United States
Department of
Agriculture

Natural Resources
Conservation
Service

Oregon
Basin Outlook Report

January 1, 2012

Photo courtesy of Joel Parker

The above photo of Mount Hood was taken during a recent snow survey trip to Red Hill SNOTEL. The snowpack at Red Hill SNOTEL was 37" deep and contained 11" of snow water, as of January 1. This represents 55% of normal for this time of year. The snowpack across Oregon is well below normal so far this winter.

Contents

General Outlook

January 1, 2012

SUMMARY

Welcome to the first Water Supply Outlook Report for 2012. First, we look back on water year 2011, which ended on September 30. Water year 2011 was an above average year for precipitation across Oregon. Statewide, accumulated precipitation for the year was 113 percent of average for the SNOTEL network. Last summer, a healthy snowpack lingered much longer than normal in the mountains. Because of this, irrigation reservoirs entered the current winter with storage levels at or above normal across most of Oregon, which could potentially provide a helpful cushion for water supply conditions for the coming summer.

Water year 2012 has been abnormally dry for Oregon. Oceanic and atmospheric observations throughout the Pacific Basin indicate weak to moderate La Niña conditions for this winter. Typically, this weather pattern delivers colder and stormier than normal conditions to the Pacific Northwest. However, December was dominated by a stubborn upper-level ridge of high pressure that sent storms to the north and south, while keeping Oregon very dry. December ended with a widespread storm that brought significant moisture and warm temperatures over a four day period. Daily minimum temperatures at almost every SNOTEL site in Oregon set new record highs for December 28. Many low and mid elevation SNOTEL sites experienced snowmelt during this storm, due to warm rainfall on the snowpack.

As of January 1, all basins in the state were reporting well below normal snowpack and water year precipitation. In addition, soil moisture levels across most of Oregon remain lower than normal because of the scant early winter precipitation that typically recharges soil moisture conditions. Accordingly, January 1 streamflow forecasts for the coming summer are below normal in every basin of the state. Water users are advised to keep abreast of changes in precipitation and snowpack conditions throughout the winter. This report will be updated monthly through June 1.

SNOWPACK

After a typical start to the snowpack accumulation in November, the storms stopped and the snowpack remained frozen in place across the state until the last few days of December. The late December storm brought a significant amount of moisture to much of Oregon, as well as warm temperatures. The amount of precipitation that fell as snow during this storm varied greatly across the region. While some SNOTEL sites got a boost to their anemic snowpack, many sites experienced rain-on-snow that left them with less snowpack than before the storm.

As of January 1, snowpack was well below average in every basin of Oregon. The snowpack ranged from 31 percent of average in the southern and southeastern regions of the state, to 61 percent of average in the northeastern region of the state.

It is still relatively early in the snowpack accumulation season. Typically, about 40 to 50 percent of the peak snowpack is on the ground at most SNOTEL sites by January 1. January, February and March are key accumulation months for Oregon snowpack. While there is still time for recovery from the very low snowpack levels at present, significant storms would be required for water supply conditions to reach normal levels by April 1.

PRECIPITATION

While water year 2011 ended with above average annual precipitation totals across Oregon, the current water year has not followed suit. October rainfall was above normal for much of the state, but November and December brought below normal precipitation to all regions of Oregon. The late December storm brought much needed precipitation to most of Oregon, which saved

many SNOTEL sites from setting record lows for precipitation. However, eight SNOTEL sites in southern and southeastern Oregon set record lows for December precipitation.

As of January 1, water year precipitation across Oregon was well below average. For October 1 to January 1, the accumulated precipitation ranged from 48 percent of average in the Lake County basin to 85 percent of average in the Hood, Mile Creeks, and Lower Deschutes basins. December precipitation was very low across the state as well, ranging from 29 percent of average in the Lake County, Owyhee and Malheur basins to 75 percent of average in the Hood, Mile Creeks, and Lower Deschutes basins.

RESERVOIRS

A majority of Oregon reservoirs are currently storing more water than they were last year at this time. These reservoirs benefited from above average streamflows last spring and summer, due to healthy snowpacks and above average precipitation.

Since October 1, many reservoirs in southeastern Oregon have seen limited inflows as a result of scant fall rains. In the western part of the state, reservoirs benefited from infrequent precipitation events in November and December, which generated enough inflow to keep reservoir storage near normal for this time of year.

The January 1 storage at 26 major Oregon reservoirs analyzed in this publication was 106 percent of average. As of January 1, water storage at these reservoirs totalled 1,772 thousand acre feet (kaf), representing 55 percent of useable capacity. Last year at this time these same reservoirs stored 1,290 kaf of water, or 40 percent of useable capacity.

STREAMFLOW

All streamflow points in Oregon are currently forecast to be below average for the summer ahead. The southeastern basins of the state have the lowest streamflow forecasts. While there is still time for snowpack conditions to improve, water users across Oregon should consider planning for water shortages if dry conditions persist.

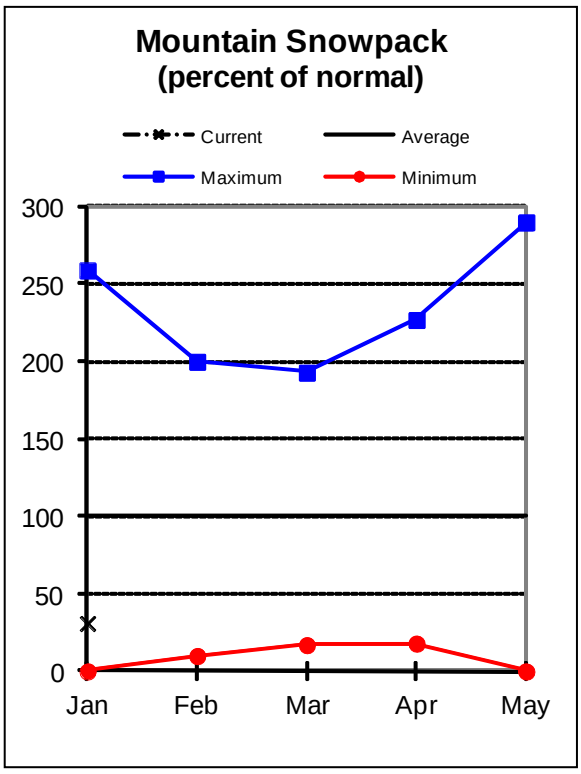
A summary of streamflow forecasts for Oregon follows:

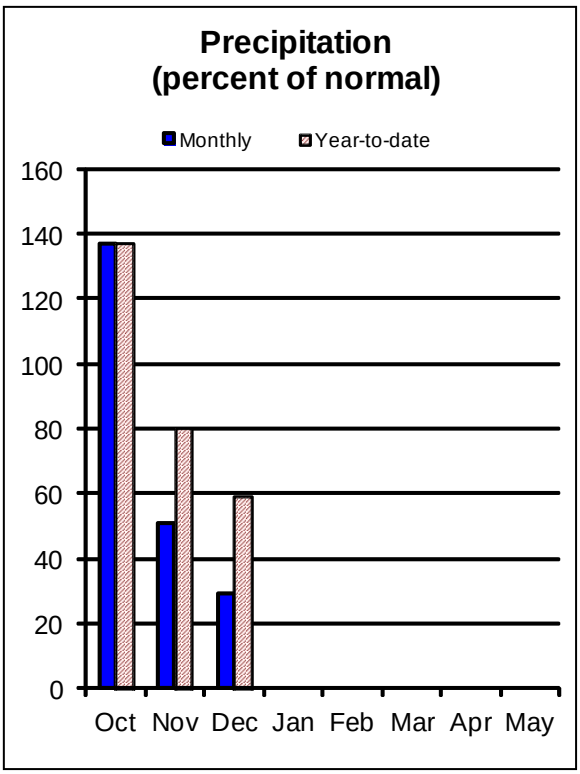
STREAM	PERIOD	PERCENT OF AVERAGE
Owyhee Reservoir Inflow	Apr-Sep	58
Grande Ronde R at La Grande	Apr-Sep	73
Umatilla R at Pendleton	Apr-Sep	76
Deschutes R at Benham Falls	Apr-Sep	88
MF Willamette R bl NF	Apr-Sep	76
Rogue R at Raygold	Apr-Sep	67
Upper Klamath Lake Inflow	Apr-Sep	58
Silvies R nr Burns	Apr-Sept	57

Some of these forecasts assume that normal weather conditions will occur from now to the end of the forecast period. The forecasts in this bulletin are a result of coordinated activity between the Natural Resources Conservation Service and the National Weather Service as an effort to provide the best possible service to water users. 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

January 1, 2012





Water Supply Outlook

Water year 2011 ended with well above normal precipitation for the Owyhee and Malheur basins. The new water year had a promising start with above average precipitation in October, and then the faucet dried up. November and December were both very dry in southeastern Oregon. Since the beginning of water year 2012, precipitation in the Owyhee and Malheur basins has been 59 percent of average.

After a typical start to the snowpack accumulation season, the storms ceased after Thanksgiving. The late December storm did little to augment the paltry snowpack in the basin. As of January 1, the basin snowpack was 31 percent of average, the lowest in the state.

Reservoir storage in the Owyhee and Malheur basins remains above average, which may provide some relief from low water supply conditions. January 1 storage at the four irrigation reservoirs in the basin was 124 percent of average and 64 percent of capacity.

At this point in the season, streamflows in the Owyhee and Malheur basins are forecast to be well below normal for the summer of 2012. The April through September streamflow forecasts in the basin range from 40 percent of average for the Malheur River near Drewsey to 58 percent of average for the Owyhee Reservoir Inflow. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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 - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Malheur R nr Drewsey	FEB-JUL	16.0	35	52	41	72	108	127
	APR-JUL	4.7	17.2	30	41	46	77	74
	APR-SEP	7.6	19.2	30	40	43	67	76
NF Malheur R at Beulah (2)	FEB-JUL	13.5	31	46	51	65	98	90
Owyhee R bl Owyhee Dam (2)	FEB-JUL	119	250	365	52	505	745	700
	FEB-SEP	133	270	385	53	525	765	730
	APR-SEP	79	169	250	58	345	515	430
Owyhee R nr Rome	FEB-JUL	33	174	330	50	485	715	655
	FEB-SEP	34	181	340	50	500	735	675
	APR-SEP	20	109	220	55	330	495	400

* 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 1971-2000 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.

