



King County

Policy Paper: Strategic Climate Action Plan

IN BRIEF

The 2017-2018 Proposed Budget reflects the goals and action priorities in King County's [Strategic Climate Action Plan \(SCAP\)](#), which was unanimously adopted by the King County Council in the fall of 2015.

The 2015 SCAP established more than 70 Priority Actions that King County will carry out between now and 2020. Actions are tied to specific goals and targets in the SCAP, and investments are focused in areas that will have the most impact in reducing King County's sources of emissions and preparing for climate change.

To ensure that the county is on track to meet near- and long-term climate change goals and prepare for climate change impacts, the 2017-2018 Proposed Budget will invest in five goal areas for reducing greenhouse gas emissions, climate preparedness, and expanded capacity for community engagement and energy partnerships, including:

- ❖ **Transportation and Land Use.** Metro Transit will expand service by 300,000 hours in 2017-2018, prepare for the addition of new Rapid Ride Lines, and enhance alternative transit service in rural areas; continue investment in hybrid-electric and all battery buses and develop electric charging infrastructure consistent with the goal of transitioning to all hybrid-electric and electric buses by the end of 2018; and finance significant investment with partners to purchase land and directly fund transit-oriented affordable housing construction and development around frequent and high capacity transit hubs.
- ❖ **Building and Facilities Energy.** The County will self-finance \$2.1 million in energy-efficiency retrofits at County facilities through the innovative "Fund to Reduce Energy Demand" (FRED) and extend the program to city partners to promote energy conservation.
- ❖ **Green Building.** The County will partner with cities and developers to develop green building codes and support County permit customers in pursuing green building standards that will reduce the carbon footprint of future development.

- ❖ **Consumption and Materials Management.** The Solid Waste budget includes proposals to increase customers' recycling options at County transfer stations and significantly increase recycling of construction and demolition waste to move the County towards the 70 percent recycling target set in the SCAP.
- ❖ **Forests and Agriculture.** The 2017-2018 Proposed Budget includes \$13.7 million for additional land protection, supported by the Conservation Futures Tax and Parks Levy. Anticipated land protection in 2017-2018 includes more than 170 acres of mature conifer forest adjacent to King County's Soaring Eagle Park, several large farms in the Snoqualmie Valley and Enumclaw Plateau agricultural areas, as well as multiple other fee and easement acquisitions across rural King County, including shoreline protection along Vashon and Maury Islands.
- ❖ **Climate Preparedness.** Investments include research to better understand how climate change will impact rainfall, storm patterns, and river flooding to inform emergency preparedness and design of critical infrastructure; integrating climate impacts into the King County Regional Hazard Mitigation Plan; and conducting heat wave emergency response drill.

The 2017-2018 Proposed Budget also pools resources to better coordinate the County's work on climate change. This includes establishing a shared Climate Change Cost Center with funding for four staff, consulting, and partnerships to further coordinate climate change work across departments, strengthen external partnerships, and deepen community engagement.

OVERVIEW

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, acidifying marine waters, rising seas, increasing flooding risk, decreasing mountain snowpack, and less water in the summer. Climate change will have long-term consequences for the economy, the environment, and public health and safety in King County.

Impacts of a changing climate will be experienced differently by King County residents, influenced by factors such as income, age, health, and where they live. Climate change impacts, including more frequent heat events, can magnify existing health issues like asthma that are already experienced disproportionately by communities of color. It is imperative to work collaboratively to develop climate change strategies that recognize and address broader inequities in health outcomes, housing, and access to transit.

In King County, the top two sources of greenhouse gas (GHG) emissions are from (1) fossil fuels used for transportation, and (2) energy used to heat, cool, and power homes and buildings. An additional significant source of GHG emissions is local consumption of goods and services, including the energy needed to produce, transport, use, and dispose of goods and services supporting county residents and businesses. King County's overall goal is to reduce countywide GHG emissions, compared to a 2007 baseline, by 25 percent by 2020, 50 percent by 2030, and 80 percent by 2050.

All County agencies have a role to play in carrying out King County's climate change priorities. Some agencies, like the Departments of Natural Resources and Parks, Transportation, and Executive Services, are responsible for leading implementation of priority actions in the SCAP and their proposed operating and Capital Improvement Program (CIP) budgets reflect significant investments in climate change action. Priorities for investment are informed by performance against SCAP targets for reducing greenhouse gas emissions, increasing use of renewable fuel for transportation, and continuing to improve energy and water efficiency. (More information on performance against SCAP targets is available in the [2015 SCAP Annual Report](#).)

