United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Washington Basin Outlook Report February 1, 1996

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

Washington
Water Supply Outlook

February 1996

General Outlook

As the old northwest wives tale goes; if you don't like the weather, wait a bit and it will change. Heavy dry snowfall blanketed most of Washington in January. The promise of seasonally normal weather rapidly turned to an arctic blast of record low temperatures. The mercury dropped to 24 degrees below zero on January 31 in Spokane, breaking a 115-year old record. Frigid temperatures carried over to the 3rd of February, then abruptly changed from below normal to above normal. With the warmer temperatures came rain and subsequent flooding. Once again the sand bags and armies of volunteers emerged to attempt to hold back the wrath of raging waters. Short-term Weather forecasts are for unseasonably dry and warmer conditions.

Streamflow

Forecasts for summer streamflow are for near to above average with a couple of streams forecasted slightly below average. They vary from 128% of average for the Okanogan near Tonasket to 87% of normal for the Rex River near Cedar Falls. February forecasts for some Western Washington streams include: Cedar River near Cedar Falls, 92%; Green River, 99%; and the Dungeness River, 94%. Some Eastern Washington streams include Mill Creek at Walla Walla, 104%; the Wenatchee River at Peshastin, 108%; and the Colville River, 95%. January streamflows varied greatly throughout the state but were all well above normal. The Naches at Naches River was the highest at 243% of average; and the Snake River below Lower Granite Dam, with 137% of normal, was the lowest in the state. Other streamflows were the following percentage of normal: the Cowlitz River, 148%; the Okanogan River, 227%; the Spokane River, 166%; the Columbia at the Canadian border, 158%, and the Yakima River at Kiona, 228%.

BASIN	PERCENT OF AVERAGE MOST PROBABLE FORECAST (50 PERCENT CHANCE OF EXCEEDANCE)
Spokane	93
Colville-Pend Oreille	95-123
Okanogan-Methow	92-128
Wenatchee-Chelan	95-119
Yakima	98-113
Walla Walla	104-117
Cowlitz-Lewis	101-107
White-Green-Cedar	87-99
North Puget Sound	91-95
Olympic Peninsula	88-94

Snowpack

The February 1 statewide SNOTEL reading showed the snowpack to be 91% of average. Snowpack varied across the state, with the Olympic Peninsula River Basin SNOTEL reporting the lowest with 61% of average, and the Methow River Basin staying the highest at 129% of normal. Westside averages from SNOTEL and February 1 snow surveys include the North Puget River Basins with 78% of normal, the Olympic Basins with 61%, and the Lewis-Cowlitz basins with 85% of normal. Snowpack along the east slopes of the Cascade Mountains include the Yakima with 91%, and the Wenatchee with 90%. Snowpack in the Spokane River Basin was at 73%, and the Pend Oreille River Basin, including Canadian data, had 111% of normal. Maximum snow cover was at Lyman Lake SNOTEL in the north-central Cascade Mountains, with a water content of 43.4 inches. This site would normally have 39.0 inches of water content on February 1. High average in the state goes to Spirit Lake SNOTEL near Mt. St. Helens with 166% of normal. At this time last month Spirit Lake had no reportable snowpack. Because of the dry snow conditions that were prevalent in January we are seeing very little meltout at the 45 SNOTEL sites in Washington. However some of the lower elevations are showing decreases and if the current weather conditions persist we could see another round of flooding from the higher elevations.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	67	71
Colville	72	79
Pend Oreille	115	110
Okanogan	91	113
Methow	79	118
Wenatchee	65	92
Chelan	86	114
Yakima	59	91
Walla Walla	69	92
Cowlitz	68	95
Lewis	56	71
White	59	100
Green	70	78
North Puget Sound	62	78
Olympic Peninsula	36	40

New SNOTEL Sites

Elbow Lake and Wells Creek sites were installed in August "95" in cooperation with Whatcom County as a component of their new Early Flood Warning System. The new sites, located on the North Fork and South Fork of the Nooksack River, act as the first indicators of potential upper watershed snow melt.

The final two of six new SNOTEL sites were installed in cooperation with Seattle Water Department. Skookum Creek was installed in the headwaters of the Tolt Reservoir, and Rex River site was installed in the Rex River Basin, a tributary of the Cedar River Watershed. All six sites are used by Seattle Water Department for reservoir management.

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

Precipitation

During the month of January the National Weather Service and Natural Resources Conservation Service climate stations showed near to much above normal precipitation across the state. The highest percent of average in the state was at Mill Creek Dam in Walla Walla County, which reported 295% of normal for a total of 6.4 inches. Normal for this site is 2.2 inches for January. Averages for the water year varied from 117% of normal in the Okanogan - Methow River Basins to 163% of normal in the Yakima River basin. The highest average for the year is 217% of normal at Concrete in Skagit County, down from 263% last month.

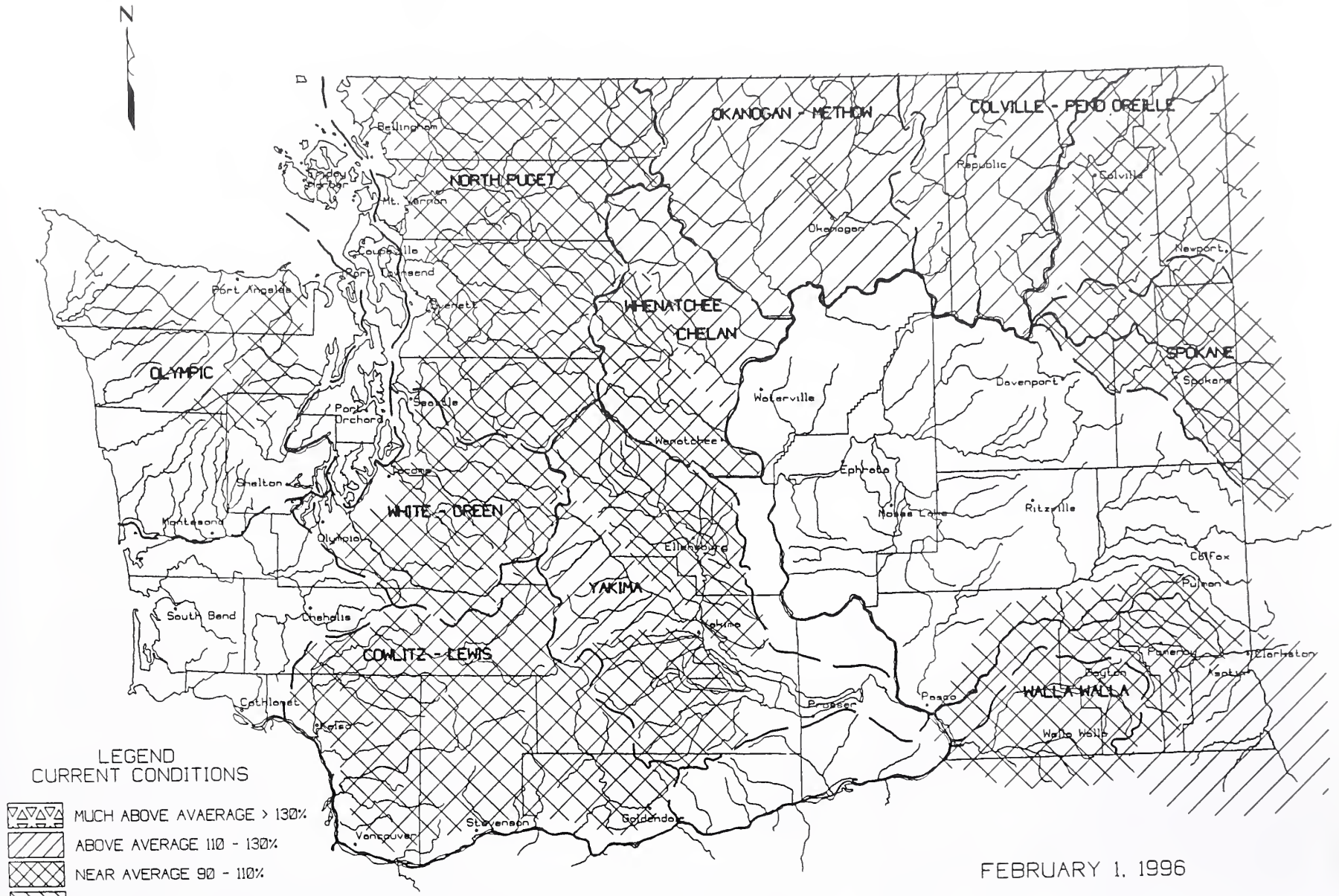
BASIN	JANUARY PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	126	137
Colville-Pend Oreille	104	128
Okanogan-Methow	102	117
Wenatchee-Chelan	107	143
Yakima	129	163
Walla Walla	93	136
Cowlitz-Lewis	129	154
White-Green-Cedar	133	156
North Puget Sound	108	158
Olympic Peninsula	96	123

Reservoir

Reservoir storage in Washington remained above average for February 1. Reservoir storage in the Yakima Basin was 816,400 acre feet, 127% of normal. Storage at other reservoirs included Roosevelt at 113% of average, and the Okanogan reservoirs with 128% of normal for February 1. The power generation reservoirs include the following: Coeur d'Alene Lake, 127,500 acre feet, or 100% of normal; Chelan Lake, 572,200 acre feet, 127% of average and 85% of capacity; and Ross Lake at 161% of average and 90% of capacity. Release rates had tapered off considerably from all reservoirs from a month ago however warmer temperatures and increased snowmelt over the past 5-7 days has forced reservoir operators to release large quantities of water in order to maintain emergency holding capacity. Until near normal climatic conditions return we may see dramatic changes in reservoir levels.

