



## Pacific Northwest Drought Early Warning System Kickoff Meeting February 2-3, 2016 Courtyard by Marriott Portland City Center Portland, OR

The [Pacific Northwest DEWS Kickoff Meeting will be held February 2-3, 2016 in Portland, OR](#) to formally launch the Drought Early Warning System. This two-day event will bring together federal, tribal, state, academic, and local partners and stakeholders for an in-depth discussion on drought in the Pacific Northwest, with attention to water, climate, land and emergency management. Specifically, the discussions will center on improving the capacity to meet the information needs of decision makers in the region.

Desired outcomes of the Pacific Northwest DEWS Kickoff Meeting include:

1. Increasing the knowledge and awareness of present decision-support tools and processes, including the National Integrated Drought Information System and its partners
2. Identifying knowledge and information gaps.
3. Developing recommendations for improved early warning, which would include better coordination of integrating, displaying, and distributing climate, weather and water data and information.
4. Developing recommendations for future actions, collaborative research, and decision support tools.
5. Identifying baseline evaluation metrics for drought and its associated impacts.

### Day 1: Tuesday, Feb. 2, 2016

8:30-9:00am	<b>Registration</b>	
9:00-9:35	<b>Welcome</b>	Robin Webb (NOAA/PSD) Lauri Aunan (Advisor to Oregon Gov. Brown)
9:35-10:05	<b>Climate &amp; Drought Outlook</b>	Kelly Redmond & David Simeral (WRRC/DRI)
10:05-10:20	<b>Goals &amp; Objectives</b>	Veva Deheza (NOAA/NIDIS)
10:20-10:35	<b>BREAK</b>	
10:35-11:05	<b>Bridging Drought Impacts to Resilience (Ice Breaker)</b>	John Stevenson (CIRC)

11:05 -11:45	<b>History of Drought in the Region</b> <ul style="list-style-type: none"> <li>State/Regional</li> <li>Ocean conditions</li> </ul>	Kathie Dello (CIRC) & Karin Bumbaco (OWSC) Nick Bond (OWSC)
11:45 – 12:45 pm	<b>WORKING LUNCH</b>	
12:45 - 1:35 pm	<b>How is Drought &amp; Water Managed in the PNW?</b> Federal, Regional & International Perspectives Moderator: Jim Ruff, Northwest Power and Conservation Council	Eve James (Bonneville Power Authority) Mary Mellema (Bureau of Reclamation) Tina Teed (US Army Corps of Engineers)
1:35 – 2:55 pm	<b>State &amp; Tribal Drought Plans &amp; Policies</b> Moderator: Mark Svoboda (NDMC)	David Hoekema (IDWR) Ann Schwend (MT DNRC) Alyssa Mucken (OWRD) Jeff Marti (ECY WA DOE)
2:55 – 3:10	<b>BREAK</b>	
3:10 - 4:10 pm	<b>Federally Sponsored Drought-Related Resources</b> Snapshot of agency resources to help build information networks Moderator: Timi Vann, NOAA <ul style="list-style-type: none"> <li>National Weather Service</li> <li>NOAA Northwest River Forecast Center</li> <li>NOAA National Marine Fisheries Service</li> <li>NOAA Office of Oceanic &amp; Atmospheric Research</li> <li>Natural Resource Conservation Service</li> <li>U.S. Geological Survey</li> <li>U.S. Bureau of Land Management</li> <li>National Interagency Fire Center</li> <li>Environmental Protection Agency</li> <li>Bureau of Indian Affairs</li> <li>Federal Emergency Management Agency</li> <li>Northwest Climate Science Center</li> <li>USDA Climate Hub</li> <li>Climate Impacts Research Consortium</li> </ul>	Katherine Rowden (NWS Spokane) Steve King (NWRFC) Ritchie Graves (NMFS) Claudia Nierenberg (NOAA/OAR) Deb Harms (NRCS) Greg Furher (USGS) Louisa Evers (BLM) John Saltenberger (NIFC) Yvonne Vallette (EPA) Keith Hatch (BIA) Kristen Meyers (FEMA) Gustavo Bisbal (USGS) Bea Van Horne (USDA) Phil Mote (CIRC)
4:10– 4:40	<b>Exploring the benefits of a regional drought early warning system</b> <ul style="list-style-type: none"> <li>What has been learned to date in the PNW DEWS development process</li> <li>Preview of Day 2</li> </ul>	Kathie Dello (CIRC) Karin Bumbaco (OWSC) Alicia Marrs (NOAA/NIDIS) John Stevenson (CIRC)
4:40 pm	<b>Day 1 Adjourn</b>	Alicia Marrs (NOAA/NIDIS)
Evening	<b>Networking Event (no-host)</b>	Henry's Tavern (10 NW 12 <sup>th</sup> Ave)

