## SUSTAINABLE BELLEVUE

# ENVIRONMENTAL 2021-2025 STEWARDSHIP PLAN







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## Letter from the Environmental Stewardship Program Manager

#### **Overview of the Plan**

The staff and leadership of the City of Bellevue are pleased to share the Sustainable Bellevue: Environmental Stewardship Plan. This plan was developed over the course of a year in which we saw tremendous change locally and globally. Nonetheless, the city's commitment to environmental stewardship remains strong, and through this planning process we have developed a suite of goals and targets to demonstrate that commitment to reducing greenhouse gas emissions, preserving our natural environment, transitioning to clean energy, and continuing to increase access for Bellevue residents to transit, jobs, housing, parks, and Bellevue's natural areas.

The intent of this plan is to outline a suite of actions for the city over the next five years, to put us on a path toward achieving our goals. This work will require commitment and collaboration with our residents, businesses, and other organizational partners in the city and the region. The city has a strong history of partnership and collaboration to achieve community goals, and we seek to continue to build on those efforts. We recognize that we will need to continue to advance our environmental stewardship efforts over the decades to come to achieve our goals; and this plan represents a big step forward for the city.

We heard from many residents about their interest in understanding how they can make a difference, and we have included in the plan ideas for "What you can do."

As we move into implementation of the plan next year, we face great uncertainty. City budgets are being strained in unprecedented ways and the path forward toward economic recovery will be long. However, in this time of crisis, we have seen great leadership and creativity from our city, residents, and business community and have confidence that we can tackle the challenges of climate change, sustainable development, and economic recovery simultaneously.

Thank you for your support and participation in this plan and for your help in achieving our shared environmental stewardship goals.

Regards,

Jennifer Ewing

**City of Bellevue** 

Environmental Stewardship Program Manager



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## Acronyms

Acronym	Full Name
BMP	<b>Best management practices</b> are practices that, based on available science, lead to successful achievement of intended outcomes.
BAU	<b>Business as usual</b> is a scenario that assumes that future activities do not significantly change relative to current normal conditions and circumstances.
C&D	<b>Construction and demolition</b> refers to the general class of debris materials generated during the construction, renovation, and demolition of buildings, roads, and bridges.
CETA	<b>Clean Energy Transformation Act</b> is Washington's law that all electricity be carbon-free by 2045.
ESI	<b>Environmental Stewardship Initiative</b> , City of Bellevue's sustainability program.
EVs	<b>Electric vehicles</b> are vehicles that derive all or part of their power from electricity from the electric grid, including plug-in hybrid vehicles and fully electric vehicles.
GHG	<b>Greenhouse gas</b> refers to gases such as carbon dioxide and methane that trap heat in the atmosphere, creating a greenhouse effect.
K4C	King County Cities Climate Collaboration is an effort among King County and jurisdictions within the county to coordinate and enhance the effectiveness of local government climate and sustainability action.

Acronym	Full Name
LEED	Leadership in Energy and Environmental Design is an internationally recognized green building certification system providing third- party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO <sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.
MTCO2e	Metric tons of carbon dioxide equivalent 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 (CO2) and is based on its global warming potential.
PSE	<b>Puget Sound Energy</b> is an energy utility providing electrical power and natural gas to the Puget Sound region in Washington state.
VMT	Vehicle miles traveled is a metric used in transportation planning to measure the miles traveled by all vehicles in a geographic region over a given time period.



## **Executive Summary**

Stewardship is a core value for the City of Bellevue. We recognize that environmental stewardship is intrinsic to a healthy economy, healthy communities, and a healthy planet. With the Sustainable Bellevue: Environmental Stewardship Plan, we commit to act, boldly and aggressively, to ensure Bellevue is a healthy, livable, sustainable, and prosperous "City in a Park" for decades to come.

The ambitious approaches Bellevue will take to environmental stewardship are more important—and more feasible—than ever: the increasing pace of the climate crisis and the vulnerabilities to our vital infrastructure and services exposed by COVID-19 and the racial justice movement have demonstrated that rapid social change is possible, even for complex systemic challenges.

Bellevue's future is one where people travel together instead of on their own, where homes and businesses are powered by clean renewable energy, where less waste clutters the streets, and everyone is just a few minutes' walk from a park, trail, or green space. This clean, healthy, community-focused future also means Bellevue will be doing its part to stem the global climate crisis, achieving an ambitious but achievable 80 percent reduction in greenhouse gas emissions by midcentury.

This plan is a strategic roadmap built on our past environmental stewardship successes and the expertise and input of more than 1,000 residents, city staff, community leaders and stakeholders. Through three surveys taken by over 800 people, three community workshops, six community pop-up events, and workshops with sustainability leaders and city staff, those who participated in the plan's development shaped it from the beginning. Their priorities, concerns, values, and vision for a sustainable Bellevue drove how ambitious our targets became, which strategies we selected to meet those ambitious targets, what criteria we used to evaluate potential actions, and ultimately, the final product you see here. Across engagement methods, participants overwhelmingly viewed environmental stewardship as good for the community and good for business, and voiced support for ambitious action across all five focus areas in this plan. As a result, we have chosen bold or leading-edge approaches for every focus area, making Bellevue not only a "City in a Park", but a city to watch as a sustainability leader.







## In the next 10 years...



We will reduce GHG emissions by 50% and prepare for a changing climate.

#### To get there, we will:

- Perform a climate vulnerability assessment.
- Continue to participate in regional partnerships to achieve shared climate goals.
- Prioritize investments in historically underserved and underrepresented communities.
- Perform an environmental equity assessment.
- Advocate for state-level policies and funding.

## We will use 15% less energy, and the energy we do use will be 80% renewable.

#### To get there, we will:

- Support implementation of Washington State's Clean Energy Transformation Act.
- Expand green building and rooftop solar, for example through streamlined permitting, code changes, building incentives, green affordable

housing, and relaunching the Solarize campaign.

 Increase energy efficiency through home energy retrofits, equitable access to residential energy efficiency programs, and technical assistance to large commercial buildings.

#### 80% of our households will live within a third of a mile of a park, open space, or trail and we will increase our tree canopy by 200+ acres.

#### To get there, we will:

- Strategically increase our park network to improve walkable access and provide additional environmental benefits.
- Preserve our existing tree canopy and form partnerships to plant 75,000 trees over the next 30 years.
- Educate and engage residents through a Tree Ambassador program and other volunteer opportunities.
- Expand green stormwater infrastructure.
- Improve stream health.

## 0

1 in 4 of our vehicles will be electric, and we will drive alone less than 60% of the time.

#### To get there, we will:

- Explore creating a sustainable district.
- Install EV charging infrastructure.
- Support cleaner fuels and vehicles through a Clean Fuel Standard and fuel efficiency standards.
- Accelerate and increase investments in multi-modal travel such as bicycle,

pedestrian, and transit infrastructure improvements. Enhance livability of Bellevue's neighborhoods, by increasing amenities in walking distance.

 Support commuting alternatives through transportation demand management and evaluate parking needs as commuting patterns change.

#### We will recycle half or more of all of our waste.

#### To get there, we will:

- Increase the recycling rate of multi-family, commercial, and mixed-use buildings through education, outreach, and ensuring buildings have sufficient space for recycle, compost, and trash.
- Explore a ban on single-use plastics, as well as strategies to support King County's construction & demolition waste recycling ordinance.
- Encourage food waste prevention.

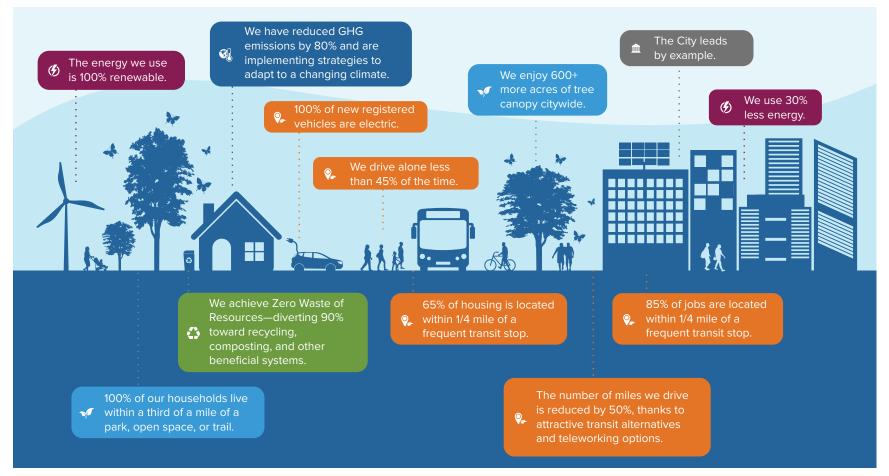
The City will lead by example.

#### To get there, we will:

- Upgrade city buildings to minimize energy use, maximize renewable energy, improve air quality, and achieve green building standards.
- Reduce landfill waste from staff, purchasing, and construction, and demolition through environmentally preferable purchasing, and material reuse, composting, and recycling.
- Increase EV infrastructure and fleet, use less fuel, and support commute reduction options.
- Lead and pilot sustainable infrastructure certifications for capital projects.
- Continue to landscape sustainably, installing waterefficient plumbing and expanding healthy urban forest.
- Incorporate sustainability into city-wide operations and monitor plan implementation.



## By 2050...



To reach our ambitious goals, Bellevue's diversity, innovation, economy, and sense of community will be crucial. We will also need the ongoing involvement and input of the public, business leaders, and community stakeholders to ensure that plan implementation is efficient, effective, equitable, and reflective of Bellevue's values. To this end, we will monitor, evaluate, and report on progress annually through our Environmental Performance Dashboard and will adjust implementation as we learn anew what is working well and what needs to change to create the sustainable future we seek.



## Introduction

Bellevue is unique. Nestled between the shores of Lake Washington and Lake Sammamish, home to residents hailing from all corners of the globe and major companies like T-Mobile, Microsoft, and Amazon, and with parks, trails, and urban forests just a short walk away for most residents; Bellevue combines the innovation and cosmopolitan feel of a big city with the relative calm and natural beauty of a suburb.

Environmental stewardship, along with social vitality and economic responsibility, have made Bellevue the vibrant, livable place it is. We have a proud history of individuals, organizations, and other parts of our city working independently and collaboratively to protect and improve environmental quality. Collectively, we understand that a healthy urban forest helps keep our air and water clean, provides quality habitat for wildlife, cools our neighborhoods in summer, and offers ready access to the restorative power of nature.

In the coming years, cities like Bellevue will continue to have an important role to play in preserving environmental quality and addressing the challenges of population growth, climate change, and sustainable resource use. Current plans show Bellevue's population is expected to increase 10 percent by 2035, bringing an estimated 15,000 new residents to the city along with 48,000 new jobs, underscoring the need for good access to transit, affordable housing, and preservation of the environment. Cities are responsible for 70% of global greenhouse gas emissions and are therefore critical to addressing climate change. As centers of commerce, culture, and innovation, cities have an important role to play in building a just and sustainable future for all.





#### What is an environmental stewardship plan?

An **environmental stewardship plan** is a framework to take responsibility for environmental quality shared by those who affect the environment. This plan is a roadmap to enhance and protect the City's natural resources, water, air, climate, parks, and wild space for future generations. If we are to meet these challenges while maintaining our city's economic competitiveness and social vibrancy, environmental stewardship must become an even stronger part of the steps we take. All three of these elements-economic competitiveness, social vibrancy, and environmental stewardship—are needed to protect human health and quality of life, support well-paying green jobs, sustain a healthy environment, and generate long-term cost savings and resilience to economic and environmental challenges. To deliver on these goals and continue to make progress toward a sustainable future, Bellevue has updated its environmental stewardship plan to reflect lessons learned from implementing sustainability over the past decade, the latest scientific understanding of climate change, and recent and anticipated changes to state and regional policy and practice.

In updating the environmental stewardship plan, Bellevue reaffirms its commitment to stewardship with a new vision and bold initiatives made possible by the success of its stewardship efforts to date.

The plan outlines strategies for the city and community to **make well-informed decisions**, **invest in projects**, and **conserve resources**. Implementing this plan will help Bellevue build on its foundation of success and continue its path toward achieving the city's environmental goals.



#### Why Update the Plan?

The City of Bellevue sees three key reasons to update the environmental stewardship plan:

- Environmental stewardship is an ongoing process, and one that must be responsive to current and anticipated conditions. Since the last plan update, renewable energy has become more affordable, electric vehicles are increasingly on local roads, the international scientific community has concluded aggressive action is needed to forestall the worst impacts of climate change, and Washington has committed to a carbon-free electric grid by 2045. These monumental changes, along with many others, mean that both the urgency and possibilities for sustainability and climate action are substantial.
- 2. Bellevue must be prepared for the rapidly changing climate and the associated risks. Climate change has already affected and will continue to affect the systems, economy, culture, and livelihoods of people who live and work in Bellevue. Across Bellevue, the Puget Sound region, and the Pacific Northwest, measurable and observable climate change trends and impacts are occurring-moreover, change is happening at a rate faster than expected. These environmental changes directly translate into economic, public health, and safety risks such as food insecurity, energy insecurity, and heat-related illnesses that affect people and communities in Bellevue. This new urgency has prompted the city to update the environmental stewardship plan and refine goals and targets within the plan to ensure Bellevue is not only fostering environmental stewardship, but also preparing for the rapidly changing climate.







3. Environmental stewardship is demonstrated through continuous improvement of environmental performance, commitment to efficient use of natural resources, and protection of ecosystems. This sense of stewardship is reflected through the choices of individuals, companies, communities, and government organizations, and shaped by unique environmental, social, and economic values. As a result, the public and stakeholders must be engaged periodically to shape the direction and substance of Bellevue's sustainability efforts. Bellevue's last Environmental Stewardship Plan spanned from 2013 to 2018, and the Sustainable Bellevue Plan builds on that effort with an action plan for the next five years.

For these reasons, the plan update process included an analysis of current environmental policies and programs to understand which actions are working well and should be continued; robust public and stakeholder engagement to reflect community values and priorities in the plan; new goals and targets responsive to anticipated climate and sustainability trends; and a quantitative assessment of the anticipated contributions of strategies in this plan toward meeting the city's sustainability goals. The result is an updated plan that reflects the latest science, practice, innovation, and community priorities and keeps Bellevue on the path to the sustainable future it envisions.



#### The Time for Resiliency

#### **CLIMATE CHANGE**

Scientists overwhelmingly agree that an increase in greenhouse gases in the atmosphere—carbon dioxide (CO2) in particular—is causing a steady increase in global temperature, and that burning fossil fuels-coal, oil, and natural gas—is the primary cause of this warming trend. Climate change is already leading to global consequences including ocean acidification and rising sea levels; damaging weather events such as heat waves, storms, heavy rainfall and flooding, and droughts; more frequent and intense wildfires; and disrupted ecosystems affecting biodiversity and food production. Climate change will also have a disproportionate impact on some local populations. In Bellevue, people who are older, low-income, disabled, persons of color, experiencing homelessness, or who work outside will be most vulnerable to many changing climate conditions, such as threats from severe heat and wildfire smoke.

There are communities—typically those with a high proportion of people of color and those with low incomes that have disproportionately dealt with the pollution, the waste, and the toxicity of our society. The Sustainable Bellevue Plan acknowledges this and aims to work toward a vision for a different future: a future that acknowledges and repairs the harm of the past. Bellevue will need to commit special focus when implementing all actions in this plan to ensure the continued and improved prosperity and quality of life of these populations in the face of a changing climate.



#### COVID-19

COVID-19 has affected the global health and economic systems. This pandemic has exposed the importance of community resilience to prepare our residents, businesses, and public services for disruptions to our usual day-today lives through proactive planning and preparedness. It has also illuminated how both public health crises and environmental problems exacerbate existing social disparities—especially for low-income people, frontline workers, communities of color, elderly populations, and youth.

Many things have changed in our daily lives during this battle with the pandemic. Alternative work schedules and telecommuting have become the standard, and people are making sincere efforts to support their community like never before. The social distancing practices that we've adopted show us how powerful collective action can be. So, while the pandemic is tragic and the isolation suffocating, the virus has certainly brought perspective to the ways our societies work.



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. Many stewardship strategies and actions 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 and energy rebates, public safety benefits from climate change preparedness actions, and quality of life benefits from more beautiful green spaces and connected communities.

The true test of the sustainability movement will come after the smoke clears and we can visualize a new version of normalcy. We must leverage the changes that COVID-19 and the current social justice movement have brought to attention and use those as concrete examples of what we can achieve from collective, unified, and proactive action. Bellevue should continue to focus on the resiliency of social systems and look to protect the most vulnerable from negative environmental impacts and ensure all residents have access to the wealth of environmental amenities which make Bellevue a "City in a Park".





#### **Progress to Date**

Bellevue has a longstanding history of preserving natural spaces, creating a rich network of parks and trails, and balancing both suburban and urban living with beautiful natural surroundings. The city's formal environmental sustainability efforts began when the city signed the Mayor's Climate Protection Agreement in 2007 and launched the Environmental Stewardship Initiative in 2007. The Environmental Stewardship Initiative initially focused on reducing the environmental impact of municipal operations and has expanded to focus on communitywide stewardship activities. The Environmental Stewardship Initiative is a "One City" effort, involving interdepartmental collaboration and partnerships to achieve the city's environmental goals.

The program has led a wide range of projects, ranging from installing some of the first electric vehicle charging stations in Bellevue in 2012, to coordinating a Solarize campaign in 2014-2015 to facilitate installing rooftop solar. More details on the city's accomplishments and progress can be found in the 2013-2018 Strategic Plan Progress Report and on the new Environmental Stewardship Dashboard. The work of the Environmental Stewardship Initiative from 2007 – 2018 laid the foundation for this Sustainable Bellevue Plan, to build upon the city's existing efforts and focus on high-impact strategies for achieving the city's goals.

In 2018, the City Council established a vision priority to "Review progress of the Environmental Stewardship Initiative and analyze additional steps that the city may wish to take to achieve environmental goals (including tree canopy)." In response to this direction, staff reviewed progress since Bellevue City Council Vision Priorities 2018-2020

Priority #11: Review the progress of the Environmental Stewardship Initiative and analyze additional steps that the city may wish to take to achieve its environmental goals (including tree canopy).



the last Environmental Stewardship Plan was release in 2013, assessed the city's existing environmental goals, recommended updated and new goals, and drafted this plan of actions for the next five years. As part of this effort, the city also embarked on a dialogue with the community regarding the overarching goals and the actions for the plan.





#### **City of Bellevue Environmental Stewardship Initiative Timeline**





### Accomplishments

The updated plan will address **five focus areas** of environmental stewardship.

Climate Change	CEnergy	OrganizationMaterialsManagement& Waste	OpenedMobility & Land Use	Natural Systems
We have alr	eady made signific	cant progress in th	ese areas, but mo	re is needed.
<ul><li>6.4% reduction in Community GHG emissions</li><li>14.4% reduction in Municipal GHG emissions</li></ul>	<ul><li>14% reduction in municipal electricity use</li><li>70% renewable energy for city operations</li></ul>	40% of waste is recycled or composted 21 schools participated in America Recycles Day	<ul><li>5,000 new electric vehicles registered</li><li>35.8+ miles of new bicycle facilities</li></ul>	<b>37%</b> of the city is covered by tree canopy <b>73%</b> of residents live within a 1/3 mile of a park, open space, or trail





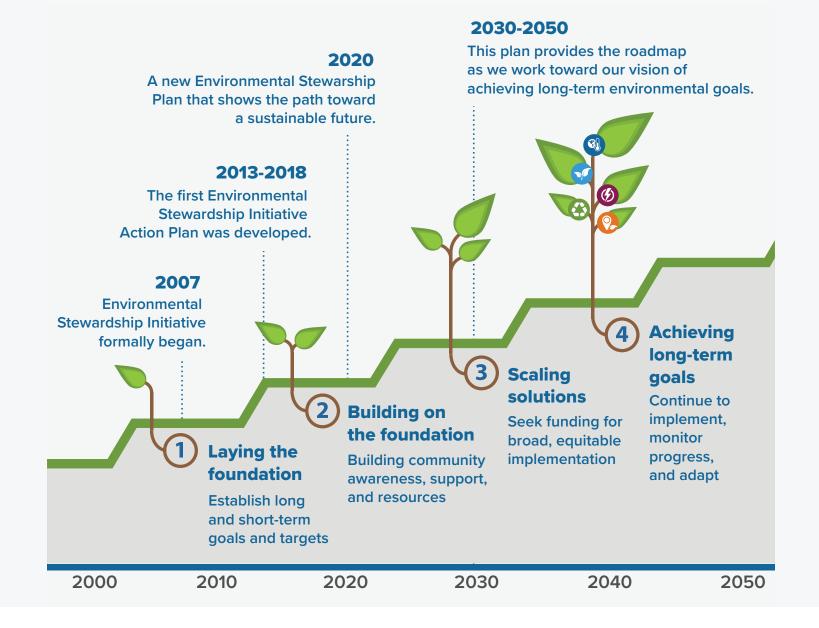
## Vision

Protecting and enhancing the environment is a core value for the City of Bellevue. We as a community understand and value environmental stewardship. We strive to preserve natural systems; sustain healthy, livable communities; save energy, water, and money; support our innovative, grow our regional green economy; and weather economic and environmental change.

Since the creation of the program, the Environmental Stewardship Initiative has provided a framework for how Bellevue will collectively carry out the vision of environmental sustainability. This plan serves as a road map to a healthy, livable, sustainable, and prosperous future as a "City in a Park." Bellevue will continue to build on our successes and chart new paths forward toward meeting the community's sustainability goals, starting with this five-year plan and continually reflecting and improving to attain the city's longterm goals. The following guiding principles were developed to guide the plan update and implementation:

- **Establish long-term and short-term goals and targets**. The Sustainable Bellevue Plan will establish performance goals to help measure progress and evaluate impact
- Develop actions for the next five years. The plan will outline actions for implementation over the next five years, recognizing that more work will be needed to achieve the goals
- Build on a foundation. The plan will build on the city's successes and set the stage for ongoing progress
- Seek funding for implementation. The plan will serve as a guide to prioritize actions and identify possible funding sources







Recent engagement and outreach by the city indicate that both the public and key stakeholders view environmental stewardship as an important issue for the city to address. Key themes from a recent survey include (see text box below for additional highlights):

- A desire for ambitious action. Both the public and key stakeholders expressed strong support for Bellevue being a leader in sustainability and environmental stewardship.
- Commitment to community. Both the public and key stakeholders expressed that environmental stewardship is a cornerstone of healthy communities.
- Leading by example. The public identified the city as a leader in environmental sustainability and want to see the city pursue bolder action. Key stakeholders expressed a desire to collaborate and help the city achieve its goals.

Major Bellevue employers, small business, regional partners, and residents are setting sustainability goals and taking action, and many believe that Bellevue should strive to be a leader in sustainability and environmental stewardship. This bold vision cannot be accomplished by the City of Bellevue alone—it requires continued, active participation of its residents, businesses, and organizations.

#### SETTING A VISION AND CREATING A PLAN

Bellevue invited people to share their vision for environmental stewardship and ideas to consider including in the plan. Key themes and ideas that emerged include:

- Engage youth and set long-term goals to plan for the future.
- Support sustainable urban growth and development that protects and supports natural systems.
- Take a balanced cost-benefit approach that prioritizes actions with biggest impacts and equity benefits.
- Encourage businesses to take bolder action for sustainability to help Bellevue achieve its goals.
- Reduce greenhouse gas emissions through green building for new construction and energy efficiency in existing buildings.
- Create more infrastructure and incentives for electric vehicles.
- Help people make more sustainable choices through more education and engagement.
- **Preserve trees** and find ways to incorporate tree canopy into planning.



## How it Came Together

The Sustainable Bellevue Plan is the product of a year-long process and the input and expertise of more than 1,000 residents, city staff, and community leaders and stakeholders. This plan builds on the successes and lessons learned from Bellevue's previous environmental stewardship plan, integrating the latest science, policy, and practice and findings from a robust public and stakeholder engagement process. Through this cooperative, science-based process—summarized below—we identified potential strategies and actions, evaluated them against criteria reflective of Bellevue's values, and vetted them through public and stakeholder engagement to determine the strategies and actions in this plan.