BASIN	PERCENT OF CAPACITY	PERCENT OF AVERAGE
Spokane	53	100
Colville-Pend Oreille	83	113
Okanogan-Methow	75	128
Wenatchee-Chelan	85	127
Yakima	77	127
North Puget Sound	85	114

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



FEBRUARY 1, 1996

STREAMFLOW PROSPECTS
WASHINGTON

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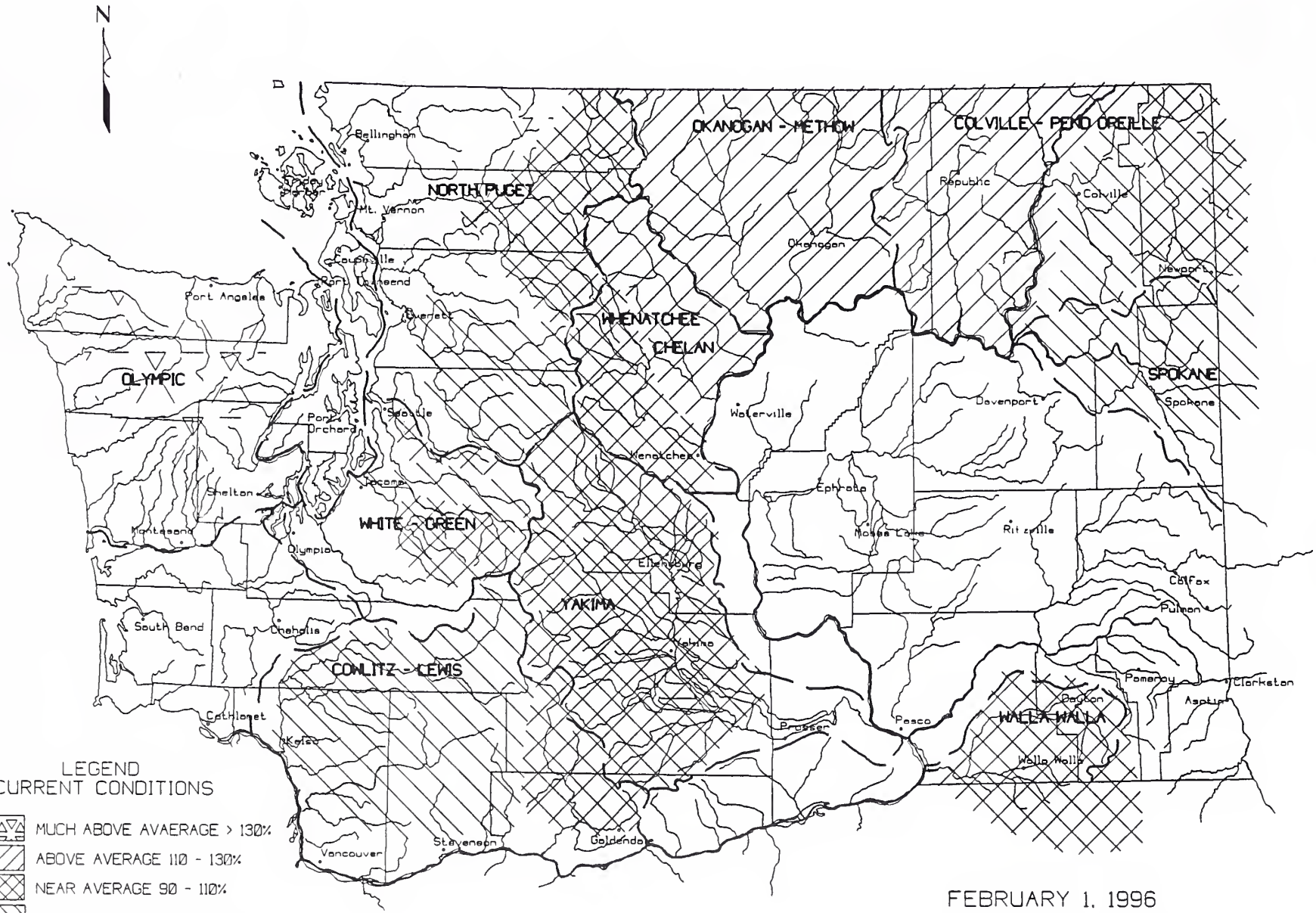
NATURAL RESOURCES CONSERVATION SERVICE



FEBRUARY 1, 1996

MOUNTAIN SNOWPACK
WASHINGTON

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NATURAL RESOURCES CONSERVATION SERVICE

LOST - DATA CURRENT AS OF: 2/ 7/96 13: 5:11

BASIN SUMMARY OF SNOW COURSE DATA

FEBRUARY 1996

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
PEND OREILLE RIVER						
BENTON MEADOW	2370	1/29/96	12	2.0	4.7	4.8
BENTON SPRING	4920	1/29/96	32	7.8	15.9	12.9
BUNCHGRASS MDWPILLOW	5000	2/01/96	---	17.0	25.1	18.8
HOODOO BASIN	6050	2/02/96	117	35.1	29.7	33.4
HOODOO CREEK	5900	2/02/96	105	29.2	25.1	30.3
LOOKOUT PILLOW	5140	2/01/96	---	17.4	19.5	22.3
NELSON CAN.	3100	1/29/96	35	9.3	13.9	11.3
KETTLE RIVER						
BARNES CREEK CAN.	5300	1/30/96	59	18.9	15.1	13.6
BIG WHITE MTN CAN.	5510	1/28/96	53	15.2	15.9	12.8
BUTTE CREEK	4070	2/01/96	---	7.2E	8.3	6.4
FARRON CAN.	4000	1/26/96	37	9.3	10.1	9.8
GOAT CREEK	3600	1/29/96	23	4.7	6.5	5.2
SUMMIT G.S.	4600	1/29/96	26	5.0	8.3	5.6
COLVILLE RIVER						
BAIRD #2	3220	1/29/96	21	3.3	8.8	--
TOGO	3370	2/01/96	---	6.2E	8.6	7.8
OMAK LAKE, TWIN LAKES						
MISSION (OMAK)	1150	1/27/96	39	4.0	--	--
MOSES MTN PILLOW	4800	2/01/96	---	14.1S	13.9	10.0
SPOKANE RIVER						
FOURTH OF JULY SUM	3200	2/01/96	22	4.0	6.4	7.2
LOST LAKE (d)	6110	2/01/96	---	32.8E	36.0	37.4
MOSQUITO RDG PILLOW	5200	2/01/96	---	19.6	26.9	25.2
SUNSET PILLOW	5540	2/01/96	---	17.3	16.9	24.8
LOOKOUT PILLOW	5140	2/01/96	---	17.4	19.5	22.3
NEWMAN LAKE						
QUARTZ PEAK PILLOW	4700	2/01/96	---	7.8	21.0	14.0
OKANOGAN-METHOW RIVER BASINS						
BLACKWALL PEAK CAN.	6370	2/01/96	---	23.6	--	23.8
ENDERBY CAN.	6200	1/31/96	92	32.3	28.0	24.8
FREEZEOUT CK. TRAIL	3500	1/31/96	13	3.1	10.4	8.8
GREYBACK RES CAN.	5120	2/01/96	34	8.5	7.6	6.1
HAMILTON HILL CAN.	4890	1/26/96	43	14.3	9.4	10.8
HARTS PASS	6500	1/31/96	94	32.6	32.6	29.6
HARTS PASS PILLOW	6500	2/01/96	---	35.8S	35.5	27.7
ISINTOK LAKE CAN.	5500	1/31/96	27	6.3	5.4	5.6
LOST HORSE MTN CAN.	6300	2/01/96	32	8.3	7.0	6.5
MCCULLOCH CAN.	4200	1/30/96	24	5.4	6.0	5.0
MISSEZULA MTN CAN.	5090	1/27/96	31	7.6	9.6	6.9
MISSION CREEK CAN.	5800	2/01/96	---	12.4	--	13.3
MT. KOBAU CAN.	5900	1/28/96	33	8.3	10.2	8.7
MUTTON CREEK #1	5700	1/30/96	33	8.7	14.7	9.2
OYAMA LAKE CAN.	4400	1/29/96	26	6.2	--	5.0
POSTILL LAKE CAN.	4500	1/30/96	30	7.3	6.2	5.8
RUSTY CREEK	4000	1/30/96	22	5.2	8.6	5.0
SALMON MDWS PILLOW	4500	2/01/96	---	6.5S	12.7	5.9
SILVER STAR MTN CAN.	6000	1/27/96	74	24.3	21.8	19.2
SUMMERLAND RES CAN.	4200	1/30/96	33	8.3	8.4	7.0
SUNDAY SUMMIT CAN.	4300	1/30/96	20	5.1	3.6	4.8
TROUT CREEK CAN.	4690	2/03/96	29	7.0	6.0	5.6
WHITE ROCKS MTN CAN.	6000	2/02/96	48	14.2	19.8	15.7
HARTS PASS	6500	1/31/96	94	32.6	32.6	29.6
HARTS PASS PILLOW	6500	2/01/96	---	35.8S	35.5	27.7
MUTTON CREEK #1	5700	1/30/96	33	8.7	14.7	9.2
RUSTY CREEK	4000	1/30/96	22	5.2	8.6	5.0
SALMON MDWS PILLOW	4500	2/01/96	---	6.5S	12.7	5.9
CHELAN, ENTIAT, WENATCHEE BASINS						
CLOUDY PASS AM	6500	2/01/96	---	30.9E	45.2	27.1
LYMAN LAKE PILLOW	5900	2/01/96	---	43.4S	54.2	39.0
MINERS RIDGE PILLOW	6200	2/01/96	---	35.9S	39.3	40.2
PARK CK RIDGE PILLOW	4600	2/01/96	---	35.6S	33.0	29.6
RAINY PASS	4780	1/30/96	68	20.8	32.6	27.7
RAINY PASS PILLOW	4780	2/01/96	---	36.5S	39.7	24.5
BRIEF	1600	1/28/96	26	6.4	9.8	6.0
POPE RIDGE PILLOW	3540	2/01/96	---	17.1S	21.5	13.9
BERNE-MILL CREEK (d)	3170	1/30/96	56	15.3	25.2	19.9
BLEWETT PASS #2	4270	1/29/96	39	7.7	15.9	11.6
BLEWETT PASS#2PILLOW	4270	2/01/96	---	8.0S	16.8	13.6
CHIWAUKUM G.S.	2500	1/30/96	34	7.4	12.8	8.7
FISH LAKE PILLOW	3370	2/01/96	---	27.1S	31.6	22.0
LYMAN LAKE PILLOW	5900	2/01/96	---	43.4S	54.2	39.0
MERRITT	2140	1/30/96	40	9.3	16.0	12.4
STEVENS PASS PILLOW	4070	2/01/96	---	23.4S	40.3	27.3
STEVENS PASS SAND SD	3700	1/30/96	60	15.3	30.6	23.9
TROUGH #2 PILLOW	5310	2/01/96	---	6.6S	14.6	6.4
UPPER WHEELER	4400	1/27/96	22	5.2	8.5	8.0
UPPER WHEELER PILLOW	4400	2/01/96	---	9.4S	13.0	9.3
STEMILT SLIDE	5000	1/27/96	35	8.0	13.7	10.3
UPPER WHEELER	4400	1/27/96	22	5.2	8.5	8.0
UPPER WHEELER PILLOW	4400	2/01/96	---	9.4S	13.0	9.3
COLOCKUM CREEK						
TROUGH #2 PILLOW	5310	2/01/96	---	6.6S	14.6	6.4
YAKIMA RIVER						
AHTANUM R.S.	3100	2/01/96	---	6.0E	36.4	5.8
BLEWETT PASS #2	4270	1/29/96	39	7.7	15.9	11.6
BLEWETT PASS#2PILLOW	4270	2/01/96	---	8.0S	16.8	13.6
BUMPING LAKE (NEW)	3400	1/29/96	43	11.8	12.9	14.2
BUMPING RIDGE PILLOW	4600	2/01/96	---	14.3S	22.9	13.9
CAYUSE PASS	5300	2/01/96	---	51.8E	89.9	52.9
COLOCKUM PASS	5370	1/30/96	40	9.1	16.0	11.5
CORRAL PASS PILLOW	6000	2/01/96	---	21.2S	27.5	21.3
FISH LAKE	3370	1/30/96	68	21.6	27.1	21.1
FISH LAKE PILLOW	3370	2/01/96	---	27.1S	31.6	22.0
GREEN LAKE	6000	2/01/96	---	22.4E	32.2	22.6
GREEN LAKE PILLOW	6000	2/01/96	---	14.0S	21.2	14.1
GROUSE CAMP PILLOW	5380	2/01/96	---	11.7S	22.1	13.8
DOMMERIE FLATS	2200	1/31/96	33	6.0	9.0	7.0
LOST HORSE PILLOW	5000	2/01/96	---	11.1S	15.8	22.4
MORSE LAKE PILLOW	5400	2/01/96	---	31.1S	57.6	29.6
OLALLIE MDWS PILLOW	3960	2/01/96	---	26.5E	45.6	34.3
SASSE RIDGE PILLOW	4200	2/01/96	---	19.2S	32.6	21.6
STAMPEDE PASS PILLOW	3860	2/01/96	---	22.8S	48.7	28.8
TUNNEL AVENUE	2450	1/30/96	49	11.6	18.4	15.4
WHITE PASS ES PILLOW	4500	2/01/96	---	11.9S	20.7	15.5
AHTANUM CREEK						
AHTANUM R.S.	3100	2/01/96	---	6.0E	36.4	5.8
GREEN LAKE PILLOW	6000	2/01/96	---	14.0S	21.2	14.1
LOST HORSE PILLOW	5000	2/01/96	---	11.1S	15.8	22.4
MILL CREEK						
HIGH RIDGE PILLOW	4980	2/01/96	---	14.9S	22.9	16.0
TOUCHET #2 PILLOW	5530	2/01/96	---	18.8	25.7	20.8
LEWIS, COWLITZ RIVERS						
CAYUSE PASS	5300	2/01/96	---	51.8E	89.9	52.9
JUNE LAKE PILLOW	3200	2/01/96	---	16.8S	35.2	28.1
LONE PINE PILLOW	3800	2/01/96	---	14.7S	28.2	20.8
PARADISE PARK PILLOW	5500	2/01/96	---	40.2S	56.0	38.5
PIGTAIL PEAK PILLOW	5900	2/01/96	---	36.9S	47.6	30.4
POTATO HILL PILLOW	4500	2/01/96	---	13.4S	20.3	16.4
SHEEP CANYON PILLOW	4050	2/01/96	---	11.6S	20.9	25.2
SPENCER MDW PILLOW	3400	2/01/96	---	15.4S	25.4	20.0
SPIRIT LAKE PILLOW	3100	2/01/96	---	10.6S	2.4	6.4
SURPRISE LKS PILLOW	4250	2/01/96	---	23.6S	36.3	30.4
WHITE PASS ES PILLOW	4500	2/01/96	---	11.9S	20.7	15.5
WHITE, GREEN, CEDAR RIVERS						
CAYUSE PASS	5300	2/01/96	---	51.8E	89.9	52.9
CORRAL PASS	6000	2/01/96	---	21.6E	29.5	21.7
CORRAL PASS PILLOW	6000	2/01/96	---	21.2S	27.5	21.3
MORSE LAKE PILLOW	5400	2/01/96	---	31.1S	57.6	29.6
COUGAR MTN. PILLOW	3200	2/01/96	---	10.9S	13.8	15.0
GRASS MOUNTAIN #2	2900	2/01/96	---	8.2E	.0	10.3
LESTER CREEK	3100	2/01/96	---	11.1E	16.2	14.8
LYNN LAKE	4000	2/01/96	---	11.3E	14.9	14.8
SAWMILL RIDGE	4700	2/01/96	---	19.1E	26.1	23.9
STAMPEDE PASS PILLOW	3860	2/01/96	---	22.8S	48.7	28.8
MT. GARDNER PILLOW	2860	2/01/96	---	9.2S	12.5	9.6
TINKHAM CREEK PILLOW	3000	2/01/96	---	17.1S	23.5	12.9
MEADOWS PASS PILLOW	3240	2/01/96	---	11.7S	17.7	16.2
SNOQUALMIE, SKYKOMISH, SKAGIT, BAKER RIVERS						
OLALLIE MDWS PILLOW	3960	2/01/96	---	26.5E	45.6	34.3
STAMPEDE PASS PILLOW	3860	2/01/96	---	22.8S	48.7	28.8
STEVENS PASS PILLOW	4070	2/01/96	---	23.4S	40.3	27.3
STEVENS PASS SAND SD	3700	1/30/96	60	15.3	30.6	23.9
BEAVER CREEK TRAIL	2200	1/30/96	26	5.8	12.2	9.7
BEAVER PASS	3680	1/29/96	31	7.7	24.7	19.7
BROWN TOP AM	6000	1/29/96	110	36.0	45.8	41.2
CLOUDY PASS AM	6500	2/01/96	---	30.9E	45.2	27.1
DEVILS PARK	5900	1/29/96	91	30.0	32.4	30.3
FREEZEOUT CK. TRAIL	3500	1/31/96	13	3.1	10.4	8.8
HARTS PASS	6500	1/31/96	94	32.6	32.6	29.6
HARTS PASS PILLOW	6500	2/01/96	---	35.8S	35.5	27.7
KLESILKWA CAN.	3710	2/01/96	12	2.4	4.9	9.3
LYMAN LAKE PILLOW	5900	2/01/96	---	43.4S	54.2	39.0
MEADOWS CABIN	1900	1/30/96	12	2.1	2.3	5.4
NEW HOZOMEEN LAKE	2800	1/29/96	15	3.7	6.3	8.0
RAINY PASS	4780	1/30/96	68	20.8	32.6	27.7
RAINY PASS PILLOW	4780	2/01/96	---	36.5S	39.7	24.5
THUNDER BASIN	4200	1/30/96	40	10.6	17.6	25.3
THUNDER BASIN PILLOW	4200	2/01/96	---	20.7S	25.7	--
DOCK BUTTE AM	3800	1/30/96	60	23.0	43.0	41.1
EASY PASS AM	5200	1/30/96	92	37.0	66.0	45.6
JASPER PASS AM	5400	1/30/96	120	43.0	66.0	58.8
MARTEN LAKE AM	3600	1/30/96	70	27.0	52.0	48.2
MT. BLUM AM	5800	1/30/96	80	29.0	45.0	41.3
ROCKY CREEK AM	2100	1/30/96	40	13.0	25.0	20.0
SCHREIBERS MDW AM	3400	1/30/96	58	21.0	38.0	35.1
SF THUNDER CK AM	2200	1/30/96	20	7.0	.0	6.2
WATSON LAKES AM	4500	1/30/96	62	22.0	33.0	38.7
ELWHA, MORSE, DUNGENESS, QUILCENE RIVERS						
HURRICANE	4500	1/28/96	18	3.0	12.0	13.7
COX VALLEY	4500	1/29/96	45	10.7	28.4	24.9
DEER PARK	5200	1/30/96	20	4.4	11.0	13.5
MOUNT CRAG PILLOW	4050	2/01/96	---	10.3S	24.0	16.9

