



**MEMO TO:** Members of the City Council

**FROM:** Mayor Angela Birney

**DATE:** July 14, 2020

**SUBJECT: Draft Environmental Sustainability Action Plan**

**I. RECOMMENDED ACTION**

Provide feedback on draft document and direction on next steps leading to adoption.

**II. DEPARTMENT CONTACTS**

Maxine Whattam, Chief Operating Officer	425-556-2310
Dave Juarez, Public Works Director	425-556-2733
Amanda Balzer, LG, Science and Data Analytics Section Supervisor	425-556-2753
Jenny Lybeck, Environmental Sustainability Program Manager	425-556-2121

**III. DESCRIPTION/BACKGROUND**

**Background**

An Environmental Sustainability Offer was approved by Council as part of the 2019-2020 biennial budget. The offer included funding for an Environmental Sustainability Study to conduct a gap analysis on the City's current efforts and develop a framework to roll out an Environmental Sustainability Program.

The Environmental Sustainability Action Plan (ESAP or Plan) builds on the 2014 Climate Action Implementation Plan and Environmental Initiative of the Community Strategic Plan, as well as integrates best practices from climate and sustainability planning documents. The Plan also aligns with the updated King County-Cities Climate Collaboration (K4C) Letter of Joint Commitments signed by the Mayor on May 19, 2020.

The Plan contains six focus areas, including:

- Building and Energy
- Climate Change and Resilience
- Materials Management and Waste
- Natural Systems
- Transportation and Land Use
- Water Management

## **Key Stakeholder Involvement**

Robust stakeholder engagement was incorporated and embedded through each step of the process. An external stakeholder group was assembled with representation from the business community, residents, service organizations, and technical experts. Feedback on the process and outcomes to date has been positive, and stakeholders have expressed support for the work through post-workshop surveys.

### *Stakeholder Engagement Process*

Internal city staff workshops and external stakeholder workshops were conducted in three phases throughout the process: Phase I Community Visioning, Phase II Strategy Identification, and Phase III Strategy Refinement and Plan Development. Let's Connect Redmond was used to keep the community informed, and surveys were used throughout the process to obtain input from the broader community. The City launched the Online Open House on July 1 to collect feedback on the draft ESAP. The Open House will be available through July 19 and includes the complete draft Plan, a summary of key elements of the Plan, and interactive features to allow users to comment and respond to survey questions to inform the final Plan.

## **Key Plan Components**

- Greenhouse gas inventory: comprehensive community wide and municipal greenhouse gas (GHG) emissions inventory;
- Quantitative reduction analysis: quantitative analysis of the pathway to achieve an 80% reduction in GHG emissions by 2050;
- Progress to date: an overview of progress to date in each of the six focus areas;
- Strategies and actions: 25 strategies and more than 160 actions to guide the City's progress;
- Targets: clear sustainability targets, including greenhouse gas reductions, energy efficiency, vehicle miles traveled, and others;
- Monitoring and reporting structure: performance monitoring and reporting structure, including a commitment to annual progress reports to Council;
- Periodic Plan update: commitment to review and update the Plan every five years to ensure the City's strategy is responsive to progress trends, regulatory landscape, technological advances, and emerging strategies; and
- Implementation strategy: implementation strategy, including overall approach and specific actions for the two years following Plan adoption.

Cascadia Consulting completed a quantitative analysis of the actions within the Sustainability Plan to confirm the Plan creates a viable path to the 2050 GHG reduction targets. The analysis shows that current state regulations combined with the local actions identified in the Plan will result in an estimated 89% reduction in community wide GHG emissions. This exceeds the 80% GHG reduction by 2050 targets affirmed by the K4C last fall.

## **Implementation Approach**

As a 30-year planning document, the City's Environmental Sustainability Action Plan outlines the near-term (years 1-5), mid-term (years 5-10) and long-term (10+ years) actions that will all be necessary to meet our reduction targets. The implementation approach includes:

1. Education, outreach, and voluntary compliance: upon adoption of Plan, implementation will emphasize actions rooted in education, outreach, and voluntary compliance to build understanding and support within the community.
2. Foster accountability: as voluntary engagement increases, the City will integrate actions that encourage accountability into its approach through data transparency, more technical assistance, and incentive-based programs.
3. Regulations: finally, the City will integrate bans and additional regulations to increase compliance and codify community participation.

### *Monitoring, Reporting and Future Work Plans*

The City will rely on annual monitoring performance and public reporting to determine whether Redmond is making enough progress towards its goals and when additional compliance-based actions should be utilized. The City's approach to implementation will be adaptive to remain responsive to performance monitoring, technological changes, available budget, regional and local opportunities, and staff resources.

Moving forward, staff plans to develop biennial work plans that clearly outline the milestones and actions that will be pursued. This will be done on a two-year cycle and will align with the biennial budgeting process to ensure implementation priorities are clear and aligned with adequate resources. The two-year timeframe will also allow the City to be responsive to trends in key performance indicator progress, community needs, and new approaches to implement actions.

### **2021/2022 Priorities and Budget**

The actions identified for the first two years of implementation create a strong foundation that the City can build upon moving forward. Additional actions will be added as programs are established and the City continues to integrate ESAP actions into existing practices. Key priorities for 2021 and 2022 include:

- Establish internal and external stakeholder committees: establish framework that promotes accountability for implementation activities through internal and external stakeholder engagement;
- Model best practices: prioritize opportunities to model sustainability practices in City operations;
- Prioritize equity: determine and formalize Redmond's approach to incorporating equity considerations into Plan implementation; and
- Enhance education and outreach: expand education and public engagement opportunities to build awareness and shift behavior.

