

Water Supply Availability Committee/Drought Readiness Council Meeting – April 13, 2022

Phone Conference – Meeting Notes

Attendees

Ryan Andrews – OWRD (Chair)
Bill Martin – OEM
Courtney Crowell – GO
Peter Cooper – USBR
Peter Markos – DEQ
Salina Hart – USACE
Henry Pai – NWRFC
Matt Warbritton – NRCS
Jeff Marti – WDOE

Scott Oviatt – NRCS
Jim Johnson – ODA
Andy Bryant – NWS
Marc Stewart – USGS
Daniel Stoelb – OEM
Curtis Peetz – OEM
Larry O’Neill – OCCRI/OCS
Traci Naile – OEM

Presentations – update on water supply conditions

Scott Oviatt

- Snowpack
 - SWE Delineator is line from Eugene to southern Willawas
 - Last year on 4/13 111% of median statewide; melted out 2-4 weeks early
 - Last month 3/9 81% of median statewide
 - 4/13 83% statewide, was 57% on 4/4
 - Only 3 basins (Hood, Willamette, Umatilla) near or above median
 - Everything in drought requesting counties is below median value - supports drought requests
 - Willamette recovered to median due to recent snow
 - Most everywhere else recovery was too little too late, still below median
 - Very dense snow conditions - near melting point
 - Snowpack not likely to remain in place due to warm temperatures
- Precipitation
 - Water year precipitation 89% of median last year 4/13
 - Was 88% on 3/13
 - Currently 89% on 4/13
 - Pulses of precip events have been driving trend, not sustained precip
 - Many sites in drought requesting counties are measuring lowest to second lowest rankings over past 96-day period (since Jan 8); same signal present since 10/1/2019
- No drought recovery/mitigation over past two winters
- Advise most water users/managers to evaluate forecasts at 70% exceedance values rather than 50%

Andy Bryant

- Continue to see below average temperatures and above average precipitation over near term; hopefully help delay demand for irrigation water
- Precipitation

- Significant precipitation deficits for this water year in drought requesting counties; especially so for past several years
- Past 60-days east of Cascades precip is less than 25% in central/eastern OR
- Historically low precipitation over past three-month period in much of southern OR
- March precip below to well below average much of southern and eastern OR
- April precip through 4/11 well above average most of western OR; trend drops off east of Cascades to below to well below average
- Temperature
 - March temperatures well above average statewide
 - Temperatures below average in April through 4/11
- Outlook
 - Above average precipitation statewide over next 10 days, also below average temperatures
 - April outlook below average temperatures statewide, above average precipitation most of northern OR, southern OR equal chances above/below average
 - Outlook for May-July above average temperatures in SE OR, below average precipitation statewide
 - July-September above average temperatures statewide, equal chances above/below average precipitation

Henry Pai

- WY runoff to date (4/12) below to well below normal everywhere but Willamette Valley and North Coast which are just about average
- April through September forecasts are similar to observed WY runoff - includes first couple weeks of observed streamflow
 - Slight increases perhaps due to late season snowpack and precipitation
- Changes in water supply forecasts since last month are small
 - Exception on Owyhee (increase of 17%)
- No forecast locations in Lake and Deschutes Counties
- Owyhee Dam, Umpqua R, and John Day R are in Malheur, Douglas, and Grant Counties respectively
- Soil buckets in model may be below normal in Umatilla
- Natural Volume Monthly Forecasts show signals of early snowmelt in March, but lower than normal streamflows for April so far
 - Still below average flows for March due to low snowpack
- Forecasts for John Day well below average

Larry O'Neill

- Just because conditions may be near normal, doesn't mean there is excess water
- Drought Monitor
 - D3-D4 conditions covering about 54% of state
 - Over past month: some improvements in and around Umatilla and Morrow Counties and north Oregon Cascades and NW OR; and some degradations throughout southern OR and Wallowa and Baker Counties
 - One year ago D3-D4 coverage 14%

- Many impact reports from Malheur County; probably underestimating severity of drought there
- Conditions
 - Grant County drought indicators support D4 expansion over coming weeks
 - Many southern counties rank lowest amount of precipitation Jan-Mar on record (8th driest on record statewide)
 - Grant County driest 18-month period on record (since 10/2020)
 - Klamath, Lake, and Grant Counties driest 24-month period on record
 - Near perpetual drought since 2000 in Deschutes County with very few periods of recharge, worst 12-month SPEI in history (also 30-month; beginning of drought in March 2020) - similar situation in Grant County

