Executive Summary for Decision Makers

Overview

Climate change threatens people and ecosystems. Local and regional partners across the Puget Sound are developing and implementing the policies and solutions necessary to curb the worst impacts of climate change. Our region's collective approach to climate action channels a spirit of innovation, inclusion, and success, and embodies bold and coordinated action for the benefit of all Puget Sound communities, waterways, habitats, and residents.

Development of this Comprehensive Climate Action Plan (referred to as "climate plan") was led by the Puget Sound Clean Air Agency (Agency) for the Puget Sound region, encompassing King, Kitsap, Pierce, and Snohomish counties. Together, these counties represent over half of the state's population and the region includes the junction of two major interstate highways (I-5 and I-90) as well as two major seaports and the state's major airport.

The Puget Sound Region Comprehensive Climate Action Plan encompasses King, Kitsap, Pierce, and Snohomish Counties.

Climate Plan Purpose

This climate plan is a guiding roadmap for local and regional governments to mitigate the effects of climate change. While not an implementation plan, this document is a call to action for the scale of ambition required to reduce greenhouse gas emissions and meet regional and state targets. This plan identifies and facilitates high-impact regional actions to reduce climate emissions through coordinated efforts, with a focus on maximizing benefits in overburdened communities. It brings together decades of existing climate planning efforts across the Puget Sound region to develop a comprehensive list of actions to achieve greenhouse gas reductions in the region, with the added benefit of including information on costs, co-benefits, and workforce development implications to provide decision-makers with the information needed to make effective climate planning decisions and investments. It also identifies which strategies are poised for regional implementation and which are better for state implementation. **We encourage local and regional governments to regularly use this plan as they prioritize and select proposed climate strategies for implementation.**

As a primary deliverable for the federal Climate Pollution Reduction Grant (CPRG) program, the contents of this climate plan are largely dictated by grant requirements. A main purpose of the CPRG grant and this climate plan is to identify a suite of greenhouse gas reduction strategies that will help the region meet its 2030 and 2050 emission reduction targets.

Many jurisdictions in the region are already implementing some of the strategies in this climate plan; for others, implementation is still in the initial planning phases. Through successful regional programs and initiatives like the Energize Program (CPRG Phase 2 Implementation Grant), the development of a regional electric vehicle charging roadmap, and others, we can point to concrete examples today that demonstrate our success in funding, planning, and implementing regional climate actions. Partners can use this plan to leverage, expand, and accelerate implementation efforts, achieving economies of scale that can benefit the region as a whole.

The Agency is committed to working with partners to determine ongoing steps for strategy implementation and collaborating with overburdened and frontline communities to do this work equitably.

This climate plan is organized into three parts:

Part I. Where we are now: A greenhouse gas emissions inventory for the four-county region, the current climate policy landscape, and a summary of existing and planned large-scale greenhouse gas reduction projects.

Part II. Where we need to go: A summary of regional and state greenhouse gas reduction targets and greenhouse gas emissions projections for 2030 and 2050.

Part III. How we will get there: A climate pollution reduction plan for all sectors of the regional economy (consisting of 25 strategies and 110 actions), and a discussion of important considerations for equitable implementation, including potential funding sources, and which entities might best be positioned to implement proposed actions. This plan also includes analyses of potential benefits and impacts of proposed climate actions, with a focus on overburdened communities, as well as workforce development needs to implement the proposed actions, and information about next steps.

Development of this plan was guided by the following principles:

- Regional planning will align with and complement state and local policies and plans, and support jurisdictions at all stages of planning.
- Identified actions will be developed into funding-ready strategies that are more competitive for future funding opportunities, providing a clear path to implementation.
- Collaborative relationships will benefit jurisdictions through leveraging collective resources and aligning priorities to maximize impacts for emissions reductions, workforce development, and equitable distribution of resources.

This document represents the first comprehensive, region-wide climate plan for the Puget Sound in over a decade. It is built on a strong foundation of climate planning work already underway across the region and state, and is designed to synergize, complement, and reinforce state, tribal, and local climate planning efforts.

