



United States  
Department of  
Agriculture



Natural Resources  
Conservation  
Service

# Oregon Basin Outlook Report

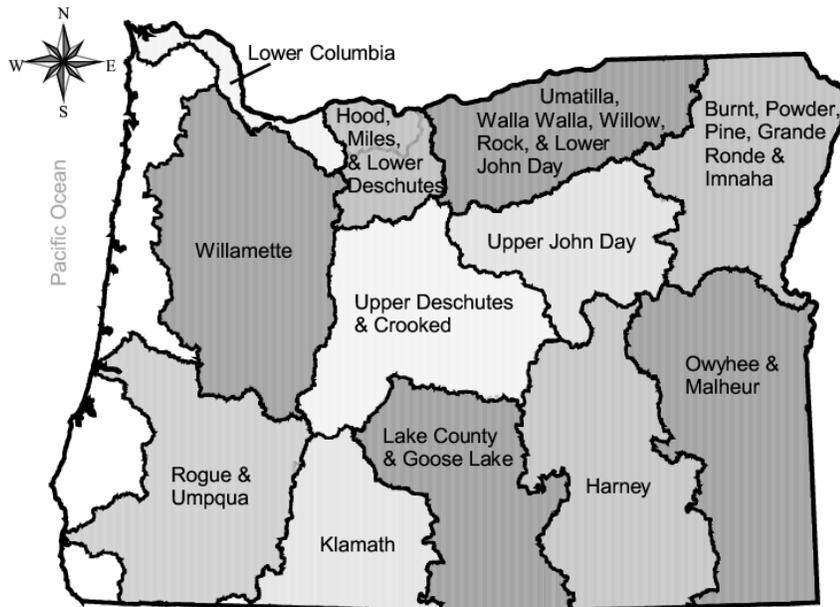
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March 1, 2007



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# General Outlook

March 1, 2007

## SUMMARY

Following an unseasonably dry January, precipitation levels were back to normal in February. Early February continued the dry spell that began in late January. By mid February a series of warm and wet storms moved in, bringing rain-on-snow conditions to the mountains. The meager snow pack began to melt due to the above average temperatures and warm rains. Cooling temperatures moved into the region around February 17 and the rain changed to snow in the mountains. SNOTEL sites in Oregon welcomed new snow accumulation for a steady 7-10 days at the end of February. Statewide, the snow pack grew from 81 percent of average on February 1 to 92 percent of average by March 1. Southern Oregon basins gained significant new snow during this series of storms, boosting basin water supplies significantly.

## SNOWPACK

As of March 1, the snow pack in Oregon was near average west of the Cascade crest and in the Klamath basin. East of the divide, the March 1 snow pack ranged from 65 percent of average in the Owyhee and Malheur to 104 percent of average in the Rogue-Umpqua basin. These conditions stand in stark contrast to last year at this time when eastern Oregon basins had well above average snow packs. Slim snow packs and a forecast for warmer than normal temperatures may yield earlier melt off and quicker onset of low flows in these basins.

## PRECIPITATION

Precipitation was near normal throughout Oregon in February. The Rogue and Umpqua were the wettest basins in Oregon with February precipitation totals of 134 percent of average.

Since the beginning of the water year, precipitation has been near average in Western Oregon, the Klamath, Umatilla and Deschutes basins. Elsewhere in the state, water year precipitation totals range from 84 to 89 percent of average.

## RESERVOIRS

The March 1 storage at 27 major Oregon reservoirs analyzed in this publication was 103 percent of normal. A total of 2,192,600 acre feet of water were stored on March 1, representing 67 percent of useable capacity. The forecasts for April through September inflows to many of the irrigation reservoirs east of the Deschutes are significantly below average.

## STREAMFLOW

Many streams and rivers saw some snowmelt during mid February when temperatures were above normal. Currently, streamflows are once again beginning to respond to snowmelt. Without a cooling trend, snow pack in basins with below normal snow packs could melt out earlier than normal this year.

April through September streamflow forecasts range from 59 percent of average for the Malheur near Drewsey to 114 percent of average for Sucker creek near Little Grayback (Rogue basin). A summary of streamflow forecasts is provided below.

<b>STREAM</b>	<b>PERIOD</b>	<b>PERCENT OF AVERAGE</b>
Owyhee Net Inflow	March-July	58
Grande Ronde at La Grande	April-September	68
Umatilla at Pendleton	April - September	84
Deschutes at Benham Falls	April - September	98
Willamette MF near Oakridge	April-September	103
Rogue at Raygold	April- September	96
Upper Klamath L. Net Inflow	April- September	81
Silvies near Burns	April- September	62

Some of these forecasts assume that normal weather conditions will occur from now to the end of the forecast period.

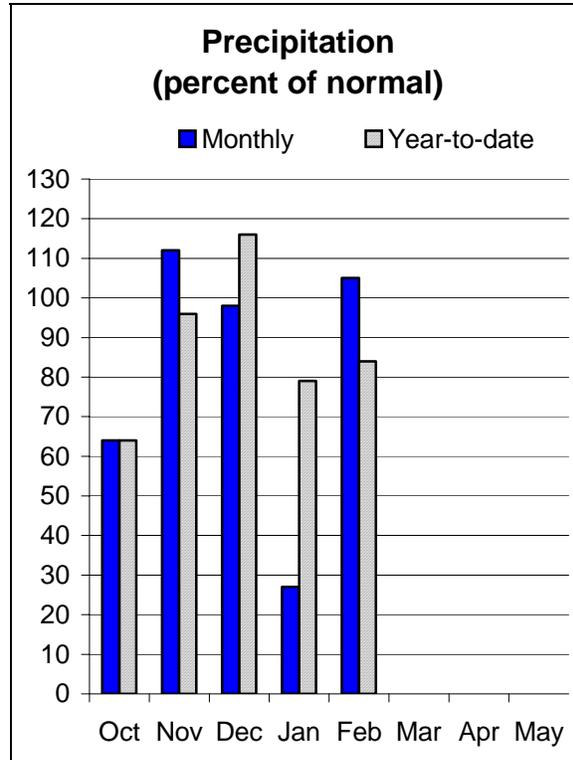
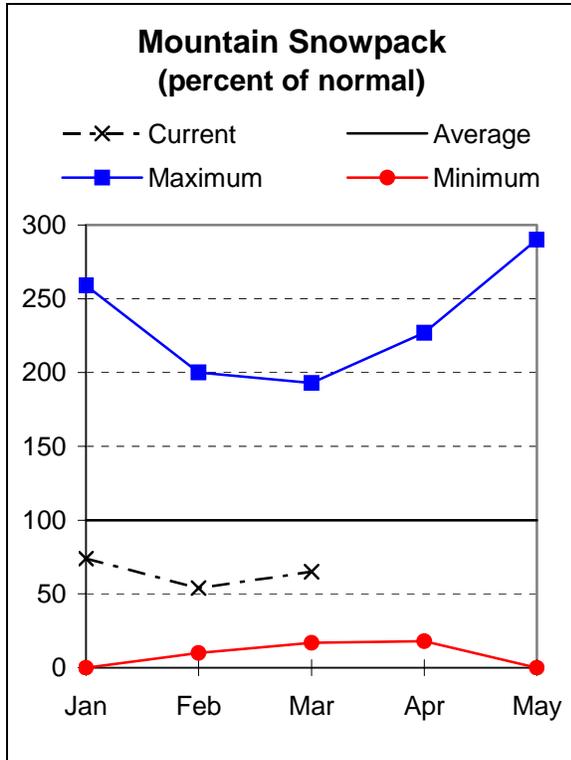
The forecasts in this bulletin are a result of coordinated activity between the Natural Resources Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.



# Owyhee and Malheur Basins

March 1, 2007



## Water Supply Outlook

Following an exceptionally dry January, February precipitation in the Owyhee and Malheur basin was slightly above normal. Since the beginning of the water year precipitation for this basin year has been 84 percent of average, the lowest in the state.

There was an appreciable gain in the snow pack basin wide during February. The snow pack in the Owyhee and Malheur basins on March 1 was 65 percent of normal, up from 54 percent of average on February 1. The March 1 snow pack in the Owyhee Malheur was the lowest in the state. Snow measurements were taken at 21 aerial markers, 5 snow courses and 16 SNOTEL sites in the Owyhee and Malheur basins.

Reservoirs in the Owyhee and Malheur are currently storing near normal levels of water for this time of year. As of March 1, storage at Beulah, Bully Creek, Owyhee and Warm Springs reservoirs was 71 percent of capacity. The April through September forecast for the Malheur near Drewsey is 59 percent of average. Owyhee reservoir inflow for the March through July period is forecast to be 58 percent of average. Owyhee reservoir inflow for the April through September period is forecast to be 67 percent of average. Water users in the Owyhee and Malheur should plan for below normal supplies this coming season.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

OWYHEE AND MALHEUR BASINS  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)	
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
MALHEUR near Drewsey	MAR-JUL	30	49	64	58	81	111	110
	APR-SEP	19.0	33	45	59	59	82	76
NF MALHEUR at Beulah	MAR-JUL	29	43	54	67	67	87	81
OWYHEE RESV INFLOW (2)	MAR-JUL	175	275	355	58	445	600	615
	APR-SEP	122	215	290	67	380	530	430
OWYHEE near Rome	MAR-JUL	188	285	360	62	445	585	580
SUCCOR CK nr Jordan Valley	MAR-JUL	5.1	8.4	11.0	65	14.0	19.2	16.9

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

OWYHEE AND MALHEUR BASINS  
Watershed Snowpack Analysis - March 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BEULAH RES	60.0	38.2	40.4	35.4	Owyhee River	14	47	56
BULLY CREEK	30.0	21.6	22.5	17.5	Malheur	9	40	69
OWYHEE	715.0	531.6	549.8	489.1	Jordan Creek	2	62	67
WARMSPRINGS	191.0	111.0	96.5	102.7	Bully Creek	2	25	73

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

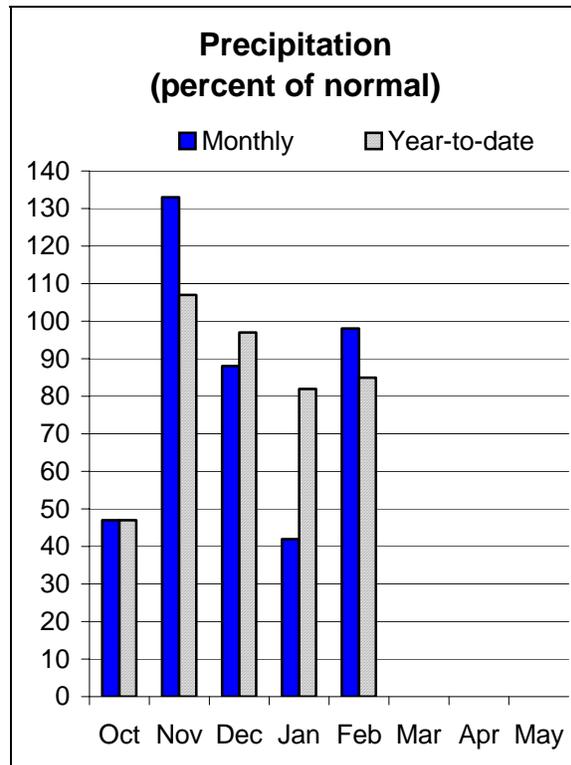
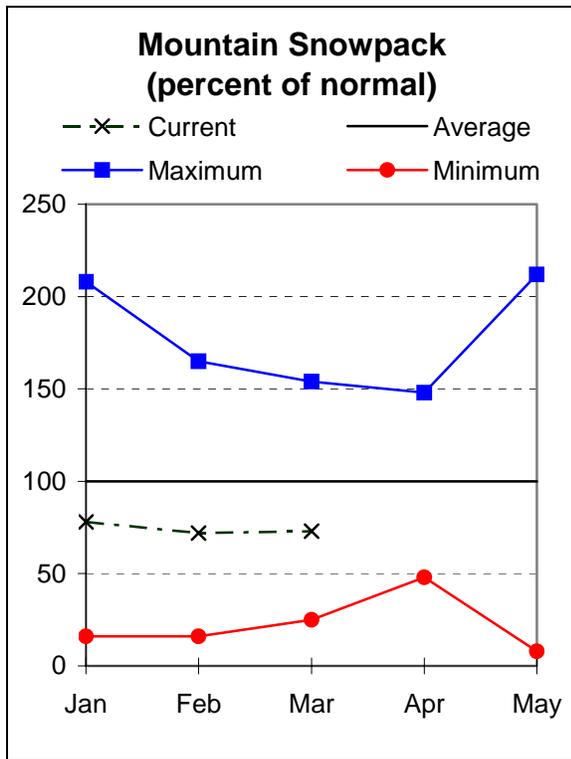
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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



# Burnt, Powder, Pine, Grand Ronde, and Imnaha Basins

March 1, 2007



## Water Supply Outlook

February precipitation in the Burnt, Powder, Pine, Grande Ronde and Imnaha basins was near normal following an exceptionally dry January. The March 1 snow pack was only 73 percent of average, a small increase from February 1. Since the beginning of the water year, total precipitation in this basin has been 85 percent of average.