## Day 2: Wednesday, Feb. 3, 2016

8:30 – 9:00 am	<b>Registration</b>	
9:00 – 9:10	<b>Welcome and Recap of Day 1</b>	Alicia Marrs (NOAA/NIDIS)
9:10 -9:40	<b>Opening Keynote: The U.S. Drought Monitor:</b> How is it developed? How is it used?	Mark Svoboda (NDMC)
9:40 – 10:40 pm	<b>Monitoring and Impacts:</b> Local/Regional/National Tools & Initiatives Moderator: Mike Strobel (NRCS) <ul style="list-style-type: none"> <li>NW Climate Toolbox</li> <li>USGS Low-flow Study</li> <li>OLYMPEX field campaign</li> <li>Fallowed Lands Monitoring</li> <li>NDMC Decision Support Tools</li> </ul>	Phil Mote (CIRC) Christopher Konrad (USGS) Lynn McMurdie (NASA/UW) Forrest Melton (NASA/CSUMB) Mark Svoboda (NDMC)
10:40-10:55	<b>BREAK</b>	
10:55 – 12:00	<b>Diving Deeper into the Needs and Gaps in PNW Drought Early Warning</b> ( <i>small group break out session</i> ) <ul style="list-style-type: none"> <li>Overview of the initial strategy for enhancing drought early warning capacity in the PNW</li> <li>Identification of data and information needs, gaps and vulnerabilities in a PNW DEWS</li> </ul>	Facilitators: Karin Bumbaco (OWSC) Kathie Dello (CIRC/OCS) Alicia Marrs (NOAA/NIDIS) John Stevenson (CIRC)
12-1:00 pm	<b>WORKING LUNCH</b>	
1:00 – 2:30 pm	<b>Prioritizing Actions to Enhance Drought Early Warning</b> ( <i>facilitated small group breakout sessions</i> ) <ul style="list-style-type: none"> <li>Develop metrics to measure the success of a PNW DEWS</li> <li>Prioritize actions to enhance long term drought resilience</li> </ul>	Facilitators: Karin Bumbaco (OWSC) Kathie Dello (CIRC/OCS) Alicia Marrs (NOAA/NIDIS) John Stevenson (CIRC)
2:30 – 2:45	<b>BREAK</b>	
2:45 – 3:30 pm	<b>Incorporating Climate Change into Water Planning</b> Moderator: Nick Bond, OWSC <ul style="list-style-type: none"> <li>Actionable Science for Water Utility Planning</li> <li>Big Wood River Basin Alternative Futures Project</li> <li>Puget Sound State of Knowledge Report</li> </ul>	Kavita Heyn (PWB) John Stevenson (CIRC) Joe Casola (UW/CIG)
3:30– 4:00	<b>Next Steps &amp; Wrap Up</b> <ul style="list-style-type: none"> <li>Review findings from breakout sessions</li> <li>Discuss next steps and roadmap for the PNW DEWS</li> </ul>	Facilitators: Karin Bumbaco (OWSC) Kathie Dello (CIRC/OCS) Alicia Marrs (NOAA/NIDIS) John Stevenson (CIRC)
4:00 pm	<b>Adjourn</b>	

## Relevant Acronyms

Bonneville Power Administration (BPA)  
California State University at Monterey Bay (CSUMB)  
Climate Impacts Group, University of Washington (CIG)  
Climate Impacts Research Consortium (CIRC), a NOAA Regional Integrated Sciences & Applications (RISA) Team  
Columbia River InterTribal Fish Commission (CRITFC)  
Desert Research Institute (DRI)  
Federal Emergency Management Administration (FEMA)  
Idaho Department of Water Resources (IDWR)  
Montana Department of Natural Resources and Conservation (MT DNRC)  
National Aeronautics and Space Administration (NASA)  
National Drought Mitigation Center (NDCM)  
National Interagency Fire Center (NIFC)  
National Oceanic & Atmospheric Administration (NOAA)

- Earth System Research Laboratory (ESRL)/Physical Sciences Division (PSD)
- National Integrated Drought Information System (NIDIS)
- National Marine Fisheries Service (NMFS)
- National Weather Service (NWS)
- Office of Oceanic & Atmospheric Research (OAR)
- Northwest River Forecast Center (NWRFC)
- Western Regional Climate Center (WRCC)

Northwest Power and Conservation Council (NWCouncil)  
Office of Washington State Climatologist (OWSC)  
Oregon Climate Change Research Institute (OCCRI)  
Oregon Climate Service (OCS)  
Oregon Water Resources Department (OWRD)  
Portland Water Bureau (PWB)  
University of Washington (UW)  
U.S. Army Corps of Engineers (USACE)  
U.S. Department of Agriculture (USDA)

- Natural Resource Conservation Service (NRCS)
- U.S. Forest Service (USFS)

U.S. Department of Interior (DOI)

- Bureau of Indian Affairs (BIA)
- Bureau of Land Management (BLM)
- Bureau of Reclamation (BOR)
- Fish & Wildlife Service (FWS)
- Geological Service (USGS)
- Northwest Climate Science Center (NWCSC)

U.S. Environmental Protection Agency (EPA)  
Washington State Department of Ecology (ECY WA DOE)