

Washington Water Supply Outlook Report May 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.

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Washington Water Supply Outlook

May 2009

General Outlook

Varying and sporadic weather patterns continue to keep weather watchers on their toes. Cool temperatures in the mountains delayed some normal snow melt last month. However above average mid and low elevation snow has begun to runoff. Continued cooler temperatures would help sustain runoff flows from snow melt well into summer, potentially lessening the effects of below average forecasts in some areas of the state. Weather forecasters are predicting a continuation of below average temperatures and near to below average precipitation for the remainder of the month. However long-range forecasts are calling for a turn to above average temperatures and below average precipitation for the summer months.

Snowpack

The May 1 statewide SNOTEL readings were 111% of average, up considerably from last month. The Omak Creek SNOTEL reported the lowest readings at 47% of average. The Cedar River Basin is the highest at 242%. Westside averages from SNOTEL, and May 1 snow surveys, included the North Puget Sound river basins with 86% of average, the Central Puget river basins with 182%, and the Lewis-Cowlitz basins with 123% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 94% and the Wenatchee area with 107%. Snowpack in the Spokane River Basin was at 97% and the Walla Walla River Basin had 148% of average. Maximum snow cover in Washington was at Paradise SNOTEL near Mt. Rainer, with water content of 81.5 inches. Normally Paradise would have 74.8 inches of snow water on May 1.

| BASIN | PERCENT OF LAST YEAR | PERCENT OF AVERAGE |
|-------------------|----------------------|--------------------|
| Spokane | 52 | 97 |
| Newman Lake | 25 | 98 |
| Pend Oreille | 77 | 101 |
| Okanogan | 73 | 80 |
| Methow | 73 | 70 |
| Conconully Lake | 0 | 0 |
| Wenatchee | 70 | 81 |
| Chelan | 74 | 73 |
| Upper Yakima | 62 | 93 |
| Lower Yakima | 71 | 96 |
| Ahtanum Creek | 79 | 100 |
| Walla Walla | 77 | 148 |
| Lower Snake | 69 | 100 |
| Cowlitz | 67 | 123 |
| Lewis | 55 | 123 |
| White | 67 | 87 |
| Green | 77 | 165 |
| Puyallup | 72 | 118 |
| Cedar | 53 | 242 |
| Tolt | 79 | 218 |
| Snoqualmie | 73 | 146 |
| Skykomish | 80 | 123 |
| Skagit | 66 | 80 |
| Baker | n/a | n/a |
| Nooksack | 48 | 91 |
| Olympic Peninsula | 44 | 70 |

Precipitation

During the month of April, the National Weather Service and Natural Resources Conservation Service climate stations reported mostly below average precipitation with only 4 basins at near average. Upper Wheeler SNOTEL site leads the pack with a monthly high of 194% of normal or 3.3 inches. Upper Wheeler would normally receive 1.7 inches of precipitation during April. Alpine Meadows SNOTEL was the wettest spot in the state last month with 10.8 inches.

| RIVER BASIN | APRIL PERCENT OF AVERAGE | WATER YEAR PERCENT OF AVERAGE |
|---------------------------|-----------------------------|----------------------------------|
| Spokane | 69 | 93 |
| Pend Oreille | 86 | 83 |
| Upper Columbia | 85 | 74 |
| Central Columbia | 112 | 89 |
| Upper Yakima | 104 | 100 |
| Lower Yakima | 76 | 95 |
| Walla Walla | 99 | 110 |
| Lower Snake | 84 | 101 |
| Lower Columbia | 78 | 86 |
| South Puget Sound | 94 | 97 |
| Central Puget Sound | 103 | 110 |
| North Puget Sound | 77 | 85 |
| Olympic Peninsula | 65 | 80 |

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 740,000-acre feet, 119% of average for the Upper Reaches and 189,000-acre feet or 112% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 83% of average for May 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 246,000 acre feet, 98% of average and 103% of capacity; Chelan Lake, 266,000-acre feet, 100% of average and 39% of capacity; and the Skagit River reservoirs at 114% of average and 61% of capacity. Current climate impacts, projected snow melt and management procedures may change these numbers on a daily or weekly basis.

| BASIN | PERCENT OF CAPACITY | CURRENT STORAGE AS PERCENT OF AVERAGE |
|-------------------------|---------------------|--|
| Spokane | 71 | 98 |
| Pend Oreille | 60 | 100 |
| Upper Columbia | 67 | 83 |
| Central Columbia | 39 | 100 |
| Upper Yakima | 89 | 119 |
| Lower Yakima | 81 | 112 |
| Lower Snake | 67 | 95 |
| North Puget Sound | 61 | 114 |

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

Streamflow

Forecasts vary from 141% of average for the Cedar and Rex rivers to 67% of average for Methow River. May-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 141%; White River, 100%; and Skagit River, 84%. Some Eastern Washington streams include the Yakima River near Parker, 90%; Wenatchee River at Plain, 84%; and Spokane River near Post Falls, 96%. 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 April streamflows were varied greatly in April due to a plethora of reasons including delayed snow melt, varied precipitation and reservoir operations. The S.F. Walla Walla River had the highest reported flows with 253% of average. The Okanogan River near Tonasket with 41% 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, 101%; the Spokane at Spokane, 114%; the Columbia below Rock Island Dam, 77%; and the Cle Elum near Roslyn, 78%.

| BASIN | PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE) |
|-------|---|
|-------|---|

| | |
|---------------------------|---------|
| Spokane | 82-96 |
| Pend Oreille | 93-96 |
| Upper Columbia | 67-91 |
| Central Columbia | 75-91 |
| Upper Yakima | 87-94 |
| Lower Yakima | 90-97 |
| Walla Walla | 100-106 |
| Lower Snake | 91-103 |
| Lower Columbia | 87-99 |
| South Puget Sound | 100-104 |
| Central Puget Sound | 121-141 |
| North Puget Sound | 80-90 |
| Olympic Peninsula | 79-80 |

| STREAM | PERCENT OF AVERAGE APRIL STREAMFLOWS |
|--------|---|
|--------|---|

| | |
|--|-----|
| Pend Oreille Below Box Canyon | 98 |
| Kettle at Laurier | 47 |
| Columbia at Birchbank | 64 |
| Spokane at Long Lake | 115 |
| Similkameen at Nighthawk | 52 |
| Okanogan at Tonasket | 41 |
| Methow at Pateros | 64 |
| Chelan at Chelan | 74 |
| Wenatchee at Pashastin | 70 |
| Yakima at Cle Elum | 99 |
| Yakima at Parker | 95 |
| Naches at Naches | 106 |
| Grande Ronde at Troy | 164 |
| Snake below Lower Granite Dam | 101 |
| SF Walla Walla near Milton Freewater | 253 |
| Columbia River at The Dalles | 89 |
| Lewis at Ariel | 103 |
| Cowlitz below Mayfield Dam | 102 |
| Skagit at Concrete | 90 |
| Dungeness near Sequim | 66 |