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEULAH RES	60.0	27.4	15.5	22.8
BULLY CREEK	30.0	12.2	11.6	11.1
OWYHEE	715.0	492.4	214.9	398.1
WARMSPRINGS	191.0	102.5	29.2	78.5

OWYHEE AND MALHEUR BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Owyhee	7	18	26
Upper Malheur	3	30	45
Jordan Creek	2	15	25

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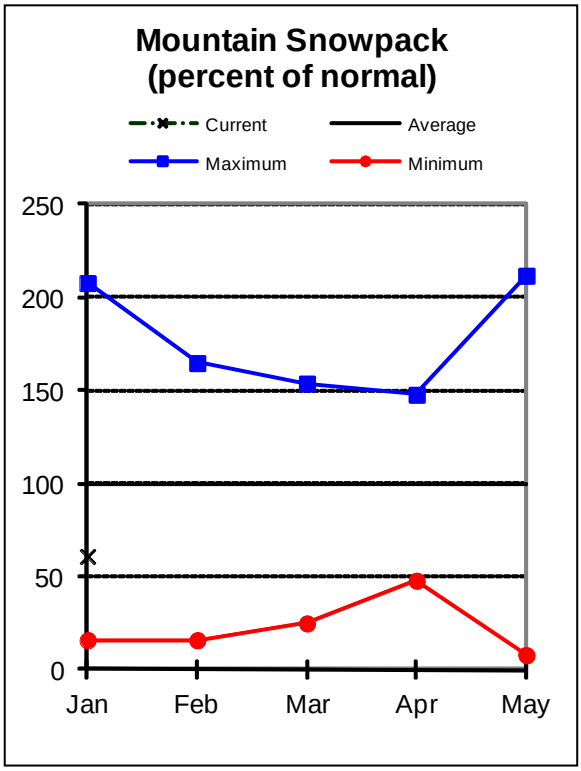
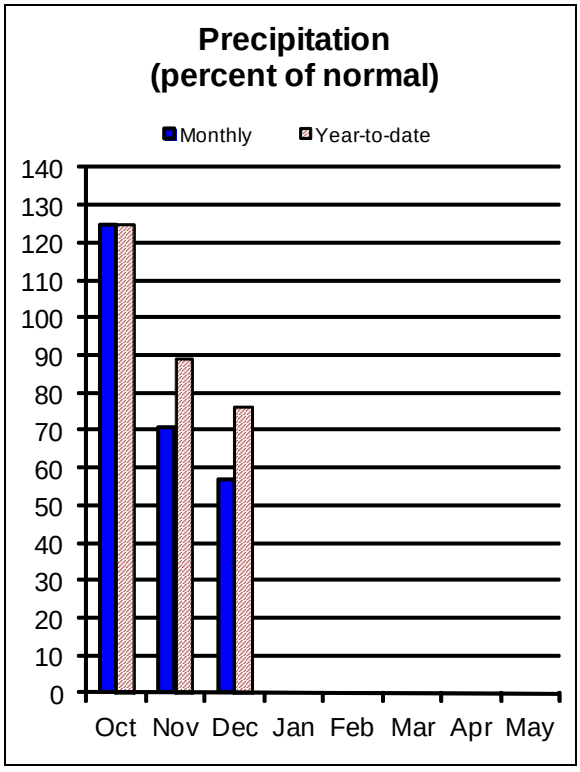
Burnt, Powder, Grande Ronde, and Imnaha Basins

January 1, 2012





Water Supply Outlook

The Burnt, Powder, Pine, Grande Ronde, and Imnaha basins ended water year 2011 with above average precipitation. The new water year started with a very wet October, and then the storms tapered off. November and December both had below normal precipitation in northeastern Oregon. Since the beginning of water year 2012, precipitation in the basin has been 76 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. However, the late December storm brought much needed snow to the region, and helped push the snowpack up to 61 percent of average as of January 1. This is currently the highest snowpack in the state.

January 1 storage at Phillips Lake, Thief Valley and Unity reservoirs was 92 percent of average and 51 percent of capacity.

At this point in the season, streamflows in the Burnt, Powder, Pine, Grande Ronde, and Imnaha basins are forecast to be below normal for the summer of 2012. The April through September streamflow forecasts range from 51 percent of average for the Burnt River near Hereford to 84 percent of average for the Lostine River near Lostine. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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/

BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear Ck nr Wallowa	APR-SEP	39	47	53	82	59	67	65
Burnt R nr Hereford (2)	FEB-JUL	7.5	21	31	54	41	55	57
	APR-SEP	0.3	12.0	20	51	28	40	39
Catherine Ck nr Union	APR-JUL	32	43	50	81	57	68	62
	APR-SEP	35	46	53	80	60	71	66
Deer Ck nr Sumpter	FEB-JUL	5.6	9.7	12.5	64	15.3	19.4	19.4
Grande Ronde R at La Grande	MAR-JUL	103	151	183	74	215	265	247
	APR-SEP	67	109	137	73	165	205	188
Grande Ronde R at Troy (1)	MAR-JUL	710	1080	1250	79	1420	1790	1580
	APR-SEP	565	920	1080	79	1240	1590	1370
Imnaha R at Imnaha	APR-JUL	124	181	220	82	260	315	270
	APR-SEP	133	194	235	80	275	335	295
Lostine R nr Lostine	APR-JUL	77	88	95	85	102	113	112
	APR-SEP	82	94	102	84	110	122	121
Pine Ck nr Oxbow	FEB-JUL	82	134	169	81	205	255	208
	APR-JUL	55	92	118	80	144	181	148
	APR-SEP	58	97	123	80	149	188	154
Powder R nr Sumpter	FEB-JUL	18.2	35	47	64	59	76	74
	APR-JUL	11.1	26	36	62	46	61	58
	APR-SEP	11.2	27	37	63	47	63	59
Wolf Ck Reservoir Inflow (2)	MAR-JUN	5.0	9.7	12.9	80	16.1	21	16.2

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PHILLIPS LAKE	73.5	37.2	42.1	38.4
THIEF VALLEY	17.4	13.7	13.6	15.5
UNITY	25.2	8.3	6.5	10.6
WALLOWA LAKE	37.5	15.2	12.4	17.4
WOLF CREEK	10.4	4.5	4.1	3.1

BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Upper Grande Ronde	7	47	61
Wallowa	4	68	61
Imnaha	4	72	65
Powder	8	59	68
Burnt	2	36	49

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

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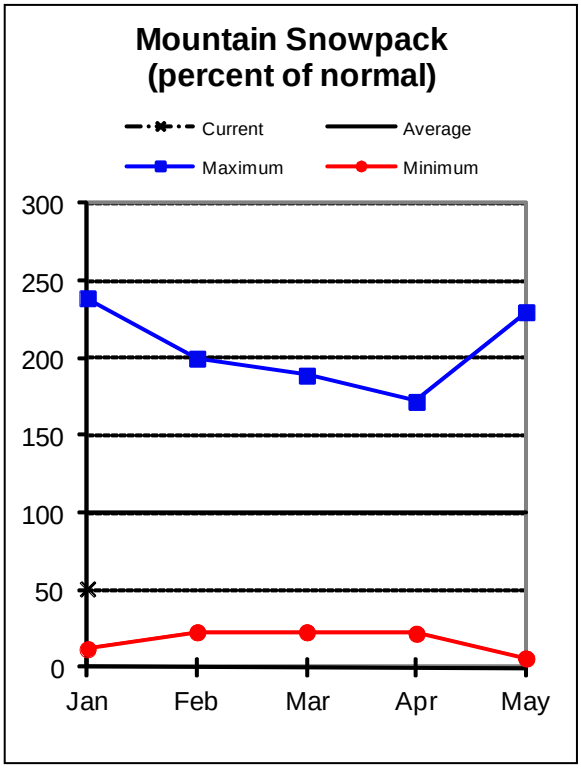
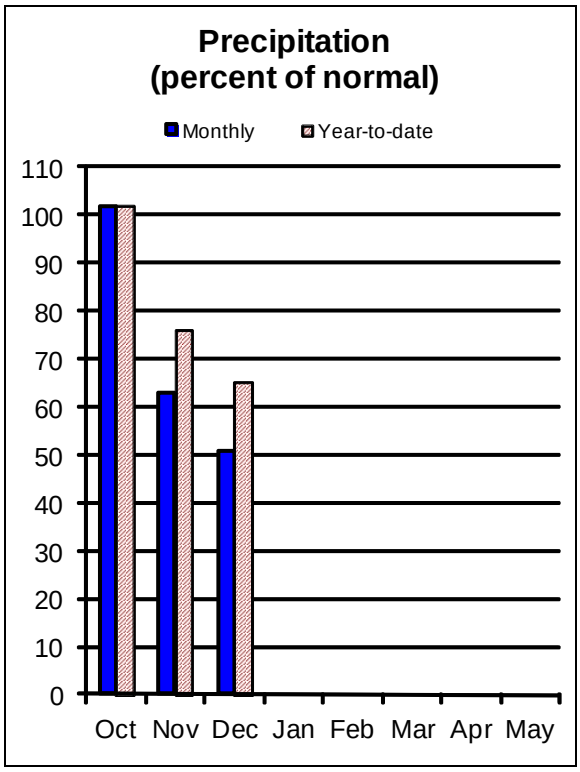
Umatilla, Walla Walla, Willow Rock, and Lower John Day Basins

January 1, 2012





Water Supply Outlook

The Umatilla, Walla Walla, Willow, Rock and Lower John Day basins ended water year 2011 with above average precipitation. The new water year started with near normal precipitation in October, and then the storms tapered off. November and December both had well below normal precipitation in northern Oregon. Since the beginning of water year 2012, precipitation in the basin has been 65 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought snow to the higher elevations, but warm rains depleted the snowpack at lower elevations. As of January 1, the basin snowpack was 51 percent of average.

January 1 storage at McKay reservoir was 61 percent of average and 19 percent of capacity.

At this point in the season, streamflows in the basin are forecast to be below normal for the summer of 2012. The April through September streamflow forecasts range from 60 percent of average for Butter Creek near Pine City to 84 percent of average for the South Fork Walla Walla River near Milton-Freewater. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Butter Ck nr Pine City	MAR-JUL	1.6	6.0	9.0	60	12.0	16.4	15.0
	APR-SEP	1.2	4.1	6.1	60	8.1	11.0	10.2
McKay Ck nr Pilot Rock	APR-SEP	1.1	11.3	19.2	71	27	39	27
Rhea Ck nr Heppner	FEB-JUL	0.7	4.4	7.5	56	10.6	15.2	13.5
Umatilla R ab Meacham Ck nr Gibbon	APR-JUL	34	48	57	78	66	80	73
	MAR-SEP	58	74	85	80	96	112	106
	APR-SEP	39	53	62	79	71	85	79
Umatilla R at Pendleton	APR-JUL	58	91	113	76	135	168	149
	MAR-SEP	110	151	179	78	205	250	230
	APR-SEP	63	96	118	76	140	173	155
SF Walla Walla R nr Milton-Freewater	APR-JUL	35	41	45	83	49	55	54
	MAR-SEP	57	65	70	86	75	83	81
	APR-SEP	45	51	56	84	61	67	67
Willow Ck ab Willow Ck Lake nr Heppn	FEB-JUL	0.6	4.6	7.3	55	10.0	14.0	13.3
	APR-JUL	0.4	2.2	4.1	55	6.0	8.7	7.4

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COLD SPRINGS	50.0	2.3	8.3	14.3
MCKAY	73.8	14.3	29.8	23.6
WILLOW CREEK	1.8	4.3	0.6	---

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Walla Walla	3	56	61
Umatilla	5	33	50
McKay Creek	3	24	38

