

Annotated History of Climate Change- Related Policy in Oregon

And the Board of Forestry

- At a Glance -

Introduction

This document was created to provide a quick look at the history of significant features and events that comprise, characterize, and define the issue of climate change policy in Oregon especially with respect to forestry. These features include, legislation, task forces, agency reports, significant meetings of the Board of Forestry, subcommittees, and work groups.

The primary motivation for putting this information together comes from the Board of Forestry's Climate Change Workplan. The first priority from that work plan is to "provide the Board of Forestry a history of the work on climate change policy in Oregon, staff contributions to that work, and previous Board involvement on the issue." Therefore, this document is intended to serve as a reference for members of the Board of Forestry and others who might need a rapid means of looking through the years at how Oregon and the Board have approached the issue of climate change.

A great deal of work and discussion on various aspects of climate change policy has already occurred in Oregon. Therefore, this information will be important so that as the Board moves forward on evaluating potential policy alternatives history serves as a reference for avoiding the duplication of past efforts and a source of information to possibly guide future actions.

Short summaries are provided along with useful internet links for access to specific reports and documents. Years are highlighted by decade beginning in 1990 when ODF began making contributions to this issue. The Global Warming Commission's website also provides a similar timeline of milestones for climate change policy in Oregon:

<http://www.keeporegoncool.org/content/progress>.

Climate Change in Oregon Through the 1990's

1990

Oregon Task Force on Global Warming Report to the Governor and Legislature. Three Department of Forestry employees contributed to this project: LeRoy Kline, Alan Kanaskie, and Mike Ziolko.

Part One: possible impacts on Oregon from global warming included the features:

- Greenhouse gases (GHG) and the greenhouse effect
- Emission sources in Oregon
- Oregon's climate, water supply and sea level
- Fisheries, land plants and animals; forests and agriculture
- Energy sources
- Air quality
- Regional economic effects, demographics and infrastructure
- Emergency management

- Challenges to the global warming concept

Part two: state agency recommendations and proposed actions provided general recommendations and agency proposed actions.

http://www.oregon.gov/energy/GBLWRM/docs/1990_Oregon_Taskforce_Report_on_Global_Warming.pdf

1995

The Oregon **Department. of Energy** releases a *Report on Reducing Oregon's greenhouse gas emissions*. Major features of the report included:

- a climate change strategy five-year plan,
- a chapter on Oregon's greenhouse gas inventory and forecast including CO₂, methane, nitrous oxide, perfluocarbons,
- an appendix on greenhouse gas stabilization scenario,
- and another appendix with carbon data.

http://www.oregon.gov/energy/GBLWRM/docs/1995_Reducing_OR_GHG_Emissions.pdf

1997

The **Oregon Legislature** passes **HB 3283** regulating carbon dioxide emissions from baseload gas plants, non-baseload, fossil fuel powered plants, and non-generating facilities that emit carbon dioxide. HB 3283-A proposes two primary changes to the Energy Facility Siting Act.

- First, to eliminate the “need-for-power” standard, thereby letting the wholesale market determine the need for new power plants.
- Second, to adopt a new siting standard to reduce carbon dioxide emissions.

The measure establishes three statutory means by which an applicant may comply with the applicable carbon dioxide standard:

- 1) demonstration of carbon dioxide reductions from cogeneration;
- 2) demonstration of carbon dioxide reductions from offset projects selected by the applicant (performance path); and
- 3) provision of funds deemed sufficient to purchase the offsets needed to meet the standard (monetary path).

Provisions would apply only to new energy facilities. Complete task force findings are available in the Report of the Oregon Energy Facility Siting Task Force dated October 21, 1996.

<http://www.leg.state.or.us/97reg/measures/hb3200.dir/hb3283.en.html>

1997

The Climate Trust was founded as a 501(c)(3) nonprofit organization to acquire carbon offsets on behalf of new fossil-fueled power plants regulated by the Oregon Carbon Dioxide Standard, the nation's first legislation to curb emissions of carbon dioxide. The Climate Trust was the first institutional buyer of carbon offsets at the beginning of the U.S. carbon market and created a process for a supply of offsets, protocols, and quality standards that did not exist. The Climate Trust is focused on evaluating and comparing projects; quantifying, verifying and registering offsets; signing contracts and funding projects.

