

Water Supply Availability Committee/Drought Readiness Council Meeting – April 14, 2021

Phone Conference – Meeting Notes

Attendees

Ryan Andrews – OWRD (Acting Chair)	Scott Oviatt – NRCS
Henry Pai – NWRFC	Larry O’Neill – OCS
Spencer Sawaske – ODFW	Salina Hart – USACE
Jon Rocha – USBR	Carrie Boudreau – USGS
Marc Stewart – USGS	Roxy Nayar – DEQ
Jim Johnson – ODA	Peter Parsons – ODF
Nick Yonker – ODF	Jeff Marti – WDOE

Presentations – update on water supply conditions

Scott Oviatt

- Statewide snowpack measuring 111% of average as of April 14
 - Max = Hood-Sandy-Lower Deschutes at 139%
 - Min = Lake County-Goose Lake at 61%
 - Conditions in Harney County likely not representative for lower elevations
 - Conditions in Lake County-Goose Lake likely elevated due to higher elevation sites in California
 - Rapidly melting out
 - Snowpack melting out at normal timing, however rate of melting out in many locations is very rapid
 - Steep downward trend due to rapid meltout in John Day
- Statewide SNOTEL precipitation measuring 88% of average as of April 14
 - Max = Umatilla-Walla Walla-Willow at 102%
 - Min = Lake County-Goose Lake at 60%
 - Precipitation percentiles over water year to date showing many sites in south-central OR measuring lower tenth percentile for period of record
 - Includes handful of sites measuring lowest on record
 - Conditions averaged over past two water years (561 days) showing trends of long-term drought where sites in Klamath and Lake Counties, as well as some along Cascades, show lowest precipitation percentiles on record
- Streamflow forecast volumes for April through September began incorporating real-time gaging
 - Near normal conditions projected for much of Willamette Valley
 - Normal to above normal conditions projected for NE OR (Umatilla and Grande Ronde)
 - Conditions forecasted below to well below normal for many locations in south-central OR and far eastern OR

Henry Pai (presenting for NWS and NWRFC)

- Precipitation over the water year to date measuring well below average for much of the state

- Few locations are measuring normal or above precipitation, including a small area in Malheur County, pockets of NE OR, and some areas around the Hood region
- Parts of Harney County are measuring below 25% of average
- Precipitation over the past 30 days was far below normal statewide
 - Much of OR east of Cascades received little measurable precipitation (less than 0.5 inches)
 - Much of western OR received less than 3 inches of precipitation over past 30 days
- March temperatures measured normal to below normal for much of the state
 - Coastal OR measured between 3 and 6 degrees below normal
- Recent updates to USDM include D4 classification for portions of Klamath and Lake Counties
- Mid-late April outlook projects dry and warm conditions statewide
 - Little measurable precipitation is expected
- Three-month outlook April through June indicates above average temperatures for much of southern OR and below average precipitation statewide
 - Northern half of OR projected for near normal temperatures
- Long-term outlook for July through September projects above average temperatures statewide, with below normal precipitation for northern OR
- Observed adjusted water year runoff show slight decreases from March
 - Western OR shows negative trend from near normal conditions in NW OR to much below average in SW OR
 - Conditions east of Cascades measuring well below average
- Forecasted runoff for April through September project below normal runoff statewide
 - Few exceptions in Umatilla and west of Baker City, likely due to above normal snowpack conditions
 - Models adjusted for Baker City and Unity Reservoir to better capture snowpack conditions and translation to streamflow
 - Although Baker City observed runoff has been below normal to date, runoff forecasts project above normal for April through September
 - Coastal range runoff forecasts for April through September projected below normal due to timing of runoff
 - Owyhee adjusted downward to better capture impacts from snowmelt

Larry O'Neill

- Only second time D4 classification occurred in Oregon since USDM began around 2000
 - Other occurrence was in Malheur County in 2003
- Entering multi-year drought event which has potential to cause severe impacts compared to single year event
- Surface soil moisture content deteriorated over past week for much of OR and Pacific Northwest as a whole
 - GRACE showing wetness percentile in lower 2% for majority of OR
- Water year to date Standardized Precipitation Evaporative Index translates to D3-D4 conditions in central OR and pocket of Baker County
- Long-term drought indices showing signs of multi-year drought
- Sites in Klamath County measuring less than 50% of normal precipitation, trending lower than WY 2020

