

Water Supply Availability Committee/Drought Readiness Council Meeting – March 9, 2022

Phone Conference – Meeting Notes

Attendees

Ryan Andrews – OWRD (Chair)

Bill Martin – OEM

Spencer Sawaske – ODFW

Peter Cooper – USBR

Peter Markos – DEQ

Salina Hart – USACE

Henry Pai – NWRFC

Matt Warbritton – NRCS

Scott Oviatt – NRCS

Jim Johnson – ODA

Andy Bryant – NWS

Marc Stewart – USGS

Tom Elliott – ODOE

Curtis Peetz – OEM

Larry O’Neill – OCCRI/OCS

Kari Salis - OHA

Presentations – update on water supply conditions

Scott Oviatt

- Snowpack
 - Umpqua Valley to Wallowa County delineation – snowpack in north half doing somewhat okay; southern half not very good
 - Compared to last year SWE - 114% 3/9/2021; 81% 3/9/2022
 - Willamette SWE driven by southern Willamette measurement points
 - Willamette rain-on-snow event early March reduced snowpack
 - Only Hood and Blue Mountains (Umatilla) doing ok
 - Klamath Basin individual stations - many less than 50%
 - Snowpack graphs flatlined in many places
 - Slight increase in Grande Ronde primarily due to sites adjacent to Umatilla
 - Owyhee increase primarily due to increased snowpack in sites near Nevada
- SNOTEL Precipitation
 - SNOTEL precipitation 98% of median 3/9/2021; 3/9/2022 88% of median
 - Not making up precipitation deficits from previous dry years
 - 60-day precipitation records showing significant amount of stations with lowest or second lowest on record
 - 29-month precipitation record (past two and a half water years starting with October 2019) showing similar pattern; many sites in Klamath have long-term deficits
- Water supply outlook
 - Nearly all rivers expected to be much less than 50% exceedance for April through September
 - Morrow County sites not much snow, but feed into Willow Creek reservoir
 - Reference current conditions compared to water year peak

Andy Bryant

- Precipitation

- Water year precipitation through 3/8 well below average throughout most of state
- Some beneficial precip in NW and NE
- Major deficit in central/eastern OR and pockets of SW
- Weather systems dominated by high pressure which suppresses precipitation in central and SW
- Although recent precip received doesn't seem too terrible, the actual deficit compared to usual is quite poor
- Temperatures
 - Recent temperatures - generally above average in Cascades and other high elevation locations east of Cascades
- Drought Counties
 - Jefferson and Crook water year precip below 75%; last 60 days below 25%
 - Morrow County water year precip is near average, but past 60 days is less than 50%
 - Klamath County less than 25% and even less than 10% in some areas over past 60 days
- SWE coverage reduced over past two months - lost lot of low and mid elevation snowpack
- Climate outlook
 - Some precipitation activity over next 10 days, but likely not beneficial for central/eastern OR (expected to be well below average)
 - March outlook shows increased probabilities of below average temperatures and above average precipitation statewide
 - April through June signals below average precipitation through most of state; temperatures below average only for NW

Henry Pai

- Well below average observed natural runoff in central and southern OR
- Despite atmospheric river event, runoff forecasts in NW are below where they were last month
- Apr-Sep forecasts below to well below average in western and eastern OR
 - Central and southern are really poor
 - Doing okay in Hood region
- Willamette at Salem hovering around 80% forecast
- Noticeable changes in water supply forecasts since last month - decreases
 - Conditions generally worse than or comparable to last year
 - Some increase for Crooked River but only marginal
- Forecast below average conditions for Umatilla - perhaps due to sensitivity of snow states and soil zone stats

Larry O'Neill

- Some drought improvement in NW OR; expansion of D3 in Jackson/Josephine due to low streamflows; similar in Harney County
 - Potential D4 in Grant and Baker Counties
 - Potential D3 in southern Willamette Valley

- CMOR reports highlight issues with pasture, drying of ponds, low hay production; some private wells going dry in Deschutes County
- Precipitation
 - 8th driest February on record in terms of precipitation
 - 7th driest January-February; much of southern Oregon in top 10 driest
 - Water year not too bad in terms of precipitation - 35th driest, doesn't help with deficit though
 - Past 12-months state is 6th driest
 - Past 24-months state is 8th driest
- Temperatures
 - Much warmer than normal over past two years, especially during summer
- SPEI
 - 24-month SPEI reflects timescale of current drought reflected on USDM
- Over last decade, strengthening of rain shadow effect between windward and leeward side of Cascades, Wallowa, and Blue Mountains - less precipitation on east side, more on west side
- Drought counties
 - Crook County 2nd driest over past 12 months (Mar-Feb); worst SPEI on record; combination of low precipitation and high evaporation has removed so much water from landscape that it is in worst drought on record; same for past 30-months
 - Morrow County 4th driest over past 12 months (Mar-Feb); accruing water deficits with not much recovery over past decade; 2nd worst 12 month SPEI, about same for 30-month
 - Grant County driest 12-month period (Mar-Feb); worst 12-month SPEI on record, same for 30-month
 - Jefferson County 4th driest; worst SPEI 12-month, same for 30-month
 - Klamath County worst SPEI on record past 12- and 30-month period