Evaluating Climate Strategies

The climate strategies in this plan reduce greenhouse gas emissions and provide several other benefits including localized air quality improvements, better public health outcomes, cost savings, improved ecosystem function, and workforce development. Given the urgency of action needed, this plan focuses on strategies that can bring us closer to our 2030 emission reduction target while also providing estimates for what could be achieved by 2050. Taking actions toward the 2030 targets will build momentum and lay the foundation for shaping projects and programs that can bring the 2050 target within reach.

To help guide decisions about which strategies to implement in the near-term, the following tables provide ranked lists of strategies that maximize outcomes across multiple benefits.

- **Table ES-1**: Strategies with the highest greenhouse gas emission reduction potential by 2030
- **Table ES-2**: Strategies with the greatest air quality and public health co-benefits with a focus on overburdened communities
- **Table ES-3**: Strategies well-positioned for regional and local implementation

Given that transportation and the built environment are the leading contributing sectors to greenhouse gas emissions in our region, it is not surprising that many strategies in these sectors appear on these tables that maximize outcomes. Many of these strategies and corresponding actions reflect the urgency for a coordinated and comprehensive approach to decarbonizing these sectors.

The ten strategies in Table ES-1 show the highest greenhouse gas emission reduction potential by 2030 in addition to existing strategies and actions. It's important to note that several actions already in place will not realize their full potential until 2050, well after the 2030 emissions reduction potential calculations used for this report. For example, large state programs like the Climate Commitment Act, Clean Fuel Standard, and Vehicle Emission Standards won't realize their full emission reductions until well after 2030, and regional transit is actively being built out under the Regional Transportation Plan. Some emissions reductions from federal efforts like the greenhouse gas vehicle emissions standards are less certain given recent actions from the administration.

Table ES-1: Top 10 Strategies Ranked in Order of Their Greenhouse Gas Emission Reduction Potential by 2030*

Sector	Strategy	Summary of Actions
Built Environment	1.3 Electrify or Decarbonize Existing Buildings	Electrify appliances; Develop renewable electricity generation and battery storage systems; Develop building emissions performance standards and building decarbonization plans; Promote low-carbon fuels
Transportation	2.3 Electrify or Reduce the Carbon Intensity of On-Road Medium- and Heavy-Duty Freight and Service Vehicles	Support the electrification of government and privately medium- and heavy-duty fleets; Support Advanced Clean Trucks and Advanced Clean Fleet Rules; Support medium- and heavy-duty charging infrastructure build-out; Require low-carbon alternatives for medium- and heavy-duty government fleets
Built Environment	1.2 Reduce Energy Use in Existing Buildings	Weatherize existing buildings; Upgrade appliances for efficiency, and upgrade lighting; Support utility demand response programs; Develop efficiency standards
Transportation	2.2 Increase Sales and Use of On-Road Passenger Electric Vehicles and Promote Low-Carbon Fuel Alternatives	Support charging infrastructure build-out and develop a regional charging infrastructure plan; Electrify government fleets and high-emitting vehicles; Support electric vehicle car sharing programs; Provide electric vehicle purchase incentives and support the State's Zero-Emission Vehicle Standard
Natural and Working Lands**	4.1 Steward Natural Lands to Reduce Tree Loss	Increase tree planting and stewardship; strengthen zoning requirements to protect trees; Promote tree retention and planting and increase green stormwater infrastructure

Built Environment	1.5 Reduce Industrial Emissions (especially process heating)	Support low-emission technology upgrades; Establish greenhouse gas auditors/consultants; Create low-emission ratings/awards to identify low emitters; Promote low-carbon fuels
Transportation	2.5 Electrify or Reduce the Carbon Intensity of Off-Road Equipment	Phase-out new sales of gas- and diesel-powered off-road equipment; Promote low-carbon fuels for off-road equipment
Transportation	2.6 Electrify or Reduce the Carbon Intensity of Aviation Vehicles and Equipment and Reduce Air Travel	Promote low-carbon fuels for government-related travel; Electrify equipment and non-road vehicles; Establish stronger fuel efficiency and emissions standards for aircraft and engines; Promote alternative options to air travel and increase use of virtual meetings
Built Environment	1.1 Build Low-Carbon New Buildings	Strengthen building codes to require low- or zero-emission building materials and appliances in new construction; Provide education and outreach for developers and builders of new commercial and residential construction
Solid Waste	3.2 Divert Other Recyclable and Compostable Materials from Landfills	Provide education and outreach to encourage landfill diversion; Improve the handling and processing of organics waste and reduce food waste; Support new and existing markets for compost; Increase methane capture in farming

* Strategies appear in order of their estimated maximum emission reduction potential by 2030. The maximum potential impact of each strategy assumes the largest realistic scale of action; estimates are not plans or predictions and don't guarantee results.