Public Health - Seattle & King County, the Office of Emergency Management, and the Water and Land Resources Division are on the front lines of preparing for climate change-related health impacts and changing weather patterns, and are building climate change considerations into their community engagement, research, public health, disaster preparedness, and community resilience work.

MAKING PROGRESS, BUT MUCH MORE TO BE DONE

Across King County, per capita GHG emissions have begun to decrease due to declines in per-person vehicle travel and energy use in buildings, but overall emissions continue to rise, driven primarily by population growth. Significant action will be necessary to meet the region's 25 percent reduction target by 2020.

King County has reduced GHG emissions from its own buildings and facilities by 16.7 percent since 2007. However, total direct emissions from all County operations, including fuel used by transit, decreased by just 1.2 percent in the same period.

Based on technical assessments, the 2015 SCAP mapped out the pathways and supporting commitments, that when taken together, ensure that climate targets are met for five goal areas for

reducing greenhouse gas emissions. The priority actions in the SCAP will lead to significant progress in achieving regional GHG reduction targets and convey opportunities to act on climate solutions that achieve additional social, economic, and environmental benefits for King County residents.

KING COUNTY: LEADER, PARTNER, CATALYST

King County works at two scales to reduce greenhouse gas emissions in County operations and in the community. In County operations, agencies are continually improving energy, fuel, and water efficiency; reducing the impact of purchases; and producing and using more renewable energy. Investments in new technology, like battery-electric buses and alternatives fuels, can catalyze further research and development and more widespread adoption of new technologies by public fleets. At the community scale, one of the County's most significant areas of influence is through investments in regional mobility, including expanding transit, VanPool, and regional trail options. The County, in partnership with cities, also has a significant opportunity to shape the future of building energy and water use as this region grows; roughly two-thirds of King County's entire built environment in 2050 is expected to be constructed between 2007 and 2050.

By being intentional with investments in transit, green building, affordable housing and clean technology, the County also addresses climate change and inequities in access to transportation, safe housing, and jobs. For example, the County is partnering with public and private funders to use an innovative regional revolving loan fund to bank land for transit-oriented affordable housing opportunities; and is directly supporting development of transit-oriented affordable housing through another innovative funding source, the King County Transit-Oriented Development Bond Allocation Plan.

The County also plays a significant role in preparing for impacts of climate change on public health, emergency response, and critical infrastructure like roads and wastewater treatment facilities. Investments in climate preparedness can and should be designed to strengthen broader resiliency of communities to disasters like earthquakes, and create co-benefits for health and mobility. The 2015 SCAP reviewed projected regional climate impacts on County services and infrastructure, and made recommendations for research and programmatic investments to reduce risks and prepare for climate change impacts.

SIX STRATEGIES FOR MAXIMIZING IMPACT

❖ Engage communities in defining problems and solutions

Climate impacts, from more frequent severe heat events to more intense storms, are projected to have disproportionate impacts on communities of color and low-income populations. Too often, the descriptions of climate change impacts – like melting polar ice caps – are not grounded in day-to-day concerns and needs of local communities in King County. King County's climate efforts should be coordinated across departments and responsive to the ways communities identify with climate impacts, especially community resiliency, health impacts, and economic capacity. At the same time, actions to reduce greenhouse gas emissions and build resilience of communities should be designed in partnership with community leaders to address broader inequities and help provide a just transition to a clean energy economy for all King County residents. The 2017-2018 Proposed Budget supports the SCAP's recommendations for dedicated climate change community engagement, energy partnership, and climate preparedness bodies of work.

- ❖ **Partner with cities, businesses, utilities to achieve shared goals**

Through the King County-Cities Climate Collaboration (K4C), King County and thirteen cities – representing three-quarters of the County population of 2.1 million – are working together to achieve a shared climate goal and specific action commitments designed to tackle the largest sources of greenhouse gas emissions in King County. This innovative collaboration earned the K4C national recognition with an Innovative Partnerships Climate Leadership Award from the U.S. Environmental Protection Agency.
- ❖ **Focus on regional transportation to reduce emissions**

Transportation is the region’s largest source of greenhouse gas emissions. King County’s investments in transit reduce emissions from car trips, support smart land use, and improve access to employment, health care, and education for low-income residents. King County logged record Transit boardings in 2015, but continued investments are needed to further grow transit and phase in cleaner vehicles and fuels to meet the goal of expanding transit service without increasing emissions through 2020.
- ❖ **Make deep reductions in building energy and water use as the region grows**

King County is seeing rapid population growth that will lead to significant development and redevelopment of buildings over the next decade. Now is the time to “get ahead of the curve” and lay the foundation for deep reductions in energy and water use. The 2017-2018 budget includes a request for funding in the Department of Permitting and Environmental Review (DPER) to support development of green building codes in coordination with cities and support green building permit applicants in unincorporated King County.
- ❖ **Transform business practices to meet climate and energy commitments**

