NRCS Natural Resources Conservation Service

United States Department of Agriculture

Washington
Water Supply Outlook Report
April 1, 2009

Water Supply Outlook Reports
and
Federal - State – Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Local Natural Resources Conservation Service Field Office

or

Scott Pattee
Water Supply Specialist
Natural Resources Conservation Service
2021 E. College Way, Suite 214
Mt. Vernon, WA 98273-2873
(360) 428-7684

or

Ron Nichols
Public Affairs Specialist
Natural Resources Conservation Service
W 316 Boone Ave., Suite 450
Spokane, WA 99201
(509) 323-2912

How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. 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.

Washington
Water Supply Outlook

April 2009

General Outlook

March Madness may be over but not before Mother Nature slam dunked the state with near record snow and precipitation. Colder than normal temperatures helped keep the snow in place which showed in the mostly below average runoff during the month. All areas in the state showed marked increases in snow but none as great as the Central Puget which received nearly a 40 percent increase. Will April showers bring May flowers? According to the Climate Prediction Center we can expect a continuation of below normal temperatures and equal chances of below, above or normal precipitation through the end of May. This will help keep the snow in the mountains until we really need it, especially for those areas not seen in the top winner's bracket.

Snowpack

The April 1 statewide SNOTEL readings were 99% of average, up considerably from last month. The Conconully Lake area snow surveys reported the lowest readings at 55% of average. The Tolt River Basin is the highest at 173%. Westside averages from SNOTEL, and April 1 snow surveys, included the North Puget Sound river basins with 83% of average, the Central Puget river basins with 113%, and the Lewis-Cowlitz basins with 124% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 90% and the Wenatchee area with 77%. Snowpack in the Spokane River Basin was at 101% and the Walla Walla River Basin had 118% of average. Maximum snow cover in Washington was at Paradise SNOTEL near Mt. Rainer, with water content of 74.1 inches. Last year at this time Paradise had 96.2 inches of snow water.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	69	101
Newman Lake	65	139
Pend Oreille	86	97
Okanogan	76	74
Methow	70	69
Conconully Lake	56	55
Wenatchee	76	80
Chelan	74	70
Upper Yakima	68	88
Lower Yakima	75	93
Ahtanum Creek	91	96
Walla Walla	80	118
Lower Snake	82	99
Cowlitz	71	116
Lewis	60	107
White	73	95
Green	81	127
Puyallup	81	121
Cedar	62	142
Tolt	82	173
Snoqualmie	74	125
Skykomish	82	112
Skagit	69	78
Baker	66	83
Nooksack	60	88
Olympic Peninsula	48	65

Precipitation

During the month of January, the National Weather Service and Natural Resources Conservation Service climate stations reported well above average precipitation totals in most river basins. Again Paradise SNOTEL site leads the pack with a monthly high of 25.9 inches or 220% of normal. The average for Paradise is 11.76 inches for March. Paradise was also the wettest spot in the state last month. Regardless of above normal rainfall during the month only a hand full of basin reached a near average water-year total accumulation.

RIVER BASIN	JANUARY PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	143	95
Pend Oreille	145	73
Upper Columbia	119	74
Central Columbia	119	83
Upper Yakima	139	100
Lower Yakima	141	96
Walla Walla	197	116
Lower Snake	155	102
Lower Columbia	126	86
South Puget Sound	144	97
Central Puget Sound	151	110
North Puget Sound	111	85
Olympic Peninsula	92	82

Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for irrigation season, fisheries management, power generation, municipal demands and flood control. Reservoir storage in the Yakima Basin was 668,000-acre feet, 121% of average for the Upper Reaches and 158,000-acre feet or 104% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 88% of average for April 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 146,000 acre feet, 86% of average and 61% of capacity; Chelan Lake, 229,000-acre feet, 106% of average and 34% of capacity; and the Skagit River reservoirs at 116% of average and 60% of capacity. Current climate impacts and management procedures may change these numbers on a daily or weekly basis.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane	61	86
Pend Oreille	37	75
Upper Columbia	66	88
Central Columbia	34	106
Upper Yakima	80	121
Lower Yakima	68	104
Lower Snake	72	114
North Puget Sound	60	116

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

Streamflow

Forecasts vary from 125% of average for the Cedar and Rex rivers to 59% of average for Okanogan River. April-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 125%; White River, 107%; and Skagit River, 80%. Some Eastern Washington streams include the Yakima River near Parker, 88%: Wenatchee River at Plain, 79%; and Spokane River near Post Falls, 100%. Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS. Caution should be followed when using early season forecasts for critical water resource management decisions since conditions can change rapidly.

Statewide January streamflows were mostly much below average due to colder than normal temperatures and runoff during the month of April. The S.F. Walla Walla River had the highest reported flows with 149% of average. The Kettle River near Laurier with 31% of average was the lowest in the state. Other streamflows were the following percentage of average as reported by the River Forecast Center: the Cowlitz at Castle Rock, 69%; the Spokane at Spokane, 90%; the Columbia below Rock Island Dam, 64%; and the Cle Elum near Roslyn, 41%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
Spokane	85-100
Pend Oreille	95-97
Upper Columbia	59-98
Central Columbia	91-71
Upper Yakima	84-89
Lower Yakima	88-95
Walla Walla	100-107
Lower Snake	94-106
Lower Columbia	88-103
South Puget Sound	107-108
Central Puget Sound	110-125
North Puget Sound	80-89
Olympic Peninsula	78-79

STREAM	PERCENT OF AVERAGE JANUARY STREAMFLOWS
Pend Oreille Below Box Canyon	72
Kettle at Laurier	31
Columbia at Birchbank	66
Spokane at Long Lake	93
Similkameen at Nighthawk	50
Okanogan at Tonasket	32
Methow at Pateros	65
Chelan at Chelan	52
Wenatchee at Pashastin	48
Yakima at Cle Elum	49
Yakima at Parker	49
Naches at Naches	45
Grande Ronde at Troy	91
Snake below Lower Granite Dam	72
SF Walla Walla near Milton Freewater	149
Columbia River at The Dalles	67
Lewis at Ariel	65
Cowlitz below Mayfield Dam	68
Skagit at Concrete	63
Dungeness near Sequim	55

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

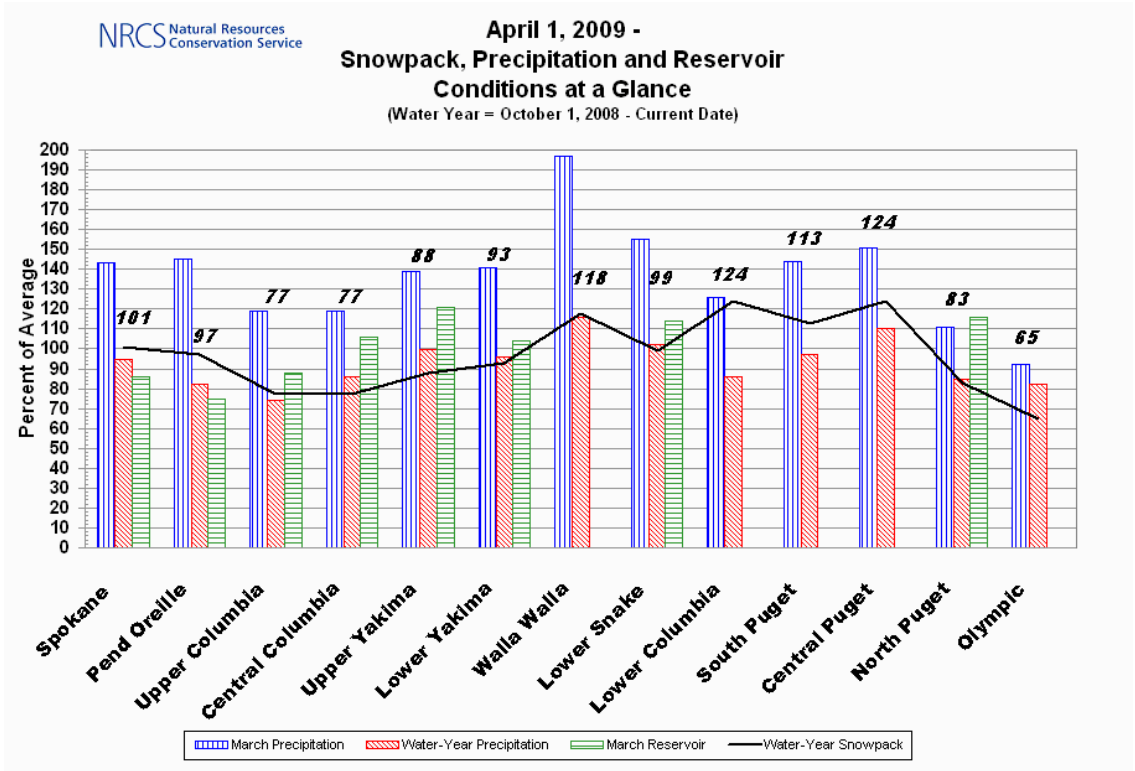
B A S I N S U M M A R Y O F
S N O W C O U R S E D A T A

