

**Western Area Power Administration
Hydro Conditions and Purchase Power Report
June 2015**

Western-Wide

	Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
Oct 14	1,826,532	1,977,668	1,886,361	1,959,502	\$10,380,564	\$6,775,943	\$8,098,109
Nov 14	1,678,876	1,878,130	1,730,985	1,779,466	\$12,052,771	\$8,753,145	\$11,491,469
Dec 14	1,400,852	1,466,433	1,741,762	1,495,299	\$27,892,938	\$22,193,540	\$14,331,279
Jan 15	1,582,275	1,685,555	1,858,893	1,772,024	\$21,978,980	\$17,467,062	\$15,702,191
Feb 15	1,394,573	1,413,966	1,708,390	1,455,474	\$19,588,891	\$18,262,214	\$13,244,067
Mar 15	1,864,152	1,820,595	1,906,554	1,867,882	\$11,564,400	\$12,466,384	\$8,028,129
Apr 15	2,110,829	2,225,796	2,143,336	2,025,729	\$5,743,735	\$3,508,301	\$4,723,440
May 15	2,236,720	2,352,849	2,616,795	2,107,931	\$2,800,825	\$1,217,038	\$2,112,055
Jun 15							
Jul 15							
Aug 15							
Sep 15							
Total	14,094,809	14,820,992	15,593,075	14,463,307	\$112,003,104	\$90,643,628	\$77,730,740

Actual generation as a percentage of average: 93%

Western Area Power Administration (Western) generated a total of 14,463 gigawatt-hours during October through May of fiscal year 2015, or 93 percent of the average. Total purchase power expenses for the same period were \$77,730,740.

The following pages indicate Western’s Regional snowpack, lake/reservoir inflow and content, generation, and purchase power expenses, among other things. Snowpack is reported as snow water equivalent, which is the depth of water that theoretically would result if the entire snowpack is melted instantaneously.

Colorado River Storage Project

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
Oct 14	0.20	0.30	408.80	636.00	15.01	12.29	248,012	338,348	382,430	357,465	\$6,704,081	\$2,989,589	\$3,353,763
Nov 14	1.80	3.90	510.71	420.00	14.91	11.93	230,952	308,547	388,155	337,735	\$7,549,826	\$4,237,967	\$5,504,854
Dec 14	5.10	7.80	474.22	465.00	14.86	11.54	270,310	408,665	437,962	473,595	\$7,692,571	\$1,952,432	\$1,405,094
Jan 15	8.70	9.40	363.30	449.00	14.98	11.15	355,138	405,825	457,394	474,003	\$4,412,679	\$2,266,923	\$1,523,337
Feb 15	12.20	11.70	362.24	464.00	15.99	11.02	265,647	301,110	390,580	322,910	\$5,024,221	\$3,790,958	\$3,744,097
Mar 15	15.80	12.60	391.67	543.00	16.77	10.91	272,465	304,805	390,170	353,115	\$5,517,603	\$4,342,357	\$3,876,509
Apr 15	19.60	10.50	665.00	539.00	16.74	10.84	250,695	328,527	397,861	332,925	\$3,468,325	\$1,662,291	\$1,968,191
May 15	19.90	8.30	1,059.34	1,431.00	16.30	11.49	320,070	383,522	501,886	383,522	\$2,044,585	\$460,798	\$172,668
Jun 15													
Jul 15													
Aug 15													
Sep 15													
Total							2,213,290	2,779,348	3,346,438	3,035,271	\$42,413,890	\$21,703,314	\$21,548,512

Actual generation as a percentage of average: 91%

Lake/Reservoir Levels

Lake Powell's elevation was 3,597 feet at the end of May, about 103 feet from maximum reservoir level and about 107 feet from the minimum generation level. Based on the current forecast, Lake Powell's elevation will end water year (WY) 2015 near 3,596 feet with approximately 11.34 million acre-feet in storage or 47 percent of capacity.

Weather and Other Conditions

A generally dry winter in the Colorado River Basin has lowered the inflow estimates, although a wet May has improved prospects to about 70 percent of average April through July runoff.

