



United States
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Agriculture

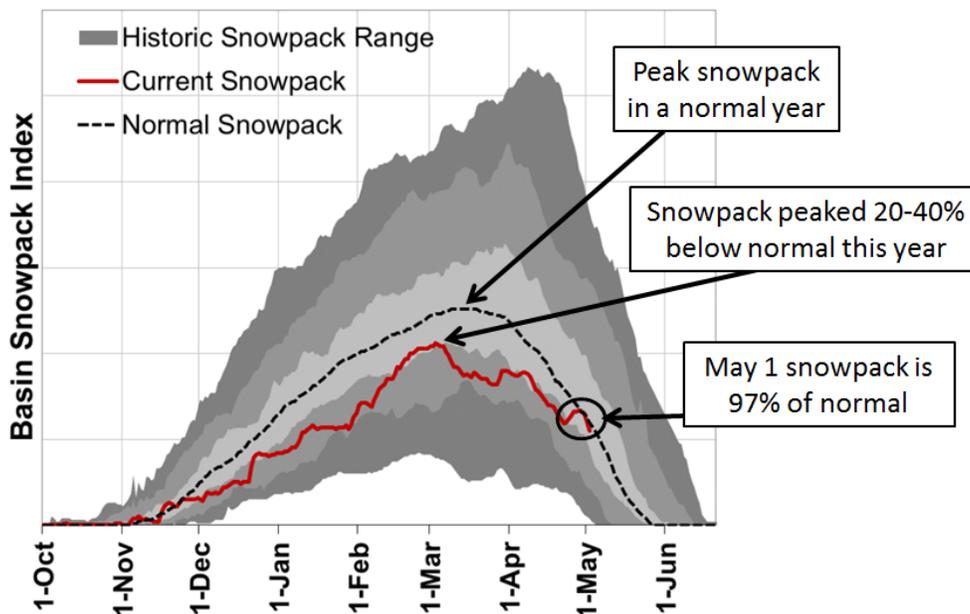


Natural Resources
Conservation
Service

Oregon Basin Outlook Report

May 1, 2014

Winter Snowpack Deficit Illustrated Best by % of Normal Seasonal Peak *Example: Umatilla Basin Snowpack*



Expressing snowpack conditions as a percent of normal can be misleading during snowmelt season. This is because the current percent of normal does not reference the peak snowpack accumulation; instead, it references the normal snowmelt regime. Expressing the seasonal snowpack in terms of “percent of normal peak snowpack” is more representative of how the total accumulated snowpack compared to normal peak snowpack levels for the basin.

For example, the Umatilla, Walla Walla, and Willow Basin snowpack was 76% of normal on April 1 and 97% of normal on May 1. This percentage increase could easily be misconstrued as an improvement in snowpack conditions, even though the snowpack actually decreased. While this statistic indicates the snowpack is melting on track for this time of year, it does not show this winter’s snowpack deficit. Sites in the basin only reached 60-80% of the normal peak snowpack levels, indicating a total snowpack deficit in the basin for the current year.

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General Outlook

May 1, 2014

SUMMARY

With the exception of northeastern Oregon, the state-wide snowpack remained below normal all winter. Peak snowpack levels for the 2013/2014 winter were 20 to 60% below normal peak levels for most basins. As of May 1, snow measurement sites in southern Oregon continue to set new record lows for snowpack levels. As a result, summer streamflows are expected to be below average and water shortages are likely for many parts of Oregon.

The dominant characteristic of Oregon's snowpack during the month of April was snowmelt; however, two significant storm systems rolled in during the beginning and end of the month, bringing new snow to the higher elevations. Following each storm, warm temperatures and sunshine prevailed, revving up the snowmelt engine again and creating high avalanche danger as the new snow quickly transitioned from powder to slush.

Water users that have access to reservoirs for irrigation will fare better than those that only have access to streamflow. The wet months of February and March improved reservoir storage in many locations. Additional storms in May and June could help offset some of the effects of a low snowpack year, but this occurrence cannot be counted on. In preparation for summer drought conditions, Governor Kitzhaber has declared a drought state of emergency for the following counties: Klamath, Harney, Lake, Malheur, Crook, and Jackson. For more information on the latest drought conditions, please refer to the drought monitor: <http://droughtmonitor.unl.edu/>.

SNOWPACK

Even though there was significant snow accumulation during the late April snow storm, more of Oregon's snow melted than was gained over the last month. The slow start to the snow accumulation season prevented Oregon's snowpack from reaching normal peak levels, which is the true measure of how much water the snowpack will contribute to water supplies. The lowest snowpacks in the state were observed in southern Oregon where the snow only achieved 10 to 50% of the normal seasonal peak amounts. Some areas in southern Oregon melted up to a month earlier than normal, while other locations never accumulated a snowpack at all this winter. Only three sites in the Wallowa Mountains of northeastern Oregon were able to accumulate enough snow during the winter to reach their normal peak amounts before beginning to melt. The mountains throughout the rest of the state experienced 80% or less of the normal peak snow amounts. Any additional snow storms during the month of May will help extend the life of Oregon's rapidly melting snowpack, but new snow will do little in the way of improving the water supply picture.

PRECIPITATION

Most of the state received near average precipitation amounts for April, but the majority of the moisture fell during the latter part of the month. Northern Oregon received between 100-125% of average monthly amounts, while southern Oregon received the lowest amounts ranging from 60-95% of average April amounts. If the late April storm cycle hadn't occurred, the monthly precipitation would have ended up below average for the entire state, and the totals would have ranged from 30-80% of average.

The month of April was the only exception to a water year of precipitation extremes. October through January was extremely dry followed by an extremely wet February and March. As a result, the water year-to-date (October 1-May 1) precipitation totals are near average for northern Oregon and below average across the rest of the state. The lowest water year precipitation totals are in southern Oregon (65-80% of average).

RESERVOIRS

Reservoir conditions vary widely throughout the state as of May 1. The lowest reservoir storage levels are in southern Oregon, where reservoirs are storing well below average amounts of water for this time of year. Areas in central and northern Oregon have reservoirs that are storing near average to above average amounts.

May 1 storage at 26 major Oregon reservoirs analyzed in this publication was 69% percent of normal. As of May 1, water storage at these reservoirs totaled 1,688 thousand acre feet (kaf), representing 52 percent of useable capacity. Last year at this time, these same reservoirs stored 2024 kaf of water, or 63 percent of useable capacity.

STREAMFLOW

As of May 1, snowmelt is in full swing and most of Oregon's rivers and streams are flowing swiftly. Many rivers in the state have already experienced their snowmelt-induced streamflow peak. The remaining summer seasonal streamflows are expected to be below average due to below normal winter snowpack levels. Once the remaining snow is flushed from the mountains, the streams will begin to recede quickly without any additional rainfall. While recreation will be able to continue during lower summer streamflows, other industries may be negatively affected.

Summer streamflow forecasts range from less than half of normal across the basins of southern Oregon to slightly above normal in the northern parts of the state. The highest streamflow forecasts are for Oregon's northernmost rivers and the Willamette basin, where streams are expected to experience 90-110% of average volumes from May through September. Rivers in the Klamath, Harney and Lake county basins are forecasted to have 15-60% of average flows for the same period. Elsewhere in the state, May through September volumes are expected to be between 50-85% of average for most rivers. Water shortages are expected for many water users in Oregon this summer, depending on location and access to reservoir storage.

A summary of streamflow forecasts for Oregon follows:

STREAM	Median Forecast (May through September)	
	Volume (Acre-Feet)	Percent of Average
Owyhee Reservoir Inflow	115,000	48
Grande Ronde R at Troy	965,000	102
Umatilla R at Pendleton	75,000	94
Deschutes R at Benham Falls	375,000	90
Willamette R at Salem	2,860,000	96
Rogue R at Raygold	410,000	72
Upper Klamath Lake Inflow	135,000	43
Silvies R nr Burns	17,800	38

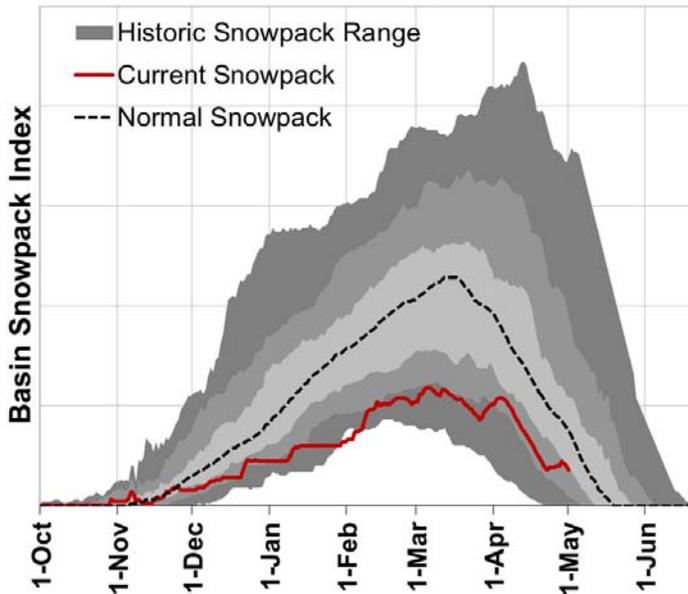
Some of these forecasts assume that normal weather conditions will occur from now to the end of the forecast period. This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators. This report will be updated monthly, January through June.



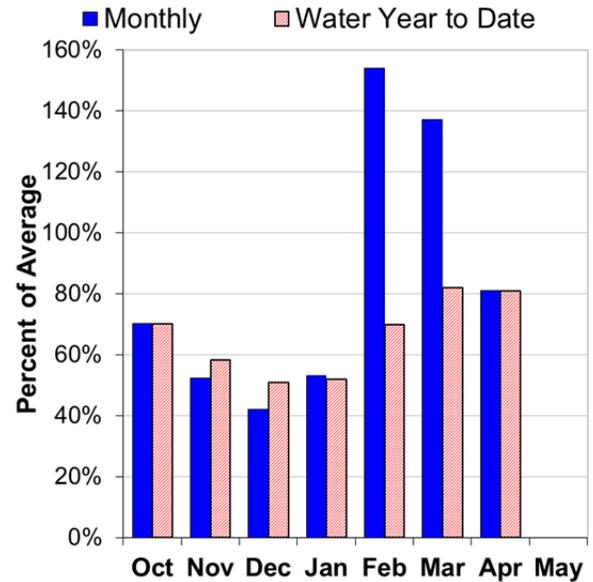
Owyhee and Malheur Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The mountain snowpack in this region peaked well below normal this winter. In general, SNOTEL sites in the basin only reached 40% to 70% of typical peak snowpack levels. While most sites are typically snow free by May 1, SNOTEL sites in the basin have been melting out about 1-2 weeks earlier than normal this spring.