SNOW SURVEY OFFERS INTERNET HOMEPAGE

On February 1, the Water and Climate Center (WCC) began providing Snow Survey and Water Supply Forecasting products on the INTERNET. A few of our more popular products (SNOTEL Update Reports, State Basin Outlook Reports, and products previously published in the Water Supply Outlook for the Western United States) are now accessible via our new Home Page and our Anonymous FTP server.

The Universal Resource Locator (URL) for the home page is:

http://www.wcc.nrcs.usda.gov/

The address for the Anonymous FTP server is:

ftp.wcc.nrcs.usda.gov

You can access the Anonymous FTP server using your INTERNET browser (Netscape, Mosaic, etc.) by changing the URL to:

ftp://ftp.wcc.nrcs.usda.gov/

We will continue to add more products to the Home Page and Anonymous FTP server and welcome any comments and suggestions you might have.

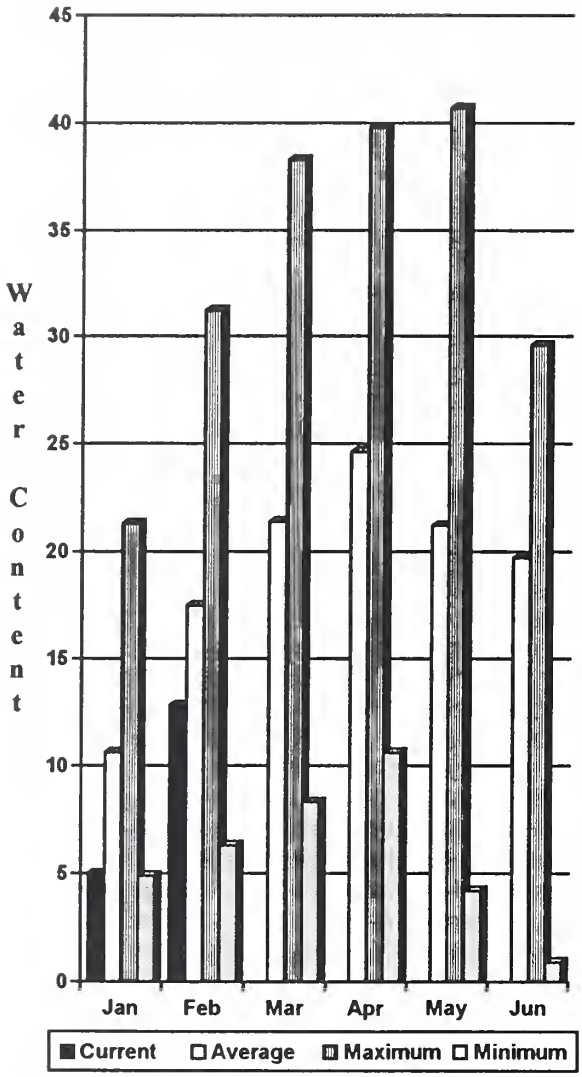
Questions and comments should be directed to the NRCS Snow Survey and Water Supply Forecasting contact in your state or in Portland:

Scott Pattee (509)353-2341 shp@wa1.wa.nrcs.usda.gov
Chris Pacheco (503) 414-3056 a16cpacheco@attmail.com
Jim Marron (503) 414-3047 a16jmarron@attmail.com

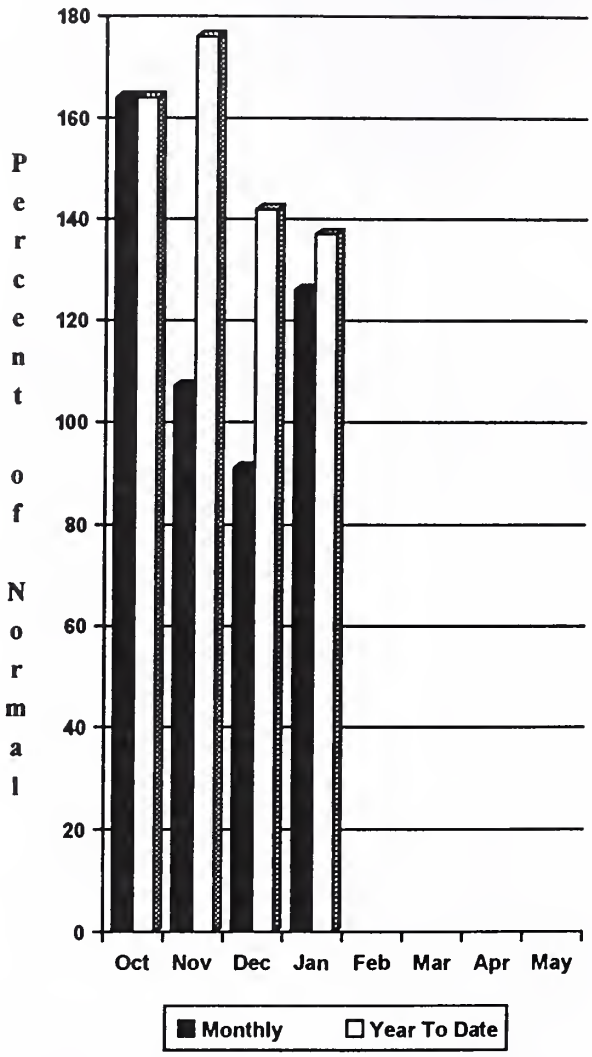
Natural Resources Conservation Service
W 316 Boone, Suite 450
Spokane, WA 99201

Natural Resources Conservation Service
Water and Climate Center
101 SW Main Street, Suite 1600
Portland, OR 97204-3224

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The February 1 forecasts for summer runoff within the Spokane River Basin are 93-94% of normal, about the same as last year at this time. The forecast is based on a basin snowpack that is 73% of average and precipitation that is 137% of normal for the water year. Precipitation for January was 126% of average. Streamflow on the Spokane River was 166% of average for January. February 1 storage in Coeur d'Alene Lake was 127,500 acre feet, 113% of normal, and 53% of capacity.