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

BASIN SUMMARY OF
SNOW COURSE DATA

MAY 2009

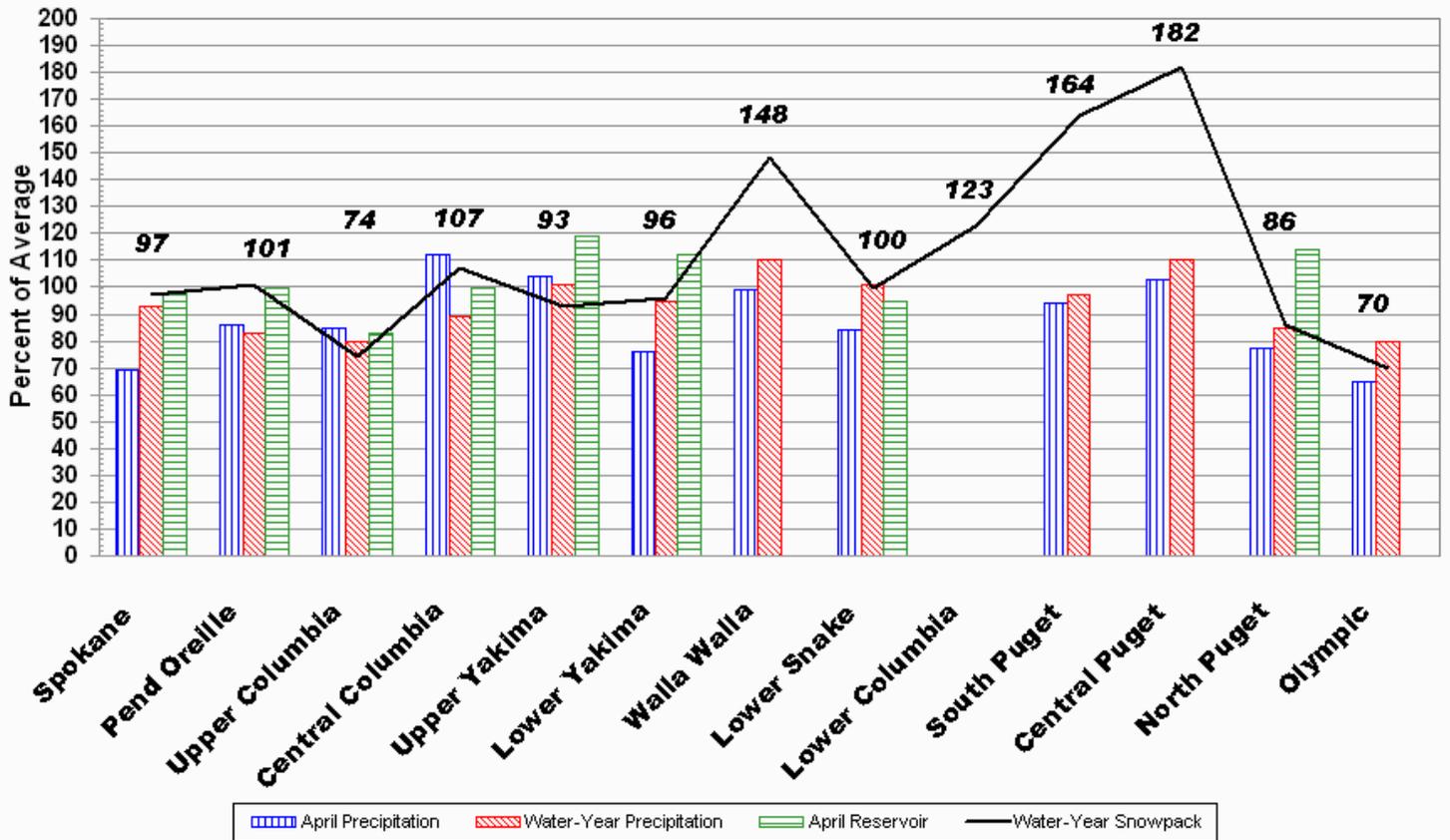
| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 1971-00 | KLESILKWA SNOW COURSE | CAN. | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 1971-00 |
|----------------------|-----------|---------|------------|---------------|-----------|-----------------|-----------------------|------|-----------|---------|------------|---------------|-----------|-----------------|
| ALPINE MEADOWS SNTL | 3500 | 5/01/09 | 134 | 70.1 | 80.4 | 45.8 | | | 3450 | 4/26/09 | 28 | 11.5 | 11.1 | 4.8 |
| AMBROSE | 6480 | 4/24/09 | 39 | 14.3 | 13.0 | 11.1 | | | 4750 | 5/01/09 | 4 | 2.2 | 9.2 | 5.2 |
| ASHLEY DIVIDE | 4820 | 4/29/09 | 3 | 1.1 | 3.9 | 1.1 | | | | | | | | |
| BADGER PASS SNOTEL | 6900 | 5/01/09 | 100 | 32.8 | 44.2 | 36.2 | LESTER CREEK | | 3100 | 4/29/09 | 75 | 33.0 | 40.0 | 16.6 |
| BAREE CREEK | 5500 | 5/01/09 | 80 | 35.2 | 45.7 | 40.3 | LIGHTNING LAKE CAN. | | 3700 | 4/29/09 | 26 | 9.1 | 15.3 | 9.9 |
| BAREE MIDWAY | 4600 | 5/01/09 | 69 | 29.7 | 29.9 | 27.4 | LOGAN CREEK | | 4300 | 4/29/09 | 17 | 5.9 | 10.0 | 1.7 |
| BAREE TRAIL | 3800 | 5/01/09 | 9 | 2.8 | 20.2 | 1.3 | LOLO PASS SNOTEL | | 5240 | 5/01/09 | 55 | 24.1 | 37.7 | 24.5 |
| BARKER LAKES SNOTEL | 8250 | 5/01/09 | 82 | 22.7 | 16.5 | 16.2 | LONE PINE SNOTEL | | 3930 | 5/01/09 | 81 | 38.8 | 70.8 | 34.2 |
| BARNES CREEK CAN. | 5320 | 4/30/09 | 50 | 20.2 | 21.5 | 19.7 | LOOKOUT SNOTEL | | 5140 | 5/01/09 | 62 | 25.7 | 38.5 | 27.2 |
| BASIN CREEK SNOTEL | 7180 | 5/01/09 | 43 | 9.6 | 8.1 | 10.0 | LOST HORSE SNOTEL | | 5120 | 5/01/09 | 19 | 8.9 | 15.8 | 10.7 |
| BASSOO PEAK | 5150 | 4/29/09 | 16 | 5.6 | 14.4 | 3.2 | LOST LAKE SNOTEL | | 6110 | 5/01/09 | --- | 53.3 | 68.8 | 59.7 |
| BEAVER CREEK TRAIL | 2200 | 4/27/09 | 14 | 5.7 | 18.4 | 4.4 | LOWER SANDS CREEK #2 | | 3120 | 4/29/09 | 52 | 22.2 | 39.8 | 15.8 |
| BEAVER PASS | 3680 | 4/26/09 | 56 | 22.0 | 34.3 | 27.2 | LUBRECHT FOREST NO 3 | | 5450 | 4/30/09 | 6 | 1.8 | 4.4 | 1.7 |
| BEAVER PASS SNOTEL | 3630 | 5/01/09 | 66 | 29.6 | 44.6 | 35.5 | LUBRECHT FOREST NO 4 | | 4650 | 4/30/09 | 0 | 0.0 | 0.0 | 0.1 |
| BIG WHITE MTN CAN. | 5510 | 5/01/09 | 42 | 15.0 | 17.4 | 19.4 | LUBRECHT FOREST NO 6 | | 4040 | 4/30/09 | 0 | 0.0 | 0.0 | 0.0 |
| BLACK MOUNTAIN | 7750 | 4/28/09 | 58 | 20.3 | 16.2 | 16.9 | LUBRECHT HYDRO PLOT | | 4200 | 4/30/09 | 0 | 0.0 | 0.0 | 0.1 |
| BLACK PINE SNOTEL | 7100 | 5/01/09 | 39 | 14.5 | 12.6 | 11.0 | LUBRECHT SNOTEL | | 4680 | 5/01/09 | 0 | 0.0 | 0.0 | 0.5 |
| BLACKWALL PILL CAN. | 6370 | 5/01/09 | --- | 25.7 | 35.2 | 34.9 | LYMAN LAKE SNOTEL | | 5980 | 5/01/09 | 109 | 46.5 | 57.7 | 67.2 |
| BLEWETT PASS#2SNOTEL | 4240 | 5/01/09 | 6 | 2.5 | 8.7 | 5.0 | LYNN LAKE | | 4000 | 4/29/09 | 112 | 52.4 | 64.5 | 14.5 |
| BLUE LAKE | 5900 | 5/01/09 | 89 | 29.2 | 21.0 | 22.4 | MARIAS PASS | | 5250 | 4/25/09 | 37 | 10.8 | 19.0 | 12.5 |
| BROOKMERE CAN. | 3000 | 4/30/09 | 4 | 0.5 | 4.7 | 4.0 | MARTEN LAKE AM | | 3600 | 4/29/09 | 136 | 65.0 | 100.0 | 73.4 |
| BROWN TOP AM | 6000 | 4/26/09 | 103 | 45.0 | 67.2 | 62.1 | MARTEN RIDGE SNOTEL | | 3520 | 5/01/09 | 99 | 58.9 | 86.7 | -- |
| BRUSH CREEK TIMBER | 5000 | 4/25/09 | 9 | 3.6 | 9.5 | 3.6 | MCCULLOCH CAN. | | 4200 | 4/30/09 | 0 | 0.0 | 2.7 | 1.2 |
| BULL MOUNTAIN | 6600 | 4/30/09 | 21 | 5.8 | 3.8 | 2.6 | MEADOWS CABIN | | 1900 | 4/26/09 | 0 | 0.0 | 4.5 | 1.1 |
| BUMPING LAKE (NEW) | 3400 | 4/30/09 | 26 | 10.6 | 18.2 | 10.4 | MEADOWS PASS SNOTEL | | 3230 | 5/01/09 | 74 | 33.3 | 57.2 | 10.8 |
| BUMPING RIDGE SNOTEL | 4610 | 5/01/09 | 72 | 29.4 | 35.9 | 27.5 | M F NOOKSACK SNOTEL | | 4970 | 5/01/09 | 115 | 64.1 | -- | -- |
| BUNCHGRASS MDWSNOTEL | 5000 | 5/01/09 | 67 | 25.9 | 33.7 | 28.6 | MICA CREEK SNOTEL | | 4510 | 5/01/09 | 50 | 21.6 | 39.8 | 15.3 |
| BURNT MOUNTAIN PILL | 4170 | 5/01/09 | 70 | 35.4 | 49.2 | 5.6 | MINERAL CREEK | | 4000 | 4/26/09 | 3 | 0.5 | 18.7 | 9.6 |
| CARMI CAN. | 4100 | 5/01/09 | 5 | 1.8 | -- | 1.1 | MINERS RIDGE SNOTEL | | 6110 | 5/01/09 | 118 | 49.0 | 55.2 | 56.9 |
| CAYUSE PASS SNOTEL | 5240 | 5/01/09 | 117 | 45.2 | 77.6 | -- | MISSEZULA MTN CAN. | | 5080 | 4/29/09 | 16 | 4.1 | 6.1 | 5.5 |
| CHESSMAN RESERVOIR | 6200 | 4/24/09 | 13 | 3.5 | 3.6 | 1.7 | MISSEZULA CREEK CAN. | | 5840 | 5/01/09 | --- | 18.6 | 22.2 | 21.3 |
| CHICKEN CREEK | 4060 | 4/30/09 | 17 | 7.4 | 22.6 | 5.4 | MONASHEE PASS CAN. | | 4500 | 4/30/09 | 33 | 13.3 | 14.3 | 11.4 |
| COMBINATION SNOTEL | 5600 | 5/01/09 | 0 | 0.0 | 3.5 | 1.2 | MORRISSEY RIDGE CAN. | | 6100 | 5/01/09 | --- | 23.3 | 30.6 | 27.2 |
| COPPER BOTTOM SNOTEL | 5200 | 5/01/09 | 0 | 0.0 | 3.1 | 4.5 | MORSE LAKE SNOTEL | | 5410 | 5/01/09 | 92 | 40.8 | 66.2 | 57.0 |
| COPPER MOUNTAIN | 7700 | 4/27/09 | 36 | 11.0 | 11.8 | 10.0 | MOSES MTN SNOTEL | | 5010 | 5/01/09 | 13 | 5.1 | 12.6 | 10.9 |
| CORRAL PASS SNOTEL | 5800 | 5/01/09 | --- | 39.1 | 42.0 | 35.3 | MOSQUITO RDG SNOTEL | | 5200 | 5/01/09 | --- | 29.3 | 48.0 | 32.2 |
| COTTONWOOD CREEK | 6400 | 4/28/09 | 26 | 8.2 | 8.0 | 7.3 | MOUTLN RESERVOIR | | 6850 | 4/30/09 | 18 | 6.2 | -- | 3.5 |
| COUGAR MTN. SNOTEL | 3200 | 5/01/09 | 60 | 28.7 | 44.7 | 11.0 | MOUNT BLUM AM | | 5800 | 4/29/09 | 120 | 58.0 | 72.0 | 72.4 |
| COX VALLEY | 4500 | 5/02/09 | 63 | 27.3 | 52.0 | 37.1 | MOUNT CRAG SNOTEL | | 3960 | 5/01/09 | 39 | 15.8 | 42.5 | 27.8 |
| COYOTE HILL | 4200 | 4/30/09 | 8 | 2.7 | 6.6 | 2.6 | MT. KOBAU CAN. | | 5500 | 4/30/09 | 28 | 8.8 | 9.1 | 12.8 |
| DALY CREEK SNOTEL | 5780 | 5/01/09 | 25 | 8.6 | 11.1 | 5.3 | MOWICH SNOTEL | | 3160 | 5/01/09 | 0 | 0.0 | 3.6 | 0.0 |
| DEER PARK | 5200 | 4/30/09 | 33 | 12.6 | 30.0 | 15.2 | MOUNT GARDNER SNOTEL | | 2920 | 5/01/09 | 52 | 23.2 | 40.7 | 4.8 |
| DEVILS PARK | 5900 | 4/26/09 | 85 | 35.9 | 46.2 | 44.7 | N.F. ELK CR SNOTEL | | 6250 | 5/01/09 | 38 | 12.8 | 11.1 | 8.0 |
| DISCOVERY BASIN | 7050 | 4/30/09 | 43 | 13.6 | 11.0 | 9.4 | NEVADA RIDGE SNOTEL | | 7020 | 5/01/09 | 53 | 16.7 | 16.5 | 14.4 |
| DIX HILL | 6400 | 4/26/09 | 17 | 5.9 | 11.1 | 3.8 | NEW HOZOMEN LAKE | | 2800 | 4/27/09 | 11 | 4.0 | 12.2 | 3.9 |
| DOCK BUTTE AM | 3800 | 4/29/09 | 113 | 54.0 | 85.9 | 62.9 | NEZ PERCE CMP SNOTEL | | 5650 | 5/01/09 | 42 | 14.6 | 17.4 | 10.8 |
| DOMMERIE FLATS | 2200 | 5/01/09 | 0 | 0.0 | 0.0 | -- | NEZ PERCE PASS | | 6570 | 4/30/09 | --- | 17.9E | 19.1 | 14.2 |
| DUNGENESS SNOTEL | 4010 | 5/01/09 | 1 | 1.1 | 15.4 | 0.9 | NOISY BASIN SNOTEL | | 6040 | 5/01/09 | 104 | 42.6 | 45.8 | 43.8 |
| EAST FORK R.S. | 5400 | 4/28/09 | 0 | 0.0 | 2.5 | 0.7 | NORTH FORK JOCKO | | 6330 | 4/25/09 | 90 | 40.1 | 47.6 | 41.2 |
| EASY PASS AM | 5200 | 4/28/09 | 114 | 54.7 | 93.8 | 86.9 | OLALLIE MDWS SNOTEL | | 4030 | 5/01/09 | 110 | 57.8 | 86.8 | 55.1 |
| ELBOW LAKE SNOTEL | 3200 | 5/01/09 | 70 | 30.3 | 64.3 | 32.5 | OPHIR PARK | | 7150 | 4/26/09 | 45 | 15.8 | 16.4 | 16.0 |
| EMERY CREEK SNOTEL | 4350 | 5/01/09 | 20 | 7.6 | 15.6 | 7.4 | OYAMA LAKE CAN. | | 4100 | 4/30/09 | 11 | 3.7 | 5.1 | 2.6 |
| ENDERBY CAN. | 5800 | 4/29/09 | 94 | 34.4 | 46.3 | 43.5 | PARADISE SNOTEL | | 5130 | 5/01/09 | 153 | 81.5 | 104.5 | 74.8 |
| ESPERON CK. UP CAN. | 5050 | 4/26/09 | 32 | 10.0 | 14.1 | 15.4 | PARK CK RIDGE SNOTEL | | 4600 | 5/01/09 | 58 | 28.0 | 55.4 | 39.8 |
| FARRON CAN. | 4000 | 4/28/09 | 20 | 8.1 | 11.4 | 8.1 | PETERSON MDW SNOTEL | | 7200 | 5/01/09 | 53 | 16.0 | 11.4 | 11.0 |
| FATTY CREEK | 5500 | 4/25/09 | 53 | 21.2 | 29.9 | 23.4 | PIGTAIL PEAK SNOTEL | | 5800 | 5/01/09 | 129 | 65.8 | 71.9 | 56.5 |
| FISH CREEK | 8000 | 4/30/09 | 48 | 15.2 | 8.8 | 11.5 | PIKE CREEK SNOTEL | | 5930 | 5/01/09 | 92 | 25.1 | 28.9 | 25.9 |
| FISH LAKE | 3370 | 5/01/09 | 45 | 21.0 | 36.9 | 23.1 | PIPESTONE PASS | | 7200 | 4/27/09 | 14 | 4.3 | 6.2 | 4.8 |
| FISH LAKE SNOTEL | 3430 | 5/01/09 | 54 | 23.2 | 34.0 | 28.8 | POPE RIDGE SNOTEL | | 3590 | 5/01/09 | 14 | 7.4 | 13.9 | 7.0 |
| FLATTOP MTN SNOTEL | 6300 | 5/01/09 | 98 | 35.3 | 51.7 | 46.7 | POSTILL LAKE CAN. | | 4200 | 4/29/09 | 19 | 7.0 | 7.4 | 5.3 |
| FLEECER RIDGE | 7500 | 4/30/09 | 35 | 10.8 | 10.0 | 8.7 | POTATO HILL SNOTEL | | 4510 | 5/01/09 | 82 | 29.0 | 44.5 | 18.9 |
| FOURTH OF JULY SUM | 3200 | 4/28/09 | 0 | 0.0 | 14.4 | 0.3 | QUARTZ PEAK SNOTEL | | 4700 | 5/01/09 | 35 | 14.6 | 35.4 | 14.9 |
| FREEZEOUT CK. TRAIL | 3500 | 4/25/09 | 18 | 7.7 | 15.1 | 6.4 | RAGGED MTN SNOTEL | | 4210 | 5/01/09 | 28 | 12.3 | 36.3 | -- |
| FROHNER MDWS SNOTEL | 6480 | 5/01/09 | 40 | 10.2 | 7.8 | 6.5 | RAGGED RIDGE | | 3330 | 4/30/09 | 0 | 0.0 | 17.2 | -- |
| GRASS MOUNTAIN #2 | 2900 | 4/29/09 | 29 | 15.0 | 28.5 | -- | RAINY PASS SNOTEL | | 4890 | 5/01/09 | 64 | 29.5 | 32.6 | 43.2 |
| GRAVE CRK SNOTEL | 4300 | 5/01/09 | 19 | 8.0 | 18.0 | 7.0 | RAINY PASS | | 4780 | 4/27/09 | 68 | 27.5 | 42.6 | 39.3 |
| GREEN LAKE SNOTEL | 5920 | 5/01/09 | 64 | 26.5 | 29.2 | 24.6 | REX RIVER SNOTEL | | 3810 | 5/01/09 | 97 | 47.7 | 90.0 | 19.0 |
| GRIFFIN CR DIVIDE | 5150 | 4/29/09 | 16 | 6.4 | 12.6 | 4.9 | ROCKER PEAK SNOTEL | | 8000 | 5/01/09 | 68 | 20.4 | 14.2 | 16.6 |
| GROUSE CAMP SNOTEL | 5390 | 5/01/09 | 41 | 14.1 | 19.4 | 11.1 | ROCKY CREEK AM | | 2100 | 4/29/09 | 68 | 32.0 | 48.9 | 18.8 |
| GUNSIGHT LAKE | 6300 | 5/01/09 | 93 | 33.1 | -- | -- | ROUND TOP MTN | | 4020 | 4/30/09 | 15 | 7.0 | 27.6 | -- |
| HAMILTON HILL CAN. | 4550 | 4/29/09 | 19 | 7.3 | 7.2 | 10.6 | SF THUNDER CK AM | | 2200 | 4/29/09 | 0 | 0.0 | 2.2 | 1.2 |
| HAND CREEK SNOTEL | 5030 | 5/01/09 | 24 | 10.0 | 13.9 | 6.8 | SADDLE MTN SNOTEL | | 7900 | 5/01/09 | 80 | 26.9 | 32.0 | 26.5 |
| HARTS PASS SNOTEL | 6490 | 5/01/09 | 76 | 34.0 | 44.2 | 47.7 | SALMON MDWS SNOTEL | | 4460 | 5/01/09 | 0 | 0.0 | 6.5 | 3.9 |
| HARTS PASS | 6500 | 4/25/09 | 82 | 33.9 | 46.2 | 44.4 | SASSE RIDGE SNOTEL | | 4340 | 5/01/09 | 59 | 21.7 | 38.1 | 32.3 |
| HELL ROARING DIVIDE | 5770 | 4/30/09 | 67 | 27.9 | 36.8 | 29.0 | SAVAGE PASS SNOTEL | | 6170 | 5/01/09 | 62 | 24.4 | 34.7 | 25.2 |
| HERRIG JUNCTION | 4850 | 4/30/09 | 45 | 17.6 | 31.9 | 22.9 | SAWMILL RIDGE | | 4700 | 4/29/09 | 87 | 38.9 | 46.7 | 32.8 |
| HIGH RIDGE SNOTEL | 4920 | 5/01/09 | 65 | 26.9 | 36.3 | 15.9 | SAWMILL RIDGE SNOTEL | | 4640 | 5/01/09 | 105 | 55.7 | 66.8 | -- |
| HOLBROOK | 4530 | 4/29/09 | 2 | 0.6 | -- | 1.2 | SCHREIBERS MDW AM | | 3400 | 4/29/09 | 85 | 41.0 | 65.2 | 53.2 |
| HOODOO BASIN SNOTEL | 6050 | 5/01/09 | | | | | | | | | | | | |

| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 1971-00 |
|----------------------|-----------|---------|------------|---------------|-----------|-----------------|
| SPENCER MDW SNOTEL | 3400 | 5/01/09 | 68 | 30.7 | 65.4 | 21.8 |
| SPIRIT LAKE SNOTEL | 3520 | 5/01/09 | 0 | 4.5 | 32.3 | .6 |
| SPOTTED BEAR MTN. | 7000 | 4/25/09 | 25 | 9.4 | 15.7 | 7.6 |
| SPRUCE SPGS SNOTEL | 5700 | 5/01/09 | 48 | 18.8 | 24.3 | -- |
| STAHl PEAK SNOTEL | 6030 | 5/01/09 | 81 | 32.6 | 43.3 | 37.1 |
| STAMPEDE PASS SNOTEL | 3850 | 5/01/09 | 93 | 41.8 | 62.6 | 42.7 |
| STEMPLE PASS | 6600 | 4/27/09 | 35 | 9.1 | 12.0 | 9.3 |
| STEVENS PASS SNOTEL | 3950 | 5/01/09 | 81 | 29.2 | 43.1 | 35.2 |
| STORM LAKE | 7780 | 4/30/09 | 63 | 20.4 | 15.1 | 14.3 |
| STRYKER BASIN | 6180 | 4/30/09 | 65 | 27.1 | 40.1 | 32.6 |
| SUMMERLAND RES CAN. | 4200 | 4/28/09 | 14 | 4.9 | -- | 5.1 |
| SUNSET SNOTEL | 5540 | 5/01/09 | --- | 19.1 | 30.9 | 28.7 |
| SURPRISE LKS SNOTEL | 4290 | 5/01/09 | 112 | 44.7 | 72.0 | 41.8 |
| SWAMP CREEK SNOTEL | 3930 | 5/01/09 | 19 | 10.1 | 17.6 | 4.6 |
| TEN MILE LOWER | 6600 | 4/24/09 | 25 | 7.1 | 7.6 | 4.5 |
| TEN MILE MIDDLE | 6800 | 4/24/09 | 37 | 11.6 | 10.6 | 11.2 |
| THUNDER BASIN SNOTEL | 4320 | 5/01/09 | 37 | 18.0 | 37.1 | 27.4 |
| THUNDER BASIN | 4200 | 4/26/09 | 45 | 17.9 | -- | 21.2 |
| THOMPSON CREEK | 2500 | 4/30/09 | 0 | .0 | 7.4 | -- |
| TINKHAM CREEK SNOTEL | 2990 | 5/01/09 | 81 | 28.1 | 60.0 | 20.0 |
| TOUCHET SNOTEL | 5530 | 5/01/09 | 79 | 35.2 | 44.6 | 26.2 |

| SNOW COURSE | ELEVATION | DATE | SNOW DEPTH | WATER CONTENT | LAST YEAR | AVERAGE 1971-00 |
|----------------------|-----------|---------|------------|---------------|-----------|-----------------|
| TRINKUS LAKE | 6100 | 4/25/09 | 87 | 36.5 | 50.2 | 40.8 |
| TROUGH #2 SNOTEL | 5480 | 5/01/09 | 15 | 4.6 | 2.6 | 4.3 |
| TROUT CREEK CAN. | 5650 | 4/30/09 | 9 | 3.6 | 5.6 | 3.7 |
| TRUMAN CREEK | 4060 | 4/29/09 | 1 | .2 | 2.4 | .1 |
| TUNNEL AVENUE | 2450 | 4/30/09 | 35 | 14.3 | 31.7 | 12.0 |
| TV MOUNTAIN | 6800 | 4/24/09 | 48 | 18.6 | 21.1 | 17.1 |
| TWELVEMILE SNOTEL | 5600 | 5/01/09 | 27 | 12.0 | 23.1 | 8.8 |
| TWIN CAMP | 4100 | 4/29/09 | 70 | 33.2 | 31.8 | 20.3 |
| TWIN CREEKS | 3580 | 5/01/09 | 3 | 1.0 | 12.5 | 1.7 |
| TWIN LAKES SNOTEL | 6400 | 5/01/09 | 86 | 39.9 | 52.1 | 38.5 |
| UPPER HOLLAND LAKE | 6200 | 4/25/09 | 77 | 32.9 | 31.6 | 33.5 |
| UPPER WHEELER SNOTEL | 4330 | 5/01/09 | 31 | 10.7 | 12.9 | 6.3 |
| VASEUX CREEK CAN. | 4250 | 5/01/09 | 0 | .0 | 2.0 | 2.3 |
| WARM SPRINGS SNOTEL | 7800 | 5/01/09 | 87 | 31.7 | 23.2 | 23.7 |
| WATSON LAKES AM | 4500 | 4/29/09 | 110 | 53.0 | 80.0 | 64.0 |
| WATERHOLE SNOTEL | 5010 | 5/01/09 | 69 | 29.0 | 54.9 | 36.4 |
| WEASEL DIVIDE | 5450 | 4/27/09 | 63 | 26.6 | 37.4 | 32.7 |
| WELLS CREEK SNOTEL | 4030 | 5/01/09 | 54 | 23.6 | 47.7 | 26.9 |
| WHITE PASS ES SNOTEL | 4440 | 5/01/09 | 57 | 23.3 | 29.7 | 21.4 |
| WHITE ROCKS MTN CAN. | 7200 | 4/26/09 | 39 | 13.7 | 20.6 | 21.0 |



May 1, 2009 - Snowpack, Precipitation and Reservoir Conditions at a Glance (Water Year = October 1, 2008 - Current Date)





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>

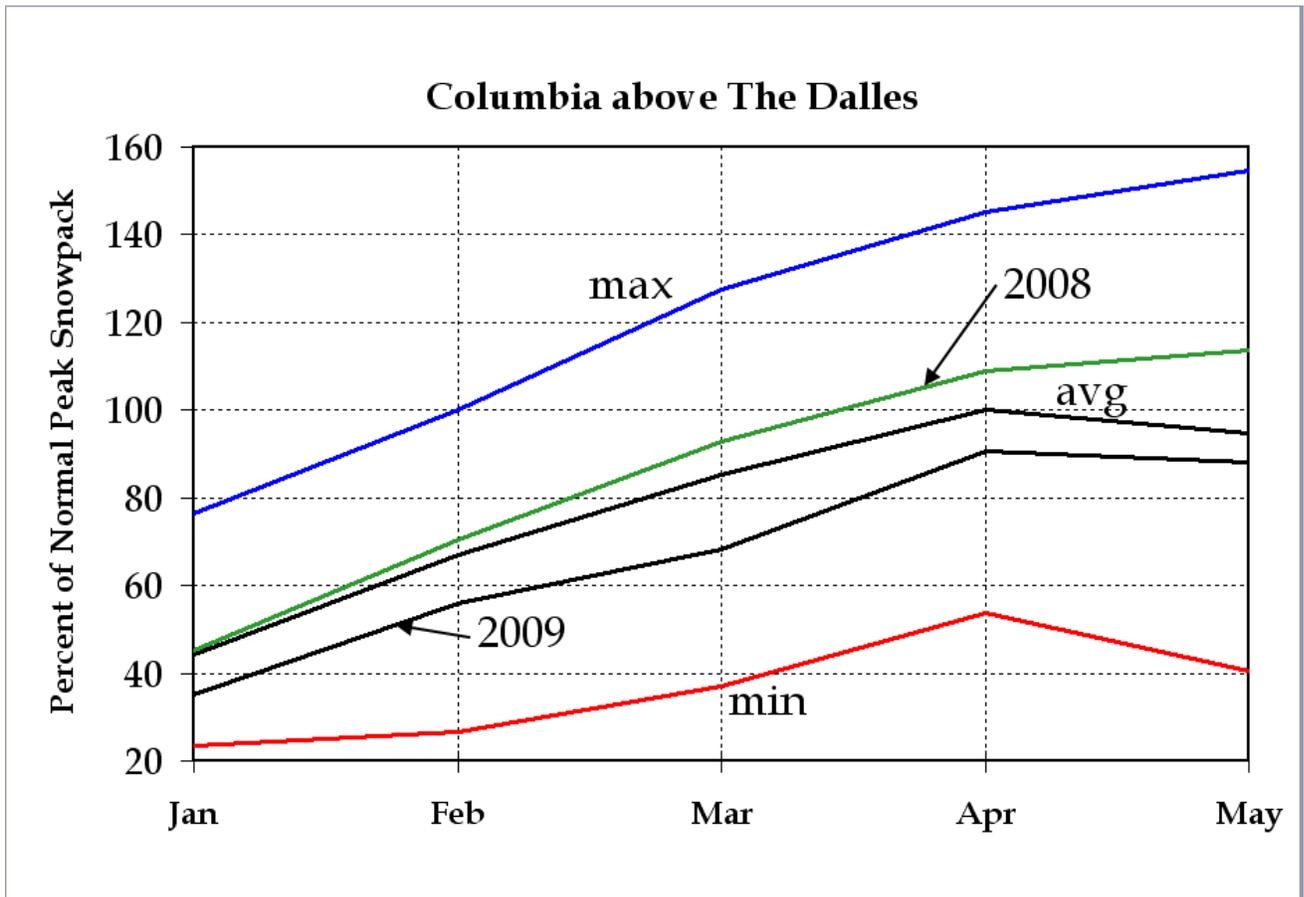
National Water and Climate Center (NWCC):
<http://www.wcc.nrcs.usda.gov>

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>



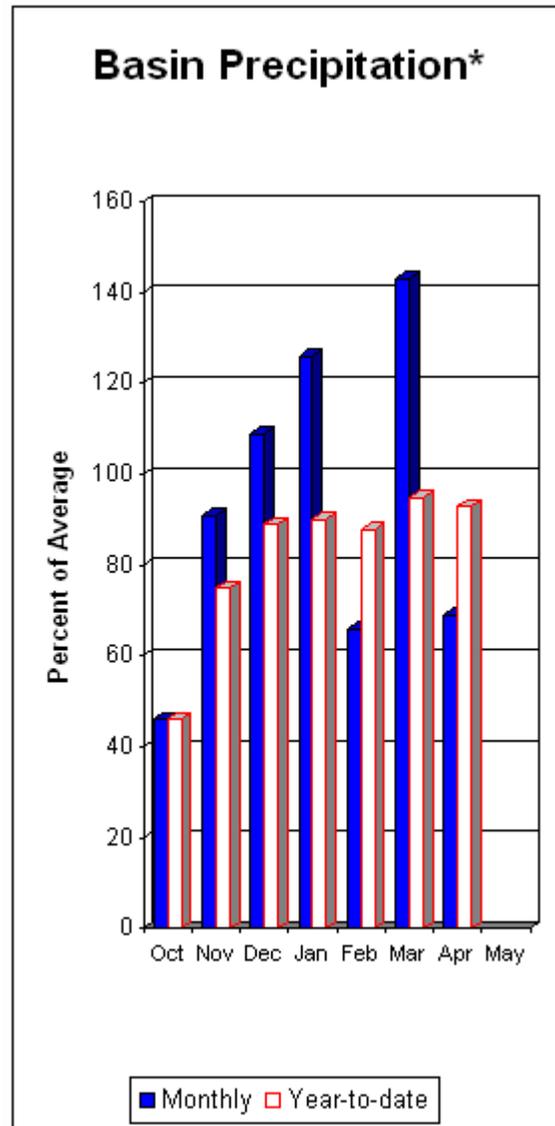
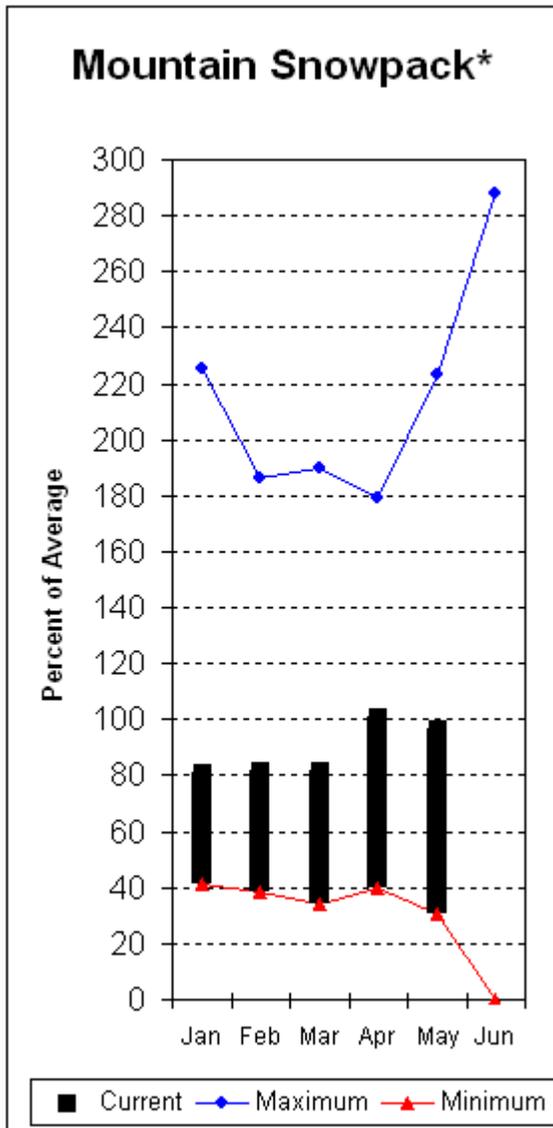
May 1, 2009

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.

Percentage wise, the Columbia Basin snowpack hasn't changed all that much from last month. The combined snowpack above The Dalles is currently at 93%. This is up 2 percent from last month, but 27 percent lower than last year. Increases in the snowpack were reported in the Upper Snake, Yakima, Deschutes and NE Oregon basins. These snowpack increases were directly attributable to above normal precipitation and cool temperatures over these regions. The precipitation over the rest of the Columbia Basin was below normal, but cooler temperatures (2 to 4 degrees cooler than normal) retarded normal snowmelt and kept the snowpack percentages about the same as they were last month in most basin watersheds.

The snowpack in the Columbia Basin above Castlegar is at 88 percent of average. This compares to 107 percent last year and 86 percent last month. For the basin above Grand Coulee, the snowpack is now at 91 percent of average, compared to 113 percent last year and 89 percent last month. The Snake River snowpack above Ice Harbor is at 99 percent of average, compared to 130 percent last year and 96 percent last month. The North Cascades snowpack is still the lowest at 76 percent of average (up from 72 percent last month), while the snowpack in the Deschutes is still the highest at 119 percent (up from 112 percent last month).

Spokane River Basin



*Based on selected stations

The May 1 forecasts for summer runoff within the Spokane River Basin are 96% of average near Post Falls and at Long Lake. The Chamokane River near Long Lake forecasted to have 82% of average flows for the May-August period. The forecast is based on a basin snowpack that is 97% of average and precipitation that is 93% of average for the water year. Precipitation for April was below normal at 69% of average. Streamflow on the Spokane River at Long Lake was 115% of average for April. May 1 storage in Coeur d'Alene Lake was 246,000 acre feet, 98% of average and 103% of capacity. Snowpack at Quartz Peak SNOTEL site was 98% of average with 14.6 inches of water content. Average temperatures in the Spokane basin were near normal for April and 1 degree below normal for the water year.