PRECIPITATION

April precipitation was 81% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 81% of average.

RESERVOIR

Reservoir storage across the basin is currently well below average. As of May 1, storage at published reservoirs was 40% of average and 30% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 37% to 63% of average for the May through September period. The combined streamflow forecasts and current reservoir storage levels indicate that water users in the Owyhee and Malheur basins should expect water shortages this coming summer and prepare accordingly.

For more information contact your local Natural Resources Conservation Service office:
Ontario - (541) 889-7637

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

OWYHEE AND MALHEUR BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Malheur R nr Drewsey	MAY-JUL	5.6	9.5	12.8	35	16.6	23	37
	MAY-SEP	6.6	10.8	14.2	37	18.1	25	38
NF Malheur R at Beulah (2)	MAY-JUL	13.1	17.6	21	62	25	31	34
	MAY-SEP	16.2	21	25	63	29	36	40
Owyhee R Nr Rome	MAY-JUL	27	52	73	39	98	141	188
	MAY-SEP	36	63	86	42	112	157	205
Owyhee R bl Owyhee Dam (2)	MAY-JUL	47	76	100	48	127	173	210
	MAY-SEP	57	89	115	48	144	193	240

OWYHEE AND MALHEUR BASINS
Reservoir Storage (1000 AF) - End of April

OWYHEE AND MALHEUR BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Beulah Res	60.0	38.9	36.1	49.0	Owyhee	1	180	61
Bully Creek	30.0	16.5	16.2	25.3				
Lake Owyhee	715.0	184.1	352.9	533.1				
Warm Springs	191.0	55.9	85.1	126.8				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

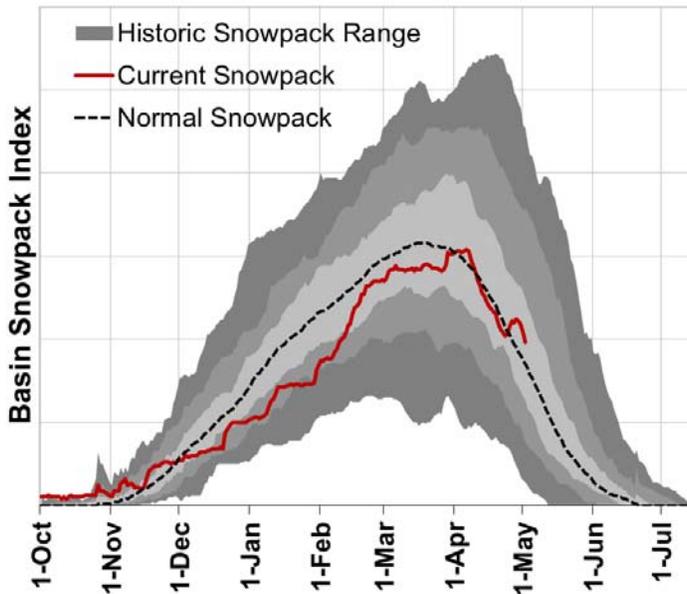
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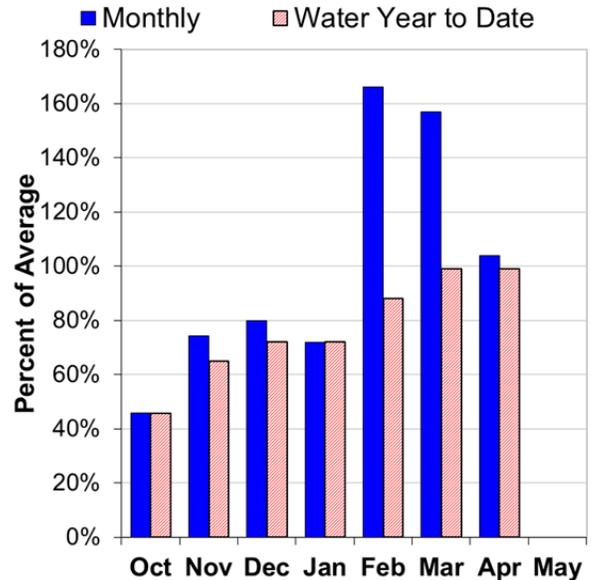
Grande Ronde, Powder, Burnt and Innaha Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The mountain snowpack in northeastern Oregon has fared better than the rest of the state all winter. As of May 1, the basin snowpack was 120% of normal. In general, SNOTEL sites in the basin reached 70% to 100% of typical peak snowpack levels this winter. This was the only region of Oregon that reached near normal peak snowpack levels.

PRECIPITATION

April precipitation was 104% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 99% of average.

RESERVOIR

Reservoir storage across the basin is currently below average. As of May 1, storage at published reservoirs was 82% of average and 65% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 66% to 106% of average for the May through September period. Water users in the southern part of this region (Burnt/Powder/Pine Basins) should anticipate well below normal to below normal water supplies this summer, while those in the northern part of the region should expect near normal water supplies.

For more information contact your local Natural Resources Conservation Service office:
 Enterprise- (541) 426-4588; Baker City - (541) 523-7121; LaGrande - (541) 963-4178
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

GRANDE RONDE, POWDER, BURNT AND IMNAHA BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Burnt R nr Hereford (2)	MAY-JUL	3.5	7.1	9.6	65	12.1	15.7	14.7
	MAY-SEP	4.6	8.4	10.9	66	13.4	17.2	16.4
Deer Ck nr Sumpter	MAY-JUL	3.9	5.8	7.0	71	8.2	10.1	9.8
Powder R nr Sumpter	MAY-JUL	18.4	25	30	83	35	42	36
	MAY-SEP	17.8	25	30	81	35	42	37
Wolf Ck Reservoir Inflow (2)	MAY-JUN	3.4	6.0	7.8	86	9.6	12.2	9.1
Pine Ck nr Oxbow	MAY-JUL	66	83	94	84	105	122	112
	MAY-SEP	71	88	99	84	110	127	118
Imnaha R at Imnaha	MAY-JUL	138	168	189	95	210	240	200
	MAY-SEP	157	189	210	95	230	265	220
Lostine R nr Lostine	MAY-JUL	87	94	98	100	102	109	98
	MAY-SEP	95	102	107	101	112	119	106
Bear Ck nr Wallowa	MAY-SEP	46	51	55	98	59	64	56
Catherine Ck nr Union	MAY-JUL	39	45	49	107	53	59	46
	MAY-SEP	43	49	53	106	57	63	50
Grande Ronde R at Troy (1)	MAY-JUL	565	780	875	102	970	1180	860
	MAY-SEP	650	865	965	102	1060	1280	945

GRANDE RONDE, POWDER, BURNT AND IMNAHA BASINS
Reservoir Storage (1000 AF) - End of April

GRANDE RONDE, POWDER, BURNT AND IMNAHA BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Phillips Lake (mason Dam)	73.5	36.4	42.1	52.6	Upper Grande Ronde	4	156	131
Thief Valley	17.4	13.6	13.5	15.3	Wallowa	4	146	129
Unity	25.2	25.0	22.1	24.1	Imnaha	3	156	114
Wallowa Lake	37.5	26.2	24.4	20.2	Powder	4	199	116
Wolf Creek	10.4	9.4	8.1	8.7				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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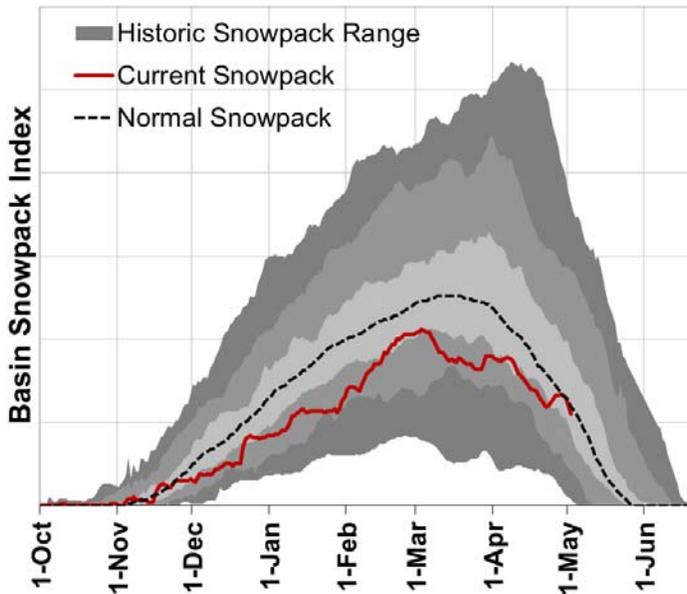
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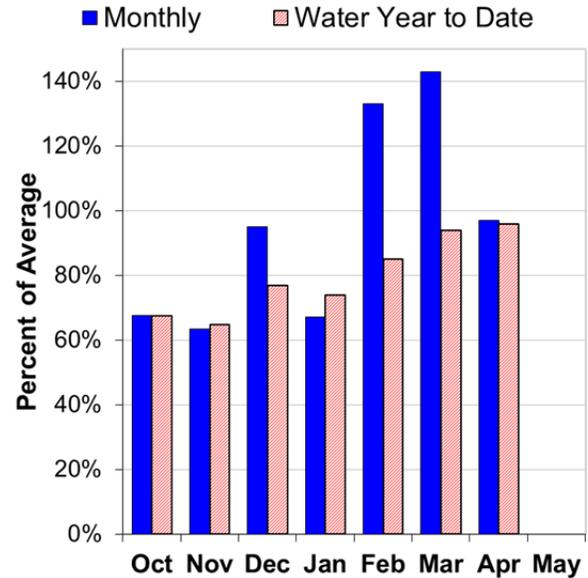
Umatilla, Walla Walla, and Willow Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

As of May 1, the basin snowpack was 97% of normal; however, the snowpack in this region peaked below normal this winter. In general, SNOTEL sites in the basin only reached 60% to 80% of typical peak snowpack levels and are currently melting out a few days earlier than normal.

PRECIPITATION

April precipitation was 97% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 96% of average.

RESERVOIR

Reservoir storage across the basin is currently slightly below average. As of May 1, storage at published reservoirs was 97% of average and 74% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 75% to 98% of average for the May through September period. Water users in the basin should expect well below normal to near normal water supplies this summer, depending on their location.

