

## **Water Supply Availability Committee Meeting – February 13, 2018**

Oregon Office of Emergency Management

In-House and Phone Conference – Meeting Notes

### **In-House Attendees**

Ken Stahr – OWRD (Chair)  
Scott Oviatt – NRCS  
Erik Rau – OEM  
Mark Stewart – USGS  
Dar Crammond – USGS (Director of OWSC)  
Jordan Beamer – OWRD

### **Phone Attendees**

Peter Cooper – USBR  
Lauri Aunan – Governor’s Natural Resources Office  
Andy Bryant – NOAA/NWS Portland  
Nick Yonker – ODF  
Margaret Matter – ODA  
Steve King – NOAA/NWS/NWRFC

## **Presentations – Monthly Conditions Update and Water Year Summary**

### **Scott Oviatt**

- Snowpack
  - Statewide SNOTEL snowpack is 39% of normal (25% of normal in 2015). Last year at this time is was 125%. Especially low snowpack across the southern part of the state which missed any significant storm tracks. The good start to the 2018 water year (October and November) has been wiped away; significant change in water patterns starts around November 20<sup>th</sup>. Regionally this winter the jet stream has split down the continental divide, as a result upper Columbia and Snake above normal snowpack and well below normal in Oregon and southern Washington. Basin snowpack index – historic low levels of snowpack in the John Day and Owyhee/Malheur basins. Rest of state in the lowest 10% range. Many SNOTEL stations in Oregon recording lowest or 2<sup>nd</sup> lowest snowpack on record.
- Mountain Precipitation
  - Statewide SNOTEL precipitation is 86% of normal (104% of average in 2015). Last year at this time is was 124%. Basins in Southern Oregon (Klamath, Lake/Goose, Harney) at less than 70% of normal precipitation.
- Streamflow Forecast
  - April to September streamflow forecasts are generally below normal to well below normal statewide. Many forecast points in SC and SE Oregon are forecast to receive less than 50% of the normal median April to September streamflow volume.
    - Lack of snow is driving mechanism
    - Skill of forecast decreases with lower snowpack (esp. in snow-driven basins).

### **Andy Bryant**

- Precipitation and Temperature

- “Stormy days ahead for Oregon’s water supply”. Water year 2018 precipitation thus far across much of the state is well below average, particularly in Central Oregon. January precipitation similar pattern – well below (<50%) average precipitation in parts of John Day, Klamath, and Goose Lake basins. January temperature departures – Oregon basins generally 3-6 °F above average, some above 6 °F. We don’t usually see these type of dry and warm departures (except 2015). Positive note: the mainstem Columbia will likely see average water supply conditions due to northern basins above average precipitation and snowpack.
- Drought Conditions
  - U.S. Drought Monitor – parts of central and SE Oregon with a moderate drought (D1) intensity rating, abnormally dry (D0) for remainder of Oregon east of Cascade crest. The next Drought Monitor will be released on 2/15/18.
- Mid-February outlook
  - 10-day forecast precipitation likely below average
  - Cooler temperatures moving into region
- Mar/Apr/May – 3-month outlook
  - Precipitation outlook – equal chances across the state with no strong indication of large spring precipitation amounts. Chance for cooler temperatures in NE portion of the state.
  - Messaging really important now
    - Chances very slim to catch up, 200-300% of normal snow needed to reach normal April 1 snowpack levels.
    - Average spring precipitation would help reduce demand for early irrigation
    - Carry over reservoir storage looks OK, but problematic for communities without storage supply options
- Water Supply Forecast
  - Water supply forecast is generally very low for the April to September forecast period
    - Forecasts updated on a daily basis using historical temp/precip data
  - Forecasts trending downward for many rivers
    - Owyhee forecasted for 38% of normal
    - John Day at Service Cr – 56% of normal
    - Rogue River - 66% of normal
    - Willamette – 71% of normal; wider error bars (more variable outcome)
  - For streamflow forecasts, generally use the 70% exceedance forecast for low flow/water supply, and 30% exceedance forecast for flooding/operations
  - The 70% exceedance forecast for Owyhee Reservoir inflows, Prineville Reservoir Inflows, and Silvies River near Burns all less than 25% of normal.