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

Spokane River Basin

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | 30-Yr Avg. (1000AF) | |
|--------------------------------|-----------------|--|-----------------|-----------------------|----------|-----------------|------------------------|-----------------|
| | | ===== | | Chance Of Exceeding * | | ===== | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | (% AVG.) | 30% (1000AF) | | 10% (1000AF) |
| SPOKANE near Post Falls (2) | MAY-JUL | 1300 | 1470 | 1590 | 95 | 1710 | 1880 | 1670 |
| | MAY-SEP | 1400 | 1560 | 1680 | 95 | 1800 | 1960 | 1770 |
| SPOKANE at Long Lake (2) | MAY-JUL | 1380 | 1650 | 1830 | 96 | 2010 | 2280 | 1910 |
| | MAY-SEP | 1580 | 1860 | 2050 | 96 | 2240 | 2520 | 2130 |
| CHAMOKANE CREEK near Long Lake | MAY-AUG | 3.5 | 6.4 | 8.4 | 82 | 10.4 | 13.3 | 10.2 |
| | JUL-AUG | 1.8 | 2.5 | 2.9 | 83 | 3.3 | 4.0 | 3.5 |

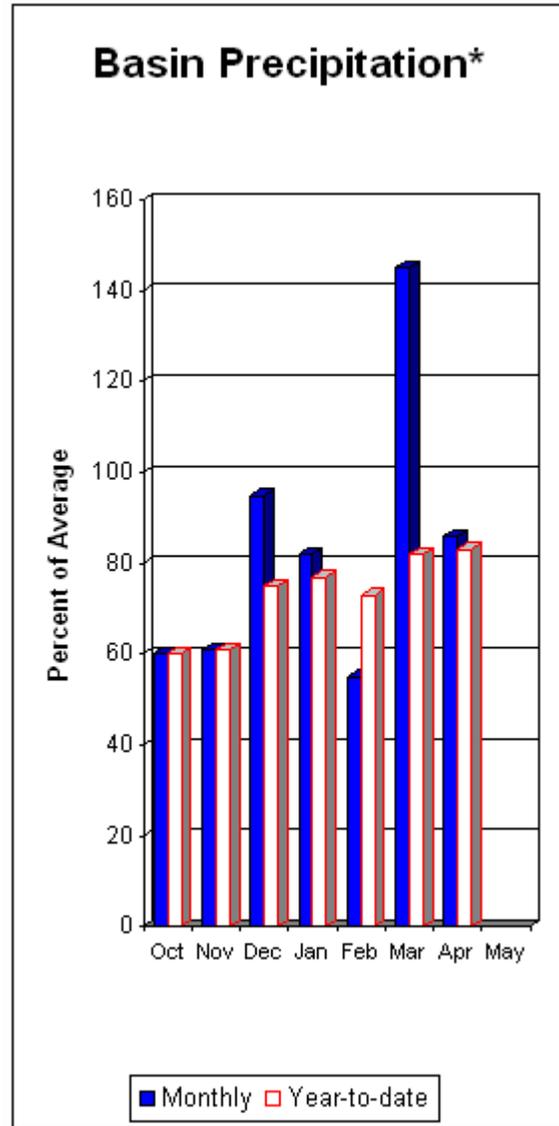
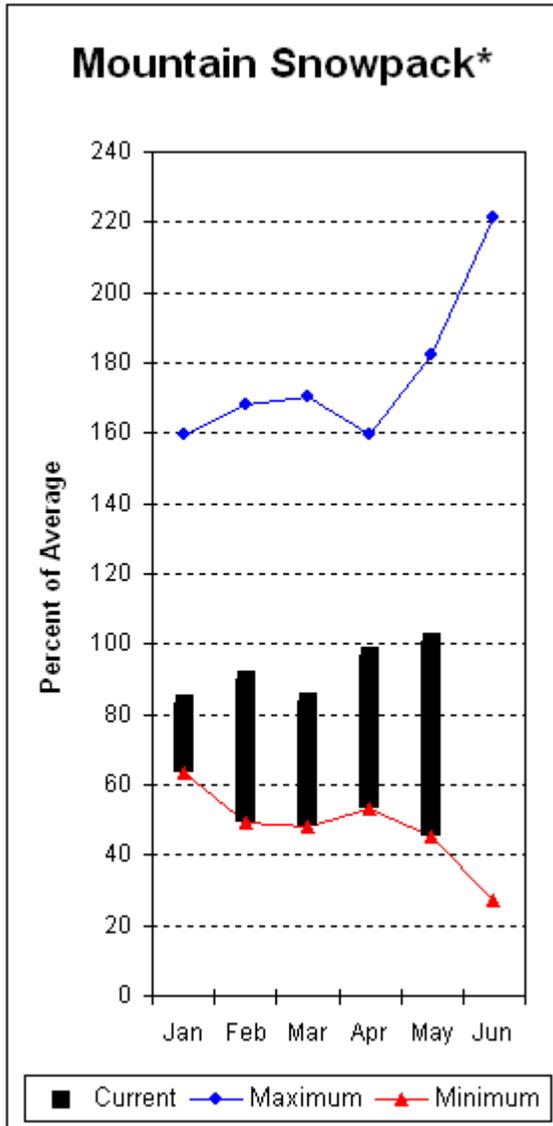
| SPOKANE RIVER BASIN Reservoir Storage (1000 AF) - End of April | | | | | SPOKANE RIVER BASIN Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|-------|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| COEUR D'ALENE | 238.5 | 245.5 | 170.4 | 249.7 | SPOKANE RIVER | 11 | 52 | 97 |
| | | | | | NEWMAN LAKE | 1 | 25 | 98 |

* 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 May – September average forecast for the Priest River near the town of Priest River is 97% and the Pen Orielle below Box Canyon is 95%. April streamflow was 98% of average on the Pend Oreille River and 64% on the Columbia at the Birchbank. May 1 snow cover was 101% of average in the Pend Oreille Basin River Basin. Bunchgrass Meadows SNOTEL site had 25.9 inches of snow water on the snow pillow. Normally Bunchgrass would have 28.6 inches on May 1. Precipitation during April was 86% of average, bringing the year-to-date precipitation to 83% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 100% of normal. Average temperatures were near normal for April and 1 degree below normal for the water year.

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

Pend Oreille River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) | | | | |
|--------------------------------|-----------------|--|----------|----------|----------|----------|----------|------------------------|----------|----------|----------|----------|
| | | 90% | | 70% | | 50% | | | 30% | | 10% | |
| | | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | | (1000AF) | (1000AF) | (1000AF) | (1000AF) |
| PEND OREILLE Lake Inflow (2) | MAY-JUL | 9430 | 9750 | 9960 | 94 | 10200 | 10500 | 10600 | | | | |
| | MAY-SEP | 10500 | 10800 | 11000 | 93 | 11200 | 11500 | 11800 | | | | |
| PRIEST near Priest River (1,2) | MAY-JUL | 435 | 540 | 590 | 96 | 640 | 745 | 615 | | | | |
| | MAY-SEP | 480 | 585 | 635 | 95 | 685 | 790 | 670 | | | | |
| PEND OREILLE bl Box Canyon (2) | MAY-JUL | 8320 | 9440 | 10200 | 95 | 11000 | 12100 | 10700 | | | | |
| | MAY-SEP | 9470 | 10600 | 11400 | 96 | 12200 | 13300 | 11900 | | | | |

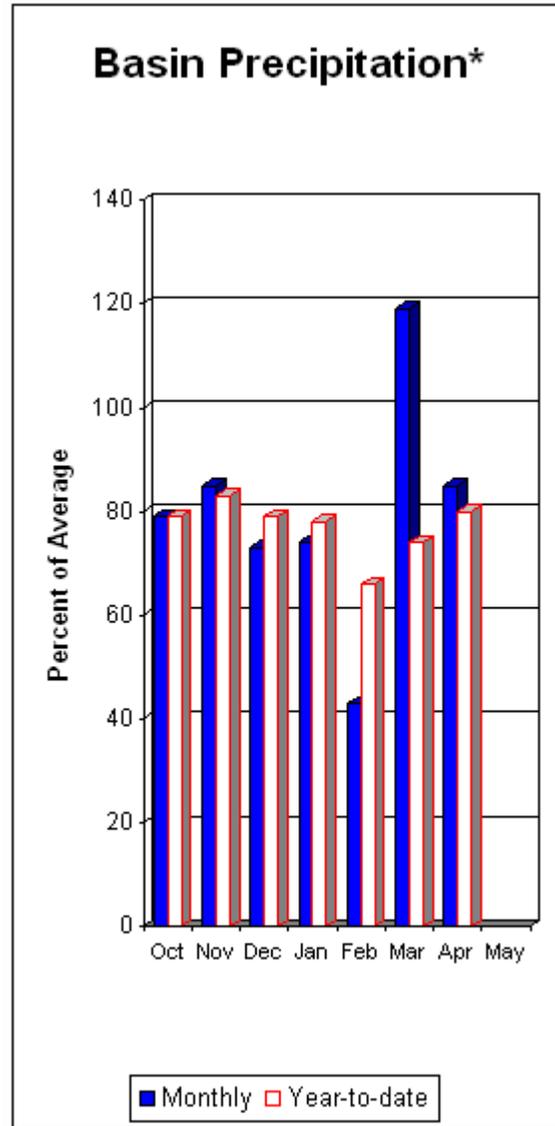
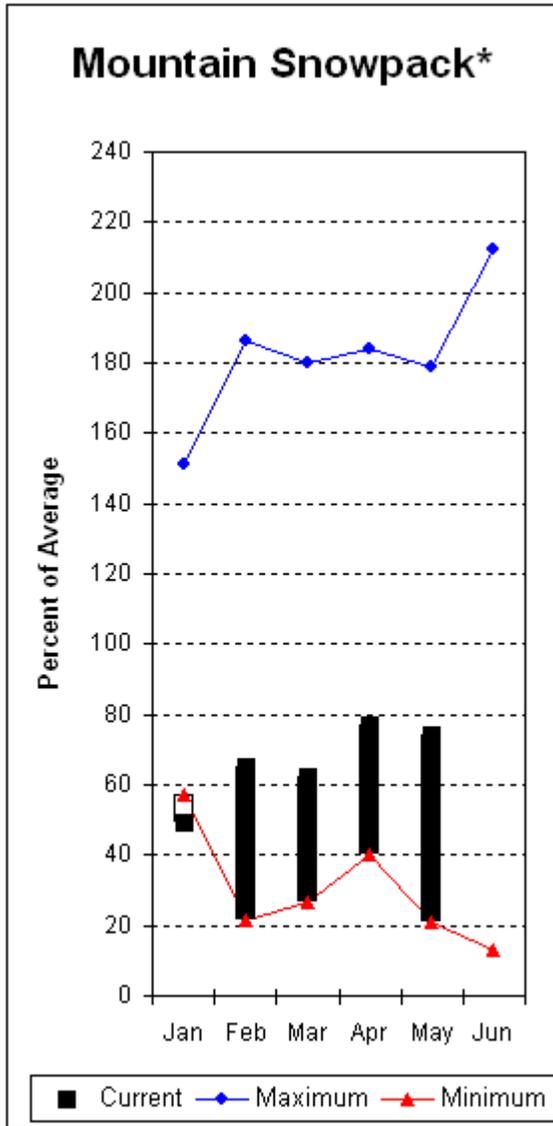
| PEND OREILLE RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | PEND OREILLE RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|-------|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| PEND OREILLE | 1561.3 | 938.1 | 835.9 | 916.7 | PEND OREILLE RIVER | 10 | 66 | 91 |
| PRIEST LAKE | 119.3 | 77.6 | 61.6 | 102.5 | KETTLE RIVER | 6 | 86 | 89 |

* 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 69%, Similkameen River is 65%, Kettle River 84% and Methow River is 67%. May 1 snow cover on the Okanogan was 80% of average, Omak Creek was 47% and the Methow was 70%. April precipitation in the Upper Columbia was 85% of average, with precipitation for the water year at 80% of average. April streamflow for the Methow River was 64% of average, 41% for the Okanogan River and 52% for the Similkameen. Salmon Meadows SNOTEL was melted out by the 1st of May. Average for this site is 3.9 inches on May 1. Combined storage in the Conconully Reservoirs was 16,000-acre feet, which is 67% of capacity and 83% of the May 1 average. Temperatures were near normal for April and 1 degree below normal for the water year.

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

Upper Columbia River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | Future Conditions | | | | | 30-Yr Avg. (1000AF) | |
|-----------------------------------|-----------------|-------------------|-----------------|-----------------|-----------------|--|------------------------|-------|
| | | Drier | | Wetter | | Chance Of Exceeding * (1000AF) (% AVG.) | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | 30% (1000AF) | | 10% (1000AF) | |
| COLVILLE at Kettle Falls | MAY-JUL | 41 | 59 | 72 | 91 | 85 | 103 | 79 |
| | MAY-SEP | 46 | 69 | 84 | 91 | 99 | 122 | 92 |
| KETTLE near Laurier | MAY-JUL | 890 | 1130 | 1290 | 84 | 1450 | 1690 | 1540 |
| | MAY-SEP | 940 | 1200 | 1370 | 84 | 1540 | 1800 | 1640 |
| COLUMBIA at Birchbank (1,2) | MAY-JUL | 23500 | 26700 | 28200 | 86 | 29700 | 32900 | 32800 |
| | MAY-SEP | 30000 | 33900 | 35700 | 85 | 37500 | 41400 | 41900 |
| COLUMBIA at Grand Coulee Dm (1,2) | MAY-JUL | 38700 | 41400 | 42600 | 91 | 43800 | 46500 | 46600 |
| | MAY-SEP | 47200 | 50200 | 51500 | 91 | 52800 | 55800 | 56700 |
| Similkameen R nr Nighthawk (1) | MAY-JUL | 550 | 720 | 795 | 65 | 870 | 1040 | 1220 |
| | MAY-SEP | 585 | 775 | 860 | 65 | 945 | 1130 | 1320 |
| Okanogan R nr Tonasket (1) | MAY-JUL | 515 | 825 | 965 | 69 | 1110 | 1410 | 1400 |
| | MAY-SEP | 590 | 940 | 1100 | 69 | 1260 | 1610 | 1590 |
| Okanogan R at Malott (1) | MAY-JUL | 530 | 855 | 1000 | 69 | 1150 | 1470 | 1449 |
| | MAY-SEP | 600 | 965 | 1130 | 69 | 1300 | 1660 | 1641 |
| Methow R nr Pateros | MAY-SEP | 455 | 530 | 585 | 67 | 640 | 715 | 880 |
| | MAY-JUL | 410 | 485 | 535 | 66 | 585 | 660 | 810 |

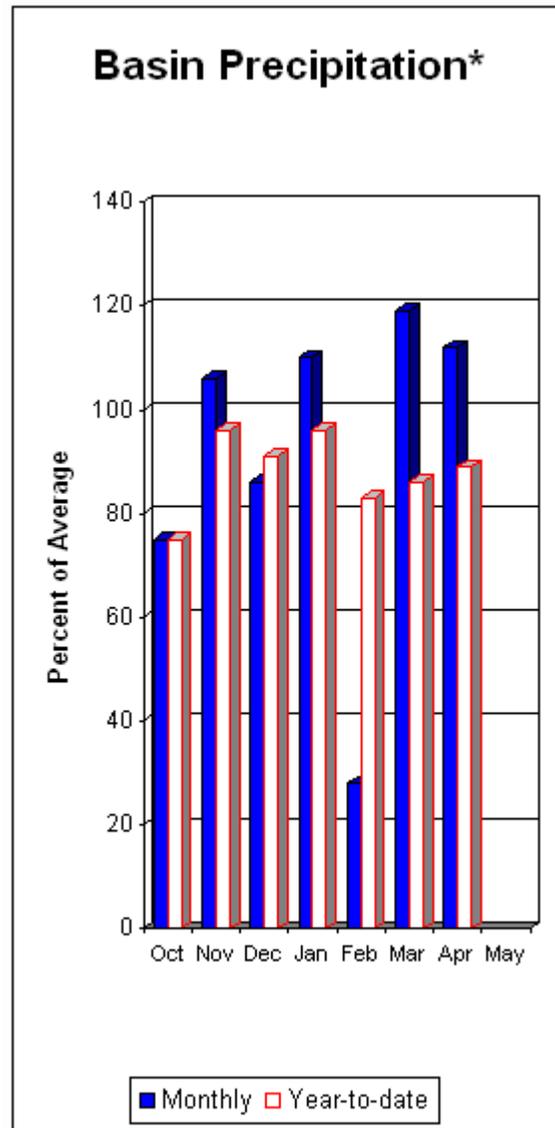
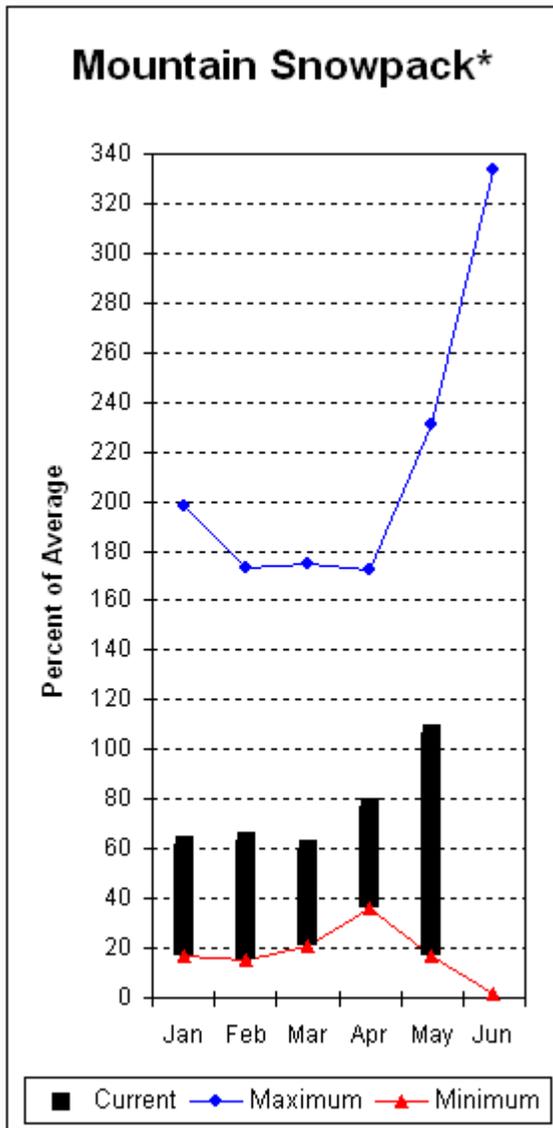
| UPPER COLUMBIA RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | UPPER COLUMBIA RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|------|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| SALMON LAKE | 10.5 | 7.2 | 7.7 | 8.9 | OKANOGAN RIVER | 20 | 72 | 80 |
| CONCONULLY RESERVOIR | 13.0 | 8.6 | 8.7 | 10.1 | OMAK CREEK | 1 | 40 | 47 |
| | | | | | SIMILKAMEEN RIVER | 5 | 71 | 72 |
| | | | | | METHOW RIVER | 5 | 73 | 70 |