For more information contact your local Natural Resources Conservation Service office:
 Pendleton - (541) 278-8049; Heppner - (541) 676-5021; Condon - (541) 384-2671
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

UMATILLA, WALLA WALLA AND WILLOW BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)	
		90% (1000AF)		70% (1000AF)		50% (1000AF) (% AVG.)			30% (1000AF)
Butter Ck nr Pine City	MAY-JUL	0.51	2.5	3.8	75	5.1	7.1	5.1	
	MAY-SEP	0.91	2.9	4.2	75	5.5	7.5	5.6	
McKay Ck nr Pilot Rock	MAY-SEP	3.0	10.0	14.8	97	19.6	27	15.2	
Rhea Ck nr Heppner	MAY-JUL	1.07	1.77	3.0	73	4.2	6.0	4.1	
Umatilla R Ab Meacham Ck Nr Gibbon	MAY-JUL	19.2	29	38	90	47	62	42	
	MAY-SEP	24	35	43	90	52	68	48	
Umatilla R at Pendleton	MAY-JUL	27	52	70	95	88	113	74	
	MAY-SEP	31	57	75	94	93	119	80	
Sf Walla Wall R Nr Milton-Freewater	MAY-JUL	27	33	37	100	41	48	37	
	MAY-SEP	37	44	48	98	53	60	49	
Willow Ck ab Willow Ck LakenrHeppner	MAY-JUL	0.78	1.65	2.8	68	4.0	5.6	4.1	

UMATILLA, WALLA WALLA AND WILLOW BASINS
Reservoir Storage (1000 AF) - End of April

UMATILLA, WALLA WALLA AND WILLOW BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Cold Springs	50.0	22.2	23.0	36.8	Walla Walla	3	146	122
Mckay	73.8	65.5	62.7	53.3	Umatilla	2	108	84
Willow Creek	1.8	6.0	5.9	5.8				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

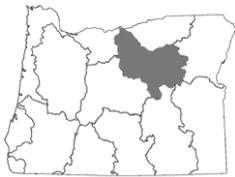
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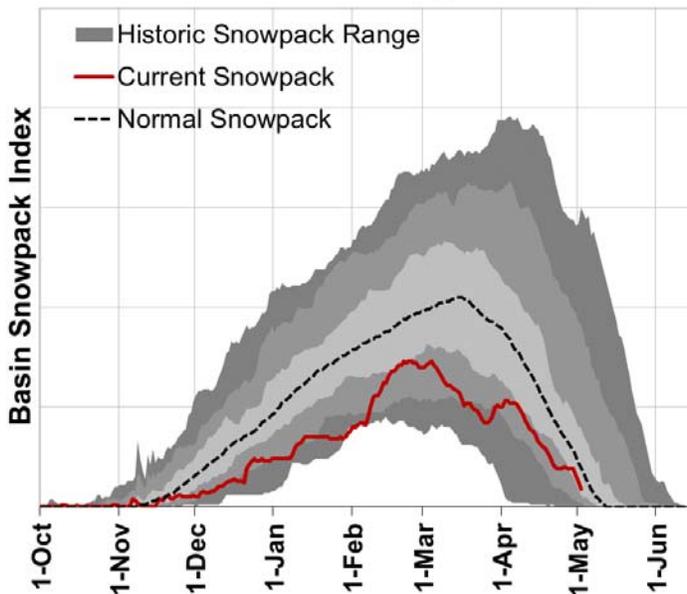
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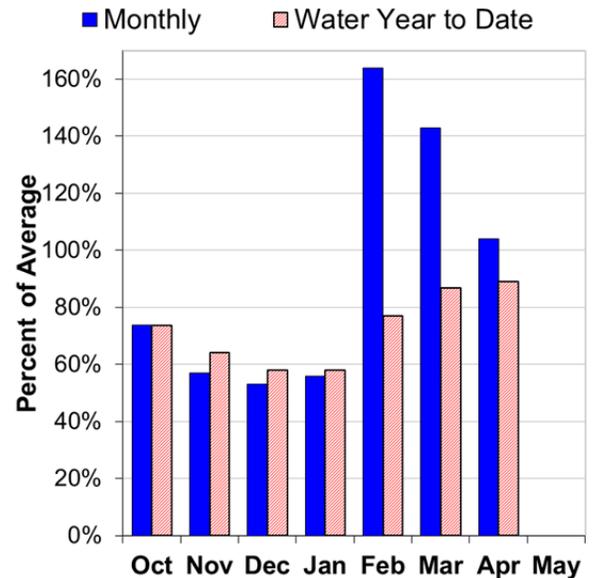
John Day Basin

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked well below normal this winter. In general, SNOTEL sites in the basin only reached 50% to 80% of typical peak snowpack levels. While most sites are typically snow free by May 1, SNOTEL sites in the basin have been melting out 1-2 weeks earlier than normal this spring.

PRECIPITATION

April precipitation was 104% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 89% of average.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 51% to 85% of average for the May through September period. Water users in the basin should expect well below normal to below water supplies this summer.

For more information contact your local Natural Resources Conservation Service office:
John Day - (541) 575-0135

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

JOHN DAY BASIN
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)		
		90%		70%		50%			30%	
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)		(1000AF)	(1000AF)
Strawberry Ck Nr Prairie City	MAY-JUL	4.2	5.3	6.2	85	7.1	8.6	7.3		
	MAY-SEP	4.6	5.8	6.7	85	7.7	9.2	7.9		
Mountain Ck nr Mitchell	MAY-JUL	0.100	0.90	1.44	51	1.98	2.8	2.8		
	MAY-SEP	0.130	0.94	1.49	51	2.0	2.8	2.9		
Camas Ck nr Ukiah	MAY-JUL	4.1	9.7	13.5	79	17.3	23	17.0		
	MAY-SEP	4.7	10.4	14.2	80	18.0	24	17.7		
MF John Day R at Ritter	MAY-JUL	23	42	54	72	66	85	75		
	MAY-SEP	25	44	57	71	70	89	80		
NF John Day R at Monument	MAY-JUL	117	200	260	73	320	405	355		
	MAY-SEP	129	215	275	73	335	420	375		

JOHN DAY BASIN
Reservoir Storage (1000 AF) - End of April

JOHN DAY BASIN
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
					North Fork John Day	1	122	41

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

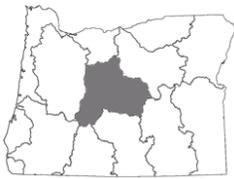
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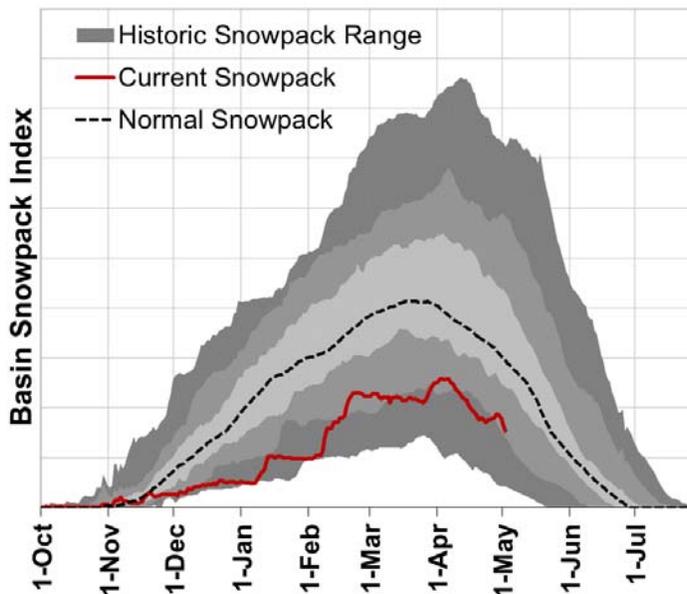
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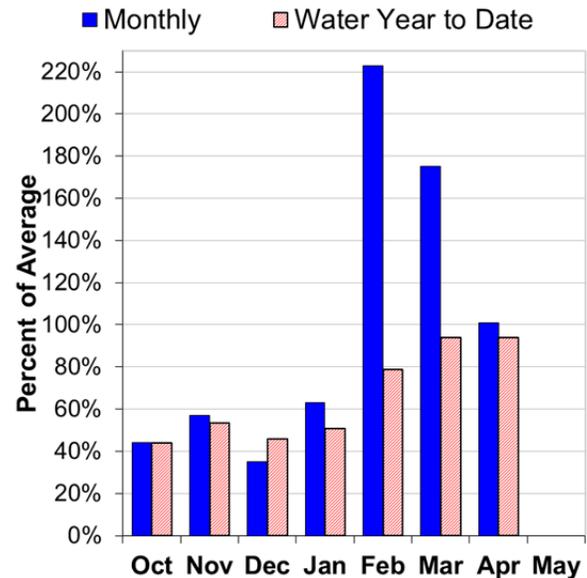
Upper Deschutes and Crooked Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 40% to 70% of typical peak snowpack levels and are currently melting out about 2-3 weeks earlier than normal.

PRECIPITATION

April precipitation was 101% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 94% of average.

RESERVOIR

Reservoir storage across the basin is currently above average. As of May 1, storage at published reservoirs was 111% of average and 93% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 25% to 90% of average for the May through September period. Streamflow forecasts in the Crooked and Little Deschutes River Basins are significantly below normal for the summer of 2014. Summer streamflows for the western drainages of the Deschutes Basin are expected to be slightly higher, but are still forecast to be below normal. Water shortages are likely this summer, depending on location.