1999

Forest Resource Trust – Forest Establishment Program receives \$1.5 million in carbon dioxide emission offset funding from the Klamath Co-Generation Project in south central Oregon. The \$1.5 million payment meets, in part, requirements of the co-generation project's site certificate as issued by the Oregon Energy Facility Siting Council. The offset practice is forestation on non-industrial private lands. Forestation is converting lands that once were forested, but currently in agricultural, range or poorly stocked forest use, back into healthy, productive forests through the establishment of new forests. The offsets are measured and reported by the Oregon Department of Forestry and then retired by the Oregon Energy Facility Siting Council per the requirements of the site certificate.

Climate Change Policy in the New Millennium

2001

House Bill 2200 is passed by the 2001 Oregon State Legislature and signed into law. This Bill provides the State Forester authority to enter into agreements with nonfederal forest landowners as a means to market, register, transfer or sell forestry carbon offsets on behalf of the landowners to provide a stewardship incentive for nonfederal forestlands.

- Requires the State Forester to develop an accounting system for measuring and reporting forest carbon offsets.
- Sets up the Oregon Department of Forestry as a potential aggregator of forestry carbon offsets
- Affirms the role of the Oregon Board of Forestry with respect to developing voluntary principles and standards for the accounting of forest carbon offsets.
- Establishes an advisory committee to assist the Board in developing principles and standards for carbon accounting.

<http://www.oregon.gov/odf/privateforests/docs/ehb2200.pdf>

2003

West Coast Regional Carbon Sequestration Partnership (WESTCARB) was established as one of seven regional carbon sequestration partnerships funded by the U.S. Department of Energy. WESTCARB was led by the California Energy Commission with a terrestrial component in Arizona, California, Oregon and Washington. Research was conducted in Oregon (the ArcFuels project of the USDA Forest Service Western Environmental Wildland Threat Assessment Center

of the Pacific Northwest Research Station) to model the feasibility (and developing accounting protocols) of forest fuel treatments to reduce wildfire severity and extent as a carbon offset opportunity.

<http://www.westcarb.org/>

2004

The **Governor's Advisory Group on Global Warming** issues a report on *Oregon Strategy for Greenhouse Gas Reductions*. The Advisory Group was composed of co-chairs Mark Dodson (NW Natural) and Jane Lubchenco (OSU), 26 high profile members representing a variety of interests. The report was organized by the topics:

- Introduction to Oregon's vision of acting on global warming and context
- Recommended actions and next steps
- Six appendices: member biographies, Oregon's GHG inventory and forecast, consensus statement on impacts of climate change on PNW, materials and GHG's, recommendations to West Coast Governors, and glossary.

<http://www.oregon.gov/energy/GBLWRM/docs/GWReport-FInal.pdf>

2005

Forest Biomass Working Group was established to help accomplish the State's biomass energy and utilization of forest biomass goals. Reducing fuel loads through the utilization of forest biomass from overstocked forests would improve overall forest health, diversity, resiliency, and reduce carbon dioxide pollution from wildfires and prescribed burns.

<http://www.oregon.gov/energy/Pages/news/2012-45-FBWG-draft-strategy.aspx>

2006

Oregon Forest Resources Institute publishes their report titled *Forests, Carbon and Climate Change, a Synthesis of Science Findings*. This was a cooperative project between OFRI, OSU College of Forestry, and the Department of Forestry. This report contained ten chapters that covered the topics:

- The many possibilities of climate change, forests, and carbon
- Atmospheric carbon dioxide
- Climate change at multiple scales
- A skeptic's view of global warming
- Forest management strategies for carbon storage
- Keeping land in forest
- Using wood products to reduce global warming
- Emerging markets for carbon stored by NW forests
- Carbon accounting: determining carbon offsets from forest projects
- Governor's global warming initiative

http://www.oregon.gov/energy/GBLWRM/docs/forests_carbon_climate_change.pdf

2007

HB 3543 is signed into law. Establishes the *Global Warming Commission* and the *Climate Change Research Institute*; identifies the State Forester as an ex-officio member of the Commission. Below is a list of meeting dates of the Commission and its subcommittees following passage of the bill.