APRIL 2009

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
AHTANUM R.S.	3100	3/30/09	8	2.9	1.0	5.3
ALPINE MEADOWS	3500	4/04/09	170	66.0	--	42.3
ALPINE MEADOWS SNTL	3500	4/01/09	160	62.7	73.2	43.6
AMBROSE	6480	3/30/09	55	15.6	13.0	12.4
ASHLEY DIVIDE	4820	3/29/09	29	9.1	8.6	6.0
BADGER PASS SNOTEL	6900	4/01/09	94	28.2	39.5	35.3
BAIRD #2	3220	3/27/09	25	9.2	11.4	--
BAREE CREEK	5500	3/25/09	101	35.6	49.4	43.1
BAREE MIDWAY	4600	3/25/09	87	31.0	43.8	33.0
BAREE TRAIL	3800	3/25/09	39	13.4	20.5	7.7
BARKER LAKES SNOTEL	8250	4/01/09	78	18.3	14.1	14.6
BASIN CREEK SNOTEL	7180	4/01/09	38	8.7	6.9	8.7
BASSOO PEAK	5150	3/26/09	32	9.3	14.1	9.7
BEAVER CREEK TRAIL	2200	4/03/09	38	14.0	27.6	11.7
BEAVER PASS	3680	4/03/09	69	22.8	36.6	28.8
BEAVER PASS SNOTEL	3630	4/01/09	87	30.5	45.3	38.6
BIG WHITE MTN CAN.	5510	4/03/09	58	16.5	--	20.0
BLACK MOUNTAIN	7750	3/27/09	53	15.1	12.6	14.6
BLACK PINE SNOTEL	7100	4/01/09	49	14.4	13.0	12.5
BLACKWALL PILL CAN.	6370	4/01/09	---	24.2	33.4	35.1
BLEWETT PASS#2SNOTEL	4240	4/01/09	36	15.5	19.9	16.4
BLUE LAKE	5900	4/05/09	69	24.6	23.4	23.7
BRENDA MINE CAN.	4450	4/01/09	---	11.3	14.0	12.5
BROOKMERE CAN.	3000	3/31/09	19	2.2	6.6	7.9
BROWN TOP AM	6000	4/04/09	133	47.6	64.0	60.8
BROWNS PASS		3/30/09	15	4.3	3.0	--
BRUSH CREEK TIMBER	5000	3/26/09	43	15.0	11.3	8.1
BULL MOUNTAIN	6600	4/03/09	30	9.0	5.9	5.9
BUMPING LAKE (NEW)	3400	4/01/09	52	17.8	27.8	17.6
BUMPING RIDGE SNOTEL	4610	4/01/09	92	31.5	36.2	28.6
BUNCHGRASS MDWSNOTEL	5000	4/01/09	84	24.4	30.7	30.2
BURNT MOUNTAIN PIL	4170	4/01/09	95	33.4	45.1	13.7
BUTTE CREEK #2		3/30/09	29	8.1	10.0	--
BUTTERMILK BUTTE	5250	3/26/09	35	10.0	12.6	--
CARMI CAN.	4100	4/03/09	26	6.9	--	5.6
CAYUSE PASS SNOTEL	5240	4/01/09	139	43.3	72.3	--
CEDAR GROVE	3760	3/25/09	42	13.4	18.1	11.4
CHESSMAN RESERVOIR	6200	3/23/09	16	3.8	3.9	3.5
CHEWALAH #2	4930	3/31/09	53	15.6	25.8	--
CHICKEN CREEK	4060	3/30/09	42	13.9	23.0	15.2
CHIWAUKUM G.S.	2500	3/25/09	25	8.1	11.8	9.2
CITY CABIN	2390	4/04/09	61	25.5	22.0	11.1
COLD CREEK STRIP	6020	3/30/09	27	6.7	8.8	--
COMBINATION SNOTEL	5600	4/01/09	22	5.3	6.7	4.9
COPPER BOTTOM SNOTEL	5200	4/01/09	29	8.4	9.9	11.0
COPPER CAMP	6950	3/27/09	63	25.8	--	--
COPPER CREEK	5700	3/27/09	32	10.9	13.8	13.3
COPPER MOUNTAIN	7700	3/27/09	42	9.8	10.6	11.2
CORNER CREEK	3150	4/01/09	---	9.0E	--	5.9
CORRAL PASS SNOTEL	5800	4/01/09	---	35.5	38.6	34.9
COTTONWOOD CREEK	6400	3/27/09	26	7.7	6.7	8.3
COUGAR MTN. SNOTEL	3200	4/01/09	90	29.6	41.5	17.7
COX VALLEY	4500	3/29/09	78	23.5	49.4	38.7
COYOTE HILL	4200	3/26/09	28	9.6	11.2	8.7
DALY CREEK SNOTEL	5780	4/01/09	47	12.6	13.7	11.1
DEER PARK	5200	4/01/09	48	13.7	28.4	18.8
DESERT MOUNTAIN	5600	4/05/09	51	15.7	16.6	14.7
DEVILS PARK	5900	4/04/09	101	32.8	45.6	44.2
DISAUTEL PASS		3/25/09	16	5.1	6.8	--
DISCOVERY BASIN	7050	3/31/09	61	14.3	8.4	10.4
DIX HILL	6400	3/29/09	40	11.5	12.2	10.3
DOCK BUTTE AM	3800	3/26/09	134	52.0	87.4	60.1
DOMMERIE FLATS	2200	4/01/09	14	3.4	8.6	3.8
DUNCAN RIDGE	5370	3/30/09	16	4.2	7.0	--
DUNGENESS SNOTEL	4010	4/01/09	22	6.1	15.4	8.6
EAST FORK R.S.	5400	3/26/09	20	6.0	6.3	4.7
EASY PASS AM	5200	3/26/09	137	58.0e	65.3	81.0
EL DORADO MINE	7800	3/28/09	47	12.1	13.1	20.2
ELBOW LAKE SNOTEL	3200	4/01/09	109	37.3	62.3	39.2
EMERY CREEK	4350	4/05/09	55	17.0	17.6	--
EMERY CREEK SNOTEL	4350	4/01/09	52	14.7	17.7	15.3
ENDERBY CAN.	5800	3/30/09	96	34.6	43.7	40.1
ESPERON CK. MID CAN.	4250	3/28/09	33	9.0	12.4	14.6
ESPERON CK. UP CAN.	5050	3/28/09	38	10.2	13.8	17.1
FARRON CAN.	4000	4/04/09	38	12.4	12.1	12.5
FATTY CREEK	5500	3/25/09	62	19.5	23.9	24.3
FISH CREEK	8000	3/27/09	38	9.5	8.4	9.9
FISH LAKE	3370	3/31/09	82	28.0	41.8	31.5
FISH LAKE SNOTEL	3430	4/01/09	84	28.7	38.6	34.5
FLATTOP MTN SNOTEL	6300	4/01/09	119	35.1	48.7	45.1
FLEECER RIDGE	7500	3/30/09	50	10.2	10.2	10.9
FOURTH OF JULY SUM	3200	4/01/09	34	10.2	19.8	5.7
FREEZEOUT CK. TRAIL	3500	4/04/09	33	11.4	15.7	11.3
FROHNER MDWS SNOTEL	6480	4/01/09	41	9.5	7.7	8.0
FROST MEADOWS	4630	3/30/09	57	13.5	22.4	--
GOAT CREEK	3600	3/30/09	20	6.4	7.2	3.6
GOLD CREEK LAKE	7200	3/28/09	71	21.1	21.9	14.7
GOLD MTN LOOKOUT		3/27/09	33	9.8	16.0	--
GRASS MOUNTAIN #2	2900	3/26/09	55	18.2	26.0	10.0
GRAVE CRK SNOTEL	4300	4/01/09	53	14.4	18.8	15.6
GREEN LAKE SNOTEL	5920	4/01/09	82	26.0	28.9	23.0
GREYBACK RES CAN.	4700	4/01/09	40	9.7	7.8	9.2
GRIFFIN CR DIVIDE	5150	3/26/09	36	10.2	13.2	10.3
GROUSE CAMP SNOTEL	5390	4/01/09	56	17.5	20.8	19.8
GUNSIGHT LAKE	6300	4/05/09	66	34.3	42.7	39.3
HAMILTON HILL CAN.	4550	3/28/09	32	8.3	11.3	14.0
HAND CREEK SNOTEL	5030	4/01/09	51	14.7	14.0	11.7
HARTS PASS SNOTEL	6490	4/01/09	85	31.0	41.5	46.3
HARTS PASS	6500	4/04/09	96	34.8	48.0	42.0
HELL ROARING DIVIDE	5770	3/27/09	77	25.6	33.4	29.5
HERRIG JUNCTION	4850	/30/09	60	20.6	30.7	26.0
HIGH RIDGE SNOTEL	4920	4/01/09	103	33.0	38.7	23.1
HOLBROOK	4530	3/25/09	27	6.7	11.6	8.2
HOODOO BASIN SNOTEL	6050	4/01/09	123	37.5	51.5	45.3
HUCKLEBERRY SNOTEL	2250	4/01/09	32	12.7	4.0	.4
HUMBOLDT GLCH SNOTEL	4250	4/01/09	---	14.4	24.8	11.2
HURRICANE	4500	3/27/09	35	11.1	25.4	19.1
INTERGAARD	6450	3/28/09	29	6.8	6.3	7.7
IRENE'S CAMP	5530	3/30/09	30	7.5	9.9	--
ISINTOK LAKE CAN.	5100	3/26/09	22	4.3	5.7	7.2
JASPER PASS AM	5400	3/26/09	156	61.0	93.8	82.7
JUNE LAKE SNOTEL	3440	4/01/09	125	49.1	88.2	35.7
KELLER RIDGE	3700	3/30/09	16	4.7	7.6	--
KELLOGG PEAK	5560	4/02/09	89	29.1	37.0	29.2
KISHENEHN	3890	3/29/09	24	8.8	11.5	6.8
KIT CARSON PASTURE	4950	4/01/09	---	9.0E	8.9	8.1
KLESILKWA CAN.	3450	4/04/09	51	15.8	14.4	11.5
KRAFT CREEK SNOTEL	4750	4/01/09	47	13.7	15.7	14.1
LAMB BUTTE		3/27/09	31	9.3	14.8	--
LESTER CREEK	3100	3/26/09	84	23.5	32.6	21.4
LIGHTNING LAKE CAN.	3700	3/27/09	32	9.1	14.2	12.0
LOGAN CREEK	4300	3/30/09	29	9.1	9.9	6.7
LOLO PASS SNOTEL	5240	4/01/09	90	29.2	36.7	30.3
LONE PINE SNOTEL	3930	4/01/09	104	38.3	65.2	36.4
LOOKOUT SNOTEL	5140	4/01/09	85	28.1	37.6	31.8
LOST HORSE MTN CAN.	6300	3/31/09	31	7.4	8.7	9.4
LOST HORSE SNOTEL	5120	4/01/09	49	16.0	19.5	18.3
LOST LAKE SNOTEL	6110	4/01/09	---	53.4	64.4	60.0
LOUP LOUP CAMPGROUND		3/27/09	16	4.1	8.0	--
LOWER SANDS CREEK #2	3120	4/01/09	66	23.8	33.6	18.9
LUBRECHT FOREST NO 3	5450	4/02/09	31	7.7	6.8	5.7
LUBRECHT FOREST NO 4	4650	4/02/09	10	2.7	2.3	1.3
LUBRECHT FOREST NO 6	4040	4/03/09	9	2.9	3.0	1.6
LUBRECHT HYDROPLOT	4200	4/02/09	19	4.8	5.6	2.9
LUBRECHT SNOTEL	4680	4/01/09	24	6.4	5.5	3.6
LYMAN LAKE SNOTEL	5980	4/01/09	136	43.8	55.9	65.4
LYNN LAKE	4000	3/26/09	112	40.1	47.0	20.4
MARIAS PASS	5250	3/30/09	56	16.4	18.9	16.8
MARTEN LAKE AM	3600	3/26/09	164	57.0	97.5	71.7
MARTEN RIDGE SNOTEL	3520	4/01/09	136	61.4	81.0	--
MAZAMA		3/27/09	11	3.9	9.8	--
MCCULLOCH CAN.	4200	3/31/09	18	4.5E	5.8	6.1
MEADOWS CABIN	1900	4/02/09	26	8.4	11.8	4.0
MEADOWS PASS SNOTEL	3230	4/01/09	113	37.1	55.1	23.9
METEOR		3/26/09	14	5.1	6.6	--
M F NOOKSACK SNOTEL	4970	4/01/09	137	54.8	--	--
MICA CREEK SNOTEL	4510	4/01/09	85	27.3	39.4	25.1
MINERAL CREEK	4000	3/26/09	29	8.0	19.5	17.4
MINERS RIDGE SNOTEL	6110	4/01/09	144	45.1	51.2	53.0
MISSEZULA MTN CAN.	5080	3/27/09	21	4.8	6.4	9.5
MISSION CREEK CAN.	5840	4/01/09	---	16.5	18.6	20.0
MISSION RIDGE	5000	3/25/09	42	13.8	18.7	17.4
MORRISSEY RIDGE CAN.	6100	4/01/09	---	23.9	27.6	27.8
MORSE LAKE SNOTEL	5410	4/01/09	117	37.9	61.9	55.5
MOSES MOUNTAIN (2)	4800	3/31/09	28	8.0	14.5	22.7
MOSES MTN SNOTEL	5010	4/01/09	31	8.5	12.5	15.9
MOSES PEAK	6650	3/31/09	43	13.4	21.6	15.0
MOSQUITO RDG SNOTEL	5200	4/01/09	---	30.1	43.4	35.8
MOULTON RESERVOIR	6850	3/27/09	29	8.0	7.3	6.9
MOUNT BLUM AM	5800	3/26/09	123	48.0	71.8	64.6
MOUNT CRAG SNOTEL	3960	4/01/09	56	17.2	37.6	30.8
MT. KOBAU CAN.	5500	3/28/09	28	7.8	9.3	12.5
MOUNT TOLMAN	2000	3/25/09	0	.0	6.0	--
MOWICH SNOTEL	3160	4/01/09	13	7.6	7.1	.6
MOUNT GARDNER	3300	4/04/09	89	33.5	38.0	12.5
MOUNT GARDNER SNOTEL	2920	4/01/09	---	26.6	39.5	13.0
MUTTON CREEK #1	5700	3/25/09	31	8.6	15.1	13.9
N.F. ELK CR SNOTEL	6250	4/01/09	54	14.1	11.2	12.4
NEVADA RIDGE SNOTEL	7020	4/01/09	61	16.9	15.8	15.5
NEW HOZOMEEN LAKE	2800	4/04/09	28	9.0	16.0	10.0
NEZ PERCE CMP SNOTEL	5650	4/01/09	65	16.2	16.9	14.7
NEZ PERCE PASS	6570	4/01/09	---	20.3E	17.8	17.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
NOISY BASIN	6040	4/01/09	134	46.7	44.7	--
NOISY BASIN SNOTEL	6040	4/01/09	127	39.5	39.3	40.9
NORTH FORK JOCKO	6330	3/26/09	111	41.0	41.3	42.3
OLALLIE MDWS SNOTEL	4030	4/01/09	134	51.2	79.7	55.9
OPHIR PARK	7150	3/29/09	56	17.4	13.8	16.7
OYAMA LAKE CAN.	4100	3/30/09	26	5.8	5.7	6.7
PARADISE SNOTEL	5130	4/01/09	184	74.1	96.2	71.9
PARK CK RIDGE SNOTEL	4600	4/01/09	82	30.3	54.8	47.6
PETERSON MDW SNOTEL	7200	4/01/09	63	14.2	9.1	10.5
PIGTAIL PEAK SNOTEL	5800	4/01/09	159	61.6	65.7	53.2
PIKE CREEK SNOTEL	5930	4/01/09	101	26.9	28.7	27.5
PIPESTONE PASS	7200	3/27/09	18	4.2	4.2	5.7
POPE RIDGE SNOTEL	3590	4/01/09	41	13.5	17.1	18.4
POSTILL LAKE CAN.	4200	3/30/09	27	7.5	7.2	8.8
POTATO HILL SNOTEL	4510	4/01/09	113	30.1	45.3	25.3
QUARTZ PEAK SNOTEL	4700	4/01/09	64	22.1	33.1	21.2
RAGGED MOUNTAIN	4200	3/28/09	58	23.8	35.2	17.1
RAGGED MTN SNOTEL	4210	4/01/09	66	24.8	36.2	--
RAGGED RIDGE	3330	4/01/09	34	13.0	20.4	4.1
RAINY PASS SNOTEL	4890	4/01/09	78	27.6	34.3	44.0
RAINY PASS	4780	4/03/09	87	28.3	40.3	39.2
REX RIVER SNOTEL	3810	4/01/09	132	46.6	80.1	31.2
ROCKER PEAK SNOTEL	8000	4/01/09	68	17.3	12.2	14.3
ROCKY CREEK AM	2100	3/26/09	110	41.0	51.5	25.7
ROLAND SUMMIT	5120	3/30/09	88	30.9	45.1	36.4
ROUND TOP MTN	4020	4/01/09	46	16.8	26.5	--
RUSTY CREEK	4000	3/25/09	10	2.5	5.4	5.5
SF THUNDER CK AM	2200	3/26/09	40	15.0	26.7	4.2
SADDLE MTN SNOTEL	7900	4/01/09	96	25.6	29.5	25.8
SAGE CREEK SADDLE	4080	4/01/09	---	21.0E	--	16.6
SALMON MDWS SNOTEL	4460	4/01/09	20	5.7	9.7	11.1
SASSE RIDGE SNOTEL	4340	4/01/09	83	23.8	39.9	37.3
SATUS PASS	4030	3/24/09	48	17.9	22.8	--
SAVAGE PASS SNOTEL	6170	4/01/09	91	26.7	33.7	26.5
SAWMILL RIDGE	4700	3/26/09	101	33.6	33.5	33.5
SAWMILL RIDGE SNOTEL	4640	4/01/09	149	52.7	61.6	--
SCHREIBERS MDW AM	3400	3/26/09	114	40.0	71.8	52.6
SENTINEL BT SNOTEL	4680	4/01/09	34	7.8	8.5	--
SHEEP CANYON SNOTEL	3990	4/01/09	123	45.9	73.3	37.8
SHERWIN SNOTEL	3200	4/01/09	---	10.9	16.5	10.1
SILVER STAR MTN CAN.	5600	3/31/09	73	26.3	30.8	29.9
SKALKAHO SNOTEL	7260	4/01/09	83	22.4	26.3	24.3
SKITWISH RIDGE	5110	4/01/09	96	33.1	49.6	30.2
SKOOKUM CREEK SNOTEL	3310	4/01/09	128	58.5	75.0	26.3
SKOOKUM LAKES	4230	3/27/09	41	14.0	24.0	--
SLIDE ROCK MOUNTAIN	7100	3/29/09	55	15.5	15.7	15.5
SOURDOUGH GUL SNOTEL	4000	4/01/09	17	5.0	9.2	--
SOUTH BALDY	4920	3/27/09	53	17.4	29.6	--
SPENCER MDW SNOTEL	3400	4/01/09	96	32.3	61.0	30.8
SPIRIT LAKE SNOTEL	3520	4/01/09	23	14.7	29.6	3.9