* 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. % 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 April was 112% of average in the basin and 89% for the year-to-date. Runoff for Entiat River is forecast to be 75% of average for the summer. The May-September average forecast for Chelan River is 76%, Wenatchee River at Plain is 84%, Stehekin River is 77% and Icicle Creek is 83%. April average streamflows on the Chelan River were 74% and on the Wenatchee River 70%. May 1 snowpack in the Wenatchee River Basin was 81% of average; the Chelan, 73%; the Entiat, 106%; Stemilt Creek, 170% and Colockum Creek, 107%. Reservoir storage in Lake Chelan was 266,000-acre feet, 100% of May 1 average and 39% of capacity. Miners Ridge SNOTEL had the most snow water with 49 inches of water. This site would normally have 56.9 inches on May 1. Temperatures were near normal for April and 1 degree below normal for the water year.

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

Central Columbia River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|-----------------------------------|-----------------|--|-----------------|-----------------------|----------|-----------------|-----------------|------------------------|
| | | ===== | | Chance Of Exceeding * | | ===== | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| Stehekin R at Stehekin | MAY-JUL | 365 | 430 | 475 | 77 | 520 | 585 | 620 |
| | MAY-SEP | 470 | 535 | 575 | 77 | 615 | 680 | 745 |
| Chelan R at Chelan (2) | MAY-JUL | 600 | 655 | 690 | 76 | 725 | 780 | 910 |
| | MAY-SEP | 710 | 765 | 800 | 76 | 835 | 890 | 1050 |
| Entiat R nr Ardenvoir | MAY-JUL | 122 | 136 | 146 | 75 | 156 | 170 | 195 |
| | MAY-SEP | 136 | 151 | 161 | 75 | 171 | 186 | 215 |
| Wenatchee R at Plain | MAY-JUL | 655 | 715 | 760 | 84 | 805 | 865 | 905 |
| | MAY-SEP | 740 | 810 | 855 | 84 | 900 | 970 | 1020 |
| Icicle Ck nr Leavenworth | MAY-JUL | 186 | 210 | 225 | 83 | 240 | 265 | 270 |
| | MAY-SEP | 205 | 235 | 250 | 83 | 265 | 295 | 300 |
| Wenatchee R at Peshastin | MAY-JUL | 910 | 995 | 1050 | 84 | 1110 | 1190 | 1250 |
| | MAY-SEP | 1030 | 1120 | 1180 | 84 | 1240 | 1330 | 1410 |
| Columbia R bl Rock Island Dam (2) | MAY-JUL | 40200 | 44700 | 46700 | 91 | 48700 | 53200 | 51100 |
| | MAY-SEP | 48100 | 53500 | 55900 | 91 | 58300 | 63700 | 61600 |

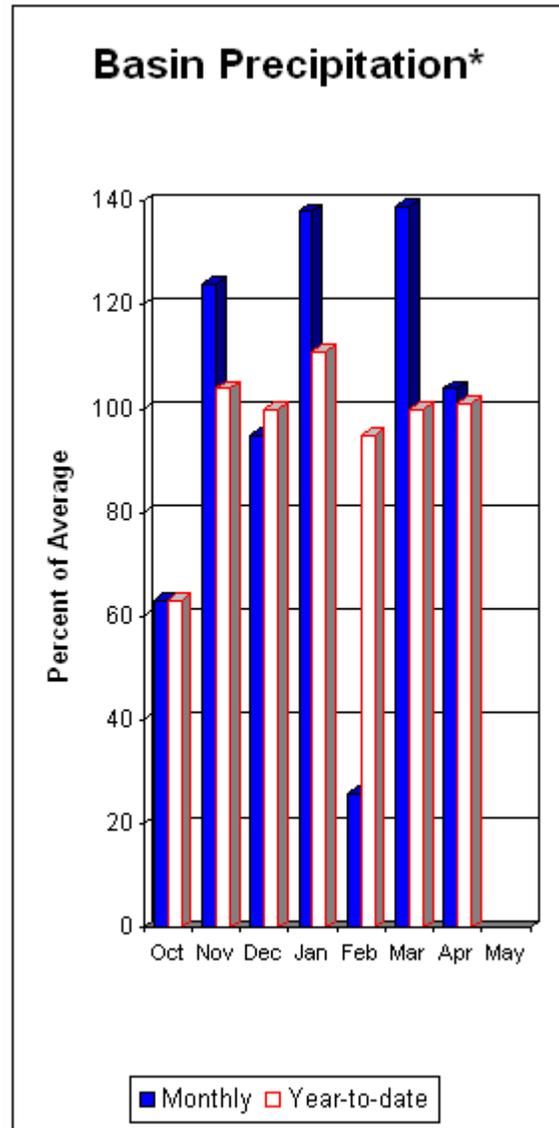
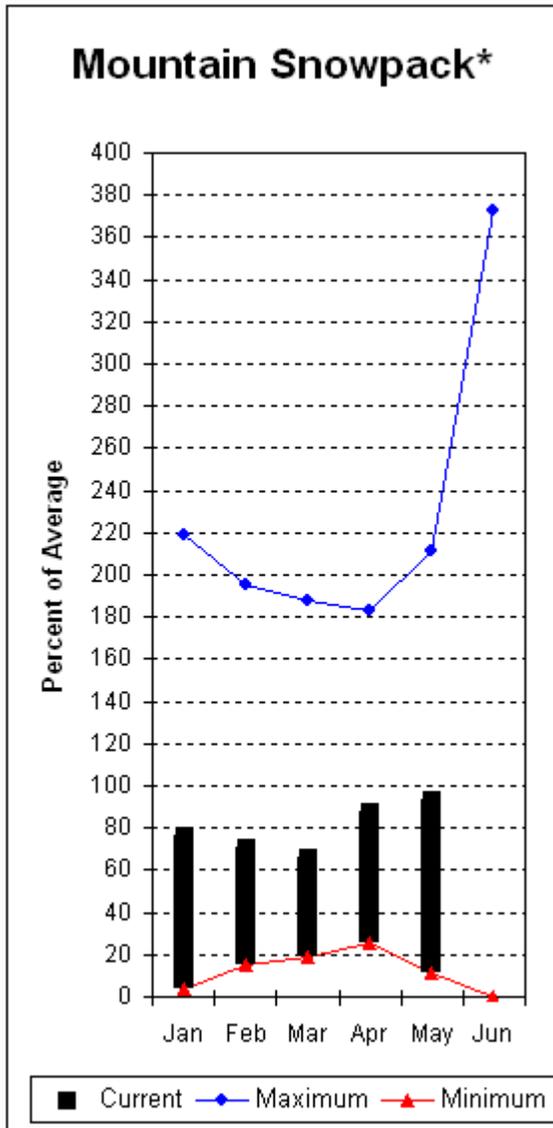
| CENTRAL COLUMBIA RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | CENTRAL COLUMBIA RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|-------|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| CHELAN LAKE | 676.1 | 265.9 | 158.3 | 265.6 | CHELAN LAKE BASIN | 5 | 74 | 73 |
| | | | | | ENTIAT RIVER | 1 | 53 | 106 |
| | | | | | WENATCHEE RIVER | 7 | 70 | 81 |
| | | | | | STEMILT CREEK | 1 | 83 | 170 |
| | | | | | COLOCKUM CREEK | 1 | 177 | 107 |

* 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 Yakima River Basin



*Based on selected stations

May 1 reservoir storage for the Upper Yakima reservoirs was 740,000-acre feet, 119% of average. Forecasts for the Yakima River at Cle Elum are 90% of average and the Teanaway River near Cle Elum is at 87%. Lake inflows are all forecasted to be slightly below normal this summer. April streamflows within the basin were Yakima at Cle Elum at 99% and Cle Elum River near Roslyn at 78%. May 1 snowpack was 93% based upon 8 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was 131049% of average for April and 101% 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.

Upper Yakima River Basin

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) | | | | |
|---------------------------------|-----------------|--|----------|----------|----------|----------|----------|------------------------|----------|----------|----------|--|
| | | 90% | | 70% | | 50% | | | 30% | | 10% | |
| | | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (% AVG.) | (1000AF) | | (1000AF) | (1000AF) | (1000AF) | |
| Keechelus Reservoir Inflow (2) | MAY-JUL | 75 | 83 | 88 | 96 | 93 | 101 | 92 | | | | |
| | MAY-SEP | 83 | 92 | 99 | 96 | 106 | 115 | 103 | | | | |
| Kachess Reservoir Inflow (2) | MAY-JUL | 69 | 74 | 78 | 93 | 82 | 87 | 84 | | | | |
| | MAY-SEP | 75 | 81 | 86 | 94 | 91 | 97 | 92 | | | | |
| Cle Elum Lake Inflow (2) | MAY-JUL | 275 | 295 | 305 | 92 | 315 | 335 | 330 | | | | |
| | MAY-SEP | 315 | 335 | 350 | 93 | 365 | 385 | 375 | | | | |
| Yakima R at Cle Elum (2) | MAY-JUL | 500 | 540 | 570 | 90 | 600 | 640 | 635 | | | | |
| | MAY-SEP | 545 | 605 | 645 | 90 | 685 | 745 | 715 | | | | |
| Teanaway R bl Forks nr Cle Elum | MAY-JUL | 54 | 69 | 79 | 87 | 89 | 104 | 91 | | | | |
| | MAY-SEP | 58 | 73 | 83 | 87 | 93 | 108 | 95 | | | | |

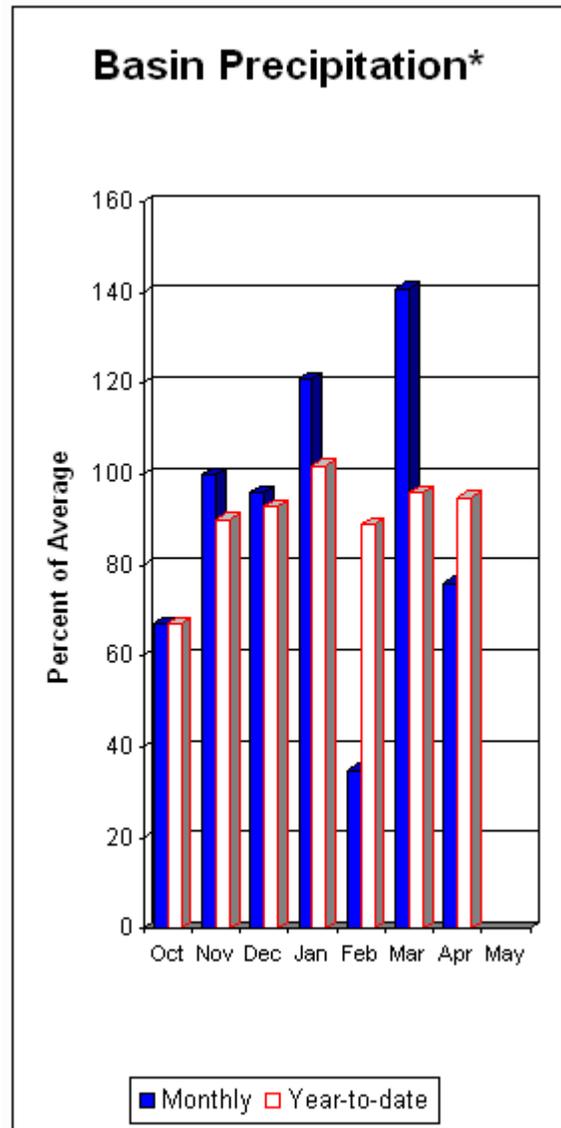
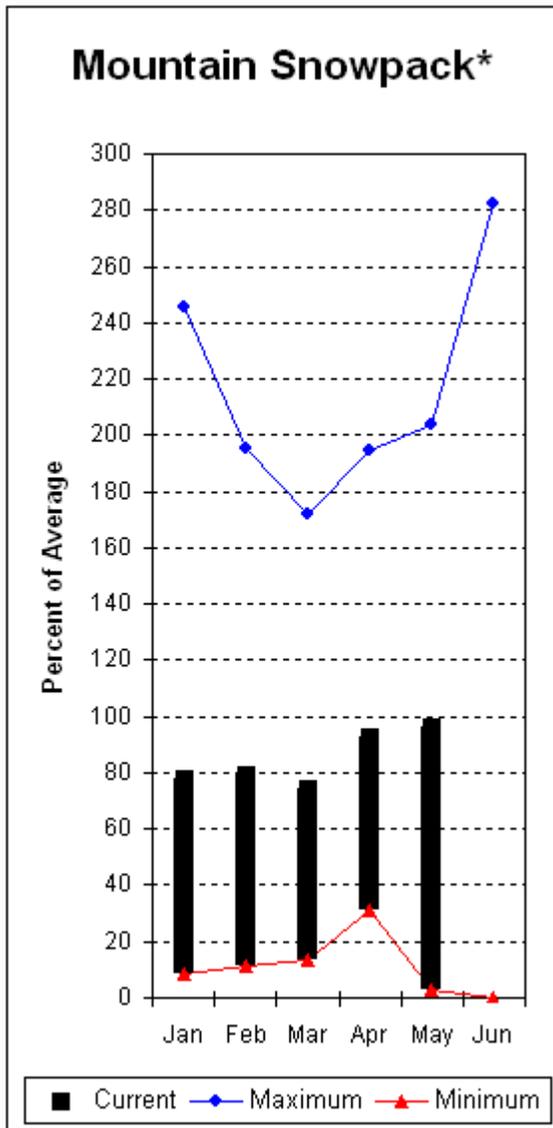
| UPPER YAKIMA RIVER BASIN | | | | | UPPER YAKIMA RIVER BASIN | | | | |
|--|-----------------|------------------------|-----------|-------|---|----------------------|-------------------|---------|--|
| Reservoir Storage (1000 AF) - End of April | | | | | Watershed Snowpack Analysis - May 1, 2009 | | | | |
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | | |
| | | This Year | Last Year | Avg | | | Last Yr | Average | |
| KEECHELUS | 157.8 | 141.7 | 66.4 | 125.6 | UPPER YAKIMA RIVER | 8 | 62 | 93 | |
| | KACHESS | | | 239.0 | 231.9 | 157.5 | 188.3 | | |
| | CLE ELUM | | | 436.9 | 366.7 | 156.4 | 307.0 | | |

* 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

April average streamflows within the basin were: Yakima River near Parker, 95%; Naches River near Naches, 106%; and Yakima River at Kiona, 84%. May 1 reservoir storage for Bumping and Rimrock reservoirs was 189,000-acre feet, 112% of average. Forecast averages for Yakima River near Parker are 90%; American River near Nile, 90%; Ahtanum Creek, 91%; and Klickitat River near Glenwood, 97%. May 1 snowpack was 96% based upon 7 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 100% of average. Precipitation was 76% of average for April and 95% year-to-date for water. Temperatures were near normal for April and 1 degree below for the water year. Volume forecasts for 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.