Desert Southwest Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
Oct 14	0.20	0.30	58.00	68.00	20.53	12.27	294,250	294,250	380,500	272,691	\$0	\$109,870	\$106,819
Nov 14	1.80	3.90	54.00	44.00	20.57	12.41	325,000	372,000	363,500	357,310	\$10,239	\$22,472	\$23,998
Dec 14	5.10	7.80	75.00	56.00	20.69	12.77	286,750	290,400	373,900	251,260	\$294,966	\$120	\$534,300
Jan 15	8.70	9.40	93.00	72.00	20.84	13.01	411,100	411,100	398,400	428,462	\$0	\$0	\$39,296
Feb 15	12.20	11.70	110.00	89.00	20.86	12.99	352,400	319,250	391,500	335,602	\$0	\$0	\$8,661
Mar 15	15.80	12.60	105.00	57.00	20.66	12.69	543,600	526,100	531,400	560,224	\$57,626	\$94,756	\$166,762
Apr 15	19.60	10.50	85.00	26.00	20.49	12.20	601,550	601,750	571,800	583,186	\$0	\$0	\$7,714
May 15	19.90	8.30	60.00	26.00	20.61	12.03	555,600	530,800	573,200	466,936	\$0	\$0	\$330,256
Jun 15													
Jul 15													
Aug 15													
Sep 15													
Total							3,370,250	3,345,650	3,584,200	3,255,671	\$362,831	\$227,218	\$1,217,806

Actual generation as a percentage of average: 91%

Lake/Reservoir Levels

Lake Mead's elevation was 1,077 feet at the end of May, about 143 feet below full storage level and about 27 feet from the minimum generation level.

Weather and Other Conditions

The Desert Southwest Region's hydrology is mostly dependent on the Colorado River Basin snowpack and precipitation above Lake Powell. Based on current and projected conditions, there is now a 33 percent probability that Lake Mead will be operating under the Shortage Criteria for WY 2016.

Rocky Mountain Region

Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)			
Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual	
		139.20	200.80	3.84	4.47	99,021	102,458	83,694	91,560	\$2,257,085	\$2,257,085	\$2,257,085	
Oct 14													
Nov 14													
Dec 14													
Jan 15	407.20	427.80	96.20	129.40	3.80	4.47	106,726	106,906	113,597	102,961	\$2,614,295	\$2,606,695	\$2,203,620
Feb 15	808.10	739.20	95.00	128.60	3.80	4.51	85,735	86,024	102,200	79,516	\$2,054,163	\$2,042,763	\$1,780,322
Mar 15	1,065.10	994.40	158.40	199.30	3.83	4.56	96,042	108,706	120,988	103,860	\$2,128,149	\$1,645,549	\$1,726,554
Apr 15	1,341.70	1,016.80	253.10	257.80	3.85	4.60	125,443	138,545	140,995	128,526	\$1,707,570	\$1,278,170	\$1,464,159
May 15	301.50	355.20	694.10	758.20	4.18	5.21	190,340	198,107	198,626	166,491	\$180,000	\$180,000	\$1,032,891
Jun 15													
Jul 15													
Aug 15													
Sep 15													
Total						853,281	890,935	945,899	816,657	\$16,414,838	\$15,483,838	\$15,938,206	

Actual generation as a percentage of average: 86%

Lake/Reservoir Content

The overall reservoir content at the end of May was 125 percent of average.

Weather and Other Conditions

The Bureau of Reclamation is now forecasting total spring reservoir inflows to be well below average in the North Platte Basin, above average for the Colorado-Big Thompson Project, and well above average in the Bighorn Basin.

Note: Rocky Mountain Region (RMR)-related snowpack either is not measured or is relatively insignificant during the months of October through December. Consequently, RMR does not project purchase power expenses for these months.

