

# Oregonian

Tuesday, November 09, 2004

## The impacts of global warming are arriving

**IN MY OPINION Sherman Bloomer**

**IN MY OPINION Mark Abbott**

Global warming is real, and its impacts are here now.

It's real enough for the governors of Oregon, Washington and California to convene working groups to assess what actions their states should be taking to mitigate and adapt to the effects of climate change. The governors recognized that there will be significant impacts on economic and human health for the entire region. The draft report from Gov. Ted Kulongoski's Advisory Group on Global Warming has just been released and is open for public comment until next Monday (on the Web at [www.energy.state.or.us/climate/Warming/Draft\\_Intro.htm](http://www.energy.state.or.us/climate/Warming/Draft_Intro.htm) ).

Pacific Northwest scientists strongly concur that climate change is well under way, that it is being affected by human activities and that it has begun to affect Oregon. At a meeting this summer at Oregon State University, researchers identified areas of agreement about regional climate change and highlighted critical areas for further research. The group included experts in oceanography, hydrology, forest ecology, climate, marine ecology, fish biology, agriculture and economics. The consensus report from that meeting (available at <http://inr.oregonstate.edu> ) is sobering.

Climate models are now sufficiently sophisticated that we can analyze the regional impacts of global changes. The Northwest could warm by 3 to 6 degrees within 40 years. There will be more summer droughts. Our forests will be more vulnerable to insects, disease and fire. Snowpacks will diminish, and water resource conflicts will increase. These changes could disrupt the Northwest, including its ecology, economy, agricultural base and forestry.

Climate change poses a significant challenge to all of Oregon's political, business and education leaders and citizens, not just those in Salem. It will have consequences for every Oregonian in areas critical to our economic well-being. Some of the changes can be, in part, mitigated. However, adaptation to the impacts of climate change will also be required because there is insufficient time and regional climate "clout" to modify them significantly.

The Governor's Advisory Group on Global Warming proposes a broad set of specific recommendations outlining many things we can do, with an ultimate goal of reducing greenhouse gas emissions from their 1990 levels. The group recommends that we stop the growth of greenhouse emissions by 2010, and by 2050 achieve a "climate stabilization" level that is 75 percent below 1990 levels.

During this period, Oregon must invest in energy efficiency, replace greenhouse-emitting energy resources with cleaner technologies, increase the biological "sequestration" of carbon in our farms and forests, and promote new educational, research and technology initiatives. All this is a good start.

Adaptation to global climate change will require vision that lasts beyond any single administration. The changes are slow, but inexorable and cumulative. We need to be thinking now about how we are going to coexist with Oregon's average climate in 2050. Oregon is at a crossroads, and the time for uncertainty, ambiguity and indecision is largely past.

**Sherman Bloomer is dean of the college of science at Oregon State University.**

**Mark Abbott is dean of the OSU College of Oceanic and Atmospheric Sciences.**