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
SPOTTED BEAR MTN.	7000	3/25/09	44	14.4	15.6	14.1
SPRUCE SPGS SNOTEL	5700	4/01/09	92	26.2	27.7	--
STARVATION MOUNTAIN	6750	3/26/09	42	13.5	16.5	19.5
STAHL PEAK SNOTEL	6030	4/01/09	112	30.7	39.2	35.3
STAMPEDE PASS SNOTEL	3850	4/01/09	128	41.2	60.9	45.3
STEMPLE PASS	6600	3/24/09	35	9.9	10.3	10.2
STEVENS PASS SNOTEL	3950	4/01/09	117	34.1	44.7	42.6
STORM LAKE	7780	3/25/09	59	16.1	12.4	13.3
STRANGER MOUNTAIN	4230	3/31/09	42	12.6	17.2	12.2
STRYKER BASIN	6180	3/30/09	77	28.3	38.4	31.9
STUART MOUNTAIN	7400	3/26/09	95	34.6	--	--
SUMMERLAND RES CAN.	4200	3/27/09	34	6.5	9.1	8.9
SUMMIT G.S. #2	4600	3/30/09	37	9.6	11.2	8.4
SUNSET SNOTEL	5540	4/01/09	---	21.3	29.0	31.5
SURPRISE LKS SNOTEL	4290	4/01/09	137	44.8	66.8	46.1
SWAMP CREEK SNOTEL	3930	4/01/09	51	19.4	23.8	16.2
TEN MILE LOWER	6600	3/23/09	28	6.8	7.1	7.0
TEN MILE MIDDLE	6800	3/23/09	38	10.0	9.1	11.4
THUNDER BASIN SNOTEL	4320	4/01/09	60	20.6	37.3	33.7
THUNDER BASIN	4200	4/02/09	58	16.3	28.4	21.9
THOMPSON CREEK	2500	4/01/09	20	7.8	12.0	--
THOMPSON RIDGE	4650	3/31/09	29	7.8	--	--
TINKHAM CREEK SNOTEL	2990	4/01/09	108	29.3	49.7	30.0
TOATS COULEE	2850	3/30/09	3	.9	1.8	1.4
TOUCHET SNOTEL	5530	4/01/09	113	35.0	46.1	34.7
TRINKUS LAKE	6100	3/25/09	105	38.4	43.6	42.0
TROUGH #2 SNOTEL	5480	4/01/09	27	8.1	6.4	10.0
TROUT CREEK CAN.	5650	3/28/09	23	3.5	7.9	7.2
TRUMAN CREEK	4060	3/29/09	22	7.1	7.2	3.7
TUNNEL AVENUE	2450	4/01/09	55	21.6	27.8	19.2
TV MOUNTAIN	6800	3/25/09	58	15.5	20.1	18.3
TWELVEMILE SNOTEL	5600	4/01/09	66	22.1	25.8	17.5
TWIN CAMP	4100	3/26/09	90	32.7	33.5	24.1
TWIN CREEKS	3580	4/05/09	29	9.5	16.2	9.6
TWIN LAKES SNOTEL	6400	4/01/09	124	42.5	51.8	39.7
TWIN SPIRIT DIVIDE	3480	3/28/09	34	9.4	19.8	12.1
UPPER HOLLAND LAKE	6200	3/25/09	86	29.9	33.6	34.6
UPPER WHEELER SNOTEL	4330	4/01/09	38	11.3	13.9	13.1
VASEUX CREEK CAN.	4250	4/01/09	17	3.9	--	6.2
VULCAN MTN	4660	3/30/09	39	11.3	11.4	--
VULCAN ROAD	3840	3/30/09	27	8.2	7.7	--
WARM SPRINGS SNOTEL	7800	4/01/09	102	27.6	20.5	21.2
WATSON LAKES AM	4500	3/26/09	121	47.0	84.6	61.7
WATERHOLE SNOTEL	5010	4/01/09	81	27.3	51.2	35.3
WEASEL DIVIDE	5450	3/30/09	76	27.1	34.2	32.9
WELLS CREEK SNOTEL	4030	4/01/09	80	26.9	44.4	33.6
WHITE PASS ES SNOTEL	4440	4/01/09	77	24.7	29.5	23.9
WHITE ROCKS MTN CAN.	7200	3/28/09	44	13.5	21.1	23.1



Natural Resources Conservation Service

Washington State
Snow, Water and Climate Services

Program Contacts

Roylene Rides At The Door
State Conservationist
Spokane State Office
W. 316 Boone Ave., Suite 450
Spokane, WA 99201-2348
phone: 509-323-2961
fax: 509-323-2979
roylene.rides-at-the-door@wa.usda.gov

Jon Lea
DCO Supervisor
Oregon Data Collection Office
101 SW Main St, Suite 1300
Portland, OR 97204
Phone: 503-414-3267
Fax: 503-414-3277
jon.lea@or.usda.gov

Scott Pattee
Water Supply Specialist
Washington Snow Survey Office
2021 E. College Way, Suite 214
Mount Vernon, WA 98273-2873
phone: 360-428-7684
fax: 360-424-6172
scott.pattee@wa.usda.gov

James Marron
Resource Conservationist
National Water and Climate Center
101 SW Main St., Suite 1600
Portland, OR 97204-3224
phone: 503-414-3047
fax: 503-414-3101
jim.marron@por.usda.gov

Helpful Internet Addresses

NRCS Snow Survey and Climate Services Homepages

Washington:
http://www.wa.nrcs.usda.gov/snow

Oregon:
http://www.or.nrcs.usda.gov/snow

Idaho:
http://www.id.nrcs.usda.gov/snow

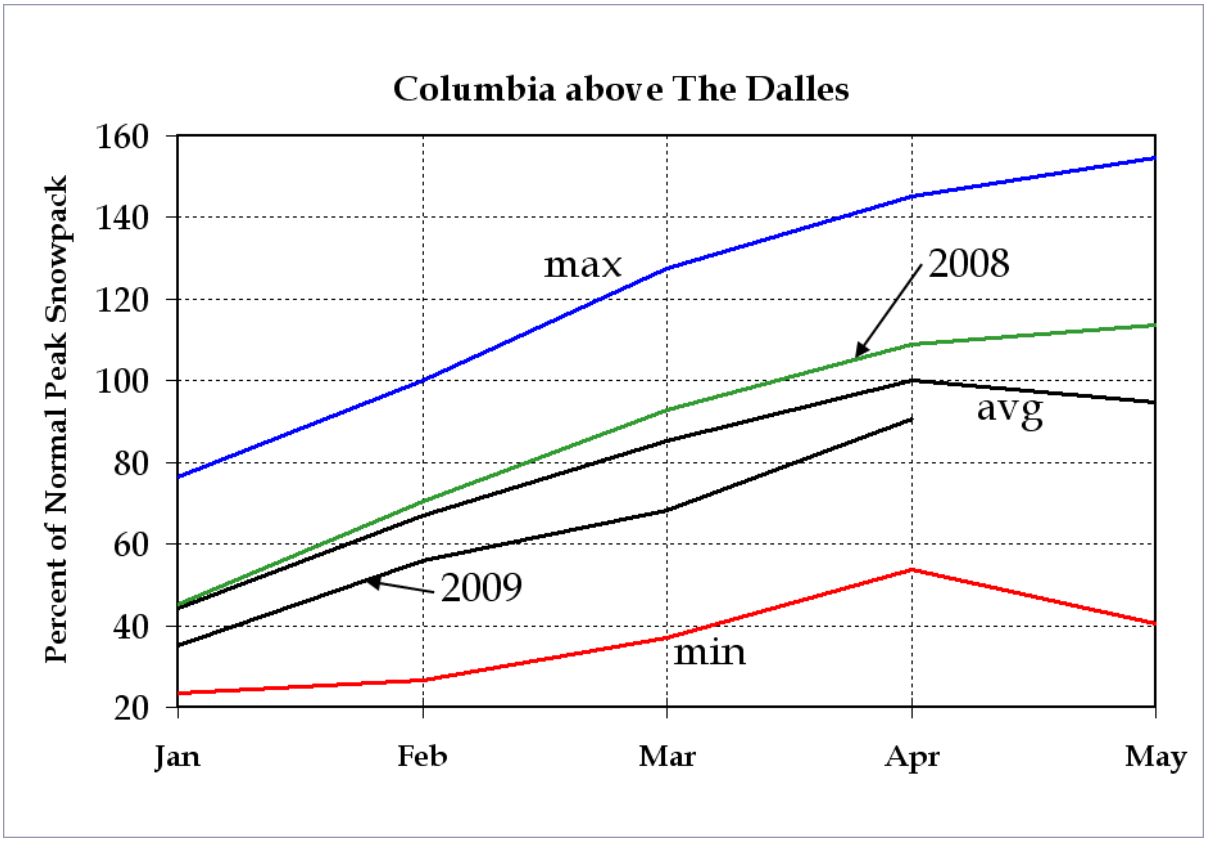
National Water and Climate Center (NWCC):
http://www.wcc.nrcs.usda.gov

NWCC Anonymous FTP Server:
ftp.wcc.nrcs.usda.gov

USDA-NRCS Agency Homepages

Washington:
http://www.wa.nrcs.usda.gov

NRCS National:
http://www.nrcs.usda.gov



April 1, 2009

The Columbia Basin snowpack charts are produced, using only automated data. These data are telemetered via remote collection sites in Canada and the United States. The data are provisional, until they are officially released by the responsible data collection agency.

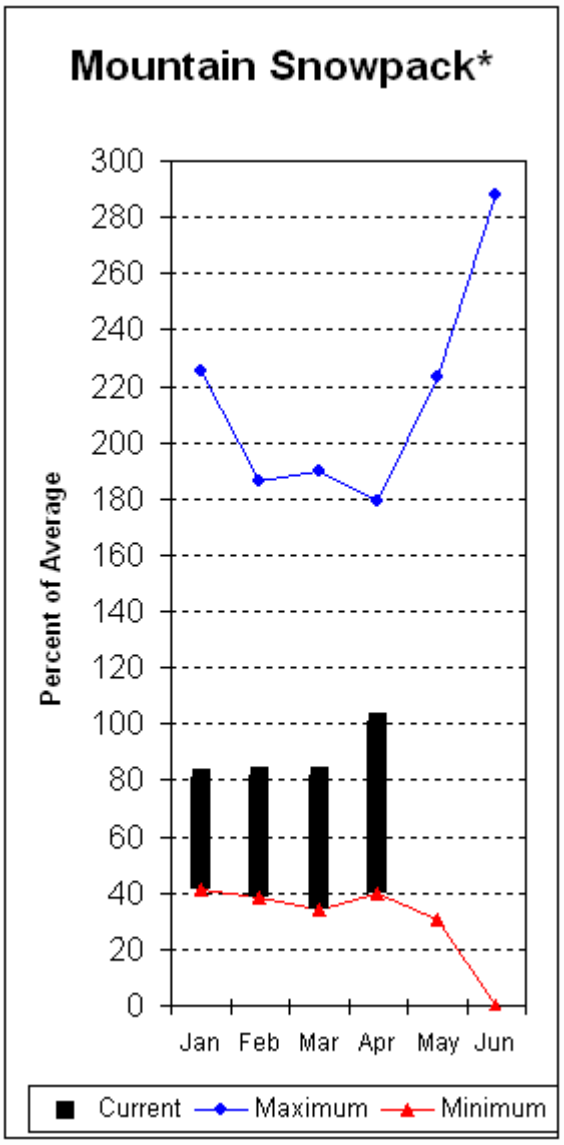
Eureka, gold at last! White gold that is. Cold March temperatures and above average precipitation over most of the Columbia Basin produced a lot of much needed white stuff in the mountains. The combined snowpack above The Dalles is currently at 91 percent of average. This is up 11 percent from last month. The Columbia Basin is still 18 percent lower than last year, but this year's snowy March was surely welcome. The overall snowpack is at 91 percent of the average peak snow water equivalent (swe) accumulation. This compares to 109 percent last year. The peak swe usually occurs around April 1.

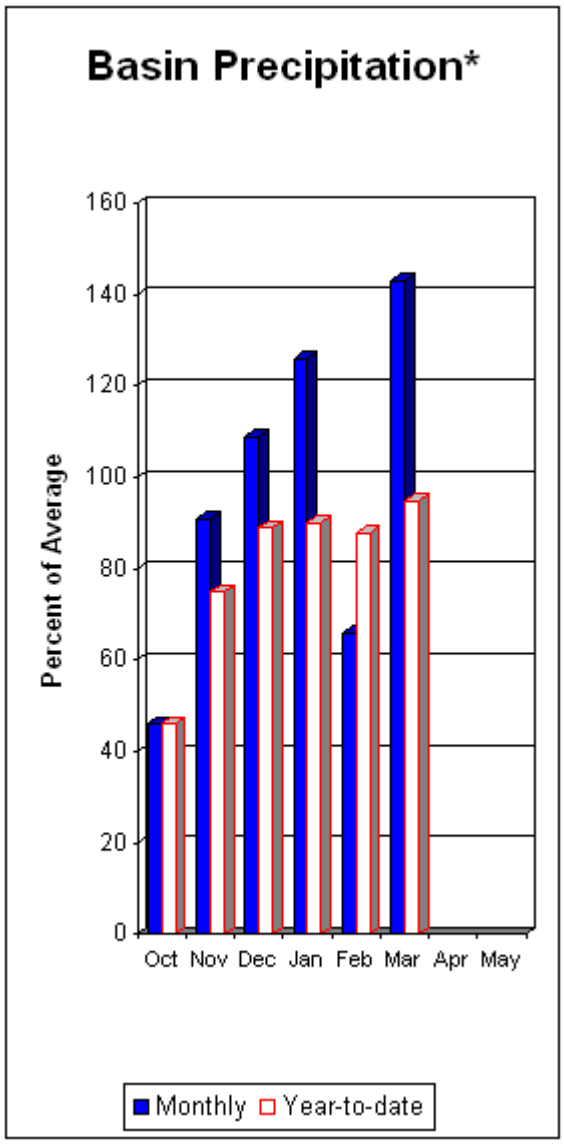
Looking at specific basins, the Canadian snowpack is up 4 percent from, last month, Kootenay up 10 percent, Pend Oreille up 13 percent, Kettle up 2 percent, Spokane up 14 percent, North Cascades up 11 percent, Yakima up 21 percent, Snake headwaters up 8 percent, Southern Snake up 9 percent, Eastern Oregon up 24 percent, Salmon up 16 percent, Clearwater up 15 percent, John Day up 28 percent, and Deschutes up 22 percent. Last month, the prospects for a decent snowpack and runoff was looking a little dismal. Let's hope the trend continues.

The snowpack in the Columbia Basin above Castlegar is at 86 percent of average. This compares to 103 percent last year and 80 percent last month. For the basin above Grand Coulee, the snowpack is now at 89 percent of average, compared to 106 percent last year and 81 percent last month. The Snake River snowpack above Ice Harbor is at 96 percent of average, compared to 114 percent last year and 82 percent last month. The North Cascades snowpack is still the lowest at 72 percent of average (up from 61 percent last month), while the snowpack in the Deschutes is still the highest at 112 percent (up from 90 percent last month).