Sierra Nevada Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
Oct 14			329.00	263.00	5.61	2.49	161,181	106,181	163,000	115,957	\$1,419,398	\$1,419,398	\$2,380,441
Nov 14	5.26	1.00	404.00	281.00	5.56	2.40	99,417	69,417	104,000	75,640	\$1,314,004	\$1,314,004	\$2,396,084
Dec 14	4.94	5.00	1,014.00	1,450.00	6.06	3.66	69,042	0	143,000	13,282	\$1,252,191	\$1,252,191	\$2,458,218
Jan 15	5.80	4.00	954.00	508.00	6.39	3.89	0	0	163,000	23,872	\$1,508,460	\$1,508,460	\$2,077,046
Feb 15	9.00	5.00	997.00	1,232.00	6.92	4.93	0	14,968	195,000	29,080	\$1,363,440	\$1,363,440	\$1,800,319
Mar 15	15.00	2.00	1,330.00	412.00	7.56	5.01	115,340	100,340	207,000	45,340	\$1,506,498	\$1,506,498	\$1,974,521
Apr 15	10.00	1.00	1,245.00	341.00	7.95	4.91	171,316	231,316	288,000	126,768	\$567,840	\$567,840	\$1,283,377
May 15		0.00	1,203.00	301.00	7.91	4.42	246,135	336,135	442,000	230,955	\$576,240	\$576,240	\$576,240
Jun 15													
Jul 15													
Aug 15													
Sep 15													
Total							862,431	858,357	1,705,000	660,894	\$9,508,072	\$9,508,072	\$14,946,247

Actual generation as a percentage of average: 39%

Lake/Reservoir Content

Accumulated inflow for the water year to date is 85 percent of average for Trinity, 73 percent for Shasta, 40 percent for Folsom, and 39 percent for New Melones. The overall reservoir content at the end of May was 56 percent of average.

Weather and Other Conditions

As of May 8, the State of California water year type declaration was "critical" based upon the May 1 conditions 50 percent exceedence forecast. As of June 27, the cumulative precipitation was 35.98 inches or 72 percent of average for the Northern Sierra Eight Station Index.

Note: Sierra Nevada Region (SNR)-related snowpack is not measured for the month of October and no median was reported for May. SNR's average projection of generation is taken from the latest modeling using the update to its customers' "Green Book," and SNR does not project purchase power expenses for dry conditions.

Upper Great Plains Region

	Snowpack (Inches in Snow Water Equivalent)		Lake/Reservoir Inflow (Thousand Acre-Feet)		Lake/Reservoir Content (Million Acre-Feet)		Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Median	Actual	Average	Actual	Average	Actual	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
Oct 14	0.09	0.00	8,092.00	10,685.90	55.94	59.74	1,024,068	1,136,432	876,737	1,121,829	\$0	\$0	\$0
Nov 14	1.20	0.30	7,411.00	8,616.60	54.83	58.09	963,501	1,068,021	793,241	953,548	\$0	\$0	\$387,831
Dec 14	3.80	3.90	6,468.00	6,229.90	54.23	57.97	684,781	677,324	683,190	668,651	\$16,358,337	\$16,693,924	\$7,638,795
Jan 15	7.10	7.30	6,658.00	6,786.10	53.94	58.03	709,312	761,724	726,502	742,726	\$13,443,547	\$11,084,984	\$9,858,892
Feb 15	10.30	9.70	6,291.00	6,679.80	54.25	58.60	690,792	692,614	629,110	688,365	\$11,147,066	\$11,065,054	\$5,910,668
Mar 15	12.90	11.50	8,226.00	7,837.90	56.02	59.12	836,705	780,645	656,996	805,343	\$2,354,524	\$4,877,224	\$283,782
Apr 15	15.80	10.70	8,061.00	9,554.70	56.91	55.89	961,825	925,659	744,680	854,325	\$0	\$0	\$0
May 15	15.10	9.10	9,699.00	9,287.30	58.18	60.04	924,575	904,285	901,082	860,028	\$0	\$0	\$0
Jun 15													
Jul 15													
Aug 15													
Sep 15													
Total							6,795,557	6,946,702	6,011,538	6,694,815	\$43,303,473	\$43,721,186	\$24,079,968

Actual generation as a percentage of average: 111%

Lake/Reservoir Content

As of June 15, 2015, the active conservation pools for the Canyon Ferry and Yellowtail Dams were 99.5 percent and 100 percent full, respectively.

Weather and Other Conditions

Spring rains arrived in May and partially moderated the drought conditions in the Dakotas.

Note: The Upper Great Plains Region reports its 50 percent share of generation from Yellowtail Dam, while RMR reports the snowpack, inflow, content, and remaining share of generation.