For more information contact your local Natural Resources Conservation Service office:
Redmond (541) 923-4358

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

UPPER DESCHUTES AND CROOKED BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>> Chance Of Exceeding *				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)		10% (1000AF)	
Deschutes R bl Snow Ck nr La Pine	MAY-JUL	11.2	16.1	19.5	81	23	28	24
	MAY-SEP	26	33	37	79	41	48	47
Crane Prairie Reservoir Inflow (2)	MAY-JUL	27	34	38	83	42	49	46
	MAY-SEP	47	56	62	81	68	77	77
Crescent Ck nr Crescent (2)	MAY-JUL	1.80	5.0	7.1	59	9.2	12.4	12.0
	MAY-SEP	2.7	5.9	8.0	56	10.1	13.3	14.4
Little Deschutes R nr La Pine (2)	MAY-JUL	8.6	16.0	21	47	26	33	45
	MAY-SEP	8.1	16.4	22	43	28	36	51
Whychus Ck nr Sisters	MAY-JUL	19.3	22	23	77	24	27	30
	MAY-SEP	27	29	31	74	33	35	42
Prineville Reservoir Inflow (2)	MAY-JUL	1.95	6.2	11.0	28	21	36	39
	MAY-SEP	1.17	5.5	9.7	25	20	35	39
Ochoco Reservoir Inflow (2)	MAY-JUL	1.06	1.99	5.3	55	8.6	13.5	9.6
	MAY-SEP	0.81	1.22	4.7	52	8.2	13.3	9.0
Deschutes R at Benham FallsnrBend(2)	MAY-JUL	200	215	225	90	235	250	250
	MAY-SEP	340	360	375	90	390	410	415

UPPER DESCHUTES AND CROOKED BASINS
Reservoir Storage (1000 AF) - End of April

UPPER DESCHUTES AND CROOKED BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Crane Prairie	55.3	54.6	51.0	44.1				
Crescent Lake	86.9	75.1	74.9	50.5	Little Deschutes	2	75	64
Ochoco	47.5	34.5	32.6	34.5	Deschutes above Wickiup	3	81	58
Prineville	153.0	150.7	147.6	142.9	Tumalo and Squaw Creeks	2	99	56
Wickiup	200.0	192.1	185.2	184.5				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service office:

Redmond (541) 923-4358

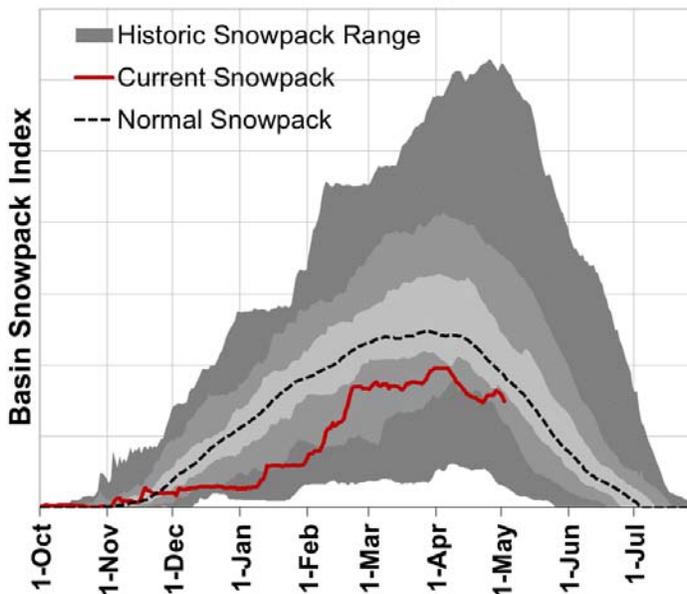
Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>



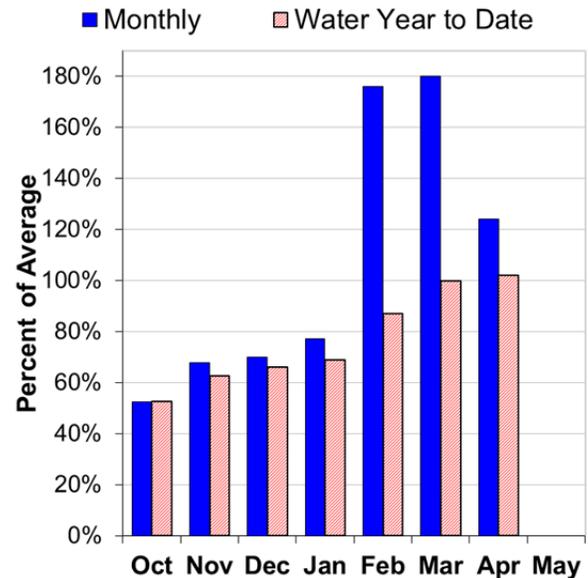
Hood, Sandy, and Lower Deschutes Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

As of May 1, the basin snowpack was 83% of normal. The snowpack in this region peaked below normal this winter. In general, SNOTEL sites in the basin only reached 40% to 80% of typical peak snowpack levels and are currently melting out about 1-2 weeks earlier than normal.

PRECIPITATION

April precipitation was 124% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 102% of average.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 91% to 93% of average for the May through September period. Water users in the basin should anticipate slightly reduced water supplies this summer.

For more information contact your local Natural Resources Conservation Service office:
The Dalles (541) 296-6178

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

HOOD, SANDY AND LOWER DESCHUTES BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90%		50%		10%		
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
WF Hood River nr Dee	MAY-JUL	44	59	70	90	81	96	78
	MAY-SEP	59	76	87	91	98	115	96
Hood R at Tucker Bridge	MAY-JUL	109	125	135	89	145	161	151
	MAY-SEP	145	164	177	93	190	210	190
Sandy R nr Marmot	MAY-JUL	140	169	188	90	205	235	210
	MAY-SEP	181	215	235	92	255	290	255

HOOD, SANDY AND LOWER DESCHUTES BASINS
Reservoir Storage (1000 AF) - End of April

HOOD, SANDY AND LOWER DESCHUTES BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Clear Lake	11.9	7.7	8.2	5.4	Hood River	3	89	88
					White River	2	107	94

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

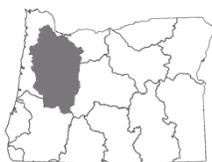
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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For more information contact your local Natural Resources Conservation Service office:

The Dalles (541) 296-6178

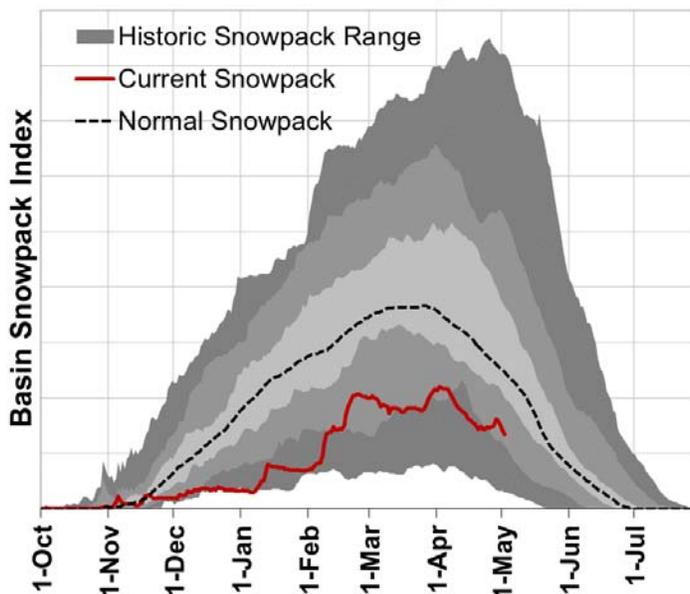
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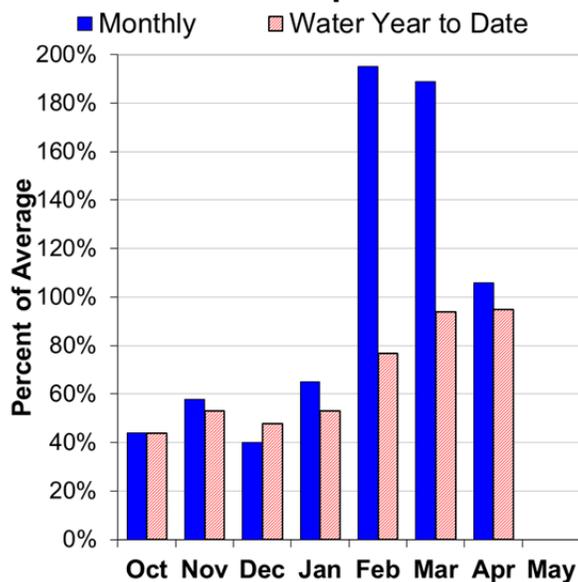
Willamette Basin

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

As of May 1, the basin snowpack was 57% of normal. The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 30% to 60% of typical peak snowpack levels and are currently melting out about 2-3 weeks earlier than normal.

PRECIPITATION

April precipitation was 106% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 95% of average.

RESERVOIR

Reservoir storage across the basin is currently near average. As of May 1, storage at published reservoirs was 101% of average and 99% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 81% to 113% of average for the May through September period. Water users in the basin should anticipate below normal to near normal water supplies this summer.

For more information contact your local Natural Resources Conservation Service office:
 Eugene - (541) 465-6436; Portland - (503) 231-2270; Tangent - (541) 967-5925; Oregon City - (503) 656-3499;
 Hillsboro - (503) 648-3174; McMinnville - (503) 472-1474
 Salem - (503) 399-5746; Dallas - (503) 623-5534
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

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WILLAMETTE BASIN
Streamflow Forecasts - May 1, 2014

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)	
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (1000AF) (% AVG.)			30% (1000AF)
Oak Grove Fork Of Clackamas	MAY-JUL	63	71	77	96	83	91	80	
	MAY-SEP	97	108	115	96	122	133	120	
Clackamas R ab Three Lynx	MAY-JUL	210	250	275	95	300	340	290	
	MAY-SEP	290	330	360	95	390	430	380	
Clackamas R at Estacada	MAY-JUL	275	335	375	93	415	475	405	
	MAY-SEP	370	435	480	94	525	590	510	
Detroit Lake Inflow (1,2)	MAY-JUN	144	225	265	93	305	385	285	
	MAY-SEP	260	365	410	95	455	560	430	
Little North Santiam R nr Mehama (1)	MAY-JUN	17.3	50	65	92	80	113	71	
	MAY-SEP	27	64	81	93	98	135	87	
North Santiam R at Mehama (1,2)	MAY-JUN	183	300	355	90	410	525	395	
	MAY-SEP	315	460	525	92	590	735	570	
Green Peter Lake Inflow (1,2)	MAY-JUN	73	134	162	112	190	250	145	
	MAY-SEP	101	169	200	113	230	300	177	
Foster Lake Inflow (1,2)	MAY-JUN	98	220	275	100	330	450	275	
	MAY-SEP	150	280	340	101	400	530	335	
South Santiam R at Waterloo (2)	MAY-JUN	186	265	315	111	365	445	285	
	MAY-SEP	255	335	390	111	445	525	350	
McKenzie R bl Trail Bridge (2)	MAY-JUN	107	121	130	95	139	153	137	
	MAY-JUL	147	166	178	95	190	210	187	
	MAY-SEP	220	245	260	96	275	300	270	
Cougar Lake Inflow (1,2)	MAY-JUN	53	81	94	84	107	135	112	
	MAY-JUL	68	98	112	85	126	156	132	
	MAY-SEP	92	124	138	86	152	184	160	

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For more information contact your local Natural Resources Conservation Service office:
Eugene - (541) 465-6436; Portland - (503) 231-2270; Tangent - (541) 967-5925; Oregon City - (503) 656-3499; Hillsboro - (503) 648-3174; McMinnville - (503) 472-1474
Salem - (503) 399-5746; Dallas - (503) 623-5534
Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