The Sustainability Budget Offer will include actions that support these priorities and leverages funding in Stormwater and Solid Waste funds. The ESAP does not consider the budget challenges and social constraints brought on by COVID-19. Therefore, as the City moves into its first year of implementation, it will be critical to maintain the City’s existing programming to ensure the City remains on a trajectory to meet its targets. The City will also prioritize actions and strategies that support the COVID-19 recovery and can be implemented with current resource levels. Year 3 will be a critical year to assess progress to date and adjust resources to meet Plan goals.

**Cost Implications**

The Plan includes a cost analysis of the net present value (NPV) of actions. The cost analysis was not an in-depth budget exercise but an order of magnitude estimate of costs per action. Due to the unknowns of COVID response and recovery, the near-term actions have been broken down into two phases, years 1-2 and years 3-5. Year 3 is identified as a check-in year to determine if adjustments need to be made in the implementation schedule due to the speed of COVID recovery.

Fewer resources and staff capacity will result in slower progress towards the City’s sustainability targets. Costs impacts may be reduced by strategic staging of actions to reduce FTE needs and seeking grants and other funding sources to offset capital or one-time cost impacts.

The net present value for near-term new actions is estimated at \$19 million, for mid-term new actions is estimated at \$20 million, and for long-term new actions is estimated at \$11 million. Costs for implementation of the 30-year plan are estimated at \$50 million for new actions. These estimated costs are intended to provide an order of magnitude for plan implementation.

The Plan does not include cost impacts to the community. Measures with community cost implications are largely code and policy related and will require additional analysis and public stakeholder process.

**Next Steps**

- Online Open House to obtain public comment: open through July 19
- Second Study Session, if requested by Council: August 11
- Council Adoption of Final Plan: late summer 2020

Feedback received during the meetings above will be integrated into the Plan as appropriate.

**IV. PREVIOUS DISCUSSIONS HELD**

<b>Date</b>	<b>Action/Committee Presentation</b>
09/10/2019	Planning and Public Works Committee of the Whole
09/17/2019	Approve Consultant Agreement No. 9252

11/19/2019	Staff Report
12/10/2019	Council Study Session
03/10/2020	Planning and Public Works Committee of the Whole
04/14/2020	Planning and Public Works Committee of the Whole
06/02/2020	Council Staff Report

**V. IMPACT**

**A. Service/Delivery:**

The Environmental Sustainability Action Plan will create a roadmap to meet regional and Redmond’s climate and sustainability targets and advance the strategies outlined within the Community Strategic Plan Environmental Initiative.

**B. Fiscal Note:**

\$526,284 was included in the 2019-2020 biennial budget for the City’s Environmental Sustainability Program. This funding was used to hire a consultant that assisted the City in developing the Environmental Sustainability Action Plan and to hire an Environmental Sustainability Program Manager. Costs to implement the Plan will be dependent on future budget actions.

**VI. ALTERNATIVES TO STAFF RECOMMENDATION**

This is an informational briefing to solicit Council feedback on the proposed draft Plan.

**VII. TIME CONSTRAINTS**

Council review and adoption of the Environmental Sustainability Action Plan will set the stage for Council discussions of an environmental budget offer for the proposed 2021-2022 biennial budget, which will guide next steps in implementing near-term actions in the Plan.

**VIII. LIST OF ATTACHMENTS**

Attachment A: Draft Environmental Sustainability Action Plan



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**Maxine Whattam, Chief Operating Officer**



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**Dave Juarez, Public Works Director**



Approved for Agenda \_\_\_\_\_  
**Angela Birney, Mayor**



COUNCIL STUDY SESSION

# **Environmental Sustainability Action Plan**

**Jenny Lybeck and Amanda Balzer  
Andrea Martin (Cascadia Consulting)**  
July 14, 2020

# Purpose

Review draft Environmental Sustainability Action Plan

- Obtain Council feedback on 30 year plan
- Obtain direction on process to plan adoption



# 89% Reduction

The actions outline in the Plan surpass King County-Cities Climate Collaboration (K4C) commitments of 80% reduction by 2050.

# Outline for Tonight



## Why

### Goal

- Overarching vision



## What

### Plan Elements

- 6 focus areas of the Plan
- 24 Strategies
- 162 Actions



## When

### Target

- Time bound & measurable outcomes for tracking progress & goals



## How

### Implementation

- Monitoring and evaluation

# What we are asking Council to do tonight

- Give feedback on plan
- Raise questions during the presentation
- Select an option for process to adoption

# Progress to date



- Data Inventory
- Stakeholder involvement
  - Workshops, Pop-up Events and Let's Connect Surveys
- Multi-criteria, Quantitative, and Cost Analysis to identify top actions
- Previous 'touches' with Council
  - 09/17/2020 – Council Contract Approval
  - 11/19/2020 – Council Staff Report
  - 12/10/2020 – Council Study Session
  - 03/10/2020 – Planning and Public Works Committee of the Whole
  - 04/14/2020 – Planning and Public Works Committee of the Whole
  - 06/02/2020 – Council Staff Report

# Community Strategic Plan



## Housing Choices

**Program Vision:**  
A Redmond with a variety of housing choices for all income levels that reflects our community.



## Environmental Sustainability

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



## Technology & Information Services (TIS) Infrastructure

**Program Vision:**  
A Redmond that is connected, smart, and future-focused, with highly-engaged users (internal & external) and easily used products.



## Cultural Inclusion

**Program Vision:**  
A Redmond in which all residents can fully and effectively access city services, influence city policy and direction, and feel a sense of belonging and safety.



## Infrastructure

**Program Vision:**  
A Redmond that is safe, multi-modal, smart, green, and has high value for long-term infrastructure investments that support the future needs of Redmond.