Global Warming Commission Meetings

Five in 2008, three in 2009, three in 2010, two in 2011, and one in 2012

Energy, utility and stationary source committee meetings

Five in 2008 and one in 2010

Communications and outreach committee meetings

Seven in 2008, four in 2009, and two in 2010

Natural resources committee meetings

Eight in 2008, and one in 2009

Transportation and land use committee meetings

Six in 2008, two in 2009, three in 2010

Science and technology committee meetings

One in 2008

<http://www.leg.state.or.us/07reg/measures/hb3500.dir/hb3543.en.html>

2008

The Governor's **Climate Change Integration Group** (CCIG) releases a final report to the Governor titled: *A Framework for Addressing Rapid Climate Change*. The CCIG, chaired by Dr. Mark Abbot and Ned Dempsey had 22 high-profile members, two ex officio members, a Gov's representative and 12 state agency liaisons. The report consisted of consistently organized sections on:

- Preparation and adaptation
- Mitigation
- Education and outreach
- Research
- Seven appendices: GHG inventory and forecast, interim CCIG report, CCIG progress, status of advisory group's deferred measures, strategy principles for GHG reductions, survey of coastal governments on climate change related needs, CCIG charter.

<http://www.oregon.gov/energy/GBLWRM/docs/CCIGReport08Web.pdf>

2008

The **Global Warming Commission's** subcommittee on fish, wildlife and habitat adaptation issues their report titled: *Preparing Oregon's Fish, Wildlife, and Habitats for Future Climate Change: A Guide for State Adaptation Efforts*. The report featured the topic sections:

- Problem statement
- Guiding principles for fish and wildlife adaptation
- Policy recommendations
- Research and monitoring needs

http://www.oregon.gov/energy/GBLWRM/docs/f-w_adaptation_guide.pdf

July 7, 2008

The **Department of Forestry** hosts a meeting to fulfill a request by the Global Warming Commission's Natural Resource subcommittee to engage stakeholders in dialogue, to gain a broad perspective on the issues of forests and their relationship to global warming, and solicit input on recommendations to the Commission. Several speakers were asked to address what efforts are occurring that involve forests in global warming issues, where are there gaps, and what are the priority recommendations. Subcommittee co-chair Greg Miller from Weyerhaeuser Corporation moderated the meeting, and co-chair Marvin Brown developed the meeting summary and draft recommendations. Speakers and topics included:

- Dr. Hal Salwasser and Dr. Edie Sonne Hall, The big picture relationship between forests and climate change
- Dr. Elaine Oneal, review of research conducted by the Consortium for Research on Renewable Industrial Materials (CORRIM)
- Scott Fogarty, role of urban forests and green space in mitigation
- Findings from the Department of Forestry's Biomass Working Group
- Dr. Andrew Yost, changes in plant and animal species and habitat distributions

The summary report concludes with a final set of additional recommendations on improving federal forest management, adaptive management, reducing risk of fire.

http://www.oregon.gov/odf/RESOURCE_PLANNING/docs/ODF_ForestSectorClimateChangeRecommendations_09.pdf

2009

The Oregon **Global Warming Commission** submits their Report to the Legislature. This report included three major sections:

- How far has Oregon come in achieving its climate change goals
- OGWC: pushing for progress toward Oregon's climate change goals.
- Recommendations from the agriculture, energy efficiency, renewable energy, transportation, and natural resources subcommittees.
- Two appendices: OGWC committees and update to Oregon's GHG inventory

http://www.oregon.gov/energy/GBLWRM/GWC/docs/OGWC_2009Leg_Report.pdf

Climate Change Policy In Oregon 10 Years After

April 23, 2010

The **Board of Forestry** hears presentations on climate change policy, science, and agency contributions within Oregon from:

- Angus Duncan the Chair of the OGWC, requesting agency leadership in forming the Climate Change Working Group and drafting Forestry Roadmap document.
- Phil Mote, Director of OCCRI, who presented recent evidence of changes in climate from industrial emissions and how modeling of average temperatures is consistent with observations.
- Andrew Yost, Forest Ecologist with ODF, presented a spectrum issues with respect to climate change that the agency has worked on and made contributions to.

