



Oregon's Drought Readiness Council September 14, 2017 Meeting Notes



Phone meeting hosted by OWRD Salem, OR

Attendees

Brenda Bateman, Oregon Water Resources Department, Drought Readiness Council (DRC) Co-Chair
Aaron Borisenko, Oregon Department of Environmental Quality
Kathie Dello, Oregon Climate Change Research Institute -OSU
David Farrer, Oregon Health Authority
Justin Iverson, Oregon Water Resources Department
Jim Johnson, Oregon Department of Agriculture
Bill Martin, Oregon Office of Emergency Management
Smita Mehta, Oregon Department of Environmental Quality
Alyssa Mucken, Oregon Water Resources Department
Anna Pakenham-Stevenson, Oregon Department of Fish & Wildlife
Wade Peerman, Oregon Department of Environmental Quality
Samantha Phillips, Oregon Water Resources Department
Ken Stahr, Oregon Water Resources Department, Water Supply Availability Committee (WSAC) Chair
Nick Yonker, Oregon Department of Forestry

1. Welcome and Introductions

Brenda Bateman, chaired the meeting, welcoming everyone; participants introduced themselves.

2. Agenda Check

No changes proposed.

3. Approval of August Meeting Notes

No changes proposed.
Members were invited to send any edits to Brenda Bateman.

4. Update on 2017 Water Conditions

Ken Stahr presented a summary of water conditions from the WSAC to the Drought Readiness Council.
See meeting materials.

Highlights and recap include:

- Between June 1, 2017 and September 10, 2017 Oregon measured little to no precipitation.
- Daily high temps in 2017: 2nd warmest summer on record (2015 = 1st) and warmest August on record.
- It was the same for night-time lows: 2nd warmest summer on record (2015 = 1st) and warmest August.
- The second half of September will bring cooler temperatures with some measurable precipitation.
- NOAA has released a forecast for a weak La Niña this winter, which could mean cooler weather patterns.
- Some areas are setting records with low stream flows.
- Monday, recommendations were made to the National Drought Monitor to move the northern half of Oregon into D1- category. Kathie Dello, OCCRI reported that those recommendations were accepted and changes will be reflected in the next update.

- Fire Season has been extreme throughout much of the state. The anticipation of cooler conditions and some precipitation will help. Nick Yonker, ODF reported that more than 700,000 acres have been burned this year.
- Reservoirs are at above average storage for this time of year.
- The Water Supply Availability Committee is not recommending a drought declaration.

5. Harmful Algal Blooms Update

A presentation by Oregon Health Authority (OHA) and Department of Environmental Quality (DEQ)

David Farrer, OHA Presentation - What are Harmful Algal Blooms ? (HABs) Why do we care?

Algal blooms are ancient bacteria (Cyno bacteria). They contain chlorophyll and use photosynthesis to grow. They are one of the best oxygen makers and are able to control their buoyancy in water column to get food and sun. The bacteria is present in all outdoor surface water bodies. Certain conditions cause them to bloom.

Some species when they are in bloom produce toxins that are harmful. There are two classes of toxins: neurotoxins (which can paralyze the diaphragm), and liver toxins (produces effects similar to food poisoning). These toxins contribute to eutrophication, taking oxygen from the water, particularly at night or as the bloom is breaking down. Toxins create problems for public drinking water systems and the public. Dogs and livestock have died after drinking the water. No known human deaths have been reported.

It is the Oregon Health Authority–Public Health Division (OHA) and the Department of Environmental Quality (DEQ) along with their municipal, federal, and county partners that respond to reported outbreaks by monitoring, testing and issuing health advisories on a water bodies. Only a fraction of the lakes get monitored due to funding issues.

Boiling water and camping filters do not remove toxins. Some treatments used by public drinking water systems can be effective in removing cyanotoxins. Coagulation, flocculation, and then filtration are considered effective at removing cyanobacterial cells, but not at removing any extracellular toxins dissolved in the water. Ozone is the most effective at degrading toxins but very expensive. Cyanobacteria are very fragile; breaking them open during treatment can release soluble toxins into the water. Treatment strategies for public drinking water should focus on removing cyanobacterial cells prior to disinfection treatments like chlorination to avoid killing cells, which leads to release of toxin.

Since there is no comprehensive monitoring of lakes and water bodies data it is unclear whether HAB blooms are becoming more common in Oregon. There has been an increased awareness and more reporting by the public. Academic studies internationally have shown more blooms with increasing temperature.

Aaron Borisenko, DEQ Presentation

DEQ has three roles to play with regard to HABs:

1. DEQ will monitor and respond where there is no clear authority/owner of the water body by collecting and analyzing samples. DEQ works closely with OHA to monitor outbreaks.
2. DEQ reports to EPA when water quality is impaired. This triggers a more detailed data collection event (nutrient analysis, temperature assessments, daily fluctuations in pH, dissolved oxygen, etc.)
3. DEQ partners with OHA, to coordinate monitoring and communication efforts.

