

# **ADAPTING TO CLIMATE CHANGE WEDNESDAY NOV. 5: AFTERNOON—CONCURRENT SESSIONS**

**SPECIFIC APPLICATIONS OF CLIMATE CHANGE  
90-minute breakout sessions immediately follow lunch.**

**NOTE: All topics, descriptions and objectives are draft and subject to change.**

## Topic 1: Cropland and Rangeland Management

Issue description: Croplands and rangelands are progressively being exposed to changes in climate. Abnormal changes in air temperature and rainfall patterns and resulting increases in frequency and intensity of drought and flood events have long-term implications for the viability of these lands. What are the predicted climate change scenarios and how will they affect range condition and crop suitability?

Objectives: Participants will:

- Be able to describe potential effects of climate change on croplands and rangelands.
- Know several management practices that may help watersheds adapt to a changing climate.

## Topic 2: Forest Management

Issue description: Forests are progressively being exposed to changes in climate. Abnormal changes in air temperature and rainfall patterns and resulting increases in frequency and intensity of drought and flood events have long-term implications for the viability of these lands. What are the predicted climate change scenarios and how will they affect forest health?

Objectives: Participants will:

- Be able to describe potential effects of climate change on forests.
- Know several management practices that help watersheds in forests adapt to a changing climate.

## Topic 3: Coastal Ecosystem Management

Issue description: Changes to global climate resulting in changed ocean currents and increased glacial melt are predicted to create a rise in sea level and to change ocean productivity. The magnitude and significance of the changes will vary geographically.

Objectives: Participants will:

- Be able to explain how changes in the oceans might influence and affect land use and ecosystem processes as well as salmon abundance and distribution.
- Learn how sea level change will affect estuarine restoration and protection.
- Know how to develop and design coastal projects with predicted changes in mind.

#### Topic 4: Fire

Issue description: Changes in temperature and precipitation have a significant effect on the potential for changed fire regimes. Coupled with historic fire management systems, what do the climate change scenarios mean in terms of forest and rangeland ecosystems? These changes will have a significant effect on the function of Oregon's watersheds.

Objectives: Participants will:

- Learn how climate change will affect fires.
- Be able to incorporate changed fire regimes into protection and restoration planning.
- Know ways to explain potential changes in fire regimes to their constituents.

#### Topic 5: Stream flow and aquatic habitat

Issue description: Climate change implicates changes in snow pack, glacial extent and surface aquifer recharge. These changes affect stream flow volume and timing, which affect aquatic habitat distribution and suitability.

Objectives: Participants will:

- Be able to describe expected changes in stream flow in different areas of the state.
- Be able to identify watershed management opportunities to reduce or minimize the effects of stream flow changes.

## **WEDNESDAY NOV. 5 AFTERNOON—CONCURRENT SESSIONS**

### **TRANSITION SESSIONS BLENDING CLIMATE CHANGE WITH OTHER CONFERENCE WORKSHOP THEMES**

**90-minute breakout sessions follow a short break after sessions above.**

**NOTE: All topics, descriptions and objectives are draft and subject to change.**

#### Topic 1: Building Effective Organizations/Climate Change

Issue description: Effective organizations not only respond to but also proactively change in anticipation of a changing climate. It's a global issue that local organizations will handle often through collaboration. Significant reforms to missions, programs, and institutional culture may be required to address threats that cross or lie outside organization boundaries.

Objectives: Participants will:

- Be prepared and motivated to learn more at subsequent sessions on related topics.
- Gain awareness of how climate change may potentially affect the various activities they do and, therefore, their organization's mission, vision, communications, etc.
- Obtain skills to enter into a wider discussion about climate change with their key constituents.

- Identify project partners in order to extend the reach of their influence.

### Topic 2: Increasing Community Engagement/Climate Change

Issue description: From its earliest beginnings, climate change has been subject to immense public scrutiny and debate. There is a wide range of public understanding and acceptance of climate change issues. Some unique barriers exist that may prevent effective public response to the threat of climate change. Now that it is generally accepted that climate change is upon us, the next question people will ask is "How will climate change affect me personally?" How to communicate the relative risks and appropriate responses to climate change is an emerging field, especially when combined with aspects of watershed health.

Objectives: Participants will:

- Be prepared and motivated to learn more at subsequent sessions on related topics.
- Gain understanding of public opinions of Oregonians about natural resources issues and climate change.
- Obtain information about free choice learning, including recent social science research.
- Learn to use tools that will facilitate citizen action.
- Be able to describe, in every-day terms, some of the risks of climate change on the watershed to different audiences with varying levels of understanding of climate change issues.
- Be equipped to revise publications, presentations and other communications to incorporate climate change messages.

### Topic 3: Animals and Plants on the Move/Climate Change

Issue description: Climate change affects ecosystems in many ways, with numerous ramifications for invasive species. Dealing with invasive species is a large part of current watershed restoration work, since that work can spread invasive species. Invasive species will become a greater issue for future ecosystem management. Restoration practices associated with invasive species will have to adapt to climate change. Current and potential invasive species prevention will be essential for successful watershed restoration.

Objectives: Participants will:

- Be prepared and motivated to learn more at subsequent sessions on related topics.
- Gain awareness that an invasive species is an introduced organism that has a harmful effect on the new environment, local economies or human health.
- Learn that a wide range of introduction pathways, both accidental and intentional, lead to invasive species introductions.
- Learn that invasive species have a major impact on biodiversity, the environment, the economy and our quality of life.
- Agree that everyone can be part of the solution to the spread of invasive species
- Know several steps they can take personally and professionally to reduce introduction of invasive species.

### Topic 4: Making Projects Work/Climate Change:

Issue description: Planning for restoration and protection projects may need to change in a world with a changing climate. Resource managers must determine whether current models of ecosystem protection are appropriate and effective in a changing climate scenario. Managers will need to assess the need to restore for future habitats.

Objectives: Participants will:

- Be prepared and motivated to learn more at subsequent sessions on related topics.
- Be able to evaluate their watershed scale assessments and action plans in terms of climate change.
- Be able to evaluate their planning and projects with respect to the potential changes in precipitation and stream flow.