Lower Yakima River Basin

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|------------------------------|-----------------|--|-----------------|-----------------------|-----------------|-----------------|-----------------|------------------------|
| | | ===== | | Chance Of Exceeding * | | ===== | | |
| | | 90% (1000AF) | 70% (1000AF) | (1000AF) | 50% (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| Bumping Lake Inflow (2) | MAY-JUL | 78 | 91 | 100 | 97 | 109 | 122 | 103 |
| | MAY-SEP | 87 | 101 | 110 | 97 | 119 | 133 | 113 |
| American R nr Nile | MAY-JUL | 65 | 74 | 81 | 90 | 88 | 97 | 90 |
| | MAY-SEP | 72 | 83 | 90 | 90 | 97 | 108 | 100 |
| Rimrock Lake Inflow (2) | MAY-JUL | 137 | 151 | 160 | 95 | 169 | 183 | 168 |
| | MAY-SEP | 170 | 185 | 195 | 95 | 205 | 220 | 205 |
| Naches R nr Naches (2) | MAY-JUL | 425 | 490 | 535 | 94 | 580 | 645 | 570 |
| | MAY-SEP | 465 | 540 | 590 | 94 | 640 | 715 | 630 |
| Ahtanum Ck at Union Gap | MAY-JUL | 12.0 | 16.1 | 18.9 | 90 | 22 | 26 | 21 |
| | MAY-SEP | 13.9 | 18.1 | 21 | 91 | 24 | 28 | 23 |
| Yakima R nr Parker (2) | MAY-JUL | 1050 | 1150 | 1220 | 90 | 1290 | 1390 | 1360 |
| | MAY-SEP | 1190 | 1300 | 1380 | 90 | 1460 | 1570 | 1540 |
| Klickitat near Glenwood | MAY-JUL | 80 | 91 | 98 | 98 | 105 | 116 | 100 |
| | MAY-SEP | 112 | 123 | 131 | 97 | 139 | 150 | 135 |
| Klickitat River near Pitt WA | MAY-JUL | 275 | 300 | 320 | 97 | 340 | 365 | 330 |
| | MAY-SEP | 360 | 390 | 415 | 97 | 440 | 470 | 427 |

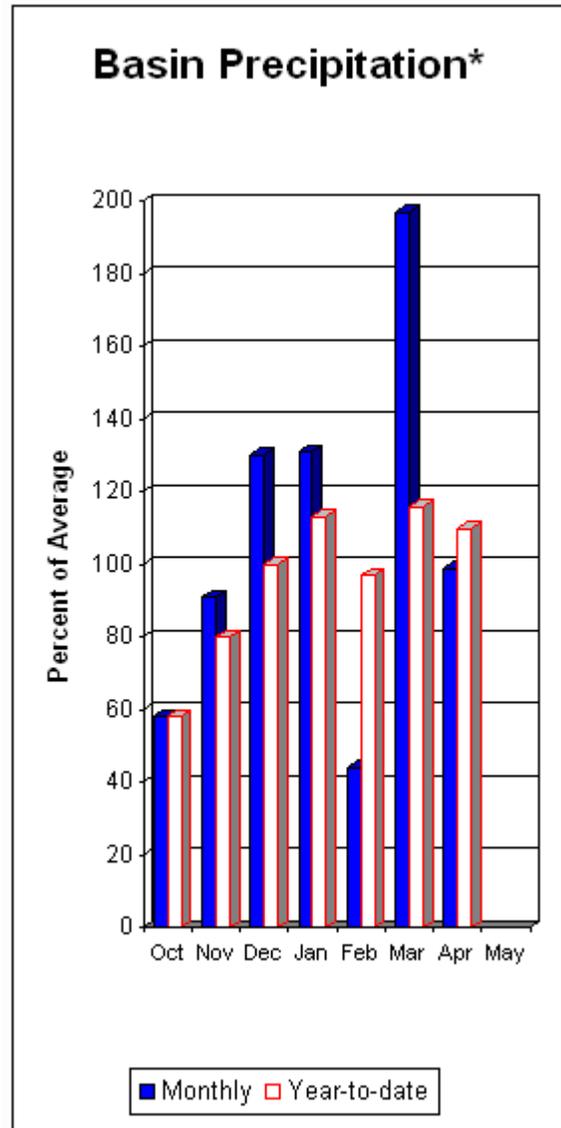
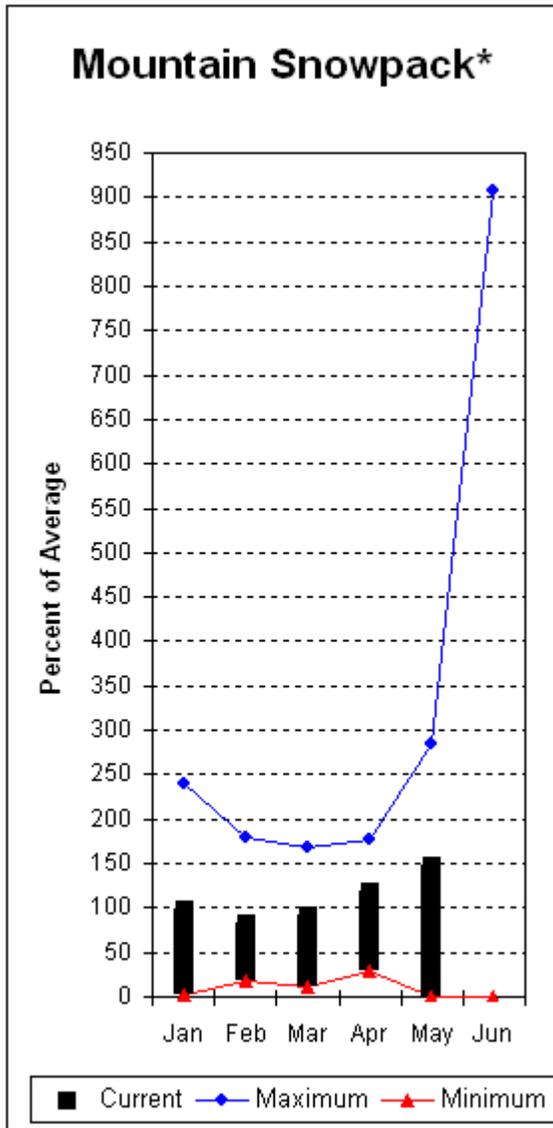
| LOWER YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of April | | | | | LOWER YAKIMA RIVER BASIN Watershed Snowpack Analysis - May 1, 2009 | | | |
|--|-----------------|------------------------|-----------|-------|---|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| BUMPING LAKE | 33.7 | 13.8 | 5.8 | 19.6 | LOWER YAKIMA RIVER | 7 | 71 | 96 |
| RIMROCK | 198.0 | 175.0 | 100.7 | 149.4 | AHTANUM CREEK | 2 | 79 | 100 |

* 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

April precipitation was 99% of average, maintaining the year-to-date precipitation at 110% of average. Snowpack in the basin was 148% of average. Streamflow forecasts are 106% of average for Mill Creek and 100% for the SF Walla Walla near Milton-Freewater. April streamflow was 253% of average for the Walla Walla River. Average temperatures were 1 degree above normal for April and 1 degree below average for the water year.

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

Walla Walla River Basin

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | | | |
|--------------------------------------|-----------------|--|----------|----------|----------|----------|----------|------|-----|------------|
| | | 90% | | 70% | | 50% | | 30% | 10% | 30-Yr Avg. |
| | | (1000AF) | (1000AF) | (1000AF) | (% AVG.) | (1000AF) | (1000AF) | | | |
| SF Walla Walla R nr Milton-Freewater | MAY-JUL | 29 | 35 | 38 | 100 | 41 | 47 | 38 | | |
| | MAY-SEP | 41 | 47 | 51 | 100 | 55 | 61 | 51 | | |
| Mill Ck nr Walla Walla | MAY-JUL | 11.8 | 14.0 | 15.6 | 106 | 17.2 | 19.4 | 14.7 | | |
| | MAY-SEP | 15.4 | 17.8 | 19.5 | 106 | 21 | 24 | 18.4 | | |

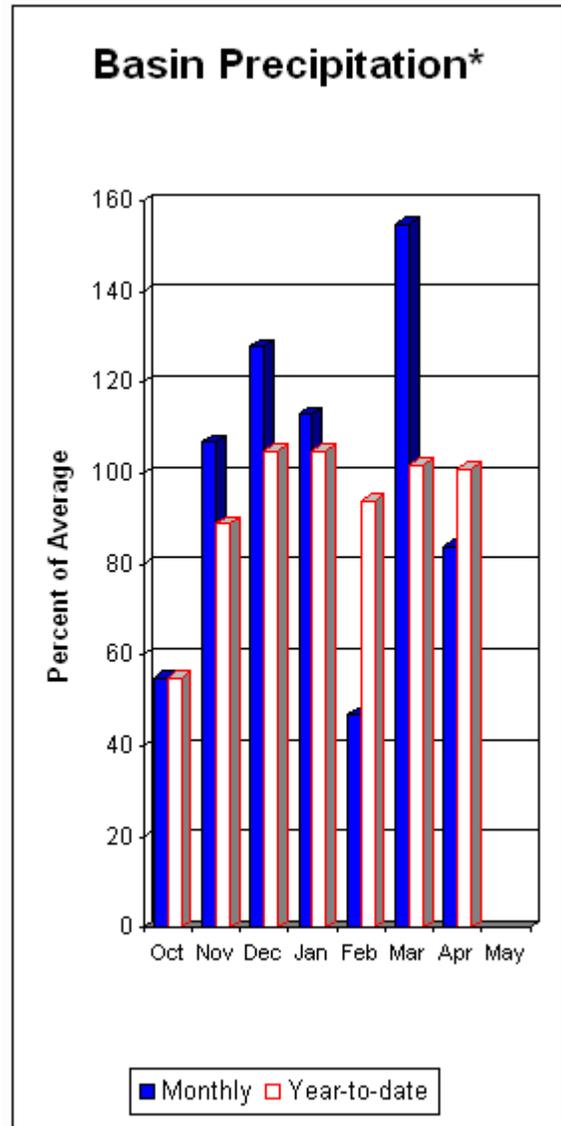
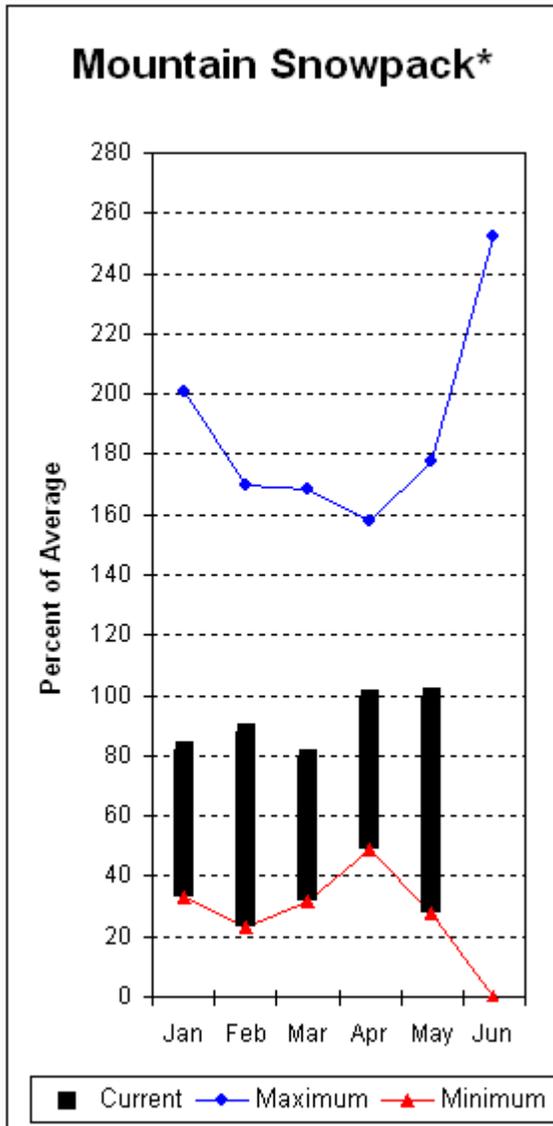
| WALLA WALLA RIVER BASIN Reservoir Storage (1000 AF) - End of April | | | | | WALLA WALLA RIVER BASIN Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|-----|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| | | | | | WALLA WALLA RIVER | 2 | 77 | 148 |

* 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 Snake River Basin



*Based on selected stations

The May - September forecast is for 103% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 95% and 91% of normal respectively. April precipitation was 84% of average, bringing the year-to-date precipitation to 101% of average. May 1 snowpack readings averaged 100% of normal. April streamflow was 101% of average for Snake River below Lower Granite Dam and 164% for Grande Ronde River near Troy. Average temperatures were near normal for April and for the water year.