What a difference a month can make!

Spokane River Basin





*Based on selected stations

The April 1 forecasts for summer runoff within the Spokane River Basin are 100% of average near Post Falls and 100% at Long Lake. The Chamokane River near Long Lake forecasted to have 85% of average flows for the May-August period. The forecast is based on a basin snowpack that is 101% of average and precipitation that is 95% of average for the water year. Precipitation for January was below normal at 128% of average. Streamflow on the Spokane River at Long Lake was 93% of average for January. April 1 storage in Coeur d'Alene Lake was 146,000acre feet, 86% of average and 61% of capacity. Snowpack at Quartz Peak SNOTEL site was 104% of average with 22.1 inches of water content. Average temperatures in the Spokane basin were 4 degrees below normal for March and 1 degree below normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls (2)	APR-JUL	2090	2360	2540	100	2720	2990	2550
	APR-SEP	2170	2450	2640	100	2830	3110	2650
SPOKANE at Long Lake (2)	APR-JUL	2270	2610	2840	100	3070	3410	2850
	APR-SEP	2460	2820	3060	100	3300	3660	3070
CHAMOKANE CREEK near Long Lake	MAY-AUG	3.5	6.6	8.7	85	10.8	13.9	10.2

SPOKANE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COEUR D'ALENE	238.5	145.5	104.4	169.5

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2009

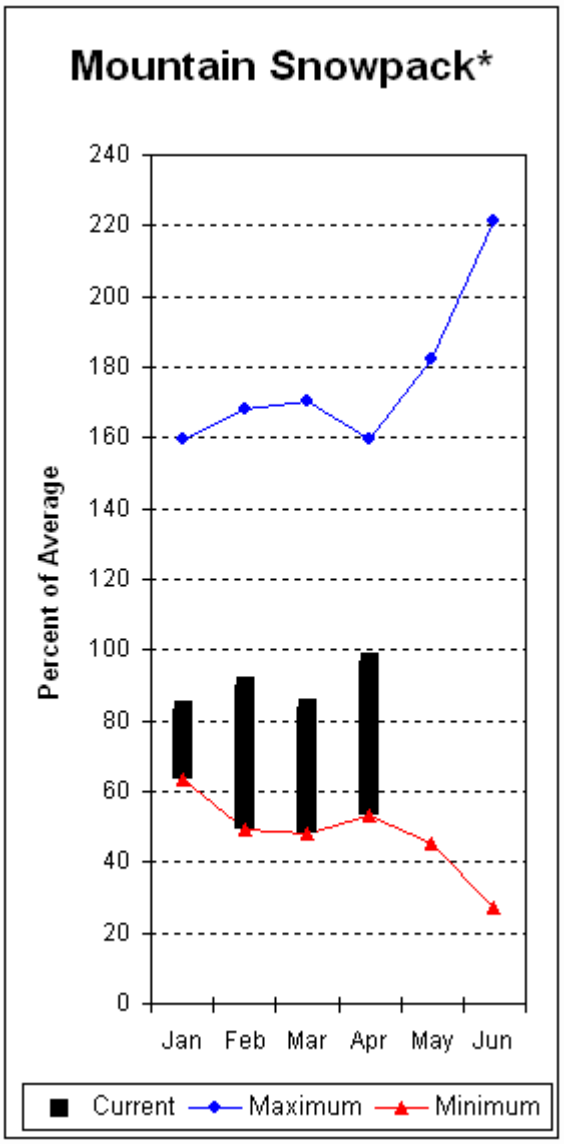
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SPOKANE RIVER	19	69	101
NEWMAN LAKE	2	65	139

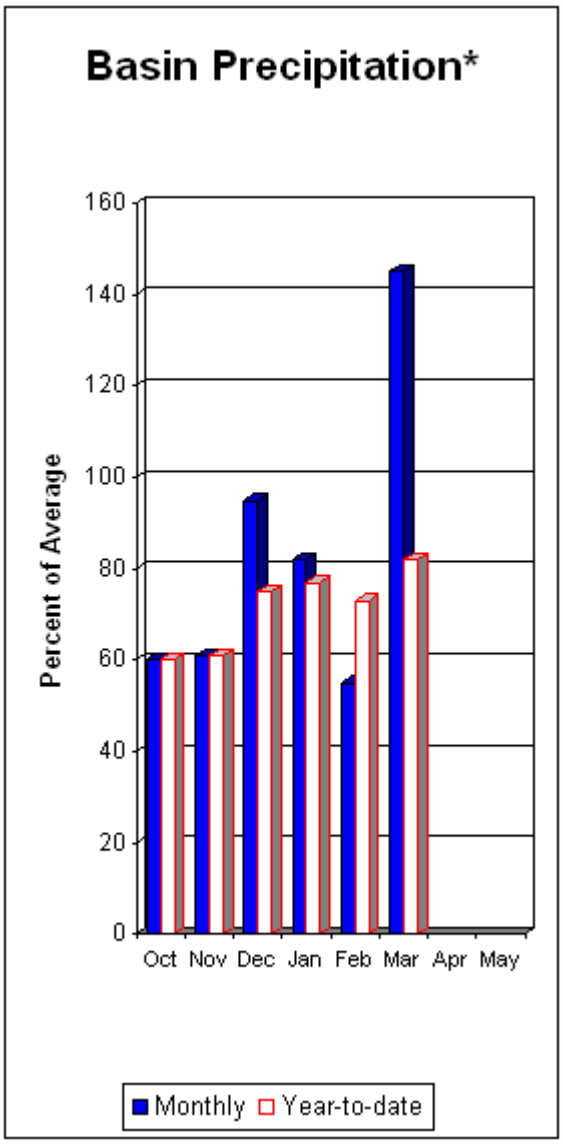
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Pend Oreille River Basins





*Based on selected stations

The April – September average forecast for the Priest River near the town of Priest River is 95% and the Pen Orielle below Box Canyon is 97%. January streamflow was 72% of average on the Pend Oreille River and 66% on the Columbia at the Birchbank. April 1 snow cover was 97% of average in the Pend Oreille Basin River Basin. Bunchgrass Meadows SNOTEL site had 24.4 inches of snow water on the snow pillow. Normally Bunchgrass would have 30.2 inches on April 1. Precipitation during January was 145% of average, bringing the year-to-date precipitation to 82% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 75% of normal. Average temperatures were 4 degrees below normal for March and 1 degree below normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (2)	APR-JUL	11700	12000	12200	96	12400	12700	12700
	APR-SEP	12700	13100	13300	96	13500	13900	13900
PRIEST near Priest River (1,2)	APR-JUL	545	705	775	95	845	1000	815
	APR-SEP	595	755	825	95	895	1050	870
PEND OREILLE bl Box Canyon (2)	APR-JUL	10600	11700	12500	97	13300	14400	12900
	APR-SEP	11400	12700	13600	97	14500	15800	14100

PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PEND OREILLE	1561.3	573.4	853.7	763.6
PRIEST LAKE	119.3	51.3	49.4	65.5

PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

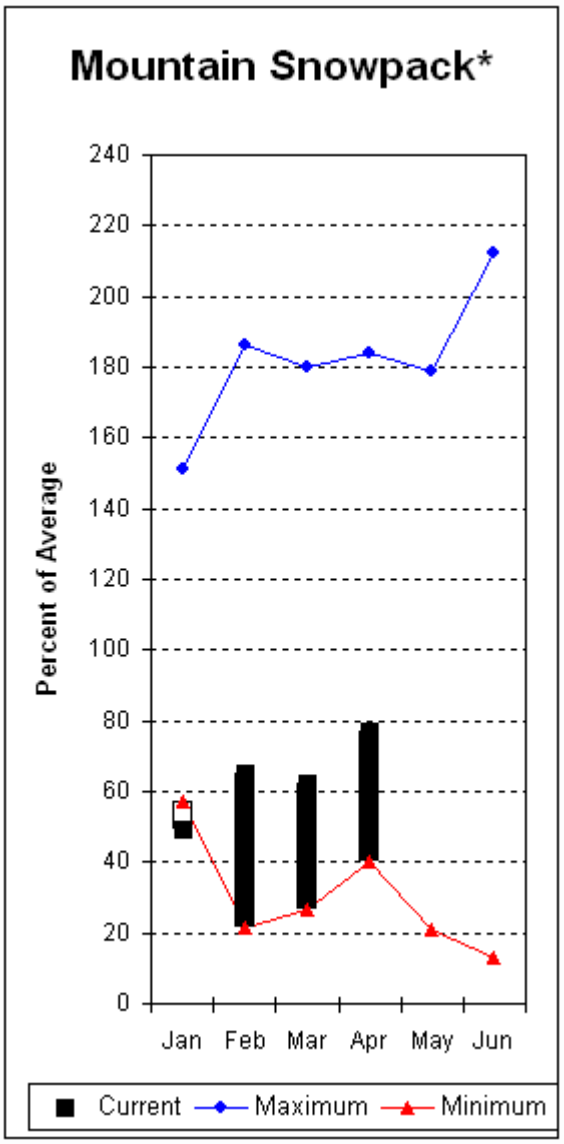
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
COLVILLE RIVER	1	69	103
PEND OREILLE RIVER	12	73	89
KETTLE RIVER	2	92	133

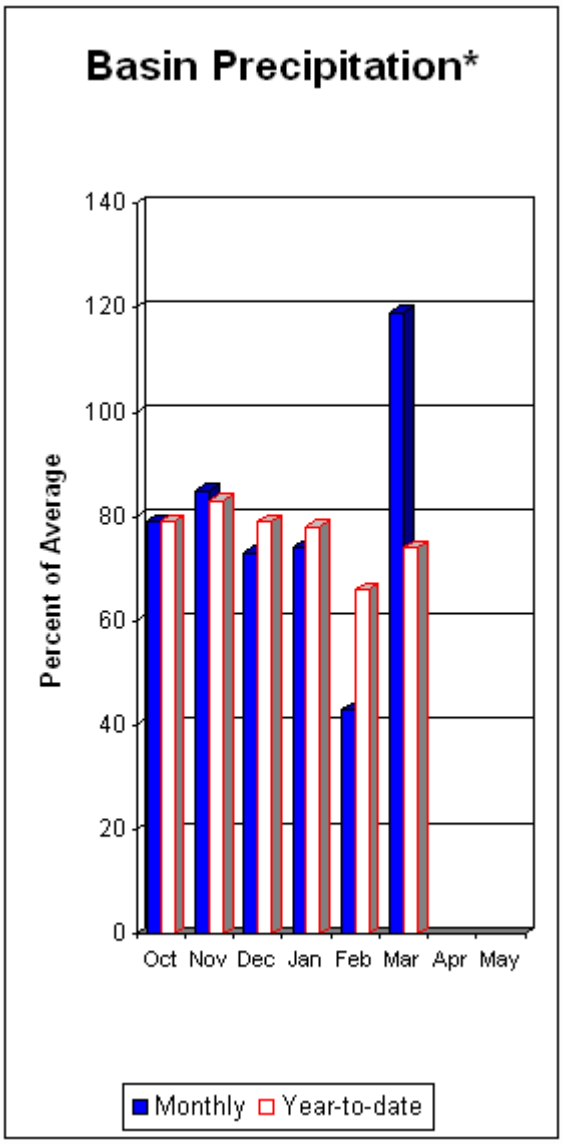
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Upper Columbia River Basins





*Based on selected stations

Summer runoff average forecast for the Okanogan River is 59%, Similkameen River is 59%, Kettle River 85% and Methow River is 63%. April 1 snow cover on the Okanogan was 74% of average, Omak Creek was 56% and the Methow was 69%. January precipitation in the Upper Columbia was 119% of average, with precipitation for the water year at 74% of average. January streamflow for the Methow River was 65% of average, 32% for the Okanogan River and 50% for the Similkameen. Snow-water content at Salmon Meadows SNOTEL was 5.7 inches. Average for this site is 11.1 inches on April 1. Combined storage in the Conconully Reservoirs was 16,000-acre feet, which is 66% of capacity and 88% of the April 1 average. Temperatures were 4 degrees below normal for January and 1 degree below normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
COLVILLE at Kettle Falls	APR-JUL	84	108	125	98	142	166	128
	APR-SEP	90	119	138	98	157	186	141
KETTLE near Laurier	APR-JUL	1230	1450	1600	86	1750	1970	1870
	APR-SEP	1280	1520	1680	85	1840	2080	1970
COLUMBIA at Birchbank (1,2)	APR-JUL	25200	30000	32100	92	34200	39000	34900
	APR-SEP	34900	38600	40300	93	42000	45700	43500
COLUMBIA at Grand Coulee Dm (1,2)	APR-JUL	44300	48000	49600	92	51200	54900	53800
	APR-SEP	49100	55700	58700	92	61700	68300	64000
Similkameen R nr Nighthawk (1)	APR-JUL	535	715	795	59	875	1060	1350
	APR-SEP	590	775	860	59	945	1130	1450
Okanogan R nr Tonasket (1)	APR-JUL	520	800	930	59	1060	1340	1580
	APR-SEP	570	895	1040	59	1190	1510	1770
Okanogan R at Malott (1)	APR-JUL	550	830	960	59	1090	1370	1635
	APR-SEP	610	930	1080	59	1230	1550	1826
Methow R nr Pateros	APR-SEP	470	560	620	63	680	770	985
	APR-JUL	435	520	575	63	630	715	910

UPPER COLUMBIA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SALMON LAKE		NO REPORT		
CONCONULLY RESERVOIR		NO REPORT		