The County is aligning resources, performance management, and budgeting processes to meet SCAP commitments for energy and climate change. Meeting adopted energy and climate targets is now a core element for department business plans and budget development, and we use a performance dashboard to report results to the public. (Please see the [2015 SCAP Annual Report](#) for more detail.) This performance-based approach is essential to meeting operational climate goals, and is also an example of Best Run Government reform initiatives to instill public trust by increasing transparency, accountability, and effectiveness of government operations. Wherever possible, new bodies of work recommended in the SCAP are being met with existing staff, and resources and expertise are pooled across departments to maximize the efficiency and effectiveness.
- ❖ **Create innovative funding approaches**

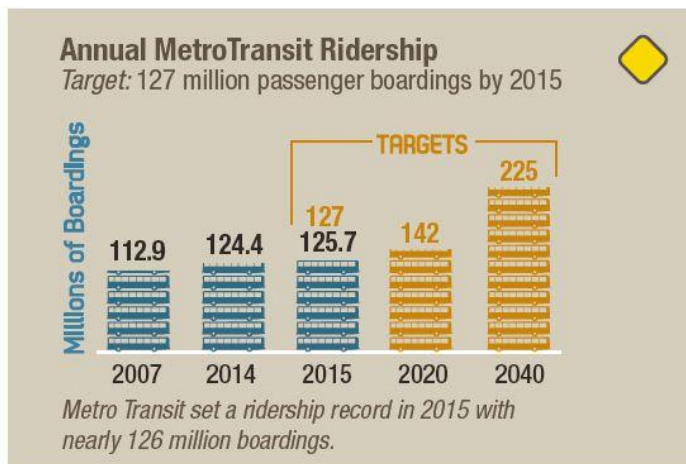
The 2017-2018 Proposed Budget extends the Fund to Reduce Energy Demand (FRED) program to self-finance investments in energy efficiency projects and initiatives that will pay for themselves in less than ten years through operational savings. In 2017, the FRED program will be extended to cities in the King County-Cities Climate Collaboration (K4C) partnership. DNRP’s Beyond Carbon Neutral Initiative established an energy surcharge to create funding for projects that reduce GHG emissions, energy use, and operating costs. DNRP is on track to meet its carbon neutral goal ahead of schedule. If approved by the Council, a current proposal to sell environmental attributes tied to King County Wastewater and Transit operations will create a new revenue stream to support further investments in energy efficiency, renewable energy, and alternative fuels.

PROPOSED CLIMATE CHANGE INVESTMENTS FOR 2017-2018

The following are examples of key investments and realignment of King County budgets being proposed in the 2017-2018 budget to advance the goals, targets, and priority actions in the 2015 SCAP.

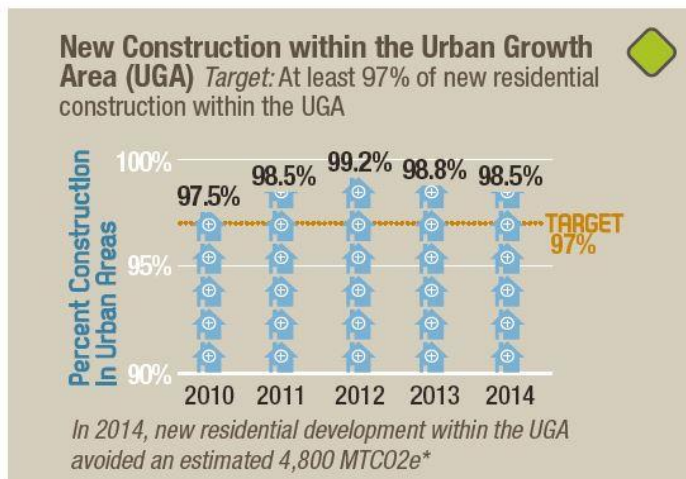
GOAL AREA 1: TRANSPORTATION AND LAND USE

The 2017-2018 Proposed Budget includes strategic investments in County services and operations to expand mobility options and reduce greenhouse gas emissions and air pollution from County fleets.



✧ Increased Transit Service and Easy Alternatives to Driving Alone

Transportation remains the largest source of greenhouse gas emissions, and King County set ambitious targets for reducing drive alone rates by supporting sustainable transportation choices such as public transit, ridesharing, walking, and bicycling. In 2015, Metro Transit set a ridership record and has a 2020 target of 142 million boardings. More than 98 percent of new development occurs within the designated urban growth area, which is more easily served by transit and supports shorter trips.