** While some Natural and Working Lands sector strategies can prevent direct carbon emissions from soils (e.g., reducing tree loss) most Natural and Working Lands (e.g., stewarding natural lands, planting trees, etc.) primarily increase carbon sequestration rather than directly reduce emissions. Natural and Working Lands to increase carbon sequestration are critical to meeting our 2050 climate targets but cannot compensate for direct emission reductions in other sectors of the economy.

The seven strategies in Table ES-2 are likely to result in air quality and public health co-benefits, especially in overburdened communities. Overburdened communities, shown in Figure 1 of this climate plan, are geographic areas where vulnerable populations face combined, multiple environmental harms and health impacts. The strategies of the climate plan are ranked approximately highest to lowest according to their likely benefit for air quality and public health including impacts on ambient air quality and exposure, indoor air quality, urban livability, and home heating and cooling. Diesel particle pollution from diesel engines is the top air quality toxics risk in the region (driving 85% of the potential cancer risk from air pollution) and remains a top priority for public health, especially for overburdened communities. Some built environment strategies can lead to improvements in indoor environments, where people spend a majority of their time. Some natural and working lands strategies can increase urban green areas; while these do not directly reduce pollutant exposures, they can reduce urban heat island effects that can cause heat-related illnesses and death.

Table ES-2: Top 7 Climate Strategies with the Greatest Air Quality and Public Health Co-Benefits with a Focus on Overburdened Communities

Sector	Strategy	Summary of Actions
Transportation	2.3 Electrify or Reduce the Carbon Intensity of On-Road Medium- and Heavy-Duty Freight and Service Vehicles	Support the electrification of government and privately medium- and heavy-duty fleets; Support Advanced Clean Trucks and Advanced Clean Fleet Rules; Support medium- and heavy-duty charging infrastructure build-out; Require low-carbon alternatives for medium- and heavy-duty government fleets
Transportation	2.5 Electrify or Reduce the Carbon Intensity of Off-Road Equipment	Phase-out new sales of gas- and diesel-powered off-road equipment; Promote low-carbon fuels for off-road equipment
Transportation	2.2 Increase Sales and Use of On-Road Passenger Electric Vehicles and Promote Low-Carbon Fuel Alternatives	Support charging infrastructure build-out and develop a regional charging infrastructure plan; Electrify government fleets and high-emitting vehicles; Support electric vehicle car sharing programs; Provide electric vehicle purchase incentives and support the State's Zero-Emission Vehicle Standard
Built Environment	1.3 Electrify or Decarbonize Existing Buildings	Electrify appliances; Develop renewable electricity generation and battery storage systems; Develop building emissions performance standards and building decarbonization plans; Promote low-carbon fuels until electrification is possible
Built Environment	1.2 Reduce Energy Use in Existing Buildings	Weatherize existing buildings; Upgrade appliances for efficiency, and upgrade lighting; Support utility demand response programs; Develop efficiency standards
Transportation	2.1 Reduce Vehicle Miles Traveled of On-Road Passenger Internal Combustion Engine Vehicles	Implement transit-oriented, compact growth and development; Develop income-sensitive vehicle use/congestion pricing programs; Expand biking and walking networks and prioritize transit access; Provide education and outreach to encourage mode-shift and car trip reduction
Natural and Working Lands	4.1 Steward Natural Lands to Reduce Tree Loss	Increase tree planting and stewardship; Strengthen zoning requirements to protect trees; Promote tree retention and planting and increase green stormwater infrastructure

This regional climate plan complements the statewide climate plan developed by the Washington Climate Partnership (Washington State Departments of Commerce and Ecology). While many strategies and actions detailed in this plan can be implemented effectively at different scales and levels of government, based on preliminary analysis the five strategies in Table ES-3 are well-positioned for collaboration and implementation at the local or regional level or have the potential to scale across the four-county Puget Sound region.