<b>1</b> Winter/Spring 2019	<b>2</b> Fall/Winter 2019	<b>3</b> Winter/Spring 2020	<b>4</b> Summer/Fall 2020	5 Fall/Winter 2020
Review progress, best practices, and peer cities approaches to understand what is working well and what needs to change and consider how ambitious Bellevue can—or should— be with sustainability action. Inform the public and stakeholders about progress to date, the process for updating the plan, and opportunities to engage.	Refine goals & determine ambitiousness of targets based on input from the public, city staff, and community leaders and stakeholders on their priorities, concerns, and vision for a sustainable Bellevue. This stage included a public survey, community workshop and pop-up events, and working meetings with city staff and sustainability leaders. It culminated in presenting recommended goals and targets to City Council.	Develop and assess strategies and actions, combining best practices and successes from Bellevue, best available science, and the experience of peer cities like Santa Monica, CA and Portland, OR. Using input from Stage 2 and in consultation with a panel of subject- matter experts, we developed a master list of potential strategies and actions. To narrow the list, we evaluated each action by a set of weighted criteria (impact, cost- effectiveness, ease of implementation, equity, level of community support, and co-benefits), which were determined in consultation with the panel of subject- matter experts, city staff, and input from Stage 2. To determine whether the highest-ranking actions would together reach Bellevue's targets, we modeled the anticipated reductions in greenhouse gas emissions from relevant state policy, local policy, and action implementation.	Develop draft plan and solicit public feedback. We prepared the draft plan to support comprehensive review from the public, community leaders and stakeholders, city staff, City Council, and city boards and commissions.	Finalize plan based on input received in Stage 4. Council adoption.
			HOW IT CAI	ME TOGETHER 24





#### **Engagement by the Numbers**

- Over 1,000 responses for 3 surveys
- **3** Sustainability Leaders workshops
- 14 Focus group meetings
- 2 Community workshops, with over 110 attendees
- 6 Pop-up events
- 4 City staff workshops
- 10 Board and Commission presentations
- 6 Council Study Sessions

#### **Stakeholder Outreach and Engagement**

The plan reflects a year-long process of public and stakeholder outreach and engagement, divided into three phases:



Stakeholder Outreach & Engagement





#### What We Heard

Key themes from public and stakeholder engagement during the planning process are highlighted below.

**Strong support for bold and leading-edge action.** Both the public and key stakeholders expressed strong support for Bellevue being a leader in sustainability and environmental stewardship.

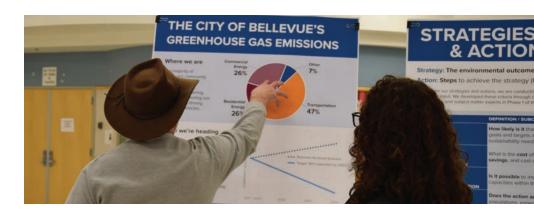
#### PHASE 1 OUTREACH: GOALS & TARGETS

- 48% of survey respondents wanted Bellevue to be leading edge, meaning that Bellevue should be among the most ambitious cities in the world when it comes to sustainability action. An additional 31% of survey respondents want Bellevue to take bold action, meaning that Bellevue should make ambitious sustainability commitments consistent with current best practices. Only 4% of respondents strongly disagreed that climate change is an important issue to them personally.
- 68% of sustainability leaders at the first Sustainability Leaders Workgroup meeting strongly agreed Bellevue should be a leader in sustainability and environmental action; 71% strongly agreed environmental stewardship is good for business in Bellevue.
- 100% of participants at the community kick-off workshop agreed Bellevue should be leading edge for climate change. Most participants also supported leading edge strategies for the other focus areas (mobility & land use, energy, materials management & waste, natural systems). Natural systems had the widest range of support.

 Major companies in Bellevue, like T-Mobile, Vulcan, and Amazon have set ambitious goals by 2030 or 2040 (e.g., carbon-neutral, zero-emission vehicles, zero waste). T-Mobile, for example, has a goal of being powered by 100% renewable energy by 2021. Vulcan is part of the Seattle 2030 District, which has ambitious goals for all new construction to be carbon neutral by 2030.

**Commitment to community.** Both the public and key stakeholders expressed that environmental stewardship is a cornerstone of healthy communities.

- 100% of sustainability leaders at the first Sustainability Leaders Workgroup meeting strongly agreed, and 87% of survey respondents agreed or strongly agreed that environmental stewardship is good for the health and livability of their community.
- Bellevue's recurring citywide survey also found healthy
   living was a high priority among respondents.

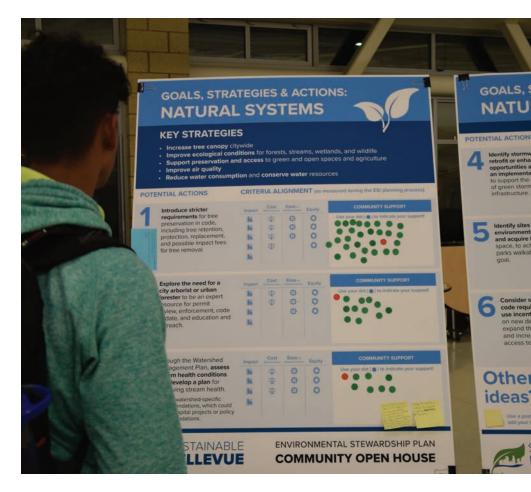




**Support and collaboration with government.** The public identified the city as a leader in environmental sustainability and want to see the city pursue bolder action. Key stakeholders expressed a desire to collaborate and help the city achieve its goals.

- **92%** of survey respondents agreed Bellevue should be a **leader** in sustainability and environmental action.
- Varying sustainability priorities. Sustainability leaders emphasized climate change, energy use, and transportation sustainability, while survey respondents emphasized water quality, waste management, and green space. Public workshop participants held common sustainability values of caring for the earth and effectiveness/impact of actions.
- More than half and up to two-thirds of survey respondents identified water quality in streams and lakes, recycling and composting, and access to parks and green spaces as high sustainability priorities. Those born in the 1970s - 2000s ranked renewable energy, recycling, and composting as very high priorities, while those born in earlier decades (1920s - 1960s) ranked access to green space and water quality as very high priorities.
- Through a polling activity, sustainability leaders at the first Sustainability Leaders Workgroup meeting identified four sustainability issues that Bellevue should prioritize: resiliency to climate change impacts, energy-efficient buildings, alternative transportation modes, and greenhouse gas emissions.

Participants at the community kick-off workshop selected duty to care for the earth and effectiveness/impact as two of the top three personal and city/civic values guiding sustainability and environmental stewardship action.
 Obligation to the future was also identified as a personal value; social justice/equity was also identified as a city/ civic value.





#### **PHASE 2 OUTREACH: ACTIONS**

In the spring of 2020, we performed a second round of public outreach and engagement on potential actions for the plan. Over 600 people responded to our actions survey, and voiced strong support for the actions outlined in the plan, along with a desire for more aggressive actions. Some of the key takeaways from this phase of outreach include:

- **Over 80%** of survey respondents support or strongly support proposed actions to achieve our **Waste goal**.
- Over 74% of survey respondents support or strongly support proposed actions to achieve our Natural Systems goals.
- Approximately 63% of survey respondents support or strongly support proposed actions to achieve our Mobility and Land Use goals, depending on the action.
- Over 79% of survey respondents support or strongly support proposed actions to achieve our Energy goals.
- Over 73% of survey respondents support or strongly support proposed actions to achieve our Climate Change goal.

During our outreach and action analysis process, we also received and reviewed climate action toolkits from the People for Climate Action and the K4C, and referenced these in our planning, along with the other best practice resources we leveraged from the Urban Sustainability Directors Network, the Rocky Mountain Institute, C40 Cities, American Forests, our consultant team's resources, and many other studies.



#### PHASE 3 OUTREACH: DRAFT PLAN

The city released the draft Sustainable Bellevue Plan on September 24, and then held an online townhall on October 1, released an online survey, and participated in several stakeholder group presentations. Over 100 people took the draft plan survey and submitted comments on the draft plan. Residents were supportive of the draft plan, with 75% of respondents strongly or somewhat supporting the plan and 77% wanting the plan to be implemented faster. Residents provided comments on specific actions in the plan, along with the following high-level input:

- Make the energy section stronger, in particular for existing buildings
- Review and update the plan annually
- Create a citizen advisory commission
- More specific timelines for actions
- Less studies, more action
- More leading-edge actions



#### WHO WE HEARD FROM

The Sustainable Bellevue Plan impacts people who live, work, and play in Bellevue, so we sought to engage with a broad spectrum of residents and businesses. To reach a diversity of residents, we used



a range of community channels, including Bellevue's Its Your City Newsletter, which is sent to all residents in Bellevue, along with social media, emails, newsletters, and Bellevue's new online engagement platform, www.engagingbellevue. com. Many community groups helped to amplify our communications, including student green teams, local environmental groups, and neighborhood associations, to help us reach a larger audience.

On the business side, we formed a Sustainability Leaders Group, involving local businesses, business organizations, and local nonprofits. Member organizations such as the Bellevue Downtown Association and Bellevue Chamber also helped us reach a diversity of businesses.

The detailed outreach results are captured in the outreach summary reports, which can be found on the <u>Environmental</u> <u>Stewardship Plan website</u>.

The goal for the outreach for the Sustainable Bellevue Plan was to strive to engage with a diversity of residents whose demographics align with the citywide demographics for age, race, income, and housing type. We conducted two online surveys, which allowed us to make some adjustments to our outreach approach. Summary of the results from the Phase 2 survey:

- Nearly 70% of respondents were under the age of 50. This indicates that residents under 50, who make up more than 60% of Bellevue's population are slightly overrepresented (Source: City Demographic Profile).
- **Approximately 40%** of respondents **live in Bellevue**, 22% work in Bellevue, 27% go to school in Bellevue, and 2% own a business in Bellevue.
- Among survey respondents, **36% were people of color** and **53% were white**. This indicates that the survey underrepresents people of color, who make up approximately 50% of Bellevue residents, and slightly over-represents white people, who make up approximately 50% of residents. In particular, the survey underrepresents Asian community members, who make up 34% of Bellevue's population but only 23% of survey respondents.
- 72% of respondents own or rent a single family house.
   28% own or rent a condo or apartment. This indicates that this survey over-represents residents who live in single family houses, which make up only half of the homes in Bellevue.

In the first survey, 45% of respondents were under the age of 50 and 30% were people of color, so we were successful in reaching a younger audience and a slightly higher percentage of people of color in the second survey. For the implementation of the plan and future planning efforts, further focus should be placed on reaching communities of color and people who live in multi-family buildings or are renters.



## **Plan Overview**

#### **Focus Areas**

The Sustainable Bellevue Plan is organized into the following focus areas:

Climate Change	Energy	Materials Management & Waste	Mobility & Land Use	Natural Systems
The <b>Climate Change</b> section includes strategies to reduce emissions and prepare for the long-term impacts of climate change. Strategies and actions include tactics for integrating climate change into city processes, building city staff capacity to address climate change, and prioritizing investments in historically marginalized communities. Strategies from the other focus areas, in particular Mobility & Land Use and Energy, will support the achievement of the climate goals.	<b>Energy</b> use is essential to modern life and makes up the largest portion of Bellevue's carbon footprint. Strategies and actions increase energy efficiency in buildings, promote rooftop solar, and support worker training and transitions into the green economy.	Materials Management and Waste activities aim to reduce the negative impacts from consumption and waste practices and achieve zero waste of resources. Strategies and actions include increasing community recycling, reducing waste generated, improving purchasing practices, and addressing construction and demolition waste.	Mobility and Land Use includes public transit, employee commuting, and how the city uses its land and open spaces. Strategies and actions work toward improved land use and clean and efficient transportation systems.	The <b>Natural Systems</b> chapter focuses on improving and preserving the integrity and health of Bellevue's natural systems and ensuring all residents have access to Bellevue's abundant and beautiful natural resources. Strategies and actions include increasing tree canopy citywide, improving air quality, reducing water consumption, and enhancing ecological conditions for forests, streams, wetlands, and wildlife.
Municipal Operations	to Bellevue municipal opera Stewardship goals, incorpor	des measures that cover topic tions. Strategies and actions i ating sustainability commitme icles, and promoting sustainat	nclude reporting progress tov nts into city staff trainings, de	vards Environmental veloping long-term plans



#### **Focus Area Content**

Each area contains goals, targets, strategies, actions, and indicators that the city and the public can use to gauge progress. To the extent feasible, goals and actions are aligned with other federal, regional, state, or city plans and frameworks.

Focus Area Goal	Describes the <b>overall approach</b> to achieving desired progress in the focus area.
Focus Area Overview	Explains the <b>relevance</b> of the focus area for Bellevue's sustainability and overviews its strategies and actions.
Targets	Summarizes the <b>indicators</b> that will be used to measure progress in the focus area, how they will be measured, and the numeric target the city aims to achieve through local strategies and actions.
How Are We Doing	Summarizes visually <b>Bellevue's progress</b> to date.
Strategies and Actions	Describes the <b>strategies and actions</b> for achieving focus area goals, including priority actions that will be implemented within the timeframe of this plan (five years) and longer- term actions that will be needed to achieve longer-term goals.
What You Can Do	<b>Everyday actions</b> Bellevue residents, businesses, and visitors can take to help reach the community's sustainability goals.

#### **Near-Term and Longer-Term Actions**

The focus of this plan is on actions to be implemented over the next five years, to put the city on a path toward achieving its 2030 and 2050 goals. Some additional actions were identified through the planning process that require further evaluation in the future. The types of actions are defined as follows:

**Priority Near-Term Actions:** Actions to be implemented over the next five years.

**Long-Term Actions to Consider:** Actions to evaluate further, after the economic recovery, as state policies evolve, or as part of the next Sustainable Bellevue Plan update.





## **Plan At-a-Glance**

The table below summarizes the goals, strategies, and key actions in the plan.



1	Climate Change		<b>Goal:</b> Reduce Bellevue's greenhouse gas emissions and prepare and adapt to ongoing climate change impacts.			
5	KPI	Progress	Targets	Strategies	Key Actions (2021-2025)	
	<b>Community GHG</b> <b>emissions</b> (% reduction)	6.4% since 2011	50% by 2030 80% by 2050	<ul> <li>Mitigate greenhouse gas emissions and plan for the long-term impacts of climate.</li> <li>Increase resilience to climate change impacts.</li> <li>Educate the community about sustainability issues and solutions.</li> <li>Monitor and improve air quality.</li> </ul>	<ul> <li>Monitor GHG emissions</li> <li>Climate advocacy</li> <li>Develop climate vulnerability roadmap</li> </ul>	

Mobility & Land Use	<b>Goal:</b> Minimize the environmental impacts of transportation and development in Bellevue by focusing development in growth centers and providing all residents with access to a variety of mobility options.				
КРІ	Progress	Targets	Strategies	Key Actions (2021-2025)	
Resident drive alone rate (%)	<mark>63%</mark> 2014-18 avg	<mark>60%</mark> by 2030 <mark>45%</mark> by 2050	Expand mobility options.	<ul> <li>Mobility incentives for workers and residents</li> </ul>	
Worker drive alone rate (%)	<mark>72%</mark> 2014-18 avg	<mark>65%</mark> by 2030 <mark>45%</mark> by 2050	<ul> <li>Convert and replace vehicles and equipment to</li> </ul>	residents <ul> <li>Sustainable land use</li> <li>Telecommuting and</li> </ul>	
Electric vehicles (% of registered vehicles)	<mark>2%</mark> 2019	<mark>25%</mark> by 2030 100% by 2050	electric and other low-carbon fuels.		<ul> <li>Mobility Implementation Plan</li> </ul>
Per-capita vehicle miles travele Passenger Cars (Per-capita VMT, pa		20% by 2030 50% by 2050			
Jobs located within 1/4 mile of transit stop (% of jobs)	a frequent 73% 2019	<mark>75%</mark> by 2030 <mark>85%</mark> by 2050			
Housing located within 1/4 mile frequent transit stop (% of housing		50% by 2030 65% by 2050			





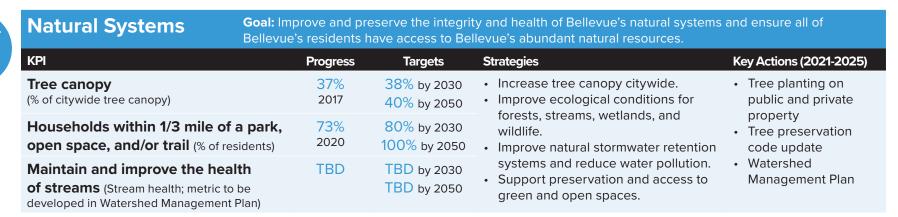
	Energy		<b>Goal:</b> Ensure long-term access to clean energy while reducing the fiscal and enviro impacts of consumption.		
	KPI	Progress	Targets	Strategies	Key Actions (2021-2025)
	Renewable energy source (% renewable energy)	<b>45%</b> 2019	80% by 2030 100% by 2045	<ul><li> Improve performance of community buildings &amp; sites.</li><li> Engage the community on</li></ul>	<ul> <li>Home retrofit program</li> <li>Technical assistance for commercial building energy efficiency</li> </ul>
	<b>Energy consumption</b> (% reduction in energy use)	5% ↑ since 2011	15% by 2030 30% by 2050	<ul> <li>best practices for energy conservation.</li> <li>Support renewable energy and building electrification.</li> <li>Improve grid reliability and management.</li> </ul>	<ul> <li>Pilot Green Building Program</li> <li>Reduce barriers to codes and permits</li> <li>Community solar</li> <li>Incentives and education on building electrification</li> <li>Install renewable energy systems</li> </ul>



Materials Management & Waste	Goal: Reduce the negative impacts from consumption and waste practices and strive
materials management a maste	towards zero waste of resources.

KPI	Progress	Targets	Strategies	Key Actions (2021-2025)
Recycling rate (% recycling rate)	40% 2019	50% by 2030 Zero Waste of resources (90%) by 2050	<ul> <li>Increase community recycling/composting of waste.</li> <li>Reduce community waste generation.</li> <li>Improve green purchasing practices and sustainable materials management in city operations.</li> <li>Address construction and demolition (C&amp;D) waste.</li> </ul>	<ul> <li>Multi-family residential and commercial business outreach</li> <li>Waste characterization research</li> <li>Food waste prevention</li> <li>Reduce packaging waste</li> </ul>

Support C&D recycling strategies





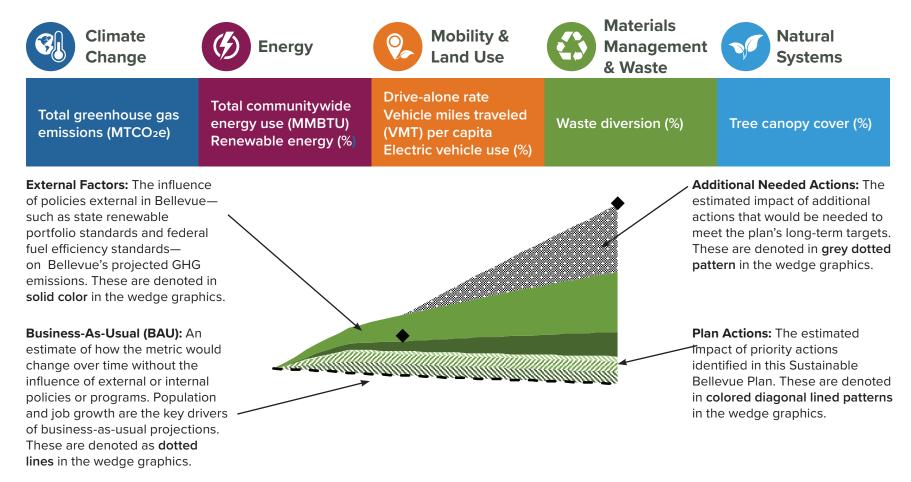
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Municipal Operations Goal: The City will be a sustainability leader.				
KPI	Progress	Targets	Strategies	Key Actions (2021-2025)
Municipal GHG emissions (% reduction)	14.4% since 2011	50% by 2030 80% by 2040	sustainability across all for operations. env Expand municipal mobility ster options. sus Replace city vehicles and equipment with electric and other low-carbon options. City Improve performance of electron municipal buildings and sites. City Protect and conserve natural resources in city operations. retr Improve green purchasing practices and sustainable energy materials management in city operations. Exp coll	<ul> <li>Increased training for staff on</li> </ul>
Worker drive alone rate (% of city employees)	<mark>43%</mark> 2019	40% by 2030 35% by 2040		environmental stewardship and sustainability
Electric vehicles (% light duty fleet vehicles)	<mark>2%</mark> 2020	<mark>50%</mark> by 2030 100% by 2040		<ul> <li>Report on progress towards plan goals</li> <li>City fleet</li> </ul>
Fleet fuel reduction (% fossil fuel reduction from fleet vehicles)	15% ↑ since 2011	<mark>15%</mark> by 2030 <mark>30%</mark> by 2040		electrification <ul> <li>City building energy</li> </ul>
<b>Renewable energy source</b> (% renewable energy)	70% 2020	100% by 2030 100% by 2040		benchmarking and retrofitting • Purchase renewable
<b>Energy consumption</b> (% reduction in building energy use, MMBTu)	15% since 2011	25% by 2030 50% by 2040		<ul><li>energy for city operations</li><li>Expand organics collection in all city facilities</li></ul>
<b>Recycling rate</b> (% recycling rate)	70% 2019	80% by 2030 Zero Waste of resources (90%) by 2040		
Water use (% reduction)	7% since 2011	5% by 2030 10% by 2040		
<b>Forest health</b> (% of forest in healthy condition; targets to be developed as part of forest health assessment)	TBD	TBD by 2030 TBD by 2040		



#### How Far Will We Get?

The city commissioned a quantitative analysis of the plan's strategies and actions to understand their anticipated collective impact toward meeting the city's near- and long-term sustainability goals. The analysis utilized available data and literature to estimate the extent to which specific actions and strategies—such as incentive programs, public outreach, or new requirements—result in their desired outcomes across a variety of sustainability indicators. The following metrics were modeled, and are presented in more detail in the focus area chapters of the plan:





## **Climate Change**



**Goal:** Reduce Bellevue's greenhouse gas emissions and prepare and adapt to ongoing climate change impacts.

#### **Focus Area Overview**

The impacts of climate change—heat waves, changing precipitation patterns, and increased wildfire risk, to name just a few—are occurring now. To avoid extreme impacts, Bellevue has joined hundreds of cities around the world in committing to aggressively reduce greenhouse gas emissions and prepare for the impacts that cannot be avoided. Actions in this cross-cutting climate change focus area integrate climate considerations and evaluation into city processes, prioritize climate-related investments in historically marginalized or underserved communities, and support city staff training, capacity-building, and regular monitoring and reporting of GHG emissions. Actions in the Energy and Mobility & Land Use focus areas also reduce emissions and increase preparedness.

Bellevue's target is to reduce community wide greenhouse gas emissions by **50% by 2030** and **80% by 2050**, compared to a 2011 baseline.



If no action is taken, we estimate Bellevue's greenhouse gas emissions will increase 20 percent by 2050 compared to a 2011 baseline, based on projected increases in population and jobs (see dotted line in figure below). Federal, state, and regional policies and activities will likely reduce these emissions in the future-we estimate that external policies such as the Washington State Clean Energy Transformation Act, federal vehicle fuel economy standards, proposed state and regional clean fuel standards, state building code, and activities such as the East Link light rail extension will reduce Bellevue's GHG emissions by over 40 percent by 2050, leaving an additional 40 percent reduction needed by local action (see solid colors in figure on page 37). Full implementation of local strategies and actions could reduce Bellevue GHG emissions by almost 75 percent by 2050, leaving only 5 percent left for reaching regional emission reduction goals. Please see the other focus areas in this plan for information on the specific emissions reductions anticipated from mobility & land use, energy, materials management & waste, natural systems, and municipal operations strategies.

