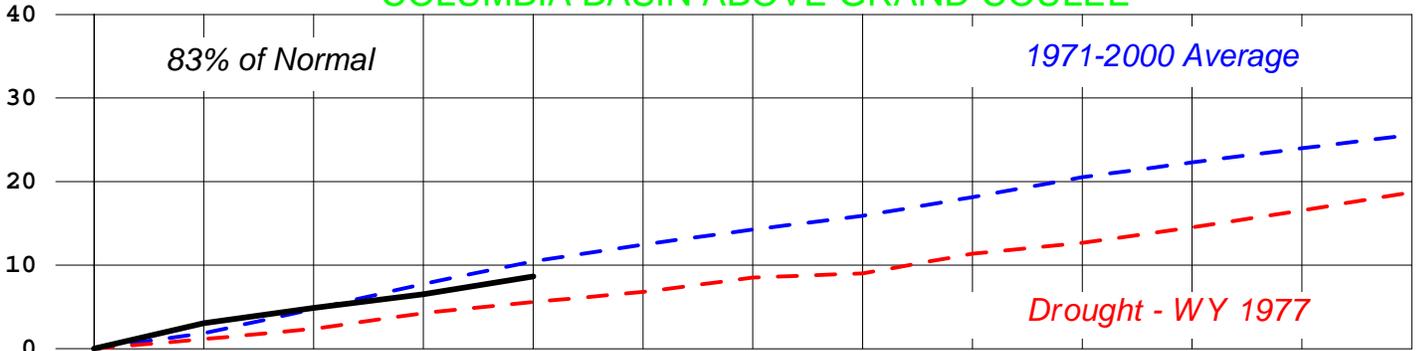
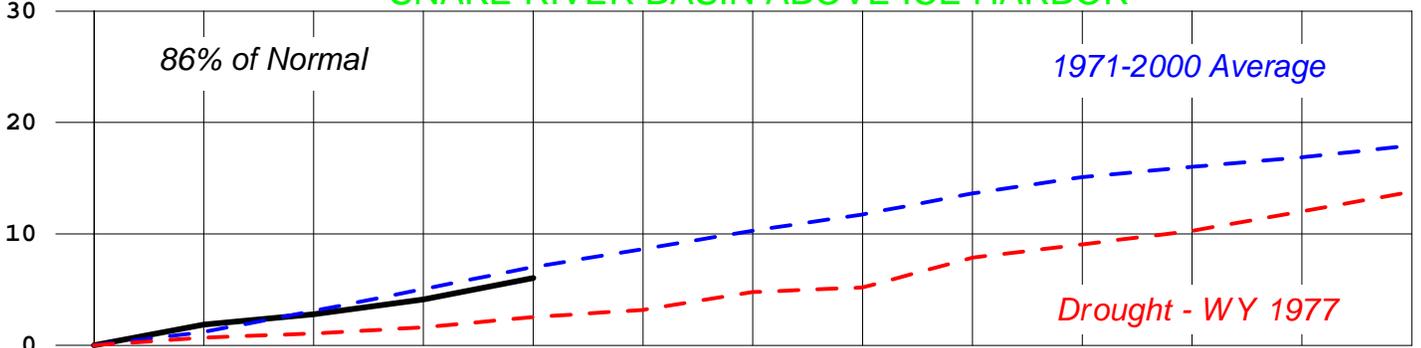