Table ES-3: Top 5 Climate Strategies Well-Positioned for Implementation at the Regional or Local Level

Sector	Strategy	Summary of Actions
Built Environment	1.2 Reduce Energy Use in Existing Buildings	Weatherize existing buildings; Upgrade appliances for efficiency, and upgrade lighting; Support utility demand response programs; Develop efficiency standards
Built Environment	1.3 Electrify or Decarbonize Existing Buildings	Electrify appliances; Develop renewable electricity generation and battery storage systems; Develop building emissions performance standards and building decarbonization plans; Promote low-carbon fuels
Transportation	2.1 Reduce Vehicle Miles Traveled of On-Road Passenger Internal Combustion Engine Vehicles	Implement transit-oriented, compact growth and development; Develop income-sensitive vehicle use/congestion pricing programs; Expand biking and walking networks and prioritize transit access; Provide education and outreach to encourage mode-shift and car trip reduction
Transportation	2.2 Increase Sales and Use of On-Road Passenger Electric Vehicles and Promote Low-Carbon Fuel Alternatives	Support charging infrastructure build-out and develop a regional charging infrastructure plan; Electrify government fleets and high-emitting vehicles; Support electric vehicle car sharing programs; Provide electric vehicle purchase incentives and support the State's Zero-Emission Vehicle Standard
Natural and Working Lands	4.1 Steward Natural Lands to Reduce Tree Loss	Increase tree planting and stewardship; strengthen zoning requirements to protect trees; Promote tree retention and planting and increase green stormwater infrastructure

Considerations for Successful Implementation

Turning climate strategies and actions into effective programs and policies requires thoughtful, context-sensitive and community-centered approaches. While specific program design for each climate strategy isn't yet known, several high-level considerations can help ensure successful implementation:

1. Environmental Justice: The State's Healthy Environment for All (HEAL) Act requires state agencies to set a goal of directing 40% of all grants and expenditures that create environmental benefits to vulnerable populations and overburdened communities. Jurisdictions in the region can demonstrate our commitment to the state's environmental justice goals by striving to meet this goal when implementing climate strategies. Likewise, partners should prioritize strategies that both reduce emissions and result in direct community benefits, thereby stacking benefits for the region's most vulnerable communities.
2. Community Engagement: Implementing the strategies in this climate plan will require ongoing, deep collaboration with communities to inform equitable program and policy design, build trust, and avoid unintended consequences, particularly at the local level. Program design should center equitable community engagement. Refer to Appendix D for more information.
3. Utilities: Many of the challenges associated with the state's clean energy transition largely fall upon electric and natural gas utilities to address. Our region's utilities must remain involved in strategy implementation, electrification, and grid modernization planning at all levels of government to meet the region's near- and long-term climate goals. Refer to the Utility Considerations section for more information.
4. Geographic Disparities & Health Equity: The impacts of climate change can have long-term, amplifying effects on social inequalities that already exist in communities. Data like the Washington Environmental Health Disparities Map and the Agency's Overburdened Communities Map show how benefits and burdens are distributed unevenly across communities in the Puget Sound. Implementers should leverage this data and develop new modeling and geospatial analyses to quantify the public health impacts of climate strategies in a way that maximizes benefits for overburdened communities. Refer to the Benefits Analysis section for more information.
5. Workforce Development: Implementing the actions in this climate plan will require accelerated job growth in important sectors like building electrification; electric vehicle production, infrastructure and maintenance; renewable fuel production; energy transmission, storage, and distribution; and others. Jurisdictions must prioritize green jobs and youth development and address known workforce challenges, including a just transition for fossil fuel workers, to support this job growth in our region. Refer to the Workforce Development Analysis section for more information.
6. Tracking Progress: Implementation planning should identify roles and responsibilities to maintain accountability and include clear and transparent metrics to ensure that progress is being made to reach climate and environmental justice goals.
7. Ongoing Coordination: The climate strategies in this plan must scale across jurisdictional borders to maximize their impact. The Puget Sound Clean Air Agency can serve as a backbone organization, bringing transparency to implementation activities and highlighting opportunities for necessary collective action.

Addressing the climate crisis will require urgent action that is supported by strong coordination at all levels of government. Many jurisdictions in the region have demonstrated bold climate leadership, yet meeting the challenge of climate change requires bolder actions, new examples of local leadership, deeper commitments to collaboration, and a willingness to take action.