* 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 1971-2000 base period.
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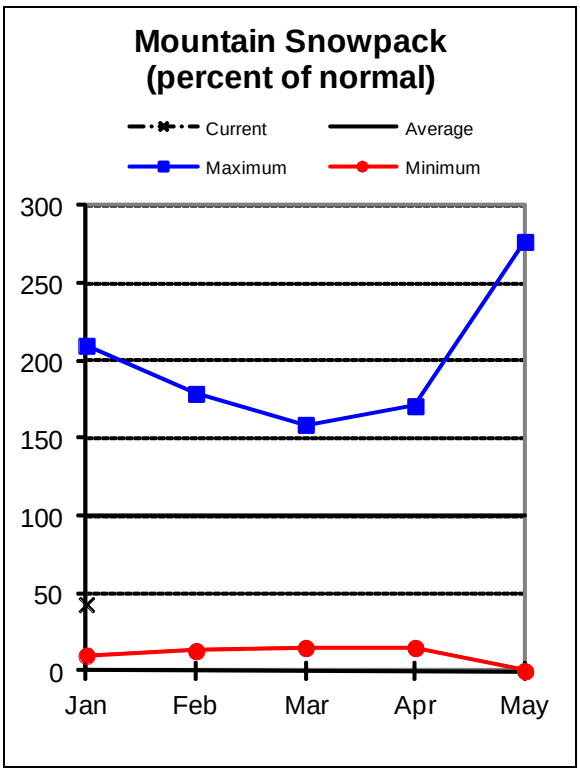
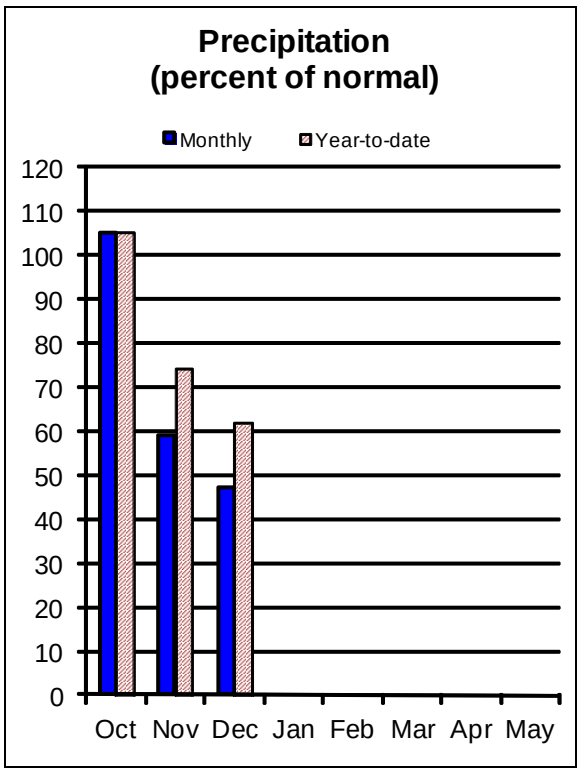
Upper John Day Basin

January 1, 2012





Water Supply Outlook

The Upper John Day basin ended water year 2011 with above average precipitation. The new water year started with near normal precipitation for October, and then the storms tapered off. November and December both had well below normal precipitation in the basin. Since the beginning of water year 2012, precipitation in the Upper John Day basin has been 62 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought snow to the higher elevations, but warm rains depleted the snowpack at lower elevations. The basin snowpack was 43 percent of average as of January 1.

At this point in the season, streamflows in the Upper John Day basin are forecast to be below normal for the summer of 2012. The April through September streamflow forecasts range from 65 percent of average for the Middle Fork John Day at Ritter to 82 percent of average for the Strawberry Creek near Prairie City. Elsewhere in the basin, the North Fork John Day at Monument is forecast to be 68 percent of average for the same period. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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/

UPPER JOHN DAY BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Camas Ck nr Ukiah	MAR-JUL	17.8	28	35	67	42	52	52
	APR-SEP	9.3	18.6	25	66	31	41	38
MF John Day R at Ritter	MAR-JUL	40	77	103	65	129	166	159
	APR-SEP	29	61	83	65	105	137	128
NF John Day R at Monument	MAR-JUL	240	415	535	68	655	830	790
	APR-SEP	180	325	420	68	515	660	615
Mountain Ck nr Mitchell	FEB-JUL	0.6	3.2	5.0	71	6.8	9.4	7.0
	APR-SEP	0.3	2.1	3.3	72	4.5	6.3	4.6
Strawberry Ck nr Prairie City	MAR-JUL	2.9	4.8	6.1	82	7.4	9.3	7.4
	APR-SEP	3.2	5.1	6.4	82	7.7	9.6	7.8

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

UPPER JOHN DAY BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork John Day	7	36	47
John Day above Kimberly	5	31	44

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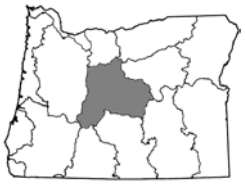
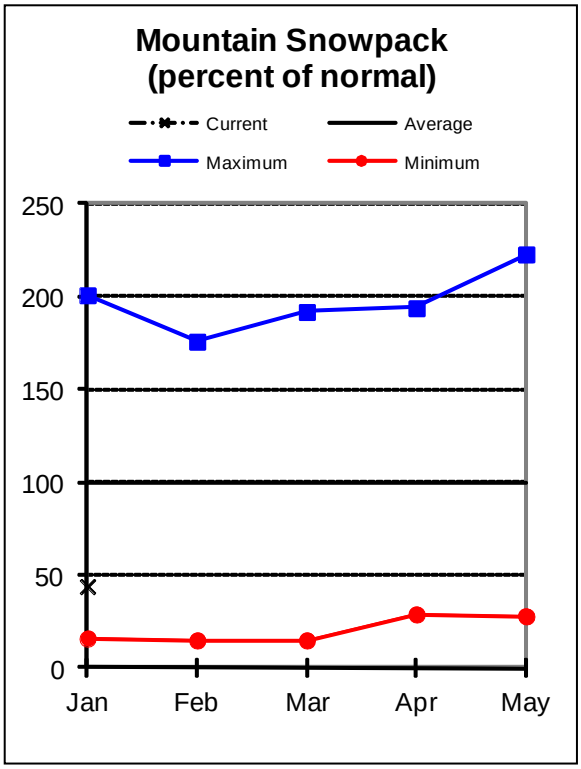
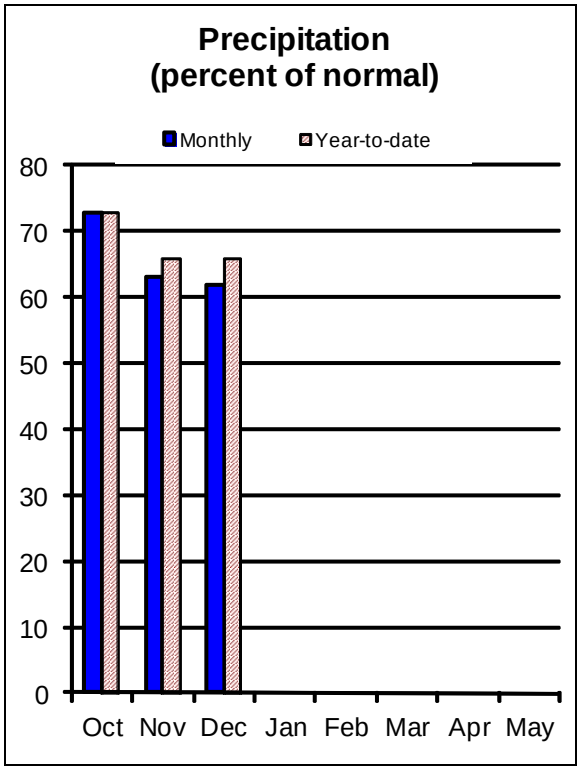


Upper Deschutes and Crooked Basins

January 1, 2012





Water Supply Outlook

The Upper Deschutes and Crooked basins ended water year 2011 with above average precipitation. Since the beginning of water year 2012, the basin has experienced well below normal precipitation for October, November, and December. October 1 to January 1 precipitation in the Upper Deschutes and Crooked basins was 66 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm did little to augment the snowpack in the basin. As of January 1, the snowpack in the Upper Deschutes and Crooked basins was 44 percent of average.

Reservoir storage in the Upper Deschutes and Crooked River basins remains above average, which may provide some relief from low water supply conditions. January 1 storage at five irrigation reservoirs in the basin was 124 percent of average and 75 percent of capacity.

At this point in the season, streamflows in the Upper Deschutes and Crooked basins are forecast to be below normal for the summer of 2012. The April through September streamflow forecasts range from 51 percent of average for the Prineville Reservoir Inflow to 88 percent of average for the Deschutes River at Benham Falls. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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 - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Crane Prairie Reservoir Inflow (2)	FEB-JUL	41	55	65	83	75	89	78
	APR-JUL	28	39	47	80	55	66	59
	FEB-SEP	62	80	92	82	104	122	112
	APR-SEP	44	60	71	76	82	98	93
Crescent Ck nr Crescent (2)	FEB-JUL	7.1	13.0	17.0	74	21	27	23
	APR-JUL	4.6	9.3	12.4	72	15.5	20	17.2
	FEB-SEP	8.0	14.6	19.0	70	23	30	27
	APR-SEP	6.1	11.2	14.7	70	18.2	23	21
Deschutes R at Benham Falls nr Bend	FEB-JUL	375	415	445	89	475	515	500
	APR-JUL	255	285	305	87	325	355	350
	FEB-SEP	515	565	600	88	635	685	680
	APR-SEP	395	435	460	88	485	525	525
Deschutes R bl Snow Ck nr La Pine	FEB-JUL	22	31	37	82	43	52	45
	APR-JUL	15.8	22	27	82	32	38	33
	FEB-SEP	35	46	54	76	62	73	71
	APR-SEP	29	39	45	76	51	61	59
Little Deschutes R nr La Pine (2)	FEB-JUL	28	51	67	66	83	106	101
	APR-JUL	19.4	35	45	63	55	71	71
	FEB-SEP	28	53	70	64	87	112	110
	APR-SEP	20	37	49	61	61	78	80
Ochoco Reservoir Inflow (2)	FEB-JUL	6.5	19.3	28	65	37	49	43
	APR-JUL	4.8	11.2	15.5	71	19.8	26	22
	FEB-SEP	4.7	18.0	27	63	36	49	43
	APR-SEP	3.6	10.3	14.9	68	19.5	26	22
Prineville Reservoir Inflow (2)	FEB-JUL	8.0	77	123	56	169	240	221
	APR-JUL	5.0	33	56	52	79	112	108
	FEB-SEP	6.0	75	122	55	169	240	222
	APR-SEP	5.0	32	55	51	78	112	109

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

UPPER DESCHUTES AND CROOKED BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>>					
		Chance Of Exceeding *					
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Whychus Ck nr Sisters	FEB-JUL	27	34	38	88	42	49	43
	APR-JUL	23	27	30	83	33	37	36
	FEB-SEP	34	42	47	87	52	60	54
	APR-SEP	30	36	40	82	44	50	49

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CRANE PRAIRIE	55.3	38.2	36.4	36.7
CRESCENT LAKE	86.9	82.0	65.2	47.5
OCHOCO	47.5	24.9	29.0	18.1
PRINEVILLE	153.0	89.4	89.2	85.3
WICKIUP	200.0	174.0	136.4	142.2

UPPER DESCHUTES AND CROOKED BASINS
Watershed Snowpack Analysis - January 1, 2012

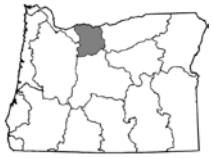
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Crooked	4	18	29
Little Deschutes	4	32	49
Deschutes above Wickiup R	4	32	49
Tumalo and Squaw Creeks	2	36	46

* 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 1971-2000 base period.