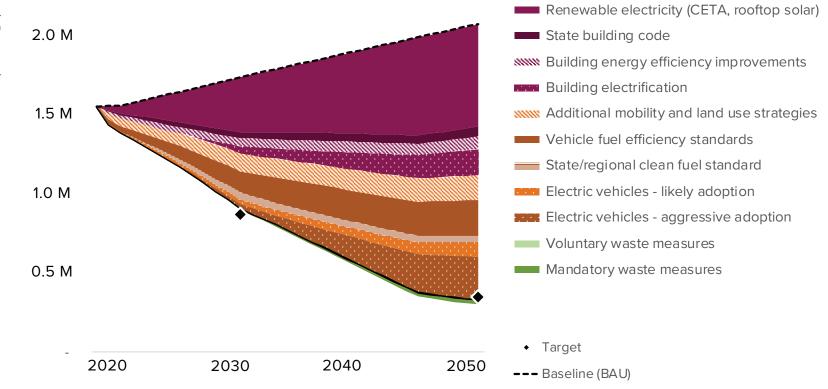




# Strategies to Achieve Communitywide Greenhouse Gas Emissions Reduction Targets of 50% by 2030 and 80% by 2050

Greenhouse Gas Emissions (MTCO<sub>2</sub>e)





#### CLIMATE CHANGE 37

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### How are We Doing

In 2007, Bellevue City Council became a signatory of the U.S. Conference of Mayors Climate Protection Agreement (MCPA) and passed Resolution 7517 formally adopting a goal to reduce greenhouse gas emissions. The Sustainable Bellevue Plan builds on the City's commitment to measure, communicate, and take action to reduce citywide greenhouse gas emissions.

As of 2019, Bellevue achieved a 6.4 percent greenhouse gas reduction despite a 17 percent in population growth since 2011. With an estimated 145,300 residents, the average greenhouse gas emissions per capita has decreased by 21 percent since 2011 and is well below the national average of 16.5 MTCO2e per U.S. resident (World Bank, 2014). In Bellevue, the largest sources of greenhouse gas emissions are from energy used in commercial buildings, multi-family units, and single-family homes, and passenger car fuel use.

Recognizing that climate change is a regional challenge, the City of Bellevue was an early member of the King County Cities for Climate Collaboration (K4C). In 2014 the City joined the K4C and in 2015 the City Council signed the K4C Joint Commitments to take bold and equitable climate action for a healthy, just, and resilient region. City staff continues to participate in the K4C Steering Committee to lead climate action and resiliency efforts in Bellevue and beyond.

### **Key Accomplishments**

The actions outlined in the next section build on over a decade's worth of accomplishments, including:

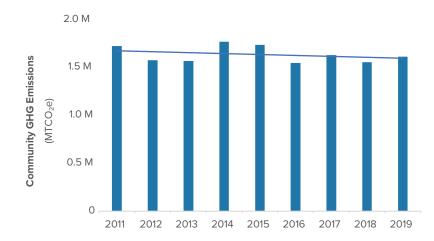
- Signing the Mayor's Climate Protection Agreement in 2007
- Launching the Environmental Stewardship Initiative in 2007
- Creating a Resource Conservation Program Manager
   position in 2009
- Joining the King County Cities Climate Collaboration (K4C) in 2014
- Signing the K4C Joint Commitments in 2015, to support the achievement of the countywide climate goals; and signing the updated K4C Joint Commitments in 2020, to reaffirm Bellevue's commitment
- Leading the Department of Energy Grant in 2017-2018 to Analyze Greenhouse Gas Emissions Trends
- Reporting on greenhouse gas emissions annually since 2011
- Reduced greenhouse gas emissions by over 6% since 2011, despite a 17% population growth



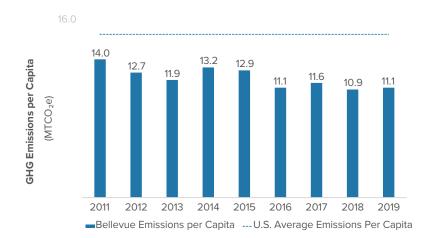
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**6.4%** reduction in community emissions despite 17% population growth

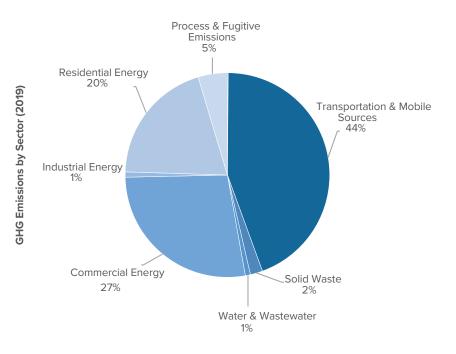


## 21% reduction in per-capita GHG emissions





# 92% of communitywide GHG emissions came from transportation & buildings







### **Strategies and Actions**

**PRIORITY NEAR-TERM ACTIONS** 

Strategy C.1. Mitigate emissions and plan for the longterm impacts of climate change.

**C.1.1. Climate vulnerability assessment.** Perform a climate vulnerability assessment to understand long-term risks and vulnerabilities associated with climate change and identify next steps in terms of enhancing resiliency.

The climate vulnerability assessment will identify specific strategies to support Bellevue's residents, businesses, and operations most impacted by acute and chronic climate change and public health-related impacts. Strategies are focused on both the reduction in the severity of impacts and increasing the speed of recovery to mitigate major disruptions in community operations.

The step-by-step process for this effort includes gathering community data including input through an inclusive outreach



and engagement effort and current and projected climate data; conducting a prioritization exercise to determine shocks and stressors with the highest level of impact, particularly to individuals most impacted by climate change; and drafting measurable policies to mitigate impacts. This effort will help to inform the next major Comprehensive Plan update, to continue to advance Bellevue's resiliency.



**C.1.2. King County Cities Climate Collaboration (K4C).** Continue participating in the K4C to support the achievement of the countywide K4C goals.

Bellevue has been a member of the K4C since 2014 and will continue to participate in this group to share best practices, develop regional strategies, and advance climate protection throughout the King County region. As part of the implementation of the plan, staff will work with K4C cities, and in particular Eastside cities, to identify synergies and economies of scale to develop regional programs.

**C.1.3. State advocacy.** Advocate for state-level policies and funding that support the achievement of the plan goals.

To achieve a number of the goals and targets outlined in the plan, state-level action will be required, in particular for the



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energy, mobility and land use, and climate change goals. As potential policies develop at the state level, through the legislative process, building codes, and implementation of laws, Bellevue will develop policies to support the achievement of the city's environmental goals through the city's legislative agenda process. State level legislation which will be key to achieving the city's goals include the Clean Energy Transformation Act, the Zero Emissions Vehicle (ZEV) Standard, and a Clean Fuel Standard.

# **C.1.4. Climate equity.** Prioritize climate mitigation and adaptation investments in historically underserved and underrepresented communities.

As part of the citywide Diversity Advantage Plan implementation, staff will work to develop and implement an equity lens for all climate and sustainability projects, to help engage with the community and prioritize and design projects to support Bellevue's communities of color. This approach will be used in the planning, design, implementation, and outreach and engagement for projects, and will help to prioritize projects in neighborhoods with the greatest need. **C.1.5. Environmental equity assessment.** Perform an environmental equity assessment to identify environmental risks to communities of color and equitable access to environmental resources in Bellevue. Use the assessment to develop recommendations for policies and programs to continue to advance equity and reduce environmental burdens.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

This assessment will evaluate environmental justice concerns and also look at access to environmental resources and benefits in Bellevue, to help identify priority areas for further planning, policy development, and programs.



**C.1.6. Air quality.** Pilot air quality monitoring sensors and incorporate air quality considerations into planning for major rezonings.

As directed by the regional growth management strategy Vision 2050, Bellevue's growth over the next 30 years will be directed to the city's growth center and mixed-use areas. These targeted growth areas, including downtown, BelRed, Eastgate, and Wilburton, are all located in close proximity to major freeways. Bellevue has limited air quality data for the city, and better air quality data will help to support land use planning and development to prevent negative public health impacts from residential development in proximity to major transportation corridors.

Piloting air quality monitoring sensors will help to determine the need for a more robust air quality monitoring program in Bellevue, particularly in high-priority locations undergoing development in proximity to freeways. This action will also involve consideration for policy and land use code updates to account for environmental justice and air quality issues, to ensure that housing and open spaces are sited at a safe distance from major transportation emissions sources, and that mitigation steps are taken for development closer to freeways.

Considerations for air quality will be taken into account for upcoming land use projects, such as Wilburton, BelRed, and the Grand Connection, and for all neighborhoods adjacent to freeways. **C.1.7. Climate Outreach and Education.** Develop a climate outreach and education campaign or program to support ongoing community engagement.

Develop an outreach and education program on climate change, to help residents and businesses make climate smart choices in their decisions, and to understand the impacts of their activities. This outreach could take the form of a climate challenge, or a campaign focused on specific outcomes, along with events and other engagement opportunities to educate residents about climate change and sustainability, and to share about the city's Environmental Stewardship efforts.







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**C.1.8. Functional plan in Comprehensive Plan.** Update the Comprehensive Plan to reflect that the Environmental Stewardship Plan is a functional plan.

The Comprehensive Plan currently lists the Environmental Stewardship Initiative as a program which supports the implementation of the Environmental Element of the Comprehensive Plan. This action recommends to update the Comprehensive Plan to reflect the Environmental Stewardship Plan as a functional plan, similar to other departmental functional plans, to help further institutionalize the future updates of the plan.

#### LONGER-TERM ACTIONS TO CONSIDER

# **Climate Resiliency.** Incorporate long-term impacts of climate change into plans and capital projects.

Using results from the climate vulnerability assessment, and future climate research, incorporate projected impacts of climate change into relevant plans, policies, and capital projects. Work with other organizational partners to share climate risk information pertinent to Bellevue, and support collaboration and partnerships to address immediate and long-term climate change impacts and concerns.

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### What You Can Do

Take steps to **reduce your carbon footprint** by looking at how you get to work or school, what you buy, and what you eat.

Stay informed about recent climate science updates. For example, **read the Northwest Chapter of the National Climate Assessment** or the Executive Summary of an IPCC report.

Recommend your local school, community center, place of worship, or other community gathering space offer climate change education opportunities.

Participate in **civic processes** to ensure your concerns, priorities, and values are heard and reflected.





## **Mobility & Land Use**

Goal: Minimize the environmental impacts
 of transportation and development in
 Bellevue by focusing development in
 growth centers and providing all residents
 with access to a variety of mobility options.

### **Focus Area Overview**



Transportation infrastructure and systems are integral to city operations, and economic and community development. Bellevue is part of a regional economy experiencing rapid job and population growth, pressures on affordable housing, and increasing traffic. The Puget Sound Regional Council's

Vision 2050 regional plan aims to direct 65 percent of the region's residential growth and 75 percent of new jobs to the regional growth centers and high-capacity transit station areas. The Mobility & Land Use focus area outlines strategies, in addition to the city's comprehensive plan and other policies, to support this transit-oriented development, multimodal transportation services, and a transition to cleaner vehicles and fuels. The strategies and goals listed in the Mobility & Land Use section will help Bellevue continue to advance in sustainable transportation and land use practices.

#### **Targets**

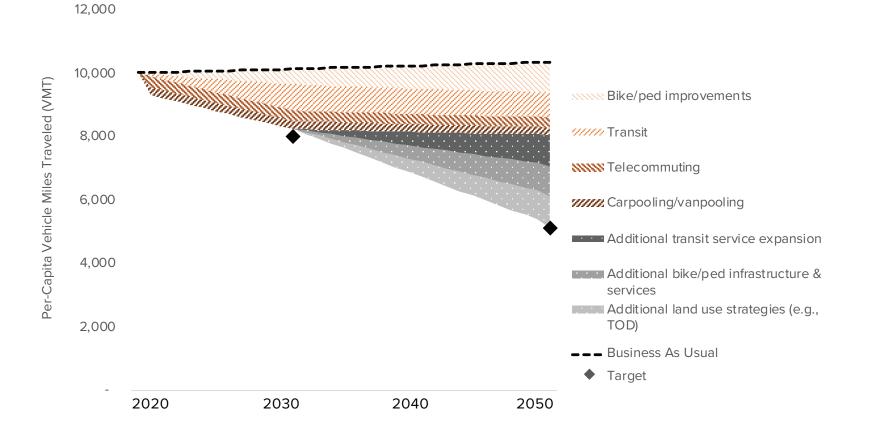
КРІ	Short-term	Long-term
<b>Resident drive alone rate</b> (% of residents)	60%	<b>45%</b>
Worker drive alone rate (% of workers)	65%	<b>45</b> %
Electric vehicle (% of registered vehicles)	<b>25</b> %	100%
Per-capita vehicle miles traveled (VMT) (% reduction)	20%	50%
Jobs located within 1/4 mile of a frequent transit stop (% of jobs)	75%	85%
Housing located within 1/4 mile of a frequent transit stop (% of housing)	50%	65%

Advances in the transportation sector will involve converting and replacing vehicles and equipment to electricity and other low-carbon fuels, while simultaneously reducing the reliance on single-occupancy vehicles. These actions are expected to decrease per capita VMT. In order to make sustainable improvements to Bellevue's mobility and land use focus area, the plan includes measures to incentivize the use of



carpooling, transit use, and bike- and walk-friendly urban street design. The East Link light rail extension will contribute to reductions in the use of single occupancy vehicles studies suggest a 20 percent reduction in per capita VMT by 2030 (see figure below). East Link combined with other local actions will contribute to a nearly 40 percent cumulative reduction in per-capita VMT by 2050 and it is anticipated the city will exceed its near-term target of a 20 percent per capita VMT reduction by 2030. Together, these key strategies and actions provide lower-carbon options for those who still need to drive, improve access to transit, and create safe, ample opportunities for low-carbon transportation.

## Strategies to Achieve a Reduction in Per Capita Vehicle Miles Travelled by 50% by 2050





### How are We Doing?

Bellevue is working on multiple fronts to reduce emissions associated with mobility and land use, including initiatives that promote walkable mixed-use neighborhoods paired with frequent and reliable transit services to reduce vehicle trips. Passenger cars account for 76 percent of total transportation emissions, but the vehicle miles traveled (VMT) per capita has declined by 7 percent since 2011. This is likely due to employees moving closer to their jobs, working remotely or taking alternative forms of transportation.The light rail extension through Bellevue will help to support this transition, which is scheduled to open in 2023. Focusing jobs and housing along the light rail extension will create more walkable livable communities and increase mobility options.

To reduce community-wide GHG emissions and enhance livability, Bellevue is working towards expanding mobility options for commuting and other daily trips. In 2009 Bellevue City Council adopted the Pedestrian and Bicycle Plan to support walking and biking as safe, healthy and attractive alternatives to driving. The city's transportation demand management (TDM) and Commute Trip Reduction program supports local employers, and the city launched the "Choose Your Way" website to centralize resources for residents and workers to learn about mobility options such as carpooling, vanpooling, and transit. In addition, Bellevue's TDM program not only supports large businesses with over 100 employees as mandated by the Washington State Commute Trip Reduction (CTR) law, but also supports smaller businesses as well.



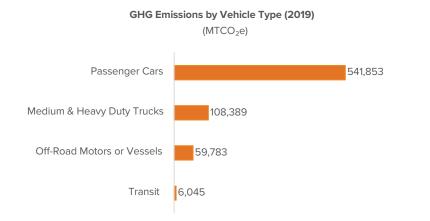
Bellevue has one of the highest adoption rates of electric vehicles (EV) per capita in the U.S. Since 2011, the number of EV and plug-in hybrid EV registrations grew by 69 percent on average per year. This growth is projected to continue as EVs become more affordable and charging infrastructure becomes more available throughout the city. In addition, the Washington State Zero Emissions Vehicle standard adopted in June 2020, will require automakers to deliver a certain number of zero emissions vehicles.

The City of Bellevue contains over 170 charging ports installed at more than 50 locations to support local businesses, residents, and curbside locations. The city operates over 20 public charging stations and provides EV charging stations for employees and the municipal fleet. Bellevue's Smart Mobility Plan aspires to support EV market growth by supporting necessary technological infrastructure and optimizing the transportation system throughout the city.

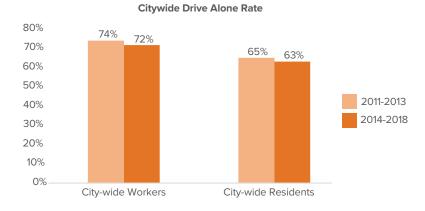




# **76%** of transportation emissions are from passenger cars

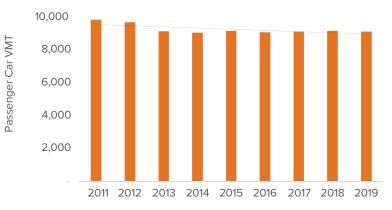


# **2%** reduction in drive-alone rate for workers and residents in Bellevue

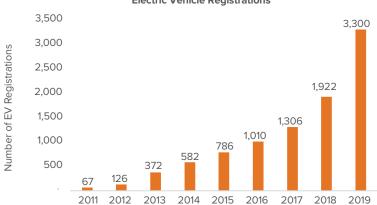


## reduction in vehicle miles traveled per capita

Passenger Cars: Vehicle Miles Traveled Per Capita



increase, on average, in electricvehicle registrations

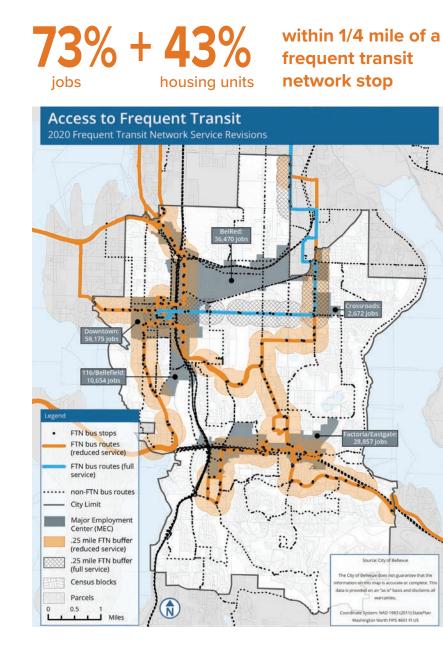


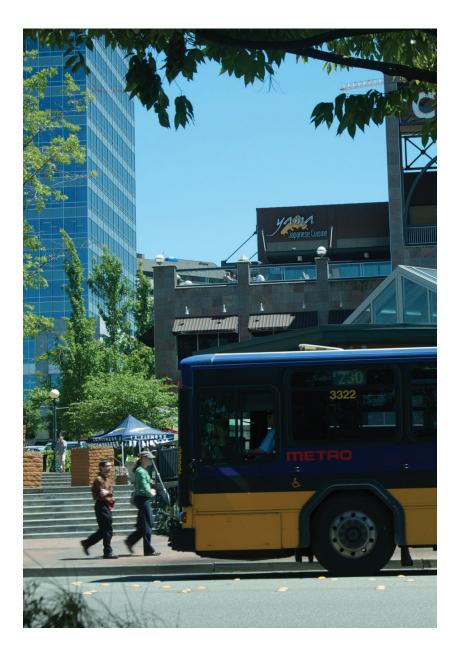
#### Electric Vehicle Registrations

#### MOBILITY & LAND USE 48







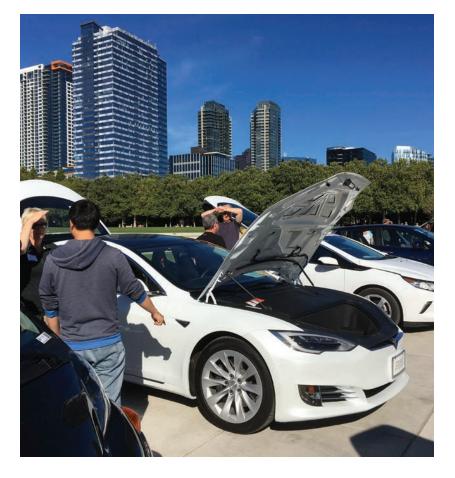


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### **Key Accomplishments**

As Bellevue has transitioned to a major employment center over the past twenty years, the city has implemented a number of strategies to focus development near transit and increase mobility options and the essential components of livability for people who live and work in Bellevue. Some major accomplishments include:



- Implemented the downtown land use code through the Downtown Livability Initiative to increase walkability, affordable housing, green building, and overall livability downtown.
- Approved significant mixed-use development near the Spring District station area, prior to the opening of the East Link Light Rail in 2023.
- Initiated processes to increase opportunities for jobs and housing and support complete communities near light rail stations in East Main and Wilburton.
- Adopted a Complete Streets policy and associated multimodal level of service policies to comprehensively plan for a full range of mobility options.
- Developed the Smart Mobility Plan to leverage Smart City technology to improve transportation management.
- Constructed 66 miles of bike facilities throughout Bellevue, as outlined in the Pedestrian and Bicycle Transportation Plan and partnered with King County Parks to develop Eastrail.
- Achieved Silver Level ratings for both Walk and Bicycle Friendly Communities.
- Launched the Crossroads Connect on-demand "last-mile" transit service.



# Case Study Highlight: Healthy Streets

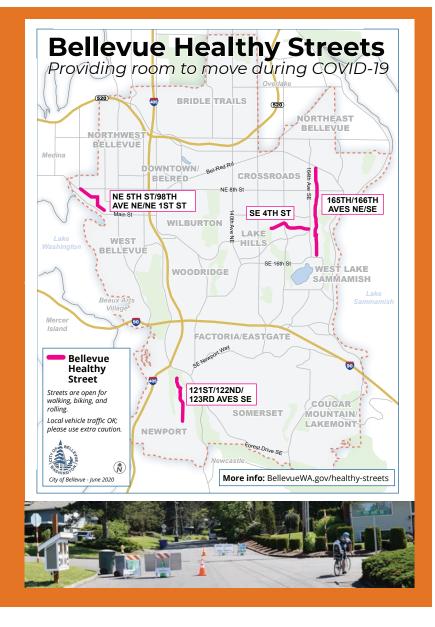
Bellevue's response to COVID-19 included a Healthy Streets pilot project. The Transportation Department temporarily closed 4.1 miles of residential streets to nonlocal vehicle traffic to give people space to safely walk and ride bikes while socially distancing. Local vehicle access was maintained for residents and essential services.

The Healthy Streets provided a good route for riding and walking with connections to parks and commercial centers.

The project mirrored a trend in other cities to provide space for residents to get out, safely exercise and get where they need to go during the pandemic.

Feedback about Healthy Streets included 60 responses to a questionnaire: 57% of respondents said they would like to see more Healthy Streets; and 65% said they used the streets for walking.

Video cameras documented an increase in people walking and bicycling. Along 166th Avenue Northeast there were 22% more pedestrians, 167% more bicyclists, and 13% fewer vehicles.





### **Strategies and Actions**

#### **PRIORITY NEAR-TERM ACTIONS**

#### Strategy M.1. Sustainable Land Use.

M.1.1. Sustainable District. Explore creating a sustainable district, such as an EcoDistrict, in downtown, BelRed, or Wilburton, to encourage district-scale sustainability. Establish district-scale sustainability goals with partner organizations.

Several models of sustainable districts exist, which have been used to accelerate local sustainability within a neighborhood. These models are typically used in downtown or mixed-use districts and are public-private partnerships between the property owners, tenants, local government, and other organizations. The districts set districtwide environmental goals, which could mirror the city's goals, and collaborate on actions to achieve the goals. Sustainable districts typically include some form of organizing body, technical assistance to property owners for activities such as energy conservation, and incentives for green building or other environmental amenities. Several neighborhoods in Bellevue could be potential candidates for a sustainable district. Further outreach and engagement of potential partners and champions, along with an analysis of various program models is recommended to further assess the viability and impact of this approach.

M.1.2. Using the 15-Minute City concept, promote and advance essential components of livability. Identify locations along the frequent transit network to continuously promote improvements that support access to transit and a high quality of life and livability.