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

Lower Snake River Basin

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) | | | | |
|-----------------------------------|-----------------|--|----------|----------|----------|----------|----------|------------------------|----------|----------|----------|----------|
| | | 90% | | 70% | | 50% | | | 30% | | 10% | |
| | | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | | (1000AF) | (1000AF) | (1000AF) | (1000AF) |
| Grande Ronde R at Troy | MAY-JUL | 596 | 764 | 840 | 92 | 916 | 1084 | 910 | | | | |
| | MAY-SEP | 648 | 835 | 920 | 91 | 1005 | 1192 | 1010 | | | | |
| CLEARWATER at Spalding (1,2) | MAY-JUL | 4809 | 5607 | 5970 | 104 | 6333 | 7131 | 5770 | | | | |
| | MAY-SEP | 5144 | 6001 | 6390 | 103 | 6779 | 7636 | 6190 | | | | |
| SNAKE blw Lower Granite Dam (1,2) | MAY-JUL | 12710 | 14972 | 16000 | 96 | 17028 | 19290 | 16700 | | | | |
| | MAY-SEP | 14495 | 17112 | 18300 | 95 | 19488 | 22105 | 19300 | | | | |

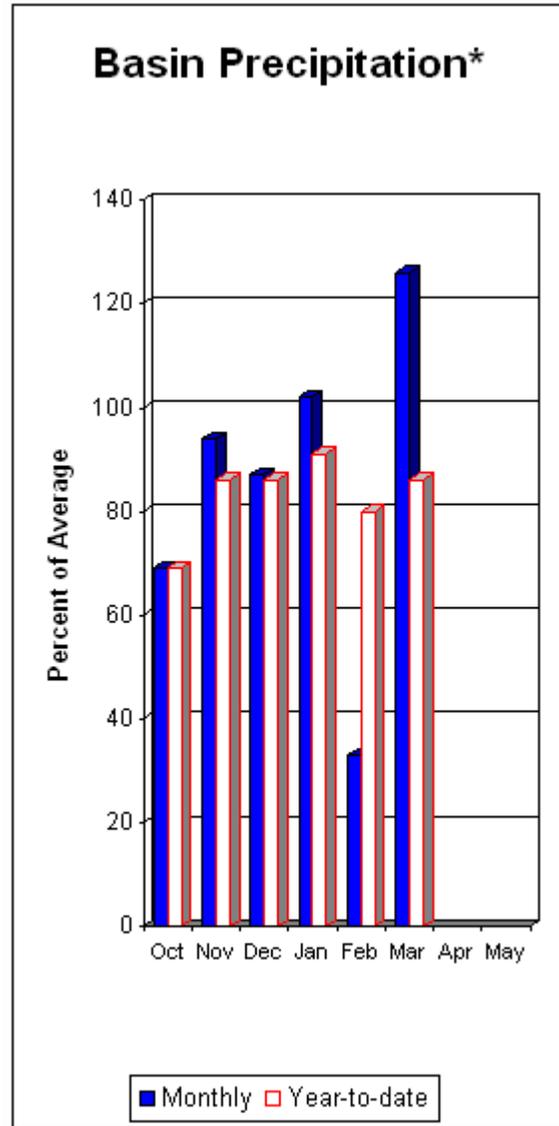
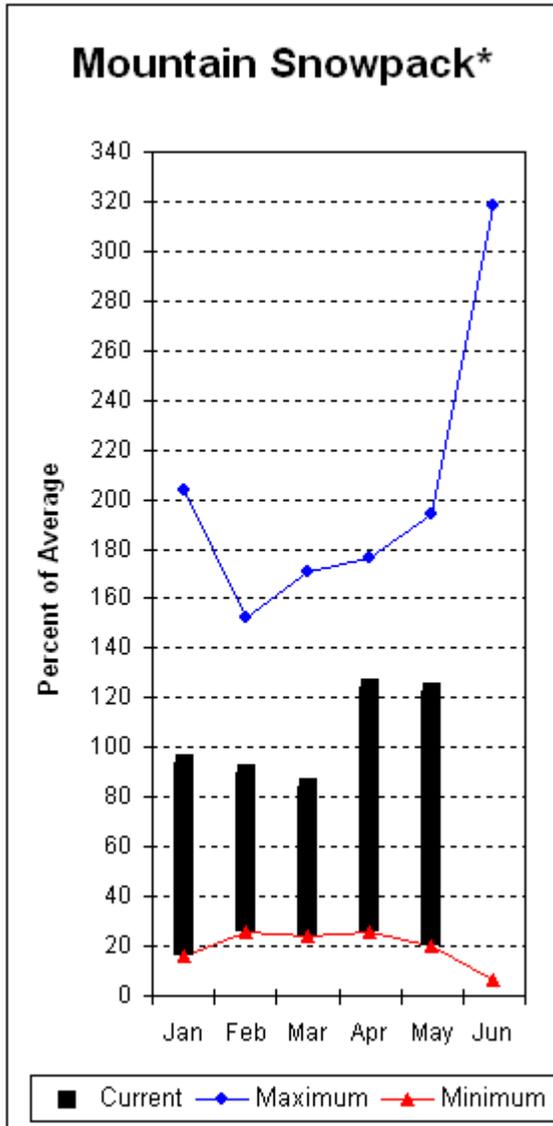
| LOWER SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of April | | | | | LOWER SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|--------|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| DWORSHAK | 3468.0 | 2310.3 | 1743.2 | 2421.3 | LOWER SNAKE, GRANDE RONDE | 10 | 69 | 100 |

* 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 May – September streamflows within the basin are Lewis River at Ariel, 99% and Cowlitz River at Castle Rock, 95% of average. The Columbia at The Dalles is forecasted to have 87% of average flows this summer. April average streamflow for Cowlitz River was 102% and 103% for Lewis River. The Columbia River at The Dalles was 89% of average. April precipitation was 78% of average and the water-year average was 86%. May 1 snow cover for Cowlitz River was 123%, and Lewis River was 123% of average. Average temperatures were 2 degrees above normal during April and near normal for the water year.

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

Lower Columbia River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) | | | | |
|--------------------------------|-----------------|--|----------|----------|----------|----------|----------|------------------------|----------|----------|----------|----------|
| | | 90% | | 70% | | 50% | | | 30% | | 10% | |
| | | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | (1000AF) | | (1000AF) | (1000AF) | (1000AF) | (1000AF) |
| Columbia R at The Dalles (2) | MAY-JUL | 52600 | 58900 | 61700 | 88 | 64500 | 70800 | 70500 | | | | |
| | MAY-SEP | 62700 | 70200 | 73600 | 87 | 77000 | 84500 | 84500 | | | | |
| Klickitat near Glenwood | MAY-JUL | 80 | 91 | 98 | 98 | 105 | 116 | 100 | | | | |
| | MAY-SEP | 112 | 123 | 131 | 97 | 139 | 150 | 135 | | | | |
| Klickitat River near Pitt WA | MAY-JUL | 275 | 300 | 320 | 97 | 340 | 365 | 330 | | | | |
| | MAY-SEP | 360 | 390 | 415 | 97 | 440 | 470 | 427 | | | | |
| LEWIS at Ariel (2) | MAY-JUL | 540 | 615 | 665 | 100 | 715 | 790 | 667 | | | | |
| | MAY-SEP | 665 | 745 | 800 | 99 | 855 | 935 | 812 | | | | |
| COWLITZ R. bl Mayfield Dam (2) | MAY-JUL | 1010 | 1120 | 1200 | 96 | 1280 | 1390 | 1247 | | | | |
| | MAY-SEP | 1080 | 1270 | 1400 | 95 | 1530 | 1720 | 1478 | | | | |
| COWLITZ R. at Castle Rock (2) | MAY-JUL | 1310 | 1460 | 1560 | 96 | 1660 | 1810 | 1629 | | | | |
| | MAY-SEP | 1540 | 1740 | 1870 | 95 | 2000 | 2200 | 1972 | | | | |

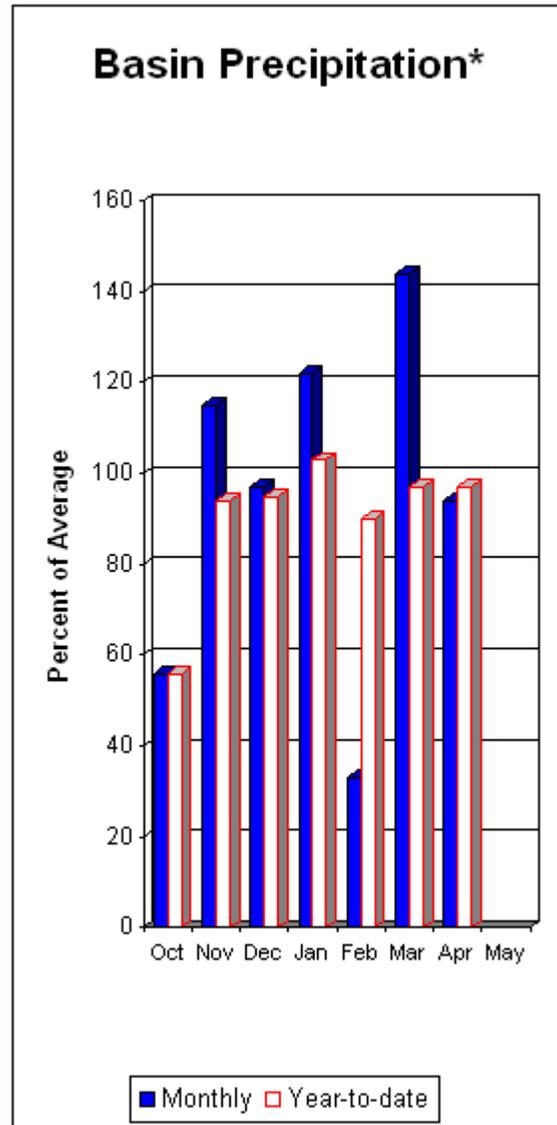
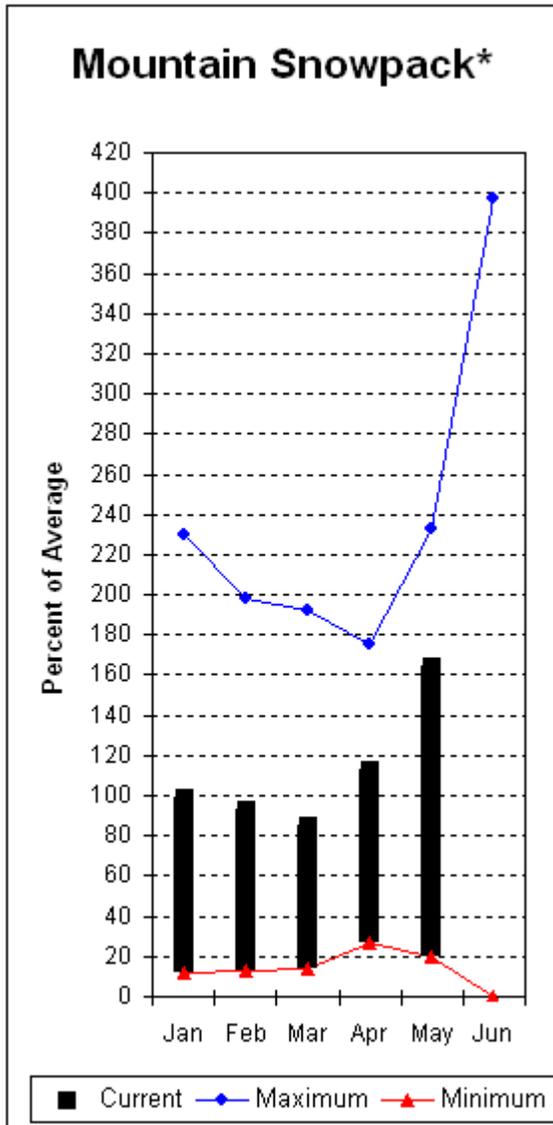
| LOWER COLUMBIA RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | LOWER COLUMBIA RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|---|-----------------|------------------------|-----------|-----|--|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| MOSSYROCK | 0.0 | 1350.4 | 1003.2 | --- | LEWIS RIVER | 5 | 55 | 123 |
| SWIFT | 0.0 | 738.8 | 440.9 | --- | COWLITZ RIVER | 6 | 67 | 123 |
| YALE | 0.0 | 376.1 | 380.9 | --- | | | | |
| MERWIN | 0.0 | 419.8 | 409.9 | --- | | | | |

* 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 104% of normal for the Green River below Howard Hanson Dam and 100% for the White River near Buckley. May 1 snowpack was 87% of average for the White River, 118% for Puyallup River and 165% in the Green River Basin. Water content on May 1 at Burnt Mountain SNOTEL, at an elevation of 4170 feet, was 35.4 inches. This site has a May 1 average of 5.6 inches. April precipitation was 94% of average, bringing the water year-to-date to 97% of average for the basins. Average temperatures in the area were 1 degree above normal for April and 1 degree below normal for the water-year.

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

South Puget Sound River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<===== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|-----------------------------------|-----------------|--|-----------------|-----------------------|----------|-----------------|-----------------|------------------------|
| | | ===== | | Chance Of Exceeding * | | ===== | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| WHITE near Buckley (1,2) | MAY-JUL | 255 | 320 | 350 | 101 | 380 | 445 | 348 |
| | MAY-SEP | 325 | 405 | 440 | 100 | 475 | 555 | 442 |
| GREEN R below Howard Hansen (1,2) | MAY-JUL | 127 | 167 | 185 | 105 | 205 | 245 | 176 |
| | MAY-SEP | 150 | 191 | 210 | 104 | 230 | 270 | 202 |

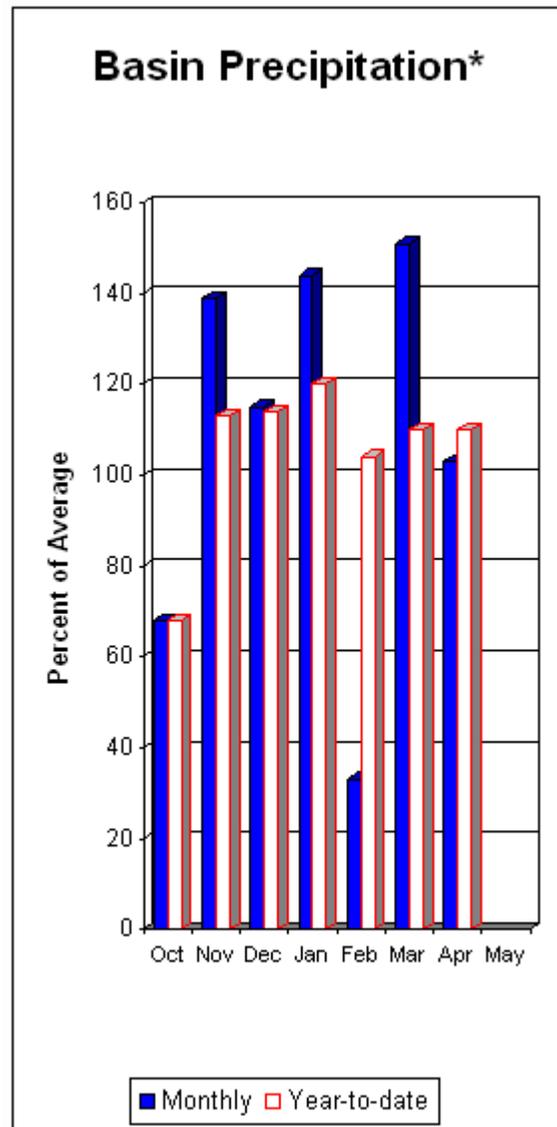
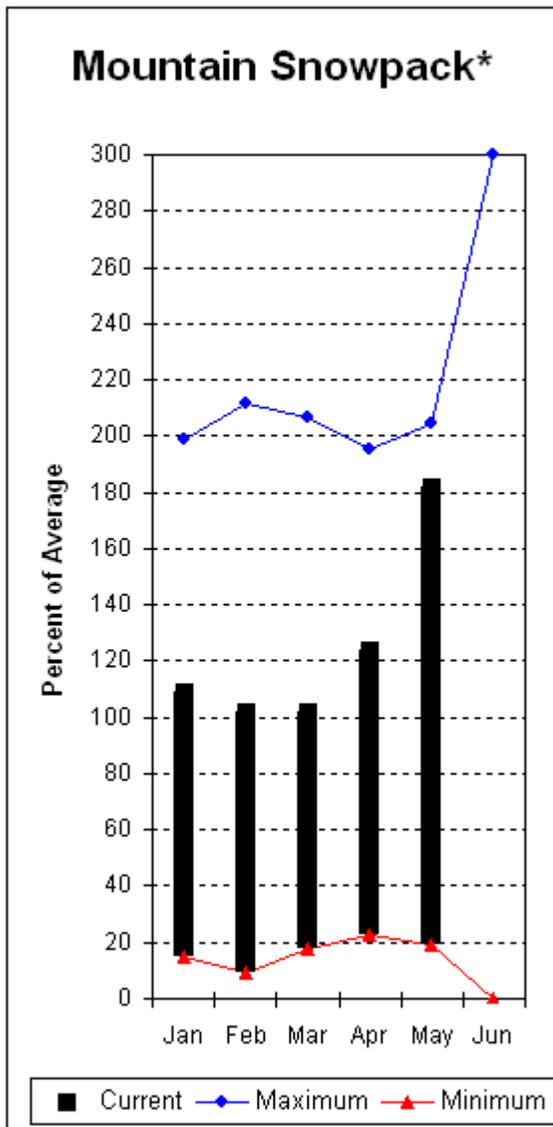
| SOUTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | SOUTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|--|-----------------|------------------------|-----------|-----|---|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| | | | | | WHITE RIVER | 3 | 67 | 87 |
| | | | | | GREEN RIVER | 6 | 77 | 165 |
| | | | | | PUYALLUP RIVER | 5 | 72 | 118 |

* 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: 141% for Cedar River near Cedar Falls; 140% for Rex River; 121% for South Fork of the Tolt River; and 141% for Cedar River at Cedar Falls. Basin-wide precipitation for April was 103% of average, bringing water-year-to-date to 110% of average. May 1 average snow cover in Cedar River Basin was 242%, Tolt River Basin was 218%, Snoqualmie River Basin was 146%, and Skykomish River Basin was 123%. Skookum Creek SNOTEL site, at 3920 feet, had 61.7 inches of water content. Average May 1 water content is 14.6 inches at Skookum Creek. Temperatures were 1 degree above average for April and 1 degree below normal for the water-year.