UPPER COLUMBIA RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

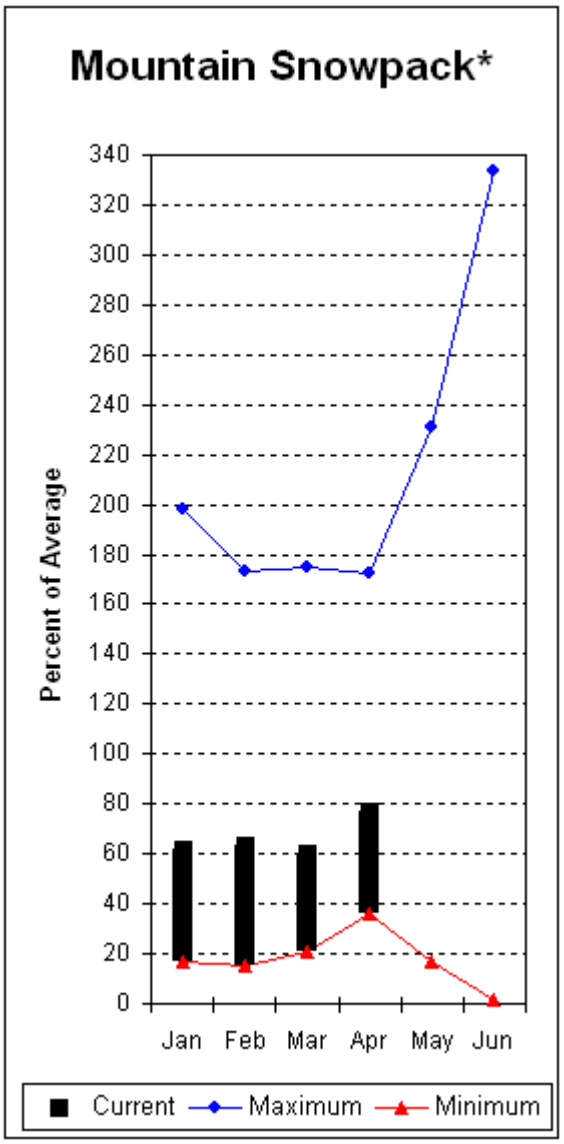
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OKANOGAN RIVER	22	76	74
OMAK CREEK	3	67	56
SANPOIL RIVER	0	54	0
SIMILKAMEEN RIVER	5	71	62
TOATS COULEE CREEK	1	70	64
CONCONULLY LAKE	3	56	55
METHOW RIVER	8	70	69

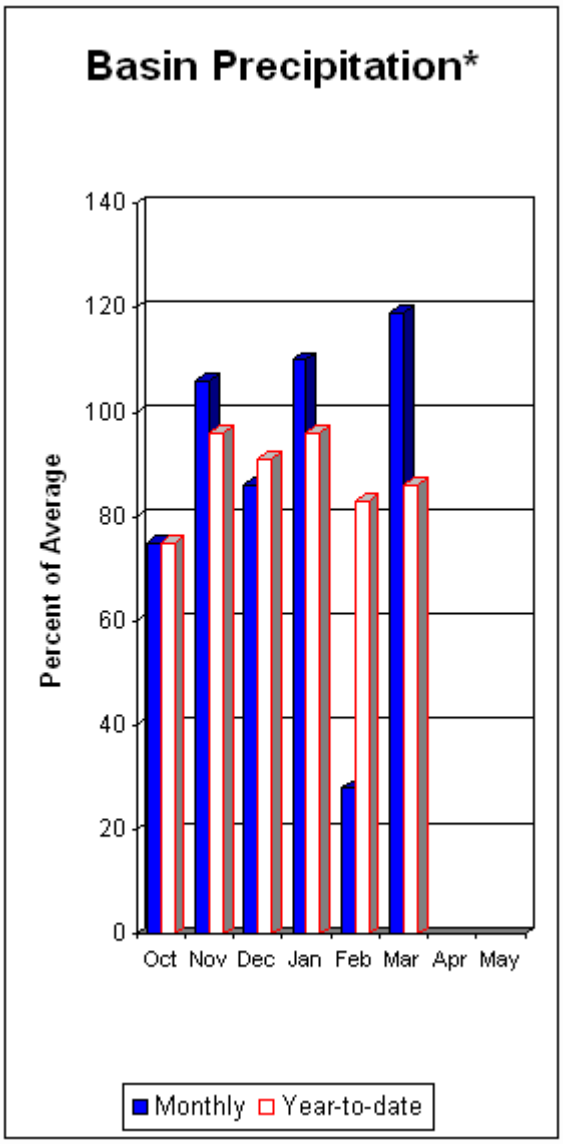
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Central Columbia River Basins





*Based on selected stations

Precipitation during January was 119% of average in the basin and 86% for the year-to-date. Runoff for Entiat River is forecast to be 75% of average for the summer. The April-September average forecast for Chelan River is 71%, Wenatchee River at Plain is 79%, Stehekin River is 77% and Icicle Creek is 82%. January average streamflows on the Chelan River were 52% and on the Wenatchee River 48%. April 1 snowpack in the Wenatchee River Basin was 80% of average; the Chelan, 70%; the Entiat, 73%; Stemilt Creek, 82% and Colockum Creek, 81%. Reservoir storage in Lake Chelan was 229,000-acre feet, 106% of April 1 average and 34% of capacity. Miners Ridge SNOTEL had the most snow water with 45.1 inches of water. This site would normally have 53 inches on April 1. Temperatures were 4 degrees below normal for January and 1 degree below normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Stehekin R at Stehekin	APR-JUL	435	500	540	77	580	645	700
	APR-SEP	535	595	635	77	675	735	830
Chelan R at Chelan (2)	APR-JUL	655	710	745	71	780	835	1050
	APR-SEP	760	815	850	71	885	940	1190
Entiat R nr Ardenvoir	APR-JUL	136	151	161	75	171	186	215
	APR-SEP	154	170	180	75	190	205	240
Wenatchee R at Plain	APR-JUL	735	800	845	79	890	955	1070
	APR-SEP	810	880	930	79	980	1050	1180
Icicle Ck nr Leavenworth	APR-JUL	220	240	255	82	270	290	310
	APR-SEP	240	265	280	82	295	320	340
Wenatchee R at Peshastin	APR-JUL	1030	1120	1180	80	1240	1330	1480
	APR-SEP	1140	1230	1300	80	1370	1460	1630
Columbia R bl Rock Island Dam (2)	APR-JUL	45800	51300	53800	91	56300	61800	59000
	APR-SEP	53800	60300	63200	91	66100	72600	69500

* 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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

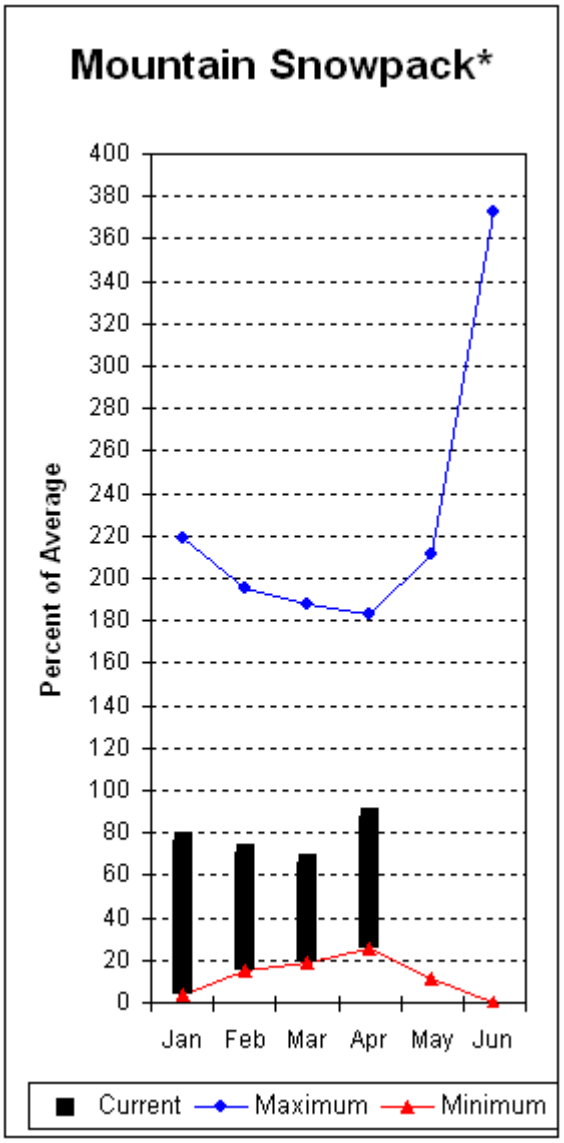
CENTRAL COLUMBIA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

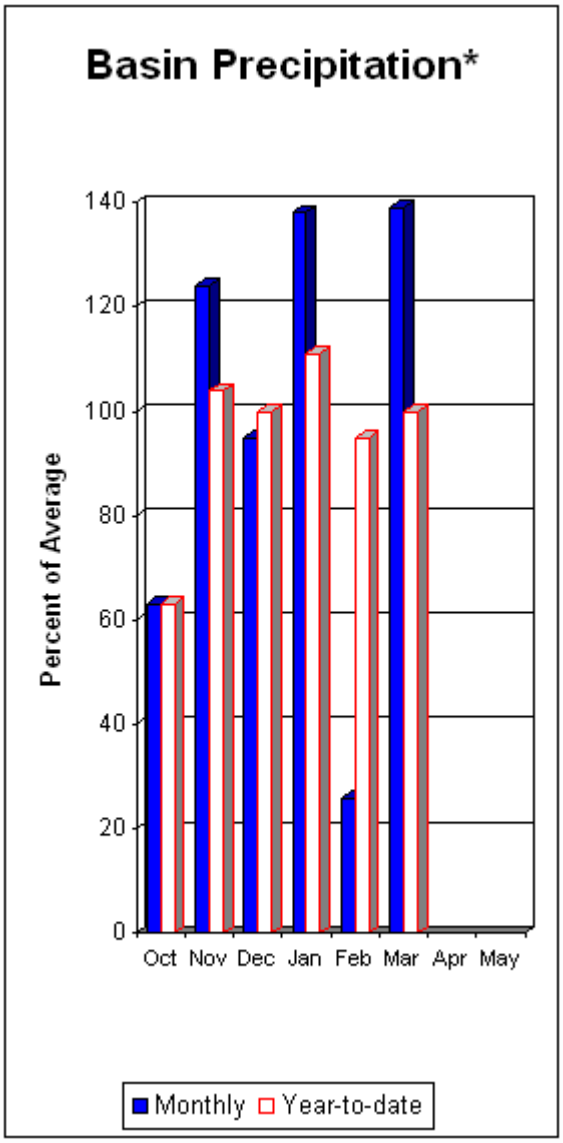
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	228.8	133.8	216.3

CENTRAL COLUMBIA RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
CHELAN LAKE BASIN	5	74	70
ENTIAT RIVER	1	79	73
WENATCHEE RIVER	9	76	80
STEMILT CREEK	2	77	82
COLOCKUM CREEK	1	127	81

Upper Yakima River Basin





*Based on selected stations

April 1 reservoir storage for the Upper Yakima reservoirs was 668,000-acre feet, 121% of average. Forecasts for the Yakima River at Cle Elum are 86% of average and the Teanaway River near Cle Elum is at 84%. Lake inflows are all forecasted to be slightly below normal this summer. January streamflows within the basin were Yakima at Cle Elum at 49% and Cle Elum River near Roslyn at 41%. April 1 snowpack was 88% based upon 9 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was 139% of average for January and 100% year-to-date for water. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Keechelus Reservoir Inflow (2)	APR-JUL	89	100	108	89	116	127	121
	APR-SEP	98	110	118	89	126	138	133
Kachess Reservoir Inflow (2)	APR-JUL	83	92	98	88	104	113	111
	APR-SEP	90	99	105	88	111	120	120
Cle Elum Lake Inflow (2)	APR-JUL	330	350	365	89	380	400	410
	APR-SEP	355	380	400	89	420	445	450
Yakima R at Cle Elum (2)	APR-JUL	585	655	705	86	755	825	820
	APR-SEP	625	710	770	86	830	915	900
Teanaway R bl Forks nr Cle Elum	APR-JUL	91	108	120	84	132	149	143
	APR-SEP	94	111	123	84	135	152	146

UPPER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	129.8	69.5	114.1
KACHESS	239.0	215.5	155.3	169.4
CLE ELUM	436.9	322.8	143.5	270.1

UPPER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2009

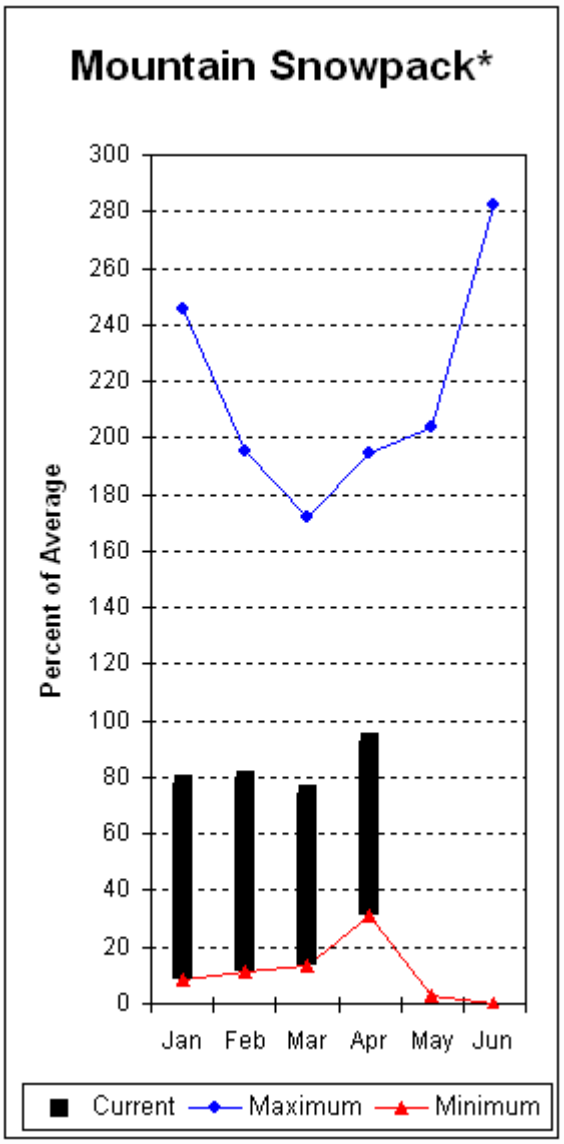
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
UPPER YAKIMA RIVER	9	68	88