In order to achieve the plan goals aimed at continuously increasing the elements that support a high quality of life and livability in Bellevue, future improvements within a halfmile of selected frequent transit network stops and stations should support safe and accessible streets for people of all ages and abilities, place-serving amenities (such as art/ artistic components and neighborhood-serving retail), open spaces, and housing and employment opportunities for all. Furthermore, the city's major Comprehensive Plan update will consider the need and opportunities for growth in areas along the frequent transit network that are appropriate for complete, transit supported communities. This action will focus on increasing open spaces, completed sidewalks, tree canopy, commercial/retail spaces (if allowed), and artistic elements in close proximity to transit stations.







M.1.3. Consider climate and sustainability in land use and neighborhood planning. Address environmental stewardship in all land use projects and neighborhood planning and services.

For major land use initiatives, neighborhood area planning, and other neighborhood programming, incorporate environmental stewardship into the planning and implementation. Consider climate and sustainability strategies which will advance transit oriented development, walkability, green building, renewable energy, low impact development, tree planting, or other sustainability features. M.1.4. Growth corridor parking review. Study the impact of light rail and the increasing use of mobility options on the supply and demand for commuter and residential parking in buildings near transit stations. Consider modifying parking requirements to account for shifts in commuting behavior.

As the demand for parking evolves due to increased telecommuting, East Link light rail, expanded pedestrian and bike facilities, car share, and other mobility options, the required supply of parking for new development should be evaluated. Bellevue currently has minimum and maximum parking requirements for all new commercial and multi-family residential buildings. Underground parking is a major cost in new construction, and in order to increase affordability and encourage use of alternative mobility options, the city should assess parking supply and demand in light of new transit and multi-modal transportation options. This analysis will help achieve citywide goals for reducing vehicle trips, support housing affordability, and preserve commercial space affordability for small businesses. For land use initiatives such as Wilburton and the BelRed Lookback, parking supply will be taken into consideration for development in close proximity to the light rail. This study will also evaluate strategies such as shared parking for multiple functions and opportunities for using any excessive parking supply.



#### Strategy M.2. Expand mobility options.

**M.2.1. Mobility Implementation Plan.** Develop a Mobility Implementation Plan that includes opportunities to decrease per capita vehicle miles traveled through prioritization and investments to support transit and non-motorized modes.

The Mobility Implementation Plan will accomplish the policy direction of the Comprehensive Plan. Policy TR-37 provides direction to "develop and utilize a citywide Transportation Master Plan to identify and prioritize the implementation of transportation system improvements." Many of the fundamental components exist for a Bellevue Transportation Master Plan (now called a Mobility Implementation Plan to reflect an emphasis on implementation).

For instance, the Transit Master Plan, the Pedestrian and Bicycle Transportation Plan, and the recommended Multimodal Level-of-Service Metrics, Standards and Guidelines in combination create a strong foundation for a Mobility Implementation Plan (MIP). Current Bellevue policy and ongoing planning and implementation are additional components that will be integrated within a MIP. These include: Complete Streets; Vision Zero; Transportation Demand Management; Transportation Facility Plan; Environmental Stewardship Initiative; smart mobility; and curbside management. The MIP should incorporate guidance and align with regional mobility partners and plans including East Link; STride; RapidRide; and the I-405 Master Plan.



**M.2.2. Transportation impact fees.** Consider expanding the Transportation Impact fee program to support construction of projects to improve walking and biking, in addition to increasing capacity for motorized vehicles.

An impact fee is intended to offset or mitigate the anticipated adverse impacts of most types of new development. In Bellevue, a transportation impact fee is assessed as a condition of development approval on a forecast per trip basis. The existing system supports capacity projects for vehicle trips only. The Mobility Implementation Plan will consider expanding the use of Transportation Impact fees for multi-modal projects.

A multimodal approach to transportation impact fees would account for the trips generated for all modes – expand the list of eligible projects to include all modes and allocate impact fees from private development to help pay to build those projects.





**M.2.3. Curbside management.** Explore strategies to effectively manage curbside space for a variety of uses such as ride-share, buses, pedestrians, and other needs.

Curbside management is an ongoing endeavor to adaptively manage the use of the curbside, particularly in Downtown Bellevue and in other commercial/mixed-use areas. This includes activities such as passenger loading, freight pick-up and drop-off, and facilities for transit, bicycle, and HOV traffic. To the extent that these transportation strategies support and enhance the availability and accessibility of mobility options, the use of private automobiles may decrease, with a proportionate reduction on per-capita vehicle miles traveled.



M.2.4. Accelerate implementation of the Pedestrian and Bicycle Transportation Plan. Increase accessibility of travel routes for people walking and bicycling by accelerating implementation of projects identified and prioritized in the Pedestrian and Bicycle Transportation Plan and the standards and guidelines recommended in the 2017 report on Multimodal Level-of-Service Standards and Guidelines.

Utilizing the Pedestrian and Bicycle Transportation Plan, Bellevue will implement a variety of projects that will add to or improve facilities for those walking and biking. The Pedestrian and Bicycle Transportation Plan calls for completing 2 north-south and 2 east-west priority bicycle corridors, as well as numerous projects to connect schools, parks, shopping, employment, transit and other destinations.

Accelerating the rate of construction toward achieving system completeness will require a commensurate increase in funding resources for pedestrian and bicycle facilities. The city should continue to pursue grant funding opportunities to supplement local funds, as well as to explore additional funding mechanisms. An additional funding source may include expanding the transportation impact fee program to fund stand-alone projects in outlined in the Pedestrian and Bicycle Transportation Plan.





M.2.5. Commute trip reduction. Continue the transportation demand management program, including the Commute Trip Reduction program for large employers, and study the impact of COVID-19 on future travel patterns and associated multimodal needs.

The transportation demand management program in Bellevue provides tools, guidance, and incentives for employers as well as marketing and assistance for travel options through the Choose Your Way Bellevue travel options brand and website. Goals of this endeavor include a lower rate of driving alone and lower per-capita vehicle miles traveled. COVID-19 has demonstrated that working from home is a feasible alternative to working in an office for many workers. Transportation demand management can continue to assist employers with telework programs, capitalizing on lessons learned by employers and facilitate non-drivealone travel through marketing and assistance programs for employers, workers and residents.

# Strategy M.3. Convert and replace vehicles and equipment to electric and other low-carbon fuels.

**M.3.1. EV readiness.** Introduce electric vehicle charging readiness requirements for new commercial, multi-family, and single-family buildings to exceed the state building code requirement.

Ensuring adequate electric vehicle (EV) infrastructure is a key strategy to improve community support and reduce barriers to EV adoption. Cities can help accelerate EV adoption through requirements in building codes to plan for the longterm demand of electric vehicle charging infrastructure. The updated state building code includes provisions to require pre-wiring for electric vehicle charging in 10 percent of parking spots and electrical capacity for EV charging for up to 20 percent of parking spots, for garages with more than 20 spots. This action will increase the pre-wiring and electrical capacity requirements to align with neighboring jurisdictions, to ensure that new buildings in Bellevue have the necessary infrastructure in place to serve the demands of EV drivers in many years to come.

# M.3.2. EV infrastructure. Increase EV charging infrastructure through partnerships, incentives, and targeted investments.

Bellevue will continue to work with companies such as Puget Sound Energy and Electrify America to increase the number of high-speed and Level 2 EV charging stations in Bellevue, with a goal of siting at least three new publicly accessible high-speed EV charging stations.



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This action will also review existing incentives available from Puget Sound Energy, the state, or other sources and seek to either help building owners and tenants access these incentives or provide additional incentives to accelerate the installation of EV charging infrastructure in multi-family and commercial buildings. Bellevue should look to improve incentives for existing buildings which typically face multiple barriers to providing EV charging equipment, including not having the wiring or electrical capacity to install EV charging infrastructure. In addition, the city will consider targeted investments in EV charging infrastructure in underserved areas.

M.3.3. Electrify heavy duty vehicles. Partner with local organizations to identify funding sources and opportunities to electrify buses and heavy duty vehicles.

Work with partner organizations to support the electrification of heavy duty vehicles, such as transit buses, school buses, garbage trucks, commercial trucks, and other heavy duty vehicles. Trucks and buses represent 16% of transportation emissions in Bellevue, and lower cost options for electric buses and trucks are emerging on the market. This action will support the identification of grants and other funding sources for electric buses and trucks and seek to identify locations for potential sharing electric vehicle charging infrastructure.

**M.3.4. Clean fuel standard.** Support a regional or statewide Clean Fuel Standard to reduce emissions from transportation fuels and support funding for clean fuels.

Achieving Bellevue's greenhouse emissions reduction goals will involve a combination of mobility- and energy-related strategies to reduce trips, encourage cleaner vehicles, and transition to cleaner fuels. Both the Puget Sound Clean Air Agency and the Washington State Legislature have considered various versions of a clean fuel standard, similar to clean fuel standards in place in other western states. A Clean Fuel Standard will help reduce the emissions associated with burning fossil fuels and would provide incentives for cleaner fuels, such as electric vehicle charging infrastructure.



#### LONGER-TERM ACTIONS TO CONSIDER

**Expanded electric vehicle incentives.** Incentives and programs to accelerate electric vehicle adoption throughout Bellevue.

The electric vehicle industry is a rapidly evolving field, and ongoing monitoring of local and regional, and state trends, incentives, and policies will be necessary. This action would consider additional programming to support the adoption of electric vehicles through strategies such as EV car share, incentives for replacing older vehicles with EVs, group purchasing of EVs, and incentives or infrastructure for electric bikes. An additional focus area will be supporting lowincome EV adoption, so all Bellevue residents can access opportunities for cleaner mobility options. As the market for electric vehicles continues to evolve, state and other incentives are developed, and new program models are piloted and tested, additional study will be needed to identify areas to support electric vehicle adoption.



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### What You Can Do

If you drive to work, **consider biking or taking the bus one or more days per week, or telecommuting if possible.** Use the <u>Choose</u> <u>Your Way Bellevue</u> platform to create a customized commute plan.

Invite friends and colleagues to **split commute costs** and reduce your carbon footprint by vanpooling and carpooling.

For your next car purchase, **go electric**! You will save money in the long-term, and significantly reduce your carbon footprint.

Consider using a **remote conferencing service** for a work-related trip to reduce your contribution to carbon emissions associated with air travel.

Next time you move homes, consider a location that allows you to **walk or bike to** work, to transit stops and for errands.





## Energy

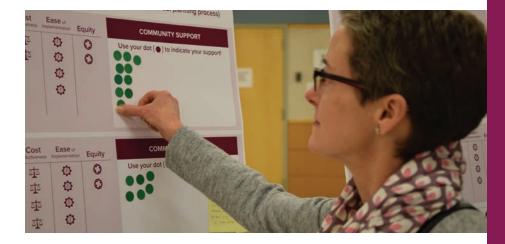


**Goal:** Ensure long-term access to clean energy while reducing the fiscal and environmental impacts of consumption.

## **Focus Area Overview**

Energy is linked to Bellevue's quality of life, economic development, and community health. Reliable, plentiful, and relatively inexpensive energy is an environmental asset that, while often taken for granted by residents, is a reason many major industries and employers locate in the Northwest. However, energy is not endless or without environmental impact. Conservation and efficiency measures, combined with increasing the use of renewable energy, will help Bellevue protect health, livelihoods, and the economy. Actions in this focus area improve the energy efficiency of buildings, promote rooftop solar, and support worker training and transitions into the green economy.

Bellevue will transition to renewable energy sources, reaching **80% by 2030** and **100% by 2050**. At the same time, we will reduce energy consumption **15% by 2030** and **30% by 2050**, compared to a 2011 baseline.



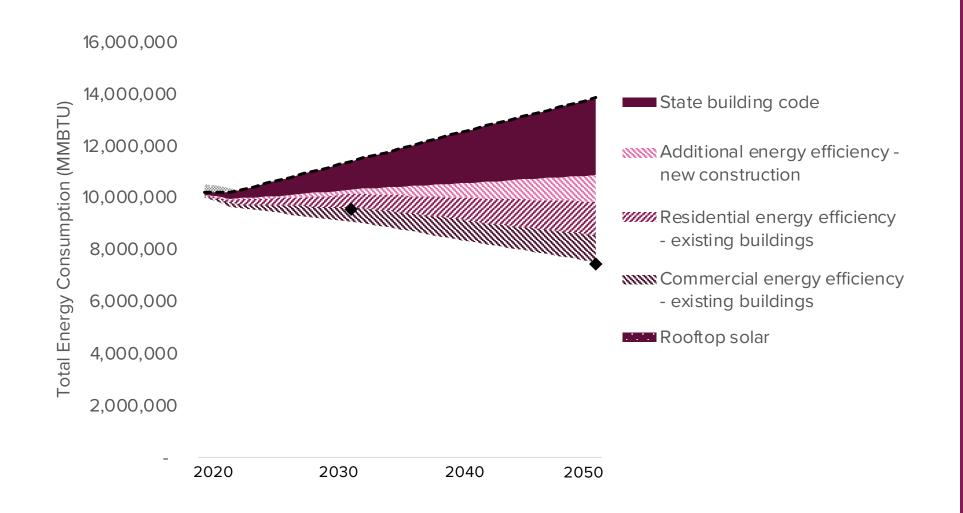
Assuming implementation of the Washington State Clean Energy Transformation Act (CETA) is successful, we anticipate Bellevue will reach its target of 100 percent renewable energy by 2045.

Washington State building code—which mandates that new commercial and residential buildings use 70 percent less energy by 2031—is anticipated to almost counteract the anticipated growth in energy consumption from economic and population growth in Bellevue (see figure on page 61). However, additional local action and technological improvements will be needed to achieve the city's energy consumption reduction goals; we anticipate that building code implementation combined with residential and commercial energy efficiency programs and policies will result in a 29 percent reduction in energy consumption compared to baseline levels by 2050. Additional more aggressive actions would be needed for a more ambitious energy efficiency target.





## Strategies to reduce energy use by 15% by 2030 and 30% by 2050







#### How are We Doing

The City of Bellevue has a long history of support for energy conservation and the use of renewable energy. As a member of ICLEI – Local Governments for Sustainability, the city has been committed to tracking annual energy use and greenhouse gas emissions for the community and municipal operations since 2011. Two solar array systems were installed at local city facilities including the Bellevue Service Center and Crossroads Community Center. The city continues to assess solar feasibility at existing and new city facilities, such as City Hall and new Fire Stations.

Puget Sound Energy (PSE) is the local utility provider generates approximately 42 percent of total electricity from renewable energy sources including hydropower. The city supports the WA State Clean Energy Transformation Act (CETA) through PSE's Green Direct program by committing to purchase renewable energy from a solar and wind project under a 20-year agreement that will result in energy savings as early as 2021.

The city has supported local businesses and residents in purchasing and/or installing renewable energy projects through various programs including Green Power Purchasing, Solarize Bellevue, and Community Solar. Program participation has increased renewable electricity purchases by 88 percent since 2011. The commercial sector is the largest consumer of energy in Bellevue accounting for 53 percent of total energy use in 2019. City Council adopted of Resolution 9186 authorizing annual benchmarking of energy use in city buildings. The city-led the "Urban Smart" program for commercial owners to access their own building energy data and provided trainings for implementing low-to-no cost energy efficiency measures.

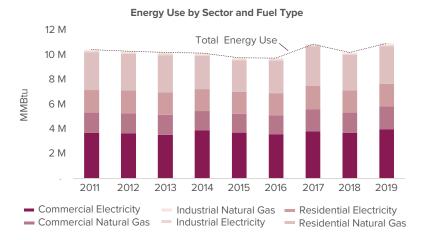
## **Key Accomplishments**

- Held two Solarize Campaigns to support Bellevue residents in rooftop solar installations, which resulted in 88 new solar arrays or 559 kWh of solar power.
- Supported PSE's Green Power Purchasing program to encourage residents and small businesses to enroll in renewable energy purchasing through a \$50,000 grant.
- Installed solar arrays on the Bellevue Service Center and the Crossroads Community Center.
- Participated in the Georgetown Energy Prize competition and led an outreach and engagement effort on energy conservation and efficiency. Distributed 300 LED light bulb kits to low income residents.
- Implemented incentives for green building into the updated downtown code, as part of the downtown livability initiative.
- Partnered with PSE to promote Bellevue's and PSE's new construction energy and green building incentives for large commercial buildings.

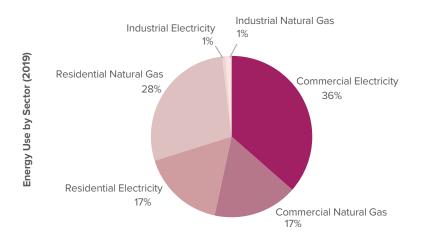
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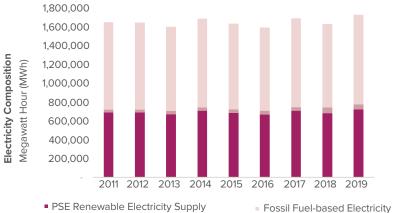
## increase in total energy use (electricity and natural gas)



# **53%** of total energy use (electricity and natural gas) comes from commercial



# renewable electricity in Bellevue'selectricity supply



PSE Renewable Electricity Supply
 Bellevue Renewable Electricity Purchases

## increase in renewable electricity purchases

#### 60,000,000 Commercial Residential 50,000,000 Kilowatt Hour (KWh) 40.000.000 30,000,000 20,000,000 10,000,000 2011 2012 2013 2014 2015 2016 2017 2018 2019

#### **Renewable Electricity Purchases by Bellevue Residents and Businesses**



# Case Study Highlight: Committing to 100% Green Power

Some of Bellevue's largest employers are leading the way with ambitious environmental commitments, to reduce their greenhouse gas emissions, purchase renewable energy, and reduce waste. T-Mobile is 95 percent of the way toward achieving its 100 percent renewable energy goal by 2021, Microsoft upped its environmental commitments and now plans to be carbon negative by 2030, and Amazon has committed to 100 percent renewable energy by 2025 and net zero emissions by 2040. These companies are proving that clean energy is not only good for the environment, but also a smart investment.

In addition to these large-scale efforts, Bellevue residents and small businesses are purchasing nearly 32MWh of renewable energy through PSE's residential, commercial, and solar choice programs. The City of Bellevue has installed solar arrays and the Crossroads Community Center and Bellevue Service Center, and has also helped local non-profits KidsQuest and the Boys and Girls club receive grants to install rooftop solar. Bellevue now has over 430 solar installations, with



a generating capacity of 4,578 kW. The City is continuing to partner with PSE to support potential community solar projects and additional phases of PSE's Green Direct program, for companies to purchase 100 percent clean, renewable energy. Partnerships like these will be essential to achieving the renewable energy goals of the Environmental Stewardship Plan.



## **Strategies and Actions**

#### **PRIORITY NEAR-TERM ACTIONS**

#### Strategy E.1. Improve performance of new construction.

**E.1.1. Streamlined permitting.** Develop a program to streamline permitting processes for single-family residential green building projects, to incentivize more green building. Evaluate impact and opportunities for expanding the program.

Streamlined permitting is an incentive strategy for encouraging green building, by removing barriers and providing additional support for projects that comply with the green building requirements. In the development world, time is money, so efficient and predictable permit processing helps developers save money. In neighboring jurisdictions with similar permit loads and processing times, streamlined permitting for green building has resulted in a significant increase of certified green buildings.

# **E.1.2. Advance green building pilot program.** Develop a pilot program to incentivize advanced green building, such as the Living Building Challenge or net zero energy.

This action will seek to incentivize advanced green building projects, such as the Living Building Challenge, through various types of incentives, to accelerate net zero energy projects in Bellevue. The program will be a pilot program initially, designed to incentivize and permit high-performing deep green buildings and support the navigation of any challenging design and permitting situations to ensure successful completion.

**E.1.3. Green building incentives.** Review effectiveness, consider options for increasing incentives, harmonize incentives across neighborhoods, and cross-promote incentives and programs with PSE and other providers.

Bellevue provides land use incentives for green building in the downtown neighborhood and BelRed by allowing for additional development area (floor area ratio) for projects achieving higher levels of green building performance. This action will review the effectiveness of those existing incentives, consider adjustments to the incentives to make them more effective, and recommend green building incentives for other relevant neighborhoods such as Wilburton.

This action would also serve to further cross-promote and package Bellevue's incentives with other utility or state incentives, to support projects in achieving the highest levels of energy efficiency.

**E.1.4. Green affordable housing.** Evaluate opportunities to support green affordable housing, and identify strategies to encourage additional levels of green building beyond the Evergreen green building standard, for city-funded projects.

Preserving and increasing the affordable housing supply are top priorities in Bellevue. This action will evaluate opportunities for incentives for projects which include both





affordable housing and green building, to help ensure longterm affordability through reduced energy costs in affordable housing buildings.

This action will consider opportunities for advancing green affordable housing through:

- Land use or permitting incentives for projects which provide both green building and affordable housing.
- Identifying possible demonstration sites in Bellevue for green affordable housing.
- Incentives or standards for green building that exceeds the Evergreen green building standard for affordable housing, for any affordable housing developed on cityowned property.
- Encouraging building electrification for new affordable housing developments.

# **E.1.5. State building code improvements.** Support ongoing energy efficiency and green building improvements to the Washington State Energy code.

Increasing energy efficiency in new construction of commercial, multi-family buildings, and single-family homes is a key strategy for reducing energy use and greenhouse gas emissions citywide. Building and energy codes are developed at the state level, and Washington State has adopted legislation to require continued energy efficiency improvements in the code to achieve the statewide goal of increasing energy efficiency in new construction by 70 percent by 2031 compared to the 2006 code (RCW 19.27A.160), and construct increasingly efficient homes and buildings that help achieve the broader goal of building zero fossil fuel greenhouse gas emission homes and buildings by the year 2031 (RCW 19.27A.020).

This action involves the city participating in ongoing improvements to the WA State Energy Code and continuing to ensure effective review and inspection of compliance with the energy code, as part of the permitting process.

# Strategy E.2. Engage the community on best practices for energy conservation.

**E.2.1. Commercial energy efficiency.** Provide technical assistance for commercial energy benchmarking and retrofits for large buildings, to support compliance with the statewide program and leverage early adoption incentives.

In 2019, Washington State passed the Clean Buildings Bill, which requires commercial buildings over 50,000 square feet to benchmark and disclose their energy use and meet defined performance targets, which are currently in development. Commercial energy benchmarking, disclosure, and building tune-up programs are strategies to reduce energy use and greenhouse gas emissions in large commercial buildings, which account for over 50 percent of the energy use in Bellevue. This action will provide technical assistance for affected buildings to comply with the state requirements early and take advantage of statewide incentives for early compliance. This action will also support property owners and managers in identifying retrofit

**ENVIRONMENTAL STEWARDSHIP PLAN** 

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opportunities and taking advantage of various incentives and funding sources, such as the new Commercial Property Assessed Clean Energy and Resilience (C-PACER) funding. In addition, this action will evaluate options for an energy efficiency program for medium-sized buildings less than 50,000 square feet and large multi-family buildings, which are not currently covered by the state program.

# **E.2.2. Home energy retrofit program.** Develop a home energy retrofit program to support retrofits and incentivize energy efficiency.

Energy efficiency projects help homeowners reduce their energy use and associated costs and typically pay for themselves over time, but often require some upfront capital to support the costs of the improvements, making these types of projects less attainable for lower-income residents. This action will develop a program that will complement existing weatherization programs and Puget Sound Energy's energy efficiency incentives, to support Bellevue residents in making their homes more energy efficient. The program will aim to fill any gaps in existing incentive programs in terms of efficiency strategies or access for residents at varying income levels. This program will also consider opportunities to support building electrification and complement other city home improvement and efficiency programs with additional energy efficiency measures. **E.2.3. Equitable access to energy programs.** Improve access to energy efficiency programs for low-income and historically underserved and underrepresented populations.

This action will aim to support and promote existing energy efficiency programs to low-income residents, to increase access to incentives and programs. This will involve reviewing outreach and engagement strategies and participation in city and utility programs, to identify opportunities for increasing participation and access to low-income and underserved communities, most in need of energy efficiency resources.

**E.2.4. Building electrification training.** Develop an education and outreach program for contractors and homeowners on the benefits of building electrification, in partnership with green building organizations, other cities, or the K4C.