# Focus Areas

## Transportation & Land Use

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



## Buildings & Energy

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



## Materials Mgmt. & Waste

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



## Natural Systems

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



## Water Management

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



## Climate Change & Resilience

Reducing GHG emissions & ensuring that all communities and infrastructure are prepared for climate change impacts.





# 390 voices

Provided input

# 162 actions

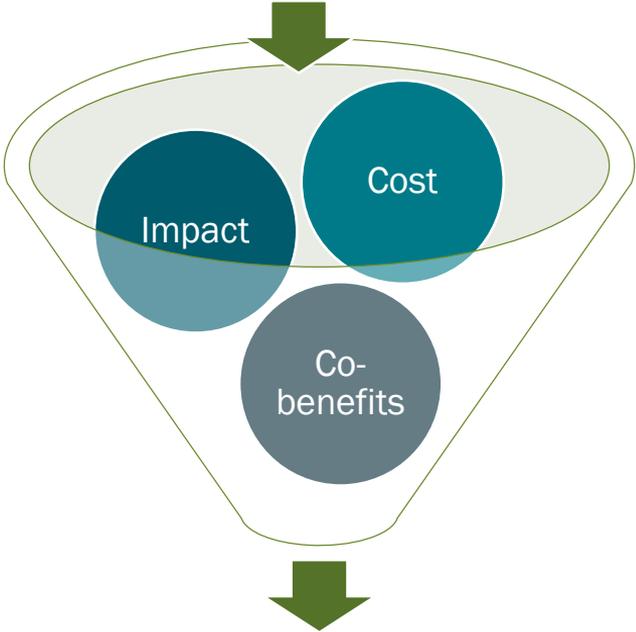
Identified as priorities to implement

# 1,000,000 MTCO<sub>2</sub>e

Metric tons of carbon dioxide equivalent reduced

# Multi-Criteria Analysis

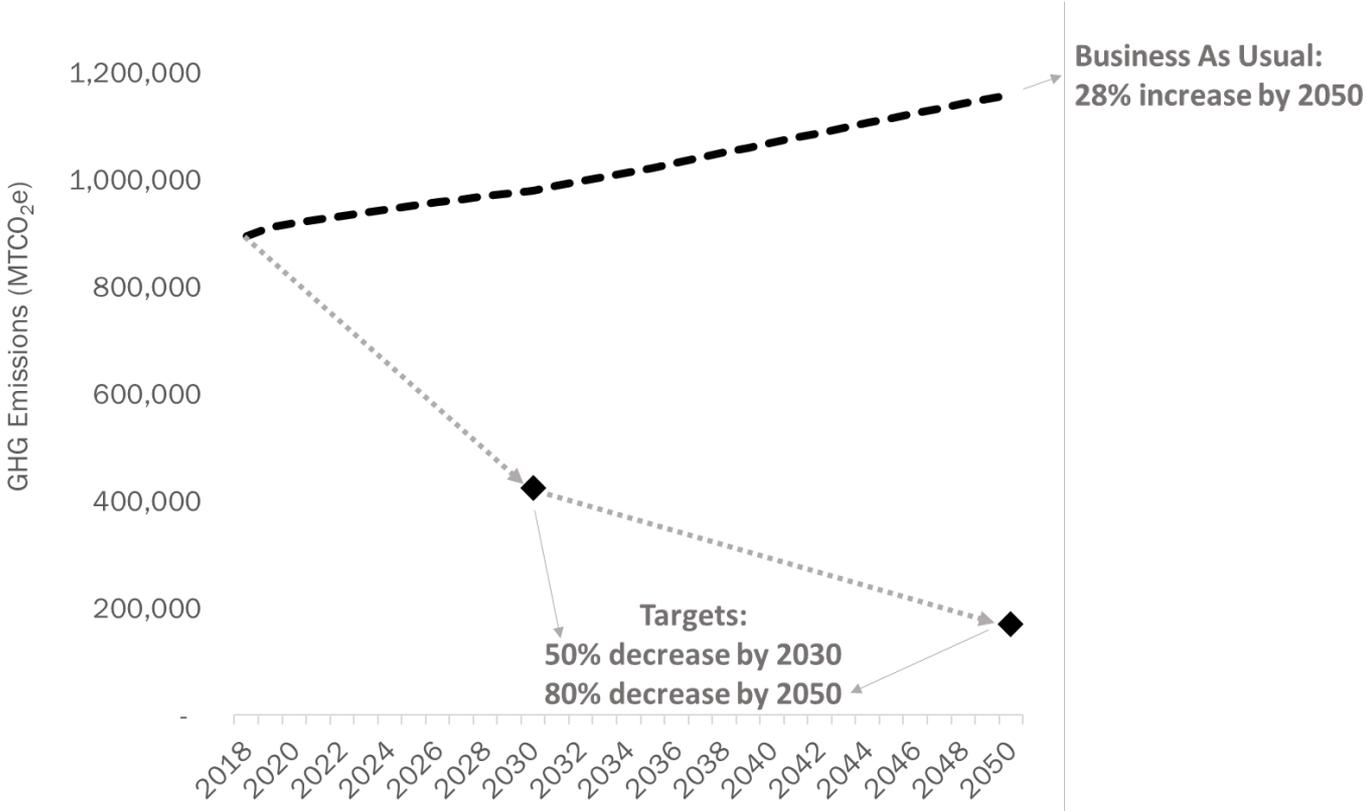
Possible strategies and actions



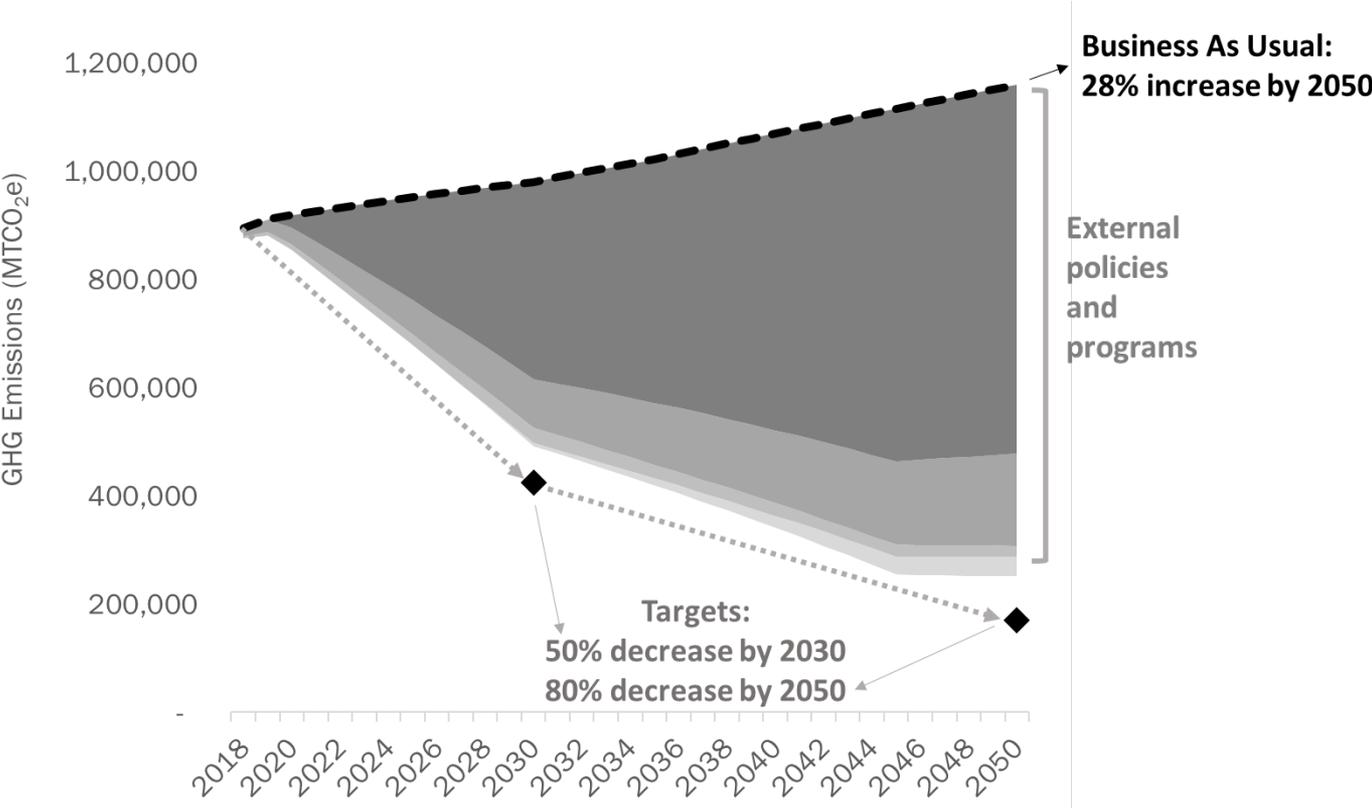
Short-list of actions

Criterion	Weight
 <b>Impact</b>	30%
 <b>City cost</b>	10%
 <b>Feasibility</b>	20%
 <b>Community support and cost</b>	10%
 <b>Equity</b>	10%
 <b>Co-benefits or synergies</b>	20%