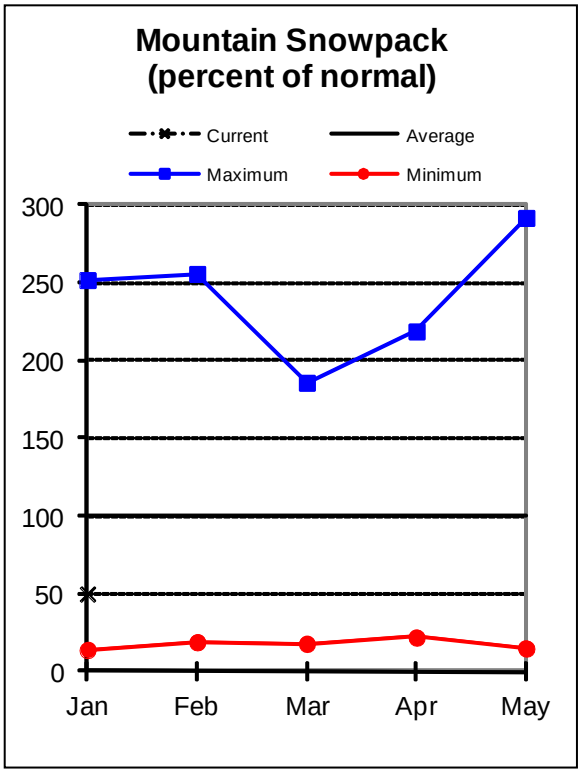
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

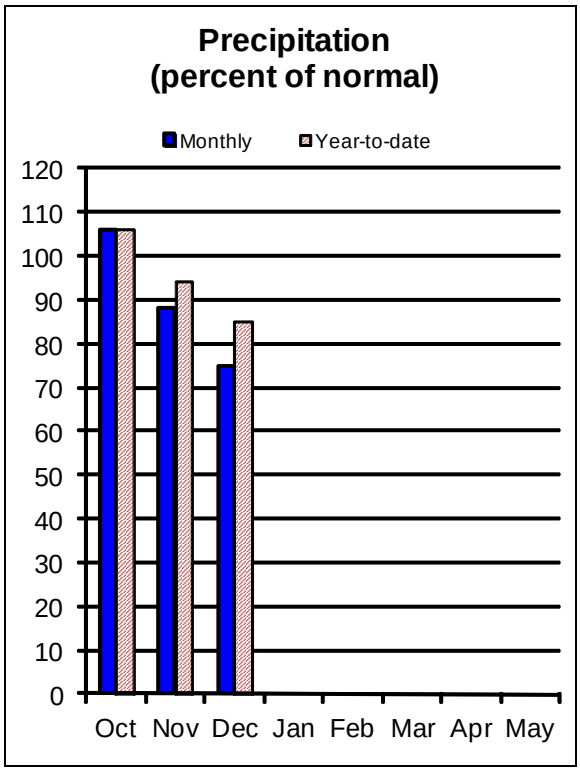
For more information contact your local Natural Resources Conservation Service office:
Redmond (541) 923-4358
Or visit: http://www.or.nrcs.usda.gov/snow/watersupply/



Hood, Mile Creeks, and Lower Deschutes Basins

January 1, 2012





Water Supply Outlook

The Hood, Mile Creeks and Lower Deschutes basins ended water year 2011 with near normal precipitation. Water year 2012 started with near normal precipitation for October, and then the storms tapered off. November and December both had below normal precipitation in the basin. However, the late December storm brought significant rainfall to the region. From October 1 to January 1, precipitation in the Hood, Mile Creeks and Lower Deschutes basins was 85 percent of average, the highest in the state.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought snow to the higher elevations, but warm rains depleted the snowpack at lower elevations. The basin snowpack was 50 percent of average as of January 1.

April through September streamflow for Hood River at Tucker Bridge is forecast to be 85 percent of average. At this point in the season, water users in the Hood, Mile Creeks and Lower Deschutes basin can expect below normal streamflows during the summer of 2012.

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, MILE CREEKS AND LOWER DESCHUTES BASINS
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WF Hood River nr Dee	APR-JUL	68	92	108	89	124	148	121
Hood R At Tucker Bridge	APR-JUL	136	170	193	85	215	250	228
	APR-SEP	168	205	230	85	255	290	271

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CLEAR LAKE (WASCO)	11.9	3.8	2.4	---

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Hood River	7	57	59
Mile Creeks	2	47	49
White River	5	55	54

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

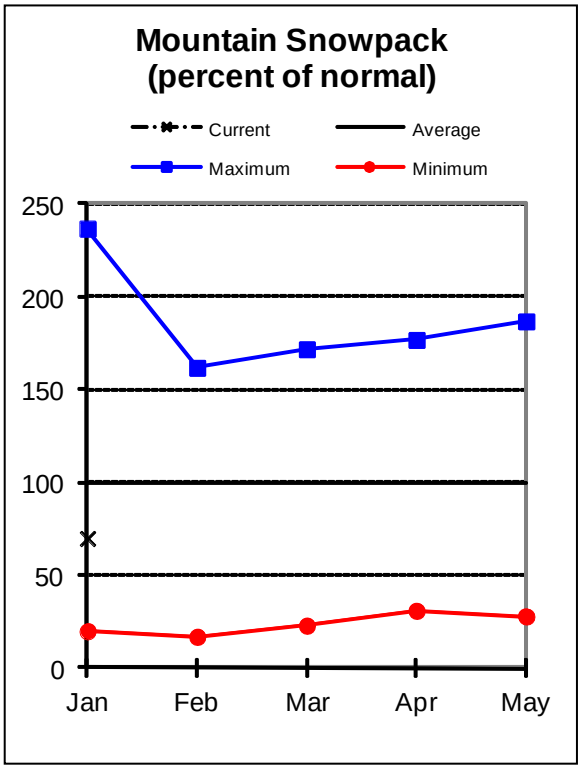
The average is computed for the 1971-2000 base period.

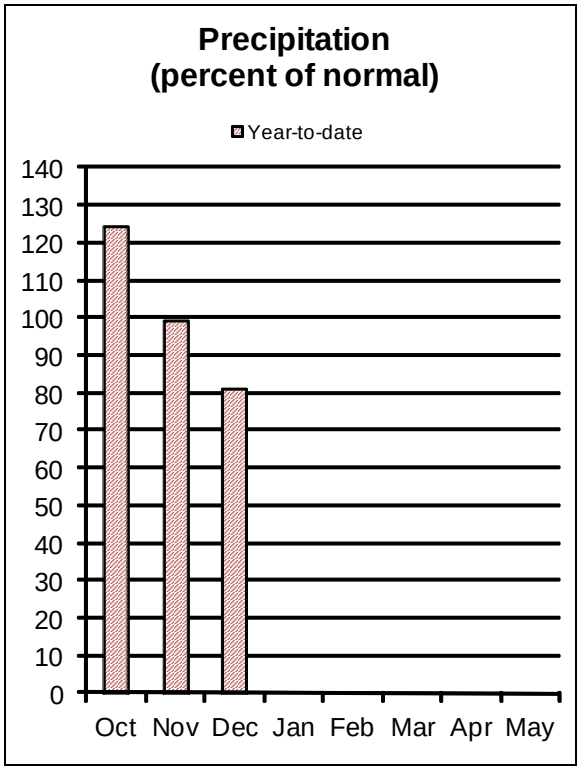
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

For more information contact your local Natural Resources Conservation Service office:
The Dalles (541) 296-6178
Or visit: http://www.or.nrcs.usda.gov/snow/watersupply/

Lower Columbia Basin

February 1, 2011





Water Supply Outlook

On January 1, the snowpack in the Columbia River basin was 70 percent of average, as measured by 237 SNOTEL sites in the US portion of the basin. The Canadian portion of the Columbia basin has had much higher snowfall so far this winter and is well above average, as of January 1.

Precipitation in the US portion of the basin from October 1 to January 1 was 81 percent of average. Locally, precipitation from October 1 to January 1 in the Sandy basin was 84 percent of average.

At this point in the season, the April through September streamflow forecast for the Columbia at The Dalles is 88 percent of average. For the Sandy near Marmot, the April through September streamflow forecast is 85 percent of average.

For more information contact your local Natural Resources Conservation Service office:
Oregon City - (503) 656-3499
Or visit: http://www.or.nrcs.usda.gov/snow/watersupply/

LOWER COLUMBIA BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Columbia R at The Dalles (2)	APR-JUL	52400	64100	72000	85	80000	91700	84600
	APR-SEP	64200	77800	87100	88	96300	110000	98600
Sandy R nr Marmot	APR-JUL	191	235	265	85	295	340	313
	APR-SEP	235	280	310	85	340	385	363

LOWER COLUMBIA BASIN
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

LOWER COLUMBIA BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Sandy	7	55	61

* 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 1971-2000 base period.

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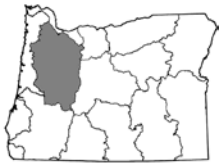
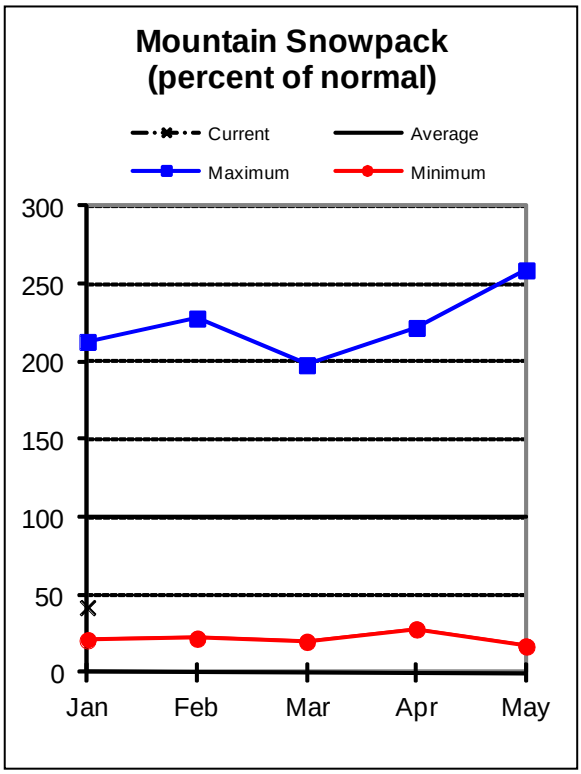
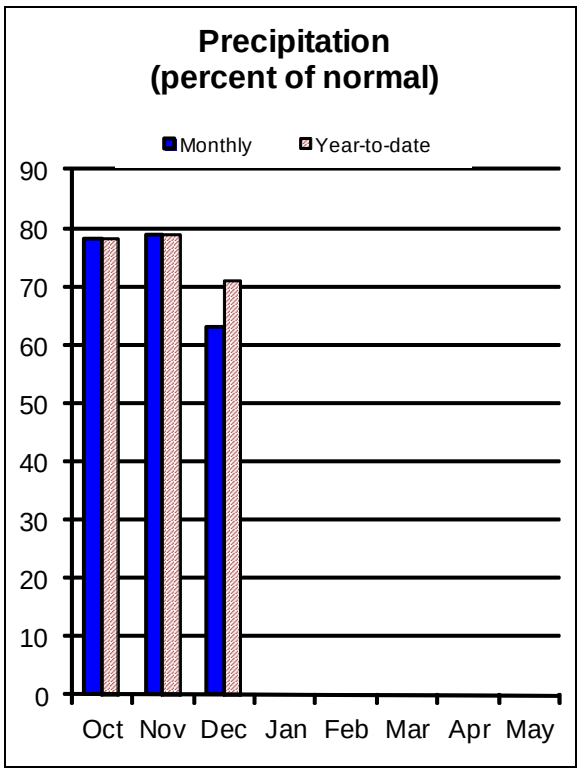
(2) - The value is natural volume - actual volume may be affected by upstream water management.



