prefer not to say	No
27				1970-1979	No
28				1970-1979	No
29				1980-1989	No
30					
31					
32				1960-1969	No
33				Before 1950	No

Serial	ic heritage? Other	I prefer not to say	Other (please specify):	In which decade were you born?	Is there any additional information about the draft plan that you would like translated?
34	X		European American	1950-1959	No
35				Before 1950	No
36				1970-1979	No
37				1960-1969	No
38		X		1960-1969	No
39				1960-1969	
40				1970-1979	No
41				Before 1950	No
42		X		1960-1969	No
43				1970-1979	No
44				1990-2000	No