On March 1, storage at Phillips Lake, Thief Valley and Unity reservoirs was 87 percent of average for this time of year. This represents 58 percent of capacity. April through September streamflow forecasts in the basin range from 62 percent of average for the Burnt near Hereford to 89 percent of average for Bear Creek near Wallowa.

The April through September streamflow for the Grande Ronde at LaGrande is forecast to be 68 percent of average. Most water users should plan for below normal supplies this coming season.

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.wcc.nrcs.usda.gov/cgibin/bor.pl>

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BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
ANTHONY CK bl NF nr North Powder	MAR-JUL	8.0	9.9	11.3	66	12.8	15.1	17.2
BEAR CREEK near Wallowa	APR-SEP	48	54	58	89	62	69	65
BIG CK bl Burn Ck nr Medical Spgs	MAR-JUL	5.6	7.6	9.1	64	10.8	13.5	14.2
BURNT near Hereford (2)	MAR-JUL	18.1	26	32	63	39	50	51
	APR-SEP	11.3	18.3	24	62	30	41	39
CATHERINE CREEK near Union	APR-SEP	37	45	51	77	57	67	66
DEER CK nr Sumpster	MAR-JUL	7.1	9.8	11.9	65	14.2	17.9	18.2
EAGLE CREEK abv Skull Creek	APR-JUL	95	113	126	78	140	161	161
	APR-SEP	105	124	138	78	153	176	176
GRANDE RONDE at La Grande	MAR-JUL	111	143	168	68	194	235	247
	APR-SEP	78	106	128	68	152	190	188
GRANDE RONDE at Troy (1)	MAR-JUL	1040	1200	1310	83	1430	1610	1580
	APR-SEP	850	1020	1140	83	1270	1470	1370
HURRICANE CREEK near Joseph	APR-SEP	28	33	36	86	39	45	42
IMNAHA at Imnaha	APR-SEP	152	194	225	76	260	315	295
LOSTINE near Lostine	APR-SEP	84	96	104	86	113	126	121
PINE CREEK near Oxbow	MAR-JUL	95	118	135	72	153	183	188
	APR-JUL	70	91	106	72	122	149	148
POWDER near Sumpster (2)	APR-JUL	25	33	39	67	45	56	58
	APR-SEP	26	34	40	68	46	57	59
EF WALLOWA near Joseph	MAR-SEP	7.4	8.7	9.6	81	10.6	12.1	11.8
WALLOWA at Joseph (2)	APR-JUL	46	52	56	88	60	67	64
WOLF CK RESERVOIR inflow	MAR-JUN	5.7	8.0	9.7	60	11.6	14.8	16.2

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BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS Reservoir Storage (1000 AF) - End of February					BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage This Year	Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
PHILLIPS LAKE	73.5	38.1	15.1	43.8	Grande Ronde ab LaGrande	6	67	69
THIEF VALLEY	17.4	13.5	13.8	17.3	Powder River	9	61	70
UNITY	25.2	15.4	13.8	15.8	Wallowa,Imnaha,Catherine	10	78	74
WALLOWA LAKE	37.5	10.0	14.0	18.8	Burnt River	6	49	79
WOLF CREEK	10.4	2.8	2.9	3.8				

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

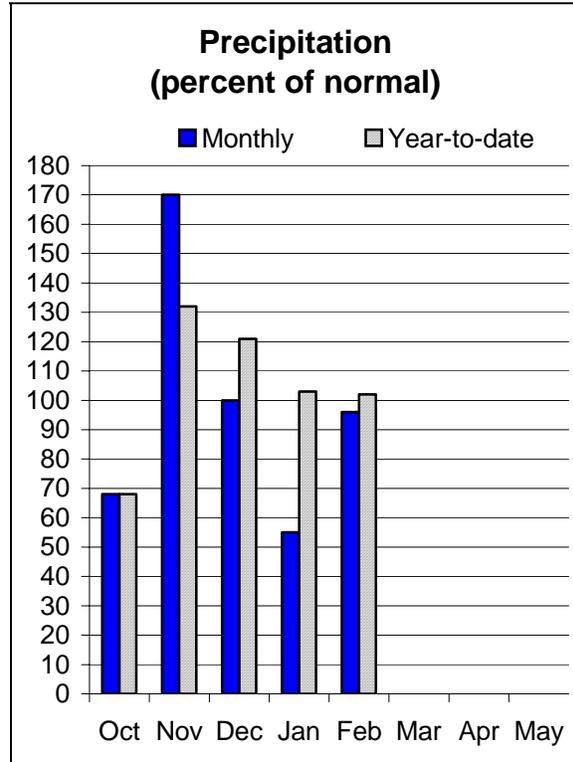
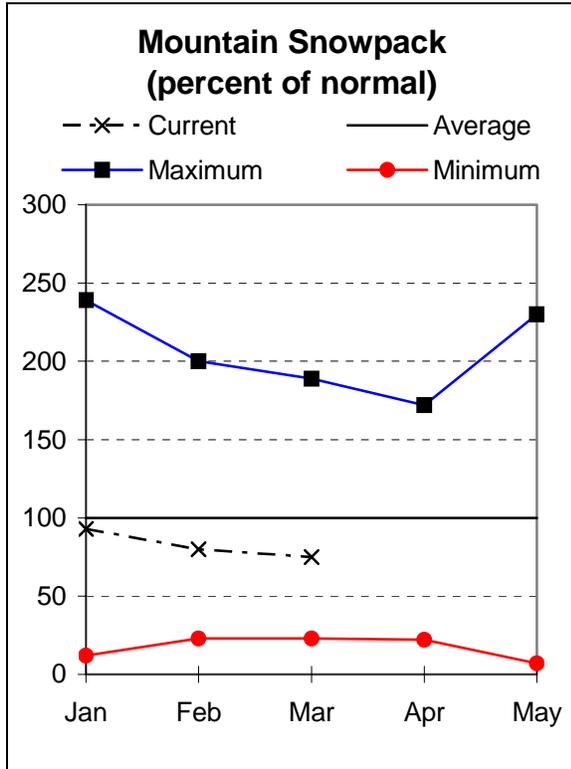
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(2) - The value is natural flow - actual flow may be affected by upstream water management.



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

March 1, 2007



## Water Supply Outlook

After an unseasonably dry January, February precipitation in the Umatilla, Walla Walla, Willow, Rock and Lower John Day basins was near normal. Since the beginning of the water year, total precipitation in the basin has been 102 percent of normal. Above average precipitation in November and December has supported the basin this water year. As of March 1, the snow pack in the basin as measured at 2 snow courses and 9 SNOTEL sites was 75 percent of average.

March 1 storage at Cold Springs and McKay reservoirs was 87 percent of average for this time of year. This represents 52 percent of capacity. April through September streamflow forecasts for the basin range from 84 percent of average for the Umatilla at Pendleton to 104 for McKay creek near Pilot Rock. The South Fork of the Walla Walla near Milton-Freewater is forecast to experience average flows for April through September. Some water users may have to conserve in the basin this coming summer.

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.wcc.nrcs.usda.gov/cgibin/bor.pl>

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UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
BUTTER CK nr Pine City	MAR-JUL	4.4	7.5	10.1	67	13.0	18.0	15.0
COUSE CREEK near Milton-Freewater	MAR-JUL	4.8	5.6	6.2	102	6.8	7.7	6.1
	APR-JUL	2.5	3.4	4.1	103	4.8	6.1	4.0
MCKAY near Pilot Rock	APR-SEP	12.3	22	28	104	34	44	27
PINE CREEK near Weston	MAR-JUL	2.7	3.8	4.7	94	5.6	7.2	5.0
	APR-JUL	1.5	2.2	2.8	93	3.4	4.5	3.0
RHEA CREEK near Heppner	MAR-JUL	3.4	5.6	7.3	68	9.2	12.7	10.8
ROCK CREEK above Whyte	MAR-JUL	6.5	11.6	15.5	65	20	28	24
UMATILLA near Gibbon	MAR-SEP	76	89	99	93	109	124	106
	APR-JUL	48	60	68	93	77	91	73
	APR-SEP	54	66	74	94	83	97	79
UMATILLA at Pendleton	MAR-SEP	137	168	190	83	215	250	230
	APR-JUL	79	106	126	85	148	184	149
	APR-SEP	83	110	130	84	152	187	155
SF WALLA WALLA near Milton-Freewater	MAR-SEP	68	75	81	100	87	96	81
	APR-SEP	55	62	67	100	72	80	67
WILLOW CREEK LAKE INFLOW	MAR-JUL	2.4	4.7	6.7	64	9.1	13.2	10.4
	APR-JUL	1.5	3.2	4.7	67	6.5	9.8	7.0

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 UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS  
 Reservoir Storage (1000 AF) - End of February  
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 UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS  
 Watershed Snowpack Analysis - March 1, 2007  
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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	Average
COLD SPRINGS	50.0	25.1	16.7	29.5	Walla Walla River	3	87	97
MCKAY	73.8	39.0	26.1	44.6	Umatilla River	7	67	72
WILLOW CREEK		NO REPORT			McKay Creek	4	43	41

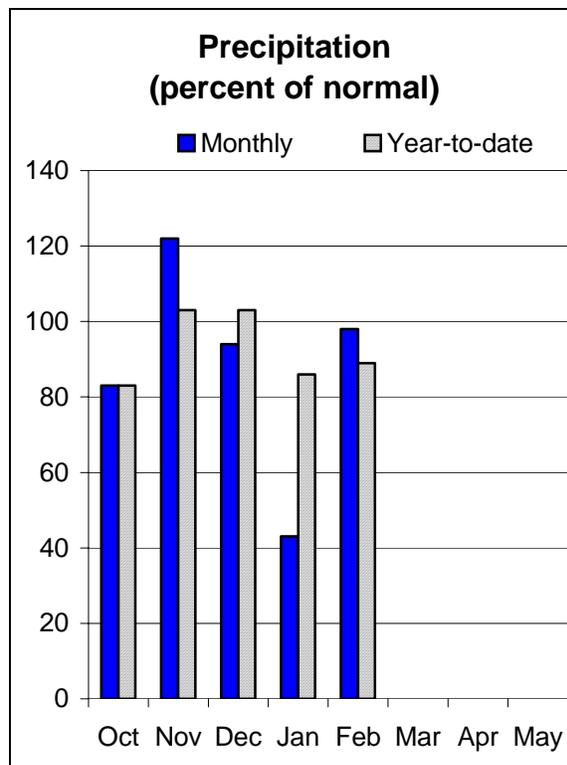
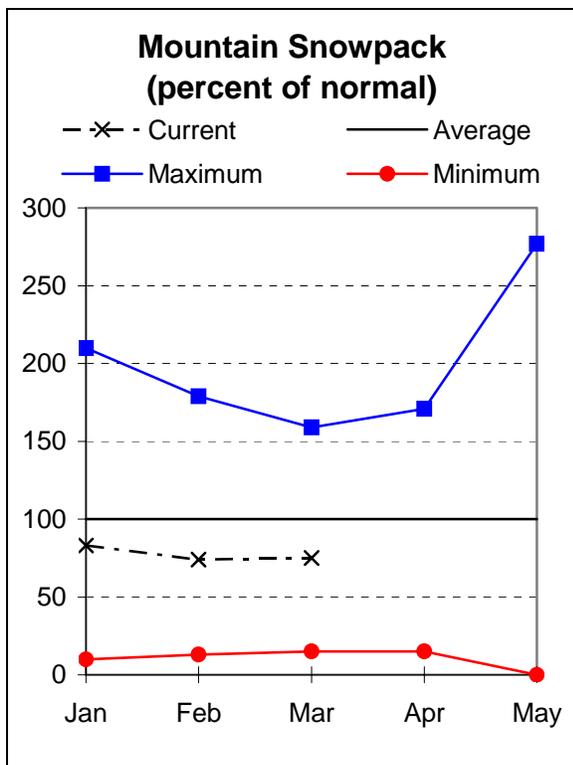
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# Upper John Day Basin

March 1, 2007



## Water Supply Outlook

After an unseasonably dry January, February precipitation in the Upper John Day basin was near normal. While there was a slight increase in the basin snow pack during the month, February snowfall failed to keep up with average conditions. As of March 1, the snow pack in the basin as measured at 4 snow courses and 9 SNOTEL sites was 75 percent of average. Since the beginning of the water year, total precipitation in the Upper John Day has been 89 percent of average.