Willamette Basin

January 1, 2012





Water Supply Outlook

The Willamette basin ended water year 2011 with near normal precipitation. Water year 2012 started with below normal precipitation for October, November and December. However, the late December storm brought significant rainfall to the region. From October 1 to January 1, precipitation in the Willamette basin was 71 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought snow to the higher elevations, but warm rains depleted the snowpack at mid and lower elevations. The basin snowpack was 42 percent of average as of January 1.

The January 1 storage at Timothy Lake and Henry Hagg reservoirs was 113 percent of average and 78 percent of capacity.

At this point in the season, streamflows in the Willamette basin are forecast to be slightly below normal for the summer of 2012. The April through September streamflow forecasts range from 72 percent of average for Fern Ridge Lake Inflow to 98 percent of average for Cougar Lake Inflow. Elsewhere in the basin, the McKenzie near Vida is forecast to be 91 percent of average and the Willamette River at Salem is forecast to be 81 percent of average for the same period.

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/

WILLAMETTE BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Blue Lake Inflow (1,2)	FEB-MAY	67	117	139	85	161	210	163
	APR-JUL	35	62	74	86	86	113	86
	APR-SEP	37	62	74	86	86	111	86
Clackamas R at Estacada	APR-JUL	340	455	535	84	615	730	640
	APR-SEP	435	560	640	86	720	845	748
Clackamas R ab Three Lynx (2)	APR-JUL	260	340	395	83	450	530	474
	APR-SEP	330	415	475	85	535	620	562
Cottage Grove Lake Inflow (1,2)	FEB-MAY	36	61	73	84	85	110	87
	APR-JUL	5.0	22	30	74	38	55	41
	APR-SEP	7.7	25	33	77	41	58	43
Cougar Lake Inflow (1,2)	FEB-MAY	144	215	245	86	275	345	285
	APR-JUL	127	175	197	97	220	265	204
	APR-SEP	153	200	225	98	250	295	230
Detroit Lake Inflow (1,2)	APR-JUL	250	380	440	83	500	630	528
	APR-SEP	325	465	525	85	585	725	616
Dorena Lake Inflow (1,2)	FEB-MAY	95	171	205	80	240	315	255
	APR-JUL	29	78	100	76	122	171	131
	APR-SEP	34	83	105	77	127	176	137
Fall Creek Lake Inflow (1,2)	FEB-MAY	92	147	172	87	197	250	197
	APR-JUL	33	74	93	88	112	153	106
	APR-SEP	38	80	99	88	118	160	112
Fern Ridge Lake Inflow (1,2)	FEB-MAY	24	100	135	75	170	245	180
	APR-JUL	9.0	23	35	71	47	73	49
	APR-SEP	7.0	24	36	72	48	76	50
Foster Lake Inflow (1,2)	FEB-MAY	555	655	700	80	745	845	878
	APR-JUL	300	360	390	80	420	480	490
	APR-SEP	335	395	420	80	445	505	527

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/

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Green Peter Lake Inflow (1,2)	FEB-MAY	265	415	485	80	555	705	604
	APR-JUL	127	220	265	81	310	405	327
	APR-SEP	147	240	285	81	330	425	354
Hills Creek Reservoir Inflow (1,2)	FEB-MAY	158	275	325	84	375	490	388
	APR-JUL	104	169	199	72	230	295	277
	APR-SEP	134	205	235	73	265	335	320
Little North Santiam R nr Mehama (1)	APR-JUL	58	96	114	86	132	170	133
	APR-SEP	68	106	124	87	142	180	143
Lookout Point Lake Inflow (1,2)	FEB-MAY	440	725	855	83	985	1270	1025
	APR-JUL	240	440	530	73	620	820	726
	APR-SEP	310	530	630	76	730	950	828
MF Willamette R bl NF (1,2)	FEB-MAY	375	685	825	85	965	1280	973
	APR-JUL	220	430	525	75	620	830	698
	APR-SEP	265	500	610	76	720	955	798
McKenzie R bl Trail Bridge (2)	FEB-MAY	205	235	255	87	275	305	294
	APR-JUL	180	210	230	87	250	280	266
	APR-SEP	275	310	335	83	360	395	404
McKenzie R nr Vida (1,2)	FEB-MAY	760	1030	1150	89	1270	1540	1295
	APR-JUL	625	805	885	91	965	1140	977
	APR-SEP	805	1000	1090	91	1180	1370	1201
Oak Grove Fork Of Clackamas	APR-JUL	73	93	106	82	119	139	130
	APR-SEP	98	122	138	83	154	178	167
North Santiam R at Mehama (1,2)	APR-JUL	365	535	610	83	685	855	732
	APR-SEP	460	630	710	85	790	960	834
South Santiam R at Waterloo (2)	APR-JUL	250	360	435	79	510	620	549
	APR-SEP	285	395	470	80	545	655	587
Willamette R at Salem (1,2)	FEB-MAY	3140	5360	6370	81	7380	9600	7837
	APR-JUL	2110	3110	3560	82	4010	5010	4347
	APR-SEP	2370	3420	3890	81	4360	5410	4804

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BLUE RIVER	85.5	30.8	7.0	8.3
COTTAGE GROVE	29.8	9.3	5.2	3.8
COUGAR	155.2	60.3	44.1	58.1
DETROIT	300.7	225.0	164.6	179.4
DORENA	70.5	25.8	13.4	10.4
FALL CREEK	115.5	22.6	10.2	13.1
FERN RIDGE	109.6	20.9	11.7	12.3
FOSTER	29.7	30.4	23.5	22.0
GREEN PETER	268.2	235.6	179.3	182.9
HILLS CREEK	200.2	103.2	98.0	99.4
LOOKOUT POINT	337.0	152.2	141.0	139.8
TIMOTHY LAKE	61.7	50.4	51.1	49.2
HENRY HAGG LAKE	53.0	38.8	39.9	29.8

WILLAMETTE BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Clackamas	4	43	50
McKenzie	7	33	40
Row River	1	11	12
Santiam	6	26	32
Middle Fork Willamette	7	32	45

* 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 1971-2000 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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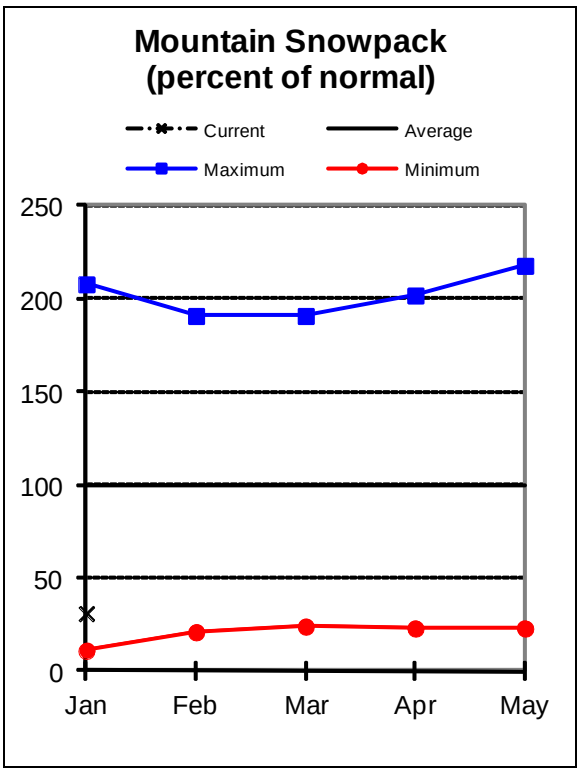
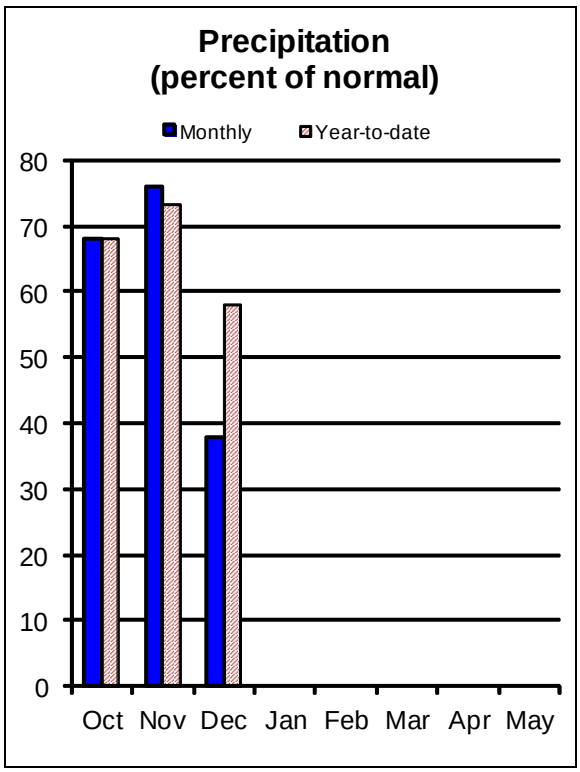
Rogue and Umpqua Basins

January 1, 2012





Water Supply Outlook

The Rogue and Umpqua River basins ended water year 2011 with above average precipitation. However, since the beginning of the new water year, the region has experienced well below normal precipitation. October 1 to January 1 precipitation in the Rogue and Umpqua River basins was 58 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought snow to the higher elevations, but warm rains depleted the snowpack at mid and lower elevations. The basin snowpack was only 31 percent of average as of January 1, the lowest in the state.

The January 1 storage at 5 irrigation reservoirs in the Rogue and Umpqua River basins was 120 percent of average and 67 percent of capacity.