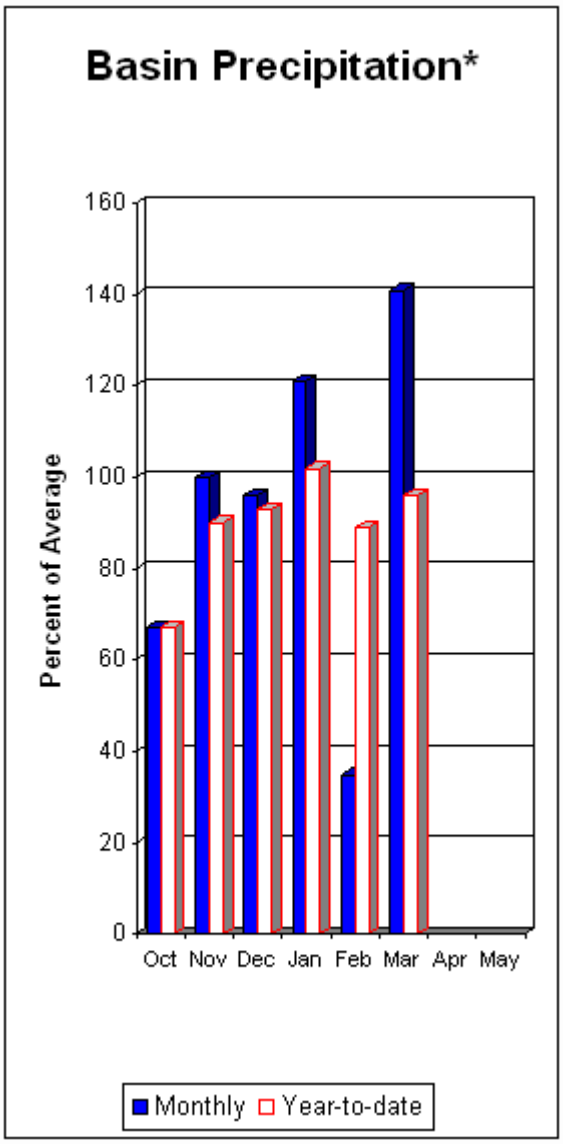
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Lower Yakima River Basin





*Based on selected stations

January average streamflows within the basin were: Yakima River near Parker, 49%; Naches River near Naches, 45%; and Yakima River at Kiona, 58%. April 1 reservoir storage for Bumping and Rimrock reservoirs was 158,000-acre feet, 104% of average. Forecast averages for Yakima River near Parker are 88%; American River near Nile, 89%; Ahtanum Creek, 88%; and Klickitat River near Glenwood, 95%. April 1 snowpack was 93% based upon 8 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 96%of average. Precipitation was 141% of average for January and 96% year-to-date for water. Temperatures were 4 degrees below normal for March and 1 degree below for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they April differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bumping Lake Inflow (2)	APR-JUL	93	104	111	91	118	129	122
	APR-SEP	101	112	120	91	128	139	132
American R nr Nile	APR-JUL	82	90	96	89	102	110	108
	APR-SEP	91	99	105	89	111	119	118
Rimrock Lake Inflow (2)	APR-JUL	167	180	189	92	198	210	205
	APR-SEP	195	210	220	92	230	245	240
Naches R nr Naches (2)	APR-JUL	565	620	660	92	700	755	720
	APR-SEP	615	680	720	92	760	825	780
Ahtanum Ck at Union Gap	APR-JUL	18.7	23	26	87	29	33	30
	APR-SEP	21	25	28	88	31	35	32
Yakima R nr Parker (2)	APR-JUL	1370	1500	1580	88	1660	1790	1800
	APR-SEP	1530	1660	1750	88	1840	1970	1980
KLICKITAT near Glenwood	APR-JUL	101	112	120	95	128	139	126
	APR-SEP	134	146	155	95	164	176	163
Klickitat River near Pitt WA	APR-JUL	370	410	435	94	460	500	462
	APR-SEP	445	495	525	94	555	605	559

LOWER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BUMPING LAKE	33.7	9.3	4.8	13.1
RIMROCK	198.0	149.1	122.3	138.5

LOWER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2009

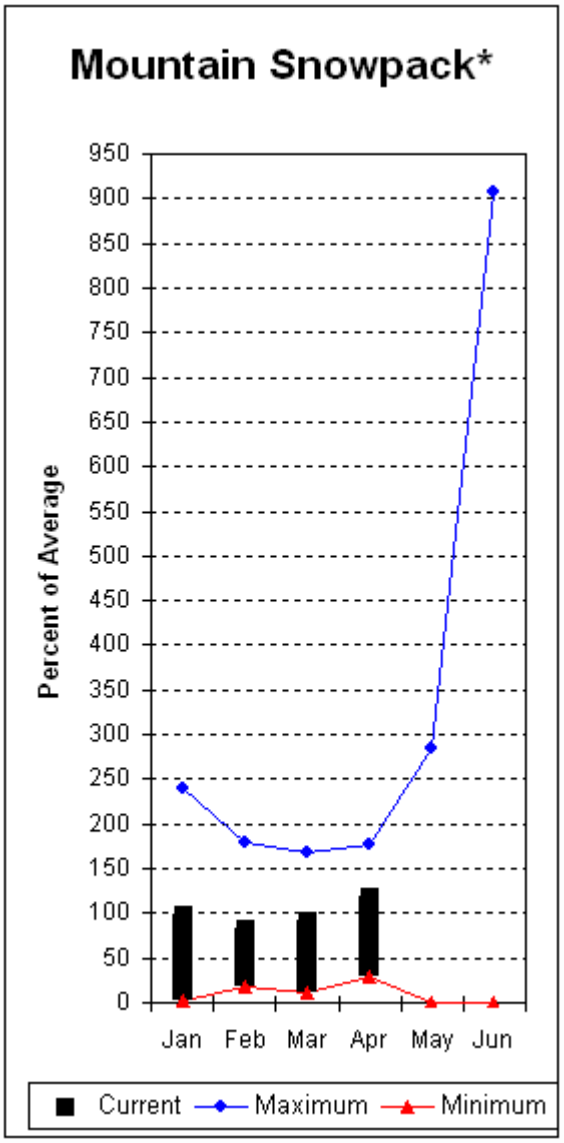
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LOWER YAKIMA RIVER	8	75	93
AHTANUM CREEK	3	91	96

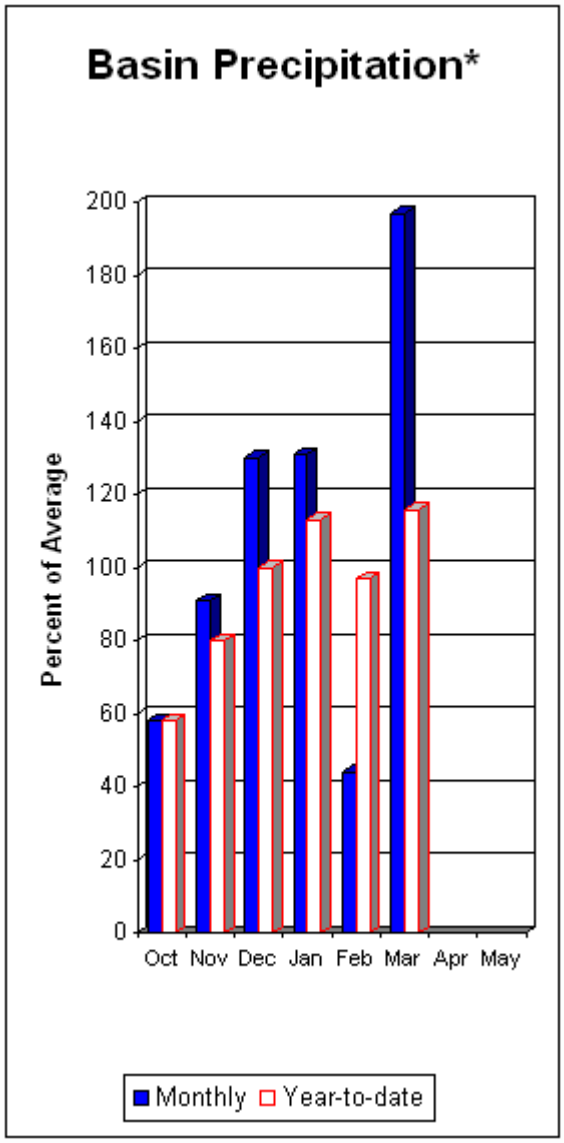
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Walla Walla River Basin





*Based on selected stations

January precipitation was 197% of average, maintaining the year-to-date precipitation at 116% of average. Snowpack in the basin was 118% of average. Streamflow forecasts are 107% of average for Mill Creek and 100% for the SF Walla Walla near Milton-Freewater. January streamflow was 149% of average for the Walla Walla River. Average temperatures were 4 degrees below normal for January and 1 degree below average for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SF Walla Walla R nr Milton-Freewater	APR-JUL	44	50	54	100	58	64	54
	APR-SEP	55	62	67	100	72	79	67
Mill Ck nr Walla Walla	APR-JUL	20	24	26	108	28	32	24
	APR-SEP	24	28	30	107	32	36	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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

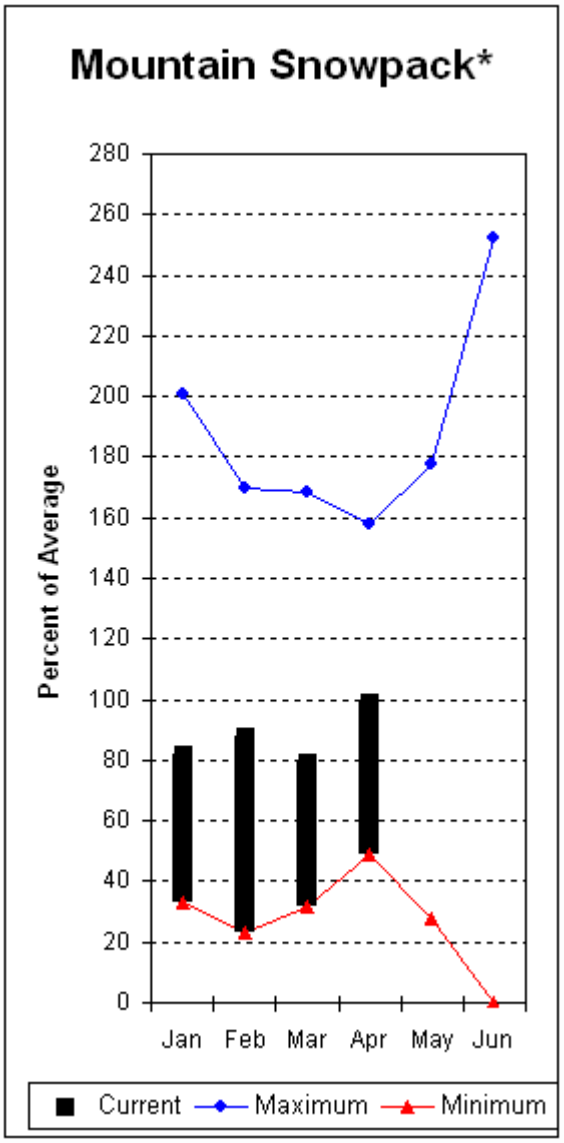
WALLA WALLA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

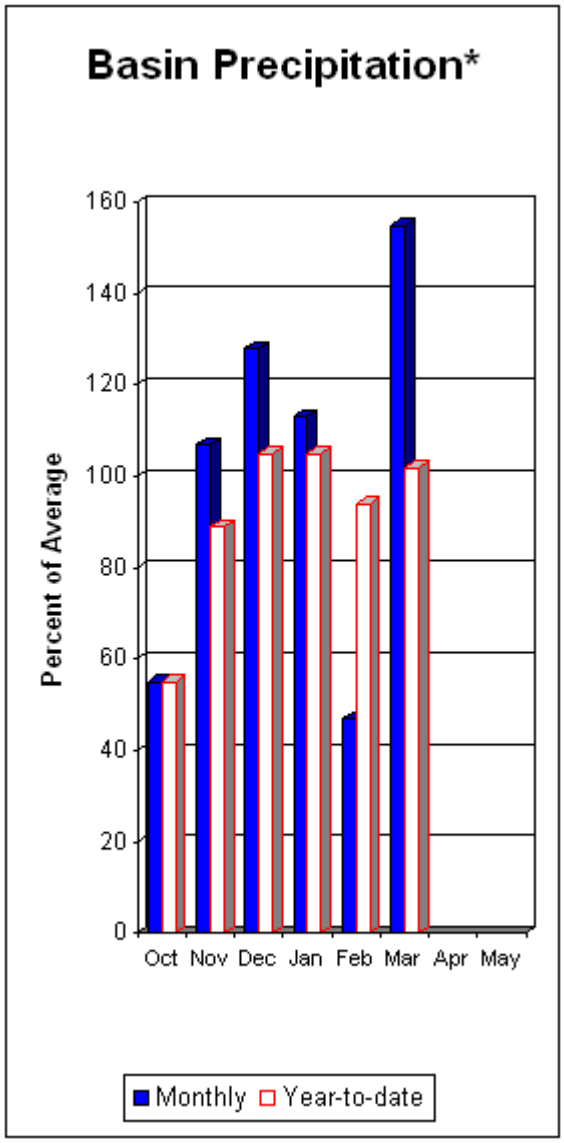
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2009

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WALLA WALLA RIVER	2	80	118

Lower Snake River Basin





*Based on selected stations

The April - September forecast is for 106% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 94% and 97% of normal respectively. January precipitation was 155% of average, bringing the year-to-date precipitation to 102% of average. April 1 snowpack readings averaged 99% of normal. January streamflow was 72% of average for Snake River below Lower Granite Dam and 91% for Grande Ronde River near Troy. Average temperatures were 4 degrees below normal for January and near normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
		<<====== Drier ======		Future Conditions	=======	Wetter =====>>		
		==========	==========	Chance Of Exceeding *	==========	==========	==========	
Grande Ronde R at Troy	APR-SEP	962	1215	1330	97	1445	1698	1370
CLEARWATER at Spalding (1,2)	APR-JUL	6468	7460	7910	107	8360	9352	7430
	APR-SEP	6804	7854	8330	106	8806	9856	7850
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	15484	18865	20400	94	21935	25316	21600
	APR-SEP	17175	20974	22700	94	24426	28225	24100