The 2017-2018 Proposed Budget includes an investment of \$30 million to improve transit service, including investments to relieve overcrowding on 27 routes, improve reliability on 60 routes, and help bring 18 routes closer to their target service levels. Metro Transit will also invest in improved transit access and continue an alternative service demonstration project to expand mobility options in areas not well suited to fixed route service.

*Metric Tons CO₂ equivalent

The investments in 2017-2018 make progress to advance the long-term service vision in [METRO CONNECTS](#), which will:

- More than double transit ridership in King County
- Bring frequent transit service to within a half-mile of 73 percent of the people in King County
- Improve transit access for low-income and minority residents
- Provide easy connections to Sound Transit Light Rail
- Add new RapidRide lines and expand all-day express service
- Bring creative local service to smaller communities not well served by fixed route service

❖ **Greening the Metro Transit Fleet**

In addition to expanding transit service and creating convenient alternatives to driving alone, Metro Transit continues to make investments in cleaner vehicles and fuels. Investments in lower or zero-emissions vehicle technologies across bus and trolley fleets, and in para-transit and rideshare services are putting Metro on track to grow transit service with no increase in GHG emissions and to achieve a 10 percent reduction in fuel energy use by 2020 compared to 2014. At the same time, these investments reduce air pollution and health impacts from burning diesel.

In early 2016, Metro Transit launched testing of three all-electric battery buses on the Eastside. Metro will apply \$3.3 million in federal grant funding to purchase eight more battery-electric buses in the 2017-2018 biennium following successful battery-electric bus prototype review and incorporation of required changes. Metro Transit will also invest \$5.4 million for charging station infrastructure to support their operation. These investments will support further testing of battery-electric buses in Metro Transit's operations. In response to an April 2016 Council motion, Metro is currently conducting a near- and long-term implementation feasibility study for transitioning to a zero-emission fleet.

❖ **Cleaner King County Fleets and Fuels**

Within all King County fleets, efforts are underway to evaluate and invest in low or zero-emissions fuel sources and technologies to achieve the SCAP goal of increasing alternative fuel use countywide by 10 percentage points by 2025. Alternative fuels, such as biofuels, reduce greenhouse gas emissions and dependence on fossil fuels.

In 2016, the County made significant investments in hybrid, dual fuel, and electric vehicles for County operations. The Solid Waste Division launched a pilot project to evaluate converting semi-tractor trucks to a cleaner "dual fuel" system and the Marine Division, which already uses 10 percent biodiesel, plans to increase usage in all water taxi vessels to a 20 percent blend. The Fleet Administration Division completed its Line of Business plan, which identified a path to achieve the 2025 alternative fuel target. The Fleet Division continues to take every opportunity to place the most efficient vehicle possible into service.

❖ **Investing in Transit Oriented Development (TOD)**

Developing housing and mixed use developments around frequent and high capacity transit hubs can reduce commute times and greenhouse gas emissions, and create vibrant communities, but it can also have the unintended consequences of driving up housing prices beyond the reach of current residents. Over the next several years, TODs are planned for Northgate, in south King County, and in the Bel-Red Corridor. King County is working in collaboration with funding partners, affordable housing developers, Sound Transit, and cities to purchase land and finance development

of transit-oriented affordable housing opportunities near frequent and high-capacity transit hubs. King County is a funding partner in the [Regional Equitable Development Initiative](#) (REDI) revolving loan fund, which is intended to finance upwards of \$60 million in land investments over multiple years for preservation and development of transit-oriented affordable housing. King County is also directly providing permanent financing of approximately \$87 million over six years through the King County Transit-Oriented Development Bond Allocation Plan for such affordable housing opportunities. Development of new affordable housing also creates opportunities to use green building standards like the Evergreen Standards for housing that will reduce energy and water use, saving money for tenants, and improve indoor air quality.