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

SPOKANE RIVER BASIN

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls (2)	APR-SEP	1891	2283	2550	93	2817	3209	2730
	APR-JUL	1810	2197	2460	93	2723	3110	2633
SPOKANE at Long Lake	APR-JUL	2055	2469	2750	94	3031	3445	2936
	APR-SEP	2241	2669	2960	94	3251	3679	3159

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COEUR D'ALENE	238.5	127.5	116.5	127.8

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - February 1, 1996

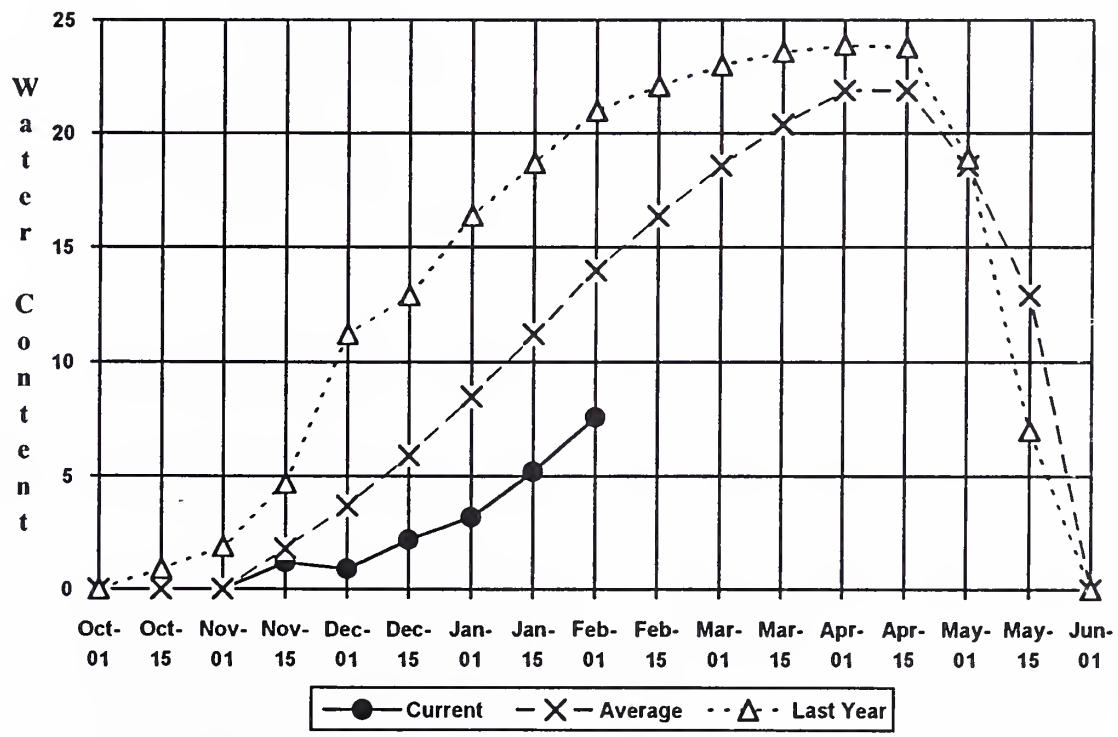
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Spokane River	12	67	73

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

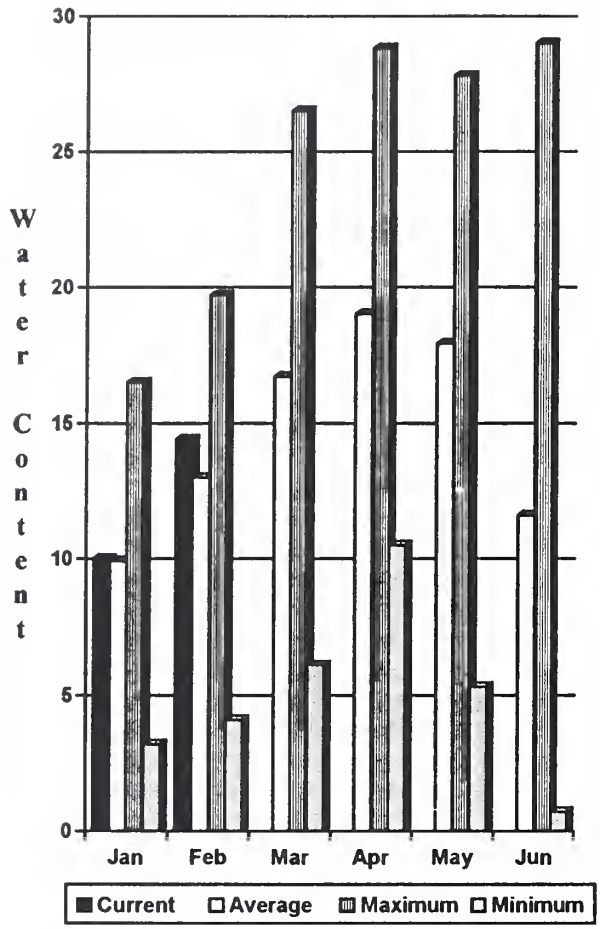
The average is computed for the 1961-1990 base period.

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

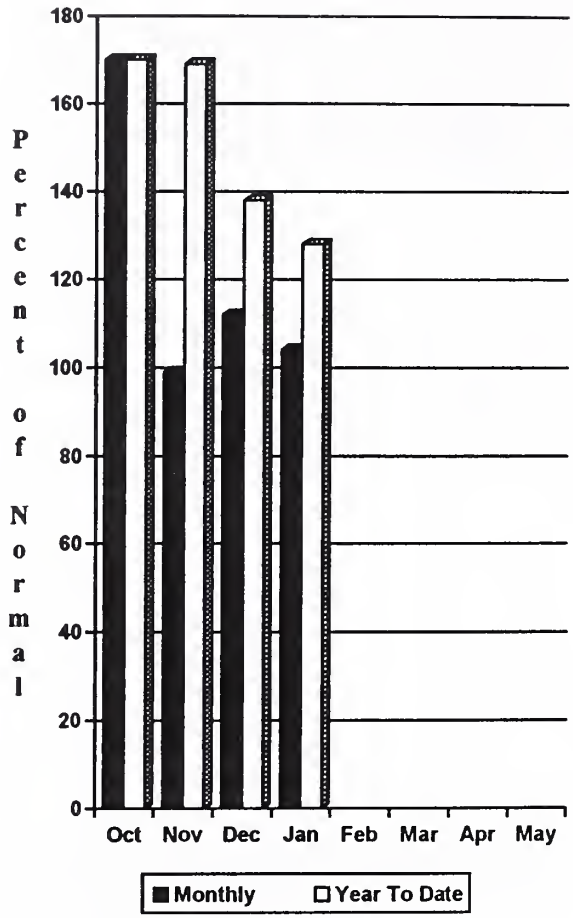
Quartz Peak SNOTEL
Elevation 4700 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The forecast for the Kettle River streamflow is for 123% of normal; the Pend Oreille, below Box Canyon, 116%; Priest River, near the town of Priest River, 108% of normal for the summer runoff period. Forecast for the Columbia River at Birchbank is for runoff to be 117% of average. January streamflow was 158% of normal on the Pend Oreille River, 158% on the Columbia at the International Boundary, and 236% on the Kettle River. February 1 snow cover was 111% of normal in the Pend Oreille Basin, and 113% for the Kettle River Basin. Precipitation during January was 104% of average, bringing the water year-to-date to 128% of normal.

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

COLVILLE - PEND OREILLE RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (1,2)	APR-JUL	11578	14206	15400	117	16594	19222	13150
	APR-SEP	12620	15495	16800	117	18105	20980	14370
	APR-JUN	9692	12173	13300	117	14427	16908	11390
PRIEST nr Priest River (1,2)	APR-JUL	602	790	875	107	960	1148	814
	APR-SEP	643	844	935	108	1026	1227	868
PEND OREILLE bl Box Canyon (1,2)	APR-JUL	12025	14415	15500	116	16585	18975	13380
	APR-SEP	13107	15715	16900	116	18085	20693	14590
	APR-JUN	10410	12466	13400	116	14334	16390	11570
CHAMOKANE CK nr Long Lake	MAY-AUG	1.48	5.68	8.48	9	11.28	15.48	9.40
COLVILLE at Kettle Falls	APR-SEP	67	101	124	95	147	181	131
	APR-JUL	60	92	113	94	134	166	120
	APR-JUN	57	86	105	95	124	153	111
KETTLE near Laurier	APR-SEP	1915	2132	2280	123	2428	2645	1854
	APR-JUL	1838	2035	2170	123	2305	2502	1761
	APR-JUN	1694	1864	1980	125	2096	2266	1585
COLUMBIA at Birchbank (1,2)	APR-JUL	35217	39194	41000	117	42806	46783	35140
	APR-SEP	43856	48837	51100	117	53363	58344	43810
	APR-JUN	25814	28692	30000	117	31308	34186	25670
COLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	63034	71607	75500	116	79393	87966	64850
	APR-JUL	52846	60035	63300	116	66565	73754	54543
	APR-JUN	41856	47457	50000	117	52543	58144	42756

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROOSEVELT	5232.0	4247.3	3898.2	3749.0
BANKS	715.0	664.2	151.2	599.0

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

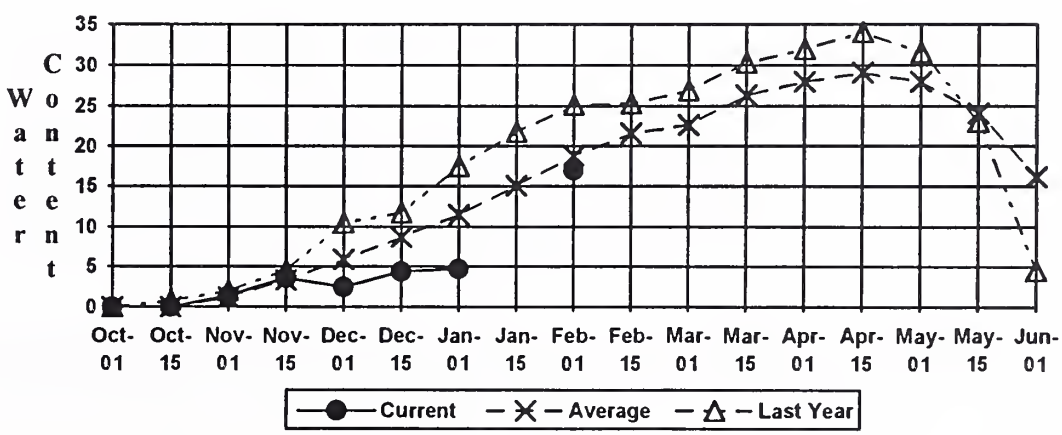
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Colville River	1	72	79
Pend Oreille River	66	116	110
Kettle River	6	94	113