At this point in the season, streamflows in the Rogue and Umpqua River basins are forecast to be below normal for the summer of 2012. The April through September streamflow forecasts range from 63 percent of average for Sucker Creek below Little Grayback Creek to 80 percent of average for the North Fork Little Butte Creek near Lake Creek. Elsewhere in the basin, the South Umpqua at Tiller is forecast to be 76 percent of average the same period. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Applegate Lake Inflow (2)	FEB-JUL	7.0	87	141	69	195	275	205
	APR-JUL	5.0	46	74	66	102	143	112
	FEB-SEP	13.0	94	149	69	205	285	215
	APR-SEP	8.0	50	79	66	108	150	119
SF Big Butte Ck nr Butte Falls	APR-JUL	9.9	17.1	22	65	27	34	34
	APR-SEP	13.9	22	28	64	34	42	44
Cow Ck nr Azalea (2)	FEB-JUL	2.1	16.4	28	67	40	57	42
	APR-JUL	0.8	6.7	11.4	69	16.1	23	16.5
	APR-SEP	0.9	7.1	12.1	68	17.1	24	17.7
Hyatt Prairie Reservoir Inflow (2)	APR-JUL	0.2	1.0	1.7	35	2.8	4.4	4.8
Illinois R at Kerby	APR-JUL	11.0	84	134	75	184	255	179
	APR-SEP	14.0	88	138	74	188	260	186
NF Little Butte Ck nr Lakecreek (2)	APR-JUL	14.2	21	25	79	29	36	32
	APR-SEP	22	31	37	80	43	52	46
Lost Creek Lake Inflow (2)	FEB-JUL	395	520	610	74	700	825	825
	APR-JUL	255	340	395	75	450	535	530
	FEB-SEP	475	620	715	75	810	955	960
	APR-SEP	335	430	495	74	560	655	665
Rogue R at Raygold (2)	APR-JUL	225	385	495	68	605	765	730
	APR-SEP	310	485	600	67	715	890	890
Rogue R at Grants Pass (2)	APR-JUL	215	400	525	71	650	835	740
	APR-SEP	300	495	630	71	765	960	885
Sucker Ck bl Ltl Grayback Ck nr Holl	APR-JUL	0.8	20	33	64	46	65	52
	APR-SEP	1.8	22	35	63	48	68	56
North Umpqua R at Winchester	APR-JUL	360	515	620	78	725	880	795
	APR-SEP	450	610	720	78	830	990	920

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
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
South Umpqua R nr Brockway	APR-JUL	85	215	305	76	395	525	400
	APR-SEP	94	230	320	76	410	545	420
South Umpqua R at Tiller	APR-JUL	58	112	148	77	184	240	193
	APR-SEP	65	119	156	76	193	245	205

ROGUE AND UMPQUA BASINS
Reservoir Storage (1000 AF) - End of December

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
APPLEGATE	75.2	4.5	9.1	10.7
EMIGRANT LAKE	39.0	18.1	19.2	17.6
FISH LAKE	8.0	6.1	3.6	5.2
FOURMILE LAKE	16.1	10.3	6.4	8.0
HOWARD PRAIRIE	60.0	46.0	36.9	37.7
HYATT PRAIRIE	16.1	13.3	12.2	9.4
LOST CREEK	315.0	124.0	134.0	136.2

ROGUE AND UMPQUA BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Applegate	2	15	22
Bear Creek	2	19	27
Little Butte Creek	6	16	24
North Umpqua	7	24	33
Rogue River above Grants	18	17	28

* 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 1971-2000 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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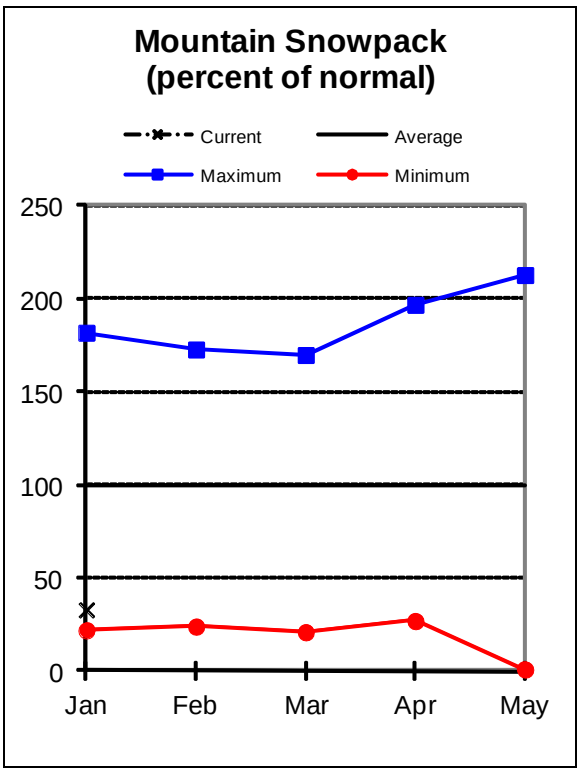
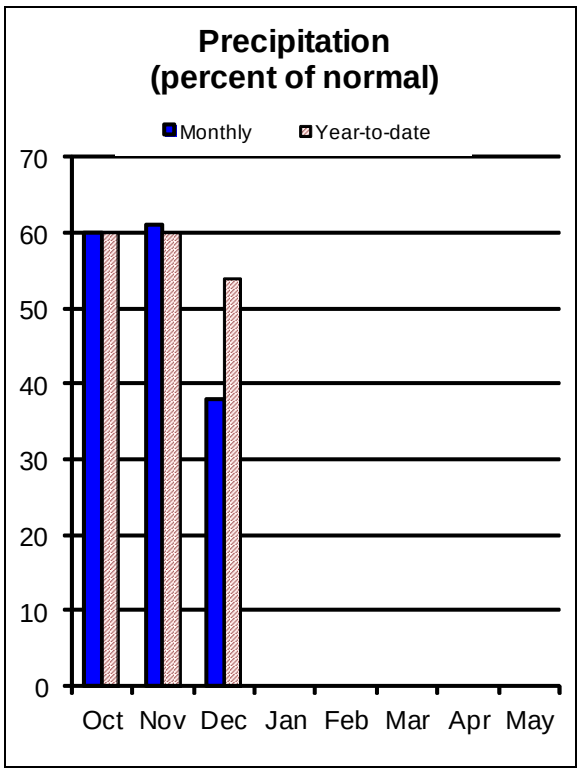
Klamath Basin

January 1, 2012





Water Supply Outlook

The Klamath basin ended water year 2011 with near normal precipitation. Water year 2012 started with well below normal precipitation for October, November and December. Many long-term SNOTEL sites in the Klamath basin set record lows for December precipitation. Precipitation from October 1 to January 1 in the Klamath basin was 54 percent of average.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought some snow to the higher elevations in the basin, but warm rains depleted the snowpack at mid and lower elevations. The basin snowpack was only 33 percent of average as of January 1.

The January 1 storage at Upper Klamath Lake, Clear Lake (CA) and Gerber reservoirs was 79 percent of average and 38 percent of capacity.

At this point in the season, streamflows in the Klamath basin are forecast to be well below normal for the summer of 2012. The April through September streamflow forecasts for the basin range from 50 percent of average for Gerber Reservoir Inflow and the Sprague River near Chiloquin to 61 percent of average for the Williamson River below Sprague. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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 - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Clear Lake Inflow (2)	FEB-JUL	2.0	23	57	54	91	142	105
	APR-SEP	1.0	11.8	25	52	38	58	48
Gerber Res Inflow (2)	FEB-JUL	1.4	8.8	24	51	39	62	47
	APR-SEP	0.4	1.8	8.9	50	16.0	26	17.8
Sprague R nr Chiloquin	FEB-JUL	16.0	98	165	51	232	332	325
	JAN-SEP	24	129	200	51	271	376	390
	APR-SEP	4.0	70	115	50	160	227	230
Upper Klamath Lake Inflow (1)	FEB-JUL	84	343	460	59	577	836	780
	JAN-SEP	176	474	610	59	746	1044	1030
	APR-SEP	62	226	300	58	374	538	515
Williamson R bl Sprague R nr Chiloqu	FEB-JUL	117	235	315	61	395	513	520
	JAN-SEP	200	325	410	63	495	620	655
	APR-SEP	103	182	235	61	289	368	385

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CLEAR LAKE (CALIF)	513.3	119.8	50.5	189.3
GERBER	94.3	42.2	15.7	41.8
UPPER KLAMATH LAKE	523.7	268.4	312.9	313.9

KLAMATH BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Lost	2	22	21
Sprague	5	21	32
Upper Klamath Lake	7	26	37
Williamson River	5	26	39

* 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 1971-2000 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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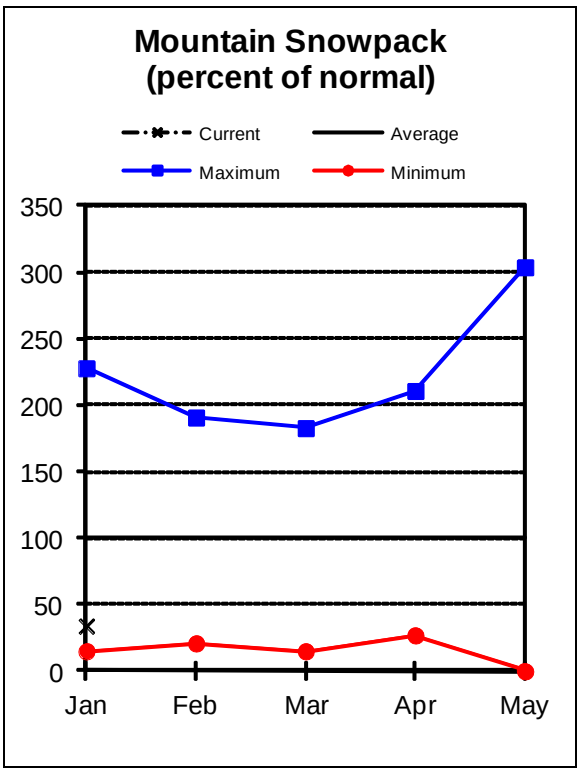
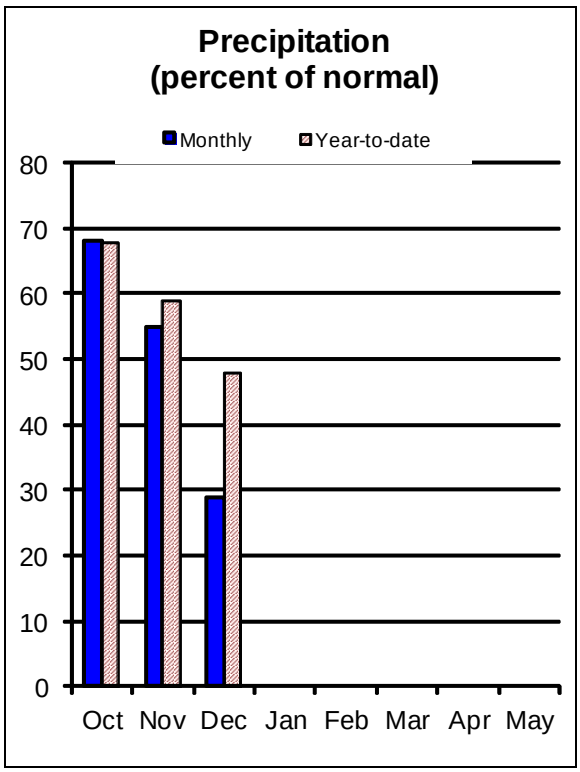
Lake County and Goose Lake

January 1, 2012





Water Supply Outlook

The Lake County and Goose Lake basins ended water year 2011 with above normal precipitation. Since the beginning of the new water year, the basin has experienced very dry conditions. Precipitation for October, November and December were all well below normal. Nearly every SNOTEL site in the basin set record lows for December precipitation. Basin precipitation from October 1 to January 1 was 48 percent of average, the lowest in the state.

