



King County

Enclosed Materials

- 1. 2007 King County Climate Plan Executive Summary**
- 2. King County Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act**
- 3. Executive Summary of *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments*.**
- 4. Suggested Checklist for Governments on How to Prepare for Climate Change (from *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments*.)**



King County

2007 King County Climate Plan Executive Summary

This 2007 King County Climate Plan is the initial response to the Executive Orders on Global Warming Preparedness of March 2006 and King County Council Ordinance 12362 of October 2006, as described in Section 1. It provides an overview of how King County seeks to reduce greenhouse gas emissions and works to anticipate and adapt to projected climate change impacts, based on best available science. It builds on over 15 years of efforts across King County departments to stop the causes of climate change and to prepare for regional climate change impacts. Most of all, as described in “Reasons for Optimism” (Section 2), the King County Climate Plan is a forward-looking, ambitious and optimistic workplan based on the conviction that climate change is both a problem and an opportunity for leadership, public health improvements, and economic prosperity.

As a brief overview of the science behind climate changes already being observed, “Global Climate Change” (Section 3) outlines how human emissions of greenhouse gases – especially from burning of fossil fuels – are driving an increase in the temperature of the Earth’s surface and oceans. Based on work from the Climate Impacts Group at the University of Washington and the Intergovernmental Panel on Climate Change report of February 2, 2007 this section then describes how warmer air and water worldwide is leading to a cascade of other climate changes, including but not limited to sea level rise, loss of sea and land-based ice, and decreases in snowpack and glaciers.

While greenhouse gas emissions produced within the King County region constitute only a small percentage of national and global quantities, our region can play a critical role in pioneering the policies, practices and investments that inform climate change mitigation efforts worldwide. In addition, as a region on the front lines of climate change impacts, King County and its partners are already implementing and refining practical preparedness steps, so that King County can provide leadership for governments worldwide to adapt to the inevitable changes that will take place.

“Greenhouse Gas Emissions” (Section 4) and “Impacts to the Pacific Northwest” (Section 5) provide the base of information that we must have to achieve emissions reduction and preparedness strategies: sources and explanations of our operational, regional, state and national greenhouse gas emissions; and a comprehensive picture of regional climate change impacts we can anticipate for the Pacific Northwest. As detailed in Section 4, the King County region’s biggest source of greenhouse gas emissions is the transportation sector. As described in Section 4, regional public health, water supply and quality, property and infrastructure, government services, economic prosperity and biodiversity are vulnerable to climate change in numerous and different ways, as this region can expect warmer temperatures, some changes in precipitation, sea level rise, and reduced snowpack and streamflow. At this point, some aspects of climate change are well-known, such as increased frequency of fall and winter flooding, whereas we are still learning about others, such as impacts to precipitation and storm intensity.

Finally, in both arenas of mitigation and adaptation, “Goals and Actions” (Section 6A and 6B) gives us reason for optimism. We not only issue a bold goal for our region—climate

stabilization, or 80% reduction of greenhouse gas emission below today's levels by 2050—but we also detail the critical first and near-term steps to reach that goal. In addition, as a founding member of the Seattle Climate Partnership, we will work aggressively to help implement the recommendations of Seattle's Green Ribbon Commission. The Green Ribbon Commission's report and recommendations can be found at: <http://www9.seattle.gov/climate/report.htm>.

King County will develop clear greenhouse gas accountability and limits, and will implement practical, meaningful policies and investments in the following areas: climate-friendly transportation choices; clean fuels, clean energy and energy efficiency; and land use, building design and infrastructure. Many extraordinary efforts are underway on these counts, but we can and must be more ambitious. Bold planning and investments in these areas -- i.e. electrified transportation, more public transit, greenhouse gas accounting in capital projects, and expansion of green building practices -- are truly the foundation of our bridge to significant greenhouse gas emissions reduction. Simply put, to reduce greenhouse gas emissions we need cleaner cars, fewer cars and cleaner infrastructure.

At the same time, building a climate impacts-resilient community is a new challenge that King County is undertaking with innovative and highly practical thinking. First and foremost, King County is not only partnering with national leaders in climate science, such as the Climate Impacts Group at the University of Washington, but also developing climate expertise of its own. As a result, the regular climate information updates that King County decision-makers and planners receive put King County in an excellent position to invest in capital projects that will make our region more resilient.