- Questions surrounding precipitation gage at Baker City airport and whether it is fully capturing precipitation
 - NWS has serviced station several times
 - Signs point to potential for microclimatic conditions for pocket of Baker County

Jeff Marti

- Washington measuring good snowpack conditions for much of state
- Expecting good water year in terms of runoff
- Drought declarations in Washington rely on water supply forecasts and potential hardships due to drought impacts
 - Threshold for water supply forecasts set at 75%

Carrie Boudreau

- Streamflow measuring below normal for much of OR over past 28 days
 - Some sites near normal scattered throughout Willamette Valley and NE OR
- Many locations measuring much below normal throughout the state
- Upper Klamath Lake measuring about a foot or more below typical elevation
- Many streamgages west of Cascades indicate conditions reflecting hydrologic drought\

Ryan Andrews

- Streamflow over water year to date significantly differs between eastern and western OR
 - Many counties throughout Willamette Valley and coastal OR measuring near normal conditions
 - Elsewhere throughout state, streamflows measuring below to much below normal
 - Max = Polk County at 112%
 - Min = Lake County at 26%
- Streamflow for March measured below normal statewide, with exceptions in Coos and Umatilla Counties
 - Max = Coos County at 102%
 - Min = Lake County at 17%
- 28-day streamflow percentiles show several gages in Klamath County measuring lowest 28-day average on record, where some gages have period of record over 100 years in length
 - Several other gages scattered throughout state measured in lower 10th percentile for 28-day average
 - Many gages over past 28-day period measured below normal streamflow
 - Exceptions in central and NE OR
- Streamflow over water year to date averaging just below 60% of average for eastern OR and about 90% in western OR
- Hydrographs for gages in Lake County indicate streamflows hovered well below normal for much of water year
 - Streamflows for Powder R at Hudspeth Lane in Baker County plateaued recently due to minimal impacts from below normal snowpack

Jon Rocha

- USBR expecting full refill in Burnt, Tualatin, and Umatilla systems

- Many other systems not filling as fast as in past
- Some systems likely to fall short of irrigation demands
- Operation activities
 - Refill: Powder, Rogue, Umatilla, Tualatin, Burnt
 - Irrigation start up: Owyhee, Malheur, Deschutes, Crooked
- Water supply challenges
 - Extremely dry March cause concerns for carryover conditions for next water year
 - Owyhee district operating at 25% reductions in allotment
 - Rogue district exploring late start and early end to irrigation season
 - Potentially release water to prevent tree kill in Rogue
 - Crooked system exploring potential minimum flow targets to benefit carryover
- Wickiup Reservoir already drafting and likely to empty
- Prineville Reservoir could potentially empty and fail to meet winter minimum flow requirements
 - District may rely more heavily on Prineville due to poor storage conditions in Ochoco
- Temperature sequence experienced in Owyhee may have impacted refill dynamics due to fluctuations between warming and cooling temperatures
 - Leads to runoff refilling soil moisture deficit instead of surface runoff

Salina Hart

- USACE systems not likely to fill
- Adjusted 2008 BiOps flow targets in Willamette
- Maximum summer pool restrictions likely in some systems, including Detroit Lake
- Trying to understand impacts from fires on soil moisture content and snowmelt dynamics

Nick Yonker

- High fire potential in SW OR
 - Fires in Coos County and central OR confirmed
- Drought is highest indicator of fire impacts
 - Lightning threats in particular
- Minimal fire potential over next 7 days
 - Near normal conditions for April and May
 - Increased chances for central corridor in June and July

Drought discussions

- DRC concurs with Lake County drought request
- Conditions point towards supporting drought declaration in Baker County – once request is received DRC will re-visit and confirm concurrence with declaration
 - Snowmelt impacts not likely to help in long term due to rapid meltout

Notes

- Next meeting proposed for May 12