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

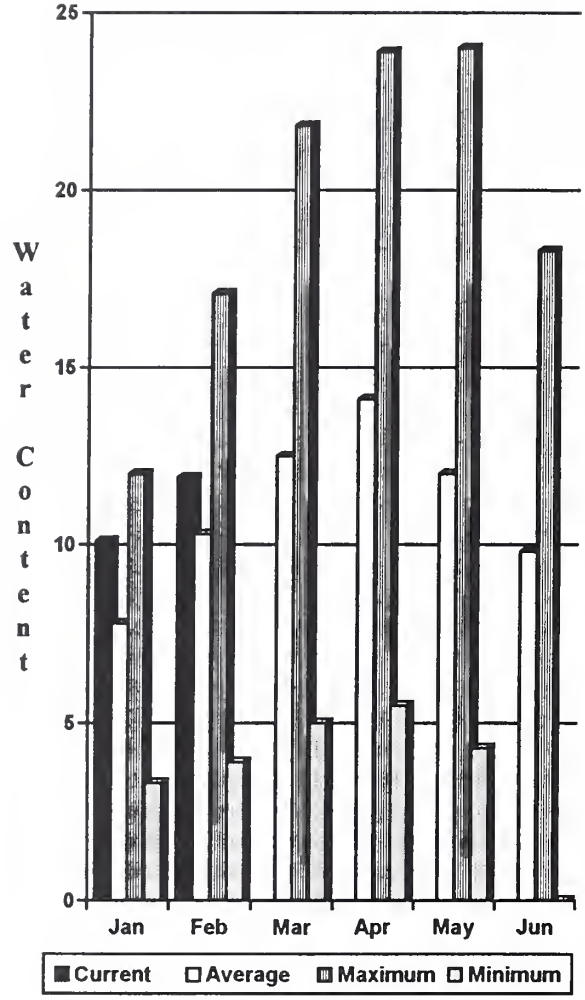
The average is computed for the 1961-1990 base period.

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

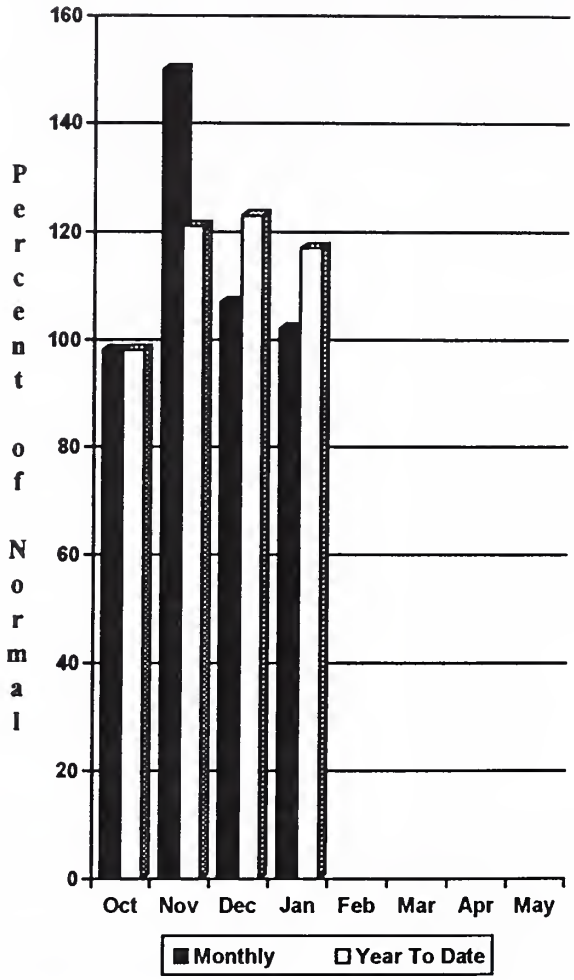
Bunchgrass Meadow SNOTEL
Elevation 5000 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Summer runoff forecast for the Okanogan River is 128% of normal; the Similkameen River, 125%, the Methow River, 126%, and Salmon Creek, 92% of normal. February 1 snow cover on the Okanogan was 114% of normal, and the Methow, 118%. January precipitation in the Okanogan-Methow was 102% of normal, with water year-to-date at 117% of average. January streamflow on the Methow River was 149% of normal, 227% on the Okanogan River, and 226% on the Similkameen. Snow-water-content at the Harts Pass SNOTEL, elevation 6,500 feet, was 35.8 inches; normal for this site is 27.7 inches. Storage in the Conconully Reservoirs was 17,700 acre feet, which is 75% of capacity and 1128% of the February 1 average.

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

OKANOGAN - METHOW RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN nr Nighthawk (1)	APR-SEP	1161	1655	1750	125	1845	2392	1399
	APR-JUL	1344	1541	1630	125	1719	1916	1304
	APR-JUN	1150	1315	1390	125	1465	1630	1113
OKANOGAN RIVER nr Tonasket (1)	APR-SEP	1348	1872	2080	128	2288	2712	1624
	APR-JUL	1290	1696	1880	128	2064	2470	1467
	APR-JUN	1133	1440	1580	128	1720	2027	1234
SALMON CREEK near Conconully	APR-JUL	5.3	12.6	17.6	92	23	30	19.1
	APR-SEP	5.9	13.3	18.4	92	24	31	20
METHOW RIVER near Pateros	APR-SEP	1000	1113	1190	126	1267	1380	942
	APR-JUL	929	1031	1100	126	1169	1271	873
	APR-JUN	789	879	940	126	1001	1091	746

OKANOGAN - METHOW RIVER BASINS
Reservoir Storage (1000 AF) - End of January

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

OKANOGAN - METHOW RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

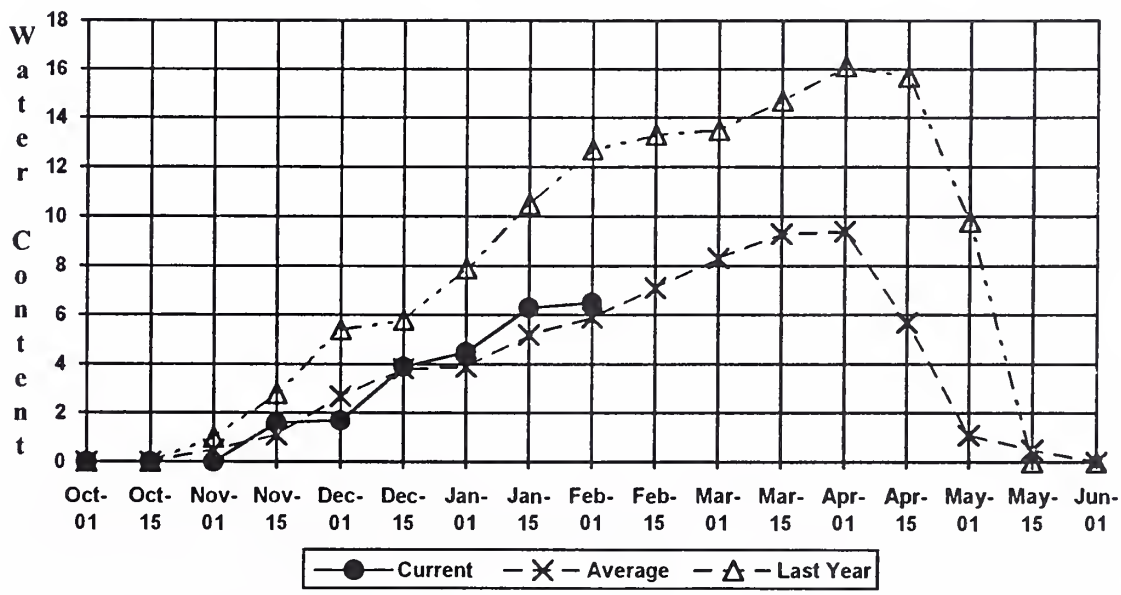
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Okanogan River	19	94	114
Methow River	4	79	118

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

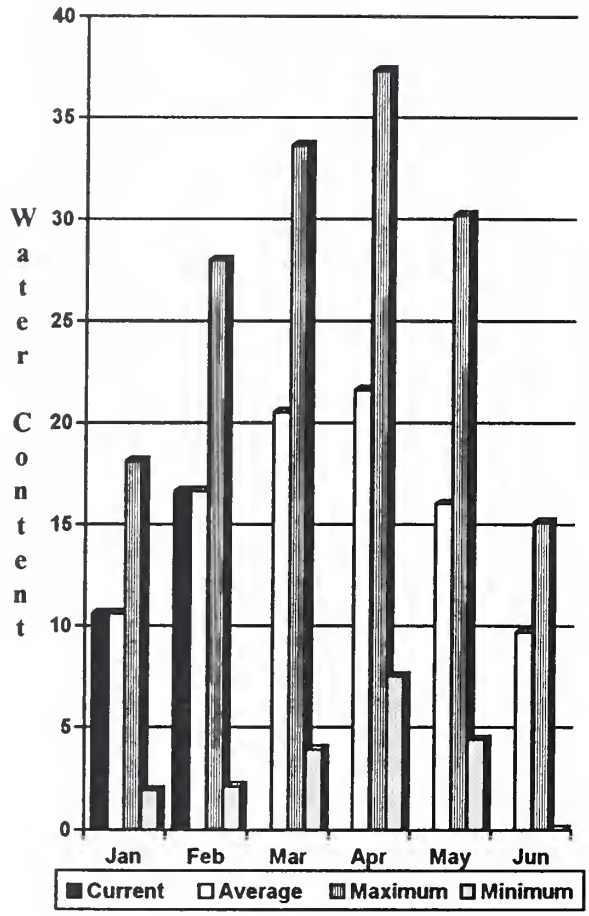
The average is computed for the 1961-1990 base period.