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WILLAMETTE BASIN
Streamflow Forecasts - May 1, 2014

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Blue Lake Inflow (1,2)	MAY-JUN	9.2	26	34	83	42	59	41
	MAY-JUL	13.4	29	36	80	43	59	45
	MAY-SEP	13.0	30	38	81	46	63	47
McKenzie R nr Vida (1,2)	MAY-JUN	310	425	475	93	525	640	510
	MAY-JUL	435	535	580	89	625	725	650
	MAY-SEP	615	755	820	94	885	1030	870
Hills Creek Reservoir Inflow (1,2)	MAY-JUN	76	118	137	90	156	198	152
	MAY-SEP	134	179	200	91	220	265	220
MF Willamette R bl NF (1,2)	MAY-JUN	200	305	350	91	395	500	385
	MAY-SEP	335	455	510	93	565	685	550
Lookout Point Lake Inflow (1,2)	MAY-JUN	194	310	360	90	410	525	400
	MAY-SEP	330	465	525	92	585	720	570
Fall Creek Lake Inflow (1,2)	MAY-JUN	4.7	34	48	87	62	91	55
	MAY-SEP	-5.6	37	57	89	77	120	64
Cottage Grove Lake Inflow (1,2)	MAY-JUN	-1.73	11.2	17.0	87	23	36	19.6
	MAY-SEP	0.30	13.8	20	87	26	40	23
Dorena Lake Inflow (1,2)	MAY-JUN	7.2	48	67	100	86	127	67
	MAY-SEP	16.3	58	77	100	96	138	77
Scoggins Ck nr Gaston (2)	MAY-JUL	3.1	5.0	6.2	115	7.4	9.3	5.4
Willamette R at Salem (1,2)	MAY-JUN	945	1750	2110	96	2470	3280	2200
	MAY-JUL	1530	2170	2460	96	2750	3390	2560
	MAY-SEP	1830	2540	2860	96	3180	3890	2980

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 Salem - (503) 399-5746; Dallas - (503) 623-5534
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

WILLAMETTE BASIN Reservoir Storage (1000 AF) - End of April					WILLAMETTE BASIN Watershed Snowpack Analysis - May 1, 2014			
Reservoir	Usable Capacity	*** Usable Storage This Year	Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Median
Blue River	85.5	79.2	77.4	73.5	Clackamas	1	101	92
Cottage Grove	29.8	26.3	26.5	26.7	McKenzie	4	97	60
Cougar	155.2	162.6	143.3	151.9	Row River	1	1	1
Detroit	300.7	432.2	435.0	408.5	Santiam	2	37	25
Dorena	70.5	60.8	60.8	61.5	Middle Fork Willamette	6	73	57
Fall Creek	115.5	110.2	108.0	108.0				
Fern Ridge	109.6	97.6	62.9	89.1				
Foster	29.7	44.2	25.1	24.6				
Green Peter	268.2	400.8	380.2	378.4				
Hills Creek	200.2	262.0	254.7	247.3				
Lookout Point	337.0	368.2	380.3	373.8				
Timothy Lake	61.7	59.7	59.8	59.0				
Henry Hagg Lake (scoggins Dam)	53.0	53.3	51.5	52.6				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service office:

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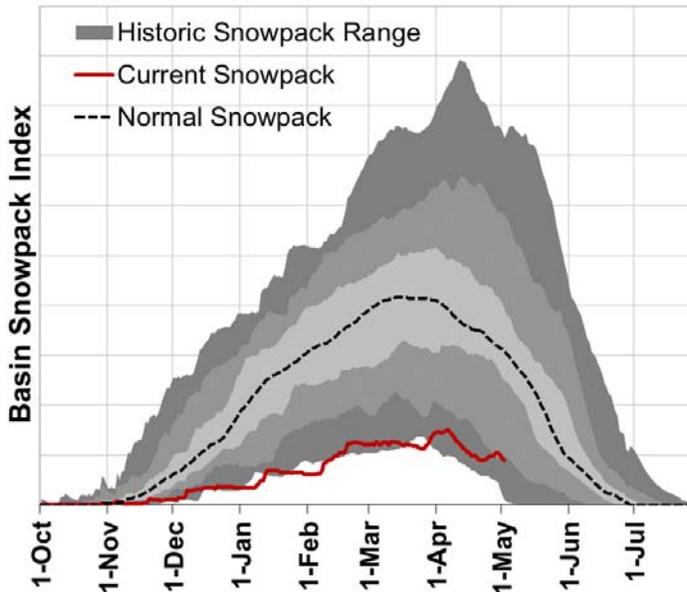
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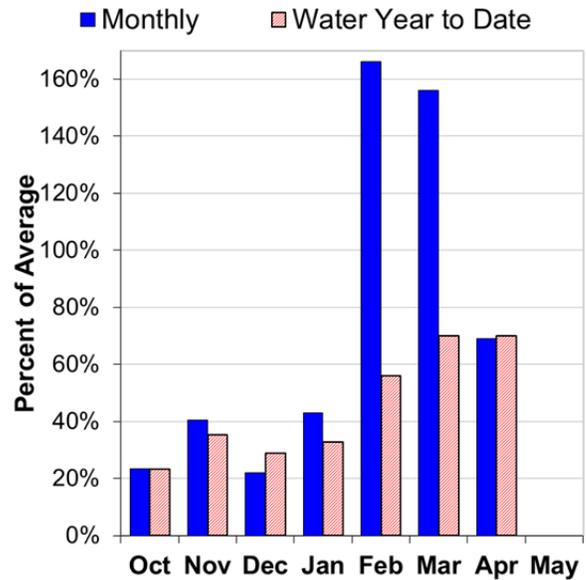
Rogue and Umpqua Basins

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 20% to 50% of typical peak snowpack levels and are currently melting out about 3-4 weeks earlier than normal. Snow measurement sites in the Siskiyou Mountains have continued to set new record lows for snowpack levels all winter. Two historic snow courses on Mt. Ashland (Caliban Alt and Mt. Ashland Switchback) were snow-free on May 1 for the first time since measurements began over forty years ago.

PRECIPITATION

April precipitation was 69% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 70% of average.

RESERVOIR

Reservoir storage across the basin is currently well below average. As of May 1, storage at published reservoirs was 78% of average and 62% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 19% to 86% of average for the May through September period. Water users relying on streams in the Siskiyou Mountains will likely face significant water shortages this summer. Summer streamflow forecasts in the rest of the Rogue and Umpqua Basins are slightly higher, but still well below normal.

For more information contact your local Natural Resources Conservation Service office:

Roseburg - (541) 673-8316; Medford - (541) 776-4267

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

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ROGUE AND UMPQUA BASINS
Streamflow Forecasts - May 1, 2014

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Cow Ck nr Azalea (2)	MAY-JUL	1.14	4.4	6.6	87	8.8	12.1	7.6
	MAY-SEP	1.68	5.2	7.6	86	10.0	13.5	8.8
North Umpqua R at Winchester	MAY-JUL	250	330	390	82	455	560	475
	MAY-SEP	335	430	495	84	560	655	590
South Umpqua R at Tiller	MAY-JUL	29	61	83	78	105	137	106
	MAY-SEP	35	68	90	78	112	145	115
South Umpqua R nr Brockway	MAY-JUL	44	113	161	83	210	280	194
	MAY-SEP	50	122	172	80	220	295	215
Hyatt Prairie Reservoir Inflow (2)	MAY-JUL	0.36	0.62	1.31	90	2.0	3.0	1.46
Lost Creek Lake Inflow (2)	MAY-JUL	194	235	260	70	285	325	370
	MAY-SEP	285	335	365	74	395	445	495
Rogue R at Raygold (2)	MAY-JUL	161	245	300	68	355	440	440
	MAY-SEP	260	350	410	72	470	560	570
Rogue R at Grants Pass (2)	MAY-JUL	162	250	310	68	370	460	455
	MAY-SEP	245	345	410	71	475	575	580
Applegate Lake Inflow (2)	MAY-JUL	2.1	5.5	11.4	17	20	33	69
	MAY-SEP	0.75	5.4	14.2	19	23	36	75
Sucker Ck bl Ltl Grayback Ck nr Holla	MAY-JUL	6.5	12.6	16.8	51	21	27	33
	MAY-SEP	7.5	13.8	18.0	50	22	28	36
Illinois R Nr Kerby	MAY-JUL	15.1	29	42	47	57	82	90
	MAY-SEP	17.4	32	45	47	60	86	96

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For more information contact your local Natural Resources Conservation Service office:
 Roseburg - (541) 673-8316; Medford - (541) 776-4267
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

ROGUE AND UMPQUA BASINS Reservoir Storage (1000 AF) - End of April					ROGUE AND UMPQUA BASINS Watershed Snowpack Analysis - May 1, 2014			
Reservoir	Usable Capacity	*** Usable Storage This Year	Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Median
Applegate	75.2	59.9	66.4	62.1	Applegate	4	5	3
Emigrant Lake	39.0	31.1	38.1	36.0	Bear Creek	4	5	3
Fish Lake	8.0	4.9	5.7	5.8	Little Butte Creek	1	100	13
Fourmile Lake	16.1	8.0	10.3	8.7	Illinois	0		
Howard Prairie	60.0	34.7	51.5	46.7	North Umpqua	2	70	64
Hyatt Prairie	16.1	7.5	15.5	13.2	Rogue River above Grant	8	46	25
Lost Creek	315.0	312.7	301.0	301.1				

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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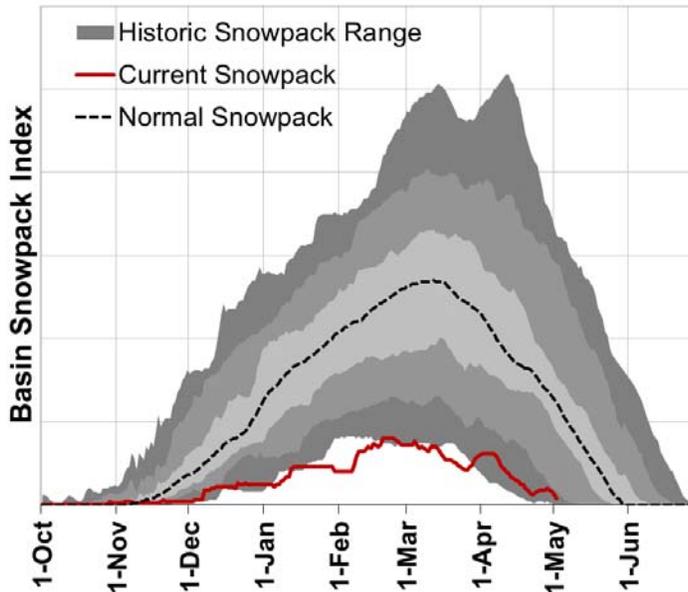
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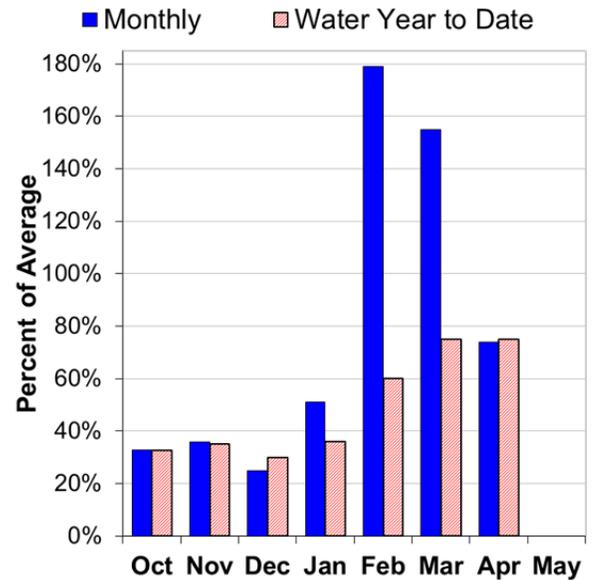
Klamath Basin

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 10% to 40% of typical peak snowpack levels. While most sites are typically snow free by May 1, SNOTEL sites in the basin have been melting out about 3-4 weeks earlier than normal this spring.