2017 has been a unique year, due to a wet first half of the year followed by near record-breaking summer heat. Blooms may be more likely to form if they are in contact with phosphorus rich volcanic soil. During a typical year 10 blooms are reported. Thirteen blooms have been reported so far in this year.

It is the responsibility of the owner of lakes and ponds to monitor outbreaks and report them. This year, 32 cattle died from drinking water in the Drews Reservoir. This event triggered an advisory for the neighboring public Cottonwood Reservoir. Samples were collected and tested and an advisory was issued. Staff have not yet been able to return and collect samples; the reservoir is still under an advisory.

There are preventative measures that include managing water temperature, reducing nutrients, which can fertilize the blooms, and increasing flows. Improving streamside vegetation conditions could help to lower water temperatures and retain nutrients on land.

Presenters concluded by offering to review and edit HABs text in the IWRS.

6. NIDIS Webinar Debrief (National Integrated Drought Indicator System)

Ken Stahr, OWRD reported that the NIDIS August webinar reported that water conditions in other parts of the West are being hit by the same late-season flash drought.

NIDIS webinars are being held every other month; they cover weather service outlooks, CIRC projects, and USDA climate hub updates. The next webinar is October 23, 2017. To be a part of the webinar, email Kathie Dello to get on the list. Two in-person meetings are being held later this fall on October 30, 2017 in Olympia WA, and November 2, 2017 in Boise ID.

7. Discussion of the Drought Toolbox

Brenda Bateman asked the group to contribute their thoughts on the utility of governor-declared droughts and the corresponding toolbox that accompanies it. One tool that becomes available during a governor-declared drought is the emergency drought permit, moving folks to head of the queue to have groundwater permits processed. During the past five years, the Water Resources Department (WRD) has approved 88 drought permits, with 80 of them in the Klamath Basin. The majority of these were under the Bureau of Reclamation's now defunct "pay to pump" program. (Well owners were paid by the federal government to pump groundwater, but they were required to show a WRD permit to be eligible.) The Department also approved 40 groundwater transfers under the drought declaration, but these were distributed pretty evenly around the state, with the greatest number in Baker County, Malheur County, Klamath County, and Lane County.

Are there other tools that agencies need to develop?

Would they have to be triggered by a drought declaration or would they already be in place?

Below are highlights of the discussion [*plus a few more comments that came in after the call got cut off*]:

- Declarations don't seem very helpful in terms of alleviating on-the-ground conditions.
- There's concern that drought declarations can scare off tourists and customers.
- The federal government used to require state drought declarations before providing monetary assistance.
- This is no longer the case, making state and federal drought declarations completely independent.
- Counties used to request state drought declarations as a way to get in line for first-come first-served federal funding.
- "Declaration" isn't necessarily the goal. Public awareness, resiliency, and measuring the severity and impacts are the goals. Maybe the declaration itself is immaterial.
- Yes, but the governor could direct counties to report on the severity and impacts as part of the declaration.
- Is it up to this group to work on the drought toolbox? Yes. No one else is working on this right now.
- Stakeholders are asking for tools to protect water instream during drought. Some states that do this own their own reservoirs and can release water for this purpose. Oregon doesn't have this infrastructure.
- Are stakeholders asking for mandatory streamflow programs? Those won't get as strong support as voluntary programs that include financial incentives. Is there a way to create a drought fund to offset costs related to voluntary instream leases or transfers? Are there other voluntary ways to get water instream?
- What about a water conservation rebate program for water efficient equipment, appliances, etc.?
- What about having a state-led water conservation program for starters?
- Develop a long-term resiliency approach as opposed to a short-term reactionary plan.
- That's where the Drought Task Force landed too.

- A long-term approach would require funding, and should help communities get drought-ready with clear metrics / indicators, drought plans, improved/maintained water systems, etc.
- But there should be a short-term approach, too. Also with emergency funds.
- Don't just give money away to compensate for losses; use it to get folks ready for the next drought.
- Drought declarations can trigger requirements to develop and implement conservation plans.
- Drought declarations also help with public awareness. The media picks up on these and broadcasts widely.
- Start the communications process earlier to get the water conditions story out to the public. The bi-weekly water conditions report is a step in the right direction, but it only goes to a few hundred people and we can't customize the content for every locale. We still need a dedicated communications staff and a wider network. Agencies keep trying and failing to get authorization for communications specialists.
- Could the agencies put a joint budget request together for a communications team?
- Justin Iverson, OWRD groundwater manager, explained that during droughts, groundwater is used as a relief valve. Groundwater can only be an effective tool as long as it replenished during wet years. In some areas in Oregon this is not happening and water levels continue to decline. He reminded everyone that emergency drought permits only move applicants to the head of the line; there, they still have to meet all the usual criteria. If the request is beyond the capacity of the resource the answer is "no."

The conference call ended abruptly with music placing everyone on hold. Apologies!

Next meeting

The next meeting will be Thursday, October 12, 2017 at 10:0 at OWRD's office. We'll also make phone-in options available.

The meeting adjourned at 11:30