Marc Stewart

- Strong signals for low streamflows in south and SW
- Lingering effects of last atmospheric river
- Streamflows receding quickly in NW
- Morrow County - Willow Cr all time low streamflow recently
- Jefferson County - really only Shitike Cr that is good, others are well below average
- SW OR - well below 10th percentile, Chetco trending back downwards
- Upper Klamath Lake - BOR saved some water back in January; very low inflow on Williamson

Ryan Andrews

- Drought requests
 - Crook, Jefferson, Morrow Counties requesting
 - Klamath received Executive Order
- February streamflow well below average statewide
 - Max = Baker, Hood @ 73%
 - Min = Coos @ 13%

- Water year streamflow below to well below average statewide
 - Exceptions in North Coast, Mid Coast, Sandy, and Hood basins
 - Min = John Day @ 41%
 - Max = North Coast @ 106%
- 28-day average streamflow percentiles
 - Some improvement following atmospheric river event in Willamette and north/mid coast
 - Well below average throughout most of southern OR
 - Some record lows in Rogue and Umpqua basins
 - NE also showing average to above
- 7-day average streamflow percentiles
 - Above to well above average in Willamette Valley, Hood, Sandy, North and Mid Coast
 - Streams draining east side of Cascades average to above average
 - NE streams also average to above average
 - Some record highs
 - Nehalem, Shitike, Grande Ronde
 - Southern Oregon received little benefit
- Hydrographs for drought counties
 - Crook County
 - Crooked River at 24% over water year to date
 - Well below average flows nearly all year
 - Morrow County
 - Butter Creek at 60% over water year to date
 - Willow Creek at 58% over water year to date
 - Some below to well below average flows at times
 - Jefferson
 - Lake Creek at 64% over water year to date
 - Brief periods of average flows
 - Metolius River at 86% over water year to date
 - Flows mostly in below average percentiles
 - Brief periods of average flows
 - Shitike Creek at 94% over water year to date
 - Mostly average flows with some periods of above to well above average
- Many counties/basins have poor momentum heading into spring in eastern and southern Oregon due to well below average streamflow over consecutive months

Peter Cooper

- Summary
 - Reclamation storage reservoirs continue with winter fill operations
 - No flood risk management or irrigation operations
 - Irrigation districts indicate start up dates are to be determined
 - Below average reservoir content continues, except Scoggins
 - Most reservoirs much lower content than same time last year
 - March 1 runoff forecasts decreased by around 5-25% compared to Feb 1

- Most reservoirs very unlikely to refill fully this season, exceptions in Scoggins, McKay, Unity
- Based on current forecast reservoirs are likely to reach lower peak content than last year
- Irrigation supply reductions anticipated
- Reservoir conditions and runoff forecasts support drought declarations for requesting counties
- Not much change in terms of percent of average over past month, but contents have increased
- Eastern Oregon
 - Owyhee Dam and Reservoir below 25th percentile
 - Warm Springs below 10th percentile; inflow forecasts decreased by 22% since January
 - Beulah below 10th percentile
 - Unity could possibly fill, even on dry year, current forecast would likely fill
 - Phillips in similar shape to last year
- Deschutes
 - Wickiup well below 10th percentile with consistently decreasing inflows since beginning of water year
 - Crescent Lake well below 10th percentile
 - Prineville record low content, forecast for 48% of normal - if forecast met, only peak around 60 kaf which wouldn't cover contracted storage
 - Ochoco record low content, 53% of normal forecast - would likely peak similar to last year
- Rogue
 - Record low contents in Howard Prairie Dam and Lake and Hyatt
 - Emigrant also at record low
- Umatilla
 - McKay probably close to fill unless forecast decreases
- Tualatin
 - Early March atmospheric river helped recovery from dry February

Salina Hart

- Rogue drawdown in winter, start refill as hydrology allows
 - Lower than last year
 - Working closely with partners to release minimums to benefit biological flows, big impact on recreation
- Willamette has much variability in terms of hydrology and reservoir size
 - Not much on Middle Fork Willamette, trying to improve refill by reducing outflows (particularly at Lookout Point)
 - Stop generating power and focus on lower comparative flow for biologicals
 - Fall Creek court order hold at 700 elevation to ensure flood risk management, holding until April/May - reduces likelihood of refill; same kinds of operation at Cougar
 - Managing similar to last year in terms of meeting minimums in tributaries and then mitigate in mainstem as possible

- Dorena Lake might fill with next event; same with Blue River and Green Peter
 - Try to improve Lookout Point by releasing at Hills Creek
- More deep drawdowns proposed for next fall/winter, investigations ongoing
 - Idea is to keep reservoirs low so fish can find intake of outlet, court mandated
- Willow Creek project slightly above rule curve

Discussion

- County drought requests supported for Crook, Jefferson, and Morrow
- April 13th next meeting