PRECIPITATION

April precipitation was 74% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 75% of average.

RESERVOIR

Reservoir storage across the basin is currently well below average. As of May 1, storage at published reservoirs was 62% of average and 44% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 17% to 51% of average for the May through September period. Water users in the Klamath Basin should expect water shortages this coming summer and prepare accordingly.

For more information contact your local Natural Resources Conservation Service office:
Klamath Falls - (541) 883-6932

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

KLAMATH BASIN
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		90%		50%		10%		
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	
Clear Lk Inflow (2)	MAY-JUL	0.130	0.80	2.4	18	6.4	12.4	13.3
	MAY-SEP	0.161	0.48	2.7	17	6.9	14.5	16.1
Gerber Res Inflow (2)	MAY-JUL	0.050	0.32	1.00	19	4.5	6.2	5.4
	MAY-SEP	0.060	0.35	1.10	19	4.5	7.0	5.8
Sprague R nr Chiloquin	MAY-JUL	3.5	22	40	34	58	85	118
	MAY-SEP	3.4	32	51	36	70	99	141
Williamson R bl Sprague R nr Chiloquin	MAY-JUL	39	69	89	48	109	139	187
	MAY-SEP	83	114	125	51	156	187	245
Upper Klamath Lk Inflow (1)	APR-SEP	107	185	220	46	255	333	475
	MAY-JUL	13.5	73	100	42	127	187	240
	MAY-SEP	42	106	135	43	164	228	315

KLAMATH BASIN
Reservoir Storage (1000 AF) - End of April

KLAMATH BASIN
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Clear Lake	527.0	52.9	100.3	254.1	Williamson River	2	87	55
Gerber	94.3	19.3	46.7	68.2	Sprague	1	84	14
Upper Klamath Lake	523.7	423.3	441.5	471.8	Upper Klamath Lake	5	81	37

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

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For more information contact your local Natural Resources Conservation Service office:

Klamath Falls - (541) 883-6932

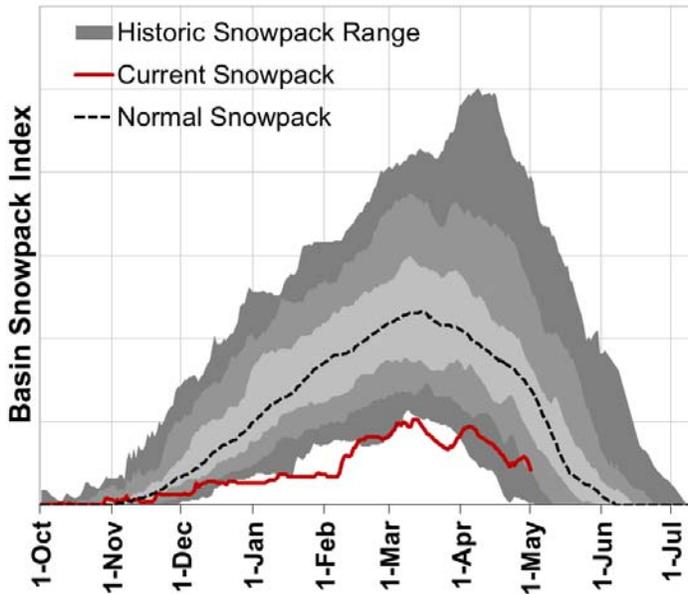
Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>



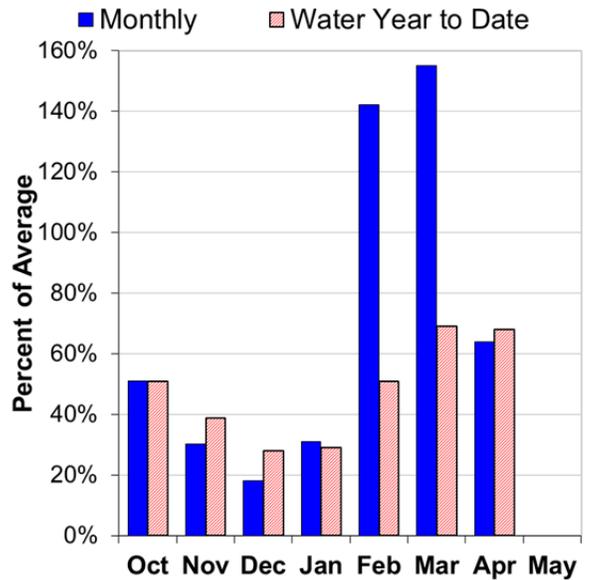
Lake County and Goose Lake

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 10% to 50% of typical peak snowpack levels. While most sites are typically snow free by May 1, SNOTEL sites in the basin have been melting out about 2-4 weeks earlier than normal this spring.

PRECIPITATION

April precipitation was 64% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 68% of average.

RESERVOIR

Reservoir storage across the basin is currently well below average. As of May 1, storage at published reservoirs was 53% of average and 39% percent of capacity.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 30% to 40% of average for the May through September period. The combined streamflow forecasts and reservoir storage levels indicate that water users in the Lake County and Goose Lake basins should expect water shortages this coming summer and prepare accordingly.

For more information contact your local Natural Resources Conservation Service office:
Lakeview - (541) 947-2202

Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

LAKE COUNTY AND GOOSE LAKE BASINS
Streamflow Forecasts - May 1, 2014

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Twentymile Ck Nr Adel	MAY-JUL	0.76	2.3	3.9	36	5.9	9.5	10.8
	MAY-SEP	0.92	2.6	4.2	38	6.2	9.9	11.2
Deep Ck Ab Adel	MAY-JUL	6.6	11.8	16.2	40	21	30	41
	MAY-SEP	7.4	12.8	17.3	40	22	31	43
Honey Ck Nr Plush	MAY-JUL	0.73	1.77	2.7	29	3.9	6.0	9.2
	MAY-SEP	0.78	1.85	2.8	30	4.0	6.1	9.3
Chewaucan R Nr Paisley	MAY-JUL	9.9	14.3	17.7	35	21	28	50
	MAY-SEP	12.0	16.6	20	37	24	31	54

LAKE COUNTY AND GOOSE LAKE BASINS
Reservoir Storage (1000 AF) - End of April

LAKE COUNTY AND GOOSE LAKE BASINS
Watershed Snowpack Analysis - May 1, 2014

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
Cottonwood	8.7	3.0	7.9	7.1	Chewaucan River	1	84	14
Drews	63.0	24.8	49.9	45.7	Deep Creek	1	91	57
					Silver Creek (Lake Co.)	1	84	14
					Twentymile Creek	1	91	57

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service office:

Lakeview - (541) 947-2202

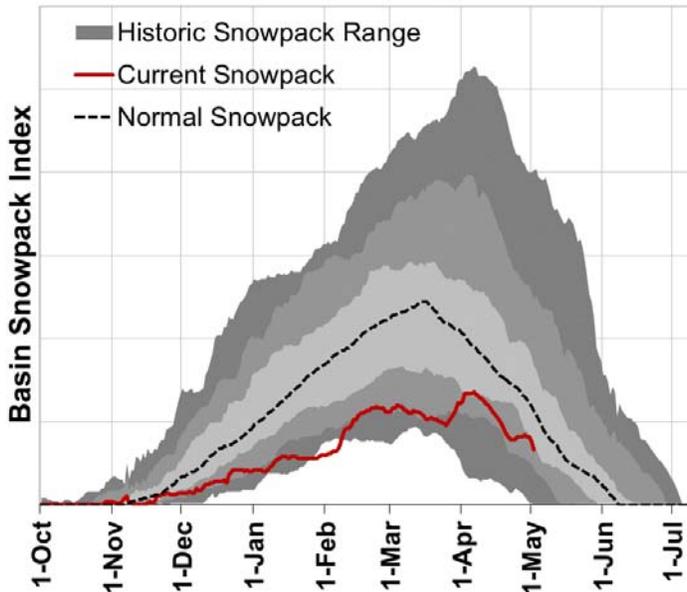
Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>



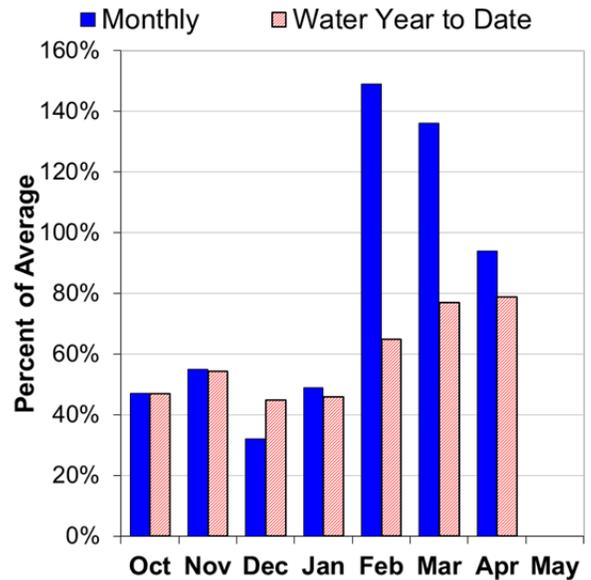
Harney Basin

May 1, 2014

Mountain Snowpack



Basin Precipitation



Summary of Water Supply Conditions

SNOWPACK

The snowpack in this region peaked significantly below normal this winter. In general, SNOTEL sites in the basin only reached 40% to 70% of typical peak snowpack levels. While most sites are typically snow free by May 1, SNOTEL sites in the basin have been melting out about 1-3 weeks earlier than normal this spring.