After a normal start to the snowpack accumulation season, increases to the snowpack were well below average after Thanksgiving. The late December storm brought some snow to the higher elevations in the basin, but warm rains depleted the snowpack at mid and lower elevations. The basin snowpack was only 34 percent of average as of January 1.

Reservoir storage in the Lake County and Goose Lake basins remains above average, which may provide some relief from low water supply conditions. January 1 storage at Cottonwood and Drews reservoirs was 131 percent of average and 57 percent of capacity.

At this point in the season, streamflows in the Lake County and Goose Lake basins are forecast to be well below normal for the summer of 2012. The April through September streamflow forecasts for the basin range from 54 percent of average for the Chewaucan River near Paisley to 71 percent of average for Twentymile Creek near Adel. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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 - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Chewaucan R nr Paisley	MAR-JUL	5.3	31	49	55	67	93	89
	APR-SEP	5.1	27	42	54	57	79	78
Deep Ck ab Adel	MAR-JUL	14.0	40	58	69	76	102	84
	APR-SEP	12.7	33	47	68	61	81	69
Honey Ck nr Plush	MAR-JUL	1.0	5.5	12.2	61	18.9	29	20
	APR-SEP	0.8	4.6	10.1	61	15.6	24	16.6
Silver Ck nr Silver Lake (2)	MAR-JUL	0.7	4.8	9.5	65	14.2	21	14.6
	APR-SEP	0.6	3.8	7.3	65	10.8	16.0	11.2
Twentymile Ck nr Adel	MAR-JUL	2.0	6.7	20	71	33	53	28
	APR-SEP	1.5	2.9	12.4	71	22	36	17.4

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COTTONWOOD	8.7	2.9	3.7	2.3
DREWS	63.0	38.1	10.7	28.9

LAKE COUNTY AND GOOSE LAKE BASINS
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Chewaucan River	3	24	36
Drew Creek	2	14	19
Silver Creek (Lake Co.)	4	21	34

* 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 1971-2000 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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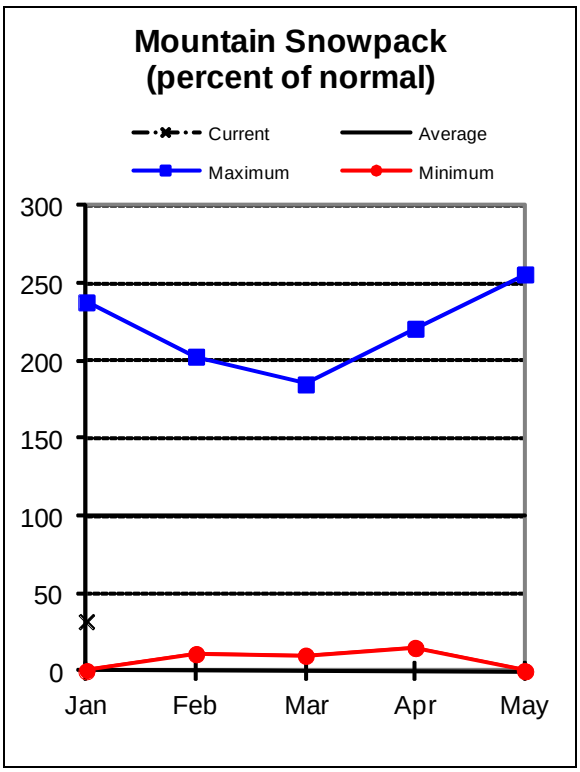
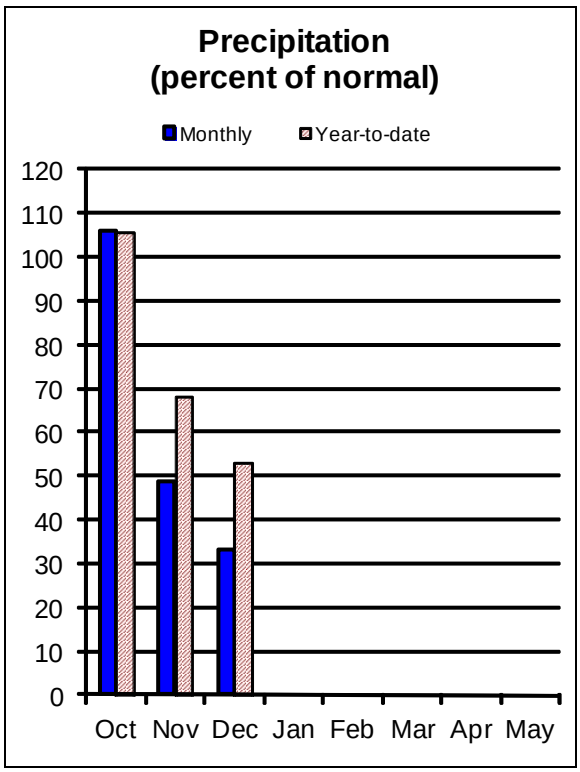
Harney Basin

January 1, 2012





Water Supply Outlook

Water year 2011 ended with well above normal precipitation for the Harney basin. The new water year had a promising start with average precipitation in October, and then the faucet dried up. November and December were both very dry in southeastern Oregon. Both long-term SNOTEL sites in the Steens Mountains set record lows for December precipitation. Fish Creek SNOTEL accumulated only 5.9 inches of precipitation from October 1 to January 1, which is the lowest in its 33 years of record. Precipitation in the Harney basin from October 1 to January 1 was 53 percent of average.

Snowpack accumulation has been well below normal so far this winter in the Harney basin. While the late December storm brought much needed snow to the higher elevations in the basin, warm rains depleted the snowpack at mid and lower elevations. The basin snowpack was only 32 percent of average as of January 1.

At this point in the season, streamflows in the Harney basin are forecast to be well below normal for the summer of 2012. The April through September streamflow forecasts in the basin range from 32 percent of average for Trout Creek near Denio to 79 percent of average for the Donner Und Blitzen River near Frenchglen. Water users should consider preparing for water shortages as a precaution if dry conditions persist.

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/

HARNEY BASIN
Streamflow Forecasts - January 1, 2012

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Donner Und Blitzen R nr Frenchglen	MAR-JUL	27	46	58	77	70	89	75
	APR-SEP	25	43	55	79	67	85	70
Silvies R nr Burns	MAR-JUL	6.0	36	71	55	106	157	129
	APR-SEP	5.0	32	56	57	80	115	99
Trout Ck nr Denio	MAR-JUL	0.5	1.3	3.6	32	5.9	9.3	11.1
	APR-SEP	0.5	1.1	3.3	32	5.5	8.7	10.3

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

HARNEY BASIN
Watershed Snowpack Analysis - January 1, 2012

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Donner und Blitzen River	2	19	31
Silver Creek (Harney Co.)	2	19	30
Silvies River	5	26	40
Trout Creek	2	13	21

* 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 1971-2000 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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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					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Owyhee R nr Rome	2000 cfs	Feb 25	Apr 7	May 19	**May 6**
Owyhee R nr Rome	1000 cfs	Feb 22	Mar 9	May 26	**May 18**
Owyhee R nr Rome	500 cfs	Mar 10	Apr 25	Jun 10	**Jun 2**

UPPER JOHN DAY BASIN					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
John Day R at Service Creek	Average Daily Flow on Aug. 1st	41	175	420	**271**

UPPER DESCHUTES AND CROOKED BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Crane Prairie Inflow*	Date of Peak	May 9*	May 25*	Jun 10*	**May 25**
Crane Prairie Inflow	Peak Flow	196	360	525	**403**
Crane Prairie Inflow	Average Daily Flow on Oct. 1st	160	240	320	**269**
Prineville Reservoir Inflow	113 cfs	Apr 24	May 21	Jun 17	**June 3**
Prineville Reservoir Inflow	75 cfs	Apr 28	May 26	Jun 23	**June 11**
Prineville Reservoir Inflow	50 cfs	May 5	Jun 2	Jun 30	**June 19**
Whychus Creek nr Sisters	100 cfs	Jul 8	Aug 10	Sep 11	**August 16**

*Crane Prairie peak date forecast -- no prediction possible until April.
Historical values are shown for reference prior to the April 1 report.

ROGUE AND UMPQUA BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ---------- 90%*	*50%*	*10%*	*LONG-TERM AVERAGE VALUE*
South Umpqua R nr Brockway *	90 cfs	Jul 23	Aug 11	Sep 1	**August 8**
South Umpqua R at Tiller	140 cfs	Jun 25	Jul 18	Aug 12	**July 11**
South Umpqua R at Tiller	90 cfs	Jul 15	Aug 8	Sep 1	**August 1**
South Umpqua R at Tiller	60 cfs	Aug 2	Sep 1	Oct 1	**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 approximately 20% chance in any given year that the flow will not recede below 90 cfs; the dates given here are in the event that the flow does recede below 90 cfs.