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

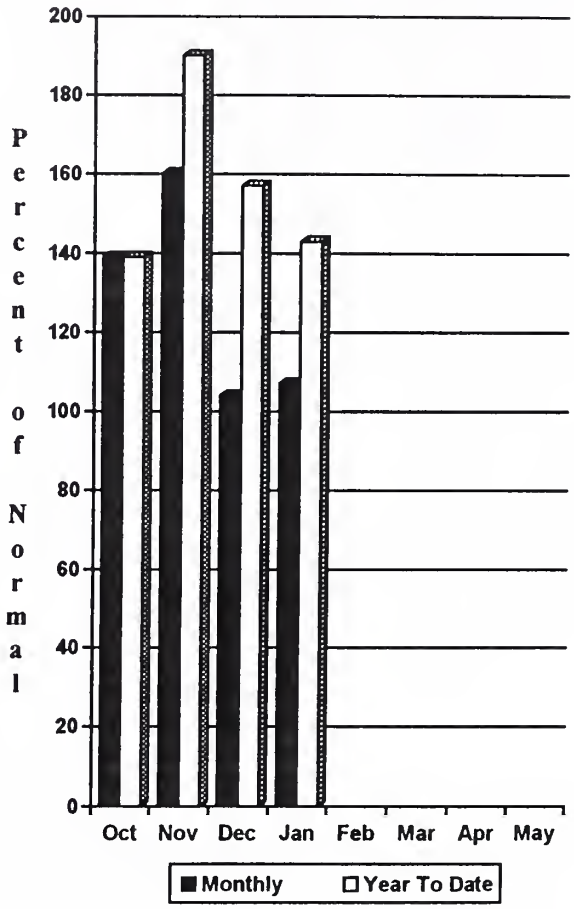
Salmon Meadows SNOTEL
Elevation 4500 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Precipitation during January was 107% of normal in the basin and 143% for the year to date. Runoff for the Entiat River is forecast to be 119% of normal for the summer. The April-September forecast for the Chelan River is for 113%, for the Wenatchee River it is 106%, and 113% on the Stehekin. Icicle Creek is forecast to be 97% of normal this summer. Streamflow for January on the Chelan River was 156% of average and on the Wenatchee River it was 185% of normal. February 1 snowpack in the Wenatchee Basin was 90% of average, which is only 60% of last year. The Chelan Basin was 114% of average and Stemilt Creek was at 89% of normal. Snowpack in the Entiat River Basin was at 118% of average. Reservoir storage in Lake Chelan was 572,200 acre feet or 127% of February 1 average and 85% of capacity. Lyman Lake SNOTEL had the most snow water with 43.4 inches of water. This site normally has 39.0 inches and last year it had 54.2 inches on February 1.

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

WENATCHEE - CHELAN RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<------ Drier ------ Future Conditions ------ Wetter ------>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CHELAN RIVER near Chelan	APR-SEP	1135	1241	1312	113	1383	1489	1160
	APR-JUL	1041	1130	1190	116	1250	1339	1024
	APR-JUN	808	884	935	115	986	1062	812
STEHEKIN near STEHEKIN	APR-SEP	821	889	935	113	981	1049	827
	APR-JUL	716	769	806	115	843	896	701
	APR-JUN	544	589	620	115	651	696	538
ENTIAT RIVER near Ardenvoir	APR-SEP	228	253	270	119	287	312	227
	APR-JUL	207	230	245	119	260	283	206
	APR-JUN	169	189	202	120	215	235	169
WENATCHEE at Plain	APR-SEP	1082	1188	1260	106	1332	1438	1190
	APR-JUL	1010	1088	1140	106	1192	1270	1072
	APR-JUN	821	877	915	106	953	1009	864
WENATCHEE R. at Peshastin	APR-SEP	1204	1541	1770	108	1999	2336	1636
	APR-JUL	1089	1393	1600	108	1807	2111	1485
	APR-JUN	890	1134	1300	108	1466	1710	1204
STEMILT nr Wenatchee (miners in)	MAY-SEP	84	112	131	95	150	178	138
ICICLE CREEK nr Leavenworth	APR-SEP	235	309	360	97	411	485	370
	APR-JUL	215	284	330	97	376	445	340
	APR-JUN	169	223	260	96	297	351	270
COLUMBIA R. bl Rock Island Dam (2)	APR-SEP	69476	77588	83100	118	88612	96724	70485
	APR-JUL	58788	65642	70300	118	74958	81812	59736
	APR-JUN	46500	51859	55500	118	59141	64500	47007

WENATCHEE - CHELAN RIVER BASINS
Reservoir Storage (1000 AF) - End of January

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	572.2	266.2	450.6

WENATCHEE - CHELAN RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

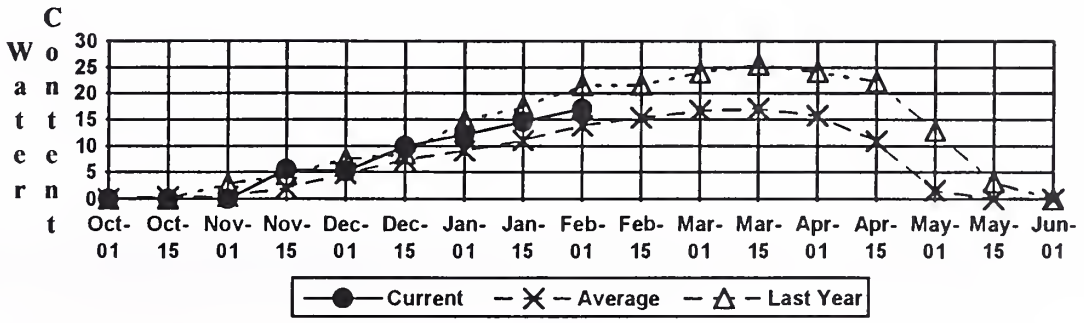
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Chelan Lake Basin	5	86	114
Entiat River	2	75	118
Wenatchee River	12	65	90
Squilchuck Creek	0	0	0
Stemilt Creek	2	65	89
Colockum Creek	1	45	103

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

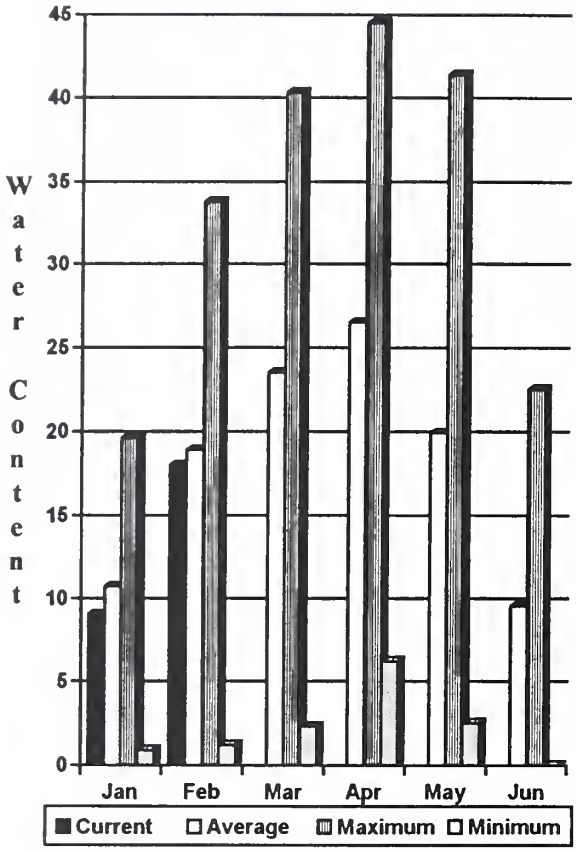
The average is computed for the 1961-1990 base period.

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

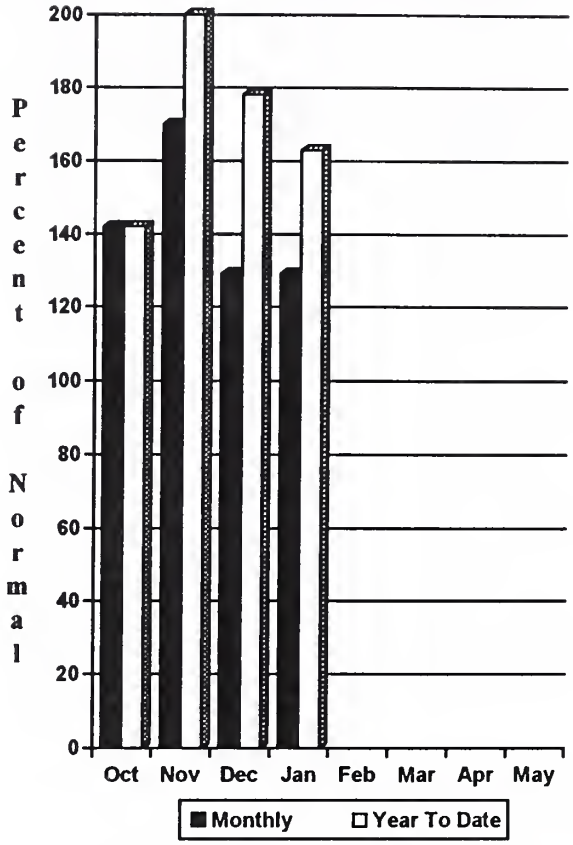
Pope Ridge SNOTEL
Elevation 3540 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

February 1 reservoir storage for the five major reservoirs was 816,400 acre feet, 127% of average. February 1 summer streamflow forecasts are for near to above normal in the Yakima Basin. Forecasts for the Yakima River at Cle Elum are for 109% of normal; Naches River, 112%; the Yakima River at Parker, 112%; Ahtanum Creek, 107%; and the Tieton River, 113%. The Klickitat River near Glenwood is forecast at 107% of normal flows this summer. January streamflows within the basin were; the Yakima River at Parker 196% of normal; the Yakima near Cle Elum, 167%; and the Naches River at 243%. February 1 snowpack was 91% based upon 21 snow courses and SNOTEL readings within the Yakima Basin. Precipitation was 129% of normal for January and 163% for the water year-to-date. Temperatures were 1.3 degrees above average for January. 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.

YAKIMA RIVER BASIN

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<== Drier == Future Conditions == Wetter ==>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KEECHELUS LAKE INFLOW	APR-JUL	111	125	135	109	145	159	124
	APR-SEP	118	133	144	107	155	170	135
	APR-JUN	99	110	118	108	126	137	109
KACHESS LAKE INFLOW	APR-JUL	102	114	122	110	130	142	111
	APR-SEP	107	120	129	109	138	151	118
	APR-JUN	95	105	111	112	117	127	99
CLE ELUM LAKE INFLOW	APR-JUL	402	437	460	112	483	518	409
	APR-SEP	421	462	490	109	518	559	448
	APR-JUN	338	366	386	112	406	434	345
YAKIMA at Cle Elum	APR-JUN	694	757	800	111	843	906	721
	APR-JUL	801	875	925	111	975	1049	832
	APP-SEP	865	945	1000	109	1055	1135	915
BUMPING LAKE INFLOW	APR-SEP	124	139	150	110	161	176	136
	APR-JUL	113	127	136	110	145	159	124
	APR-JUN	92	105	114	110	123	136	104
AMERICAN RIVER near Nile	APR-SEP	95	108	116	98	124	137	118
	APR-JUL	88	99	107	98	115	126	109
	APR-JUN	72	83	90	98	97	108	92
RIMROCK LAKE INFLOW	APR-SEP	228	253	270	113	287	312	238
	APR-JUL	194	214	227	114	240	260	200
	APR-JUN	157	172	183	113	194	209	162
NACHES near Naches	APR-SEP	801	878	930	112	982	1059	832
	APR-JUL	738	805	850	113	895	962	755
	APR-JUN	638	696	735	113	774	832	651
AHTANUM CREEK nr Tampico (2)	APR-SEP	30	42	49	107	57	68	46
	APR-JUL	28	39	45	108	52	63	42
	APR-JUN	24	33	39	108	45	54	36
YAKIMA near Parker	APR-SEP	1918	2110	2240	112	2370	2562	1994
	APR-JUL	1746	1918	2035	113	2152	2324	1805
	APR-JUN	1545	1691	1790	112	1889	2035	1597
KLICKITAT near Glenwood	APR-JUN	96	109	117	106	125	138	110
	APR-SEP	120	138	150	107	162	180	140