April through September streamflow forecasts for the Upper John Day basin range from 73 percent of average for the Middle Fork John Day at Ritter to 86 percent of average for Strawberry Creek near Prairie City. The April through September streamflow forecast for the North Fork of the John Day at Monument is 76 percent of average. Water users in the Upper John day will need to plan for below normal supplies this coming summer.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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UPPER JOHN DAY BASIN  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		=====		Chance Of Exceeding *			=====	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
CAMAS CREEK nr Ukiah	MAR-JUL	18.7	26	31	60	37	46	52
MF JOHN DAY at Ritter	MAR-JUL	71	96	116	73	137	172	159
	APR-SEP	55	76	93	73	111	141	128
NF JOHN DAY at Monument	MAR-JUL	370	490	580	73	680	835	790
	APR-SEP	295	395	470	76	555	690	615
MOUNTAIN CREEK near Mitchell	MAR-JUL	3.2	4.5	5.4	89	6.4	8.1	6.1
STRAWBERRY CREEK nr Prairie City	MAR-JUL	4.5	5.5	6.3	85	7.1	8.5	7.4
	APR-SEP	4.8	5.9	6.7	86	7.6	9.0	7.8

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

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UPPER JOHN DAY BASIN  
Watershed Snowpack Analysis - March 1, 2007

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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	Average
					John Day, North Fork	8	56	63
					John Day above Dayville	4	57	78

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

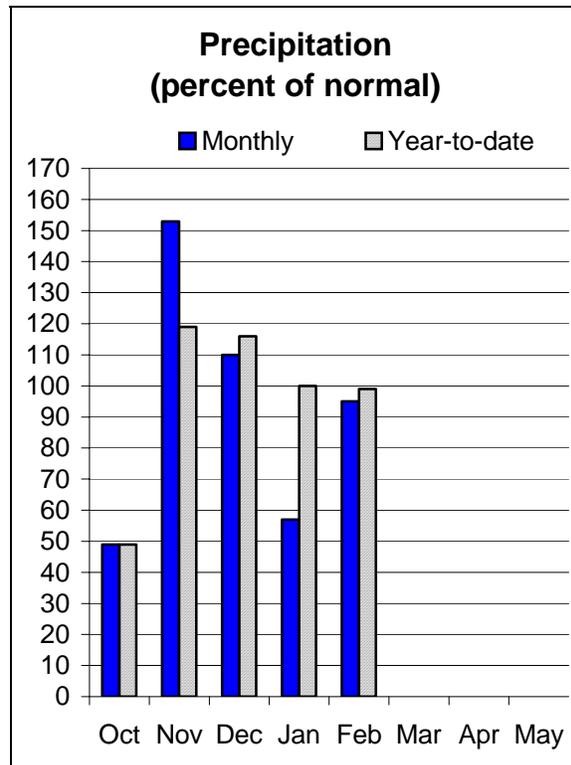
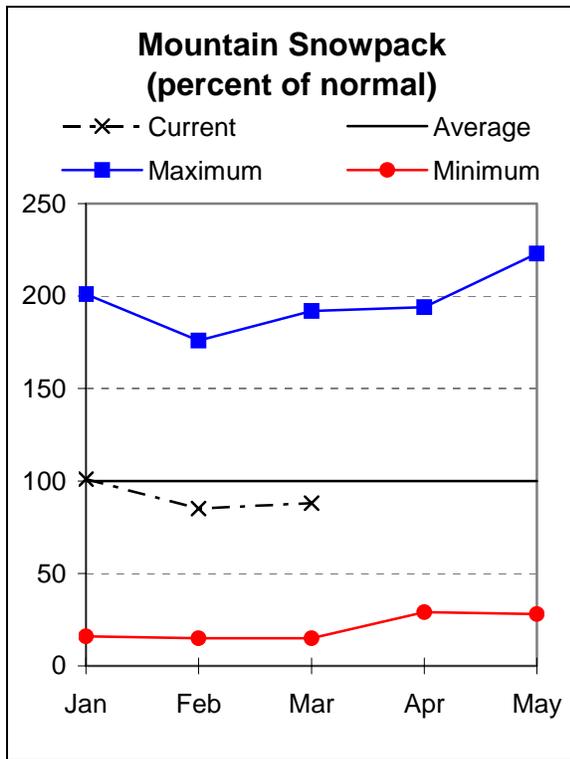
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# Upper Deschutes and Crooked Basins

March 1, 2007



## Water Supply Outlook

After a drier than normal January, February precipitation in the Upper Deschutes and Crooked river basins was near normal. Above average precipitation in November and December has supported the basin somewhat, boosting the precipitation for this water year to 99 percent of average. As of March 1, the snow pack in the basin as measured at 11 SNOTEL sites and 10 snow courses was 88 percent of average.

Storage in five of the Upper Deschutes and Crooked river reservoirs at the end of February was 107 percent of average and 79 percent of capacity. The April through September inflow to Prineville is forecast to be near 67 percent of average. The April through September inflow to Ochoco reservoir is forecast to be 60 percent of average. The Deschutes at Benham Falls is forecast to be 98 percent of average for the April through September period. Water users in the Crooked River basin can anticipate reduced supplies this coming summer, while Deschutes basin water users can expect near normal water supply.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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UPPER DESCHUTES AND CROOKED BASINS  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
BEAVER CREEK near Paulina	APR-SEP	7.9	14.4	20	74	26	38	27
	MAR-JUL	17.8	28	36	68	45	61	53
CRANE PRAIRIE RESERVOIR INFLOW	APR-JUL	43	52	58	98	65	75	59
	APR-SEP	68	81	91	98	101	117	93
	MAR-JUL	50	60	67	99	75	87	68
	MAR-SEP	75	89	100	98	111	129	102
CRESCENT CREEK near Crescent	APR-JUL	8.8	12.6	15.6	91	18.9	24	17.2
	APR-SEP	10.7	15.4	19.0	91	23	30	21
	MAR-JUL	10.1	14.6	18.1	91	22	28	20
	MAR-SEP	12.4	17.8	22	92	27	34	24
DESCHUTES below Bend (2)	AUG-SEP	148	158	165	98	172	183	168
DESCHUTES at Benham Falls	APR-JUL	315	335	345	99	355	375	350
	APR-SEP	475	500	515	98	530	555	525
	MAR-JUL	385	410	425	99	440	465	430
	MAR-SEP	545	575	595	98	615	645	605
DESCHUTES below Snow Creek	APR-JUL	23	29	34	103	39	48	33
	APR-SEP	41	52	60	102	69	83	59
	MAR-JUL	27	34	40	103	46	56	39
	MAR-SEP	45	57	66	102	76	91	65
LITTLE DESCHUTES near La Pine	APR-JUL	47	59	68	96	78	93	71
	APR-SEP	49	64	76	95	89	109	80
	MAR-JUL	57	72	83	95	95	114	87
	MAR-SEP	60	78	91	95	105	129	96
NF CROOKED blw Lookout Ck	MAR-JUL	6.9	8.6	9.8	74	11.1	13.2	13.3
OCHOCO RESERVOIR INFLOW	APR-JUL	5.1	9.4	13.2	60	17.6	25	22
	APR-SEP	4.7	9.3	13.2	60	17.8	26	22
	MAR-JUL	9.8	15.9	21	60	27	36	35
	MAR-SEP	8.7	15.4	21	60	28	39	35
PRINEVILLE RESERVOIR INFLOW	APR-JUL	32	54	72	67	93	128	108
	APR-SEP	31	54	73	67	95	132	109
	MAR-JUL	65	94	117	64	142	184	184
	MAR-SEP	65	95	118	64	144	187	185
WHYCHUS CREEK nr Sisters	APR-JUL	28	32	34	94	36	40	36
	APR-SEP	38	43	46	94	49	54	49
TUMALO CREEK near Bend	APR-JUL	29	33	36	97	39	43	37
	APR-SEP	36	41	44	98	47	53	45
WICKIUP RESERVOIR INFLOW	APR-JUL	148	163	173	101	184	200	171
	APR-SEP	260	280	295	104	310	335	285
	MAR-JUL	172	191	205	100	220	240	205
	MAR-SEP	280	305	325	102	345	370	320

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UPPER DESCHUTES AND CROOKED BASINS Reservoir Storage (1000 AF) - End of February					UPPER DESCHUTES AND CROOKED BASINS Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage This Year	Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
CRANE PRAIRIE	55.3	50.6	39.3	41.9	Crooked, Ochoco	4	57	85
CRESCENT LAKE	86.9	44.4	23.0	52.3	Deschutes above Wickiup	3	72	99
OCHOCO	47.5	32.8	30.5	25.8	Little Deschutes	4	68	100
PRINEVILLE	153.0	104.4	87.4	102.7	Tumalo and Squaw Creeks	4	64	88
WICKIUP	200.0	194.4	164.1	176.0				

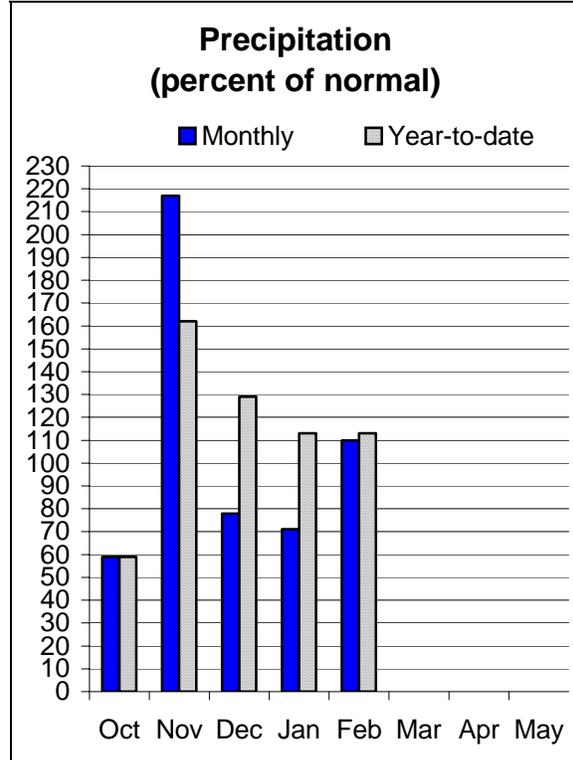
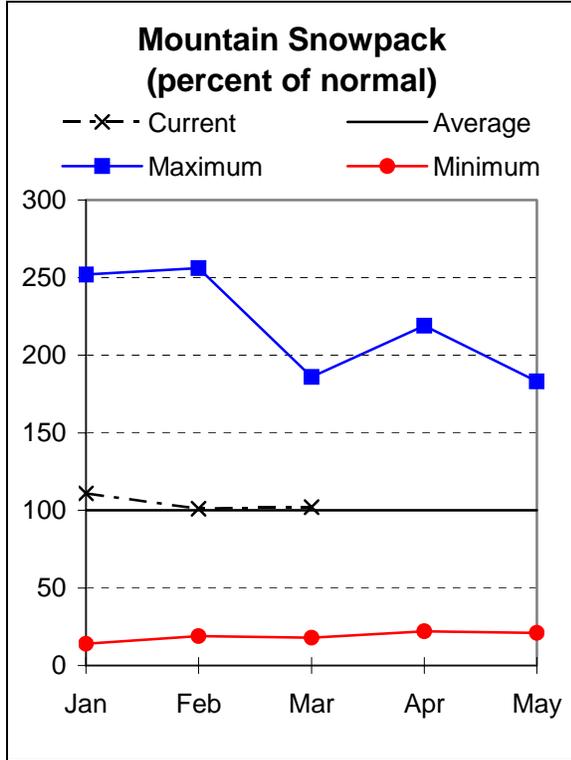
\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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



# Hood, Mile Creeks, and Lower Deschutes Basins

March 1, 2007



## Water Supply Outlook

After a drier than normal January, February precipitation in the Hood, Mile Creeks and Lower Deschutes basins was 110 percent of average. Total precipitation in the basin since the beginning of the water year has been 113 percent of average. As of March 1, the snow pack in the basin as measured at 8 SNOTEL sites and 1 snow course was 102 percent of average.