As many cities in the region seek to support a transition to cleaner energy sources for home heating, this action will involve partnering with other cities, green building organizations, and/or the K4C to build capacity amongst contractors on heat pump technology. This program could also include outreach and education to homeowners and property owners.

#### **ENVIRONMENTAL STEWARDSHIP PLAN**

**E.2.5. Evaluate additional energy efficiency strategies.** Evaluate additional strategies to support increased energy efficiency and conservation in commercial, multifamily, and single-family buildings.

In addition to commercial energy benchmarking and home energy retrofits actions, additional strategies should be considered to further advance energy efficiency improvements in existing buildings. State level policies and other funding opportunities should be tracked, along with evaluating the implementation progress of the energy efficiency actions outlined in the plan and the Washington Clean Buildings Bill. Targeted strategies ranging from incentives to energy performance standards for singlefamily homes, multi-family buildings, small to medium-sized commercial buildings, and deep energy retrofits should all be further evaluated.

#### Strategy E.3. Support renewable energy.

**E.3.1. Solar-readiness.** Encourage solar-readiness for new construction not required to do so through the Washington State Energy Code, to future proof new buildings.

The 2018 Washington State Energy Code requires new commercial buildings 20 stories or less to be solar-ready. In the code, solar-readiness for single-family homes or townhomes is voluntary. This action will involve outreach and education to encourage solar-readiness designs for the building types not covered by the code.

**E.3.2. Solarize campaign.** Identify key partners and facilitate a Solarize Campaign, to support group installations of onsite solar.

Following the success of Solarize campaigns in 2014 and 2015, which resulted in the installation of 88 solar arrays in Bellevue, seek to relaunch this program with non-profit and private sector partners to provide education, technical assistance, and facilitation of group purchasing to reduce the costs of solar installation.

**E.3.3. Community solar.** Support opportunities for community solar in Bellevue by identifying potential sites and funding opportunities.

Community solar involves a property hosting a solar array for the utility, to allow for customers to voluntarily sign-up for locally produced solar on their electricity bills. Community solar helps bring more renewable energy onto the grid, and gives customers who may not be able to have solar on their home, to support local renewable energy projects.

This action involves identifying potential sites on city property suitable for community solar, and supporting the identification of potential sites on private property, to increase access to solar options for Bellevue residents and businesses.





**E.3.4. Clean Energy Transformation Act.** Support the implementation of the Washington State Clean Energy Transformation Act, to achieve 100 percent renewable energy by 2045.

Successful implementation of the Clean Energy Transformation Act is critical for achieving the city's 100 percent renewable energy goal by 2045 and for achieving the city's greenhouse gas emissions reductions goals for 2030 and 2050. The city can support the ongoing implementation of this bill through its state-level advocacy.

#### LONGER-TERM ACTIONS TO CONSIDER

# **Building electrification.** Evaluate strategies to transition towards cleaner sources of energy for heating.

While the electricity sector transitions to clean, renewable energy, Bellevue can help residents transition to cleaner energy sources for home heating. Natural gas consumption in our residential and commercial buildings accounts for 15 percent of our greenhouse gas emissions, and to achieve our long-term greenhouse gas emissions reduction goals we will likely need to reduce natural gas use in new and existing buildings. Approximately 51 percent of housing units in Bellevue are heated with natural gas, 47 percent with electricity, and 2 percent with another heating fuel. Strategies for building electrification should be monitored at the state and regional level along with potential incentives or other strategies at the local level, to support the achievement of Bellevue's 2050 greenhouse gas emissions reduction goal.





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#### What You Can Do

Participate in **PSE's Green Power** or **Green Direct program**, to purchase renewable energy.

Complete a **home** energy assessment of your home, business, place of worship, and/ or community gathering space. These are often free.

Install **energy-efficient lights and appliances**, such as those with the ENERGY STAR<sup>®</sup> label.



Replace old windows, doors, insulation, and seals with **energyefficient alternatives** to minimize heat and energy loss.





## **Materials Management & Waste**



**Goal:** Reduce the negative impacts from consumption and waste practices and strive towards Zero Waste of Resources.

### **Focus Area Overview**

Sustainable materials management is a holistic, systemic approach to maximize productivity and minimize environmental impacts across the full life cycle of materials. Each stage of a product's life cycle—from extraction, to production and manufacturing, to transportation and distribution, to home and business use, and ultimately to disposal—carries some degree of environmental impact.



Bellevue is striving for zero waste of resources by 2050, which will involve waste reduction, reuse, recycling, and organics collection for items with an economic value. A sustainable materials and waste management system should be designed to eliminate waste by ensuring resources are used to their full extent, as well as assuring that products are recovered, repurposed, or recycled at the end of their use. Bellevue is committed to ensuring accessible and affordable waste diversion opportunities for all residents. Actions in this section include policies, programs, and infrastructure to help our community reduce, reuse, recycle, compost, and safely manage hazardous materials.

### **Targets**

Bellevue will achieve a diversion rate of **50% by 2030**, reaching **Zero Waste** of Resources (90% diversion) by 2050.





Bellevue has set an ambitious but attainable goal to achieve zero waste of resources (90 percent diversion) by 2050. Reaching this bold target will require changing the way we think about trash and recycling and moving toward a system where discarded materials become resources for others to use; where recycling becomes standard operating procedure for households and businesses; where composting ensures we utilize the full value of all waste; and where edible food destined for landfills is recovered and redistributed to the community. We estimate that actions such as requirements for recycling and composting at new buildings, construction and demolition (C&D) policy updates, and continued education and outreach will help achieve a higher-than-40 percent recycling rate. Mandatory policies for composting and recycling will likely be needed to reach the city's longterm diversion goals.

#### 100% 90% Remaining diversion needed (e.g., source reduction) 80% Mandatory composting Short Tons Diverted (%) 70% Mandatory recycling 60% WWW Other local policies 50% **WWW** C&D legislation 40% WWW Education & outreach 30% 20% **Business As Usual** 10% Target 0% 2020 2040 2030 2050

### **Strategies to Achieve Zero Waste Target**



### How are We Doing

Bellevue's overall recycling rate has been about 40 percent for the past eight years. This is comprised of a relatively high recycling rate for single-family homes of 68 percent, and a lower rate of recycling for multi-family and commercial buildings.

Fifty-seven percent of the total waste generated in Bellevue comes from multi-family and commercial buildings, and Bellevue is forecasted to grow by 15,000 people over the next 15 years, along with 48,000 jobs. That growth will be primarily focused in multi-family and commercial buildings, underscoring the need to continue to expand efforts to increase recycling.

King County recently updated its Comprehensive Solid Waste Management Plan, which sets out goals and strategies for the County to achieve zero waste of resources with economic value.

## **Key Accomplishments**

To support recycling and organics collection by Bellevue residents, businesses, and organizations, the city has implemented the following efforts:

- Created a "Refresh Recycling" program to improve commercial waste and recycling practices. Over 90 businesses have signed the Refresh Recycling pledge.
- Provided ongoing tailored assistance to local businesses. In 2019, 57 businesses received recycling assistance from Bellevue Utilities. Bellevue businesses collectively recycled over 8,100 tons of material and diverted over 1,666 tons of organics (offsetting over 1,427 metric tons of C02 total, the equivalent of taking 3,872 cars off the road).
- Continued to expand the Green Genius 17-year collaboration program between Bellevue School District (BSD) and Bellevue Utilities to cut waste and improve recycling at all twenty-nine schools in the district.





## Key Accomplishments (continued)

- Promoted Repair Fairs in collaboration with King County EcoConsumer program and King County Library System to provide residents with free repair of small household items.
- Provided assistance and education materials to participating local auto parts stores resulting in an average of 15,400 gallons of used motor oil from resident do-it-yourself oil changes each year, and nearly 10,000 car oil filters collected for recycling each year.
- Implemented a pilot opt-out organics recycling program for multifamily residences in 2017-18, resulting in 69 additional properties starting new organics service and increasing the total percentage of multifamily properties participating in organics service from 35% to 51%.
- Provided in-person and virtual educational workshops and assistance for single-family residents, multifamily residents, commercial businesses, and schools.
- Leveraged community partnerships to provide outreach, education, and tools to reduce waste including collaborative efforts with King County libraries, Hopelink, farmers markets in Bellevue, Business Ventures classes, Bellevue Boys and Girls Club, and more.

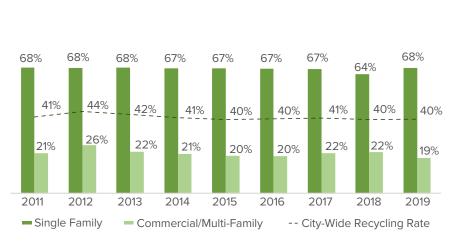


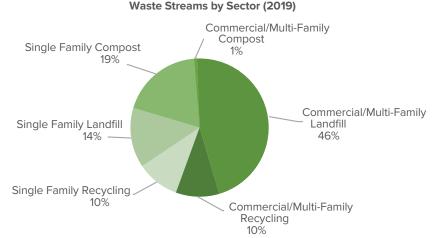


# **40%** recycling rate in Bellevue, including recycling and compost

**Community Recycling Rate by Sector** 

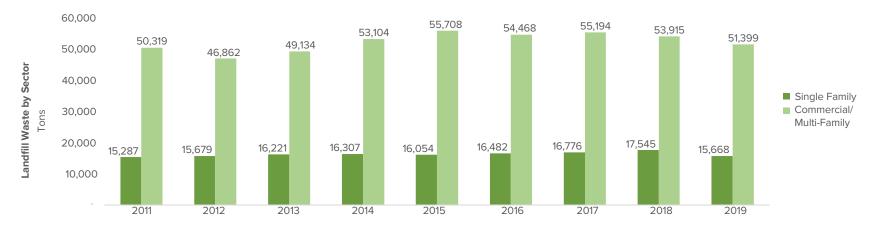
## 46% of all waste comes from commercial and multi-family units and is landfilled





# 67,067





MATERIALS MANAGEMENT & WASTE 75





### **Case Study Highlight:**

Supporting Downtown Businesses and a Retirement Community in Increasing Recycling

#### **KEY CENTER BUILDING**

The Key Center in downtown Bellevue is managed by Kilroy Realty, a property management company with the goal of becoming carbon neutral. This 17-floor high-rise holds the building's namesake Key Bank, as well as other companies including tech company SAP Concur, which has its own goal of using zero single-use plastics. The Bellevue Utilities outreach team provided assistance that included staffing a building-wide Earth Day event, conducting a "lunch-and-learn" for SAP staff, designing personalized posters for SAP kitchens, providing signage for building-wide bathroom paper towel collection, and coordinating with a local hauler for increased organics collection. Within a year Key Center increased recycling by at least 170 cubic yards, diverting over 3.5 tons from the landfill.

#### PACIFIC REGENT BELLEVUE

Pacific Regent Bellevue is a retirement community with full-time residents, a full-scale restaurant, and a café. The Bellevue Utilities outreach team worked with Pacific Regent staff to reduce their carbon footprint and register for the regional EnviroStars program. Assistance included identifying locations for indoor recycling containers, providing signage, identifying outdoor service level changes to better match the volumes of waste produced, and assisting with EnviroStars registration. The team also provided training for bistro and kitchen staff and helped arrange ongoing organics collection for composting with a local hauler. **Pacific Regent now diverts an estimated 1,000 pounds of recyclables and organics from their garbage each month, saving money and natural resources.** 



## **Strategies and Actions**

#### **PRIORITY NEAR-TERM ACTIONS**

Strategy W.1. Increase community recycling and composting of waste.

**W.1.1. Recycling education and outreach.** Provide waste reduction, recycling, and composting education and outreach targeted at multi-family and commercial buildings to help improve the citywide recycling rate.

Bellevue provides a number of outreach, education, and technical assistance programs on waste prevention, waste reduction, recycling, carbon footprint reduction, toxics reduction, and proper hazardous waste disposal to multifamily and commercial customers. This work will continue to help increase the recycling rates for these customers, who may need different engagement models than single-family customers. Future education and outreach will focus on working with multi-family and commercial customers who do not have organics collection programs in place or businesses who would benefit from waste reduction assistance.





W.1.2. Recycling space requirements. Consider updates to space and access code requirements for recycling services in multifamily, commercial, and mixed-use buildings, to ensure new buildings have adequate space for three waste streams.

As job and population growth continues to increase within Bellevue, access to recycling services in multifamily, commercial, and mixed-use buildings will become increasingly important to maintain and improve Bellevue's recycling rate. This action will review existing space and access requirements and consider updated space and access code requirements or design guidelines, to improve access to recycling and organics collection for building occupants, and to improve accessibility to waste containers for the waste hauler. This will help ensure all Bellevue residents to have access to recycling and organics collection services.





**W.1.3. Food waste prevention.** Encourage food donation and food waste prevention.

This action will support and promote strategies for food waste prevention and food donation in Bellevue. Food waste and organics makes up a large amount of the total waste collected in Bellevue. These strategies will support the community both by ensuring less food waste is generated and excess food can be donated to feed hungry community members.

#### Strategy W.2. Reduce community waste generation.

**W.2.1. Single-use plastics ban.** Explore a prohibition on single-use plastics such as polystyrene to reduce waste and litter and conduct outreach and technical assistance to support implementation.

Single-use plastics are an environmental problem because they are used in large quantities and cannot be easily recycled. This action will evaluate new strategies and policy tools to reduce plastic waste in Bellevue. The Washington State Legislature recently passed a ban on single-use plastic bags, which is planned to go into effect in January 2021 (timeline could change due to COVID-19 implications). This work will explore strategies for reducing other plastic products, such as polystyrene (more commonly referred to as Styrofoam<sup>®</sup>) and other food packaging items. This action is impacted by the effects of COVID-19, which has temporarily led to an increase in single-use plastics in the community. Bellevue will develop and evaluate strategies that reduce single-use plastics waste while mitigating economic impacts on residents and the business community.

# **W.2.2. Waste study.** Utilize regional waste characterization studies for multi-family and commercial buildings to better focus education and outreach.

The recycling rate for multi-family and commercial customers in Bellevue is approximately 22 percent, significantly lower than single-family residents. This percentage of waste from multi-family and commercial customers may continue to increase because of job and population growth in Bellevue's



growth centers. Bellevue will utilize existing regional waste characterization studies to identify and target materials and generators for waste reduction. This will help inform changes to the outreach and technical assistance programs in order to address the low recycling rates among multi-family and commercial customers.

# W.2.3. Assess strategies. Analyze additional or updated strategies for achieving the short-term recycling and long-term zero waste goals.

King County passed the Comprehensive Solid Waste Management Plan in 2019, which sets goals and guides strategies for managing solid waste for cities within the county. This action will involve assessing additional strategies for achieving Bellevue's solid waste management goals, by reviewing best practice strategies and analyzing the impact, costs, and benefits of additional strategies.

# Strategy W.3. Increase recycling of construction and demolition (C&D) waste.

W.3.1. Construction and demolition waste recycling. Explore strategies to ensure that Bellevue-based job sites recycle certain types of construction and demolition debris prohibited from disposal by county ordinance, such as clean wood, cardboard, metal, gypsum scrap (new), and asphalt paving, bricks, and concrete, to reduce waste and minimize impacts of construction.

In 2016, King County passed an ordinance that requires construction and demolition debris to be recycled and

banned from landfill disposal. Construction and demolition debris make up approximately 30 percent of all waste generated in King County. While King County is responsible for enforcing this requirement, there are additional steps Bellevue could take to educate job site staff and supervisors about this recycling requirement to help increase compliance with the county ordinance. This action will explore options, such as outreach and education for contractors, to support compliance and increase the actual amount of recycled construction and demolition waste from Bellevue.

#### Longer-Term Actions to Consider

#### Mandatory recycling and composting.

While voluntary programs such as incentives, education, and outreach will help increase the city's waste diversion, studies have shown that mandatory requirements are ultimately needed to reach the city's long-term sustainability goals.





### What You Can Do

Shop smart! Whether for clothing, electronics, or household goods, look for items that are high-quality, repairable, and long-lasting.
You can help avoid significant food waste by properly planning meals, making sure you are right sizing your grocery and restaurant purchases, and bringing reusable containers for your leftovers when eating out.

Ditch the disposables! Take a **reusable mug, water bottle, and shopping bag** when you go out.

To improve recycling at your workplace, check out **Bellevue's Refresh Recycling program** for a free site visit and consultation.

If you live in an apartment or condo building and don't have access to organics collection, **talk to your property manager**.





## **Natural Systems**

**Goal:** Improve and preserve the integrity and health of Bellevue's natural systems and ensure that all of Bellevue's residents have access to Bellevue's abundant natural resources.

## **Focus Area Overview**

The city prides itself on being known as the "City in a Park." This plan looks to continue to preserve natural, cultural, and agricultural resources and provide public uses that reflect sustainable resource management and community values. The importance of preserving the city's natural habitats is a key component of this plan. In addition to enhancing ecosystem resilience, minimizing heat impacts, and storing carbon, actions that improve natural habitat can also enhance natural beauty and provide recreation opportunities for Bellevue's visitors and residents.

Climate change has the potential to significantly disrupt local ecosystems by altering precipitation patterns, increasing average temperatures, and making extreme weather events more frequent and severe. These changes can affect a wide range of ecosystem features and functions, from causing fish die-offs to disrupting crucial pollinators. Local government policies and actions will play a key role in protecting ecosystem elements from climate-related threats. Along with preserving natural systems, actions in this section include tactics for expanding tree canopy throughout the city, enhancing our park system, providing increased access to open spaces within walking distance, advancing our work to restore natural resources, and protecting biodiversity for future generations.

### **Targets**

KPI	Short-term	Long-term
<b>Tree canopy</b> (% citywide tree canopy)	38%	40%
Households within 1/3 mile of a park, open space, and/ or trail (% of residents)	80%	100%
Maintain and improve the health of streams (metric TBD in Watershed Management Plan)	TBD	TBD

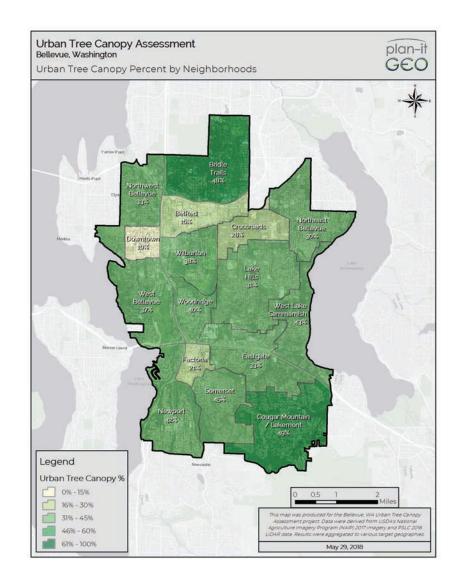




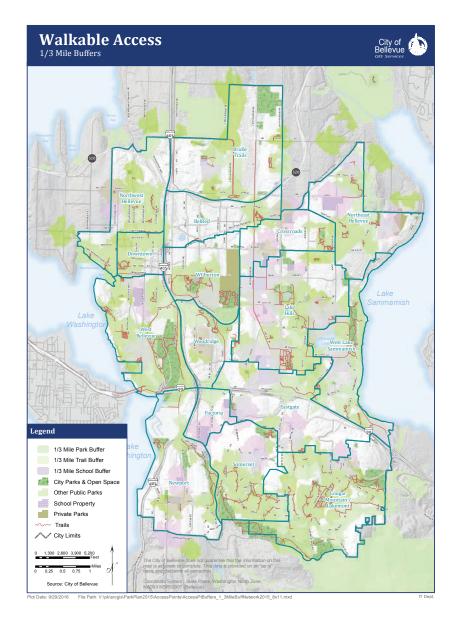
The city commissioned a detailed spatial analysis to assess the ability of various city areas to contribute to the city's 40 percent tree canopy goal. The study found that the city would need to enough trees to provide tree canopy for 670 acres of land—roughly equivalent to 75,000 trees—to achieve 40 percent tree canopy cover. High-potential areas for tree planting include single-family residential areas, school grounds, and the public right-of-way. Sixty-five percent of Bellevue's tree canopy is on private property, and the most environmental benefits can result from tree planting in developed areas, to help reduce stormwater runoff, cool homes and buildings, and clean the air near our homes and workplaces.

To achieve this goal, we need to plant about 2,500 trees per year with no net tree loss from development or tree removal. Achieving no net tree loss is challenging with a growing city, and will require tree retention, preservation, and mitigation for tree loss. This will involve updating our tree preservation codes and expanding our tree planting efforts on both public and private property. The city already plants 6,000-7,000 trees per year in our parks and hundreds of trees on our streets, to preserve the health of the forest and plan for future forest succession.

The city is in the process of assessing the health of Bellevue's streams, and developing a Watershed Management Plan to improve stream health. Through this planning process, the city will also review existing stream health metrics and recommend overarching metrics and targets for stream health.







#### How are We Doing

Access to abundant natural resources is part of what makes Bellevue unique. As of 2020, 73 percent of Bellevue residents lived within 1/3 of a mile to a park, open space, or trail access point. There are areas throughout the city that lack access to a park or trail within 1/3 of a mile; these service gaps are evaluated regularly by Bellevue Parks & Community Services and inform long-term planning priorities for park acquisition and development.

In 2018, the city performed a tree canopy assessment, analyzing the tree canopy using LIDAR satellite imagery. The overall canopy was estimated to be 37 percent, with a significant range in canopy coverage between Bellevue's single-family neighborhoods and mixed-use and commercial areas. Downtown and BelRed have the lowest tree canopy coverage, and Bridle Trails and Cougar Mountain/Lakemont have the highest coverage.

The health of Bellevue's streams is assessed using a variety of techniques to assess water quality, flow, and diversity of organisms in the stream. The city is also in the middle of a comprehensive stream health assessment, to help inform planning and investments around improving our streams. Bellevue's streams connect to our larger water bodies, and many of our streams are fish-bearing. Bellevue's natural environment is connected to the greater Puget Sound ecosystem, and we have an important role to play in preserving and restoring our streams and water bodies.



## **Key Accomplishments**

The city has a long history of acting to preserve and restore our natural environment, and has taken the following significant steps:

#### PLANNING AND POLICY

- Updated our stormwater and critical areas codes in 2016 to reduce stormwater runoff, improve water quality, and protect Bellevue's natural areas
- Updated permit requirements for tree removal in 2016, to require a permit for removing more than five significant trees, or causing more than 1,000 square feet of clearing
- Updated the Parks & Open Space System Plan in 2016 to prioritize open space acquisition and the development of geographically distributed parks and trails
- Conducting a comprehensive stream health assessment to inform the Watershed Management Plan

#### NATURAL AREAS PROTECTION AND IMPROVEMENTS

- Planted 9,233 trees in our parks and 268 trees in the right-of way
- Completed 8 acres of forest habitat and restoration at Lakemont, Springhills and Airfield Park greenbelts and wetland enhancement at the Lake Hills Greenbelt.
- Launched the Tree Tours and Neighborhood Tree Ambassador programs to educate Bellevue residents around the value and benefits of trees
- Over 5,000 people participated in Bellevue's environmental education programs in 2019
- Dedicated over 12,000 volunteer hours through city programs and partner organizations to help improve the health of our parks and natural areas



#### **ENVIRONMENTAL STEWARDSHIP PLAN**



# PARK AND OPEN SPACE IMPROVEMENTS AND ACQUISITIONS

- Completed several key park and open space acquisitions over the past ten years, including:
  - Just over fourteen acres of open space added to
     Eastgate Park
  - Eight acres in BelRed for future park and stream restoration projects
  - Two acres in Bridle Trails for the construction of Bridle
     Trails Corner Park
  - Ten acres in Newport Hills for open space and a neighborhood park
- Completed Woodridge-McTavish trail system and pathway connection to the Lake Hills Connector – SE 9th Place to SE 8th and the Lake to Lake Trail
- Completed the renovation of the Coal Creek Natural Area trail system
- Added more than 17 acres of park space with the opening of Surrey Downs Park and Meydenbauer Bay Park





### **Case Study Highlight:**

## **Tree Tours and Neighborhood Tree Ambassadors**

In 2018, the City of Bellevue began a tree tour program to educate community members about the importance of trees in cities. The city's AmeriCorps Urban Forestry Specialist led tours in Downtown, Ardmore, Weowna, and Robinswood Parks for a total of more than 200 community members. Eighty-nine percent of tour attendees reported an increase in their knowledge of the benefits of trees, the role of trees in cities, or Bellevue's tree canopy goals. Eighty percent of attendees reported that the tour changed how they think about trees in their neighborhood.