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

Central Puget Sound River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<==== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|----------------------------|-----------------|---|-----------------|-----------------------|----------|-----------------|-----------------|------------------------|
| | | ===== | | Chance Of Exceeding * | | ===== | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| CEDAR near Cedar Falls | MAY-JUL | 60 | 68 | 73 | 140 | 78 | 86 | 52 |
| | MAY-SEP | 69 | 77 | 83 | 141 | 89 | 97 | 59 |
| REX near Cedar Falls | MAY-JUL | 20 | 23 | 25 | 144 | 27 | 30 | 17.4 |
| | MAY-SEP | 22 | 26 | 28 | 140 | 30 | 34 | 20 |
| CEDAR RIVER at Cedar Falls | MAY-JUL | 42 | 56 | 66 | 140 | 76 | 90 | 47 |
| | MAY-SEP | 30 | 51 | 65 | 141 | 79 | 100 | 46 |
| SOUTH FORK TOLT near Index | MAY-JUL | 10.7 | 12.4 | 13.5 | 123 | 14.6 | 16.3 | 11.0 |
| | MAY-SEP | 10.5 | 13.8 | 16.0 | 121 | 18.2 | 22 | 13.2 |

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

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

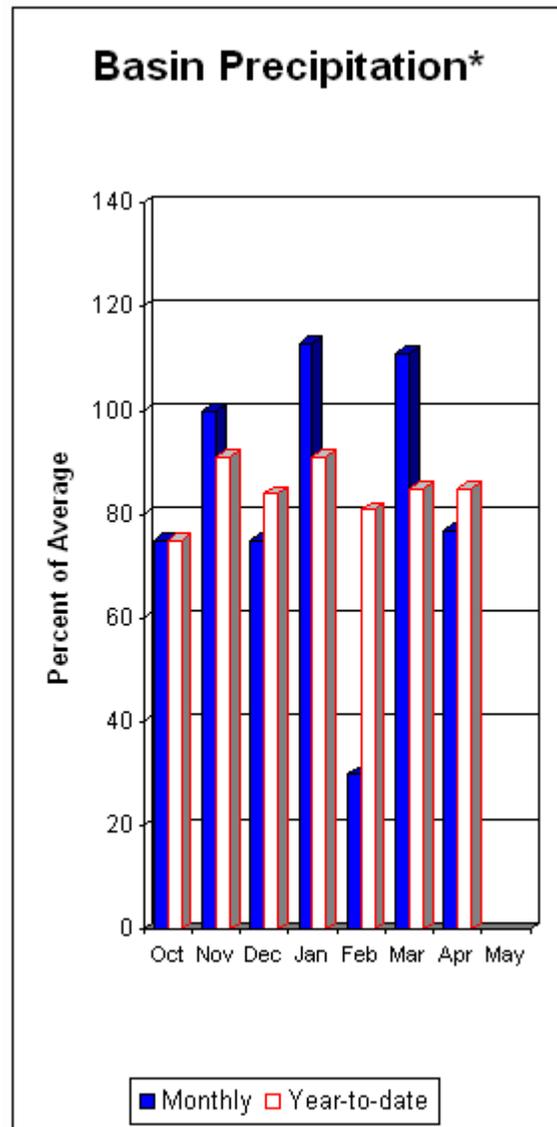
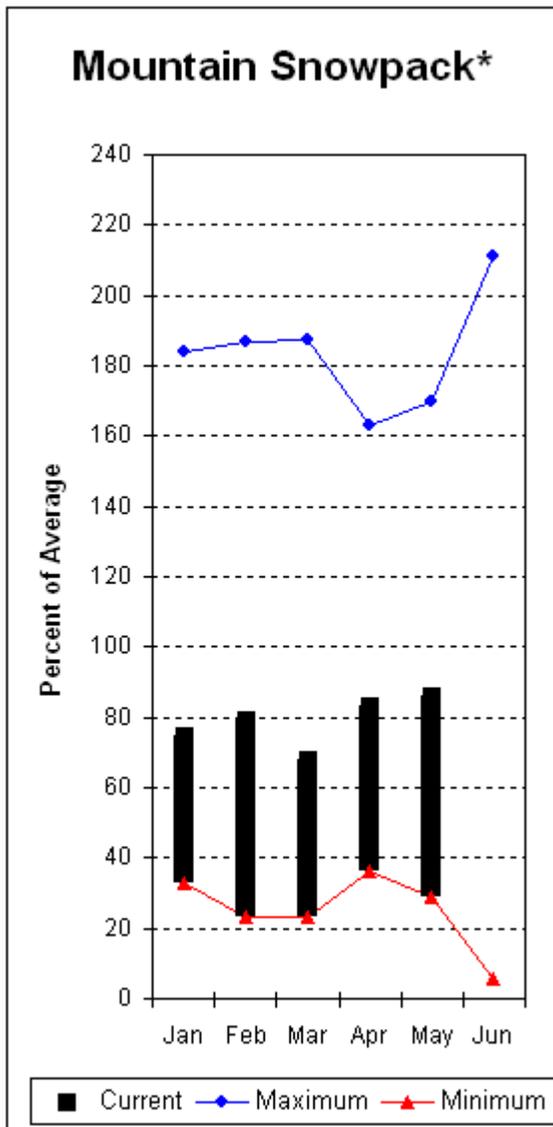
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
|-----------|-----------------|------------------------|-----------|-----|------------------|----------------------|-------------------|---------|
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| | | | | | CEDAR RIVER | 4 | 53 | 242 |
| | | | | | TOLT RIVER | 2 | 79 | 218 |
| | | | | | SNOQUALMIE RIVER | 4 | 73 | 146 |
| | | | | | SKYKOMISH RIVER | 2 | 80 | 123 |

* 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 84% of average for the spring and summer period. April streamflow in Skagit River was 90% of average. Other forecast points included Baker River at 80% and Thunder Creek at 90% of average. Basin-wide precipitation for April was 77% of average, bringing water-year-to-date to 85% of average. May 1 average snow cover in Skagit River Basin was 80%, and Nooksack River Basin was 91%. Baker River Basin snow surveys reported 82% of average as well. Rainy Pass SNOTEL, at 4,780 feet, had 29.5 inches of water content. Average May 1 water content is 43.2 inches at Rainy Pass. May 1 Skagit River reservoir storage was 114% of average and 61% of capacity. Average temperatures for April were 1 degree above normal for the basin and 2 degrees below average for the water year.

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

North Puget Sound River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<==== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|-----------------------------|-----------------|---|-----------------|-----------------------|-----------------|-----------------|-----------------|------------------------|
| | | ==== | | Chance Of Exceeding * | | ==== | | |
| | | 90% (1000AF) | 70% (1000AF) | (1000AF) | 50% (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| THUNDER CREEK near Newhalem | MAY-JUL | 163 | 181 | 193 | 91 | 205 | 225 | 212 |
| | MAY-SEP | 245 | 265 | 280 | 90 | 295 | 315 | 310 |
| SKAGIT at Newhalem (2) | MAY-JUL | 1210 | 1300 | 1360 | 84 | 1420 | 1510 | 1611 |
| | MAY-SEP | 1460 | 1570 | 1640 | 84 | 1710 | 1820 | 1964 |
| BAKER RIVER near Concrete | MAY-JUL | 420 | 495 | 550 | 80 | 605 | 680 | 684 |
| | MAY-SEP | 520 | 640 | 725 | 80 | 810 | 930 | 906 |

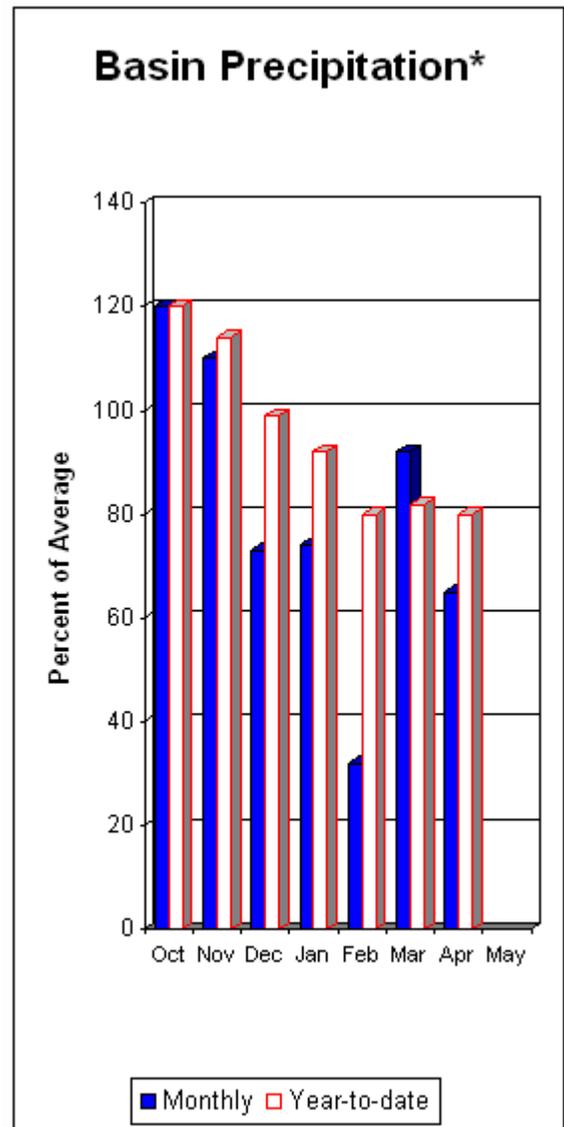
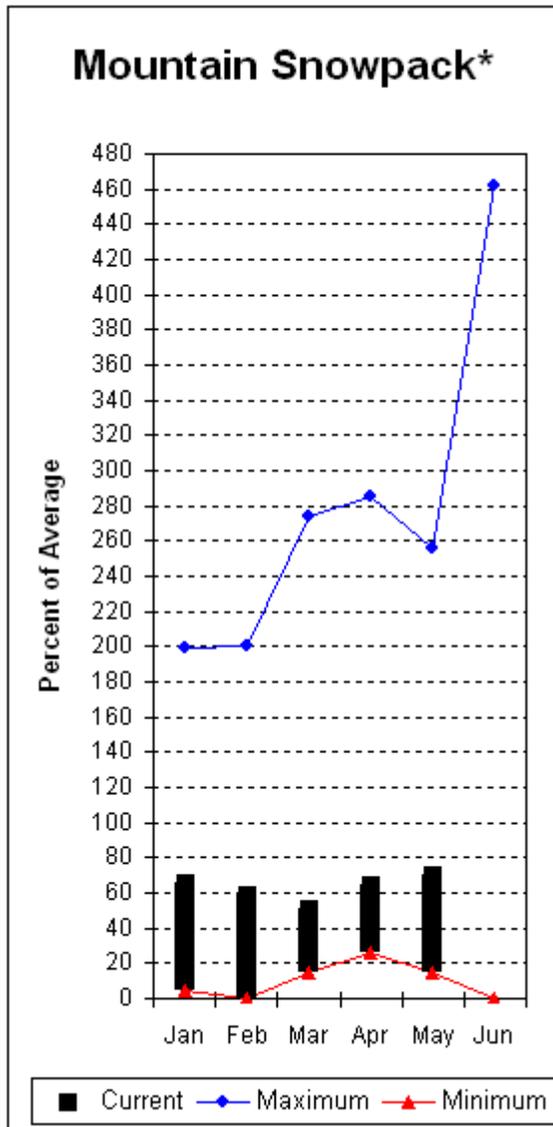
| NORTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|--|-----------------|------------------------|-----------|-------|---|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| ROSS | 1404.1 | 820.9 | 449.6 | 708.8 | SKAGIT RIVER | 17 | 66 | 80 |
| DIABLO RESERVOIR | 90.6 | 87.2 | 85.7 | 85.9 | BAKER RIVER | 9 | 67 | 82 |
| | | | | | NOOKSACK RIVER | 2 | 48 | 91 |

* 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 80%. April runoff in the Dungeness River was 66% of normal. Big Quilcene and Wynoochee rivers should expect below average runoff this summer as well. April precipitation was 65% of average. Precipitation has accumulated at 80% of average for the water year. April precipitation at Quillayute was 4.94 inches. The thirty-year average for April is 7.44 inches. Olympic Peninsula snowpack averaged 70% of normal on May 1. Temperatures were near average for April and 1 degree below average for the water year.

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

Olympic Peninsula River Basins

Streamflow Forecasts - May 1, 2009

| Forecast Point | Forecast Period | <<==== Drier ===== Future Conditions ===== Wetter =====>> | | | | | | 30-Yr Avg. (1000AF) |
|-------------------------|-----------------|---|-----------------|-----------------|----------|-----------------|-----------------|------------------------|
| | | ==== Chance Of Exceeding * ===== | | ==== | | ==== | | |
| | | 90% (1000AF) | 70% (1000AF) | 50% (1000AF) | (% AVG.) | 30% (1000AF) | 10% (1000AF) | |
| DUNGENESESS near Sequim | MAY-JUL | 67 | 77 | 84 | 80 | 91 | 101 | 105 |
| | MAY-SEP | 79 | 94 | 104 | 79 | 114 | 129 | 132 |
| ELWHA near Port Angeles | MAY-JUL | 240 | 260 | 275 | 81 | 290 | 310 | 338 |
| | MAY-SEP | 295 | 320 | 340 | 80 | 360 | 385 | 423 |

| OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End of April | | | | | OLYMPIC PENINSULA RIVER BASINS Watershed Snowpack Analysis - May 1, 2009 | | | |
|--|-----------------|------------------------|-----------|-----|---|----------------------|-------------------|---------|
| Reservoir | Usable Capacity | *** Usable Storage *** | | | Watershed | Number of Data Sites | This Year as % of | |
| | | This Year | Last Year | Avg | | | Last Yr | Average |
| | | | | | OLYMPIC PENINSULA | 6 | 44 | 70 |

* 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