The list of solutions that King County has developed in response to climate impacts information ranges from the Brightwater reclaimed water “backbone,” which will provide relief to the region's water supply in context of predicted drought, to planned improvements to roads, bridges and seawalls, in context of sea level rise and flooding. It is important to note that in all of these decisions, climate change information is but one factor, and that the decisions King County has made so far also seek to maximize additional benefits of actions to public health, economic development, and environmental protection. Moreover, as described in “Performance Measurement” (Section 6C), it will also be critical to track, measure and share information about progress on these initiatives; King County officials recognize that we must learn from our experiences, if we are to adapt to the changes that are predicted.

Building on the excellent work already underway in many of the areas addressed in this plan, the King County Executive, departments and staff are committed to make this ambitious agenda a reality. Thus, this comprehensive plan of activities to reduce greenhouse gas emissions and improve the resilience of the region to climate impacts represents not simply one reason – but a list of reasons -- for optimism about the issue of global climate change.

Climate change is real, but we have an opportunity now to prevent its worst impacts. If we act effectively during the next ten years —to take these steps to reduce global greenhouse gas emissions and to prepare our region for the physical impacts of climate change—we will be able to limit the severity of climate change consequences for 21st century and beyond.



King County

Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act

King County
Administrative Policies and Procedures

Executive Orders,
Policies & Procedures

Title

Document Code No.

Executive Order on the Evaluation of Climate Change Impacts through the State Environmental Policy Act

Department/Issuing Agency

Effective Date.

Executive Office

October 15, 2007

Approved

This Order requires and empowers King County Departments to evaluate the climate impacts of those actions being evaluated under authority of the State Environmental Policy Act (SEPA).

WHEREAS, King County Executive Order PUT 7-5 required and empowered King County Departments to employ increasingly aggressive strategies to mitigate regional contributions to global warming; and

WHEREAS, King County Executive Order PUT 7-7 required King County Departments to employ innovative environmental management as a means for the region to mitigate and adapt to global warming; and

WHEREAS, King County Executive Order PUT 7-8 required that King County Departments employ coordinated strategies of land use to mitigate and adapt to global warming; and

WHEREAS, the King County Comprehensive Plan recognizes potentially far reaching consequences to the environment and to humankind's quality of life if global climate change is not addressed effectively; and

WHEREAS, the King County Comprehensive Plan acknowledges serious local impacts of global climate change, including but not limited to: habitat degradation and deforestation from drought and fires; reductions in water for drinking, irrigation, and hydropower generation; significantly curtailed recreational activities of fishing, skiing, boating, and rafting; coastline erosion from rising sea levels; droughts and floods from more erratic weather patterns; increased ozone levels from warmer summers; an increase in heat related deaths; and greater infestation of mosquito-related disease and forest pests; and

WHEREAS, the King County Comprehensive Plan identifies King County's actions as an important factor in addressing global climate change; and

WHEREAS, King County is committed to analyzing its own programs and projects for impacts to climate change and to developing and providing measures to mitigate its actions that contribute to the causes of climate change; and

WHEREAS, in accordance with King County Council Motion 12362, King County prepared the "2007 King County Climate Plan"; and

WHEREAS, the 2007 King County Climate Plan reflects experts' predictions that climate change will result in warmer winter temperatures resulting in more precipitation falling as rain than snow, a continued snowpack decline, and an increase in winter streamflow and a decrease in summer streamflow; and

WHEREAS, the 2007 King County Climate Plan also reflects experts' projections that climate change will increase the frequency of flood events; result in greater shoreline erosion and nearshore habitat loss; alter contours of the shoreline due to rises in sea level; change the frequency, intensity and type of natural hazards faced by the Pacific Northwest; increase the frequency of drought events in the region resulting in a decline in firm yields from the region's water supply reservoirs and increase summer and fall demand for water; impact biodiversity and ecosystems; and exacerbate and create new threats to public health; and

WHEREAS, in Massachusetts v. Environmental Protection Agency, 127 S.Ct. 1438, 75 USLW 4149, April 02, 2007 (No. 05-1120), the United States Supreme Court determined that greenhouse gases are a form of "air pollutant," and that harms associated with climate change are serious and well recognized; and

WHEREAS, SEPA rules require agencies to consider a proposal's environmental impacts when rendering a threshold determination of whether an environmental impact statement is required; and

