

March 16-17, 2010 OWEB Board Meeting

Executive Director Update #C-3: Oregon Climate Change Adaptation Plan

Background

In late 2009, Governor Kulongoski instructed state agencies to begin developing an Oregon Climate Change Adaptation Plan (Plan). (Attachment A) The Governor identified key agencies in his instructions; other agencies, including OWEB, are also involved in this effort. The Oregon Department of Land Conservation and Development has taken the lead at organizing and convening the relevant state agencies. At the kickoff meeting in January, DLCD Director Richard Whitman articulated three primary goals that the Plan is intended to enable the State to achieve:

1. Assist the State in preparing for the 2011 Legislative Session including budget development, legislative concepts, and policy option packages.
2. Organize the State around current and developing federal policies and programs related to climate change.
3. Establish a structured means for state agencies to communicate with each other and the Legislature about current climate change related actions and future needs.

Adaptation Work Group

During the Director's meeting, a work group was formed and charged with developing the materials that will be necessary to prepare for the 2011 Legislative Session. To date, several products have been generated. A list of likely effects of climate change occurring or expected to occur in the Pacific Northwest (Attachment B), a chart of the alignment between these effects and sectors to which Oregon's agencies are related (Attachment C), and a matrix that ties these products to agency responses and needs (Attachment D).

By the OWEB March Board meeting, the work group will have completed the matrix and staff can make this available. Several recent Board actions through the Research and Monitoring programs will provide important information for the State and the Plan efforts. These include the Climate Leadership Initiative future forums, sea-level rise, water availability, and ecosystem services contracts.

Next Steps

Agency Directors and delegates will continue to meet this spring to work on coordinated budget requests with regard to climate change adaptation. The next meeting in late March is to further advance and agree on a set of policy option packages regarding climate change adaptation that will be submitted to the Oregon Legislature for the 2011-2013 biennial budget.

Staff Contact

If you have questions or need additional information, please contact Greg Sieglitz, at greg.sieglitz@state.or.us or 503-986-0194.

Attachments

- A. Governor Kulongoski's letter
- B. PNW Climate Change Effects
- C. Oregon sectors affected by climate change
- D. Adaptation Matrix

Likely Effects of Future Climate Conditions in the Pacific Northwest

Changes in temperature

- Higher average air temperatures year around
- Reduced snow cover
- Higher ocean water temperatures
- Hotter summers
- Warmer winters
- Higher surface water temperatures
- Earlier spring, longer summers, later fall
- More winter precipitation falling as rain
- Higher sea levels

Changes in precipitation

- Shift in seasonal precipitation patterns and/or amounts
- Greater variability in year-to-year precipitation patterns and trends
- Increased difference between winter and summer precipitation amounts
- Reduced snow cover
- Greater incidence of drought conditions
- More winter precipitation falling as rain

Changes in extreme events

- Increased strength and frequency of coastal storms
- Increased strength and frequency of winter storms
- More extreme heat events
- More extreme weather events and conditions
- Higher significant storm wave heights
- Higher storm surges and wave heights

Changes in ocean conditions

- Changes in interannual North Pacific oceanic and atmospheric circulation patterns
- Acidification of Pacific Ocean waters

Risks to vulnerable people, communities, resources and infrastructure		Ecosystems	Built/Developed Systems	Economic Systems	Public Health and Safety
1	Increase in wildfire frequency and intensity (two- or three-fold by 2080s)	●	●	●	●
2	Increased competition for water resources	●	●	●	●
3	Increased frequency of landslides	●	●	●	●
4	Increased incidence and magnitude of extreme weather events	●	●	●	●
5	Increased incidence of drought	●	●	●	●
6	Increased inundation of tideland reclamation infrastructure	●	●	●	●
7	Reduced annual water availability	●	●	●	●
8	Reduced water quality	●	●	●	●
9	Increased erosion of beaches, dunes, and ocean bluffs, and estuarine shore habitats	●	●	○	●
10	Increased inundation of ocean and estuarine shorelands	●	●	●	○
11	Reduced snowpack	●	●	●	○
12	Potential for increased incidence and magnitude of damaging floods	○	●	●	●
13	Increased erosion of road base and bridge supports	○	●	●	●
14	Loss of beaches, dunes, and tidal wetlands	●	●	○	○
15	Changes in vegetation growth and mortality rates, geographical distributions, and water use efficiency	●	○	●	○
16	Increase in invasive species	●	○	●	○

Statewide Climate Change Adaptation Framework

Matrix to compile agency actions

Version 1.0, January 11, 2010

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System	Subsystem	Likely Effects	Risks and Opportunities	Inventory of Current and Planned Actions	Gaps
Natural Systems	Forests				
Built and Developed Systems					
Economic Systems					
Human Health					