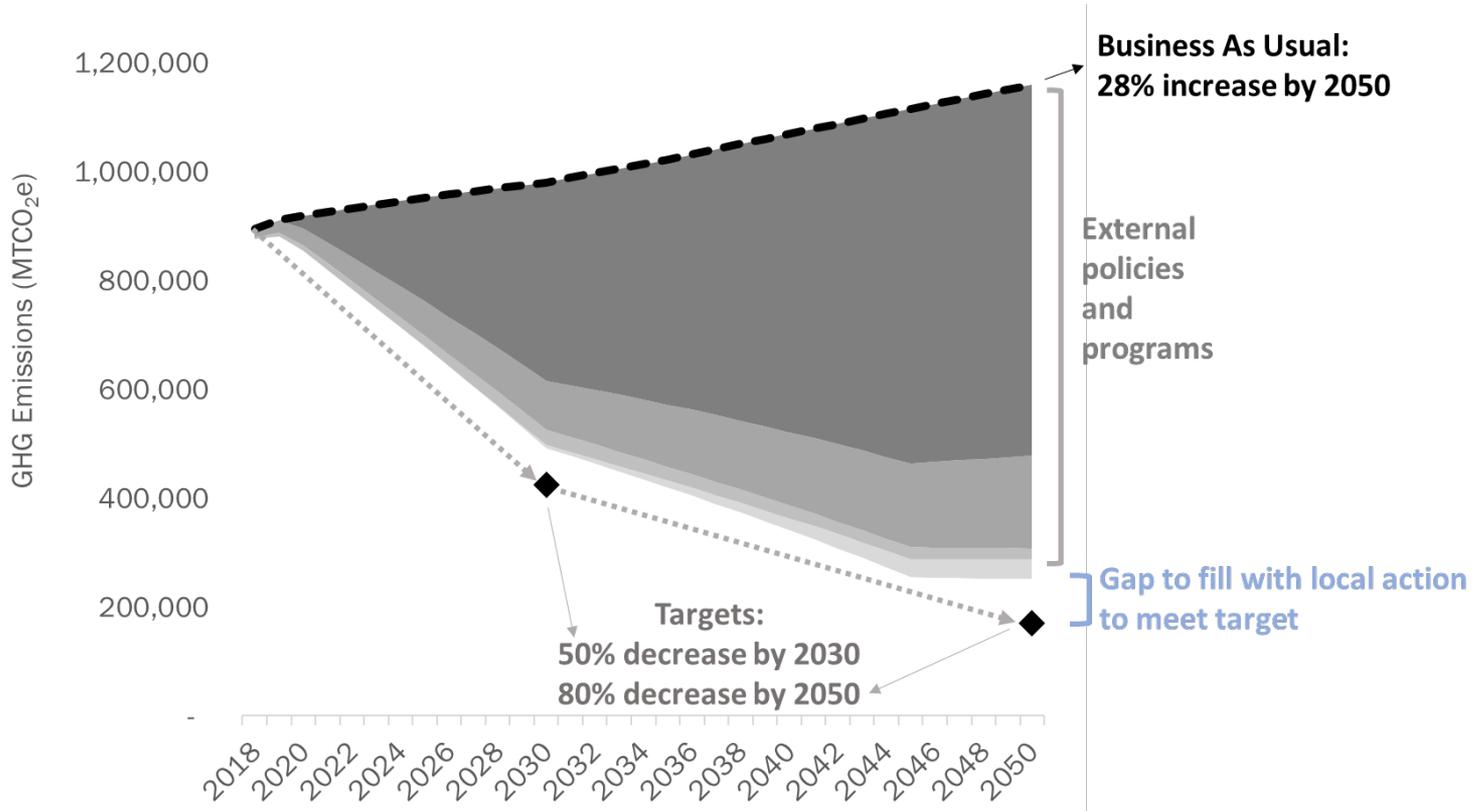
# Quantitative Analysis



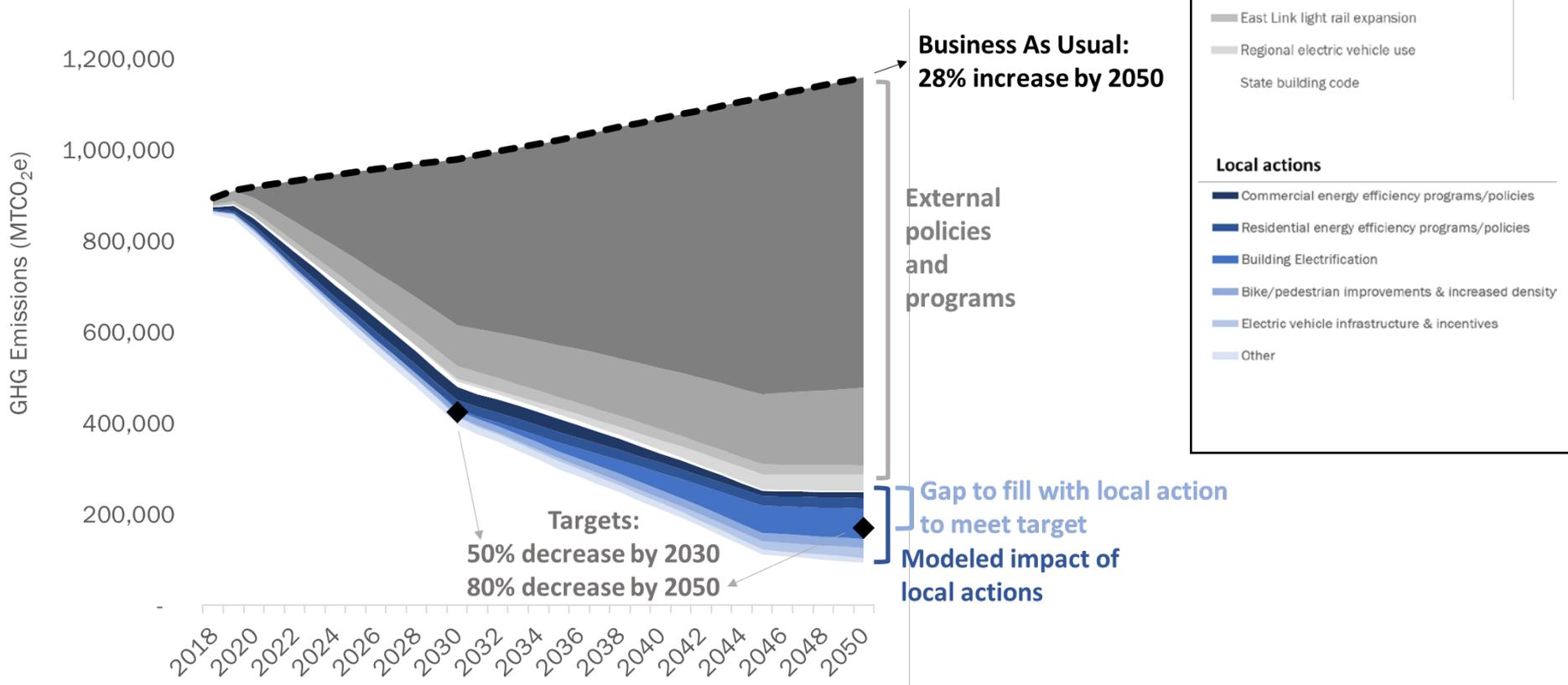
# Quantitative Analysis



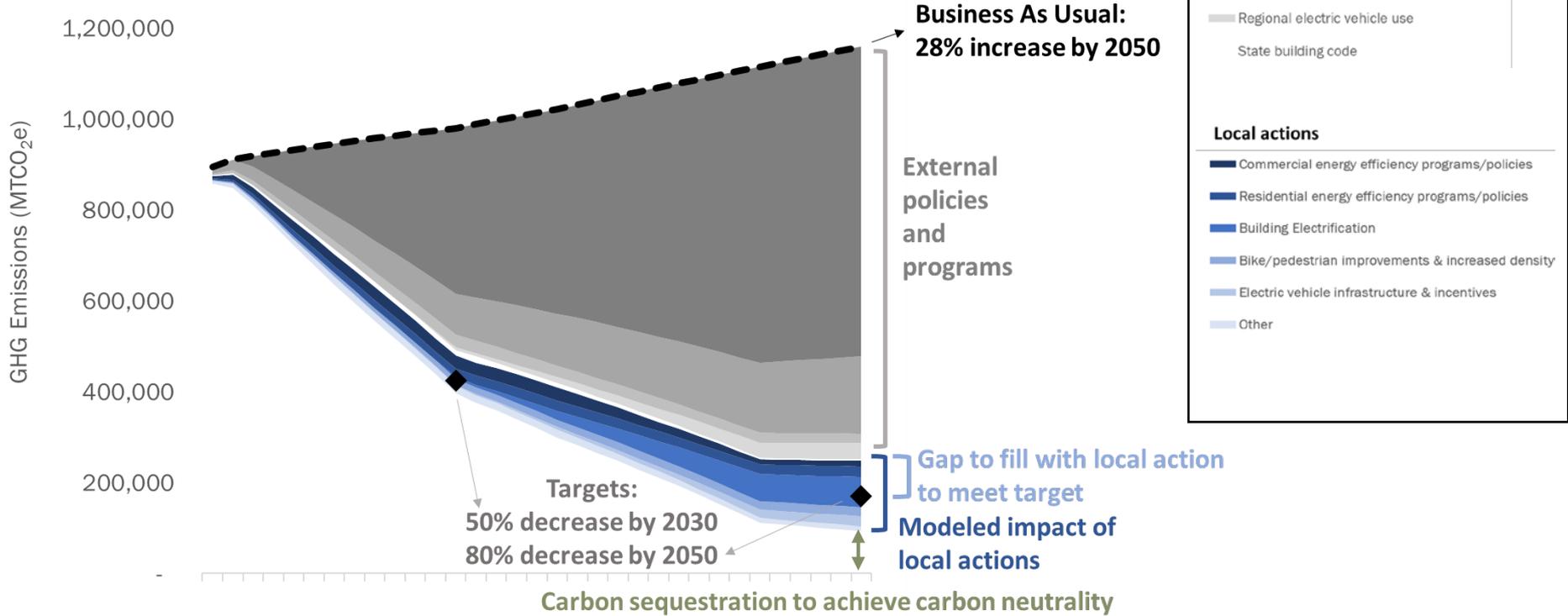
# Quantitative Analysis



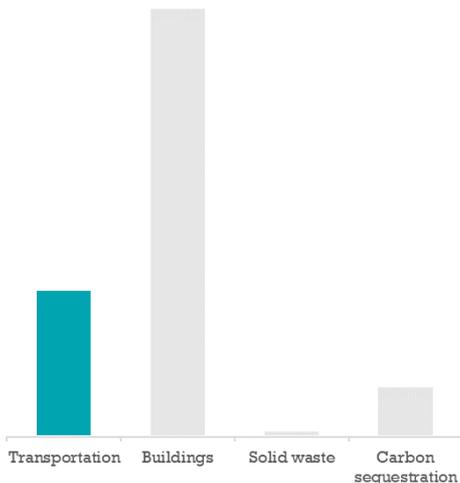
# Quantitative Analysis



# Quantitative Analysis

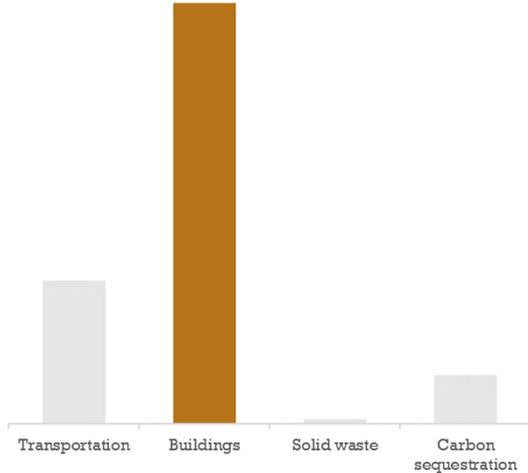


# Transportation & Land Use



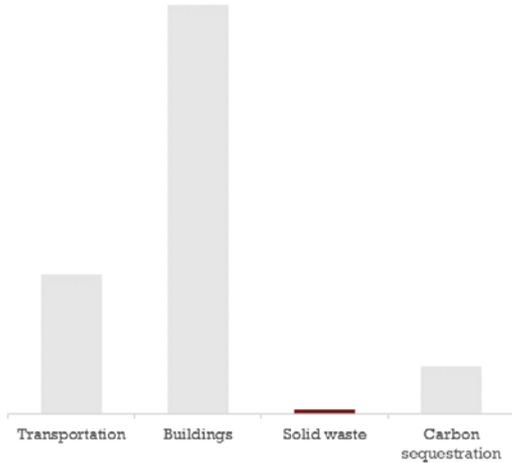
Strategy	Action(s)
Increase <b>biking, walking, and public transit</b>	<ul style="list-style-type: none"><li>• Update policies to create more walkable built environment</li><li>• Invest in pedestrian and bicycle infrastructure</li></ul>
Shift to more efficient and <b>low carbon vehicle fuels</b>	<ul style="list-style-type: none"><li>• Evaluate EV demand/supply and parking requirements</li><li>• Improve EV charging accessibility</li></ul>
Reduce <b>City transportation energy consumption and emissions</b>	<ul style="list-style-type: none"><li>• Continue implementing the Green Fleet Purchasing Policy</li><li>• Expand telecommute and flexible schedules</li></ul>

