



Climate Change

Climate change is one of the paramount environmental and economic challenges for our generation. King County is already experiencing the [impacts of a changing climate](#): warming temperatures, wildfires and smoke, rising seas, increasing flooding risk, decreasing mountain snowpack, and drier summers. Climate change will have long-term consequences for the economy, the environment, and public health and safety in King County.

Our climate future and quality of life depend on how we manage growth and transportation, design and operate buildings and infrastructure, reduce and recycle waste, and conserve forest and farm land. King County's [2015 Strategic Climate Action Plan](#) (SCAP) is our blueprint for climate action. The SCAP builds on technical assessments of what actions and commitments, when taken together, put the County on track to reduce greenhouse gas emissions 80 percent by 2050. Efforts to reduce greenhouse gas emissions focused on five goal areas: transportation and land use, building and facilities, green building, consumption and materials management, and forestry and agriculture. The County also has core responsibilities in ensuring that critical infrastructure and services are resilient to the impacts of climate change and in strengthening the resilience of communities most impacted by climate change impacts like heat waves and more severe storms. King County will complete a comprehensive update of the SCAP in 2020.

BACKGROUND

The County works across programs and departments, and in partnership with cities, community groups, and businesses to reduce greenhouse gas emissions and prepare for climate impacts in County operations and at the community scale.

As we work to reduce both the causes and consequences of climate change, it is important to recognize that climate change impacts will be experienced differently by King County residents depending on income, age, health, and where they live. For example, more frequent heat events and related impacts on summer air quality can magnify existing health issues like asthma that are already experienced disproportionately by communities of color. King County is committed to working with communities in taking action on climate change through authentic and sustained community engagement, capacity building, and addressing equity and social justice (ESJ) in climate-related County services and operations.

King County monitors progress in meeting SCAP goals and delivering priority actions at two scales: County operations and across King County communities (community scale). We use this performance information to focus our programs, policies, and investments. Where the County has direct responsibility, our most recent [performance report](#) shows we are mostly on track to meet our targets. At the community scale, we are seeing a decline in *per capita* greenhouse gas emissions, but significant action will be necessary to meet the SCAP's ambitious near- and long-term targets countywide as our population grows. Partnerships with cities, community groups, and business, and supportive state policies are essential to meeting our regional climate goals.

Recent successes highlighted in our [2017 Biennial Report](#):



King County

2019-2020 Proposed Budget

- King County's growth in transit ridership is among the fastest in the country, and we are leading the nation in electrifying our transit fleet. We are making strides to achieving our goal of a 100-percent electric bus fleet, testing 11 zero-emissions battery electric buses as part of a nation-leading commitment to purchase 120 battery buses, with a transition to an all-electric bus fleet by 2040.
- We exceeded our building energy efficiency goals for County-operated buildings and facilities and are meeting our goals for producing renewable energy.
- Through partnership with Puget Sound Energy (PSE), cities, and businesses, we secured clean, in-state wind and solar power to meet our operational electricity needs in PSE service territory, which will reduce direct greenhouse gas emissions by 20 percent. This investment puts us on track to meet County operations' renewable electricity consumption targets.
- King County and partners have planted 330,000 trees toward our community goal of planting [1 Million Trees](#) by 2020.
- Public Health - Seattle & King County completed a Climate and Health Blueprint. Multiple departments have been meeting through focused workshops to consider how to integrate health and equity into future work plans, based on information gathered in the Climate and Health Blueprint. The workshops are focused on transportation, storm water management, green space, and healthy food access.
- We formed new climate partnerships with immigrant, refugee, and frontline community organizations. These efforts have already had a significant impact from diversifying representation at climate events and the translation of climate infographics, to informing public health heat messaging and zero emission bus deployment plans.
- We partnered with Tribes, cities, counties, and regional governments to launch the Puget Sound Climate Preparedness Collaborative, a new forum for regional climate change preparedness.
- We expanded our [King County-Cities Climate Collaboration](#) (K4C) partnership, now with 14 cities representing 80 percent of the county's population and the Port of Seattle. Through K4C, we are leveraging local climate actions and pursuing joint initiatives to reduce community scale emissions.
- We created a new energy efficiency loan program for cities, where the up-front costs of projects can be paid off with utility savings.
- We completed a [Clean Electricity Pathways](#) analysis with specific recommendations for achieving our goal of 90% renewable energy supplies for all county residents by 2030.
- The County completed a comprehensive review and update of [sustainable purchasing policies](#) for a wide range of products and services.

Proposed Investment & Anticipated Impact

Strategic Climate Action Plan – Implementation and 2020 Update

- The 2019-2020 proposed budget includes additional consultant resources for technical assessments needed to support the 2020 SCAP update.
- The 2020 SCAP update will be consistent with the goals and commitments in the County's Equity and Social Justice (ESJ) Strategic Plan which was adopted in 2016. The 2019-2020 Climate Change Budget includes resources for community engagement, capacity building, and partnerships, including financial support for community-based organizations to partner in plan



King County

2019-2020 Proposed Budget

development and shape priorities for action. Additional investment in climate change internships will help to create pathways to employment in sustainability professions.

- This budget also supports partnerships to achieve greater energy efficiency at the community scale, like outreach in partnership with utilities, retailers, and housing providers to convert to LED lighting.
- The 2019-2020 budget sustains staff dedicated to climate preparedness, community engagement, and partnerships with businesses and community-based organizations with support from department cost shares based on GHG emissions.