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	119.9	71.6	96.0
KACHESS	239.0	213.8	70.9	170.0
CLE ELUM	436.9	326.9	103.1	251.0
BUMPING LAKE	33.7	14.3	15.4	9.0
RIMROCK	198.0	141.5	78.7	115.0

YAKIMA RIVER BASIN
Watershed Snowpack Analysis - February 1, 1996

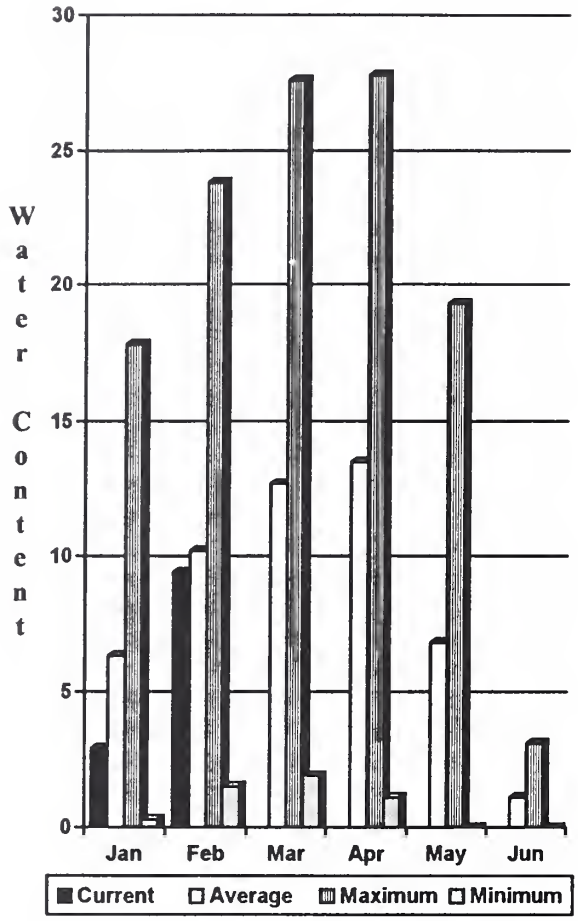
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Yakima River	20	59	91
Ahtanum Creek	3	47	100

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

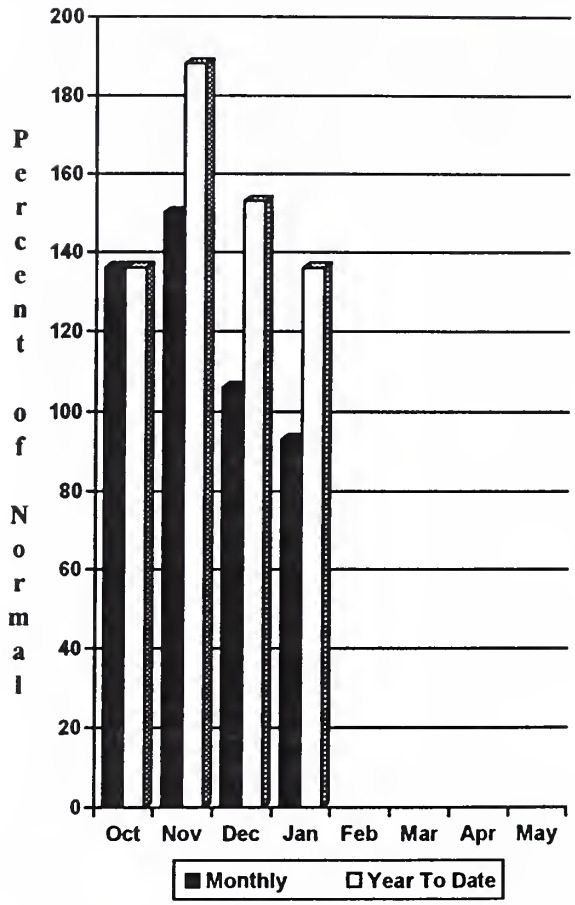
The average is computed for the 1961-1990 base period.

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

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

January precipitation was 93% of average, bringing the year-to-date precipitation to 136% of normal. February 1 snowpack was at 92% of normal up from 46% a month ago. The forecast is for 114% of average streamflow in the Walla Walla River for the coming summer, for the Grande Ronde at Troy, 117%, and 104% for Mill Creek. January streamflow was 186% of normal for the N.F. Walla Walla River, 137% for the Snake River, and 241% for the Grande Ronde River near Troy. The Touchet SNOTEL site had 18.8 inches of snow-water-equivalent, a 13 inch increase over the last month, the normal February 1 reading for this site is 20.8 inches.

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

WALLA WALLA RIVER BASIN

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GRANDE RONDE at Troy (1)	MAR-JUL	1152	1542	1720	117	1898	2288	1471
	APR-SEP	1016	1369	1530	117	1691	2044	1312
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	13985	20391	23300	108	26209	32615	21650
	APR-SEP	15831	23030	26300	108	29570	36769	24360
MILL CREEK at Walla Walla	APR-SEP	9.6	14.4	17.7	104	21	26	17.1
	APR-JUL	9.0	13.8	17.1	101	20	25	16.9
	APR-JUN	9.0	13.8	17.0	102	20	25	16.7
SF WALLA WALLA nr Milton Freewater	APR-JUL	51	57	62	116	66	72	53
	APR-SEP	64	71	76	115	80	87	66
COLUMBIA R. at The Dalles (2)	APR-SEP	88730	101990	111000	112	120010	133270	98982
	APR-JUL	76883	88206	95900	113	103594	114917	84760
	APR-JUN	62514	71675	77900	113	84125	93286	68925

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

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

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - February 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Mill Creek	2	69	92

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

The average is computed for the 1961-1990 base period.

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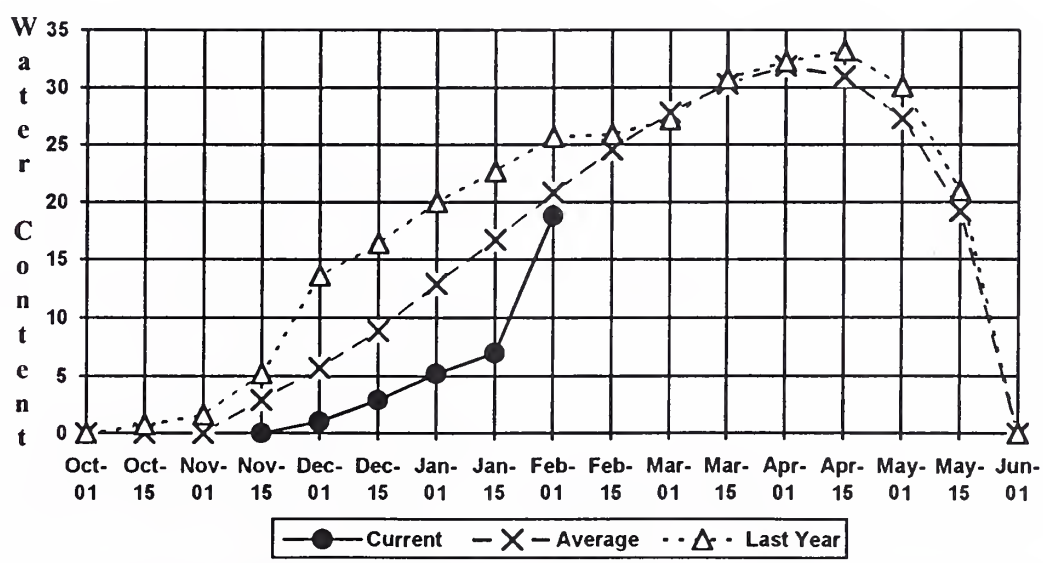
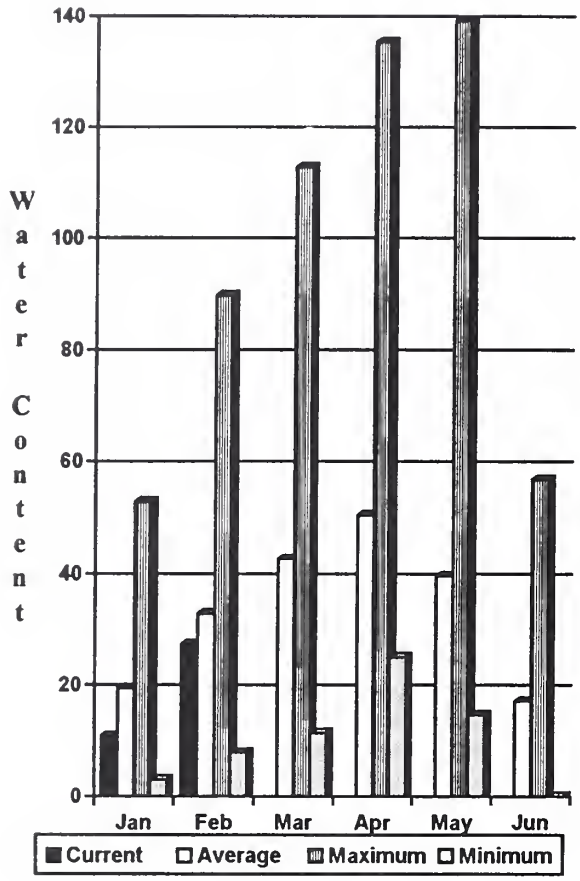
(2) - The value is natural flow - actual flow may be affected by upstream water management.

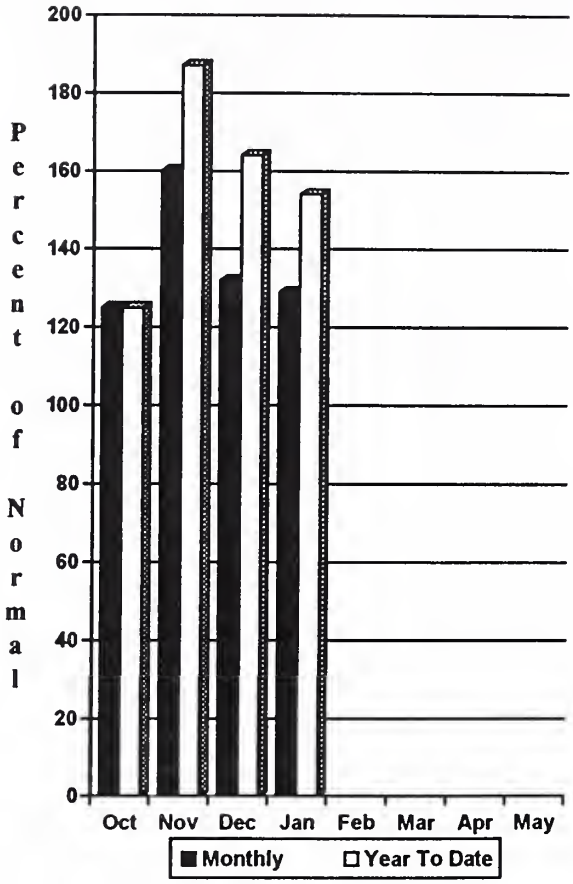
Touchet #2 SNOTEL
Elevation 5530 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The forecast for summer runoff in the Lewis River Basin is 105% of normal. The Cowlitz River at Castle Rock is forecast for 105% of normal runoff. January streamflow for the Cowlitz River was 148% of average, and 120% for the Lewis River. January precipitation was 129% of normal, 154% of average for the water-year. February 1 snow cover for the Cowlitz River was 95% and the Lewis River was 71% of average. The Paradise Park SNOTEL recorded the most water content for the basin with 40.2 inches of water. Normal February 1 water content is 38.5 inches.