In 2020, the city began expanding on the success of the tree tour program with a new Neighborhood Tree Ambassador volunteer program. As part of this program, Bellevue residents can help build community support for trees by creating and leading tree tours in their own neighborhoods. The first cohort of 15 volunteers created self-guided tree tours of their neighborhoods, including Wilburton, Downtown, Northeast Bellevue, Crossroads, and West Bellevue. These tours are available to download from the city's website. In the future, the neighborhood tree ambassadors will be able to lead their tree tours in person.





## **Strategies and Actions**

#### **PRIORITY NEAR-TERM ACTIONS**

#### Strategy N.1. Increase tree canopy citywide.

**N.1.1. Tree preservation code.** Introduce requirements for tree preservation to further support the achievement of the 40 percent tree canopy goal.

Residents have voiced their interest in updating Bellevue's codes related to trees, to prevent further tree loss and to ensure sufficient retention and replacement requirements are in place. This action entails a comprehensive review of the code and requirements related to trees and updates to the code to support tree preservation, retention, replacement, and protection during construction, including considerations for significant or exceptional trees and tree maintenance.

**N.1.2. Tree planting.** Develop a program to incentivize residents and large property owners to plant the right tree in the right place and sustain existing trees, with reduced cost or free trees.

Achieving the 40 percent tree canopy goal will require a combination of tree preservation and tree planting. Assuming we retain no net tree loss over the next 30 years by replacing trees that need to be removed, approximately 75,000 trees will need to be planted. To achieve this goal, we will need to plant trees on both public and private property. This program will provide incentives, such as free or lowcost trees, to support tree planting in areas with lower tree



canopy, along with education about proper siting, care, and maintenance.

**N.1.3. Urban forester resource.** Explore the need for a city arborist or urban forester resource for permit review, enforcement, code update, strategic planning, and education and outreach.

For targeted project efforts such as potential code updates and planning for tree planting, the city will leverage existing urban forestry resources and complement them with additional external resources as necessary and consider the need and benefits for a dedicated urban forestry position.



**N.1.4. Public property tree planting.** Identify locations on public property for increasing tree canopy, such as in the right-of-way and other areas, and develop a plan and funding strategy for planting and maintenance.

Identify sites and develop a long-term plan for increasing tree canopy in targeted areas on public property, and in particular in the right-of-way. This effort will evaluate existing capital project plans and areas that need increased tree canopy, along with any areas with stormwater management issues that could benefit from an increased tree canopy, such as streams. This effort will also include a long-term plan for funding and maintenance for trees in the right-of-way and other areas, to ensure the long-term health of any new trees.

**N.1.5. Tree Ambassadors.** Launch a Tree Ambassadors program to provide education and outreach around the value and benefits of trees.

We have heard a strong desire from Bellevue residents who wish to get involved and take action to help preserve the tree canopy. The Tree Ambassadors program was developed in response to this desire, to provide residents with an opportunity to deepen their own understanding around the ecological, health, economic, and other benefits of trees and to share that knowledge and passion with their neighbors. N.1.6. Tree canopy assessments and tracking. Continue to assess the city's tree canopy and identify other opportunities for tracking tree data, such as during permitting.

The city has historically performed a tree canopy assessment every seven to ten years, which is necessary to understand changes to both the canopy and permeable and impermeable surfaces in Bellevue. In addition to this high-level study, additional data sets could help to better understand changes to the tree canopy, such as tracking the number of trees removed per year which require a Clearing and Grading permit. Other tools such as remote sensing or aerial imagery could also be used to supplement the tree canopy assessment, to provide better information for planning and policymaking.







Strategy N.2. Improve ecological conditions for forests, streams, wetlands, and wildlife.

N.2.1. Improve stream health. Through the Watershed Management Plan, assess current stream health conditions and develop a plan for improving stream health, including watershed-specific recommendations which could include capital projects, enhanced maintenance/operational changes, and policy recommendations.

The goal of the Watershed Management Plan (WMP) is to direct improvements to the health of Bellevue's streams using a holistic toolbox of storm and surface water management practices. The Watershed Management Plan will involve a comprehensive assessment of the health of Bellevue's streams, along with recommendations for stream health performance monitoring and short and long-term targets. Compared with relying on current and known future regulations alone, the WMP will prioritize investments in rehabilitation efforts in high-priority watersheds providing measurable environmental benefits to stream health within shorter time frames. At the same time, the WMP will help prevent further degradation in non-priority watersheds. Strategy N.3. Improve natural stormwater retention systems and reduce water pollution.

**N.3.1. Stormwater retrofit.** Identify stormwater retrofit or enhancement opportunities and develop an implementation plan to support the expansion of green stormwater infrastructure.

Green stormwater infrastructure includes the numerous ways that landscaping, pervious surfaces, rainwater catchment, or soil cell systems store, clean and reduce the flow of stormwater and surface runoff. Stormwater runoff is a key cause of water pollution in urban areas, and green stormwater infrastructure helps manage these impacts in a cost-effective and aesthetically appealing way. Identifying additional green stormwater infrastructure opportunities will allow the city to continue working toward the communitywide target of maintaining and improving the health of Bellevue's streams. One water quality retrofit project has been identified in the 2021-2027 CIP by the Utilities department and more projects may be identified by the 2023-2029 CIP.





There may be additional opportunities identified through upcoming land use code and policy initiatives in specific geographic areas, such as in the Wilburton area, the BelRed area and the Grand Connection. This action is directly supported by the completion of the Watershed Management Plan.

Strategy N.4. Support preservation and access to green and open spaces.

N.4.1. Multiple environmental benefits for open space preservation. Identify and acquire sites whose preservation as open space could incorporate additional environmental benefits, such as stormwater management, flooding mitigation, or enhancement of tree canopy.

Open space preservation can serve multiple functions in supporting a resilient city. This action will work toward several Natural Systems community-wide goals in the Environmental Stewardship Plan: to increase tree canopy, preserve and improve stream health, reduce flooding, and increase access to parks and open spaces. Once sites and associated natural system benefits are identified, appropriate funding sources will be considered that are consistent with city financial and budget policies. As the city plans for the growth of the park network to increase park access, additional environmental functions should be considered for new or upgraded sites, to allow for a layering of environmental and sustainability functions and benefits on a single site. For example, this approach could allow for recreational facilities to be used to absorb stormwater and mitigate flooding, which is an



efficient and responsible use of land and resources in urban environments where such opportunities may be scarce.

This action requires a longer timeframe because it involves both the identification and acquisition of open space sites, which can take many years. Various planning efforts will inform this action, including the Watershed Management Plan, guidance around tree canopy enhancement, and the upcoming update to the Parks & Open Space System Plan in 2022. Other neighborhood- or district-level planning efforts may identify site locations, including work around the Wilburton land use initiative and the BelRed Look Back.





**N.4.2. Funding strategy to achieve open space goals.** Consider strengthened code requirements, land use incentives, or fees on new development to expand the park system and increase walkable access to parks and trails.

Code requirements, land use incentives, and impact fees on new development are tools used by jurisdictions to ensure that investment in a city's park system keeps pace with population growth. Bellevue has implemented incentives for the creation of public open space in the Downtown and BelRed land use codes: these incentive systems allow for increased building density and redevelopment potential in exchange for the developer supporting the cost of publicly accessible park and open space features. While Bellevue's existing incentive systems have provided some degree of support for park system expansion, there is opportunity to evaluate and strengthen incentives to more effectively support acquisition and development, particularly in highdensity neighborhoods with increasing property values.

In addition to examining incentives, this action will also explore the benefits and drawbacks of code requirements or fees that will support the expansion of the park system to meet the needs of additional residents and workers. Unlike most neighboring jurisdictions, Bellevue does not currently collect park impact fees from new development. **N.4.3. Plan for walkable access to parks.** Continue to plan for achieving the walkable access to parks, open space, and trailheads goal as part of the next update to the Parks & Open Space System Plan.

Every six years, Bellevue Parks & Community Services updates its Parks & Open Space System Plan to meet the requirements of the state Recreation and Conservation Office. The plan charts the community's long-range vision for acquisition and development of parks and trails and preservation of open space. To ensure that the city's park system is meeting community needs, the plan maps and analyzes the number of Bellevue households that are located within 1/3 mile of a park entrance or trailhead. In addition to geographic proximity, the 2022 plan update will evaluate demographic information and environmental health to equitably prioritize areas for acquisition and development.







### What You Can Do

Plant and care for a tree in your yard, request a street tree in front of your house, and/or organize a **neighborhood tree planting event**.

Organize a community group to help **restore a local stream or park**. Look for volunteer opportunities to do restoration work for a local organization at <u>www.bellevuewa.gov/volunteering/</u> <u>environmentalstewardship</u>

Create a **backyard wildlife habitat**! Basic elements can include a fresh water source, plants and feeders that provide nourishment for birds, homes for insects, and rocks, trees, bushes and/or bird houses for shelter and nesting.

Wash your car in a **commercial car wash** to prevent any soapy and polluted water going into your storm drain, which feeds into Bellevue's streams.





## **Municipal Operations**

**Goal:** The City will be a sustainability leader.

## **Focus Area Overview**

For a city to take meaningful action on sustainability and show true leadership, sustainability must be integrated across the municipal organization. Although emissions from the City of Bellevue's operations make up a relatively small proportion of the community's overall greenhouse gas emissions, city leadership in improving operations can inspire community action, enhance operational efficiencies, and reduce costs. The city can leverage key opportunities to reduce emissions, with a focus on building sustainable economic opportunities for our residents and businesses with a commitment to improving the resilience of our city to potential future environmental impacts. To provide leadership, the city's role must also extend to informing, educating, and encouraging change among resident and business stakeholders. The city must partner to remove barriers to action and to develop the most useful stewardship programs if we are to collectively meet our targets.

This section involves the city taking actions to reduce its own GHG emissions footprint and making city operations more resilient. Actions in this section include training internal staff, optimizing city facilities, and improving equipment and purchasing processes. Creating this strong foundation of internal leadership and process will ensure accountability as the City of Bellevue looks to achieve the long-term goals outlined in this plan.

## 2040 Targets



80% GHG emissions reduction



100% renewable energy50% building energy reduction



35% employee drive alone rate100% light-duty fleet EVs30% fleet fossil fuel reduction



90% recycling rate = zero waste

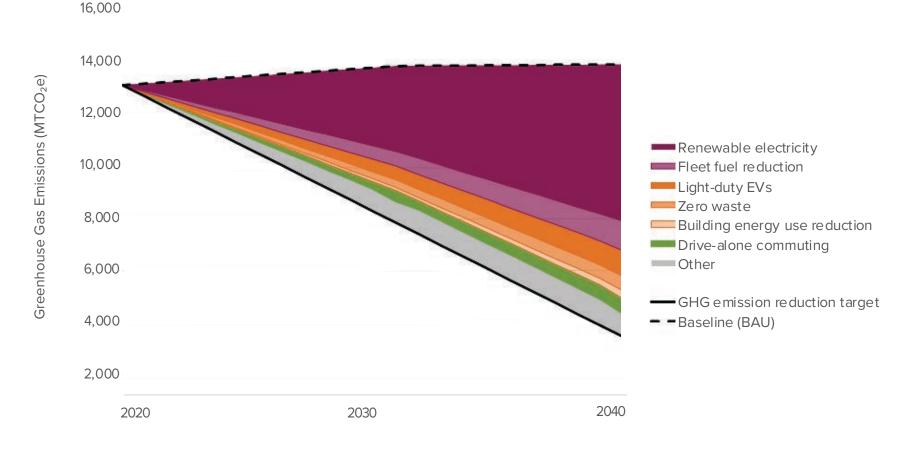


10% water use reduction TBD% forests in healthy condition



Municipal operations use energy, from fuel used in fleet vehicles to the electricity used to power streetlights, traffic signals, and pumping stations. Key strategies for achieving the municipal operations GHG reduction goal include shifting to carbon-neutral electricity, transitioning the municipal fleet to electric vehicles, improving efficiency in buildings and facilities, and shifting to lower-carbon commuting modes (see figure below).

## **Bellevue's Municipal Emissions Reduction Analysis**



#### **ENVIRONMENTAL STEWARDSHIP PLAN**

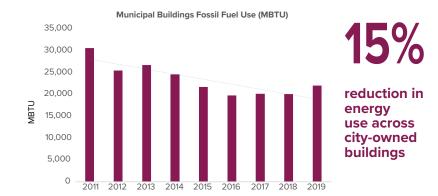


#### How are We Doing

#### Energy

The city decreased energy use by 15 percent in municipal buildings and 40 percent for streetlights. This is the result of implementing capital improvement projects and operational efficiencies in city-owned buildings, facilities, and infrastructure. All municipal buildings are benchmarked in ENERGY STAR® Portfolio Manager and smart building analytics are used for monitoring building systems at City Hall.

Additionally, the city committed to purchasing renewable energy for 70 percent of municipal operations over the next 20 years through Puget Sound Energy's Green Direct Program. Solar arrays are installed at the Bellevue Service Center and Crossroads Community Center. The city is installing a hydro-electric turbine to generate electricity from an elevation drop in the water distribution system. This 90 kW turbine will generate enough electricity to offset power used in the largest pumping station in Bellevue.





#### **Materials Management & Waste**

The City of Bellevue annually tracks the total amount of waste sent to landfills to measure the impact on greenhouse gas emissions. Waste audits are conducted at the city's largest buildings to measure contamination rates and help inform education and signage programs to improve quality of recycling and composting. The city's local landfill has a gasto-energy facility that captures methane and pipes it to an on-site plant that converts it into biogas and electricity that is used to power the facility.



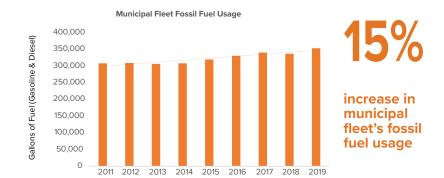
## SUSTAINABLE BELLEVUE

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#### **Mobility & Land Use**

The municipal fleet has 127 fuel efficient vehicles (i.e. 119 hybrids, 3 plug-in hybrids, and 4 electric vehicles). Bio-diesel accounts for 67 percent of total diesel used in fleet vehicles, and 52 percent of it is locally sourced from commercial businesses. This B20 blend is purchased at an average cost savings of \$0.28 per gallon compared to the previous B15 blend, saving the city an estimated \$25,650 per year. Despite work to green the city's fleet, overall fleet emissions have increased by 15 percent as the economy has improved over the past nine years and capital projects, construction, and other city services have increased.

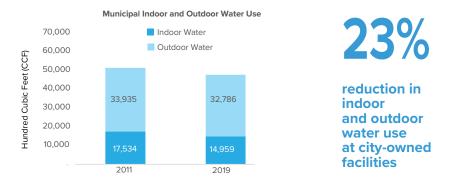
The drive alone rate for city employees was 43 percent in 2019. The city's commute-trip reduction program offers transit passes and coordinates vanpool programs for city employees. The city operates 28 electric vehicle charging stations city-wide and is planning to install additional stations to support fleet and employee charging. The light rail extension at City Hall will offer employees an easy and convenient alternative to driving alone by 2023.



#### **Natural Systems**

Green infrastructure is incorporated into city projects to improve water quality of stormwater runoff. Bellevue Youth Theatre and City Hall both have vegetative, or green, roofs. The Parks & Community Services Department updated Bellevue's Environmental Best Management Practices and Design Standards to incorporate native planting, conserve water, and improve water quality.

The city monitors indoor and outdoor water use at city-owned buildings and is upgrading to smart water meters across the city so that leaks can be detected quickly and remotely. Since 2015, total water use at city-owned facilities has declined by 23 percent.

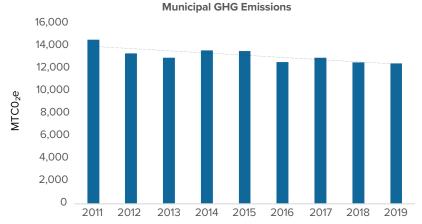




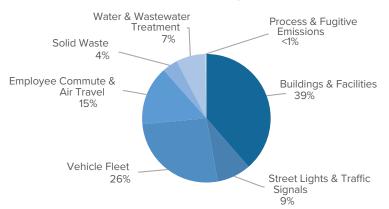
#### **Climate Change**

The City of Bellevue is a member of ICLEI – Local Governments for Sustainability and has been annually measuring greenhouse gas emissions since 2011. Greenhouse gas emissions from municipal operations has decreased by 14 percent. The largest source of emissions is from city-owned buildings, accounting for 39 percent of total emissions while the municipal fleet accounted for 26 percent of total emissions. The city launched a website to host an Environmental Performance Dashboard to publicly share annual greenhouse gas emissions data for each focus area. Strategies and actions for reducing municipal operations greenhouse gas emissions are primarily driven by actions in the following Energy and Mobility sections, to reduce energy use in buildings and increase the use of clean energy in city buildings and clean fuels for city vehicles.





of municipal GHG emissions come from buildings, facilities, and transportation

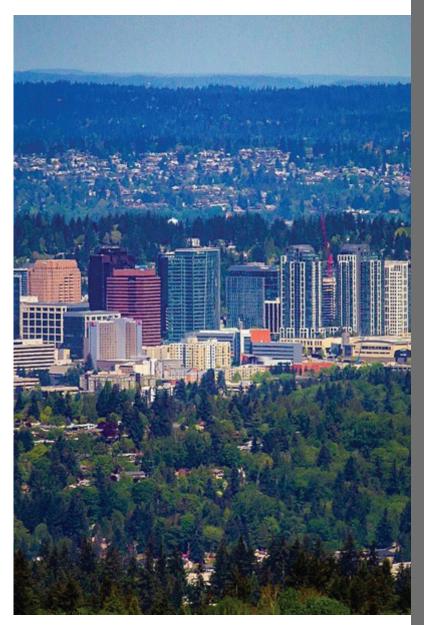


#### Municipal GHG Emissions by Sector (2019)



## **Key Accomplishments**

- Launched the Environmental Stewardship Initiative in 2007.
- Established the Resource Conservation Manager position in 2009.
- Joined ICLEI Local Governments for Sustainability and annually monitoring of greenhouse gas emissions for the community and municipal operations since 2011.
- Upgraded all streetlights, traffic signals, and major city facilities (City Hall, Bellevue Service Center, Crossroads Community Center, etc.) with LED lamps.
- Adopted Resolution 9186 to benchmark energy in city-owned buildings.
- Committed to purchasing 70 percent of energy for city-owned buildings from a dedicated solar and wind farm for a 20-year term resulting in cost savings by 2021, through PSE's Green Direct program
- Developed an Environmentally Preferable Purchasing Policy in 2013.
- Installed 28 electric vehicle charging stations at public and cityowned facilities.
- Updated Bellevue's Best Management Practices and Design Standards manual in 2020.
- Adopted a 5-year vehicle replacement plan for fleet vehicles to encourage adoption of fuel-efficient technology, and maximize return on investment for city vehicles.
- Integrated 127 fuel-efficient vehicles into the municipal fleet (i.e. 119 hybrid, 3 plug-in hybrids, and 4 electric vehicles).
- Fueled fleet vehicles using 67 percent biodiesel with 52 percent is locally sourced.
- Installed new heat recovery chiller at City Hall, reducing natural gas use by more than 47,000 therms annually; nearly a 90% reduction.





### **Case Study Highlight:**

## **Buying Green Power through PSE**

The City of Bellevue's electricity use is getting cleaner and greener. Approximately 70% of electricity used in city buildings and facilities is purchased from renewable energy projects. In 2016, the City of Bellevue committed to purchase renewable energy for the next 20 years through Puget Sound Energy's (PSE) Green Direct program. Through this clean energy partnership, PSE contracted to build the first wind power projects in western Washington and one of the largest solar project to be built in south-central Washington, to date.

The Green Direct program will help the City of Bellevue reduce greenhouse gas emissions from municipal operations by approximately 32 percent. When the Skookumchuck Wind Energy Project is completed in late 2020, it will supply 137 megawatts of local, renewable energy to the electricity grid. The Lund Hill Solar project will come online in 2021 and will supply an additional 150 megawatts. The city's long-term commitment to purchasing renewable energy will save the city on energy costs starting in 2022. In addition to Bellevue, several government agencies participate in Green Direct, including King County, Sound Transit, the State of Washington, Port of Seattle, and thirteen cities. Western Washington University and Bellevue College have also signed up, along with major private customers which include Target, REI, Starbucks, Walmart, T-Mobile, Providence Health & Services, and Kaiser Permanente.







### **Strategies and Actions**

**PRIORITY NEAR-TERM ACTIONS** 

Strategy M.C.1. Mitigate emissions and promote sustainability across all operations.

M.C.1.1. Implementation – monitor and report. Report on progress towards Environmental Stewardship goals.

The Sustainable Bellevue Plan establishes 2040 goals for municipal operations and 2050 goals for community-wide sustainability. The program manager will update the plan every 5 years to address challenges and incorporate new opportunities. Progress towards goals will be reported quarterly to leadership teams and annually to city council.

# **M.C.1.2. Sustainable operations training.** Incorporate sustainability commitments into city staff trainings.

The Sustainable Bellevue Plan can help the public and city staff understand how "Stewardship" as a Core Value impacts decision-making processes to have a positive impact on municipal operations and community stakeholders. To support the implementation of the plan and the further institutionalization of environmental stewardship in city operations, staff training programs will incorporate the highlevel goals and specific operational policies related to the plan. This will support new and existing staff in understanding the city's sustainability commitments and how personal and professional decision-making processes impacts progress towards our goals.



**M.C.1.3.** Implementation – stewardship team. Form an interdepartmental "Stewardship Team" to oversee the implementation of the plan.

To oversee the implementation of the Sustainable Bellevue Plan, the city will form an interdepartmental "Stewardship Team" which includes department representatives who meet regularly to coordinate implementation and report on progress. Two teams could be established to oversee actions related to municipal operations and another for communitylevel initiatives.





**M.C.1.4. Sustainable capital projects training.** Develop sustainability training opportunities for city employees working on capital projects and pilot a sustainability rating system for an infrastructure project.

Capital projects have a long-lasting impact on the built environment with a high level of potential to reduce embodied carbon in transportation and infrastructure projects. There are sustainability training programs specifically for project managers to improve sustainability throughout planning, design, construction, and operations and maintenance of both facilities and infrastructure projects. The City of Bellevue is an Envision Supported Agency through the Institute for Sustainable Infrastructure. This partnership can be leveraged to develop sustainability trainings for leadership, project managers, procurement



teams, and maintenance staff. Discounts are offered to city employees who pursue accreditation for Envision Sustainability Professionals (ENV SP) as part of their Independent Development Plans to demonstrate the city's commitment to its core value of stewardship. In addition, the city will pilot a sustainability rating system, such as Envision, on an infrastructure project, to apply the learnings from the training in terms of assessing the climate and sustainability impacts of infrastructure projects.

#### Strategy M.M.1. Expand municipal mobility options.

**M.M.1.1. Green employee commutes.** Reduce the drive alone rate for city employees through incentives and by improving commute options by site location.

The city has been measuring greenhouse gas emissions from employee commutes since 2011 and encourages employees to use public transit, carpool, or vanpool, and provides free transit passes. Employees must already pay for parking at the city's primary facilities, and additional parking management strategies should be considered. Depending on work location, job type, and function, departments can take advantage of commute trip alternatives for city employees, and in some cases telecommuting or flexible hours. Facility teleconferencing equipment can be upgraded to support remote participation in meetings using video-conferencing to reduce employee commute trips and fleet vehicle trips between city facilities. Additional approaches to support commute trip reduction for employees working in the field could be considered.





Strategy M.M.2. Convert and replace city vehicles and equipment to electric and other low-carbon fuels.