**Mark Stewart**

- Current Surface Water Conditions
  - Oregon Map of 28-day average streamflow shows normal (25-75 percentiles) conditions for most gages in the state, with below normal (10-24 percentiles) at gages in the Rogue

and Klamath basins. Much above normal streamflow in the Umatilla basin from an early runoff event.

- Water availability reported at 17 “index” gaging stations in the NRCS SWSI basins
- Comparison of streamflow maps show similar pattern with January 2015 in OR
- Duration hydrograph of 7-day average runoff for Oregon in the normal (25-75 percentiles) range. This is using MDF data for all USGS stream gages.
- Streamflow’s are currently below normal in the Rogue, South Coast, and Klamath basins; normal range for North Coast, Hood, Deschutes, and John Day basins.
- The Oregon Water Science Center (ORWSC) has a new website (<https://www.usgs.gov/centers/or-water>).

### **Ken Stahr**

- Streamflow
  - For WY 2018 state-wide streamflow is around 93% of average, with January streamflow at 90% or average.
  - For the month of January, basins in southern Oregon were well below average (53-75%). The Umatilla and Grande Ronde were well above average with at 138% and 159%, respectively. Umatilla River gage recorded highest measurement (6000cfs), could be due to early snowmelt runoff.
  - WY 2018 streamflow at southern Oregon gages tracking well below long term average, some near or at record low levels. Rarely peaking to normal levels. Without meaningful snowpack streamflow will likely continue below normal.
- Storage
  - Reservoir storage for most basins across the state at or above average at the end of January, but less than capacity.
  - With low inflow forecasts across the state, likelihood of filling remains low.
  - Willamette basin – 12% of capacity, 2% off rule curve
  - Rogue basin – 20-60% of capacity, following rule curve.
  - Klamath basin - 50-66% of capacity with UKL elevation tracking just below average.

### **Peter Cooper**

- USBR Reservoirs
  - Main takeaways: reservoirs are below flood control levels, outflows are at minimum levels, and most reservoirs unlikely to fill by April 1<sup>st</sup>.
  - Scoggins Reservoir (78% full) right on the rule curve, but with low inflows starting to fall behind.
  - Prineville Reservoir (59% full) inflows are very low. Crooked River outflows were scaled down from 80 cfs to 50 cfs, but still not likely to start irrigation season full.
  - Rogue River Reservoirs are all low. USBR is moving water from Howard Prairie Reservoir to Emigrant Lake in anticipation of early irrigation needs.

- Umatilla River Reservoirs are above 50% full but the forecast looks drier with low runoff volume making fill unlikely.
- With below average snowpack and inflows, SE Oregon reservoirs are unlikely to fill this season. There is decent carry-over that will help this irrigation season for downstream users with access to stored water.

**Nick Yonker**

- Fuel Conditions and Outlook
  - La Nina moisture typically arrives in late winter and early spring. There is still hope for cooler, wetter conditions this spring.
  - Southern Oregon typically experiences the most lightning in the state, and the outlook is for dry conditions this spring and summer. Set up from bad fire conditions.

**Lauri Aunan**

- The Governor's Natural Resource Office is very interested in this year's drought conditions, and how they compare with WY 2015.

**Drought Monitor Committee**

- The next report is out on Thursday. The group would like to see the D1 intensity expanded to the south and Cascade Crest.
  - How do Klamath and the SC Oregon look?
  - How to bring in information areas under restrictions, legal impacts of drought?
  - Bring in Justin Huntington into WSAC/DMC to discuss EDDI and Drought Monitor?
- The Drought impact monitoring tool allows for reporting on drought effects. Local Feedback from local emergency managers.
- Klamath and Baker counties looking into drought declaration. Need to include reps from both counties in next WSAC meeting.