WHEREAS, air quality and climate are identified in WAC 197-11-444(1)(b) as elements of the environment to be considered in assessing a proposal's environmental impacts under SEPA; and

WHEREAS, RCW 43.21C.010(2) declares that the purpose of SEPA, in part, is to "promote efforts which will prevent or eliminate damage to the environment and biosphere"; and

WHEREAS, when acting as a SEPA lead agency, King County is in a unique position to require appropriate consideration of climate impacts when considering both private and public projects undergoing County review; and

WHEREAS, King County is entrusted with protecting its citizens, the environment, and economy through policies of land use, environmental management, and clean energy economic development; and

WHEREAS, this Executive Order supersedes King County Executive Order PUT-10 (AEO) on the Evaluation of Climate Change Impacts through the State Environmental Policy Act which was signed on June 27, 2007 and establishes a new effective date of October 15, 2007; and

NOW, THEREFORE, I, Ron Sims, King County Executive do hereby order and direct all King County Departments, effective October 15, 2007, to require that climate impacts, including but not limited to those pertaining to greenhouse gasses, be appropriately identified and evaluated when such Departments are acting as the lead agency in reviewing the environmental impacts of private or public proposals pursuant to the State Environmental Policy Act.



King County

Executive Summary of *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments*. Co-written by the Climate Impacts Group and King County, in association with ICLEI – Local Governments for Sustainability.

Humans are altering the earth's atmosphere, causing changes in global climate that will affect our environment and communities for centuries to come. There are many indications that these changes are already underway: temperatures are increasing, glaciers are retreating, snowpack is disappearing, spring is arriving earlier, the ranges of plants and animals are shifting, and seas are rising. Within a handful of decades, climate in many parts of the United States is expected to be significantly warmer than even the warmest years of the 20th century, increasing the risk of drought, flooding, forest fires, disease, and other impacts across many regions.

Public decision-makers have a critical opportunity – and a need – to start preparing today for the impacts of climate change, even as we collectively continue the important work of reducing current and future greenhouse gas emissions. If we wait until climate change impacts are clear to develop preparedness plans, we risk being poorly equipped to manage the economic and ecological consequences, and to take advantage of any potential benefits.

Preparing for climate change is not a “one size fits all” process. Just as the impacts of climate change will vary from place to place, the combination of institutions and legal and political tools available to public decision-makers are unique from region to region. Preparedness actions will need to be tailored to the circumstances of different communities. It is therefore necessary that local, regional, and state government decision-makers take an active role in preparing for climate change, because it is in their jurisdictions that climate change impacts are felt and understood most clearly.

The purpose of *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments* is to help you as a decision-maker in a local, regional, or state government prepare for climate change by recommending a detailed, easy-to-understand process for climate change preparedness based on familiar resources and tools. The content of this guidebook was developed from reviews of scientific literature, the Climate Impacts Group's experience working with U.S. Pacific Northwest decision-makers on preparing for climate change, and King County, Washington's experience developing and implementing a climate change preparedness plan. ICLEI - Local Governments for Sustainability has also provided guidance based on its Climate

This guidebook is for you if your primary area of concern includes the following:

- ensuring safe and reliable public services,
- ensuring environmental quality or compliance,
- economic development,
- land use planning and zoning,
- fiscal responsibility and risk management,
- capital investments,
- emergency response,
- water resources management,
- public health,
- coastal zone management,
- port management,
- ecosystem management,
- transportation infrastructure, or
- simply making sure that your community is planning for climate change.

Resilient Communities Program, its Five Milestones process for climate change adaptation, and its extensive experience with local and regional governments.

The guidebook begins with an introduction (Chapter 1) from King County Executive Ron Sims, which highlights both the urgent responsibility and opportunity for public decision-makers to prepare for climate change now and in the coming decades. Chapter 2 provides a short overview of the science of global climate change and its projected national and regional consequences. Chapter 3 offers reasons why local, regional, and state decision-makers should prepare proactively for the impacts of climate change to their communities.

Chapters 4 through 7 provide suggestions on the critical steps to take to initiate a climate resiliency effort. Specifically, these chapters recommend how to:

- Scope the climate change impacts to your major **sectors** (Chapter 4);
- Build and maintain support among your stakeholders to prepare for climate change (Chapter 5);
- Build your climate change preparedness team (Chapter 6); and
- Identify your **planning areas** relevant to climate change impacts (Chapter 7).