The Board approves the Forest Climate Change Working Group as a standing committee reporting to the Board while recognizing it as a standing sub-committee within the Natural Resource Commission of the Oregon Global Warming Commission as well. The Global Warming Commission and the Board of Forestry request the Forest Climate Change Working Group:

- (1) Assess the extent to which Oregon's forest ecosystems can contribute to achieving the greenhouse gas emissions reduction goals mandated in 2007 House Bill 3543 and
- (2) Provide recommendations on the resources required to sufficiently quantify that contribution.

<http://odfnet2010.odf.state.or.us/ResourcePlanning/Cimate%20Change%20%20BOF/Forms/AllItems.aspx>

2010

The Oregon **Greenhouse Gas Reporting Advisory Committee** issues a report to serve as a record of the committee's recommendations on the initial set of greenhouse gas reporting rules. This report included:

- Introduction and background
- Advisory committee stakeholder involvement process
- Summary of recommendations
- Fiscal impact review
- Five appendices of GHG reporting advisory committee notes.

<http://www.oregon.gov/energy/GBLWRM/docs/DEQ-GHGAC.pdf>

2010

Oregon **Parks and Recreation Department** releases their Climate Change Response Preparedness and Action Plan. The Plan consisted of:

- Background, purpose, and characteristics of climate change
- Impacts of climate change on natural and human systems
- Recommendations including guiding principles, footprint reduction, adaptation
- Implementation: adaptive management and recommended actions

<http://www.oregon.gov/energy/GBLWRM/docs/OPRDClimateChangePlan.pdf>

Sept 8, 2010

Board of Forestry receives update on the forest climate change workgroup responsible for developing recommendations for contributions that the forest sector could make to greenhouse gas reductions, listed in HB 3543, and potential research to address predictions that have been made by climatologists.

<http://odfnet2010.odf.state.or.us/ResourcePlanning/Cimate%20Change%20%20BOF/Forms/AllItems.aspx?InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersistence>

2010

The **Global Warming Commission** releases the *Interim Roadmap to 2020*. This project offered recommendations for how Oregon can meet its 2020 greenhouse gas reduction goals (10% below 1990 levels), get a head start toward its 2050 goal (75% below 1990 levels), and build a clean-energy-based economy. Six technical committees described future scenarios and developed recommendations. The report was organized around the topics:

- Energy roadmap to 2020
- Transportation and land use roadmap to 2020
- Industrial use roadmap to 2020
- Agriculture roadmap to 2020
- Forestry roadmap to 2020
- Materials management roadmap to 2020

http://www.oregon.gov/energy/GBLWRM/docs/Integrated_OGWC_Interim_Roadmap_to_2020.pdf

Nov 5, 2010 Brookings

Board of Forestry receives a presentation from Dr. Andrew Yost on the final draft of the OGWC Roadmap to 2020 and its recommendations. The Board of Forestry:

- Endorsed the recommendations it provided.
- Agreed that a Workplan to address the issue of climate change was not needed at the time.

<http://odfnet2010.odf.state.or.us/ResourcePlanning/Cimate%20Change%20%20BOF/Forms/AllItems.aspx?InitialTabId=Ribbon%2EDocument&VisibilityContext=WSSTabPersistence>

2010

The Oregon **Climate Change Research Institute** releases the Oregon Climate Assessment Report requested by the Oregon Legislature via HB 3543. The report assesses the state of climate change science including biological, physical, and social science as it relates to Oregon and likely effects on the state. The report was structured with chapters addressing:

- Climate change in Oregon's land and marine environments
- Climate change in Oregon-defining the problem and its causes
- Climate change and freshwater resources
- Climate change and agriculture in Oregon
- Potential effects of climate change on Oregon's vegetation
- Impacts of climate change on Oregon's coasts and estuaries
- Fish and wildlife in a changing climate
- Toward assessing the economic impacts of climate change in Oregon
- Human dimensions of climate change: public knowledge, attitudes, barriers to change, impacts on cultural and built environment, and potential impacts on public health.

