

Oregon Water Supply and Spring Flood Potential Outlook as of March 9th, 2010

Below-normal streamflow volume is anticipated for all Oregon basins for the coming spring and summer. Below-normal precipitation and above-normal temperatures in February resulted in notably lower water supply forecasts for almost all basins. Significant precipitation and snowfall accumulation is possible through the spring, and significant changes in the water supply forecasts are possible the next couple months. However, seasonal precipitation totals are very likely to remain below-normal, even with a wet spring. With the below-normal precipitation and snowpack, the potential for spring snowmelt flooding is very low in Oregon.

The driving factor in the below-normal water supply forecasts is relatively warm temperatures that have been associated with most precipitation events from late December through February. Although seasonal precipitation totals are only slightly below-normal, mid-elevation snowpack (2000 to 3500 ft elev) was almost non-existent as of the end of February.

NOAA's temperature and precipitation outlook for the spring calls for the persistence of El Niño conditions in the tropical Pacific, resulting in an enhanced possibility of continued above-normal temperatures and below-normal precipitation, especially for the northern part of the state. Visit the climate prediction web page at www.cpc.ncep.noaa.gov for more information on seasonal outlooks.

Please note that NWS Portland is assessing the usefulness of the water supply outlook in this text form. If you use this product, please contact Andy Bryant, service hydrologist as NWS Portland, via email at andy.bryant@noaa.gov. Your input and comments would be greatly appreciated.

The next update of this outlook will be issued by April 12th.

Snowpack Across Oregon

Snowpack as of March 1st was below-normal, except for the Owyhee, Malheur, and Harney basins in southeast Oregon, which were near normal. The following table shows percent of normal snowpack. Data is provided by the Natural Resources Conservation Service, and is based on SNOTEL and snowcourse reports. `Change` indicates the change in percent of normal from the previous month.

LOCATION	PCT OF NORMAL	CHANGE
...CENTRAL AND EASTERN OREGON...		
KLAMATH BASIN	69	-8
LAKE COUNTY/GOOSE LAKE BASINS	80	-15
HARNEY COUNTY BASINS	100	+9
OWYHEE AND MALHEUR BASINS	109	+9
GRANDE RONDE, POWDER, BURNT AND IMNAHA	79	-4
UMATILLA, WALLA WALLA, WILLOW, ROCK, AND LOWER JOHN DAY BASINS	68	-11
UPPER JOHN DAY BASIN	76	-6
UPPER DESCHUTES AND CROOKED BASINS	59	-7
LOWER DESCHUTES AND HOOD BASINS	49	-13
...WESTERN OREGON...		
SANDY BASIN	50	-9
WILLAMETTE BASIN	38	-8
ROGUE AND UMPQUA BASINS	64	-1

Precipitation Across Oregon

Precipitation totals are normal to slightly below-normal across Oregon for the first four months of the 2010 water year. January precipitation totals ranged from 87 to 135 percent of normal. The table below shows precipitation totals in terms of percent of normal for February and the 2010 water year thus far. `Change` indicates change in the seasonal percent of normal from the previous month.

BASIN	PERCENT OF AVG FOR	FEB	OCT-FEB	CHANGE
...CENTRAL AND EASTERN OREGON...				
KLAMATH (OREGON ONLY)		65	82	-4
LAKE COUNTY/GOOSE LAKE		48	84	-8
HARNEY/MALHEUR BASIN		77	100	-5
OWYHEE/MALHEUR		57	89	-8
GRANDE RONDE/BURNT		51	84	-6
UPPER JOHN DAY		67	91	-4
UMATILLA/LOWER JOHN DAY		63	100	-8
UPPER DESCHUTES/CROOKED		68	96	-6
HOOD/LOWER DESCHUTES		63	93	-7
...WESTERN OREGON...				
WILLAMETTE VALLEY		57	79	-5
ROGUE/UMPQUA		59	79	-4

Major Irrigation Reservoirs

At the close of February, 1,284,000 acre-feet of water was stored in 25 major irrigation reservoirs in Oregon. The current storage represents 62 percent of average, and is 40 percent of storage capacity. The current storage is 89 percent of storage for this same time last year. The fact that mid-elevation snowpack is much below normal means spring inflows to reservoirs are likely to be very low if snowpack totals don't increase significantly during the spring. Reservoir data is provided courtesy of the Natural Resources Conservation Service.

Current and Forecast Streamflow

observed streamflow in February was generally below-normal across Oregon, continuing the trend of the previous two months. Forecast streamflow volumes for the spring and summer are also below-normal mainly due to the low snowpack.