Near normal streamflows are forecast in the basin this coming summer. The April through September streamflow forecast for the Hood River at Tucker bridge is 94 percent of average. The April through September streamflow forecast for the White River below Tygh Valley is 102 percent of average. Water users in the basin can anticipate near normal supplies this coming summer.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
HOOD at Tucker Bridge	APR-JUL	169	196	215	94	234	261	228
	APR-SEP	206	235	255	94	275	304	271
WF HOOD near Dee	APR-JUL	88	104	115	95	126	142	121
	APR-SEP	106	123	134	95	145	162	141
WHITE below Tygh Valley	APR-JUL	86	101	113	103	125	144	110
	APR-SEP	98	115	127	102	140	159	124

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

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS  
Watershed Snowpack Analysis - March 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CLEAR LAKE (WASCO)	11.9	3.5	2.2	4.3	Hood River	6	88	101
					Mile Creeks	0	0	0
					White River	3	83	98

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

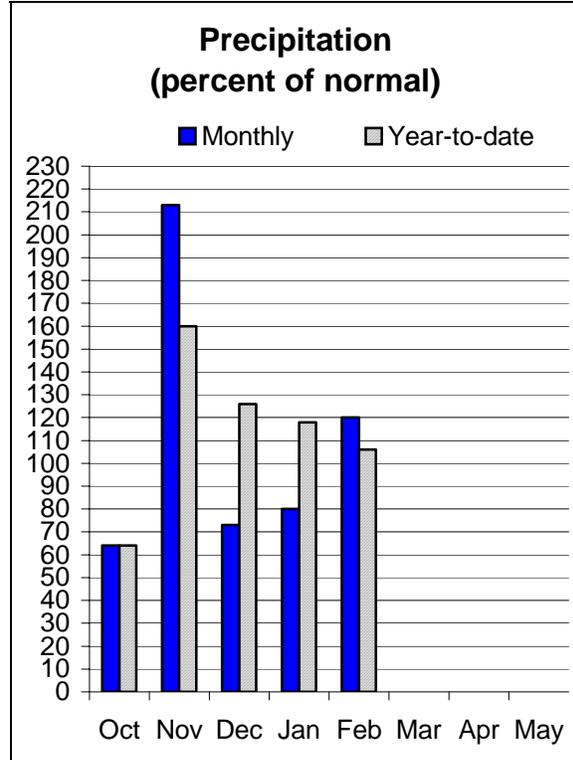
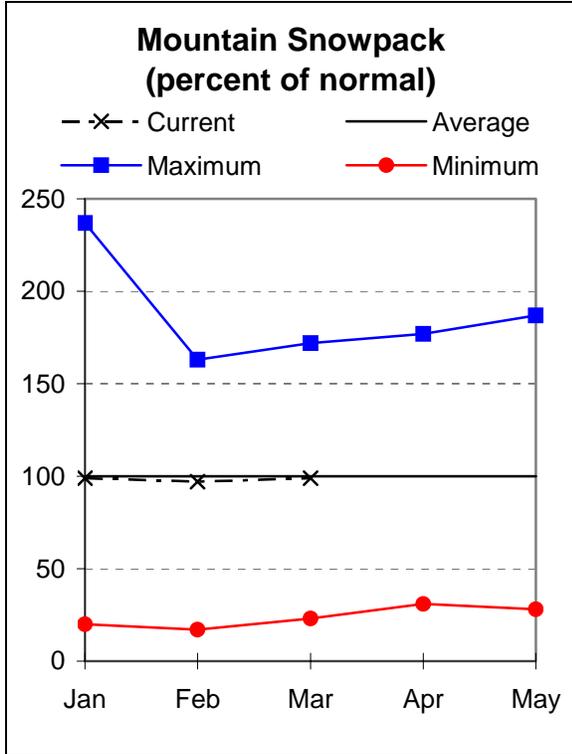
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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



# Lower Columbia Basin

March 1, 2007



## Water Supply Outlook

Total snow pack in the Columbia basin above The Dalles was 99 percent of average on March 1, a slight improvement from last month. Total precipitation since the beginning of the water year has been slightly above average. February precipitation for the Columbia below The Dalles was 120 percent of average.

The April through September flow for the Columbia River at The Dalles is forecast to be 95 percent of average. The April through September flow for the Sandy river near Marmot is forecast to be 92 percent of average. Water users in the Lower Columbia can anticipate near normal supplies this coming summer.

For more information contact your local Natural Resources Conservation Service Office:  
Oregon City - (503) 656-3499

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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LOWER COLUMBIA BASIN  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		=====		Chance Of Exceeding *			=====	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF)		10% (1000AF)	
COLUMBIA R. at The Dalles (2)	APR-JUL	64900	74200	80500	95	86800	96100	84600
	APR-SEP	80000	88100	93600	95	99100	107000	98600
SANDY near Marmot	APR-JUL	218	261	290	93	319	362	313
	APR-SEP	259	304	335	92	366	411	363

LOWER COLUMBIA BASIN Reservoir Storage (1000 AF) - End of February					LOWER COLUMBIA BASIN Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Sandy River	5	87	100

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

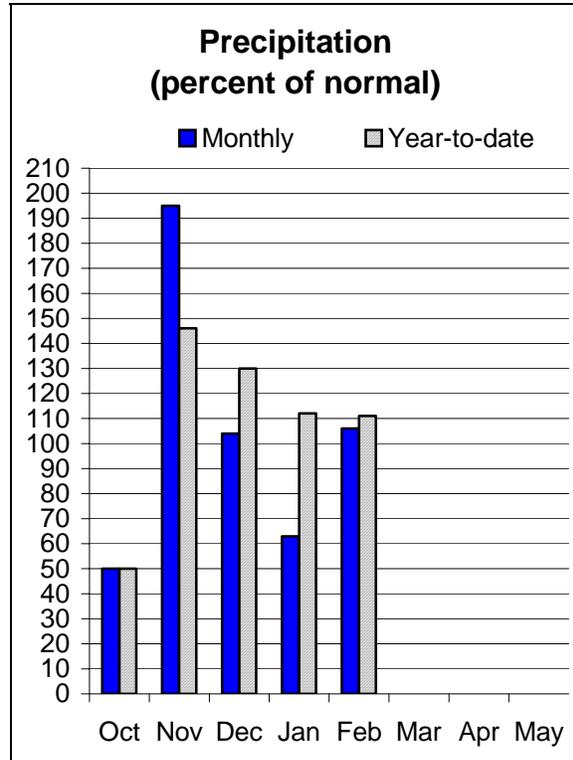
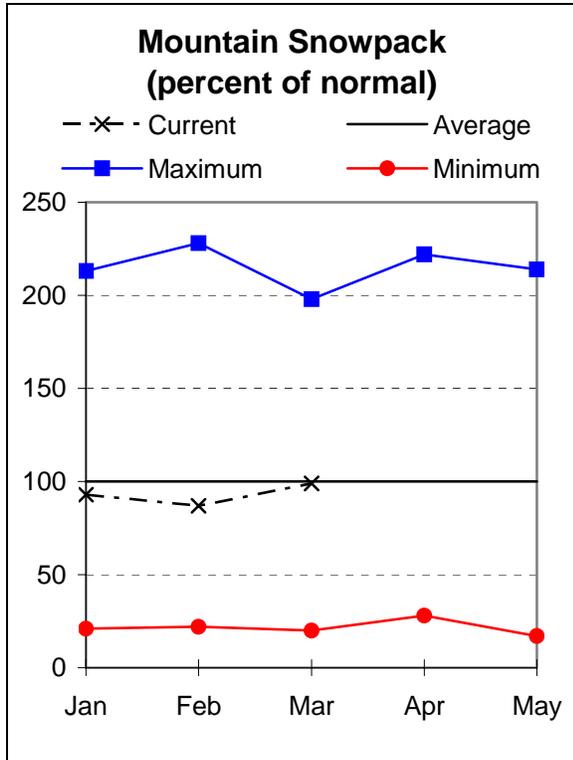
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(2) - The value is natural flow - actual flow may be affected by upstream water management



# Willamette Basin

March 1, 2007



## Water Supply Outlook

Following a drier than normal January, February precipitation in the Willamette basin was near normal. Since the beginning of the water year, total precipitation in the basin has been 111 percent of average. There has been an appreciable improvement in the Willamette basin snow pack since February 1. As of March 1, the snow pack in the basin is 99 percent of average, an increase of 12 percent from last month.

At the end of January, storage at Timothy Lake and Henry Hagg reservoir was 106 percent of average and 89 percent of capacity. Near normal flow rates are forecast for the Willamette river and its tributaries this coming summer. Additionally, all major reservoirs in the basin can anticipate near normal inflow. The April through September flow for the Willamette at Salem is forecast to be 92 percent of average. Water users in the Willamette basin may anticipate average flows this coming 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.wcc.nrcs.usda.gov/cgibin/bor.pl>

WILLAMETTE BASIN  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)	
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
BLUE RIVER LAKE INFLOW (1,2)	MAR-MAY	62	95	110	97	125	158	113
	APR-SEP	48	74	86	100	98	124	86
CLACKAMAS at Estacada (2)	APR-JUL	481	570	630	98	690	779	640
	APR-SEP	568	661	725	97	789	882	748
CLACKAMAS above Three Lynx (2)	APR-JUL	364	424	465	98	506	566	474
	APR-SEP	442	506	550	98	594	658	562
COTTAGE GROVE LAKE INFLOW (1,2)	MAR-MAY	32	51	60	100	69	88	60
	APR-SEP	14.2	34	43	100	52	72	43
COUGAR LAKE INFLOW (1,2)	MAR-MAY	131	185	210	99	235	289	212
	APR-SEP	161	208	230	100	252	299	230
DETROIT LAKE INFLOW (1,2)	MAR-MAY	345	465	520	96	575	695	540
	APR-JUL	331	447	500	95	553	669	528
	APR-SEP	402	525	580	94	635	758	616
DORENA LAKE INFLOW (1,2)	MAR-MAY	96	157	185	102	213	274	182
	APR-SEP	44	100	125	103	150	206	122
FALL CREEK LAKE INFLOW (1,2)	MAR-MAY	81	121	140	100	159	199	140
FERN RIDGE LAKE INFLOW (1,2)	MAR-MAY	49	88	105	98	122	161	107
	APR-SEP	-17.3	13.2	27	100	41	71	27
FOSTER LAKE INFLOW (1,2)	MAR-MAY	282	470	555	91	640	828	613
	APR-JUL	212	376	450	92	524	688	490
	APR-SEP	255	420	495	94	570	735	527
GREEN PETER LAKE INFLOW (1,2)	MAR-MAY	215	335	390	94	445	565	417
	APR-JUL	148	252	300	92	348	452	327
	APR-SEP	173	278	325	92	372	477	354
HILLS CREEK LAKE INFLOW (1,2)	MAR-MAY	173	254	290	101	326	407	288
	APR-JUL	171	243	275	99	307	379	277
	JUN-OCT	120	151	165	101	179	210	164
	APR-SEP	224	290	320	100	350	416	320