LOWER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2514.0	2143.2	2205.4

LOWER SNAKE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2009

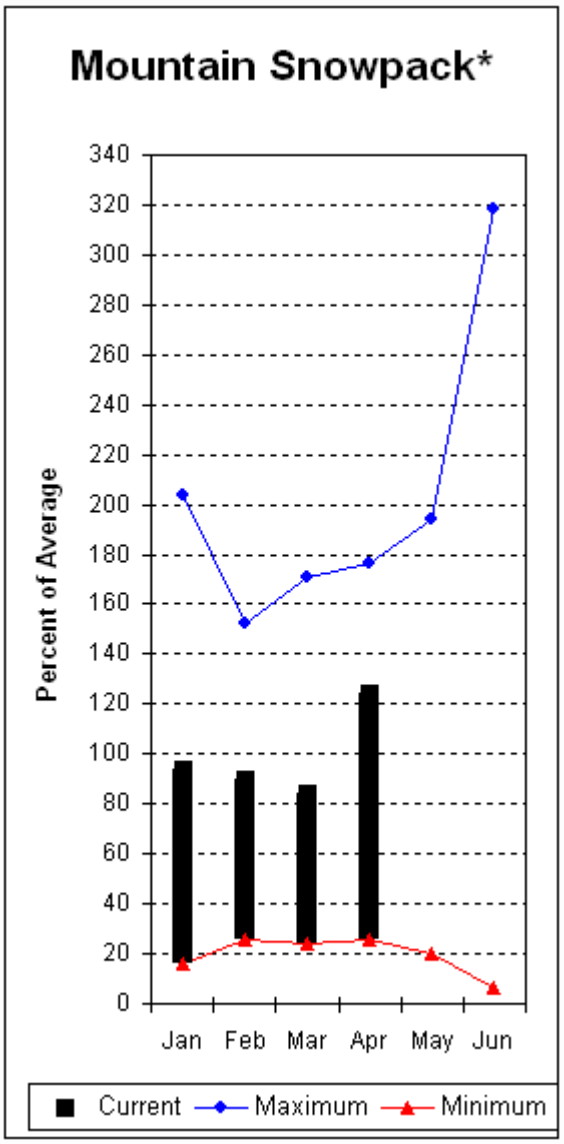
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
LOWER SNAKE, GRANDE RONDE	14	82	99

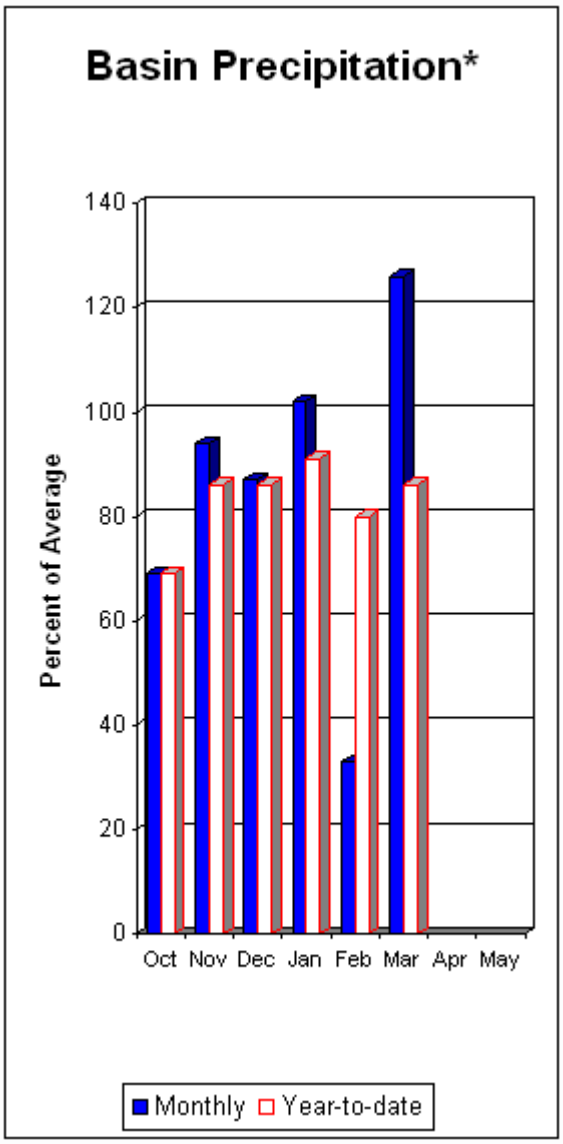
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Lower Columbia River Basins





*Based on selected stations

Forecasts for April – September streamflows within the basin are Lewis River at Ariel, 103% and Cowlitz River at Castle Rock, 95% of average. The Columbia at The Dalles is forecasted to have 88% of average flows this summer. January average streamflow for Cowlitz River was 68% and 65% for Lewis River. The Columbia River at The Dalles was 67% of average. January precipitation was 126% of average and the water-year average was 86%. April 1 snow cover for Cowlitz River was 116%, and Lewis River was 107% of average. Average temperatures were 4 degrees below normal during March and near normal for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Columbia R at The Dalles (2)	APR-JUL	63400	71500	75200	89	78900	87000	84600
	APR-SEP	73400	82900	87200	88	91500	101000	98600
KLICKITAT near Glenwood	APR-JUL	101	112	120	95	128	139	126
	APR-SEP	134	146	155	95	164	176	163
Klickitat River near Pitt WA	APR-JUL	370	410	435	94	460	500	462
	APR-SEP	445	495	525	94	555	605	559
LEWIS at Ariel (2)	APR-JUL	830	970	1060	103	1150	1290	1031
	APR-SEP	980	1120	1210	103	1300	1440	1176
COWLITZ R. bl Mayfield Dam (2)	APR-JUL	1280	1470	1600	95	1730	1920	1689
	APR-SEP	1430	1650	1800	94	1950	2170	1922
COWLITZ R. at Castle Rock (2)	APR-JUL	1830	2040	2180	95	2320	2530	2295
	APR-SEP	2100	2340	2500	95	2660	2900	2639

LOWER COLUMBIA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MOSSYROCK	0.0	1203.4	1001.3	---
SWIFT	0.0	670.2	461.7	---
YALE	0.0	370.4	377.7	---
MERWIN	0.0	401.9	412.6	---

LOWER COLUMBIA RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

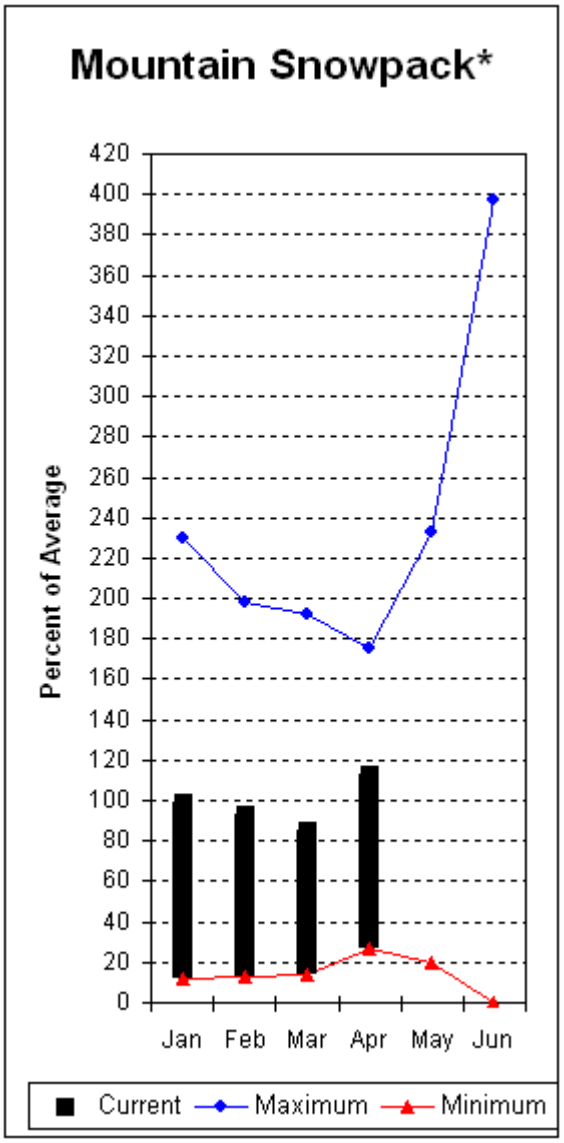
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LEWIS RIVER	5	60	107
COWLITZ RIVER	6	71	116

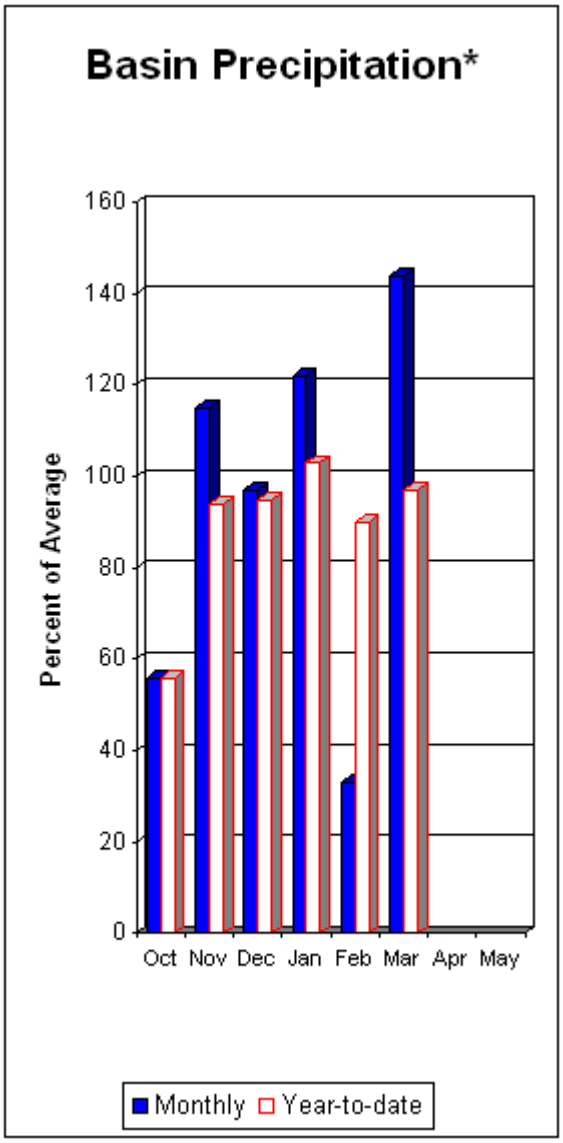
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

South Puget Sound River Basins





*Based on selected stations

Summer runoff is forecast to be 108% of normal for the Green River below Howard Hanson Dam and 107% for the White River near Buckley. April 1 snowpack was 95% of average for the White River, 121% for Puyallup River and 127% in the Green River Basin. Water content on April 1 at Huckleberry Creek SNOTEL, at an elevation of 2250 feet, was 12.7 inches. This site has an April 1 average of 0.4 inches. January precipitation was 144% of average, bringing the water year-to-date to 97% of average for the basins. Average temperatures in the area were 4 degrees below normal for January and near normal for the water-year.

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

Streamflow Forecasts - April 1, 2009

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)
WHITE near Buckley (1,2)	APR-JUL	370	440	475	108	510	580	440
	APR-SEP	480	545	570	107	595	660	534
GREEN R below Howard Hansen (1,2)	APR-JUL	200	245	265	109	285	330	243
	APR-SEP	230	270	290	108	310	350	268

SOUTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

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

SOUTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

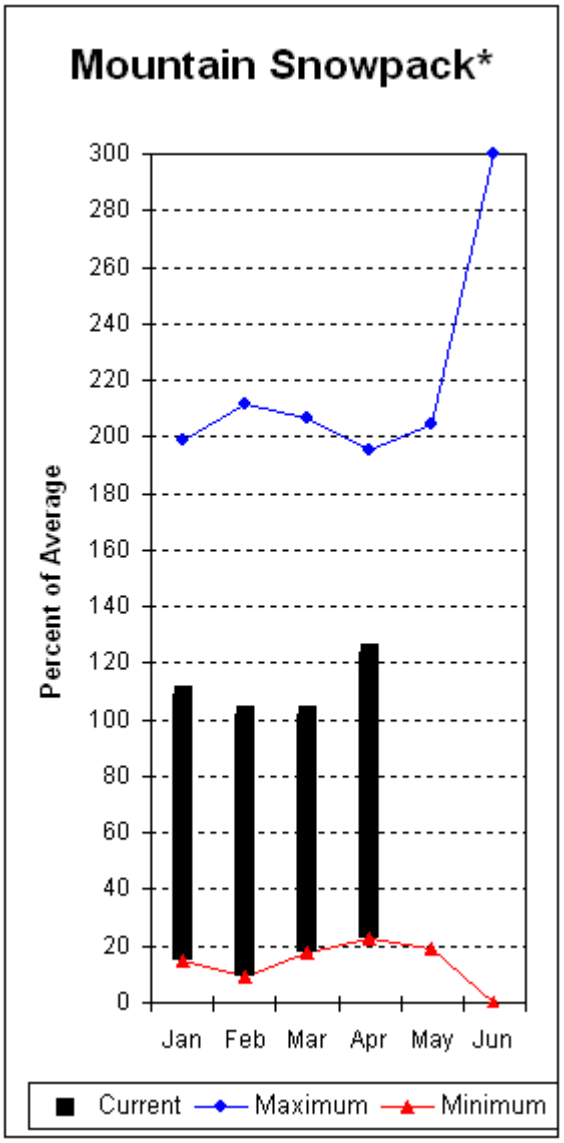
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WHITE RIVER	3	73	95
GREEN RIVER	7	81	127
PUYALLUP RIVER	5	81	121

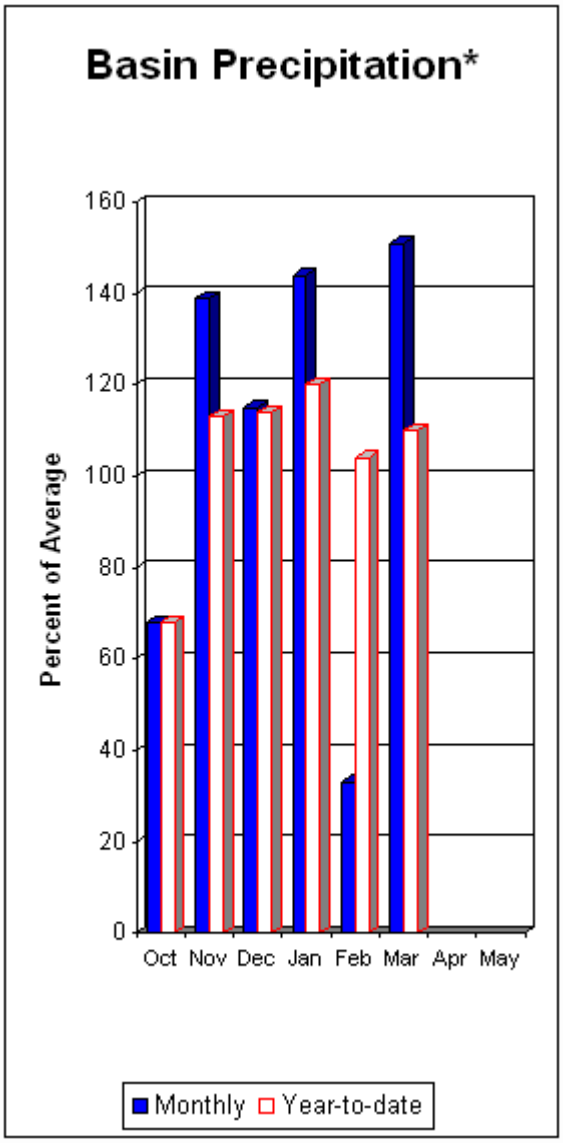
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Central Puget Sound River Basins