# Building & Energy



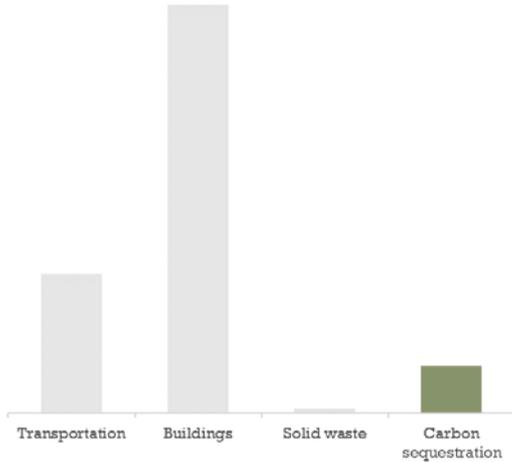
Strategies	Actions
Engage and support <b>building sustainability</b>	<ul style="list-style-type: none"><li>• Promote and distribute green starter kits</li><li>• Require solar-ready and EV-ready new development</li></ul>
Advance green building with <b>City facilities</b>	<ul style="list-style-type: none"><li>• Develop a Resource Conservation Management Plan</li></ul>
Shift to <b>renewable energy</b> sources and <b>building decarbonization</b>	<ul style="list-style-type: none"><li>• Pilot a voluntary program that focuses on residential and commercial fuel switching from natural gas to electric</li></ul>
Prepare the <b>energy grid</b> for future conditions	<ul style="list-style-type: none"><li>• Streamline permitting and interconnection processes for energy storage projects</li></ul>
Expand <b>performance benchmarking</b> and improvements	<ul style="list-style-type: none"><li>• Require energy use disclosure and benchmarking over a building size threshold</li></ul>

# Materials Management and Waste



Strategy	Action
Increase <b>diversion of community waste</b> while reducing cross-contamination	<ul style="list-style-type: none"> <li>• Provide recycling and composting education and outreach targeted at multifamily property managers and tenants</li> <li>• Support food donation program for grocery stores to send surplus food</li> </ul>
Reduce <b>community waste generation</b>	<ul style="list-style-type: none"> <li>• Host zero waste, repair/reuse, or upcycling community workshops</li> </ul>
Reduce waste and environmental impact from <b>City purchasing and operations</b>	<ul style="list-style-type: none"> <li>• Develop and enforce green City purchasing procedures and policies, including for green cleaning materials</li> </ul>
Address <b>construction and demolition (C&amp;D) waste</b>	<ul style="list-style-type: none"> <li>• Develop comprehensive policies around C&amp;D recycling and recovery. Prohibit disposal of recoverable C&amp;D materials</li> </ul>
Reduce GHG emissions impacts associated <b>with local consumption</b>	<ul style="list-style-type: none"> <li>• Require compostable and paper disposables in restaurants and stores</li> </ul>

# Natural Systems



Strategy	Action
Protect and enhance <b>native habitats, open space, and preserve agriculture lands</b>	<ul style="list-style-type: none"><li>• Use watershed approach for habitat restoration</li><li>• Identify partnership opportunities to expand urban agriculture</li></ul>
Enhance <b>resilience of natural areas</b> and systems to climate change	<ul style="list-style-type: none"><li>• Remove barriers to fish passage</li><li>• Establish incentives/rebates for drought tolerant residential landscaping</li></ul>
Expand <b>green infrastructure</b> and associated services	<ul style="list-style-type: none"><li>• Adopt Integrated Pest Management Plan for City owned properties</li><li>• Prepare natural drainage systems for changes in precipitation</li></ul>
Increase citywide <b>tree canopy</b>	<ul style="list-style-type: none"><li>• Reevaluate tree regulations to protect existing canopy and ensure “right sized” trees</li></ul>

# Water Management



Reduce water use  
through Water  
Reduction Strategy  
(TBD)



Strategy	Action
Achieve a secure and sustainable <b>water supply</b>	<ul style="list-style-type: none"><li>• Evaluate climate risks to water availability due to changes in precipitation patterns.</li></ul>
Conserve community water resources and maximize <b>water efficiency savings</b>	<ul style="list-style-type: none"><li>• Create a water usage reduction strategy to provide strategic framing for efficiency strategies.</li></ul>
Protect <b>drinking water sources</b>	<ul style="list-style-type: none"><li>• Conduct triple bottom line analysis of temporary construction dewatering.</li></ul>

# Climate Change & Resilience



89% total  
modeled  
reduction in  
GHG emissions



Strategy	Action
Ensure resilience in all <b>City services and infrastructure</b>	<ul style="list-style-type: none"><li>• Ensure local fire department has equipment and training to manage wildfires</li></ul>
Enhance resilience of <b>disproportionately impacted populations</b>	<ul style="list-style-type: none"><li>• Conduct a communitywide climate vulnerability assessment to identify resilience-building actions</li></ul>
<b>Institutionalize sustainability considerations</b> and climate change across City activities and decision-making	<ul style="list-style-type: none"><li>• Continue to benchmark, report, and monitor community and municipal GHG emissions</li><li>• Build City employee climate change awareness</li></ul>
Pursue <b>cross-sectoral, communitywide solutions</b> to address climate change and cross-cutting sustainability issues	<ul style="list-style-type: none"><li>• Provide educational resources and opportunities to help residents engage in implementation of sustainability initiatives.</li><li>• Support an educational agenda to enhance awareness efforts for students</li></ul>