LAKE COUNTY AND GOOSE LAKE BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ---------- 90%*	*50%*	*10%*	*LONG-TERM AVERAGE VALUE*
Deep Ck ab Adel	100 cfs	May 9	Jun 1	Jun 24	**June 17**
Honey Ck nr Plush	100 cfs	Mar 28	May 3	Jun 8	**May 16**
Honey Ck nr Plush	50 cfs	Apr 12	May 14	Jun 15	**June 4**
Twentymile Ck nr Adel	50 cfs	Mar 28	May 1	Jun 4	**May 30**
Twentymile Ck nr Adel	10 cfs	May 25	Jun 22	Jul 18	**July 20**

HARNEY BASIN					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ---------- 90%*	*50%*	*10%*	*LONG-TERM AVERAGE VALUE*
Silvies R nr Burns	400 cfs	Apr 3	Apr 28	May 23	**May 21**
	200 cfs	Apr 8	May 5	Jun 1	**June 2**
	100 cfs	Apr 13	May 13	Jun 12	**June 13**
	50 cfs	Apr 30	Jun 7	Jul 15	**July 3**
Donner Und Blitzen R nr Frenchglen	200 cfs	May 12	Jun 3	Jun 25	**June 20**
Donner Und Blitzen R nr Frenchglen	100 cfs	Jun 2	Jun 23	Jul 14	**July 9**

Summary of Snow Course Data

January 2012

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon						
ANEROID LAKE SNOTEL	7400	1/01/12	27	5.4	6.5	11.0
ANNIE SPRING SNOTEL	6010	1/01/12	21	6.9	25.8	17.0
ARBUCKLE MTN SNOTEL	5770	1/01/12	13	4.4	11.6	8.9
BEAVER DAM CREEK	5100	12/29/11	2	.5	11.0	6.3
BEAVER RES. SNOTEL	5150	1/01/12	11	3.8	6.7	4.1
BIG RED MTN SNOTEL	6050	1/01/12	12	3.9	14.7	11.6
BIGELOW CAMP SNOTEL	5130	1/01/12	0	.0	11.9	5.8
BILLIE CK DVD SNOTEL	5280	1/01/12	9	4.2	14.9	9.8
BLAZED ALDER SNOTEL	3650	1/01/12	24	7.1	13.0	14.1
BLUE MTN SPGS SNOTEL	5870	1/01/12	18	4.9	9.9	7.8
BOURNE SNOTEL	5850	1/01/12	15	4.5	8.9	7.3
BOWMAN SPRNGS SNOTEL	4530	1/01/12	7	2.4	6.9	4.4
CAMAS CREEK #3	5850	12/29/11	6	1.7	9.4	--
CASCADE SUM. SNOTEL	5100	1/01/12	25	8.3	20.2	13.5
CHEMULT ALT SNOTEL	4850	1/01/12	2	1.2	7.8	4.6
CLACKAMAS LK. SNOTEL	3400	1/01/12	9	2.7	6.9	6.9
CLEAR LAKE SNOTEL	3810	1/01/12	12	2.6	7.3	5.9
COLD SPRINGS SNOTEL	5940	1/01/12	13	4.1	18.2	13.1
COUNTY LINE SNOTEL	4830	1/01/12	1	.6	3.7	2.6
CRAZYMAN FLAT SNOTEL	6180	1/01/12	7	2.4	11.2	7.4
DALY LAKE SNOTEL	3690	1/01/12	5	.9	8.0	8.1
DEADWOOD JUNCTION	4600	12/29/11	0	.0	7.8	4.3
DERR SNOTEL	5850	1/01/12	6	3.0	8.7	6.1
DIAMOND LAKE SNOTEL	5280	1/01/12	5	2.2	11.2	7.3
EILERTSON SNOTEL	5510	1/01/12	10	4.3	5.7	4.7
EMIGRANT SPGS SNOTEL	3800	1/01/12	3	.4	7.2	4.1
FISH CREEK SNOTEL	7660	1/01/12	17	3.6	21.2	11.6
FISH LK. SNOTEL	4660	1/01/12	3	1.5	9.3	6.2
FOURMILE LAKE SNOTEL	5970	1/01/12	12	4.4	18.1	14.3
GERBER RES SNOTEL	4890	1/01/12	0	.1	1.6	1.4
GOLD CENTER SNOTEL	5410	1/01/12	8	3.2	6.4	5.1
GREENPOINT SNOTEL	3310	1/01/12	7	1.5	8.7	9.5
HIGH PRAIRIE	6100	12/29/11	29	10.4	19.1	20.0
HIGH RIDGE SNOTEL	4920	1/01/12	29	6.9	16.8	10.4
HOGG PASS SNOTEL	4790	1/01/12	24	6.6	15.8	17.0
HOLLAND MDWS SNOTEL	4930	1/01/12	5	1.7	15.0	13.7
HOWARD PRAIRIE	4500	12/29/11	0	.0	5.1	3.7
IRISH-TAYLOR SNOTEL	5540	1/01/12	24	8.0	20.5	15.6
JUMP OFF JOE SNOTEL	3520	1/01/12	2	.6	9.4	5.7
KING MTN #1	4500	12/29/11	4	1.0	12.2	3.7
KING MTN #2 SNOTEL	4340	1/01/12	1	.1	9.2	2.5
KING MTN #3	3650	12/29/11	0	.0	4.5	.9
KING MTN #4	3050	12/29/11	0	.0	1.4	.3
LAKE CK R.S. SNOTEL	5240	1/01/12	8	1.9	8.1	5.7
LITTLE MEADOW SNOTEL	4020	1/01/12	13	5.8	17.2	11.9
LUCKY STRIKE SNOTEL	4970	1/01/12	5	2.2	6.7	4.5
MADISON BUTTE SNOTEL	5150	1/01/12	2	.7	4.0	3.2
MARION FORKS SNOTEL	2590	1/01/12	0	.8	7.7	4.6
MARKS CREEK	4540	12/27/11	0	.0	5.2	2.1
MCKENZIE SNOTEL	4770	1/01/12	30	9.7	23.5	19.3
MILL CREEK MDW	4400	12/29/11	8	2.1	7.4	5.6
MILLER WOODS SNOTEL	420	1/01/12	0	.0	.0	--
MOSS SPRINGS SNOTEL	5760	1/01/12	25	6.4	11.9	11.6
MT HOOD TEST SNOTEL	5370	1/01/12	55	16.3	26.7	29.3
MT HOWARD SNOTEL	7910	1/01/12	24	6.6	6.8	7.7
MUD RIDGE SNOTEL	4070	1/01/12	31	7.9	11.9	12.2
NEW CRESCENT SNOTEL	4910	1/01/12	8	1.7	10.5	6.1
NORTH FK RES SNOTEL	3060	1/01/12	10	3.8	13.1	6.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon (continued)						
OCHOCO MEADOW SNOTEL	5430	1/01/12	2	.8	7.7	4.7
PARK H.Q. REV	6550	1/03/12	34	10.8	34.6	25.2
PEAVINE RIDGE SNOTEL	3420	1/01/12	8	1.9	8.7	5.5
QUARTZ MTN SNOTEL	5720	1/01/12	0	.0	1.9	1.4
R.R. OVERPASS SNOTEL	2680	1/01/12	0	.0	1.3	.5
RED BUTTE #1	4560	12/29/11	5	1.5	8.3	5.1
RED BUTTE #2	4000	12/29/11	0	.0	2.7	2.6
RED BUTTE #3	3500	12/29/11	0	.0	2.3	1.5
RED BUTTE #4	3000	12/29/11	0	.0	.0	.8
RED HILL SNOTEL	4410	1/01/12	37	16.2	24.1	20.1
ROARING RIVER SNOTEL	4950	1/01/12	19	5.8	16.1	11.8
ROCK SPRINGS SNOTEL	5290	1/01/12	0	.3	5.3	2.3
SADDLE MTN SNOTEL	3110	1/01/12	0	.0	3.9	--
SALT CK FALLS SNOTEL	4220	1/01/12	12	3.1	14.8	8.0
SANTIAM JCT. SNOTEL	3740	1/01/12	11	3.5	11.5	9.2
SCHNEIDER MDW SNOTEL	5400	1/01/12	34	9.1	15.2	14.7
SEINE CREEK SNOTEL	2060	1/01/12	0	.0	.0	1.5
SEVENMILE MARSH SNTL	5700	1/01/12	14	4.7	18.1	13.4
SILVER BURN	3720	1/03/12	0	.0	10.7	5.4
SILVER CREEK SNOTEL	5740	1/01/12	4	.8	9.2	4.7
SILVIES SNOTEL	6990	1/01/12	5	2.0	8.6	6.7
SISKIYOU SUMMIT REV	4630	12/29/11	0	.0	6.2	2.9
SNOW MTN SNOTEL	6220	1/01/12	6	1.3	6.9	4.5
SF BULL RUN SNOTEL	2690	1/01/12	2	.4	2.8	1.3
STARR RIDGE SNOTEL	5250	1/01/12	3	1.0	5.4	3.2
STRAWBERRY SNOTEL	5770	1/01/12	1	.8	4.0	2.9
SUMMER RIM SNOTEL	7080	1/01/12	12	3.5	11.1	7.4
SUMMIT LAKE SNOTEL	5610	1/01/12	23	8.2	21.9	15.4
SUN PASS SNOTEL	5400	1/01/12	9	3.3	13.4	--
SWAN LAKE MTN SNOTEL	6830	1/01/12	9	3.7	14.9	--
TAYLOR BUTTE SNOTEL	5030	1/01/12	4	1.0	5.7	3.3
TAYLOR GREEN SNOTEL	5740	1/01/12	23	5.7	10.5	8.9
THREE CK MEAD SNOTEL	5690	1/01/12	14	3.2	12.3	8.5
TIPTON SNOTEL	5150	1/01/12	12	2.4	9.2	6.4
TOKETEE AIRSTRIP SN	3240	1/01/12	---	.1	3.6	3.2
WOLF CREEK SNOTEL	5630	1/01/12	15	4.0	7.4	7.0
California						
ADIN MTN SNOTEL	6190	1/01/12	4	2.3	8.8	5.9
CEDAR PASS SNOTEL	7030	1/01/12	8	3.0	11.6	7.2
CROWDER FLAT SNOTEL	5170	1/01/12	0	.3	3.4	1.9
DISMAL SWAMP SNOTEL	7360	1/01/12	17	4.4	20.5	11.5
Idaho						
MUD FLAT SNOTEL	5730	1/01/12	2	.6	6.4	3.2
SOUTH MTN SNOTEL	6500	1/01/12	5	2.1	11.2	7.7
Nevada						
BEAR CREEK SNOTEL	7800	1/01/12	11	2.6	13.2	8.0
BIG BEND SNOTEL	6700	1/01/12	3	1.2	6.9	3.9
BUCKSKIN,L SNOTEL	6700	1/01/12	9	2.2	8.8	3.9
DISASTER PEAK SNOTEL	6500	1/01/12	0	.0	6.1	5.3
FAWN CREEK SNOTEL	7050	1/01/12	7	2.0	9.7	7.5
GRANITE PEAK SNOTEL	7800	1/01/12	6	1.8	15.7	8.5
JACK CREEK, U SNOTEL	7280	1/01/12	5	2.1	8.8	7.7
LAMANCE CREEK SNOTEL	6000	1/01/12	1	.2	6.7	5.9
LAUREL DRAW SNOTEL	6700	1/01/12	3	1.1	7.0	4.9
SEVENTYSIX CK SNOTEL	7100	1/01/12	5	1.0	6.8	4.8
TAYLOR CANYON SNOTEL	6200	1/01/12	1	.5	4.5	2.0

(d) denotes discontinued site.

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 snowcourses 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. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. 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 uncertain 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 1971-2000. 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 below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 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 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 443 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 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

OWYHEE AND MALHEUR BASINS
Streamflow Forecasts - February 1, 2006

		<<====== Drier ====== Future Conditions ======= Wetter =====>>				
		Chance Of Exceeding *				
Forecast Point	Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
MALHEUR near Drewsey	FEB-JUL	148	184	210	165	238	282	127
	APR-SEP	87	110	128	168	147	177	76
NF MALHEUR at Beulah	FEB-JUL	108	127	141	157	156	178	90
OWYHEE RESV INFLOW (2)	FEB-JUL	602	792	935	134	1090	1340	700
	APR-SEP	341	473	575	134	687	869	430

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

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Official Business

This publication may be found online at:
http://www.or.nrcs.usda.gov/snow/watersupply/

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