Marc Stewart

- Some improvements in streamflow in NW OR over past month
- NE OR near normal or just below (Meachem CR and Grande Ronde R at Troy)
- Eastern OR near normal to below normal (Shitike Cr and Deschutes R near Culver)
- SE OR below to well below normal (Donner Und Blitzen R, John Day R near John Day, Owyhee R)
- NW OR firmly normal (Nehalem R nr Foss, Luckiamute R)
- SW OR some improvements lately but still below to well below normal (Cow Cr, South Umpqua, Chetco R, Rogue R at Grants Pass, East Fork Ashland Cr)
- Galesville Res in Douglas County lowest amount in past 20+ years, inflows well below median
- Upper Klamath Lake trending similarly to 2020-2021

Ryan Andrews

- Seven counties with Executive Orders, four additional requests (Deschutes, Grant, Lake, and Malheur)
- March streamflow well below average most of central and southern OR
- Near normal in most of NW and parts of NE OR
- Streamflow over water year is well below average throughout majority of state
 - Near normal in Sandy, Hood, North and Mid Coast
- Streamflow percentiles
 - Some record lows in Deschutes, Jackson, and Linn Counties
 - Some improvement to 7-day in parts of western OR
 - Also deterioration in NE OR
- Basin-wide water year streamflow
 - Trending downwards in Rogue and North and South Coast, Malheur Lakes, Malheur
- Hydrographs in drought requesting counties
 - Generally below to well below average throughout water year
 - Few periods of even just average flow
 - Likely early onset of low summer streamflows and earlier regulation due to early snowmelt
 - Little rebound in streamflow even with early snowmelt

Peter Cooper

- Management
 - Irrigation activities already beginning
 - Some reservoirs already drafting
 - Minor flood risk management at Scoggins
- Conditions
 - Probably seen peak runoff into many facilities
 - Outflows outpacing inflows
 - Water supply shortages will occur this season - supplies available this year would not meet already low allocations from last year
 - Below average reservoir content continues at many reservoirs except Scoggins
 - Most reservoirs have much lower content than at this time last year
 - April 1 runoff forecasts decreased by around 25-50% as compared to March 1 forecasts due to dry conditions - snowpack essentially depleted
 - Snowpack essentially depleted, peak runoff likely has passed - inefficient runoff due to dry surface conditions
 - Most reservoirs will not refill fully this season (except Scoggins) and will reach lower peak content than last year
- Irrigation supply reductions are anticipated
- Reservoir conditions and runoff forecasts support drought declarations
- Some increase in storage contents and % of average due to early runoff, but peak season already passed and not enough to make significant impact
- Warm Springs went dry last August, likely to go dry sooner this year
- Beulah went empty near late August, minimum pool required to be maintained
- Unity Reservoir not likely to fill, only 5000 acft additional forecasted runoff
- Crane Prairie and Wickiup similar contents to last year
- Crescent Lake lower than last year
- Prineville Reservoir inflow was lowest on record since 1974; never received less than 100% allocation of first fill, not much (6000 acft) runoff forecasted
- Rogue basin contents near or below contents of last year
- McKay in Umatilla basin below contents from last year, snow above reservoir essentially depleted and contents near peak, not likely to completely refill

Salina Hart

- 53% above minimum and 39% below rule curve in Rogue
- Lost Creek is concerning due to record low contents, lower than last year - focusing on tributary flows for fish habitat and spawning; temperature operations
- Willamette - middle fork doing poorly, coast fork ok, Santiam nearly full at Detroit - capped on refill
- Operations court ordered for downstream fish passage, likely to start refilling at Cougar and Fall Creek on 5/1 and 4/16 respectively
- Willow Creek project refilling nicely - above rule curve
- Adaptively managing based on drier conditions
- Sharing longer term forecasts at public meetings (Rogue on 4/26 and Willamette 4/28)

Notes

- Drought
 - OEM started ORS 401 conversations about declaring statewide - figure out parameters what that would look like
 - Immediate and projected needs
 - OEM working through director to send to Governor's Office - requested on local level but not official yet
 - What are actions to be implemented
 - ORS 536 will still be an expectation prior to ORS 401
- Agrimet network expansion
 - Improved drought monitoring
 - Efforts started and gained steam - speaking with congressional delegation to increase funding to expand monitoring Agrimet network through USBR
 - Stations are sponsored - USBR installs and maintains equipment
 - Effort through USDA to establish soil health monitoring and carbon flux monitoring
 - Mapping exercise to show regions where we could use more monitoring stations
 - Larger working group with more stakeholders to figure out how to move ahead, but first need prospectus to get to state legislators for budget negotiations
- All drought requests are supported
- Next meeting proposed May 11th