

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

**Western-Wide**

	Generation (Megawatt-Hours)				Purchase Power Expenses (Dollars)		
	Projected Dry	Most Probable	Average	Actual	Projected Dry	Most Probable	Actual
<b>Oct 14</b>	1,826,532	1,977,668	1,886,361	1,959,502	\$10,380,564	\$6,775,943	\$8,098,109
<b>Nov 14</b>	1,678,876	1,878,130	1,730,985	1,779,466	\$12,052,771	\$8,753,145	\$11,491,469
<b>Dec 14</b>	1,400,852	1,466,433	1,741,762	1,495,299	\$27,892,938	\$22,193,540	\$14,331,279
<b>Jan 15</b>	1,582,275	1,685,555	1,858,893	1,772,024	\$21,978,980	\$17,467,062	\$15,702,191
<b>Feb 15</b>	1,394,573	1,413,966	1,708,390	1,455,474	\$19,588,891	\$18,262,214	\$13,244,067
<b>Mar 15</b>	1,864,152	1,820,595	1,906,554	1,867,882	\$11,564,400	\$12,466,384	\$8,028,129
<b>Apr 15</b>	2,110,829	2,225,796	2,143,336	2,027,035	\$5,743,735	\$3,508,301	\$4,744,616
<b>May 15</b>							
<b>Jun 15</b>							
<b>Jul 15</b>							
<b>Aug 15</b>							
<b>Sep 15</b>							
<b>Total</b>	11,858,089	12,468,143	12,976,280	12,356,681	\$109,202,279	\$89,426,590	\$75,639,861

Actual generation as a percentage of average: 95%

Western Area Power Administration (Western) generated a total of 12,357 gigawatt-hours during October through April of fiscal year 2015, or 95 percent of the average. Total purchase power expenses for the same period were \$75,639,861.

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
<b>Oct 14</b>	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
<b>Nov 14</b>	1.80	3.91	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
<b>Dec 14</b>	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
<b>Jan 15</b>	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
<b>Feb 15</b>	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
<b>Mar 15</b>	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
<b>Apr 15</b>	19.60	10.50	665.00	539.00	16.74	10.84	250,695	328,527	397,861	328,527	\$3,468,325	\$1,662,291	\$1,968,191
<b>May 15</b>													
<b>Jun 15</b>													
<b>Jul 15</b>													
<b>Aug 15</b>													
<b>Sep 15</b>													
<b>Total</b>							1,893,220	2,395,827	2,844,551	2,647,351	\$40,369,305	\$21,242,516	\$21,375,845

Actual generation as a percentage of average: 93%

### Lake/Reservoir Levels

Lake Powell's elevation was 3,592 feet at the end of April, about 108 feet from maximum reservoir level and about 102 feet from the minimum generation level. Based on the current forecast, Lake Powell's elevation will end water year (WY) 2015 near 3,578 feet.

### Weather and Other Conditions

A lack of storms in the Colorado River Basin has lowered the inflow estimates for the April-July runoff period to about 52 percent of average, although a wet May has improved prospects.

## 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
<b>Oct 14</b>	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
<b>Nov 14</b>	1.80	3.91	54.00	44.00	20.57	12.41	325,000	372,000	363,500	357,310	\$10,239	\$22,472	\$23,998
<b>Dec 14</b>	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
<b>Jan 15</b>	8.70	9.40	93.00	72.00	20.84	13.01	411,100	411,100	398,400	428,462	\$0	\$0	\$39,296
<b>Feb 15</b>	12.20	11.70	110.00	89.00	20.86	12.99	352,400	319,250	391,500	335,602	\$0	\$0	\$8,661
<b>Mar 15</b>	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
<b>Apr 15</b>	19.60	10.50	85.00	26.00	20.49	12.20	601,550	601,750	571,800	588,889	\$0	\$0	\$7,714
<b>May 15</b>													
<b>Jun 15</b>													
<b>Jul 15</b>													
<b>Aug 15</b>													
<b>Sep 15</b>													
<b>Total</b>							2,814,650	2,814,850	3,011,000	2,794,438	\$362,831	\$227,218	\$887,550

Actual generation as a percentage of average: 93%

### Lake/Reservoir Levels

Lake Mead's elevation was 1,079 feet at the end of April, about 141 feet below full storage level and about 29 feet from the minimum generation level. Lake Mead's elevation is projected to drop to a minimum elevation of 1,073 feet in June of WY 2015.

### 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
Oct 14			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
Nov 14			121.40	129.20	3.87	4.47	60,006	60,146	82,089	55,233	\$3,178,702	\$3,178,702	\$3,178,702
Dec 14			97.90	139.40	3.83	4.47	89,969	90,045	103,710	88,510	\$2,294,873	\$2,294,873	\$2,294,873
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	\$1,485,335
May 15													
Jun 15													
Jul 15													
Aug 15													
Sep 15													
<b>Total</b>							662,941	692,828	747,273	650,166	\$16,234,838	\$15,303,838	\$14,926,491

Actual generation as a percentage of average: 87%

### Lake/Reservoir Content

The overall reservoir content at the end of April was 119 percent of average.

### Weather and Other Conditions

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

*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
<b>Oct 14</b>			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
<b>Nov 14</b>	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
<b>Dec 14</b>	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
<b>Jan 15</b>	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
<b>Feb 15</b>	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
<b>Mar 15</b>	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
<b>Apr 15</b>	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
<b>May 15</b>													
<b>Jun 15</b>													
<b>Jul 15</b>													
<b>Aug 15</b>													
<b>Sep 15</b>													
<b>Total</b>							616,296	522,222	1,263,000	429,939	\$8,931,832	\$8,931,832	\$14,370,007

Actual generation as a percentage of average: 34%

### Lake/Reservoir Content

The overall reservoir content at the end of April was 62 percent of average.

### Weather and Other Conditions

Accumulated inflow for the WY-to-date is 88 percent of the 15-year average for Trinity, 74 percent for Shasta, and 40 percent for both Folsom and New Melones.

*Note: Sierra Nevada Region (SNR)-related snowpack is not measured for the month of October. In addition, 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
<b>Oct 14</b>	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
<b>Nov 14</b>	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
<b>Dec 14</b>	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
<b>Jan 15</b>	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
<b>Feb 15</b>	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
<b>Mar 15</b>	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
<b>Apr 15</b>	15.80	10.70	8,061.00	9,554.70	56.91	55.80	961,825	925,659	744,680	854,325	\$0	\$0	\$0
<b>May 15</b>													
<b>Jun 15</b>													
<b>Jul 15</b>													
<b>Aug 15</b>													
<b>Sep 15</b>													
<b>Total</b>							5,870,982	6,042,417	5,110,456	5,834,787	\$43,303,473	\$43,721,186	\$24,079,968

Actual generation as a percentage of average: 114%

### Lake/Reservoir Content

As of May 11, 2015, the active conservation pools for the Canyon Ferry and Yellowtail Dams were 84 and 83 percent full, respectively.

### Weather and Other Conditions

El Nino conditions continue to cause dry weather in the upper plains which has put those states into moderate drought conditions. The spring runoff at both Canyon Ferry and Yellowtail is in full swing and snowpack is melting rapidly.

*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.*