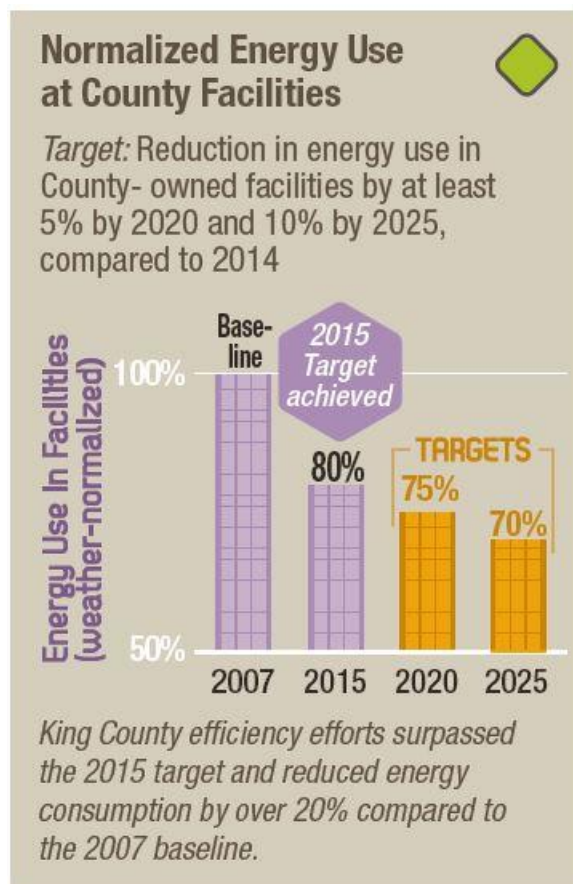
GOAL AREA 2: BUILDING AND FACILITIES ENERGY

The County has reduced energy use in operation of buildings and facilities by over 20 percent since 2007, which significantly exceeded the County's energy efficiency goal. Since 2010, energy reduction efforts undertaken by the County are generating savings over \$3.1 million each year. Renewable energy production is also strong, with the County meeting the SCAP goal to produce renewable energy equal to 100 percent of total County government net energy requirements for buildings and facilities. As part of the 2015 SCAP update, the County set new, ambitious energy efficiency and renewable energy targets, including a target of reducing energy use by an additional 5 percent by 2020.

❖ Efficiency Investments

Continued energy efficiency progress is made possible by training numerous maintenance personnel through the Building Operator Certification program, identifying real-time energy savings opportunities through a smart building pilot program, and making investments in new, efficient equipment.

- The Wastewater Treatment Division is in the midst of a significant project to replace the West Point Treatment Plant oxygen generation system, which will reduce that facility's electricity use by more than 10 percent.
- The Wastewater Treatment, Parks, Solid Waste, and Water and Land Resources Divisions of the Department of Natural Resources and Parks are making energy reduction investments like lighting replacements through the DNRP's "Beyond Carbon Neutral" effort.
- The Airport Division is embarking on a comprehensive mechanical and lighting replacement project at the Terminal Building, supported by a grant from the State Department of Commerce. The project will use the latest efficient mechanical and lighting technologies, and it is expected to reduce the building's energy use by over 75 percent.



❖ **Fund to Reduce Energy Demand (FRED)**

The FRED program was established in 2014 to overcome a major hurdle to energy efficiency investments: securing up-front capital needed to support the initial investment. The FRED program leverages King County's excellent bond rating and uses operating savings to pay off internal loans. County agencies with project proposals apply for FRED funding in the budget development process and project proposals are reviewed for financial viability and feasibility. Nine projects were included in the 2015-2016 budget for a total program cost of \$1.4 million. These projects are anticipated to save almost 7,000 measured in millions of British Thermal Units (MMBTUs) of energy and \$0.3 million in their first year after implementation. The proposed budget includes nine more projects for a total 2017-2018 program cost of \$2.1 million, with estimated first year savings of 6,500 MMBTUs and \$0.2 million. These projects include a number of lighting retrofits, solar panel installation, and some plumbing improvements.

❖ **FRED Program Expansion to King County Cities**

In 2017-2018, the County plans to expand its resource efficiency loan program by inviting cities to participate in the FRED program. Participating cities would be subject to the same requirements as County agencies, which include demonstrating that the projects will save resources and money and paying for the loans through utility savings over a ten year period. In addition, commitments to repay the loan would be secured through formal agreements with participating cities.

❖ **Renewable Energy Production**

The County's current renewable energy generation comes primarily from production of renewable biogas at the Cedar Hills Regional Landfill and Wastewater Treatment Plants. Additional renewable energy is produced by solar panels on the roof of the King County Federal Way Weyerhaeuser Aquatic Center (KCAC). The 2017-2018 Proposed Budget includes proposals to use the FRED program and grant funding to double the solar energy production at KCAC and create new solar energy generation at the Steve Cox Field House in White Center.

GOAL AREA 3: GREEN BUILDING

The current development boom in greater Puget Sound creates both challenges and opportunities. Through collaboration with builders, increased support to permit customers, and development of green building standards in collaboration with King County cities, there is the opportunity to "build in" energy and water efficiency to the County's buildings. The 2017-2018 Proposed Budget includes focused investments to increase implementation of green building standards as buildings are developed and redeveloped.