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WILLAMETTE BASIN  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
LITTLE NORTH SANTIAM (1)	APR-JUL	63	106	125	94	144	187	133
	APR-SEP	70	115	135	94	155	200	143
LOOKOUT POINT LAKE INFLOW (1,2)	MAR-MAY	523	707	790	104	873	1057	759
	APR-JUL	470	656	740	102	824	1010	726
	JUN-OCT	286	371	410	102	449	534	402
	APR-SEP	583	767	850	103	933	1117	828
McKENZIE below Trail Bridge (2)	APR-JUL	222	245	260	98	275	298	266
	APR-SEP	344	371	390	97	409	436	404
McKENZIE near Vida (1,2)	APR-JUL	701	890	975	100	1060	1249	977
	APR-SEP	890	1090	1180	98	1270	1470	1201
MOHAWK near Springfield	MAR-JUL	78	112	135	101	158	192	134
OAK GROVE FORK above Power Intake	APR-JUL	110	125	135	104	145	160	130
	APR-SEP	146	163	175	105	187	204	167
NORTH SANTIAM at Mehama (1,2)	APR-JUL	444	620	700	96	780	956	732
	APR-SEP	512	696	780	94	864	1048	834
SOUTH SANTIAM at Waterloo (2)	APR-JUL	302	426	510	93	594	718	549
	APR-SEP	347	471	555	95	639	763	587
SCOGGINS CREEK near Gaston (2)	MAR-JUL	20	25	28	108	31	36	26
THOMAS CREEK near Scio	MAR-JUL	64	92	110	91	128	156	121
MF WILLAMETTE below NF (1,2)	JUN-OCT	291	366	400	102	434	509	391
	APR-JUL	465	633	710	102	787	955	698
	MAR-MAY	489	668	750	103	832	1011	725
	APR-SEP	588	748	820	103	892	1052	798
WILLAMETTE at Salem (1,2)	MAR-MAY	2997	4271	4850	90	5429	6703	5401
	APR-JUL	2257	3421	3950	91	4479	5643	4347
	APR-SEP	2736	3880	4400	92	4920	6064	4804

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WILLAMETTE BASIN Reservoir Storage (1000 AF) - End of February					WILLAMETTE BASIN Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage This Year	*** Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
BLUE RIVER **	85.5	32.9	34.6	31.9	Clackamas River	5	73	91
COTTAGE GROVE **	29.8	7.8	9.6	10.2	McKenzie River	4	82	93
COUGAR **	155.2	49.2	57.7	114.3	Row River	1	107	84
DETROIT **	300.7	131.1	118.1	141.8	Santiam River	6	94	86
DORENA **	70.5	16.8	21.5	26.7	Willamette, Middle Fork	6	85	103
FALL CREEK **	115.5	47.4	50.1	40.5				
FERN RIDGE **	109.6	40.7	4.0	45.5				
FOSTER **	29.7	9.3	5.8	9.6				
GREEN PETER **	268.2	119.9	117.9	173.2				
HILLS CREEK **	200.2	69.9	101.5	119.0				
LOOKOUT POINT **	337.0	138.4	156.6	116.8				
TIMOTHY LAKE	61.7	56.1	30.3	51.5				
HENRY HAGG LAKE	53.0	46.2	45.7	45.4				

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

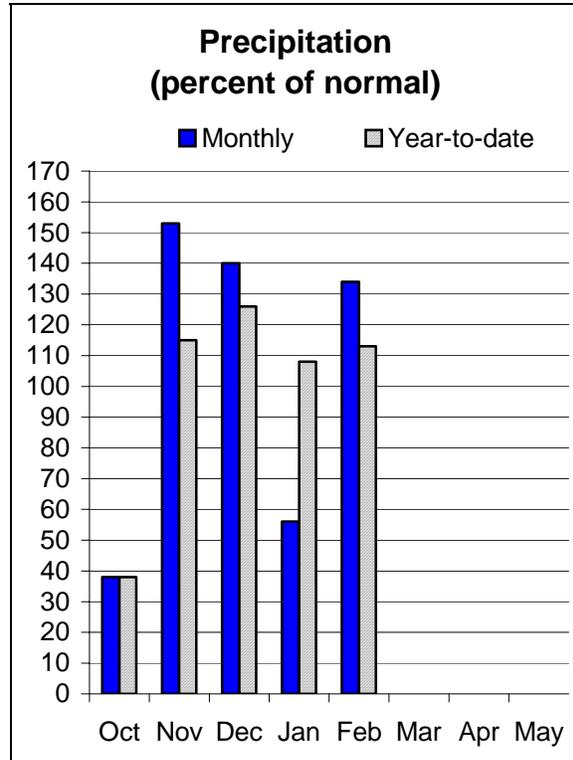
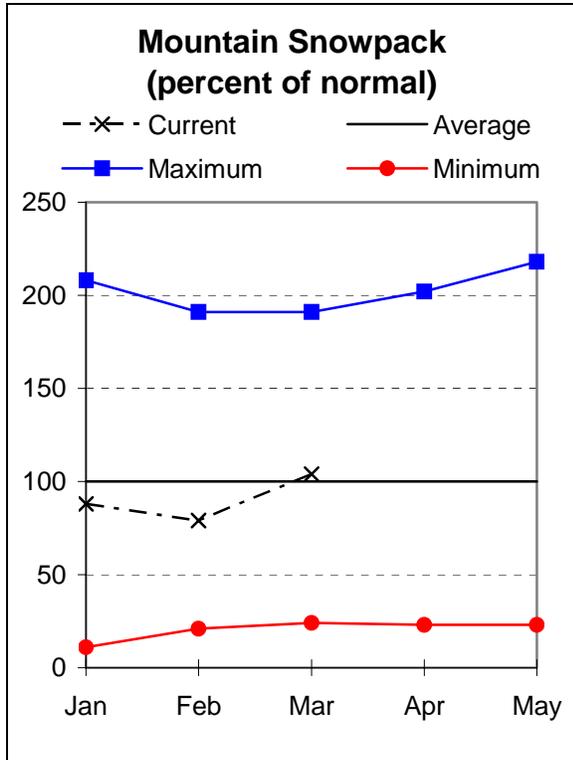
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(2) - The value is natural flow - actual flow may be affected by upstream water management.



# Rogue and Umpqua Basins

March 1, 2007



## Water Supply Outlook

Following a very dry January, the Rogue and Umpqua basins had a very snowy and wet February. February precipitation was 134 percent of normal. So much snow fell in the last 2 weeks of February that snow surveyors had difficulty accessing and measuring the powder. As of March 1, the snow pack was 104 percent of average, an increase of 25 percentage points over last month.

At the end of February, storage at 5 reservoirs in the Rogue and Umpqua basins was 121 percent of average or 83 percent of capacity. Summer streamflow forecasts range from 70 percent of average for the inflow to Fourmile Lake to 114 percent of average for Sucker Creek below Little Grayback. Elsewhere in the basin, summer streamflows are forecast to be near to normal. A few water users may experience water deficits this coming summer.

For more information contact your local Natural Resources Conservation Service Office:  
 Roseburg - (541) 673-8316; Medford - (541) 776-4267  
 Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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ROGUE AND UMPQUA BASINS  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>					30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)		10% (1000AF)
APPLEGATE LAKE Net Inflow (2)	APR-JUL	76	96	110	98	124	144	112
	APR-SEP	81	102	116	98	130	151	119
SF BIG BUTTE CK nr Butte Falls	APR-JUL	23	29	33	97	37	44	34
CLEARWATER above Trap Creek (2)	APR-SEP	45	53	59	88	65	73	67
COW CREEK near Azalea	MAR-JUL	13.6	21	26	90	31	38	29
	APR-JUL	7.4	11.9	15.0	91	18.1	23	16.5
	APR-SEP	8.4	12.9	16.0	90	19.1	24	17.7
FOURMILE LAKE net Inflow (2)	APR-JUL	2.6	3.7	4.5	78	5.3	6.4	5.8
	APR-SEP	3.1	4.2	5.0	70	5.8	6.9	7.1
GRAVE CREEK at Pease Bridge	MAR-JUL	8.7	13.0	16.0	117	19.0	23	13.7
HYATT PRAIRIE RES net Inflow (2)	APR-JUL	1.3	2.7	3.6	75	4.5	5.9	4.8
ILLINOIS R near Kerby	APR-JUL	95	139	170	95	201	245	179
	APR-SEP	101	145	175	94	205	249	186
NF LITTLE BUTTE CK nr Lakecreek (2)	APR-SEP	7.9	10.4	12.0	90	13.6	16.1	13.4
SF LITTLE BUTTE CK nr Lakecreek (2)	APR-SEP	8.3	21	30	94	39	52	32
LOST CREEK LAKE INFLOW (2)	APR-JUL	413	474	515	97	556	617	530
	APR-SEP	532	599	645	97	691	758	665
	MAR-JUL	547	623	675	98	727	803	690
	MAR-SEP	671	754	810	98	866	949	825
RED BLANKET CK nr Prospect	APR-JUL	20	27	32	94	37	44	34

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ROGUE AND UMPQUA BASINS  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		=====		Chance Of Exceeding *			=====	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
ROGUE above Prospect	APR-JUL	168	199	220	90	241	272	245
	APR-SEP	216	251	275	92	299	334	300
SF ROGUE near Prospect (2)	APR-JUL	41	49	54	93	59	67	58
	APR-SEP	51	60	66	94	72	81	70
ROGUE R at Raygold (2)	APR-JUL	535	633	700	96	767	865	730
	APR-SEP	674	779	850	96	921	1026	890
ROGUE R at Grants Pass (2)	APR-JUL	553	647	710	96	773	867	740
	APR-SEP	683	782	850	96	918	1017	885
SUCKER CK blw Little Grayback	APR-JUL	39	51	59	114	67	79	52
	APR-SEP	43	56	64	114	72	85	56
NORTH UMPQUA nr Toketee Falls (2)	APR-SEP	111	128	140	93	152	169	151
NORTH UMPQUA at Winchester	APR-JUL	514	655	750	94	845	986	795
SOUTH UMPQUA near Brockway	APR-JUL	159	282	365	91	448	571	400
SOUTH UMPQUA at Tiller	APR-JUL	89	134	165	86	196	241	193
	APR-SEP	105	149	180	88	211	255	205

ROGUE AND UMPQUA BASINS Reservoir Storage (1000 AF) - End of February					ROGUE AND UMPQUA BASINS Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
APPLEGATE	75.2	18.7	21.2	27.3	Applegate River	6	86	97
EMIGRANT LAKE	39.0	29.0	31.6	28.0	Bear Creek	5	79	95
FISH LAKE	8.0	6.3	4.0	5.6	Butte Creek	6	77	96
FOURMILE LAKE	16.1	10.8	5.5	9.4	Illinois River	2	117	123
HOWARD PRAIRIE	60.0	53.4	57.4	41.2	North Umpqua River	8	89	99
HYATT PRAIRIE	16.1	16.1	16.1	11.0	Rogue River	22	81	103
LOST CREEK **	315.0	91.6	91.8	218.2				

