



A Different City

How can cities adapt to climate change? For Seattle, it means planning ahead for an uncertain future.

By Richard Conlin
posted Jan 05, 2011



Seattle infrastructure will need to adapt to climate changes such as rising sea levels.

Photo by [Michael B.](#)

Seattle hopes to become the world's first climate-neutral city. It's no small task: The City must account for, and reduce, the carbon footprint of everything from transportation to trash for hundreds of thousands of people. City Council President and [YES! Magazine](#) board member Richard Conlin is [blogging about the city's efforts](#).

The City Council's goal of reaching [carbon neutrality](#) will take many years—and we are leading the world in making this commitment and trying to figure out how to get there. At the current rate, it will be a long time before we have a coordinated national strategy, and progress toward an [international agreement](#) is painfully slow.

Even if the world achieved carbon neutrality overnight, the climate is already changing, and we must adapt to that.

But even if the world achieved carbon neutrality overnight, the climate is already changing, and we must adapt to that even if atmospheric carbon begins to decline. In all likelihood, we have at least [several decades of changing climate](#) before we can turn around greenhouse gas concentrations. Some of the more pessimistic assessments suggest that not even a turnaround will undo the changes that are likely to happen this century.

There is great uncertainty about what the climate future looks like or will bring, with a range of computer models ranging from the challenging to the disastrous. However, we know enough now to

inform our actions, and the City Council and our Departments have been working for several years to identify strategies for adaptation. In 2008, the Council received a consultant report that outlined possible mitigation and adaptation strategies, and in 2010 the Office of Sustainability and Environment (OSE), in response to a Statement of Legislative Intent (a Council policy guidance tool), submitted a comprehensive assessment of areas of vulnerability, actions taken to date, and proposals for additional actions. In 2011, the Council will begin reviewing and acting on these recommendations.

The Climate Impacts Group (CIG) projects the following changes in the Pacific Northwest, all of which the City will have to be prepared to face:

- A 0.5 degree temperature rise per decade over the next 50 years.
- Modest changes in precipitation, but possible shifts to drier summers and wetter winters, with the likelihood of increasing storm events.
- Spring snowpack decreases of more than 50 percent by the 2080s, leading to streamflow issues.
- Sea level rises between three and 22 inches by 2050.
- Migration to the relatively stable Northwest from more impacted areas (“climate refugees”).
- Pressure on public health and emergency management from heat waves, insect-borne illness, air pollution, and extreme storm and heat events.

OSE recommended the following guiding strategies for adapting to these situations:

- Improve our response capability by increasing resources dedicated to adaptation and organizing ourselves more effectively.
- Build infrastructure that is adaptable to climate change—taking into account sea level rise and mitigating precipitation and temperature increases.
- Use market-based approaches where possible, such as tradable permits or tax and price incentives, to build resilience.
- Mandate or prohibit actions that would be problematic, such as building in flood plains.
- Bring together stakeholders to formulate common strategies, including creating a regional joint compact to outline joint responsibilities and actions.
- Improve residents’ access to information on climate change impacts.

OSE also identified six main areas where Seattle is likely to experience climate change impacts:

- Buildings, transportation, utility, and communication infrastructure are vulnerable to climate change impacts such as flooding, heat events, and sea level rise. Land use regulations, stormwater and [transportation projects](#), and building design and operations must be modified to address these.



[How We Saved the Climate](#)

Bill McKibben imagines himself in the year 2100, looking back at a century of climate chaos and asking: What did it take to save the world?

- Public health and emergency management systems are likely to come under stress and require new resources to protect the health and well-being of Seattle’s communities.
- Natural systems are likely to come under increased stress, with threats to native species, new

invasive species, and the loss of ecosystem functions. [Restoration](#) and protection must be thought through strategically and enhanced.

- [Water supply](#) will be impacted, especially by the loss of snow pack and change in the timing of streamflows, with increasing summer demand. Demand management will be a key tool.
- Electricity supply will also be affected in similar ways. [Diversification of the energy portfolio](#) and new demand and supply management strategies will be required.
- The adverse impacts of climate change are likely to fall most heavily on the poor and those with limited access to resources. Strategies must include a social justice lens to ensure that this is taken into account.

With this data in mind, Seattle is beginning to sketch out our strategic focus on how to best use resources to manage adaptation needs.

Up next: How do we adapt to the climate changes we know we will face?



Richard Conlin wrote this article for [YES! Magazine](#), a national, nonprofit media organization that fuses powerful ideas with practical actions. Richard is president of the Seattle City Council and a YES! Magazine board member.

Interested?

- [Read more](#) from Richard Conlin's blog about Seattle's efforts at reaching carbon neutrality.
- [No Impact Week with YES!](#)
Stories, resources, multimedia, and discussion on the exciting project that could change the way you think about your life—and the planet, too.
- [How to Get Carbon-Free in 10 Years](#)
Steps to becoming a carbon-free household.

YES! Magazine encourages you to make free use of this article by taking these [easy steps](#). Conlin, R. (2011, January 03). A Different City. Retrieved January 29, 2011, from YES! Magazine Web site: <http://www.yesmagazine.org/blogs/richard-conlin/a-different-city>. This work is licensed under a [Creative Commons License](#) 