❖ **Green Building Codes and Customer Support**

King County's current green building policies apply to buildings and facilities developed by the County. The 2015 SCAP recommended customer support to encourage applicants to pursue green building techniques as well as development of green building codes for unincorporated King County in coordination with developers and neighboring cities. Codes for unincorporated King County will be tailored to the predominant building types in King County's unincorporated service area – rural residential and small commercial development. The 2017-2018 Proposed Budget includes a request for General Fund revenue to support half of a term-limited position in Department of Permitting and Environmental Review (DPER) focused on green building code development and customer support. The other half of the position would be supported by Solid Waste Division funding, based on the

close functional relationship to green building outreach and technical assistance through the SWD's GreenTools Program.

❖ **Living Building Challenge Projects**

The Living Building Challenge (LBC) is an international certification program that supports deep reductions in the use of energy, water, and material resources for buildings and facilities. The 2015 SCAP recommended initiation of ten Net-Zero Energy and LBC projects by 2020. While there are numerous examples of LBC standards being applied to office buildings, use of these standards for public infrastructure is more limited. The County is collaborating with cities through the Regional Code Collaboration to increase awareness and develop demonstration ordinances to facilitate LBC projects. Upcoming facilities being developed by the Parks and Solid Waste Divisions are potential candidates for the Net Zero Energy or LBC standard.

❖ **Construction and Demolition (C&D) Waste Recycling**

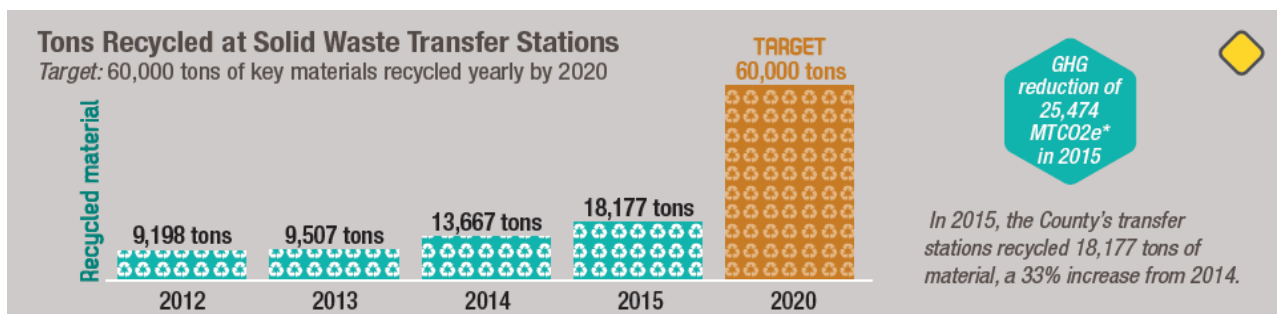
Recycling C&D materials reduces GHG emissions associated with the production and manufacturing of new materials. The 2017-2018 Solid Waste Division (SWD) Proposed Budget supports continued outreach and education efforts to all sectors of the C&D industry coupled with enforcement efforts to maximize recycling of C&D materials. At the same time, SWD will continue to promote development of markets for recyclable materials, with emphasis on wood. Finally, SWD will work with partner cities and King County DPER to develop codes requiring documentation that jobsites comply with C&D recycling requirements as a condition of building permits.

GOAL AREA 4: CONSUMPTION AND MATERIALS MANAGEMENT

While transportation and building energy are two of the largest direct sources of GHG emissions, items that are consumed and disposed of are also a significant source of emissions. This goal is focused on reducing GHG emissions associated with the production, transport, sale, use, and disposal of goods and services – no matter where they are produced.

❖ **Recycling**

The 2015 SCAP set a target of recycling 60,000 tons of key materials at County transfer stations in 2020 including yard and wood waste, metal, cardboard, and paper. System wide, transfer station recycling increased by 33 percent from 2014 to 2015, largely due to upgrades and staff outreach at transfer stations that made recycling easier and more convenient. Through voluntary recycling efforts at transfer stations and additional efforts by staff to recover recyclable materials, the County is on track to recycle 24,000 tons by the end of 2016.



The 2017-2018 SWD Proposed Budget supports three efforts that will increase recycling at County transfer stations. Self-haul customers will be required to recycle their yard waste, wood, scrap metal, and cardboard at stations that offer recycling services for those materials. Extensive education and outreach efforts will precede instituting these changes at transfer stations. Additionally, recycling for tires and mattresses will be made available at transfer stations with adequate space. The new Factoria Recycling and Transfer Station (RTS), scheduled to fully open in late 2017, will offer a full range of recycling services similar to what is offered at the County's newer stations like such as Bow Lake and Shoreline.

❖ **Sustainable Purchasing Reforms**

Production, transport, use, and disposal of goods purchased by the county represent a significant source of greenhouse gas emissions from County operations. In 2017, the County will update its Environmentally Preferable Product Procurement codes to consider GHG emissions and provide guidance for considering fiscal, environmental, and social costs when evaluating purchasing decisions.