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

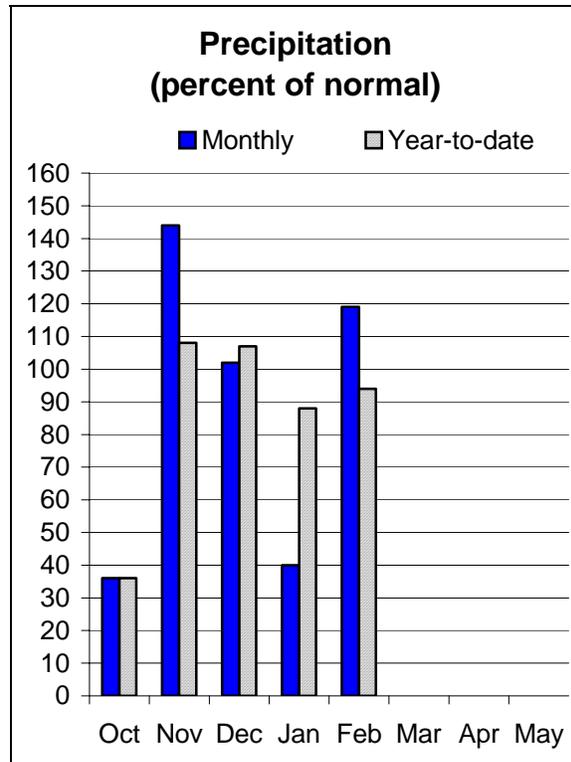
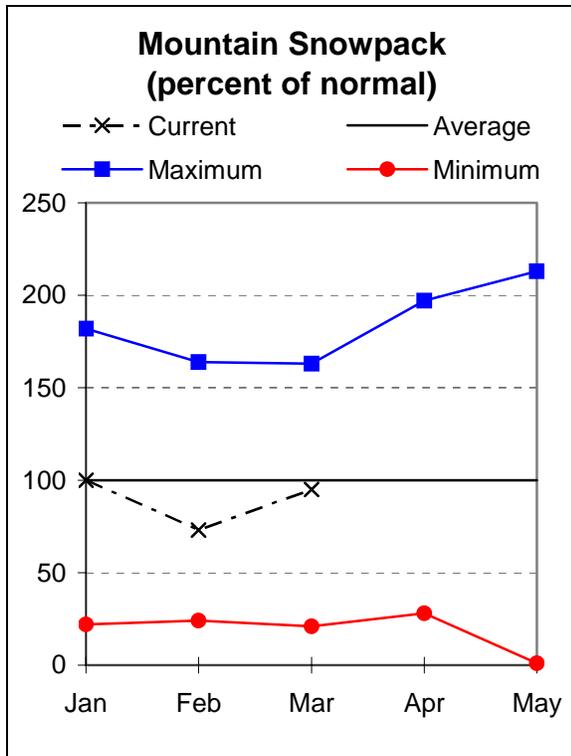
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(2) - The value is natural flow - actual flow may be affected by upstream water management.



# Klamath Basin

March 1, 2007



## Water Supply Outlook

There was a measurable gain in the snow pack in the Klamath basin during February. From February 1 to March 1, the Klamath basin snow pack improved 22 percent. On March 1, the snow pack as measured at 13 SNOTEL sites, 7 snow courses and 5 aerial markers was 95 percent of average. Since the beginning of the water year, total precipitation in the basin has been 94 percent of average. Precipitation for the month of February was 119 percent of average.

At the end of February, the combined storage at Clear Lake (CA), Gerber Lake and Upper Klamath Lake was 96 percent of average and 58 percent of capacity.

Despite the gain in February snow pack, April through September streamflow forecasts range from 57 percent of average for Clear Lake (CA) net inflow to 81 percent of average for Upper Klamath Lake net inflow. The April through September Gerber reservoir net inflow is forecast to be 62 percent of average. Water users in the Klamath basin should plan for reduced supplies this coming irrigation season.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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KLAMATH BASIN  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		=====		Chance Of Exceeding *			=====	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
CLEAR LAKE NET INFLOW (2)	MAR-JUL	9.9	30	44	55	58	78	80
	APR-JUL	1.6	14.3	23	56	32	44	41
	APR-SEP	5.1	18.1	27	57	36	49	48
GERBER RESERVOIR Net Inflow (2)	MAR-JUL	4.1	13.1	21	57	29	41	37
	APR-SEP	0.5	5.2	11.0	62	16.8	25	17.8
Sprague River near Chiloquin	MAR-JUL	129	183	220	80	257	311	275
	APR-SEP	105	150	180	78	210	255	230
UPPER KLAMATH LAKE NET INFLOW (1)	MAR-JUL	283	446	520	83	594	757	625
	APR-SEP	236	359	415	81	471	594	515
WILLIAMSON R near Chiloquin	MAR-JUL	278	327	360	82	393	442	441
	APR-SEP	235	277	305	79	333	375	385

KLAMATH BASIN Reservoir Storage (1000 AF) - End of February					KLAMATH BASIN Watershed Snowpack Analysis - March 1, 2007			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CLEAR LAKE (CALIF)	513.3	178.9	163.0	224.2	Lost River	5	59	53
GERBER	94.3	68.1	67.6	54.5	Sprague River	7	59	93
UPPER KLAMATH LAKE	523.7	409.4	410.9	402.6	Upper Klamath Lake	17	65	98
					Williamson River	5	66	102

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

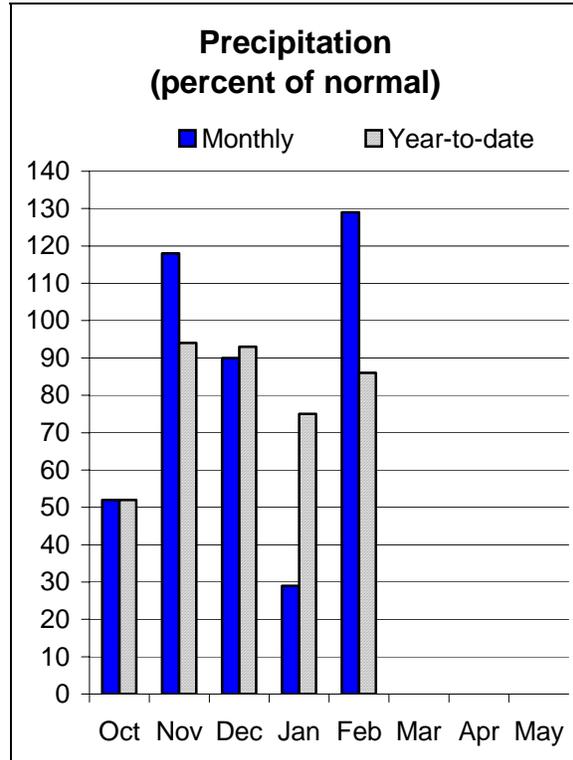
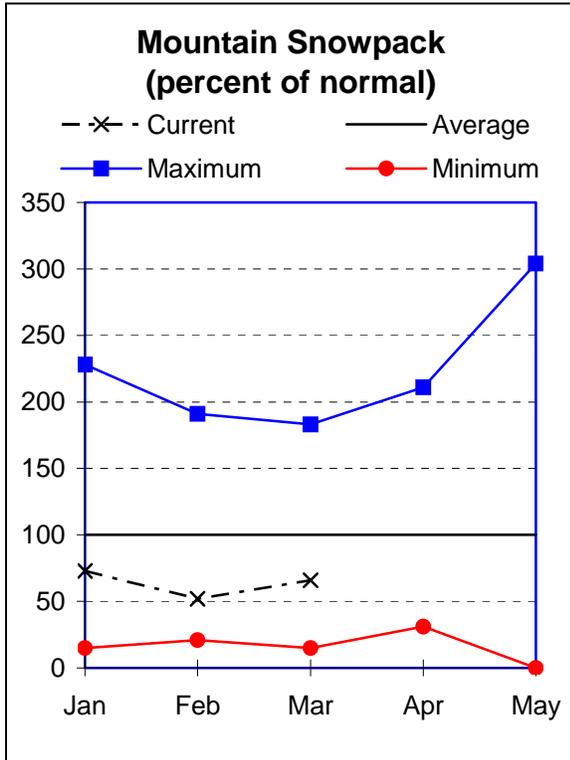
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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



# Lake County and Goose Lake Basin

March 1, 2007



## Water Supply Outlook

After an exceptionally dry January, February precipitation in Lake County and Goose Lake basin was 129 percent of average. Since the beginning of the water year, basin precipitation has been 86 percent of average. The basin snow pack improved from 56 percent of average on February 1 to 66 percent of average on March 1.

At the end of February, the combined storage at Cottonwood, Drews and Thompson Valley reservoirs was 112 percent of average or 65 percent of capacity. March through July streamflows range from 57 percent of average for Twentymile creek near Adel to 80 percent of average for Cottonwood Creek near Lakeview. Water users in the basin should expect lower than average supplies this coming season.

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

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

LAKE COUNTY AND GOOSE LAKE BASINS  
Streamflow Forecasts - March 1, 2007

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)			30% (1000AF)	10% (1000AF)
BRIDGE CK nr Spahr Ranch	APR-JUL	0.9	1.9	2.5	78	3.1	4.1	3.2
CHEWAUCAN R nr Paisley	MAR-JUL	34	50	61	69	72	88	89
COTTONWOOD CK nr Lakeview (2)	MAR-JUL	5.5	7.3	8.5	80	9.7	11.5	10.6
DEEP CK abv Adel	MAR-JUL	28	43	53	63	63	78	84
DREWS RESERVOIR net Inflow (2)	MAR-JUL	11.5	20	26	72	32	41	36
HONEY CK nr Plush	MAR-JUL	4.9	9.7	13.0	65	16.3	21	20
SILVER CK nr Silver Lk	MAR-JUL	6.7	11.7	15.0	76	18.3	23	19.7
TWENTYMILE CK nr Adel	MAR-JUL	1.2	10.0	16.0	57	22	31	28

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

LAKE COUNTY AND GOOSE LAKE BASINS  
Watershed Snowpack Analysis - March 1, 2007

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
COTTONWOOD	8.7	7.1	9.3	3.8	Chewaucan River	5	53	69
DREWS	63.0	36.8	63.5	37.5	Deep Creek	4	53	72
THOMPSON VALLEY	18.4	14.3	10.5	10.8	Drew Creek	4	34	41
					Honey Creek	3	49	68
					Silver Creek (Lake Co.)	4	51	97
					Twentymile Creek	4	53	72

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

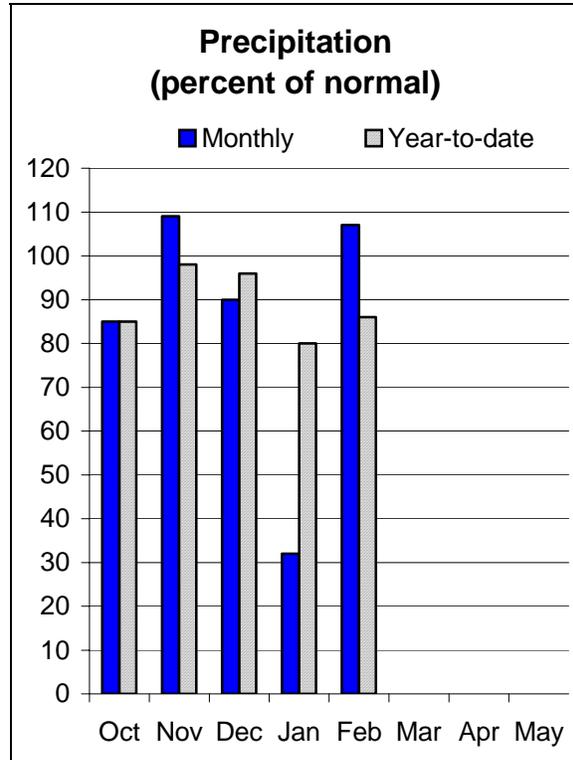
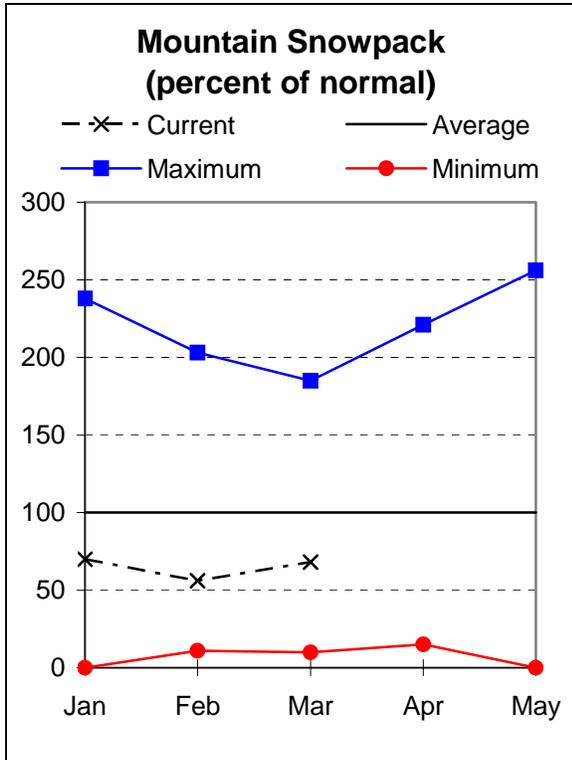
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

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



# Harney Basin

March 1, 2007



## Water Supply Outlook

After an exceptionally dry January, February precipitation was near normal in the Harney basin. The basin wide snow pack improved from 56 percent of average on February 1 to 68 percent of average on March 1. Since the beginning of the water year, total precipitation in the Harney basin has been 86 percent of average.