<http://occri.net/ocar>

2010

The **State of Oregon** issues the *Climate Change Adaptation Framework*. This effort was initiated by Governor Kulongoski's request to Directors of several state agencies, universities, research institutions, and extension services to develop an adaptation plan. The Adaptation Framework includes:

- Introduction and Background
- Short-term priority actions
- 11 sections on climate risks, state capacity and needed actions
- Implementing the framework
- References, gaps and agency actions, work group members.

http://www.oregon.gov/energy/GBLWRM/docs/Framework_Final_DLCD.pdf

2011

The **Global Warming Commission** issues its *Report to the Legislature Including Key Actions and Results from the Commissions Interim Roadmap to 2020*.

2011

Department of Environmental Quality issues a Summary Report titled: *Consumption-Based Greenhouse Gas Emissions Inventory for Oregon – 2005*. This report consists of:

- Introduction
- Background and methodology
- Study findings

- Discussion of results
- Recommendations
- References

Methods to estimate greenhouse gas emissions originating within a community are well established, as are methods for assessing the “life-cycle” environmental impacts of household consumption (e.g., the “carbon footprint” or “ecological footprint”). What’s been less clear is how to combine the two approaches to quantify the greenhouse gas emissions associated with all consumption activities of a state or region. This report presents results of efforts to develop such a method for Oregon and provides a new view of the link between greenhouse gas emissions and consumption.

<http://www.oregon.gov/energy/GBLWRM/docs/ConsumptionBasedGHGEmissionsInventoryORSummaryReport.pdf>

2011

Oregon **Department of Environmental Quality** issues a final report titled: Oregon Low Carbon Fuel Standards Advisory Committee Process and Program Design. Contents of the report included:

- Oregon’s low carbon fuel program at a glance
- House bill 2186 roadmap
- Background on standards and fuels
- Low carbon fuel standards development process
- Low carbon fuel standards program design
- Calculating carbon intensities for transportation fuels
- Compliance scenarios and economic analysis
- Potential impacts to public health and the environment
- Eleven appendices

http://www.oregon.gov/energy/GBLWRM/docs/LCFS-DEQ_FinalRpt.pdf

Sep 5, 2012 Salem

The Oregon **Board of Forestry** is presented with research targeted for the climate change section of the 2015 Forest Assessment. Dr. H. Lintz with the Climate Change Research Institute presented preliminary results from research on developing a sustainability indicator based on basal area and mortality measurements from using Continuous Vegetation Survey inventory data which is characterized by plot remeasurements at two or more time intervals.

http://apps.oregon.gov/application/PDFDownload/ODF/BOF_090512_Meeting/BOFMIN_2012_0905_ATTCH_11.pdf

http://www.oregon.gov/odf/BOARD/docs/2012_September/BOFATTCH_20120905_07_02.pdf

2012

The **Public Utilities Commission** presents its report titled *Electric and Natural Gas Company Rate Impacts to Meet 2020 Greenhouse Gas Emission Reduction Goals* to the Senate Environment and Natural Resources Committee.

In 2007, the Oregon Legislature passed HB 3543 which establishes greenhouse gas emission reduction goals for the state including greenhouse gas levels that are 10 percent less than 1990 levels by the year 2020. In 2009, the Legislature passed SB 101 which requires the Public Utility Commission of Oregon to report to the Legislature before November 1 of each even-numbered year on the estimated rate impacts for Oregon's regulated electric and natural gas companies from meeting greenhouse gas emission reduction goals in 2020. The emission reduction goals are:

- Reduce greenhouse gas emissions 10 percent below 1990 levels by 2020
- Reduce greenhouse gas emissions 15 percent below 2005 levels by 2020

The report explains how electric and gas power generating companies would have to reduce greenhouse gas emissions to meet reduction goals and the impacts on current electricity rates.

<http://www.oregon.gov/puc/docs/2012FinalGreenhouseGasReport.pdf>

2013 March 6, Salem

The Board of Forestry approves the Climate Change section of its exploratory Emerging Issues work plan.

The work plan directs staff to:

1. Organize and present information to the Board describing the history of climate change policy efforts in Oregon.
2. Organize and schedule a panel of experts to discuss climate change adaptation issues and policy alternatives that the Board of Forestry might pursue.
3. Develop analyses and indicators of change in the geography of forest species from the effects of climate change.
4. Organize a committee to explore the usefulness of a workshop to learn how researchers from universities and natural resource management agencies might integrate resources and efforts to monitor and analyze changes in species distributions predicted to occur from changes in climate.

This document fulfills the information requested in the first priority item.