# 2050 Key Targets



## PROGRESS SINCE 2011



## 2050 TARGETS

### Transportation & Land Use

6% VMT/Capita Reduction

50% VMT/Capita Reduction  
100% Light-Duty EV Ownership

### Buildings & Energy

5% Decrease in Energy Use  
6% Fossil Fuel Increase  
Adoption of CETA

45% Energy Use Reduction  
80% Fossil Fuel Reduction  
100% Renewable Energy

### Materials Mgmt. & Waste

45% Diversion Rate

Zero Waste (80% Diversion Rate)

### Natural Systems

38% Tree Canopy Cover  
Fair/Poor BIBI - 4 Highest Restoration Streams

40% Tree Canopy Cover  
Good BIBI - 4 Highest Restoration Streams

### Water Management

54.9 Gallons/Capita/Day Average Residential Usage

TBD Water Reduction Strategy

### Climate Change & Resilience

7% Increase GHGs

80% GHG Reduction

**1** Build a foundation

**2** Create accountability

**3** Transition to policy

Our phased approach begins with education and incentivization and gradually formalizes into policy through collaborative information sharing and transparent reporting.



# Monitoring & Evaluation



Annual  
Performance  
Report

- KPI update
- Qualitative update
- Lessons learned

Biennial GHG  
Inventory  
Update

- GHG reduction progress
- Inform budgeting priorities
- Integrated into Annual Performance Report

# Process of Continuous Improvement





# Build the Foundation

## Coordinate

Inter-departmental  
Sustainability Team

## Collaborate

Environmental  
Sustainability Advisory  
Committee

## Activate

47 existing actions  
13 new actions in Year 1

# Implementation during COVID-19

## Priorities

- Budget & funding availability
- Education & outreach
- Win-win actions



# Planned 2021-2022 Actions

## Transportation & Land Use

Support EV adoption

City Green Fleet Purchasing Policy

Active transportation

## Water Mgmt.

Water usage reduction strategy

Temporary Construction Dewatering policy

Water system resiliency

## Buildings & Energy

Education & outreach

Solar and EV ready building code updates

City operations energy efficiency

## Natural Systems

Integrated Pest Management

Tree canopy policies

Enhance critical habitat areas

## Materials Mgmt. & Waste

Construction and demolition policy

City green purchasing

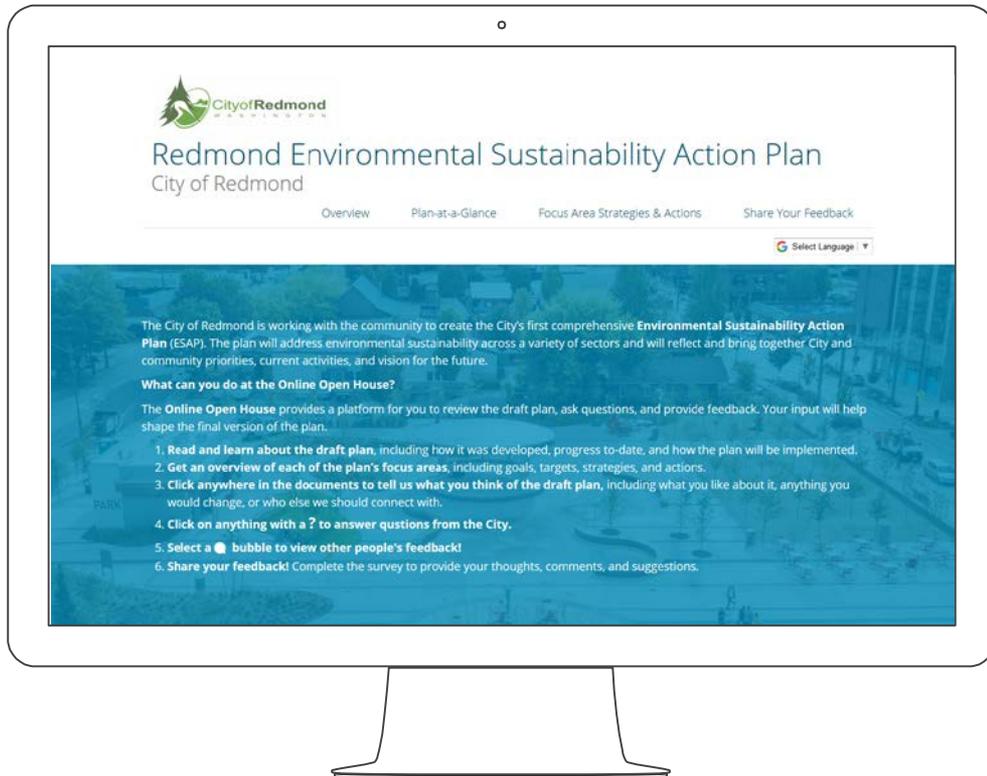
Education & outreach

## Climate Change & Resilience

Vulnerability roadmap

Employee and community engagement

# Online Open House Feedback





City of Redmond  
WASHINGTON

# Next Steps to Plan Adoption

- **Option 1:** Second Study Session to review Online Open House - August 11, 2020
- **Option 2:** Finalize Plan and bring back for Council adoption - August 4, 2020



# Thank you.

# Any Questions?

Jenny Lybeck, Sustainability Program Manager

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Amanda Balzer, Science & Data Analytics Supervisor

You can reach me at [abalzer@Redmond.gov](mailto:abalzer@Redmond.gov) or x2753