GOAL AREA 5: FORESTS AND AGRICULTURE

King County has made great progress to protect forest and agricultural land, working in partnership to protect more than 200,000 acres of private forest land through acquisition of conservation easements and development rights. King County is also working to improve forest health and increase the quantity of carbon stored in trees and soils on County-managed forest land. Because of local forest types and a temperate climate, forests in Western Washington have the potential to store more carbon than forests almost anywhere in the world. Forests and farms also create a "green wall against sprawl" that helps minimize the region's greenhouse emissions by focusing development and limiting transportation needs. A strong local food economy and protected habitat helps to make the region more resilient to climate impacts. Key investments proposed for 2017-2018 to further this goal area include:

❖ **Land Conservation**

The 2017-2018 Proposed Budget includes a \$13.7 million biennial budget request for additional land protection, supported by the Conservation Futures Tax and Parks Levy. Anticipated land protection in 2017-2018 timeframe includes more than 170 acres of mature conifer forest adjacent to King County's Soaring Eagle Park, several large farms in the Snoqualmie Valley and Enumclaw Plateau agricultural areas, as well as multiple other fee and easement acquisitions across rural King County, including shoreline protection along Vashon and Maury Islands.

❖ **Open Space Stewardship**

The Parks open space system grows each year by approximately 600-1,000 acres. In order to manage this growing inventory of open space lands, with support from Parks Levy funding, the 2017-2018 Proposed Budget adds two Park Specialists to be "boots-on-the-ground," ensuring KC Parks are clean, safe, and open; and taking care of a growing inventory of open space lands.

❖ **Improved Forest Health**

The proposed budget also includes \$200,000 to contract for additional forestry resources to develop and implement stewardship plans and facilitate restoration projects that improve forest health. Healthy forests capture more carbon and are more resilient to climate impacts like drought, higher temperatures, and wildfires. As part of Re-Tree King County, King County will partner with city, state, and federal agencies, tribes, non-profit organizations, businesses, and the public in order to jointly plant at least one million new native trees between 2015 and 2020. While much of this work

will be accomplished with already established resources and through partnerships, the 2017-2018 Proposed Budget adds \$200,000 over the biennium to the Parks' Volunteer Program, which will bolster their work to plant trees and restore forests.

CLIMATE PREPAREDNESS

The 2015 SCAP update reviewed projected climate change impacts for the Puget Sound Region, assessed how they will impact County services and facilities, and made recommendations for research, community engagement, and planning. The 2017-2018 Proposed Budget reflects the SCAP's refreshed and strengthened strategy for climate preparedness and includes investments to:

❖ **Assess Climate Impacts on Rainfall Patterns**

The Water and Land Resources Division (WLRD) and the Wastewater Treatment Division (WTD), with \$250,000 in grant funding from the Washington State Department of Ecology, are cooperatively supporting an applied research study at the University of Washington (UW) Climate Impacts Group to analyze climate change impacts on local rainfall patterns. The research will be used in three ways.

WLRD will apply the research findings to assess stormwater facility design and sizing requirements and assess whether changes are needed to account for changing rainfall patterns. In 2017 and 2018, WTD will apply the research findings on climate change impacts on local rainfall patterns to assess potential impacts to flows in the wastewater conveyance system. This information will be used to assess long-term infrastructure and programmatic needs.

Additionally, WLRD, with funding from the King County Flood Control District, established a second agreement with the UW to model and statistically analyze climate change impacts on river flood sizes and frequencies. Results from this modeling effort will be used to assess the impacts of climate change on flood risk reduction activities and projects.

❖ **Work Regionally to Prepare for Climate Impacts**

In order to efficiently understand climate related vulnerabilities, disparities in these vulnerabilities, and to guide, coordinate, track, and account for efforts to mitigate and prepare for impacts, a cross-agency, multi-jurisdictional effort is developing a Geographic Information System (GIS) Climate Resiliency mapping tool. Partners in this project include Futurewise, OneAmerica, Puget Sound Clean Air Agency, and the City of Seattle.

❖ **Survey and Engage Stakeholders on Health and Climate Change**

Climate change, along with other natural and human-made health stressors, will negatively affect human health and disease. Some existing health threats will intensify and new health threats will emerge. Climate changes occurring now and in the future will affect all residents; however, some populations and communities are experiencing and will continue to face disproportionate impacts. Many communities are already heavily burdened by poor environmental conditions (e.g. air and water pollution) and economic constraints.