CUMULATIVE PRECIPITATION WATER YEAR 2010

COLUMBIA BASIN ABOVE GRAND COULEE



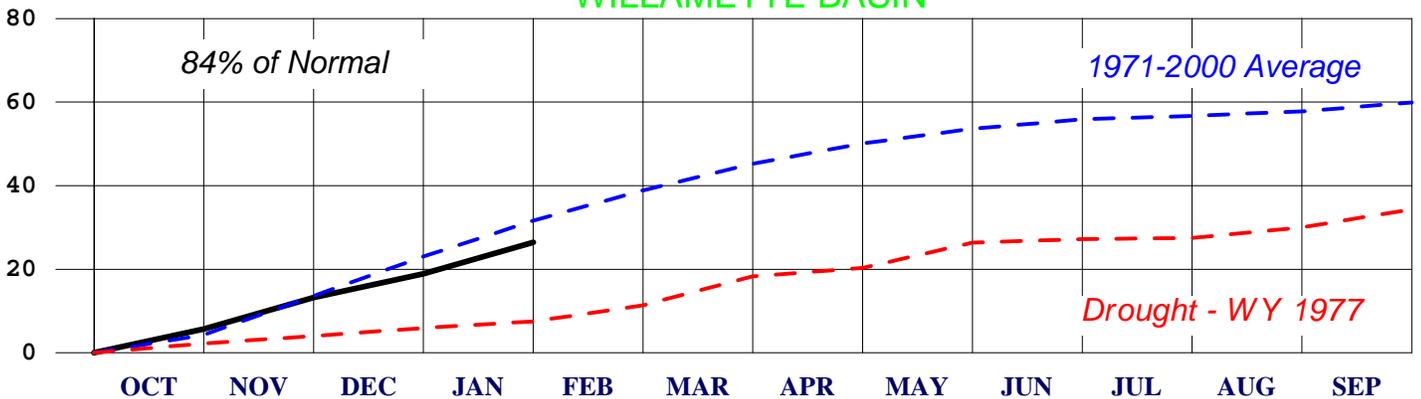
SNAKE RIVER BASIN ABOVE ICE HARBOR



COLUMBIA BASIN ABOVE THE DALLES



WILLAMETTE BASIN



ACCUMULATED PRECIPITATION IN INCHES

(Monthly Summary - jan 2010)

DIVISION	..JAN TO DAY 31..		OCT - JAN....		
	OBSD	DEP	PCT AV	OBSD	DEP	PCT AV
COLUMBIA ABOVE COULEE	2.14	-0.57	79.	8.65	-1.81	83.
SNAKE RV AB ICE HARBOR	1.91	-0.07	96.	6.03	-1.00	86.
COLUMBIA AB THE DALLES	2.42	-0.37	87.	8.76	-1.50	85.
COLUMBIA AB CASTLEGAR	3.28	-0.73	82.	12.45	-2.68	82.
KOOTENAI	2.45	-0.32	88.	9.29	-1.58	85.
CLARK FORK	1.21	-0.57	68.	4.88	-1.60	75.
FLATHEAD	1.51	-0.74	67.	7.56	-1.23	86.
PEND OREILLE/ SPOKANE	2.65	-1.23	68.	11.32	-3.06	79.
NORTHEAST WASHINGTON	1.91	0.05	103.	7.49	-0.12	98.
OKANOGAN	1.74	0.01	100.	5.82	-0.67	90.
EAST SLOPES WASH CASC.	5.43	-1.26	81.	18.46	-4.77	79.
CENTRAL WASHINGTON	1.29	0.23	122.	3.79	-0.43	90.
UPPER SNAKE	1.87	-0.38	83.	6.09	-1.76	78.
SNAKE RIVER PLAIN	1.07	-0.07	94.	3.51	-0.59	86.
OWYHEE/ MALHEUR	1.41	0.16	113.	4.27	-0.15	97.
SALMON/ BOISE/ PAYETTE	2.59	0.10	104.	7.94	-0.83	90.
BURNT/ GRANDE RONDE	1.89	0.04	102.	6.16	-0.66	90.
CLEARWATER	2.97	-0.64	82.	10.24	-2.70	79.
SOUTHEAST WASHINGTON	1.76	-0.48	79.	6.61	-2.01	77.
UPPER JOHN DAY	1.80	0.19	112.	5.79	-0.29	95.
UMATILLA/ LWR JOHN DAY	2.47	0.55	129.	7.72	0.56	108.
UPR DESCHUTES/ CROOKED	2.51	0.41	120.	7.17	0.11	102.
HOOD/ LOWER DESCHUTES	4.60	0.28	106.	15.45	0.05	100.
NW SLOPE WASH CASCADES	10.84	-1.82	86.	43.23	-3.79	92.
SW WA CASCADES/COWLITZ	9.28	-1.04	90.	32.50	-5.48	86.
WILLAMETTE VALLEY	7.56	-1.02	88.	26.41	-5.22	84.
ROGUE/ UMPQUA	5.51	0.40	108.	15.93	-3.24	83.
KLAMATH BASIN	2.82	0.00	100.	8.15	-1.32	86.
LAKE COUNTY-GOOSE LAKE	1.53	0.11	108.	4.75	-0.39	92.
HARNEY/ MALHEUR BASIN	1.61	0.42	135.	4.68	0.21	105.