PRECIPITATION

April precipitation was 94% of average. Precipitation since the beginning of the water year (October 1 - May 1) has been 79% of average.

STREAMFLOW FORECAST

Summer streamflow forecasts in the basin range from 37% to 61% of average for the May through September period. Water users in the Harney basin should expect water shortages this coming summer and prepare accordingly.

For more information contact your local Natural Resources Conservation Service office:
 Hines - (541) 573-6446
 Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

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HARNEY BASIN
Streamflow Forecasts - May 1, 2014

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Silvies R Nr Burns	MAY-JUL	5.2	11.2	16.6	37	23	34	45
	MAY-SEP	6.0	12.3	17.8	38	24	36	47
Donner Und Blitzen R Nr Frenchglen	MAY-JUL	15.6	23	29	59	36	47	49
	MAY-SEP	18.8	27	33	61	40	52	54
Trout Ck Nr Denio	MAY-JUL	0.58	1.31	1.97	35	2.8	4.2	5.6
	MAY-SEP	0.70	1.49	2.2	37	3.0	4.5	6.0

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HARNEY BASIN
Reservoir Storage (1000 AF) - End of April

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HARNEY BASIN
Watershed Snowpack Analysis - May 1, 2014

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Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Median
					Donner und Blitzen Rive	1	121	88
					Trout Creek	1	121	88

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1981-2010 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service office:
Hines - (541) 573-6446
Or visit: <http://www.or.nrcs.usda.gov/snow/watersupply/>

Recession Flow Forecasts

Recession flow forecasts are presented below for key streamflow sites where reliable, daily streamflow data are available. The recession flow forecasts use exceedance probabilities in a format similar to the standard water supply forecasts presented in this document. Each forecast provides a range of possible outcomes representing the uncertainty of forecasting models.

The types of forecasts in the table below are:

- 1) Threshold flow -- Date that the daily streamflow rate falls below the given threshold flow
- 2) Peak flow -- Maximum daily flow
- 3) Date of peak flow -- Date of occurrence of maximum daily flow
- 4) Average daily flow on a given date

OWYHEE AND MALHEUR BASINS					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		90%	50%	10%	
Owyhee R nr Rome	2000 cfs	**Observed	Feb 18		May 6
Owyhee R nr Rome	1000 cfs	**Observed	Feb 19		May 18
Owyhee R nr Rome	500 cfs	**Observed	Feb 22		Jun 2

UPPER JOHN DAY BASIN					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		90%	50%	10%	
John Day R at Service Creek	Average Daily Flow on Aug. 1st	30	110	295	271

UPPER DESCHUTES AND CROOKED BASINS					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		90%	50%	10%	
Crane Prairie Inflow *	Date of Peak	May 7	May 19	Jun 2	May 25
Crane Prairie Inflow	Peak Flow	230	350	470	403
Crane Prairie Inflow	Average Daily Flow on Oct. 1st	167	200	235	269
Prineville Reservoir Inflow	113 cfs	May 2	May 18	Jun 7	June 3
Prineville Reservoir Inflow	75 cfs	May 6	May 24	Jun 13	June 11
Prineville Reservoir Inflow	50 cfs	May 12	Jun 2	Jun 23	June 19
Whychus Creek nr Sisters	100 cfs	Jul 14	Aug 6	Aug 27	August 16

ROGUE AND UMPQUA BASINS					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		<i>90%</i>	<i>50%</i>	<i>10%</i>	
South Umpqua R nr Brockway *	90 cfs	Jul 11	Jul 27	Aug 12	August 8
South Umpqua R at Tiller	140 cfs	Jun 18	Jul 6	Jul 23	July 11
South Umpqua R at Tiller	90 cfs	Jul 8	Jul 26	Aug 12	August 1
South Umpqua R at Tiller	60 cfs	Jul 28	Aug 23	Sep 16	August 28

*Dates are based on streamflow data adjusted for releases from Galesville Reservoir to reflect natural flow conditions and do not match observed gage data. There is an approximately 20% chance in any given year that the flow will not recede below 90 cfs; the dates given here are for the event that the flow does recede below 90 cfs.

LAKE COUNTY AND GOOSE LAKE BASINS					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		<i>90%</i>	<i>50%</i>	<i>10%</i>	
Deep Ck ab Adel	100 cfs	May 14	May 29	Jun 13	June 17
Honey Ck nr Plush	100 cfs	** Flow did	not exceed	**	May 16
Honey Ck nr Plush	50 cfs	**Observed	Feb 16	**	June 4
Twentymile Ck nr Adel	50 cfs	** Flow did	not exceed	**	May 30
Twentymile Ck nr Adel	10 cfs	** Observed	Feb 16	**	July 7

HARNEY BASIN					
<i>FORECAST POINT</i>	<i>FORECAST THRESHOLD</i>	<i>FORECAST VALUE</i> ----- <i>CHANCE OF EXCEEDING</i> ----- -----			<i>LONG-TERM AVERAGE VALUE</i>
		<i>90%</i>	<i>50%</i>	<i>10%</i>	
Silvies R nr Burns	400 cfs	** Observed	Mar 15	**	May 21
Silvies R nr Burns	200 cfs	** Observed	May 2	**	June 2
Silvies R nr Burns	100 cfs	May 11	May 18	Jun 1	June 13
Silvies R nr Burns	50 cfs	May 21	Jun 7	Jun 30	July 3
Donner Und Blitzen R nr Frenchglen	200 cfs	May 21	Jun 5	Jun 20	June 20
Donner Und Blitzen R nr Frenchglen	100 cfs	Jun 11	Jun 26	Jul 11	July 9

Summary of Snowpack Data

May 2014

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
Oregon						
ANEROID LAKE SNOTEL	7400	5/01/14	75	28.5	23.7	25.2
ANNIE SPRING SNOTEL	6010	5/01/14	47	18.5	24.4	43.6
ANTHONY LAKE (REV)	7130	4/29/14	81	34.0	24.8	--
ARBUCKLE MTN SNOTEL	5770	5/01/14	9	4.5	3.7	11.0
BEAR GRASS SNOTEL	4720	5/01/14	50	23.9	36.4	--
BEAVER DAM CREEK	5100	4/30/14	0	.0	.0	.0
BEAVER RES. SNOTEL	5150	5/01/14	0	.0	.0	.0
BIG RED MTN SNOTEL	6050	5/01/14	6	3.6	18.1	23.5
BIG SHEEP AM	6200	5/01/14	45	19.2	--	19.2
BIGELOW CAMP SNOTEL	5130	5/01/14	0	.0	.0	.0
BILLIE CK DVD SNOTEL	5280	5/01/14	0	.0	.0	10.8
BLAZED ALDER SNOTEL	3650	5/01/14	23	11.9	26.3	20.4
BLUE MTN SPGS SNOTEL	5870	5/01/14	6	3.5	.0	5.7
BOURNE SNOTEL	5850	5/01/14	9	4.4	.0	4.7
BOWMAN SPRNGS SNOTEL	4530	5/01/14	0	.0	.0	.0
CALIBAN ALT	6500	5/02/14	0	.0	24.2	29.2
CASCADE SUM. SNOTEL	5100	5/01/14	31	14.6	18.6	24.9
CHEMULT ALT SNOTEL	4850	5/01/14	0	.0	.0	.0
CLACKAMAS LK. SNOTEL	3400	5/01/14	0	.0	.0	.0
CLEAR LAKE SNOTEL	3810	5/01/14	0	.0	.0	1.6
COLD SPRINGS SNOTEL	5940	5/01/14	0	.0	3.8	21.1
COUNTY LINE SNOTEL	4830	5/01/14	0	.0	.0	.0
CRAZYMAN FLAT SNOTEL	6180	5/01/14	0	.0	.0	4.6
DALY LAKE SNOTEL	3690	5/01/14	0	.0	.0	.3
DEADWOOD JUNCTION	4600	4/30/14	0	.0	.0	.0
DERR SNOTEL	5850	5/01/14	0	.0	.0	1.5
DIAMOND LAKE SNOTEL	5280	5/01/14	0	.0	.0	.0
EILERTSON SNOTEL	5510	5/01/14	0	.0	.0	.0
EMIGRANT SPGS SNOTEL	3800	5/01/14	0	.0	.0	.0
FISH CREEK SNOTEL	7660	5/01/14	47	23.4	19.3	26.6
FISH LK. SNOTEL	4660	5/01/14	0	.0	.0	.0
FOURMILE LAKE SNOTEL	5970	5/01/14	4	3.0	3.0	22.5
GERBER RES SNOTEL	4890	5/01/14	0	.0	.0	.0
GOLD CENTER SNOTEL	5410	5/01/14	0	.0	.0	.0
GOVT CORRALS AM	7450	5/01/14	8	4.0	--	--
GREENPOINT SNOTEL	3310	5/01/14	0	.0	.0	1.2
HART MOUNTAIN AM	6350	5/01/14	0	.0	--	--
HIGH RIDGE SNOTEL	4920	5/01/14	32	14.0	13.5	11.0
HOGG PASS SNOTEL	4790	5/01/14	10	2.5	4.1	19.3
HOLLAND MDWS SNOTEL	4930	5/01/14	0	.1	9.0	10.7
HOWARD PRAIRIE	4500	4/30/14	0	.0	.0	.0
IRISH-TAYLOR SNOTEL	5540	5/01/14	72	28.2	25.0	39.8
JUMP OFF JOE SNOTEL	3520	5/01/14	0	.0	.9	.0
KING MTN #1	4500	4/30/14	0	.0	.5	.0
KING MTN #2 SNOTEL	4340	5/01/14	0	.0	.0	.0
KING MTN #3	3650	4/30/14	0	.0	.0	.0
KING MTN #4	3050	4/30/14	0	.0	.0	.0
LAKE CK R.S. SNOTEL	5240	5/01/14	0	.0	.0	.0
LITTLE MEADOW SNOTEL	4020	5/01/14	11	6.3	20.0	16.0
LUCKY STRIKE SNOTEL	4970	5/01/14	0	.0	.0	.0
MADISON BUTTE SNOTEL	5150	5/01/14	0	.0	.0	.0
MARION FORKS SNOTEL	2590	5/01/14	0	.0	.0	.0
MCKENZIE SNOTEL	4770	5/01/14	57	25.6	27.6	35.1
MILKSHAKES SNOTEL	5580	5/01/14	91	39.3	38.2	--
MILLER WOODS SNOTEL	420	5/01/14	0	.0	.0	--
MOSS SPRINGS SNOTEL	5760	5/01/14	61	27.7	19.3	18.5
MT ASHLAND SWBK.	6400	5/02/14	0	.0	20.7	30.6
MT HOOD TEST SNOTEL	5370	5/01/14	123	58.5	53.9	62.0