*Based on selected stations

Forecast for spring and summer flows are: 125% for Cedar River near Cedar Falls; 125% for Rex River; 118% for South Fork of the Tolt River; and 110% for Cedar River at Cedar Falls. Basin-wide precipitation for January was 151% of average, bringing water-year-to-date to 110% of average. April 1 average snow cover in Cedar River Basin was 142%, Tolt River Basin was 173%, Snoqualmie River Basin was 125%, and Skykomish River Basin was 112%. Skookum Creek SNOTEL site, at 3920 feet, had 58.5 inches of water content. Average April 1 water content is 26.3 inches at Skookum Creek. Temperatures were 4 degrees below average for January and 1 degree below normal for the water-year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CEDAR near Cedar Falls	APR-JUL	77	85	91	125	97	105	73
	APR-SEP	84	94	100	125	106	116	80
REX near Cedar Falls	APR-JUL	27	30	32	128	34	37	25
	APR-SEP	29	32	35	125	38	41	28
CEDAR RIVER at Cedar Falls	APR-JUL	61	73	82	111	91	103	74
	APR-SEP	61	72	80	110	88	99	73
SOUTH FORK TOLT near Index	APR-JUL	14.0	16.4	18.0	122	19.6	22	14.7
	APR-SEP	15.8	18.3	20	118	22	24	16.9

CENTRAL PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

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

CENTRAL PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

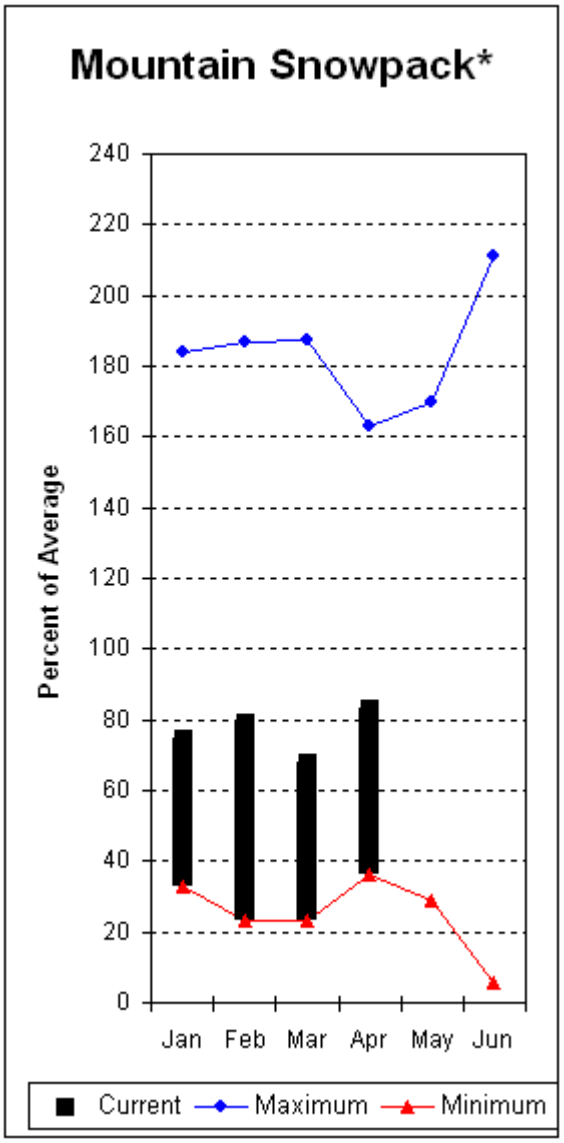
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
CEDAR RIVER	4	62	142
TOLT RIVER	2	82	173
SNOQUALMIE RIVER	4	74	125
SKYKOMISH RIVER	2	82	112

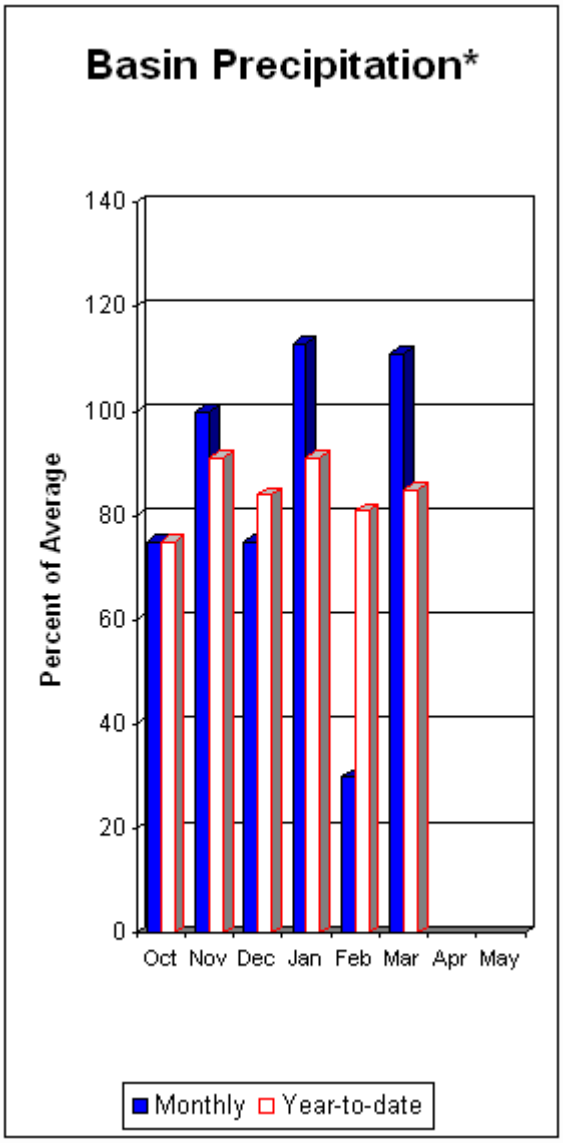
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

North Puget Sound River Basins





*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 80% of average for the spring and summer period. January streamflow in Skagit River was 63% of average. Other forecast points included Baker River at 80% and Thunder Creek at 89% of average. Basin-wide precipitation for January was 111% of average, bringing water-year-to-date to 85% of average. April 1 average snow cover in Skagit River Basin was 78%, and Nooksack River Basin was 88%. Baker River Basin snow surveys reported 83% of average as well. Rainy Pass SNOTEL, at 4,780 feet, had 27.6 inches of water content. Average April 1 water content is 44 inches at Rainy Pass. April 1 Skagit River reservoir storage was 116% of average and 60% of capacity. Average temperatures for January were 4 degrees below normal for the basin and 2 degrees below average for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	APR-JUL	180	198	210	90	220	240	234
	APR-SEP	265	280	295	89	310	325	333
SKAGIT at Newhalem (2)	APR-JUL	1300	1420	1500	81	1580	1700	1864
	APR-SEP	1580	1690	1770	80	1850	1960	2217
BAKER RIVER near Concrete	APR-JUL	540	615	670	81	725	800	828
	APR-SEP	600	745	840	80	935	1080	1050

NORTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS	1404.1	815.3	531.1	693.0
DIABLO RESERVOIR	90.6	84.8	86.3	86.2

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

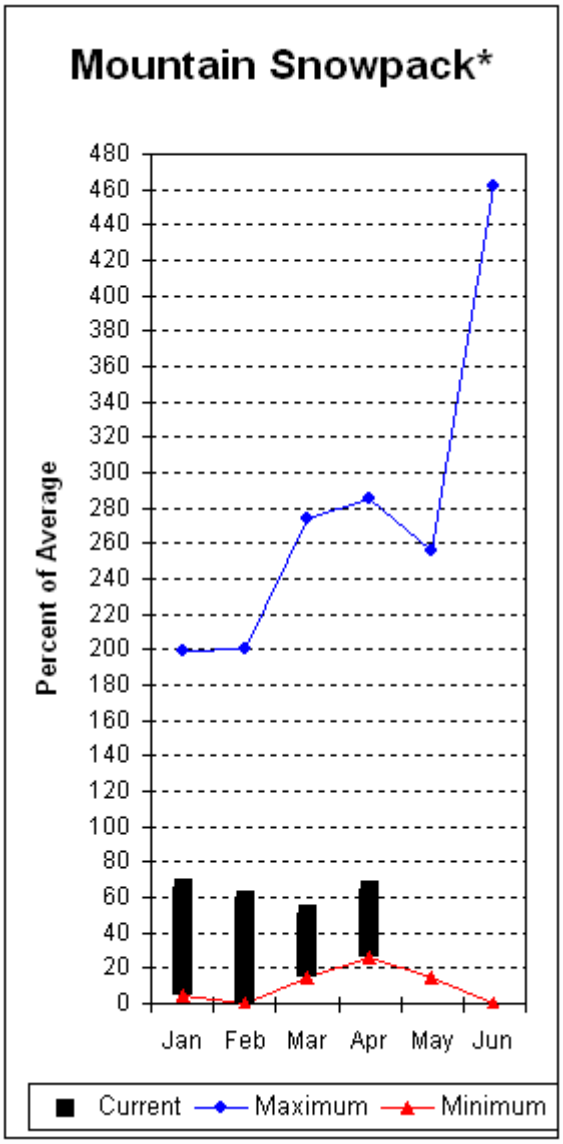
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SKAGIT RIVER	16	69	78
BAKER RIVER	9	66	83
NOOKSACK RIVER	2	60	88

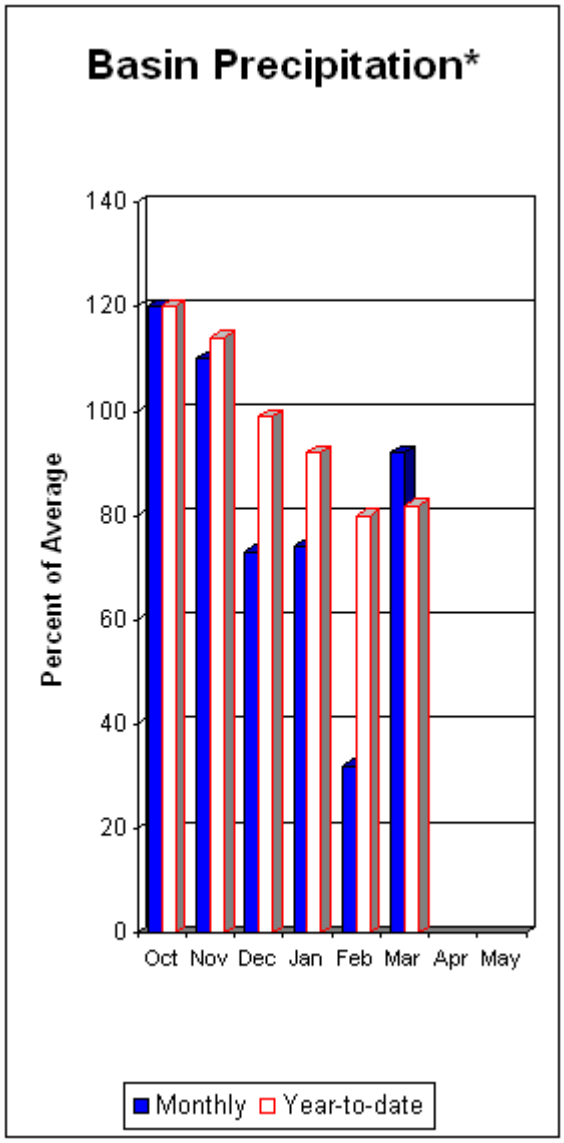
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Olympic Peninsula River Basins





*Based on selected stations

Forecasted average runoff for streamflow for the Dungeness River is 79% and Elwha River is 78%. January runoff in the Dungeness River was 55% of normal. Big Quilcene and Wynoochee rivers should expect below average runoff this summer as well. January precipitation was 92% of average. Precipitation has accumulated at 82% of average for the water year. January precipitation at Quillayute was 9.36 inches. The thirty-year average for January is 10.98 inches. Olympic Peninsula snowpack averaged 65% of normal on April 1. Temperatures were 3-4 degrees below average for January and 1 degree below average for the water year.

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

Streamflow Forecasts - April 1, 2009

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS near Sequim	APR-JUL	86	94	99	80	104	112	124
	APR-SEP	108	115	120	79	125	132	152
ELWHA near Port Angeles	APR-JUL	285	320	340	81	360	395	419
	APR-SEP	330	365	390	78	415	450	503

OLYMPIC PENINSULA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

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

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - April 1, 2009

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OLYMPIC PENINSULA	6	48	65

* 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.
(3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.
The value listed under 70% is actually a 75% exceedance level.

Issued by

Dave White
Acting Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

Roylene Rides At The Door
State Conservationist
Natural Resources Conservation Service
Spokane, Washington

The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work*:

Canada	Ministry of Sustainable Resources
	Snow Survey, River Forecast Centre, Victoria, British Columbia
State	Washington State Department of Ecology
	Washington State Department of Natural Resources
Federal	Department of the Army
	Corps of Engineers
	U.S. Department of Agriculture
	Forest Service
	U.S. Department of Commerce
	NOAA, National Weather Service
	U.S. Department of Interior
	Bonneville Power Administration
	Bureau of Reclamation
	Geological Survey
	National Park Service
	Bureau of Indian Affairs
	Recourse Conservation & Development Councils
Local	City of Tacoma
	City of Seattle
	Chelan County P.U.D.
	Pacific Power and Light Company
	Puget Sound Power and Light Company
	Washington Water Power Company
	Snohomish County P.U.D.
	Colville Confederated Tribes
	Spokane County
	Yakama Indian Nation
	Whatcom County
	Pierce County
	Kalispel Tribe of Indians
	Spokane Indian Tribe
	Jamestown S'klallum Tribe
Private	Okanogan Irrigation District
	Wenatchee Heights Irrigation District
	Newman Lake Homeowners Association
	Whitestone Reclamation District

***Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.**

Washington Snow Survey Office
2021 E. College Way, Suite 214
Mount Vernon, WA 98273-2873

Washington Water Supply Outlook Report

Natural Resources Conservation Service
Spokane, WA