April through September streamflows for the Silvies near Burns and for Trout Creek near Denio are forecast to be 62 percent of average. The April through September flow for the Donner und Blitzen is forecast to be 71 percent of average. Water users in the Harney Basin should expect reduced supplies this coming season.

For more information contact your local Natural Resources Conservation Service Office:  
Hines - (541) 573-6446

Or visit: <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

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HARNEY BASIN  
Streamflow Forecasts - March 1, 2007

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>				30-Yr Avg. (1000AF)		
		=====		Chance Of Exceeding *			=====	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF)		10% (1000AF)	30-Yr Avg. (1000AF)
DONNER und BLITZEN R nr Frenchglen	MAR-JUL	32	44	53	71	62	74	75
	APR-SEP	31	42	50	71	58	69	70
SILVER CK nr Riley	MAR-JUL	11.3	15.9	19.0	68	22	27	28
SILVIES R nr Burns	MAR-JUL	24	60	85	66	110	146	129
	APR-SEP	7.7	40	61	62	83	114	99
TROUT CK nr Denio	MAR-JUL	2.9	5.3	7.0	63	8.7	11.1	11.1
	APR-SEP	2.3	4.7	6.4	62	8.1	10.5	10.3

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

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HARNEY BASIN  
Watershed Snowpack Analysis - March 1, 2007

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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	Average
					Donner und Blitzen River	6	72	73
					Silver Creek (Harney Co)	2	53	75
					Silvies River	6	51	73
					Trout Creek	4	51	58

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

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

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

# Low Flow Forecasts for Oregon

<b>OWYHEE AND MALHEUR BASINS</b>			
<i>FORECAST POINT</i>	<i>LOW FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Owyhee nr Rome	2000	April 29	May 14
	1000	May 6	May 28
	500	May 9	June 11

<b>BURNT, POWDER, PINE, GRAND RONDE AND IMNAHA BASINS</b>			
<i>FORECAST POINT</i>	<i>LOW FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Eagle Ck above Skull Ck	225	July 1	July 25
	160	July 15	August 5
Catherine Ck nr Union	35	August 1	Avg Value = 49 cfs
	100	June 30	July 9
	50	July 10	July 28
Powder near Sumpter	100	May 25	June 25
	20	June 15	July 22
Deer Ck above Phillips Resv nr Sumpter	40	May 15	June 17
	10	May 30	July 6

<b>UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS</b>			
<i>FORECAST POINT</i>	<i>LOW FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Umatilla at Pendleton	550	April 25	May 17
SF Walla Walla nr Milton	200	May 2	June 9
	90	August - September	Avg Value = 105 cfs

<b>UPPER JOHN DAY</b>			
<i>FORECAST POINT</i>	<i>LOW FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
John Day at Service Ck	170	August 1	Avg Value = 212 cfs

<b>UPPER DESCHUTES AND CROOKED BASINS</b>			
<i>FORECAST POINT</i>	<i>FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Crane Prairie net Inflow	265	Peak	
	175	October 31	
	Peak	May 29	
Crooked R	100	May 15	June 1
Deschutes below Bend	1500	May 29	
Little Deschutes nr LaPine	400	May 15	June 7
	200	June 1	July 8
Whycus Cr nr Sisters	100	August 10	August 16
Tumalo Ck nr Bend	235	June 18	June 23
	207	June 20	June 25
	150	June 30	July 5
	71	July 30	August 7

<b>HOOD, MILE CREEKS, AND LOWER DESCHUTES BASINS</b>			
<i>FORECAST POINT</i>	<i>FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Clear Branch Inflow	40*	July 15-31	39**
*Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record			
White bl Tygh Valley	200	July 3	July 3
	140	August 1	Avg Value = 145

<b>ROGUE AND UMPQUA BASINS</b>			
<i>FORECAST POINT</i>	<i>FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Cow Ck nr Azalea	20	June 30	July 4
	10	August 12	August 19
Little Butte Cr SF	100	May 10	May 15
South Umpqua nr Brockway	90	August 22	August 28
South Umpqua at Tiller	140	July 6	July 12
	90	July 22	July 28
	60	August 10	August 24

<b>LAKE COUNTY AND GOOSE LAKE BASINS</b>			
<i>FORECAST POINT</i>	<i>FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Deep Ck abv Adel	100	May 30	June 21
Honey Ck nr Plush	100	April 15	May 15
	50	May 1	May 30
Twentymile nr Adel	50	April 30	June 2
	10	May 30	July 3

<b>HARNEY BASIN</b>			
<i>FORECAST POINT</i>	<i>FLOW CFS</i>	<i>FORECAST DATE OF LOW FLOW</i>	<i>AVERAGE DATE OF LOW FLOW</i>
Silvies nr Burns	400	April 15	May 5
	200	April 30	May 21
	100	May 15	June 9
	50	May 25	June 23
Donner und Blitzen	200	May 25	June 15
	100	June 25	July 5

# Summary of Snow Course Data

March 2007

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
<b>Oregon</b>						
ANEROID LAKE SNOTEL	7410	3/01/07	61	13.4	21.8	21.0
ANNIE SPRING REV	6120	2/28/07	116	33.8	54.7	36.4
ANNIE SPRING SNOTEL	6010	3/01/07	115	33.8	52.6	33.5
ANTHONY LAKE	7130	2/28/07	63	12.3	20.9	21.8
ARBUCKLE MTN SNOTEL	5770	3/01/07	49	10.5	18.9	18.5
BALD MTN,OR AM	6720	3/01/07	---	22.8E	--	20.5
BALD PETER	5400	2/27/07	72	22.4	35.2	26.6
BARLEY CAMP AM	6900	3/05/07	46	8.3	20.0	14.9
BEAR FLAT MEADOW AM	5900	3/05/07	28	5.6	15.0	11.1
BEAVER CREEK #1	4250	2/26/07	42	12.4	16.4	14.7
BEAVER CREEK #2	4250	2/26/07	28	7.2	11.8	9.8
BEAVER DAM CREEK	5100	2/28/07	43	11.4	15.8	11.4
BEAVER RES. SNOTEL	5150	3/01/07	25	8.4	13.9	8.6
BIG RED MTN SNOTEL	6050	3/01/07	79	20.7	25.7	22.5
BIG SHEEP AM	6200	3/01/07	---	19.8E	--	23.8
BIGELOW CAMP SNOTEL	5120	3/01/07	61	13.6	9.9	12.7
BILLIE CK DVD SNOTEL	5300	3/01/07	72	19.4	28.8	21.4
BLAZED ALDER SNOTEL	3650	3/01/07	92	25.9	31.6	30.1
BLUE MTN SPGS SNOTEL	5900	3/01/07	51	14.3	22.3	15.7
BOULDER CREEK AM	5690	3/05/07	8	2.1	8.8	3.8
BOURNE SNOTEL	5850	3/01/07	30	9.8	16.1	16.6
BOWMAN SPRNGS SNOTEL	4530	3/01/07	15	3.9	8.3	9.1
BUCK PASTURE AM	5700	3/05/07	7	1.8	2.1	2.4
BUCKSKIN LAKE AM	5200	3/05/07	0	.0	.0	.5
BULLY CREEK AM	5300	3/05/07	8	2.2	6.9	2.2
CALIBAN ALT	6500	2/26/07	86	22.4E	29.0	25.2
CALL MEADOWS AM	5340	3/05/07	10	2.7	8.6	4.2
CAMAS CREEK #3	5850	2/28/07	36	7.5	18.8	11.9
CASCADE SUM. SNOTEL	5100	3/01/07	107	30.3	35.9	27.2
CHEMULT ALT SNOTEL	4850	3/01/07	29	7.1	15.1	8.1
CHILOQUIN	4190	3/01/07	12	3.0	3.0	1.1
CLACKAMAS LK. SNOTEL	3400	3/01/07	38	11.3	14.0	12.3
CLEAR LAKE SNOTEL	3810	3/01/07	45	11.3	15.2	13.2
COLD SPRINGS SNOTEL	5940	3/01/07	91	29.3	41.4	27.0
COLVIN CREEK AM	6550	3/05/07	14	2.9	4.2	4.2
COUNTY LINE SNOTEL	4800	3/01/07	5	1.2	2.5	4.6
COX FLAT AM	5750	3/05/07	2	.4	4.2	7.1
CRAZYMAN FLAT AM	6100	3/05/07	33	7.9	9.6	9.1
CRAZYMAN FLAT SNOTEL	6180	3/01/07	65	14.9	21.4	15.7
CRYSTAL (BROWNS RCH)	4200	3/01/07	16	3.4	10.5	4.1
DALY LAKE SNOTEL	3690	3/01/07	55	12.3	11.6	15.0
DEADWOOD JUNCTION	4600	2/28/07	38	9.3	6.8	6.9
DERR	5670	2/26/07	27	8.6	13.9	9.7
DERR SNOTEL	5850	3/01/07	45	13.4	21.2	13.7
DIAMOND LAKE SNOTEL	5320	3/01/07	50	13.4	17.2	15.0
DOG HOLLOW AM	4900	3/05/07	2	.4	.0	1.0
DOOLEY MOUNTAIN	5430	2/27/07	24	8.4	14.0	7.9
EILERTSON SNOTEL	5510	3/01/07	23	6.4	9.3	9.6
ELDORADO PASS	4600	2/27/07	6	1.0	8.0	3.4
EMIGRANT SPGS SNOTEL	3800	3/01/07	7	1.4	5.6	5.7