Columbia River Basin division values are computed by utilizing un-weighted precipitation amounts from key stations in each area.

Precipitation normals are based on 1971-2000 historical data.

Please contact NWRFC for further information: (503) 326-7291.

NORTHWEST RIVER FORECAST CENTER PORTLAND OR

PRECIPITATION, TEMPERATURE, SNOW, AND STREAMFLOW SUMMARIES

jan 10

WEATHER SUMMARY

A SERIES OF PACIFIC SYSTEMS BROUGHT HEAVY RAIN AND SNOW TO THE NORTHWEST DURING THE FIRST WEEK OF THE YEAR. BY THE SECOND WEEK OF JANUARY...A SPLIT UPPER LEVEL JET STREAM SET UP OVER THE WESTERN U.S. THIS ALONG WITH SOUTHERLY FLOW AT THE MID AND LOWER LEVELS KEPT TEMPERATURES UNSEASONABLY WARM FOR MUCH OF THE REGION...AND PRECIPITATION MAINLY LIGHT.

PRECIPITATION SUMMARY

January precipitation was: 79 percent of normal (1971-2000) at Columbia above Coulee, 96 percent of normal at the Snake River above Ice Harbor, and 87 percent of normal at Columbia above the Dalles.

Seasonal (October through January) precipitation was: 83 percent of normal (1971-2000) at Columbia above Coulee, 86 percent of normal at the Snake River above Ice Harbor, and 85 percent of normal at Columbia above the Dalles.

TEMPERATURE SUMMARY

The 37 station temperature index for the Pacific Northwest departed +5.5 degrees from normal relative to the 1971-2000 normals. Mean temperature departures ranged from -0.2 to 8.0 degrees.

General Summary !

The split flow pattern that impacted the Columbia-Snake basin in early Winter has been replaced by a strong southerly jet which is directing storms into California. Consequently Northern basin areas had below average January precipitation at 60 to 80 percent. In the Southern reaches of the drainage January precipitation ranged from 85 to 120 percent. Warm temperatures basinwide prevented the normal snow accumulations during January. Lastly, it is clear that we are in an El Nino pattern. Floods in California and the Southwest US, dry warm conditions in the Northwest and floods in Peru all indicate an El Nino year. Because of this condition and the NOAA Climate Center's dry forecast for February, a weight of 60 percent was applied to precipitation in the month of February. This resulted in a sharp drop in expected Spring streamflow for all areas.

Snow Summary !

Warm conditions during January prevented the normal snow accumulations over most of the Columbia-Snake basin. February 1st snow water equivalents (SWE's) range from 80 to 90 percent in Canada to 60 to 70 percent in much of the Snake River drainage. Most of the basin has February 1st SWE's in the 65 to 80 percent range. West of the Cascades February 1st SWE's are in the 50 to 70 percent range.

Streamflow Summary !

Streamflow in January was below average in the entire drainage area. The Upper Columbia-

Kootenai rivers and the Upper Snake river area had the best January streamflow at 80 to 90 percent. Most of the remaining basin area had streamflow at the 60 to 80 percent level. Lowest January flows were found in the SE Oregon basins and in the Spokane basin in Idaho at 50 to 60 percent.

Lower than average snow accumulations and a fairly dry January especially in northern areas coupled with an anticipated dry February due to El Nino conditions has produced sharp drops in the expected Spring streamflow. On the average streamflow forecasts dropped around ten percent from the January 1st levels. The forecast for the Columbia River at The Dalles has dropped to near the 70 percent of the 30-year average.

See http://www.nwrfc.noaa.gov/water_supply/ws_fcst.cgi for detailed water supply forecasts.