Words in bold italics indicate the first use of key terms defined in the “Key Terms” page preceding Error!
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At the completion of these chapters, you should have: an understanding of climate change impacts to your community, an established climate change preparedness team, and sufficient organizational and political support to initiate a climate resiliency effort. You and your team should also have a list of planning areas relevant to climate change impacts on the major sectors in your community.

Chapter 8 and Chapter 9 next offer recommendations on how to complete a climate resiliency study, including how to:

- Conduct a **vulnerability** assessment based on climate change projections for your region, the sensitivity of your planning areas to climate change impacts, and the ability of your community to adapt to climate change impacts (Chapter 8);
- Conduct a risk assessment based on the consequences, magnitude, and probability of climate change impacts, as well as on an evaluation of risk tolerance and community values (Chapter 9); and
- Prioritize planning areas for action (Chapter 9).

At the completion of these chapters, your team should have a list of its priority planning areas to focus on for the next stage of preparedness planning.

Chapter 10 guides development of your climate change plan for your identified priority planning areas, including how to:

- Establish a vision and guiding principles for a **climate resilient community**;
- Set **preparedness goals** in each of your priority planning areas based on these guiding principles; and
- Develop, select, and prioritize possible **preparedness actions**.

At the completion of these chapters, your team should be able to publish a cohesive climate change preparedness plan based on the series of preparedness goals and actions developed in your selected priority planning areas. Chapter 11 then guides you on implementing your climate change preparedness plan, including how to:

- Identify a list of important *implementation tools*; and
- Develop an understanding of how to manage risk and uncertainty in your planning effort.

Chapter 12 guides you on measuring your progress and updating your plans, including how to:

- Develop *measures of resilience*, and use these to track the results of your actions over time;
- Review your assumptions and other essential information to ensure that your work remains relevant to your community's most salient climate change impacts; and
- Update your plans regularly.

At the close of the chapter, you should have a list of measures of resilience for your team's work, a system to track these measures over time, and an understanding of how and when to update your plan. Chapter 13 provides final thoughts on how to prepare for climate change effectively and establish a lasting positive influence.

Finally, the appendices provide valuable supporting information, including: summaries of observed changes in the United States; a science primer of climate change impacts; summaries from the U.S. National Assessment Synthesis Team's reports on climate change impacts in regions and native homelands of the United States; and a current list of additional resources on climate change science, impacts, and preparedness.

For governments intending to mark their progress in use of this guidebook, a checklist that captures the major milestones of the process can be found at the front of this guidebook. In general, the steps and milestones of this checklist are consistent with the guidebook's chapter headings, as well as the Five Milestones process of ICLEI - Local Governments for Sustainability's Climate Resilient Communities Program.

It is important to note that the guidebook's preparedness process can be tailored for implementation across communities, within a single community, or even within an individual agency or department in the United States or elsewhere. You may also choose to tailor the process based on your resource availability or other factors; strategies for working with limited resources are offered at various points in the guidebook. Finally, although the guidebook is written for local, regional, and state governments in the United States, the fundamental principles of the guidebook can also be applied in tribal governments, non-governmental organizations, and private sector businesses sensitive to climate variability and change.

Suggested Checklist for Governments on How to Prepare for Climate Change (from *Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments.*)

MILESTONE 1: Initiate your climate resiliency effort (Chapters 4-7)

- Scope the climate change impacts to your major sectors (Chapter 4)
- Pass a resolution or administrative order directing your government to prepare for climate change (Chapter 4)
- Build and maintain support to prepare for climate change (Chapter 5)
- Build your climate change preparedness team (Chapter 6)
- Identify your planning areas relevant to climate change impacts (Chapter 7)

MILESTONE 2: Conduct a climate resiliency study (Chapters 8-9)

- Conduct a climate change vulnerability assessment (Chapter 8)
- Conduct a climate change risk assessment (Chapter 9)
- Prioritize planning areas for action (Chapter 9)

MILESTONE 3: Set preparedness goals and develop your preparedness plan (Chapter 10)

- Establish a vision and guiding principles for a climate resilient community
- Set your preparedness goals
- Develop, select and prioritize your preparedness actions

MILESTONE 4: Implement your preparedness plan (Chapter 11)

- Ensure that you have the right implementation tools

MILESTONE 5: Measure your progress and update your plan (Chapter 12)

- Develop and track measures of resilience
- Update your plan