M.M.2.1. Green fleet strategy. Develop long-term plan and policies for purchasing electric vehicles (EV) and installing charging infrastructure at city-owned facilities.

Incorporating electric vehicles (EV) into the city's fleet will be essential for reducing greenhouse gas emissions. To prepare for this transition the city needs to develop a green fleet strategy to incorporate EV purchases into the vehicle replacement plan over the next 5-10 years. This effort builds on existing work to green the fleet and optimize fleet maintenance and replacement planning, to maximize vehicle return on investment. This involves evaluating department operations, updating policies, measuring future EV demand at city-owned buildings, and planning for EV infrastructure needs at city-owned buildings and facilities. The green fleet strategy will focus on deploying market-ready EVs to replace light-duty vehicles but can also recommend pilot programs for medium- to heavy-duty vehicles.

# M.M.2.2. Reduce fuel use. Pilot fuel reduction technology on fleet vehicles and equipment.

The city tracks fuel used in fleet vehicles and equipment for each department. Fleet managers meet regularly with the Fleet and Communications Advisory Board (FCAB) to manage fleet-related policies as instructed by the Operations Policy Team. Within this scope, the FCAB can implement fuel reduction strategies such as installing idle-reduction devices, piloting electric-powered equipment, or piloting alternative fuels for specialized vehicles or equipment. Pilot programs should detail the scope, duration, and measured outcomes to determine if fuel reduction pilots meet operational requirements by job type. Lessons learned should be documented and shared with the Operations Policy Team for formal review.









Strategy M.E.1. Improve performance of municipal buildings and sites.

**M.E.1.1. Conduct building tune-ups.** Conduct building tune-ups and implement efficiency measures at city-owned buildings.

Building systems degrade over time due to operational issues as equipment ages, controls change, and space types are modified. Building tune-ups ensure that systems and equipment meet current occupancy requirements. Several programs are available to provide financial assistance for building audits and implementation of energy efficiency projects.

## **M.E.1.2. Improve lighting efficiency.** Upgrade indoor and outdoor lighting to efficient technology.

Indoor lighting impacts occupant health and productivity while outdoor lighting impacts public safety and natural habitats. The goal is to provide quality lighting using efficient technology that minimizes light pollution. Lamps and ballasts are failing at different rates that further inefficiencies and lead to high operations and maintenance costs. Developing a long-term lighting replacement plan will enable building operators to standardize equipment to benefit from bulk purchasing, maximize energy savings, and reduce staff hours for operations and maintenance.

# **M.E.1.3. Improve plug-load efficiency.** Manage plug loads efficiently and reduce peak demand.

The electric grid can experience brown-outs or black-outs during peak demand periods. The city can reduce energy loads at city-owned properties during critical periods. Low-cost, plug-load management devices can manage energy-intensive plug-loads, such as vending machines, gym equipment, designer lighting, plotters/printers, AV equipment, or other unessential appliances. The city can phase in plug-load management devices to measure peak demand reductions made and support grid reliability for the community-at-large.



# **M.E.1.4. Green building performance standards.** Meet energy performance standards for new and existing city-owned buildings.

City Council passed Resolution 9186 authorizing annual benchmarking and reporting of energy use in city-owned buildings over 5,000 square feet. There are 52 cityowned buildings benchmarked in the EPA's ENERGY STAR Portfolio Manager. By 2026 the Washington State Clean Buildings Act (House Bill 1257) will require commercial buildings over 50,000 square feet to achieve an energy performance threshold and to develop energy management plans. In preparation, the city can establish green building performance standards for new and existing city-owned buildings and support commercial building owners to meet compliance requirements before the bill takes effect.



# **M.E.1.5. Enhance indoor air quality.** Enhance indoor air quality in city-owned buildings.

Indoor air quality at city-owned buildings is regulated by mechanical systems and can be impacted by nearby construction, forest fires, high levels of allergens, and other airborne diseases or pollutants. In 2017 the city developed an Indoor Air Quality (IAQ) policy to outline best management practices and industry standards for healthy conditions. This policy can be updated to reflect new criteria for airborne diseases and outline the city's approach to ensure that city buildings maintain healthy indoor air quality for all occupants.

# **M.E.1.6. Support renewable energy.** Use local renewable energy for city operations.

The city signed a 20-year agreement to purchase renewable electricity through PSE's Green Direct program. The city has installed two solar PV systems on city-owned properties and continues to explore opportunities to expand renewable energy generation at new and existing buildings. Supplemental systems, such as battery storage, will also be explored as market technology and partnership opportunities evolve.

#### **M.E.1.7. Upgrade building envelop in city-owned buildings.** Identify opportunities for improving efficiency of buildings with building envelope upgrades.

If project scopes involve the building envelope, the city should evaluate the marginal cost of upgrading wall or roof insulation, replacing low-e windows or film, ensuring new



roofs can structurally support renewable energy generation or green roofs, painting exterior walls or roof areas light colors to reflect light instead of absorbing heat, or installing interlock switches to shut-down HVAC systems if apparatus bay doors are open at Fire Stations.

# **M.E.1.8.** Plan for deep energy retrofits and building electrification of city-owned facilities.

Building on the significant retrofits of City Hall, the city will plan for the electrification of city-owned facilities and equipment as part of long-term capital planning, to help to further reduce greenhouse gas emissions from city operations. Replacing fossil fuel powered equipment, such as space heating and cooling systems, will support the city's goal to transition to 100 percent renewable energy. The

city will develop a plan to replace fossil fuelpowered equipment when it reaches the end of its useful life or as part of a major facility upgrade, with costeffective technologies such as electric heat pumps and hot water tanks, when feasible. Building electrification generates less air pollution and reduces the risk of natural gas leaks and increasing fossil fuel costs.



Strategy M.W.1. Improve green purchasing practices and sustainable materials management in city operations.

**M.W.1.1. Green, local procurement.** Implement the Environmentally Preferable Purchasing (EPP) Policy across city operations.

Reducing source-waste through purchasing practices is the first step to diverting waste from landfills. In 2013 the city developed an Environmentally Preferable Purchasing Policy (EPP) and updated it in 2018 to specify that products purchased are locally and responsibly sourced, durable, and non-toxic to occupants or ecosystems. Additional training and resources are needed to effectively implement EPP practices consistently across departments and city operations.

# **M.W.1.2. Reduce operational waste.** Identify waste streams generated in city operations and plan to divert materials from landfills.

Operational waste is generated from office activity, facilities maintenance, landscaping, and capital projects. Waste receptacles are often moved, misplaced, or lack clear signage, which leads to contamination. The city should ensure that all three waste streams are captured in cityowned buildings. If buildings are event-based, then consider including composting protocols in rental agreements. For specialized waste streams such as light bulbs, batteries, electronics, computers, appliances, phones, and other products that contain chemicals and hazardous materials, the city should streamline collection programs with the county and/or other cities to divert these materials from landfills. The city should continue to research new

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opportunities to consolidate vendors and improve occupant health by storing hazardous materials and containers in unoccupied, well-ventilated areas. Waste diversion plans should be developed and shared across departments so that expectations for city staff and contractors meet zero waste requirements

# **M.W.1.3. Support vendor stewardship.** Develop vendor stewardship programs or partnerships for ongoing or bulk purchases.

Identify vendors who have product stewardship policies, green packaging options, and/or take-back programs (i.e. carpet tiles, wood pallets, writing utensils, uniforms, etc.). The city should support vendors who take care to meet standards that demonstrate products were responsibly sourced, eliminate omission of harmful gases, and can be recycled. The city can work with vendors that will provide purchasing reports to measure the environmental impact of products purchased including transportation costs and greenhouse gas impacts.

**M.W.1.4. Divert construction and demolition waste.** Divert construction and demolition (C&D) waste streams from landfills for capital projects.

Collaborate with King County Solid Waste Division to increase the diversion of building materials from landfills during construction and demolition (C&D). Identify and evaluate market options for recycling bulk materials or if it is feasible to reuse materials on-site. Document protocols and plan to replicate for future city projects. Strategy M.N.1. Promote sustainable landscaping and protect and conserve natural resources in city operations.

**M.N.1.1. Increase landscaping benefits.** Improve functionality of landscaped areas on city-owned property.

Landscaping on city-owned properties and rights-ofway can provide more benefits than just aesthetics. The Parks & Community Services Department developed a manual for Environmental Best Management Practices and Design Standards to document criteria for operations and maintenance activities on Parks-managed facilities. In addition, Utilities engineering standards provide details on how to implement storm and surface water low-impact development (LID) techniques. The city should continue to work across departments to evaluate opportunities to protect and conserve natural resources. Strategies may include ensuring adequate soil volumes for ROW tree plantings, replacing turf grass with low-maintenance, native shrubs and groundcovers when appropriate, upgrading antiquated







irrigation systems to conserve water, looking for opportunities to increase tree canopy and/or stormwater retention on cityowned properties to help improve storm water management and water quality, and continuing the use of composted soils amendments on city sites to promote organic waste recycling, where feasible and beneficial.

# **M.N.1.2.** Improve operational water efficiency. Install water-efficient plumbing fixtures in city-owned buildings.

Older water features and plumbing fixtures can waste water and energy. The Utilities Department is upgrading water meters to improve accuracy and leak detection for customers. Water use intensity is being tracked at city-owned buildings and facilities for indoor and outdoor water consumption. Building standards and policies should be updated to specify water-efficient plumbing fixtures (i.e. WaterSense fixtures or operational equivalent). When existing hot water systems reach the end of their useful life, take advantage of incentive programs for upgrading hot water fixtures through Puget Sound Energy (PSE) and/or consider solar hot water technology where feasible. The city can join the EPA's WaterSense program to demonstrate a formal commitment to the responsible management of water resources. M.N.1.3. Reduce pesticide and fertilizer impacts. Explore alternatives to reduce pesticide and fertilizer use and impacts on city-owned property while maintaining service levels.

The Parks & Community Services Department has an Integrated Pest Management (IPM) program documented in the Environmental Best Management Practices and Design Standards manual. Integrated Pest Management (IPM) is a sustainable approach to managing pests by combining biological, cultural, physical and chemical methods in a way that will minimize the effects on the environment and minimize domestic and health risks, while considering budgetary restrictions. Continue to explore alternatives for reducing pesticide use while maintaining service levels.

# **M.N.1.4. Sustainable landscaping certifications.** Pilot third-party sustainability certification for landscaped areas, where effective.

As the city constructs new buildings and infrastructure, it is important to ensure that landscape design also meets sustainability goals for operations and maintenance. There are sustainability certification systems designed specifically





for landscaped areas, such as Salmon Safe certification. The Parks & Community Services Department already has a robust program for Environmental Best Management Practices and Design Standards as a basis for landscape design for city capital projects. The city is piloting Salmon Safe certification for the construction of Fire Station 10 to ensure that the design, construction, and operation of the new fire station will have a net-positive watershed impact, primarily through innovative methods of on-site infiltration of stormwater. The pilot serve to better understand cost implications, impact on service levels, and environmental benefits of sustainability programs.

## **M.N.1.5.** Tree preservation. Develop requirements for tree preservation and replacement for capital projects.

The Comprehensive Plan set a goal to achieve a 40 percent tree canopy citywide. The city has currently achieved a 37 percent urban tree canopy and is in the process of identifying opportunities and city-owned site locations to further this initiative and lead by example by exceeding requirements for projects on private property. This action will involve developing policies for tree preservation and replacement for city capital projects to mitigate the environmental impacts of city projects, and for the city to lead by example through tree preservation and/or replacement.





**M.N.1.6. Tree restoration.** Perform an urban forest health assessment for the tree canopy on public property and develop a long-term forest restoration plan to ensure the health of the urban forest.

The Parks & Community Services Department has initiated an updated urban forest health assessment using Forest Assessment Landscape Tool (FLAT) to determine the percentage of natural areas that in are in a healthy, sustainable state, or requiring restoration. The results of the previous analysis showed that the city is exceeding the original ESI target of 70 percent of forest in healthy condition. The new study will also include factoring in existing forest canopy conditions and implementing methodologies to accelerate forest succession to provide more effective longterm future canopy. Additional assessments and restoration plans will be needed to preserve and maintain overall health of urban forests.



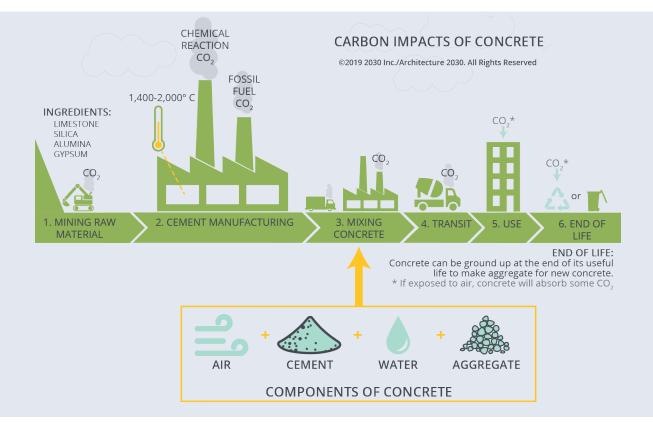
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#### LONGER-TERM ACTIONS TO CONSIDER

Low embodied carbon. Evaluate and promote the use of low embodied carbon materials in city building and infrastructure projects.

Embodied carbon refers to greenhouse gas emissions from the use of construction materials such as concrete, iron and steel. Once construction is complete, the carbon intensity of a building remains static and emissions cannot be reduced in the same way that operational emissions can be reduced through efficiency projects. By 2050, embodied carbon will account for 49 percent of emissions from new construction. Carbon-neutral building programs are developing tools and resources to evaluate and promote the use of low embodied carbon products, in particular for concrete, in building and infrastructure projects. The city should evaluate local low embodied carbon concrete options and develop standards for incorporating into city projects.



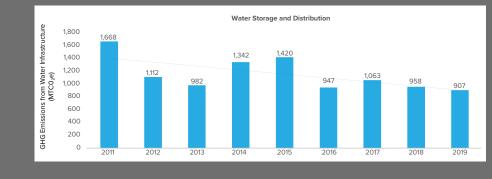
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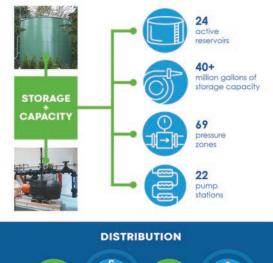
# Case Study Highlight: Generating Renewable Energy in our Water Pipes

The City of Bellevue is not only providing clean and safe water to residents and workers on a daily basis, but also manages water infrastructure as efficiently as possible. Greenhouse gas emissions from energy used in water pumps and distribution systems has decreased by 46% since 2011.

The Utilities Department is planning to install a hydroelectric turbine to generate electricity. The city identified an opportunity to harness energy from a natural elevation drop in the water distribution system. This 90 kW turbine will generate enough electricity to offset power used in the largest pumping station in Bellevue.



## BELLEVUE WATER FACTS







# **Implementation Plan**

	<b>\$</b>	= \$0 to \$100,000				
Investment	•	= \$100,000 to \$1,000,000				
	•••	= \$1,000,000+				
		= lower				
Impact		= average				
		= higher				
Equity	ŧii	= equity benefit				
Cost Savings		= cost savings benefit				

#### Departments

CD	Community Development
СМО	City Manager's Office
FAM	Finance & Asset Management
TRANS	Transportation
PARKS	Parks & Community Services
UTIL	Utilities
DS	Development Services
ESI	Environmental Stewardship
	Initiative Program
RCM	Resource Conservation Manager
	Program





## **COMMUNITY ACTIONS**

			<b>†İİ</b> =equi	ty s = cost		impact 🌘	= cost savings
#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
🖏 Stı	rategy C.1. Mitigate emissions and plan for the l	long-term impact	s of climate ch	ange.			
C.1.1	<b>Climate vulnerability assessment.</b> Perform a climate vulnerability assessment to understand long-term risks and vulnerabilities associated with climate change and identify next steps in terms of enhancing resiliency.	Analysis / Planning	ta ta ta	Ø	ŧii	CD	2021-2022
C.1.2	King County Cities Climate Collaboration (K4C). Continue participating in the King County Cities Climate Collaboration to support the achievement of the countywide K4C goals.	Policy / Staff		Ø	†11	CD	Ongoing
C.1.3	<b>State advocacy.</b> Advocate for state- level policies and funding that support the achievement of the plan goals.	Policy	kikiki		ŧii	СМО	Ongoing
C.1.4	<b>Climate equity.</b> Prioritize climate mitigation and adaptation investments in historically underserved and underrepresented communities.	Planning / Capital		<b>\$</b>	ŧİİ	CD	2021



			tii = equit	ty = cost	: <b>1</b> = i	mpact 🌹	= cost savings
#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
C.1.5	<b>Environmental equity assessment.</b> Perform an environmental equity assessment to identify environmental risks to communities of color and equitable access to environmental resources in Bellevue. Use the assessment to develop recommendations for policies and programs to continue to advance equity and reduce environmental burdens.	Planning	<b>K</b>	<b>\$</b>	ŧii	CD	2021-2022
C.1.6	<b>Air quality.</b> Pilot air quality monitoring sensors and incorporate air quality considerations into planning for major rezonings.	Capital & Partnerships	西	ø	ŧii	CD TRANS	2021-2022
C1.7	<b>Climate outreach and education.</b> Develop a climate outreach and education campaign or program to support ongoing community engagement.	Education/ Outreach	<b>K</b>	Ø	ŧii	CD	2021-2025
C.1.8	<b>Functional plan in Comprehensive</b> <b>Plan.</b> Update the Comprehensive Plan to reflect that the Environmental Stewardship Plan is a functional plan.	Policy / Planning	<b>M</b>	<b>\$</b>		CD	2021-2025



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
Stra	ategy M.1. Sustainable land use.						
M.1.1	<b>Sustainable district.</b> Explore creating a sustainable district, such as an EcoDistrict, in downtown, BelRed, or Wilburton, to encourage district-scale sustainability. Establish district-scale sustainability goals with partner organizations.	Policy / Education/ Outreach	2 2	<b>\$</b>	ŧİİ	CD	2022-2023
M.1.2	Using the 15-Minute City concept, promote and advance essential components of livability. Identify locations along the frequent transit network to continuously promote improvements that support access to transit and a high quality of life and livability.	Planning		<b>\$</b>	†11	CD TRANS	2022-2024
M.1.3	<b>Consider climate and sustainability in land</b> <b>use and neighborhood planning.</b> Address environmental stewardship in all land use projects and neighborhood planning and services.	Planning / Policy		<b>\$</b>	ŧii	CD DSD	2021-2025
M.1.4	<b>Growth corridor parking review.</b> Study the impact of light rail and the increasing use of mobility options on the supply and demand for commuter and residential parking in buildings near transit stations. Consider modifying parking requirements to account for shifts in commuting behavior.	Policy	<b>K</b>	<b>\$</b>		CD	2024



			<b>†İİ</b> =equ	uity 🗢 = cost		impact 🌹	= cost savings
#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
🗫 Stra	ategy M.2. Expand mobility options.						
M.2.1	<b>Mobility Implementation Plan.</b> Develop a Mobility Implementation Plan that includes opportunities to decrease per capita vehicle miles traveled through prioritization and investments to support transit and non-motorized modes.	Planning	No.	<b>69 69</b>	ŧii	TRANS	2021-2022
M.2.2	<b>Transportation impact fees.</b> Consider expanding the Transportation Impact fee program to support construction of projects to improve walking and biking, in addition to increasing capacity of motorized vehicles.	Policy		<b>69 69</b>	ŧii	TRANS	2020-2021
M.2.3	<b>Curbside management.</b> Explore strategies to effectively manage curbside space for a variety of uses such as ride- share, buses, pedestrians, and other needs.	Planning	凶	<b>\$</b>	†11	TRANS	2021-2022
M.2.4	Accelerate implementation of the Pedestrian and Bicycle Transportation Plan. Increase accessibility of travel routes for people walking and bicycling by accelerating implementation of projects identified and prioritized in the Pedestrian and Bicycle Transportation Plan and the standards and guidelines recommended in the 2017 report on Multimodal Level-of- Service Standards and Guidelines.	Capital		<b>\$</b>	ŧİ	TRANS	2021-2025



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
M.2.5	<b>Commute trip reduction.</b> Continue the Commute Trip Reduction and Transportation Demand Management program for employers and study the impact of COVID-19 on future commuting patterns and associated multi-modal mobility needs.	Analysis		<b>\$</b>	🏶 iii	TRANS	Ongoing
🖗 Stra	ategy M.3. Convert and replace vehicles and eq	uipment to elect	ric and other	low-carbon fuels			
M.3.1	<b>EV readiness.</b> Introduce electric vehicle charging readiness requirements for new commercial, multi-family, and single-family buildings to exceed the state building code requirement.	Policy	<b>M</b>	<b>\$</b>		DS CD	2021-2022
M.3.2	<b>EV infrastructure</b> Increase EV charging infrastructure through partnerships, incentives, and targeted investments.	Capital / Policy & Partnerships	<b>M</b>	<b>\$</b>	<b>*</b>	CD	2022
M.3.3	<b>Electrify heavy duty vehicles.</b> Partner with local organizations to identify funding sources and opportunities to electrify buses and heavy duty vehicles.	Planning		<b>\$</b>	<b>*</b> †11	CD	2021-2025
M.3.4	<b>Clean Fuel Standard.</b> Support a regional or statewide Clean Fuel Standard to reduce emissions from transportation fuels and support funding for clean fuels.	Policy		ø		СМО	2021-2025



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
€) <sub>Str</sub>	ategy E.1. Improve performance of new constru	ction.					
E.1.1	<b>Streamlined permitting.</b> Develop a program to streamline permitting processes for single-family residential green building projects, to incentivize more green building. Evaluate impact and opportunities for expanding the program.	Policy / Incentive / Staffing	がな	<b>€</b> ₽	<b>*</b>	DS	2021-2023
E.1.2	Advanced green building pilot program. Develop a pilot program to incentivize advanced green building, such as the Living Building Challenge or net zero energy.	Policy / Incentive	<b>M</b>	<b>\$</b>	<b>*</b>	CD DS	2022-2025
E.1.3	<b>Green building incentives.</b> Review effectiveness of existing green building land use incentives and consider options for increasing the impact and making them more consistent across neighborhoods which are undergoing rezoning.	Policy	<b>X</b>	<b>\$</b>	<b>*</b>	CD DS	2021-2023
E.1.4	<b>Green affordable housing.</b> Evaluate opportunities to support green affordable housing, and identify strategies to encourage additional levels of green building beyond the Evergreen green building standard, for city-funded projects.	Policy		<b>\$</b>	<b>*</b> †11	CD DS	2021-2023



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
E.1.5	<b>State building code improvements.</b> Support ongoing energy efficiency and green building improvements to the Washington State Energy code.	Policy		Ø	<b>*</b>	DSD	Ongoing
() Str	ategy E.2. Engage the community on best pract	tices for energy c	conservation.				
E.2.1	<b>Commercial energy efficiency.</b> Provide technical assistance for commercial energy benchmarking and retrofits for large buildings, to support compliance with the statewide program and leverage early adoption incentives.	Incentive	変換	<b>\$</b>	<b>*</b>	CD	2021-2024
E.2.2	Home energy retrofit program. Develop a home energy retrofit program to support retrofits and incentivize energy efficiency.	Incentive	<b>8</b> 8	<b>\$ \$ \$</b>	🇭 †ii	CD	2021-2023
E.2.3	<b>Equitable access to energy programs.</b> Improve access to energy efficiency programs for low-income and historically underserved and underrepresented populations.	Education/ Outreach	西南	<b>\$</b>	†11 🇭	CD PARKS	2021-2023
E.2.4	<b>Building electrification training.</b> Develop an education and outreach program for contractors and homeowners on the benefits of building electrification, in partnership with green building organizations, other cities, or the K4C.	Education/ Outreach		Ø	<b>*</b>	CD	2022-2024