The forecast for the Columbia River at The Dalles, which is a good index of conditions across the Columbia basin, is 74% of average for the January-July period. This is a 7% drop from the previous month and is significantly lower than this same time last year.

The following table summarizes the forecasts for selected rivers, updated March 5th. These forecasts are based on observed precipitation, snowpack and streamflow and assume 75% of normal precipitation in March and normal precipitation thereafter. `Change` indicates the change in percent of normal from the previous month.

W A T E R S U P P L Y F O R E C A S T S

...FORECAST AND AVERAGE ARE IN THOUSANDS OF ACRE-FEET...
 ...`%` IS PERCENT OF AVERAGE BASED ON 1971 - 2000 NORMALS...
 ...`CHANGE` INDICATES % OF NORMAL DIFFERENCE FROM LAST MONTH...

STREAM AND STATION	PERIOD	FORECAST	%	AVERAGE	CHANGE
COLUMBIA RIVER THE DALLES	JAN-JUL	71800.0	67	107300.	-7
OWYHEE RIVER OWYHEE RES INFLOW	MAR-JUL	320.0	52	613.	-10
MALHEUR RIVER NEAR DREWSEY	MAR-JUL	75.0	68	110.	0
N.F. MALHEUR RIVER					

BEULAH RES INFLOW	MAR-JUL	58.0	72	81.	-1
BURNT RIVER					
NEAR HEREFORD	MAR-JUL	32.0	63	51.	-6
POWDER RIVER					
NEAR SUMPTER	MAR-JUL	48.0	69	70.	-4
IMNAHA RIVER					
IMNAHA	MAR-JUL	225.0	75	301.	-5
GRANDE RONDE RIVER					
LA GRANDE	MAR-JUL	173.0	69	249.	-4
TROY	MAR-JUL	1170.0	74	1578.	-6
UMATILLA RIVER					
NEAR GIBBON	APR-JUL	50.0	68	73.	-13
PENDLETON	APR-JUL	100.0	67	149.	-14
S.F. WALLA WALLA RIVER					
NEAR MILTON	APR-JUL	38.0	72	53.	-13
M.F. JOHN DAY RIVER					
RITTER	APR-JUL	86.0	70	123.	-11
N.F. JOHN DAY RIVER					
NEAR MONUMENT	MAR-JUL	435.0	73	597.	-10
JOHN DAY RIVER					
SERVICE CREEK	MAR-SEP	800.0	69	1153.	-11
DESCHUTES RIVER					
BENHAM FALLS	APR-SEP	385.0	73	528.	-4
CROOKED RIVER					
PRINEVILLE RES INFLOW	MAR-JUL	105.0	57	184.	-2
OCHOCO CREEK					
OCHOCO RES INFLOW	MAR-JUL	18.4	51	36.	-4
MCKENZIE RIVER					
NEAR VIDA	APR-SEP	930.0	77	1201.	-5
S. SANTIAM RIVER					
WATERLOO	APR-SEP	500.0	85	587.	-2
N. SANTIAM RIVER					
MEHAMA	APR-SEP	610.0	73	834.	-4
WILLAMETTE RIVER					
SALEM	APR-SEP	3980.0	83	4804.	-2
CLACKAMAS RIVER					
ESTACADA	APR-SEP	545.0	73	748.	-8
N. UMPQUA RIVER					
LEMOLO LK INFLOW	APR-SEP	105.0	70	151.	-2
ROGUE RIVER					
RAYGOLD	APR-SEP	560.0	63	889.	-4
CHEWAUCAN RIVER					
NEAR PAISLEY	MAR-JUL	55.0	62	89.	-14
SILVIES RIVER					
NEAR BURNS	APR-SEP	73.0	74	99.	+12
WILLIAMSON RIVER					
BELOW SPRAGUE	APR-SEP	240.0	62	385.	-12
SPRAGUE RIVER					
NEAR CHILOQUIN	APR-SEP	150.0	65	230.	-9
KLAMATH RIVER					
UPPER LAKE INFLOW	APR-SEP	315.0	61	515.	-9

These forecasts are selected from those prepared by: National Weather Service, Natural Resources Conservation Service, and B.C. Hydro and Power Authority. For various project inflows, the forecasts have been coordinated with the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation. For further details, visit www.nwrfc.noaa.gov/water_supply/water_supply.cgi and www.cnrfc.noaa.gov/water_supply.php.

Spring Flood Potential Across Oregon

Flooding caused by spring snowmelt is very unlikely this year due to the below-normal snowpack and precipitation, and the likelihood of continued drier-than-normal conditions through the spring. For spring peak stage and flow forecasts for specific rivers in Oregon, visit www.nwrfc.noaa.gov/peak/peak.cgi.