Public Health – Seattle & King County has been a leader in addressing climate change needs through its Healthy Community Planning efforts that focus on mitigation actions (e.g. increased active transportation, increased green space) and preparedness and resiliency planning. To strengthen future Public Health climate change efforts, Public Health is using grant funding and existing staff to develop a strategic blueprint that will guide a coordinated approach to climate change impacts on

health and equity. The blueprint will articulate opportunities to continue and expand integration of mitigation, preparedness, and adaptability strategies into existing department programs and move Public Health toward adopting a community resilience framework. A key finding of a recent community-led climate change report was the need for community-government partnerships to exemplify equitable engagement and strategies that center equity rather than including it as an afterthought. With this in mind, Public Health has worked from the project initiation with two climate justice advisory community organizations, Got Green and Puget Sound Sage, to help guide the direction and actions included in the blueprint. In addition, interdepartmental climate change staff will work to integrate this effort with other climate efforts across the County to facilitate cross-pollination of health equity with other climate solutions.

❖ **Expand Use of Recycled Water**

Use of recycled water reduces the Wastewater Treatment Division's reliance on Puget Sound for the discharge of treated effluent and provides a drought-proof water source for agricultural and landscape irrigation, commercial and municipal purposes, and wetlands enhancement. The 2017-2018 Proposed Budget includes \$1.51 million for customer development and support for existing recycled water facilities, planning, negotiating agreements, obtaining initial permits, customer connections, and engineering planning for recycled water use from South Plant, Carnation, and Brightwater.

❖ **Further Integrate Climate Change Impacts into Emergency Management and Planning**

The King County Office of Emergency Management (KCOEM) is working on a number of initiatives to advance climate preparedness. KCOEM is working to incorporate climate resilience strategies into the Catalog of Hazard Mitigation Alternatives. KCOEM will work with each planning partner to assess whether the emergency preparedness mitigation actions and strategies identified in the King County Regional Hazard Mitigation Plan should be modified or updated due to projected climate change impacts. This work is being funded using existing staff resources. KCOEM is also integrating climate change information into ongoing campaigns that provide the public with education about emergency preparedness. For example, in 2017 KCOEM will conduct a series of educational outreach initiatives and a culminating emergency response drill. This training and exercise series will be used to test operational capabilities and further revise plans to respond to a major heat wave impacting stakeholders within King County.

SHARED CLIMATE CHANGE WORK ACROSS DEPARTMENTS

❖ **Centralizing Resources Dedicated to Reducing Climate Change**

The 2017-2018 Proposed Budget centralizes Climate Change costs and positions to support coordinated climate change work across departments and strengthen capacity for community engagement and partnerships with businesses as recommended in the 2015 SCAP. Four positions that work on behalf of multiple County agencies to implement SCAP priorities are proposed to be budgeted in one place. Three of these positions rely on existing FTE authority; one is a new FTE request. This approach builds on a model established during the 2015-2016 budget process with cost shares from DOT, DNRP, and FMD based on their greenhouse gas emissions.

Summary of Positions to be Budgeted in Climate Change Cost Center

Position	Description
Director of Climate and Energy Initiatives	This position oversees and leads implementation of the Executive’s priority on confronting climate change and implementation of diverse strategies such as those related to energy, mobility, and climate preparedness.
Energy Policy and Partnerships Specialist	This position serves as King County’s leader, catalyst, and connector for the expansion of energy efficiency investments and renewable energy use and production by King County in partnership with utilities, cities, businesses, and nonprofit organizations.
Climate Engagement Specialist	This position develops and strengthens partnerships within the public, private, and civic sectors to develop, fund, implement, and communicate regional climate solutions that also benefit public health, mobility, and the economy. This position also leads and coordinates the County’s climate change related community engagement efforts, targeted communications, and climate equity perspective both for King County staff and with external partners.
Climate Preparedness Specialist	This position will build and strengthen King County’s climate adaptation and preparedness efforts in County operations, capital programs, and regional leadership.

CONCLUSION

King County’s 2015 SCAP is a bold blueprint for reducing GHG emissions across the region by 80 percent by 2050 and preparing for climate change impacts to residents and core County services. The SCAP is built on a strong foundation of understanding sources of greenhouse gas emissions, mapping out where the County can have the most impact, and tying actions to specific targets in the near- and long-term.

Climate pollution and climate impacts play out across the region irrespective of county or city boundaries. It is imperative that work occurs at the community scale in partnership with cities, county residents, businesses, and utilities to meet broader goals for reducing emissions, building community resilience, and preparing for climate change impacts. The 2017-2018 Proposed Budget makes strategic operating and capital investments to ensure progress on SCAP targets and priority actions, and builds the County’s capacity to engage partners for success in achieving community-scale climate goals.