SNOW COURSE		ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
Oregon (continued)							
MT HOWARD	SNOTEL	7910	5/01/14	58	23.0	16.1	16.8
MUD RIDGE	SNOTEL	4070	5/01/14	31	16.4	16.2	17.8
NEW CRESCENT	SNOTEL	4910	5/01/14	0	.0	.0	.0
NORTH FK RES	SNOTEL	3060	5/01/14	0	.0	19.9	7.3
OCHOCO MEADOW	SNOTEL	5430	5/01/14	0	.0	.0	.0
PARK H.Q. REV		6550	5/02/14	84	39.0	41.6	61.0
PATTON MEADOWS	AM	6800	5/01/14	0	.0	--	11.5
PEAVINE RIDGE	SNOTEL	3420	5/01/14	0	.0	.0	.0
QUARTZ MTN	SNOTEL	5720	5/01/14	0	.0	.0	.0
R.R. OVERPASS	SNOTEL	2680	5/01/14	0	.0	.0	.0
RED BUTTE #1		4560	5/01/14	0	.0	1.5	2.8
RED BUTTE #2		4000	5/01/14	0	.0	.0	.0
RED BUTTE #3		3500	5/01/14	0	.0	.0	.0
RED BUTTE #4		3000	5/01/14	0	.0	.0	.0
RED HILL	SNOTEL	4410	5/01/14	66	37.4	40.7	39.8
ROARING RIVER	SNOTEL	4950	5/01/14	29	12.6	14.6	20.9
ROCK SPRINGS	SNOTEL	5290	5/01/14	0	.0	.0	.0
ROGGER MEADOWS	AM	6500	5/01/14	0	.0	--	--
SADDLE MTN	SNOTEL	3110	5/01/14	0	.0	.0	--
SALT CK FALLS	SNOTEL	4220	5/01/14	0	.7	9.9	10.1
SANTIAM JCT.	SNOTEL	3740	5/01/14	0	.0	.0	.0
SCHNEIDER MDW	SNOTEL	5400	5/01/14	38	16.3	3.8	17.3
SEINE CREEK	SNOTEL	2060	5/01/14	0	.0	.0	.0
SEVENMILE MARSH	SNTL	5700	5/01/14	10	3.8	6.1	24.3
SHERMAN VALLEY	AM	6600	5/01/14	0	.0	--	--
SILVER BURN		3720	5/02/14	0	.0	.0	.0
SILVER CREEK	SNOTEL	5740	5/01/14	0	.0	.0	.0
SILVIES	SNOTEL	6990	5/01/14	0	.0	.0	10.3
SKI BOWL ROAD		6000	5/02/14	0	.0	5.0	21.5
SMITH RIDGE	SNOTEL	3330	5/01/14	0	.0	.0	--
SNOW MTN	SNOTEL	6220	5/01/14	6	3.0	.0	4.2
SF BULL RUN	SNOTEL	2690	5/01/14	0	.0	.0	.0
STARR RIDGE	SNOTEL	5250	5/01/14	0	.0	.0	.0
STRAWBERRY	SNOTEL	5770	5/01/14	0	.0	.0	.0
SUMMER RIM	SNOTEL	7080	5/01/14	13	1.6	1.9	11.7
SUMMIT LAKE	SNOTEL	5610	5/01/14	71	27.7	37.9	40.8
SUN PASS	SNOTEL	5400	5/01/14	0	.0	.0	--
SWAN LAKE MTN	SNOTEL	6830	5/01/14	0	.0	.5	--
TAYLOR BUTTE	SNOTEL	5030	5/01/14	0	.0	.0	.0
TAYLOR GREEN	SNOTEL	5740	5/01/14	22	11.9	3.3	10.0
THREE CK MEAD	SNOTEL	5690	5/01/14	7	1.7	.1	13.4
TIPTON	SNOTEL	5150	5/01/14	2	1.1	.0	2.0
TOKETEE AIRSTRIP	SN	3240	5/01/14	0	.0	.0	.0
TROUT CREEK	AM	7800	5/01/14	8	4.0	--	--
TV RIDGE #2	AM	7000	5/01/14	35	15.1	--	19.5
V LAKE	AM	6600	5/01/14	0	.0	--	--
WOLF CREEK	SNOTEL	5630	5/01/14	19	7.4	3.1	6.9

California

ADIN MOUNTAIN		6350	5/02/14	0	.0	.0	2.2
ADIN MTN	SNOTEL	6190	5/01/14	0	.0	.0	1.4
CEDAR PASS	SNOTEL	7030	5/01/14	1	.1	.0	12.9
CROWDER FLAT	SNOTEL	5170	5/01/14	0	.0	.0	.0
DISMAL SWAMP	SNOTEL	7360	5/01/14	38	14.9	16.3	26.0

Idaho

MUD FLAT	SNOTEL	5730	5/01/14	0	.0	.0	.0
SOUTH MTN	SNOTEL	6500	5/01/14	0	.0	.0	5.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	MEDIAN 81-10
Nevada						
BEAR CREEK SNOTEL	7800	5/01/14	26	9.5	14.7	18.6
BIG BEND SNOTEL	6700	5/01/14	0	.0	.0	.0
BUCKSKIN,L SNOTEL	6700	5/01/14	4	1.3	.0	.2
DISASTER PEAK SNOTEL	6500	5/01/14	0	.0	.0	.0
FAWN CREEK SNOTEL	7050	5/01/14	16	5.9	.0	11.4
GRANITE PEAK SNOTEL	7800	5/01/14	23	8.1	6.6	19.5
JACK CREEK, U SNOTEL	7280	5/01/14	30	8.8	4.9	14.4
LAMANCE CREEK SNOTEL	6000	5/01/14	0	.0	.0	.0
LAUREL DRAW SNOTEL	6700	5/01/14	0	.0	.0	.0
SEVENTYSIX CK SNOTEL	7100	5/01/14	0	.0	.0	.2
TAYLOR CANYON SNOTEL	6200	5/01/14	0	.0	.0	.0

Basin Outlook Reports: How Forecasts Are Made

Federal – State – Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

**USDA, Natural Resources Conservation Service
Snow Survey Office
1201 NE Lloyd Suite 900
Portland, OR 97232**

Phone: (503) 414-3270

Web site: <http://www.or.nrcs.usda.gov/snow/index.html>

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertainty is in the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount. By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Interpreting Water Supply Forecasts

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1981-2010. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the Forecasts - an Example

Using the 50 Percent Exceedance Forecast. Using the example forecasts shown on the next page, there is a 50% chance that actual streamflow volume at the Mountain Creek near Mitchell will be less than 4.4 KAF between April 1 and Sept 30. There is also a 50% chance that actual streamflow volume will be greater than 4.4 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 3.3 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 3.3 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 1.7 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 1.7 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 5.5 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 5.5 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 7.1 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 7.1 KAF.

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JOHN DAY BASIN
Streamflow Forecasts - February 1, 2013

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)
		===== Chance Of Exceeding * =====				
		90% (1000AF)	70% (1000AF)	50% (1000AF) (% AVG.)	30% (1000AF)	
Strawberry Ck nr Prairie City	MAR-JUL	5.0	6.6	7.6	89	8.5
	APR-SEP	5.2	6.8	7.9	90	8.8
Mountain Ck nr Mitchell	FEB-JUL	3.2	5.4	6.9	99	7.0
	APR-SEP	1.7	3.3	4.4	90	4.9

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

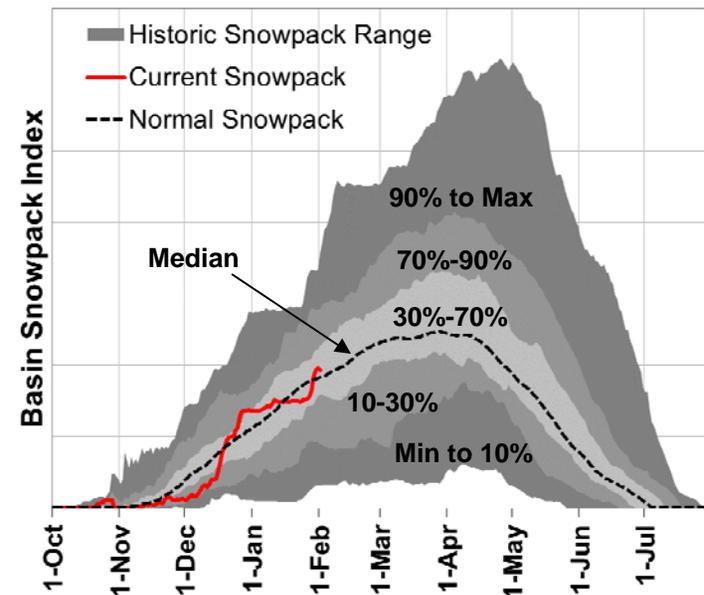
Interpreting Snowpack Plots

The basin snowpack plots display an index calculated using daily SNOTEL data for many sites in each basin. They show how the current year's snowpack data compares to historical data in the basin. The "Current Snowpack" line can be compared with the "Normal Snowpack" (median) line, as well as the historic range for the basin. This gives users important context about the current year and historic variability of snowpack in the basin.

The grey shaded areas represent different percentiles of the historical range of the snowpack index for each day. The dark grey shading indicates the extreme lows and highs in the SNOTEL record (minimum to the 10th percentile and the 90th percentile to maximum). The medium grey shading indicates the range from the 10th to 30th percentiles and the 70th to 90th percentiles. The light grey shading indicates the range between the 30th to 70th percentiles, while the median is the 50th percentile. A percentile is the value of the snowpack index below which the given percent of historical years fall. For instance, the 90th percentile line indicates that the snowpack index has been below this line for 90 percent of the years of record.

** Please note: These plots only use daily data from SNOTEL sites in the basin. Because snow course data is collected monthly, it cannot be included in these plots. The official snowpack percent of normal for the basin incorporates both SNOTEL and snow course data, so occasionally there might be slight discrepancies between the plot and official basin percent of normal (stated in basin summary below each plot).

Mountain Snowpack



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