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
E.2.5	<b>Evaluate additional energy efficiency</b> <b>strategies.</b> Evaluate additional strategies to support increased energy efficiency and conservation in commercial, multi-family, and single-family buildings.	Analysis / Planning		<b>\$</b>	<b>*</b>	CD	2023
( <b>5</b> ) Stra	ategy E.3. Support renewable energy.						
E.3.1	<b>Solar-readiness.</b> Encourage solar- readiness for new construction not required to do so through the Washington State Energy code, to future proof new buildings.	Policy/Code	<b>M</b>	Ø	<b>*</b>	DS	2021
E.3.2	<b>Solarize campaign.</b> Identify key partners and facilitate a Solarize Campaign to support group installations of onsite solar.	Program	<b>M</b>	<b>\$\$</b>	<b>*</b>	CD	2021-2023
E.3.3	<b>Community solar.</b> Support opportunities for community solar in Bellevue by identifying potential sites and funding opportunities.	Planning	14	<b>\$</b>	🗭 tii	CD	Ongoing
E.3.4	<b>Clean Energy Transformation Act</b> ( <b>CETA</b> ). Support the implementation of the Washington State Clean Energy Transformation Act, to achieve 100% renewable energy by 2045.	Policy		<b>\$ \$ \$</b>	<b>*</b>	СМО	Ongoing



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
Stra	ategy W.1. Increase community recycling and co	omposting of was	ste.				
W.1.1	<b>Recycling education and outreach.</b> Provide waste reduction, recycling and composting education and outreach targeted at multi-family and commercial buildings, to help improve the citywide recycling rate.	Education/ Outreach	<b>K</b>	<b>\$</b>	<b>*</b>	UTIL	Ongoing
W.1.2	<b>Recycling space requirements.</b> Consider updates to space and access code requirements for recycling services in multifamily, commercial, and mixed-use buildings, to ensure new buildings have adequate space for three waste streams.	Policy		<b>\$</b>	ŧİİ	UTIL DS	2023-2024
W.1.3	<b>Food waste prevention.</b> Encourage food donation and food waste prevention.	Education / Outreach		<b>\$</b>	<b>#</b>	UTIL	2021
Stra	ategy W.2. Reduce community waste generatio	n					
W.2.1	<b>Single-use plastics ban.</b> Explore a prohibition on single-use plastics such as polystyrene to reduce waste and litter and conduct outreach and technical assistance to support implementation.	Policy / Education/ Outreach	<b>K</b>	<b>\$</b>		UTIL	2023



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
W.2.2	<b>Waste study.</b> Utilize regional waste characterization studies for multi-family and commercial buildings, to better focus education and outreach.	Analysis		<b>\$</b>		UTIL	2023
W.2.3	<b>Assess strategies.</b> Analyze additional or updated strategies for achieving the short-term recycling and long-term zero waste goals.	Analysis / Planning	<b>K</b> a	Ø		UTIL	2023-2024
Stra	tegy W.3. Increase recycling of construction ar	d demolition (C&	&D) waste.				
W.3.1	<b>Construction and demolition waste</b> <b>recycling.</b> Explore strategies to ensure that Bellevue-based job sites recycle certain types of construction and demolition debris prohibited from disposal by county ordinance, such as clean wood, cardboard, metal, gypsum scrap (new), and asphalt paving, bricks, and concrete, to reduce waste and minimize impacts of construction.	Policy / Education/ Outreach		<b>\$</b>		UTIL DS	2021-2023



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
St	rategy N.1. Increase tree canopy citywide.						
N.1.1	<b>Tree preservation code.</b> Introduce requirements for tree preservation to further support the achievement of the 40% tree canopy goal.	Policy		Ø	ŧii	DS	2021-2023
N.1.2	<b>Tree planting.</b> Develop a program to incentivize residents and large property owners to plant the right tree in the right place and sustain existing trees, with reduced cost or free trees.	Program		<b>\$</b>	🏶 iii	CD	2021-2025
N.1.3	<b>Urban forester resource.</b> Explore the need for a city arborist or urban forester resource for permit review, enforcement, code update, strategic planning, and education and outreach.	Staff		<b>\$</b>	ŧii	CD	2021
N.1.4	<b>Public property tree planting.</b> Identify locations on public property for increasing tree canopy, such as in the right-of-way or other areas, and develop a plan and funding strategy for planting and maintenance.	Planning		Ø	ŧii	CD TRANS PARKS	2021-2025
N.1.5	<b>Tree Ambassadors.</b> Launch a Tree Ambassadors program to provide education and outreach around the value and benefits of trees.	Education/ Outreach		Ø	†±±	CD	2020



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
N.1.6	Tree canopy assessments and tracking. Continue to assess the city's tree canopy and identify other opportunities for tracking tree data, such as during permitting.	Analysis	ta ta ta	<b>\$</b>	ŧii	DS	2021-2023
St	rategy N.2. Improve ecological conditions for f	orests, streams, v	wetlands, and v	wildlife.			
N.2.1	Improve stream health. Through the Watershed Management Plan, assess current stream health conditions and develop a plan for improving stream health, including watershed-specific recommendations which could include capital projects, enhanced maintenance/ operational changes, and policy recommendations.	Planning / Policy		<b>\$ \$ \$</b>	†±±	UTIL	2020-2023
St	rategy N.3. Improve natural stormwater retenti	on systems and i	reduce water p	ollution.			
N.3.1	<b>Stormwater retrofit.</b> Identify stormwater retrofit or enhancement opportunities and develop an implementation plan to support the expansion of green stormwater infrastructure.	Analysis / Planning	西南	<b>\$</b>	ŧii	UTIL TRANS PARKS CD	2022



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
St	rategy N.4. Support preservation and access to	green and open	spaces.				
N.4.1	Multiple environmental benefits for open space preservation. Identify and acquire sites whose preservation as open space could incorporate additional environmental benefits, such as stormwater management, flooding mitigation, or enhancement of tree canopy.	Planning / Policy / Capital		<b>\$ \$ \$</b>	₩ †ii	PARKS CD	2022-2035
N.4.2	Funding strategy to achieve open space goals. Consider strengthened code requirements, land use incentives, or fees on new development to expand the park system and increase walkable access to parks and trails.	Analysis		<b>\$</b>	ŧii	CD DSD PARKS	2022-2023
N.4.3	Plan for walkable access to parks. Continue to plan for achieving the walkable access to parks, open space, and trailheads goal as part of the next update to the Parks & Open Space System Plan.	Planning / Capital		<b>\$</b>	†İİ	PARKS	2022-2023



## **MUNICIPAL ACTIONS**

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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe		
🏛 Strate	🟛 Strategy M.C.1. Mitigate emissions and promote sustainability across all operations.								
M.C.1.1	Implementation—monitor and report. Report on progress towards Environmental Stewardship goals.	Planning / Reporting	rarara	ø		ESI RCM	2021-2022		
M.C.1.2	Sustainable operations training. Incorporate sustainability commitments into city staff trainings.	Policy / Planning / Training	eta eta	ø		RCM HR	2021 – 2022		
M.C.1.3	Implementation— stewardship team. Form an interdepartmental "Stewardship Team" to oversee the implementation of the plan	Planning / Training	ta ta ta	<b>\$</b>		ESI RCM	2021-2022		
M.C.1.4	Sustainable capital projects training. Develop sustainability training opportunities for city employees working on capital projects and pilot a sustainability rating system for an infrastructure project.	Planning / Training / Capital	rta rta	<b>\$</b>		ESI RCM	2021-2024		



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe		
🏛 Strateg	Description of the second seco								
M.M.1.1	<b>Green employee commutes.</b> Reduce the drive alone rate for city employees through incentives and by improving commute options by site location.	Policy / Planning / Capital		<b>\$</b>	₩ tii	RCM FAM	2021 – 2022		
🏛 Strateg	y M.M.2. Convert and replace city v	ehicles and equip	oment to electric	and other low-ca	arbon fuels.				
M.M.2.1	<b>Green fleet strategy.</b> Develop long-term plan and policies for purchasing electric vehicles (EV) and installing charging infrastructure at city-owned facilities.	Policy / Planning / Capital		<b>\$</b>	<b>*</b>	RCM FAM	2021 – 2022		
M.M.2.2	<b>Reduce fuel use.</b> Pilot fuel reduction technology on fleet vehicles and equipment.	Policy / Planning / Capital	<b>M</b>	<b>\$</b>	<b>*</b>	RCM FAM	2021 – 2022		
1 Strateg	y M.E.1. Improve performance of mu	unicipal buildings	and sites.						
M.E.1.1	<b>Conduct building tune-ups.</b> Conduct building tune-ups and implement efficiency measures at city-owned buildings.	Planning / Capital		<b>\$</b>	<b>*</b>	RCM FAM PARKS	2023 - 2025		



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
M.E.1.2	<b>Improve lighting efficiency.</b> Upgrade indoor and outdoor lighting to efficient technology.	Planning / Capital	<b>M</b>	\$	<b>*</b>	RCM FAM PARKS	2023 - 2025
M.E.1.3	<b>Improve plug-load</b> <b>efficiency.</b> Manage plug loads efficiently and reduce peak demand.	Planning / Capital	<b>M</b>	<b>\$</b>	<b>*</b>	RCM FAM PARKS	2019 - 2020
M.E.1.4	Green building performance standards. Meet green building performance standards for new and existing city-owned buildings.	Policy / Analysis	Ka Ka	<b>\$</b>	<b>*</b>	RCM FAM PARKS	2021 - 2023
M.E.1.5	<b>Enhance indoor air quality.</b> Enhance indoor air quality in city-owned buildings.	Policy / Analysis	<b>M</b>	<b>\$</b>	†11	RCM FAM PARKS	2021 - 2022
M.E.1.6	<b>Support renewable energy.</b> Use local renewable energy for city operations	Analysis / Planning	aaa	<b>\$</b>	<b>*</b>	RCM FAM PARKS	2021 - 2022
M.E.1.7	Upgrade building envelope in city-owned buildings. Identify opportunities for improving efficiency of buildings with building envelope upgrades.	Analysis / Planning / Capital		<b>\$</b>	<b>*</b>	RCM FAM PARKS	2023 - 2025



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe	
M.E.1.8	Building retrofits and electrification. Plan for deep energy retrofits and building electrification of city-owned facilities.	Analysis / Planning / Capital		<b>\$</b>	<b>*</b>	FAM	2023-2025	
$\hat{\mathbf{m}}$ Strategy M.W.1. Improve green purchasing practices and sustainable materials management in city operations.								
M.W.1.1	<b>Green, local procurement.</b> Implement the Environmentally Preferable Purchasing (EPP) Policy across city operations.	Policy / Planning / Training	<b>Kaka</b>	Ø	ŧii	RCM FAM UTILITIES HR	2021 – 2022	
M.W.1.2	<b>Reduce operational waste.</b> Identify waste streams generated in city operations and plan to divert materials from landfills.	Policy / Planning / Training		<b>\$</b>		RCM FAM UTILITIES	2021 – 2022	
M.W.1.3	<b>Support vendor</b> <b>stewardship.</b> Develop vendor stewardship programs or partnerships for ongoing or bulk purchases.	Policy / Planning / Training		<b>\$ \$</b>		RCM FAM UTILITIES	2021 – 2022	
M.W.1.4	<b>Divert construction &amp;</b> <b>demolition waste.</b> Divert construction and demolition (C&D) waste streams from landfills for capital projects.	Policy / Planning		<b>\$ \$</b>		RCM FAM UTILITIES TRANS	2021 – 2022	



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
D Strate	gy M.N.1. Promote sustainable lands	caping and prote	ct and conserve n	atural resources	in city operat	tions.	
M.N.1.1	Increase landscaping benefits. Improve functionality of landscaped areas on city- owned property.	Planning / Capital		<b>\$ \$</b>		RCM FAM PARKS	2021-2022
M.N.1.2	Improve operational water efficiency. Install water- efficient plumbing fixtures in city-owned buildings.	Planning / Capital		<b>\$ \$</b>	1	RCM FAM PARKS	2021-2022
M.N.1.3	Reduce pesticide and fertilizer impacts. Explore alternatives to reduce pesticide and fertilizer use and impacts on city-owned property while maintaining service levels.	Planning / Capital		<b>\$</b>	<b>*</b>	RCM FAM PARKS	2021-2022
M.N.1.4	Sustainable landscaping certifications. Pilot third- party sustainability certification for landscaped areas, where effective.	Planning / Capital		<b>\$ \$</b>		RCM FAM PARKS	2021-2022



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#	Action	Action Type	Impact	Investment	Co- Benefits	Lead	Timeframe
M.N.1.5	<b>Tree preservation.</b> Develop requirements for tree preservation and replacement for capital projects.	Planning / Capital		<b>\$</b>		CD TRANS UTILITIES PARKS	2021-2022
M.N.1.6	<b>Tree restoration.</b> Perform an urban forest health assessment for the tree canopy on public property develop a long-term forest restoration plan to ensure the health of the urban forest.	Planning / Capital	Kikiki	<b>\$</b>		PARKS	2021-2022



## Equity

Over the past several decades, Bellevue has grown from a quiet suburban community into a dynamic, international and multicultural city. The city mirrors the culturally diverse and globally interdependent world that we live in, and its diversity is an asset that makes our communities unique and vibrant. The City of Bellevue's diversity work is rooted in the principles of equity, access, inclusion, opportunity, and cultural competence, outlined in the city's Diversity Advantage plan. These principles inform efforts underway to improve city policies, staffing and hiring, training, communications, services and outreach.



Considering equity during plan implementation goes beyond merely distributing resources equally. Providing equitable access requires meeting community needs in the context of existing vulnerabilities and inequalities. Ensuring that participation in environmental stewardship is accessible to the entire Bellevue community, requires considering equity in policy, outreach, and



infrastructure development. City staff will work to involve diverse community voices from the start of any new initiative and will track progress towards advancing equity. The most effective stewardship initiatives should protect and conserve our environment, avoid unintended consequences, reduce vulnerabilities, and serve disadvantaged communities.

Staff evaluated the potential benefits of each action from an equity perspective, and noted that in the implementation table. As the city moves forward with implementation, an racial equity toolkit will be used to implement the actions in the plan, to take into account the following considerations to maximize equity benefits, and to avoid or minimize any unintended consequences.





## Equity priorities and considerations for implementation:

#### **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?

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#### Shared benefits

Can the benefits of the proposed action be targeted in progressive ways to reduce historical or current disparities? Are the benefits dispersed not only equally, but equitably?

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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-owned, women-owned, and emerging small businesses?

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#### Engagement

Does the proposed action engage and empower communities of color and low-income populations in a meaningful, authentic, and culturally appropriate manner? Are community stakeholders involved and engaged in implementation?

#### Capacity

Does the proposed action help build community capacity through funding, an expanded knowledge base, or other resources?

#### Alignment and 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?

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Does the proposed action help foster the building of effective, long-term relationships and trust between diverse communities and local government?

#### Economic opportunity and 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 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?

City staff will incorporate these equity considerations into planning and implementation, to aim to maximize equity benefits and avoid any unintended consequences of implementing the plan.



## **Implementation Considerations**

#### THE NEW NORMAL

The COVID-19 pandemic is a human tragedy. Emergency measures to contain the virus and social safety nets are critical in helping people within a crisis and times of uncertainty. Containing and responding to the spread of COVID-19 is a priority, but we cannot lose focus on addressing environmental stewardship and climate change. Our current public health crisis demonstrates the importance of listening to scientists when they voice early warnings and acting early. We should trust science to guide action, shape responses, and inform policymaking. As with the coronavirus, if we act early, we can mitigate the greatest risks associated with climate change. We have seen firsthand the importance of early action, and that governments should and can take huge steps to protect their populations. The coronavirus has exposed vulnerabilities in our economy and society, and our response moving forward needs to prioritize measures that strengthen our community resilience.





For many of us, the nature and beauty of Bellevue has been a gift, and a much-needed escape during uncertainty. More than ever, nature and access to parks, and safe streets for walking and biking is helping us de-stress, feel healthy, and connect us back to our roots. Our parks, streams, plants, and air have always been there for us, and now it's time to return the favor.

#### ORGANIZING TO IMPLEMENT THE PLAN

The City of Bellevue's One City Initiative, is a philosophy to encourage interdepartmental collaboration and innovation, to reduce silos and encourage leveraging economies of scale. The Environmental Stewardship Initiative (ESI) is a model example of this philosophy, as the planning and implementation will involve collaboration throughout city government. Some interdepartmental teams already exist to advance key focus areas in the plan, such as tree canopy, and new opportunities for collaboration will likely arise to implement the plan.



Two departments will spearhead implementation efforts by establishing two teams to oversee implementation at the community-level and within municipal operations (see action M.C.1.3). In Community Development, the Environmental Stewardship Program will lead the "Stewardship Team" in community-level sustainability. In Finance and Asset Management, the Resource Conservation Management (RCM) Program will focus on working with departments to implement actions related to municipal operations. The ESI planning team involved in developing the plan will evolve and transition to focusing on implementing the plan, and embedding the plan actions into their annual work programs.

# COMMUNITY ENGAGEMENT AND PUBLIC PRIVATE PARTNERSHIPS

Much of Bellevue's goals will be achieved by working directly with local communities, businesses, schools, and partner organizations. The city acknowledges that in order to make progress towards our goals, we must continue to engage with our community and build partnerships with organizations to work collaboratively to achieve our goals. The city has a rich history of collaborating with community organizations and the business community on efforts ranging from community home repair projects to a pilot project designed to activate Bellevue's downtown pedestrian corridor, the Grand Connection. A number of the major employers in Bellevue also have ambitious climate and sustainability goals, and the city will strive to create public private partnership opportunities to achieve shared goals with the business community. In addition, the city has a number of emerging non-profit and volunteer environmental organizations, and



will aim to support capacity building of these organizations to foster community partnerships with organizations which can support the achievement of the Environmental Stewardship Plan goals.

In order to meet the goals and targets in the plan, the city must ensure buy-in from local businesses and organizations. Without proper outreach and education, the impact of regulations and policies can be significant—especially on people of color, and low-income and small business communities. To avoid potential risks around affordability, Bellevue will expand its local partnerships and prioritize education and outreach before implementing significant policy. The city will work together with its residents and businesses take advantage of incentives, remove regulations inhibiting new technology, streamline permitting, and provide assistance to residents and businesses.



#### FUNDING

Full implementation of the plan will require increased funding. In many cases, the expenditures will not only reduce greenhouse gas emissions, but will bring other valuable co-benefits, such as cleaner air, savings on energy and utility expenditures, more robust and flexible transportation systems, improved public health, and enhanced local quality of life. Funding for priority near-term actions of the plan will come from a variety of sources within the city budget depending on the type of action, the responsible department, and the legal and operational limitations of the particular funding source.

Additionally, some of the actions recommended in the plan are an expansion of existing city programs or efforts and therefore already have funding sources. However, incremental funding increases may be needed to meet the higher level of action called for in the plan. Current and potential funding sources include:

- · City general fund
- Utility revenues for Utility infrastructure
- Federal and state grants
- Revolving loan funds
- · Community organizations and other private partnerships
- · Newly identified funding sources

COVID-19 has not only impacted the local and global economy, but has also put a significant strain on city budget resources. As the city works on implementing the plan, staff will seek to utilize existing resources to the extent possible, along with external sources of funding through grants or partnerships. As part of the COVID-19 economic recovery and various federal stimulus packages, staff will also monitor and prepare for any potential funding programs similar to the Energy Efficiency and Conservation Block Grant program, a program of the American Recovery and Reinvestment Act (ARRA), in which Bellevue received \$1.2 million in grant funding in 2009.

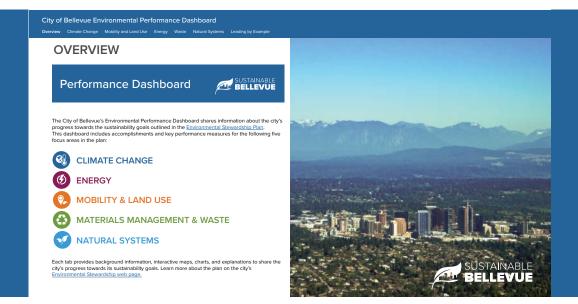




### **Monitoring and Evaluation**

Progress toward meeting plan targets and goals will be evaluated and tracked on an action-by-action basis with an overall progress report for all actions and activities provided on an annual basis. The City Council will be updated regularly on overall plan implementation progress, and the City will continue to engage with the community on plan implementation and progress. The City's new Environmental Performance Dashboard will report on progress toward the goals and targets in the plan. To review the dashboard, go to <u>bellevuewa.gov/esiprogress</u>. The plan includes an implementation timeframe for each action, which will be reviewed on an annual basis as part of departmental annual work planning. The plan will be evaluated and updated on a five-year cycle to ensure that plan strategies and actions reflect the latest knowledge and best practices around environmental stewardship and climate change, and the changing landscape of local, state, and federal funding and environmental policies. The plan will also be reevaluated to assess whether actions are sufficient to meet focus area targets and, if not, to add new or expanded actions to the plan.

At a minimum, the following indicators will be tracked and reported on annually. It is expected that methodologies for measuring some indicators may evolve and improve over time.





## **COMMUNITY INDICATORS**

Focus Area / Indicator		Target	Progress	<b>By 2030</b> (short-term target)	<b>By 2050</b> (long-term target)
<b>S</b>	Community GHG Emissions	% reduction	6.4% since 2011	50%	80%
Q.	Resident drive alone rate	% of residents commuting alone	<b>63%</b> 2014-2018 avg	60%	45%
	Worker drive alone rate	% of workers commuting alone	<b>72%</b> 2014-2018 avg	65%	45%
	Electric vehicles	% of registered vehicles	2% 2019	25%	100%
	Per-capita vehicle miles traveled (VMT)	% reduction	<b>7%</b> since 2011	20%	50%
	Jobs located within ¼ mile of a frequent transit stop	% of jobs	<b>73</b> % 2019	75%	85%
	Housing located within ¼ miles of a frequent transit stop	% of housing	<b>43</b> % 2019	50%	65%
( <del>J</del> )	Renewable energy source	% renewable energy	<b>42</b> % 2019	80%	100%
	Energy consumption	% reduction in energy use	5% increase since 2011	15%	30%
	Recycling rate	% recycling rate	<b>40%</b> 2019	50%	Zero Waste of Resources
V	Tree canopy	% citywide tree canopy	<b>37</b> % 2017	38%	40%
	Residents within 1/3 mile of a park, open space, or trail	% of residents living within 1/3 mile of a park, open space, and/ or trail	<b>73</b> % 2020	80%	100%
	Maintain and improve the health of streams	Stream Health (metric TBD)	TBD	TBD	TBD



## **MUNICIPAL INDICATORS**

Focus Area / Indicator		Target	Progress	<b>By 2030</b> (short-term target)	<b>By 2040</b> (long-term target)
<b>S</b>	Municipal GHG Emissions	% reduction	<b>14.4%</b> since 2011	50%	80%
	Worker drive alone rate	% of city employees commuting alone	<b>43</b> % 2019	40%	35%
<b>%</b>	Electric vehicles	% light-duty fleet vehicles	<b>2</b> % 2020	50%	100%
	Fossil fuel reduction	% fossil fuel reduction from fleet vehicles	4% increase since 2011	15%	30%
	Renewable energy source	% renewable energy use	<b>70%</b> 2020	100%	100%
(F)	Energy consumption	% reduction in building energy use	15% since 2011	25%	50%
	Recycling rate	% recycling rate	70% since 2019	80%	Zero Waste of Resources
	Water use	% reduction	7% since 2011	5%	10%
	Forest health	% of forest in healthy condition	TBD	TBD	TBD



# Conclusion

The Sustainable Bellevue Plan takes what makes Bellevue special—our walkable, livable communities, the relative ease of getting around, the strong economy, and the access to parks and green space—and ensures that these traits not only endure but thrive. Implementing this plan means cleaner air and water as we transition to a clean energy economy, strong well-paying tech and green jobs, and a nearby park or green space for every resident. We will continue to have more reliable and safe travel options as light rail, other public transit, bicycling, walking, and rideshare options flourish.

Success will require dedicated and sufficient city staff and resources; ongoing monitoring, evaluation and adaptive management; the commitment of elected officials, business leaders, and community stakeholders; and individual action, large and small, to bring about these needed changes to achieve our goals. We'll share our progress annually—see our Environmental Stewardship webpage for more frequent updates—and update this plan every five years.