Mobility and Fleet Electrification

- [Metro Connects](#), our adopted long range plan, calls for doubling transit ridership by 2040. This goal is also a key part of King County's climate change strategy. In 2019-2020 Metro is proposing to increase bus service by 177,000 hours, improve equity of access to service planning, and also build new, innovative mobility solutions.
- Metro is proposing significant investments in new buses and development of new and expanded bus bases to support them. The six-year Capital Improvement Program reflects commitments to focus large-scale zero-emissions battery bus deployment and to complete pilot testing of extended range battery bases in South King County, where residents face disproportionately poor air quality and health outcomes.
- Metro has committed to transition to a zero-emission fleet powered by renewable energy by 2040, consisting of a combination of Battery Electric Buses and Electric Trolley Buses. During 2019, Metro will be testing various Battery Electric Buses and charging technologies to inform future configurations and charging approaches. Metro is planning to purchase and have charging infrastructure and base capacity available in 2021 to support a fleet of 125 Battery Electric Buses. Work is also progressing to develop additional capacity by 2025 to support an additional 125 Battery Electric Buses.

Innovative Financing and Capacity Building to Sustain Gains in Energy Efficiency

- The Facilities Management Division is establishing an internal carbon fee that is projected to generate \$500,000 in revenue to support energy audits and identification of energy and water efficiency projects and building operating adjustments that that will reduce operating costs and greenhouse gas emissions. This advances the recommendation of the 2015 SCAP [to develop and apply an internal cost of carbon](#).
- The Wastewater Treatment Division will reinvest revenue from the sale of renewable biogas captured from the treatment process and associated environmental attributes. This revenue will support energy efficiency upgrades, additional renewable energy production, tree planting, and Net Zero Energy and Living Building Challenge projects.
- The King County Road Services Division will use the County's Fund to Reduce Energy Demand (FRED) loan program to support LED lighting replacements at six road maintenance facilities. LED lighting projects typically have a short payback, with lower utility bills and reduced maintenance costs due to long bulb life. The Solid Waste Division and Facilities Management Division are also using the FRED program to finance investment in energy efficiency that will generate permanent energy and cost savings.



King County

2019-2020 Proposed Budget

Renewable Energy Production and Purchase

- In 2019-2020, the Solid Waste Division is proposing to install solar panels at its Enumclaw and Vashon transfer station sites that will nearly double solar energy production at County facilities.
- In 2019, Puget Sound Energy (PSE)'s new Green Direct power option will come on line. King County has contracted to purchase this 100% wind and solar generated electricity to meet nearly all of its electricity needs for buildings, facilities, and battery electric buses in PSE service territory. This shift from conventional electricity to a 100 percent renewable supply is projected to reduce direct GHG emissions by 20 percent and save \$5 million on County electricity bills over the 10-year term of the contract.

Increased Application of Green Building Standards to Capital Projects

- The 2019-2020 Capital Improvement Program budget supports continued progress in meeting the SCAP target to identify and register 10 Zero Energy or Living Building Challenge (ZE/LBC) Projects by 2020. LBC projects maximize energy efficiency, produce 100 percent of renewable energy for the operations of the facility, maximize water efficiency, eliminate use of materials with human health hazards, and maximize diversion of construction and demolition material from landfills. The County has officially registered five projects to date and additional projects are moving through the feasibility review process for potential registration in 2019-2020.
- With support from a Bullitt Foundation Grant and internal County climate cost share, and in partnership with the International Living Future Institute and partner cities, King County is building replicable tools and practices for applying ZE/LBC standards to a diverse range of public facility projects.

Strengthening Climate Preparedness

- King County will continue to co-lead the [Puget Sound Climate Preparedness Collaborative](#), a partnership of local and tribal governments and regional public agencies in the Puget Sound region working to ensure that the region's communities, economy, and environment are resilient to climate change impacts. This collaborative is currently supported by the Institute for Sustainable Communities with funding support from the Bullitt and Kresge Foundations.
- King County is supporting and building on research on changing precipitation patterns completed by the University Washington's Climate Impacts Group in 2018 with funding support from Washington State Department of Ecology and King County Flood District. In 2019-2020, the County will complete its evaluation of impacts and make recommendations for updating stormwater design criteria, wastewater conveyance service plans, and flood hazard mitigation.
- The County will prepare a comprehensive sea level rise strategy by 2020 to address the potential impacts of sea level rise on shoreline homes and businesses, as well as aquatic and shoreline habitat, County-owned infrastructure and operations, and other critical public and private infrastructure.
- In 2019-2020, the Office of Emergency Management (OEM) will further integrate climate impacts and preparedness actions into the update of the Regional Hazard Mitigation Plan and conduct a table-top, climate impacts-related emergency response drill.



King County

2019-2020 Proposed Budget

- The County will launch a GIS-based platform in 2019 to inform climate resilience and equity decisions made by the County and its partners. The project leverages existing County investments in GIS services (the [King County GIS Open Data hub](#)).

Land Conservation and Forest Health

- Land conservation is a key component of the County's efforts to reduce GHG emissions. The [King County Land Conservation Initiative \(LCI\)](#) is a collaborative effort among King County, its 39 cities, and a multitude of community and environmental partners to protect 65,000 acres of remaining high conservation value lands in King County within the next 30 years.
- In 2019, thanks to new financing policies adopted by the County Council, the County will accelerate conservation of habitat, urban open space, and working farms and forest land, using debt financing to support investments of \$24 million in 2019-2020. This is part of up to \$148 million in new investment in four years, and is a significant "down payment" on the 30-year LCI.
- The 2015 SCAP set a bold target to plant one million trees by 2020, restore degraded forests on King County owned lands, and develop a new 30 year plan to "Re-Tree" King County. As part of this commitment, between 2018 and 2020 King County will launch a new forest health improvement program which proposes to plant over 130,000 additional conifer trees on nearly 700 acres of County parks and natural lands.