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00	
<b>Oregon (continued)</b>							
FINLEY CORRALS	AM	6000	3/05/07	56	11.8	21.4	14.8
FISH CREEK	SNOTEL	7660	3/01/07	88	21.8	31.4	23.9
FISH LK.	SNOTEL	4670	3/01/07	49	11.4	10.7	11.1
FLAG PRAIRIE	AM	4750	3/05/07	10	2.7	12.6	4.5
FT. KLAMATH		4150	3/01/07	14	3.2	7.2	2.7
FOURMILE LAKE	SNOTEL	6000	3/01/07	87	23.1	34.0	27.1
GERBER		4850	3/01/07	11	1.8	1.2	1.6
GERBER RES	SNOTEL	4850	3/01/07	8	1.6	1.9	--
GOLD CENTER	SNOTEL	5410	3/01/07	27	8.4	17.3	10.3
GRAYBACK PEAK		6000	3/02/07	78	20.0	18.8	14.6
GREENPOINT	SNOTEL	3310	3/01/07	63	18.3	24.2	17.8
HARRIMAN LODGE		4200	3/01/07	14	2.6	8.0	3.5
HART MOUNTAIN	AM	6350	3/05/07	0	.0	1.0	2.0
HIGH RIDGE	SNOTEL	4920	3/01/07	63	21.2	24.2	21.2
HOGG PASS	SNOTEL	4760	3/01/07	82	21.0	32.3	34.0
HOLLAND MDWS	SNOTEL	4900	3/01/07	72	17.6	16.5	21.0
HOWARD PRAIRIE		4500	2/28/07	32	6.9	9.8	7.3
HUNGRY FLAT		4400	2/28/07	8	1.0	5.9	3.4
IRISH-TAYLOR	SNOTEL	5500	3/01/07	107	29.2	38.7	30.7
JUMP OFF JOE	SNOTEL	3520	3/01/07	57	13.7	11.1	11.4
KING MTN #1		4500	3/01/07	43	8.8	3.8	6.7
KING MTN #2	SNOTEL	4340	3/01/07	35	5.9	1.7	3.8
KING MTN #3		3650	3/01/07	22	4.0	.0	1.0
KING MTN #4		3050	3/01/07	7	1.2	.0	.1
LAKE CK R.S.	SNOTEL	5200	3/01/07	29	8.2	15.2	11.6
LITTLE ALPS		6200	2/28/07	36	8.0	13.4	11.1
LITTLE ANTONE (ALT)		5000	2/28/07	25	7.2	11.0	8.4
LITTLE MEADOW	SNOTEL	4000	3/01/07	102	30.0	26.8	22.8
LOOKOUT BUTTE	AM	5650	3/05/07	3	.8	.0	.3
LOUSE CANYON	AM	6440	3/05/07	6	1.7	3.5	5.8
LUCKY STRIKE	SNOTEL	4970	3/01/07	16	4.7	6.9	9.3
MADISON BUTTE	SNOTEL	5150	3/01/07	10	2.2	5.7	4.8
MARION FORKS	SNOTEL	2600	3/01/07	33	7.8	6.3	10.2
MARKS CREEK		4540	2/26/07	6	1.9	5.3	3.2
MARY'S PEAK REV		3620	3/01/07	53	11.8	2.9	5.8
MCKENZIE	SNOTEL	4800	3/01/07	182	40.9	44.8	37.5
MEACHAM		4300	2/27/07	14	3.4	10.4	8.5
MIRROR LAKE	AM	8200	3/01/07	---	37.2E	--	58.5
MOSS SPRINGS	SNOTEL	5760	3/01/07	67	20.8	20.1	22.2
MT ASHLAND SWBK.		6400	2/26/07	90	23.5E	30.7	27.2
MT HOOD		5400	2/28/07	142	49.8	60.5	53.9
MT HOOD TEST	SNOTEL	5400	3/01/07	143	48.1	53.8	48.4
MT HOWARD	SNOTEL	7910	3/01/07	41	11.5	16.2	12.8
MUD RIDGE	SNOTEL	4070	3/01/07	80	22.5	29.6	21.9
NEW CRESCENT	SNOTEL	4910	3/01/07	55	8.7	20.7	11.0
NEW DUTCHMAN #3		6400	3/01/07	125	41.0	54.2	46.1
NORTH FK RES	SNOTEL	3060	3/01/07	73	22.4	19.4	16.4
NORTH UMPQUA		4220	3/02/07	46	9.8	15.8	10.7
OCHOCO MEADOWS		5200	2/27/07	29	9.0	14.6	9.6
OCHOCO MEADOW	SNOTEL	5430	3/01/07	30	9.1	14.4	9.3
OREGON CANYON	AM	6950	3/05/07	9	2.5	7.4	5.5
PARK H.Q. REV		6550	2/26/07	151	55.0	74.0	48.0
PATTON MEADOWS	AM	6800	3/05/07	43	8.6	22.8	15.1
PEAVINE RIDGE	SNOTEL	3420	3/01/07	44	13.9	18.4	13.2
PUEBLO SUMMIT	AM	6800	3/05/07	10	2.5	4.6	2.5
QUARTZ MTN	SNOTEL	5720	3/01/07	7	1.7	3.6	2.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
<b>Oregon (continued)</b>						
RACING CREEK	4800	2/27/07	44	12.0	20.8	12.3
R.R. OVERPASS	SNOTEL 2680	3/01/07	5	1.5	.0	.1
RED BUTTE #1	4560	2/26/07	57	14.7	10.0	10.2
RED BUTTE #2	4000	2/26/07	22	3.2	.7	5.3
RED BUTTE #3	3500	2/26/07	22	3.0	1.3	2.3
RED HILL	SNOTEL 4400	3/01/07	123	49.1	44.8	41.4
ROARING RIVER	SNOTEL 4950	3/01/07	77	25.3	34.2	25.5
ROCK SPRINGS	SNOTEL 5290	3/01/07	15	1.4	7.5	5.3
ROGGER MEADOWS	AM 6500	3/05/07	38	8.0	10.8	10.9
SADDLE MTN	SNOTEL 3110	3/01/07	42	13.9	.0	6.2
SALT CK FALLS	SNOTEL 4220	3/01/07	77	19.9	19.4	16.5
SANTIAM JCT.	SNOTEL 3750	3/01/07	51	11.2	14.1	17.8
SCHNEIDER MDW	SNOTEL 5400	3/01/07	78	22.6	29.2	27.6
SEINE CREEK	SNOTEL 2060	3/01/07	12	2.0	.0	2.9
SEVENMILE MARSH	SNTL 5700	3/01/07	101	27.4	35.4	26.7
SHERMAN VALLEY	AM 6600	3/05/07	41	8.2	15.2	11.3
SILVER BURN	3720	2/26/07	39	11.6	16.0	10.5
SILVER CREEK	SNOTEL 5740	3/01/07	38	9.3	21.3	9.8
SILVIES	SNOTEL 6990	3/01/07	40	10.4	9.4	15.6
SISKIYOU SUMMIT REV	4630	2/26/07	39	10.1E	10.9	5.3
SKI BOWL ROAD	6000	2/26/07	78	20.3E	26.0	22.0
SNOW MTN	SNOTEL 6220	3/01/07	32	6.5	13.6	10.3
SF BULL RUN	SNOTEL 2690	3/01/07	21	4.1	2.4	--
STANDLEY	AM 7400	3/01/07	---	19.3E	--	27.1
STARR RIDGE	SNOTEL 5250	3/01/07	20	5.8	9.7	6.0
STRAWBERRY	SNOTEL 5760	3/01/07	9	1.7	6.1	5.5
SUMMER RIM	SNOTEL 7100	3/01/07	68	15.4	22.2	15.2
SUMMIT LAKE	SNOTEL 5600	3/01/07	110	31.4	41.8	31.5
SYCAN FLAT	AM 5500	3/05/07	17	4.4	11.1	5.5
TANGENT	5400	2/28/07	61	17.5	33.6	19.9
TAYLOR BUTTE	SNOTEL 5030	3/01/07	24	6.3	14.4	6.0
TAYLOR GREEN	SNOTEL 5740	3/01/07	47	13.5	17.4	18.9
THREE CK MEAD	SNOTEL 5650	3/01/07	61	16.1	24.9	16.9
TIMOTHY LAKE	3300	2/26/07	28	5.8	11.9	10.4
TIPTON	SNOTEL 5150	3/01/07	36	8.4	16.1	12.8
TOLLGATE	5070	2/27/07	71	24.6	29.8	24.5
TRAP CREEK	3800	3/02/07	42	10.6	13.2	9.1
TROUT CREEK	AM 7800	3/05/07	37	9.2	12.5	9.7
TV RIDGE #2	AM 7000	3/01/07	---	4.5E	--	16.7
V LAKE	AM 6600	3/05/07	6	1.7	5.6	7.3
WOLF CREEK	SNOTEL 5630	3/01/07	44	9.6	16.9	14.7

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
<b>California</b>						
ADIN MOUNTAIN	6350	2/26/07	40	7.6	8.9	11.7
ADIN MTN SNOTEL	6350	3/01/07	46	9.0	10.4	12.2
CEDAR PASS SNOTEL	7100	3/01/07	50	10.5	12.6	15.6
CROWDER FLAT AM	5200	3/05/07	7	1.3	.8	2.3
CROWDER FLAT SNOTEL	5200	3/01/07	10	1.5	4.2	--
DISMAL SWAMP SNOTEL	7000	3/01/07	83	20.2	34.1	23.7
STATE LINE AM	5750	3/05/07	10	1.8	6.3	6.8
<b>Idaho</b>						
BATTLE CREEK AM	5720	3/05/07	3	.8	6.5	3.9
BULL BASIN AM	5460	3/05/07	7	2.0	4.2	1.6
MUD FLAT SNOTEL	5730	3/01/07	16	3.6	9.0	6.8
RED CANYON AM	6650	3/05/07	20	5.6	10.0	7.3
SILVER CITY	6400	2/24/07	33	11.4	19.6	14.9
SOUTH MTN SNOTEL	6500	3/01/07	44	10.9	14.9	17.1
SUCCOR CREEK AM	6100	3/05/07	19	5.3	9.8	7.4
VAUGHT RANCH AM	5830	3/05/07	6	1.7	8.6	4.7
<b>Nevada</b>						
BALD MOUNTAIN AM	6720	3/05/07	3	.5	3.0	3.2
BEAR CREEK SNOTEL	7800	3/01/07	---	13.6	22.6	17.1
BIG BEND SNOTEL	6700	3/01/07	23	5.9	12.0	8.6
BUCKSKIN,L SNOTEL	6700	3/01/07	35	7.0	9.0	8.5
COLUMBIA BASIN AM	6650	2/27/07	21	3.0	12.6	8.8
DISASTER PEAK SNOTEL	6500	3/01/07	11	1.6	6.4	9.7
FAWN CREEK SNOTEL	7050	3/01/07	42	10.9	14.5	14.4
FRY CANYON	6700	2/26/07	21	4.6	11.3	7.3
GOLD CREEK	6600	2/26/07	13	1.7	8.2	5.6
GRANITE PEAK SNOTEL	7800	3/01/07	59	13.3	20.9	19.7
JACK CREEK, U SNOTEL	7280	3/01/07	48	8.8	18.7	15.7
LAMANCE CREEK SNOTEL	6000	3/01/07	27	4.8	9.6	12.6
LAUREL DRAW SNOTEL	6700	3/01/07	26	6.3	12.6	9.2
LITTLE BALLY MTN. AM	6000	3/05/07	5	.9	.8	3.8
MERRIT MOUNTAIN AM	7000	2/27/07	14	1.8	7.2	6.6
MIDAS (d)	7200	2/27/07	9	1.2	5.4	3.7
QUINN RIDGE AM	6300	3/05/07	35	9.8	2.1	2.1
SEVENTYSIX CK SNOTEL	7100	3/01/07	37	7.4	15.9	10.9
STAG MOUNTAIN AM	7700	2/27/07	11	1.4	8.1	5.3
TAYLOR CANYON SNOTEL	6200	3/01/07	7	1.0	7.6	5.3
TOE JAM AM	7700	2/27/07	27	3.5	10.8	9.4
TREMEWAN RANCH	5700	2/26/07	3	.5	3.0	1.9

(d) denotes discontinued site.

# Basin Outlook Reports; How Forecasts Are Made And 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.

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**OWYHEE AND MALHEUR BASINS**  
**Streamflow Forecasts - February 1, 2006**

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (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.

USDA Natural Resources Conservation Service  
1201 NE Lloyd Suite 900  
Portland, OR 97232-1274

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Official Business



*The Oregon Snow Survey office has moved.  
Please note our new address.*

*Issued by*

**Arlen Lancaster, Chief  
Natural Resources Conservation Service  
U.S. Department of Agriculture**

*Released by*

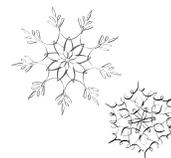
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