

Pacific Northwest Region Water Supply Update

July 9, 2015

Hot and dry conditions continued through the month of June across the Pacific Northwest causing high irrigation demand, low natural stream flows and warm water temperatures across the region. Many sites experienced near record and/or record warm temperatures during June with very little precipitation. Boise, Idaho reported the warmest June since 1869 while Spokane, Washington reported the warmest June on record.

Irrigation demand has been extremely high with reservoirs being drawn down much earlier than usual. Shortages are expected in many basins including eastern Oregon, the Yakima, and central and southwest Oregon. The upper Snake, Boise and Payette basins will have adequate irrigation supplies. An early end to the irrigation season is expected in the driest basins this summer with very low reservoir carryover storage across the region by the end of the water year. June natural stream flows were very low with many sites having receded to late summer levels by the end of the month. Water temperatures for fish migration in the main stem Columbia and tributaries have risen to temperatures usually experienced in August. Currently, Grand Coulee and Hungry Horse dams are providing flows for fish migration in the lower Columbia River and the Snake River basin reservoirs provided flow for the lower Snake River as required by the Biological Opinion.

Pacific Northwest Region Water Supply Update June 4, 2015

Below average water supply conditions continued in May in spite of above average precipitation in Southern Idaho. Irrigation shortages and low carryover storage is still expected across most of the region. The dry conditions in Washington and Oregon continued through May and did not improve the water supply outlook. Southern Idaho measured above average precipitation during May increasing inflows and slightly reducing irrigation demand. Reservoir systems across the region are currently being drawn down for irrigation and flow augmentation for salmon recovery in the Columbia is in full swing.

Irrigation shortages and an early end to the irrigation season are expected in the eastern Oregon basins due to low reservoir levels and minimal runoff. The upper Snake, Boise and Payette basins will have adequate irrigation supplies due to good carryover storage but are not expected to have much surplus storage at the end of the season. All reservoirs in the Yakima basin filled, but with the lack of snowpack there was very little natural flow available for irrigation and the storage will be depleted earlier than normal. The current irrigation forecast for the Yakima call for a full supply to the senior water right holders and a 44% supply for the junior water right holders. Central Oregon basin reservoirs will have tight irrigation supplies and the Rogue basin will have irrigation shortages similar to other drought years. With the dry conditions, PN Region reservoir storage at the end of the irrigation season will be depleted with very low carryover into water year 2016.

The current 30- and 90-day outlooks have a greater chance of above average temperatures and equal chances of below and above average precipitation over much of the region, the exception being the eastern Idaho where there is a greater chance of above average precipitation.

	Snowpack % of median	Water Year Precipitation % of avg.	Forecasted Runoff % of avg.	Reservoir Storage % full	Allocations
Yakima (WA)	n/a	96	28	90	44% to junior users
Flathead/Hungry Horse (MT)	n/a	96	60	90	n/a
Crooked (OR)	n/a	84	20	68	n/a
Rogue (OR)	n/a	88	n/a	51	n/a
Boise (ID)	n/a	87	55	93	n/a
Payette (ID)	n/a	79	35	99	n/a
Upper Snake (ID)	n/a	87	63	90	n/a
Columbia Basin (Columbia R at the Dalles)		90	71		

Pacific Northwest Region Water Supply Update April 24, 2015

Dry and warm conditions across the Pacific Northwest Region during the winter and spring months of water year 2015 have caused much below average water supply conditions region wide. Precipitation in January and February was below average with much of the precipitation falling as rain rather than snow. This rain helped to keep the streamflows high but did not allow for much snow accumulation at the low and mid elevations. March conditions were also very dry with warm temperatures and as a result, there was a rapid melt of the low elevation snowpack and unusually high stream flow peaks in March which may end up being the seasonal peak in some southern basins. Current basin conditions in most areas, including remaining snowpack, are more representative of conditions expected in early June of an average year.

Irrigation diversions started at least two weeks earlier than average and at much higher rates. Most reservoirs are being drawdown early since natural flows are low and storage is being used to supply irrigation water. Irrigation shortages are expected in eastern Oregon basins due to low reservoir levels and minimal runoff. The upper Snake, Boise and Payette basins will have adequate irrigation supplies due to good carryover storage but are not expected to have much surplus storage at the end of the season. All reservoirs in the Yakima basin are nearly full but the basin has an extremely low a snowpack. As a result natural flows are low and storage will be depleted earlier than normal. The current forecast for the Yakima is for some shortages and calls for a 60% curtailment for the junior water right holders. Central Oregon basin reservoirs will not completely fill but are expected to have adequate irrigation supply. Rogue basin reservoirs will not fill causing irrigation shortages.

Spring and early summer could still help the water supply situation by increasing streamflows and reducing irrigation demand. However, the period of precipitation would have to be prolonged to make much of an impact. The current 6- to 10-day outlook calls for warm and dry conditions. The 30- and 90-day outlooks have a greater chance of above average temperatures and equal chances of above or below average precipitation in the next 30 days and a greater chance of warm temperatures and above average precipitation in the 90-day period.

	Snowpack % of median	Water Year Precipitation % of avg.	Forecasted Runoff % of avg.	Reservoir Storage % full	Allocations
Yakima (WA)	23	90	38	99	60% to junior users
Flathead/Hungry Horse (MT)	81	106	88	86	n/a
Crooked (OR)	10	87	12	79	n/a
Rogue (OR)	89	13	n/a	57	n/a
Boise (ID)	56	86	64	86	n/a
Payette (ID)	38	81	46	88	n/a
Upper Snake (ID)	62	81	78	85	n/a
Columbia Basin (Columbia R at the Dalles)		88	83		

Pacific Northwest Region Water Supply Update

October 17, 2014

The PN Region is experiencing beautiful fall weather two weeks into the new water year; in this case beautiful being defined as mild and dry. Irrigation season is wrapping up and most field crops have been harvested; fruit harvest is in full spring. While the pleasant weather has been helpful for harvesting, we hope it is a temporary condition and that winter moisture patterns will soon set up. Unfortunately, the latest winter forecasts (Oct. 16 issuance) indicate an increased probability for a warmer and drier winter, based mostly on predicted El Nino conditions. While not positive news, keep in mind there is a lot of uncertainty attached to long range weather forecasts (or even next week's forecast for that matter), and any outcome is possible. A slow start to the water year can be followed by a quick recovery, as occurred last February in many PN basins. Snowpack typically begins to build by late November and will begin to tell a story by late December. A continuation of drought conditions this winter would lead to a very dire situation in 2015 for many basins in Oregon where very little (or no) reservoir carryover exists currently. Elsewhere, carryover is near average and would at least buffer the effects of a dry winter. The following chart reflects WY 2014 data, as it is too early in WY 2015 for meaningful data.

	Snowpack % of avg.	Water Year Precipitation % of avg.	Runoff WY2015 % of avg.	Reservoir Storage % full	Allocations
Yakima (WA)	n/a	94	105	31	n/a
Flathead/Hungry Horse (MT)	n/a	107	124	92	n/a
Crooked (OR)	n/a	92	49	53	n/a
Rogue (OR)	n/a	76	n/a	16	n/a
Boise (ID)	n/a	92	88	37	n/a
Payette (ID)	n/a	88	96	57	n/a
Upper Snake (ID)	n/a	119	113	42	n/a
Columbia Basin (Columbia R at the Dalles)	n/a	97	104	n/a	n/a