MONTHLY PRECIPITATION AND TEMPERATURE RECORDS

Partial list of record high and low temperatures in degrees (F) are listed below.

Precipitation is reported in inches.

Please see the complete list of records at the National Weather Service Field Offices Climatology Web pages.

01/01 RECORD HIGH TEMPERATURE OF 48 DEGREES WAS SET AT TWIN FALLS ID.

RECORD SNOWFALL OF 6.4 INCHES WAS SET AT KALISPELL MT.

RECORD RAINFALL OF 1.25 INCHES WAS SET AT PORTLAND OR.

01/02 RECORD SNOWFALL OF 18.0 INCHES WAS SET AT KALISPELL MT.

01/04 RECORD SNOWFALL OF 5.0 INCHES WAS SET AT RITZVILLE WA.

RECORD RAINFALL OF 0.71 INCHES WAS SET AT SEATTLE WA.

01/05 RECORD SNOWFALL OF 7.5 INCHES WAS SET AT SPOKANE WA.

01/06 RECORD RAINFALL OF 1.22 INCHES WAS SET AT SEATTLE-TACOMA WA.

RECORD HIGH TEMPERATURE OF 56 DEGREES WAS SET AT THE DALLES OR.

01/07 RECORD PRECIPITATION OF 1.47 INCHES WAS SET AT KELLOGG ID.

RECORD RAINFALL OF 4.82 INCHES WAS SET AT OLYMPIA WA.

RECORD RAINFALL OF 2.29 INCHES WAS SET AT SEATTLE-TACOMA W.

01/08 RECORD HIGH TEMPERATURE OF 67 DEGREES WAS SET AT THE DALLES OR.

RECORD HIGH TEMPERATURE OF 46 DEGREES WAS SET AT IDAHO FALLS ID.

01/09 RECORD HIGH TEMPERATURE OF 57 DEGREES WAS SET AT OLYMPIA WA.

01/10 RECORD HIGH TEMPERATURE OF 57 DEGREES WAS SET AT QUILLAYUTE WA.

RECORD RAINFALL OF 2.13 INCHES WAS SET AT QUILLAYUTE WA.

01/11 RECORD HIGH TEMPERATURE OF 61 DEGREES SET AT BELLINGHAM WA.

RECORD RAINFALL OF 4.59 INCHES WAS SET AT QUILLAYUTE WA.

RECORD HIGH TEMPERATURE OF 67 DEGREES WAS SET AT MEDFORD OR.

01/12 RECORD HIGH TEMPERATURE OF 62 DEGREES WAS SET AT THE DALLES OR.

01/14 RECORD RAINFALL OF 3.41 INCHES WAS SET AT QUILLAYUTE WA AIRPORT.

01/15 RECORD RAINFALL OF 2.27 INCHES WAS SET AT QUILLAYUTE WA.

RECORD HIGH TEMPERATURE OF 59 DEGREES WAS SET AT MEDFORD OR.

RECORD HIGH TEMPERATURE OF 52 DEGREES WAS SET AT PULLMAN WA.

01/16 RECORD HIGH TEMPERATURE OF 57 DEGREES WAS SET AT QUILLAYUTE WA.

01/17 RECORD HIGH TEMPERATURE OF 62 DEGREES WAS SET AT QUILLAYUTE WA.

01/18 RECORD HIGH TEMPERATURE OF 49 DEGREES WAS SET AT MULLAN PASS ID.

01/19 RECORD HIGH TEMPERATURE OF 52 DEGREES WAS SET AT MULLAN PASS ID.

01/26 RECORD LOW TEMPERATURE OF -18 DEGREES WAS SET AT IDAHO FALLS ID.

01/27 RECORD LOW TEMPERATURE OF -29 DEGREES WAS SET AT IDAHO FALLS ID.

RECORD LOW TEMPERATURE OF -10 DEGREES WAS SET AT POCA TELLO ID.

US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Northwest River Forecast Center (NWRFC)
5241 NE 122nd Avenue
Portland, Oregon 97230-1089
Telephone: 503-326-7401

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