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

COWLITZ - LEWIS RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LEWIS RIVER at Ariel (2)	APR-SEP	803	1075	1260	105	1445	1717	1204
	APR-JUL	702	939	1100	105	1261	1498	1051
	APR-JUN	628	837	980	105	1123	1332	933
COWLITZ R. bl Mayfield Dam (2)	APR-SEP	887	1645	1980	101	2315	3073	1970
	APR-JUL	1014	1446	1740	101	2034	2466	1731
	APR-JUN	870	1239	1490	101	1741	2110	1477
COWLITZ R. at Castle Rock (2)	APR-SEP	1253	2454	2810	105	3166	4347	2667
	APR-JUL	1682	2139	2450	105	2761	3218	2325
	APR-JUN	1430	1823	2090	105	2357	2750	1995
KLICKITAT near Glenwood	APR-JUN	96	109	117	106	125	138	110
	APR-SEP	120	138	150	107	162	180	140

COWLITZ - LEWIS RIVER BASINS
Reservoir Storage (1000 AF) - End of January

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

COWLITZ - LEWIS RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

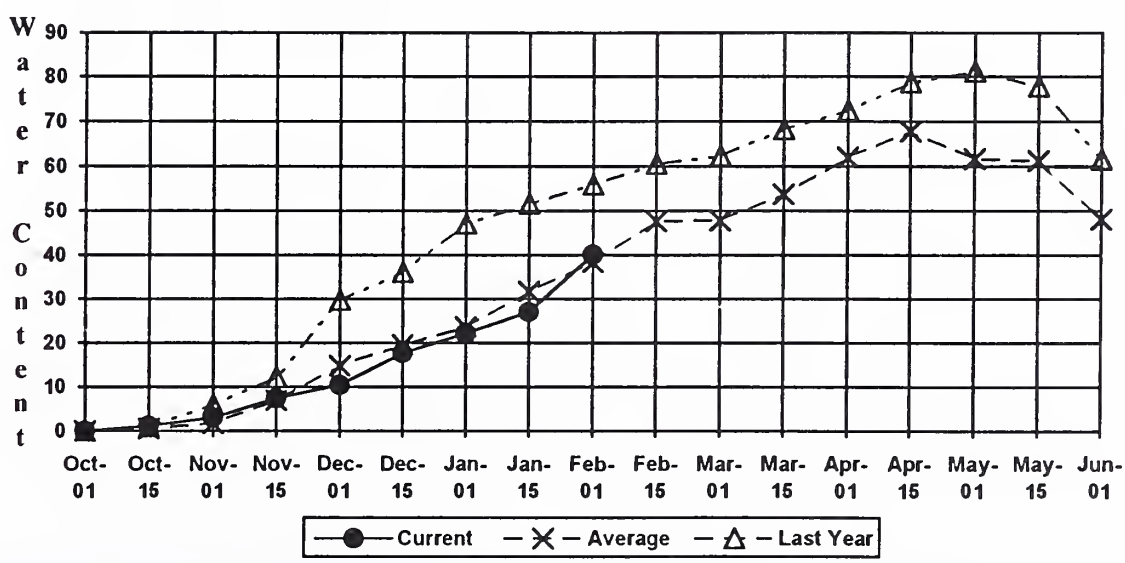
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Cowlitz River	7	68	95
Lewis River	4	56	71

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

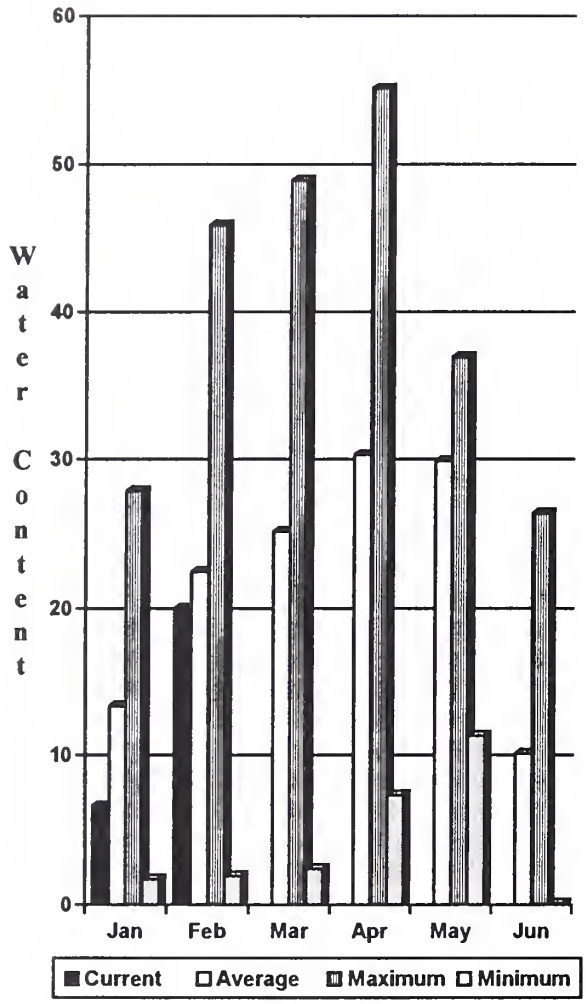
The average is computed for the 1961-1990 base period.

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

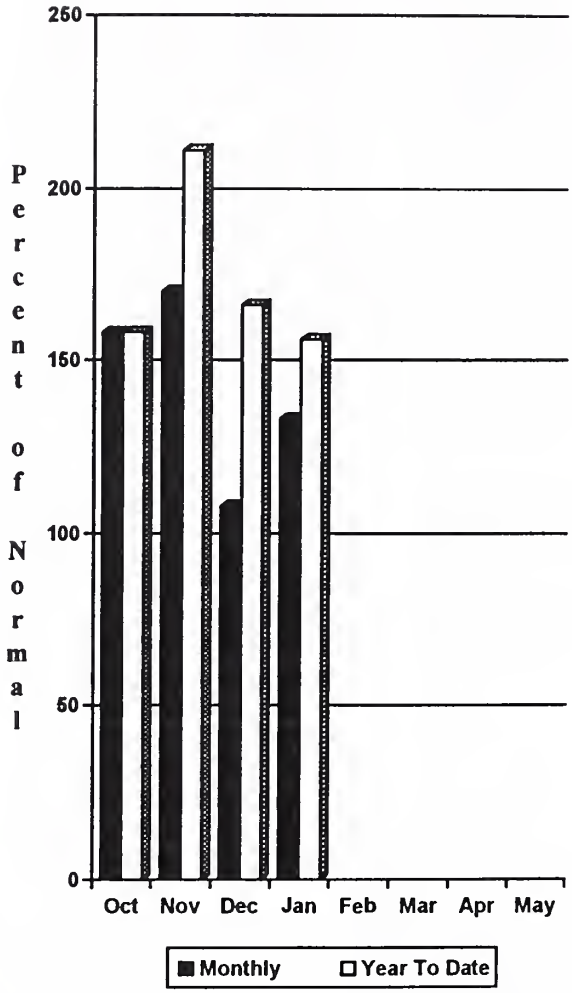
Paridise SNOTEL
Elevation 5120 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Summer runoff is forecast to be 99% of normal for the Green River, and 92% for the Cedar River near Cedar Falls; 87% for the Rex River, 95% for the South Fork of the Tolt River, and 94% for the Cedar River at Cedar Falls. February 1 snowpack was 100% of normal in the White River Basin and 77% in the Green River Basin. Water content on February 1 at the Morse Lake SNOTEL, at an elevation of 5,400 feet, was 31.1 inches. This site has a February 1 average of 29.6 inches. January precipitation was 133% of normal, bringing the water year-to-date to 156% of average.

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

WHITE - GREEN - CEDAR RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GREEN RIVER below Howard Hanson Dam	APR-JUL	196	231	255	99	279	314	257
	APR-SEP	221	257	281	99	305	341	285
	APR-JUN	176	209	232	99	255	288	234
CEDAR RIVER near Cedar Falls	APR-JUL	51	63	71	92	78	90	77
	APR-SEP	58	70	78	92	87	99	85
	APR-JUN	47	57	63	93	70	80	68
REX RIVER near Cedar Falls	APR-JUL	15.8	20	24	87	27	31	27
	APR-SEP	18.8	23	26	87	29	33	30
	APR-JUN	15.5	19.3	22	87	24	28	25
CEDAR RIVER at Cedar Falls	APR-JUL	48	65	77	94	89	106	82
	APR-SEP	50	67	78	94	89	106	83
	APR-JUN	49	65	75	94	86	101	80
SOUTH FORK TOLT near Index	APR-JUL	11.1	13.1	14.4	95	15.7	17.7	15.2
	APR-SEP	13.4	15.5	16.9	95	18.3	20	17.8
	APR-JUN	9.5	11.4	12.6	96	13.8	15.7	13.1

WHITE - GREEN RIVER BASINS
Reservoir Storage (1000 AF) - End of January

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

WHITE - GREEN RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

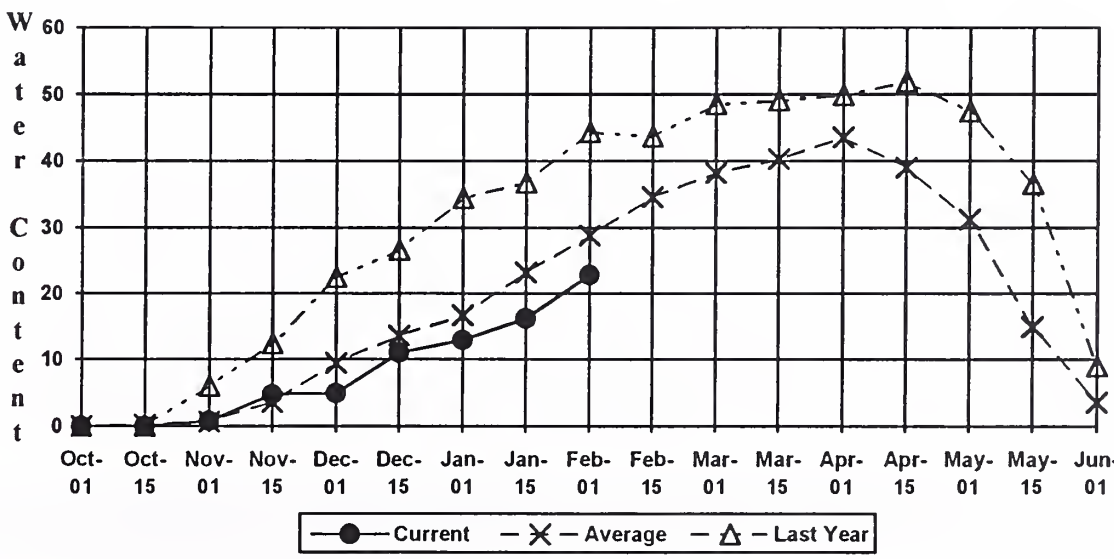
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
White River	3	59	100
Green River	6	70	78
Cedar River	0	0	0

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

The average is computed for the 1961-1990 base period.

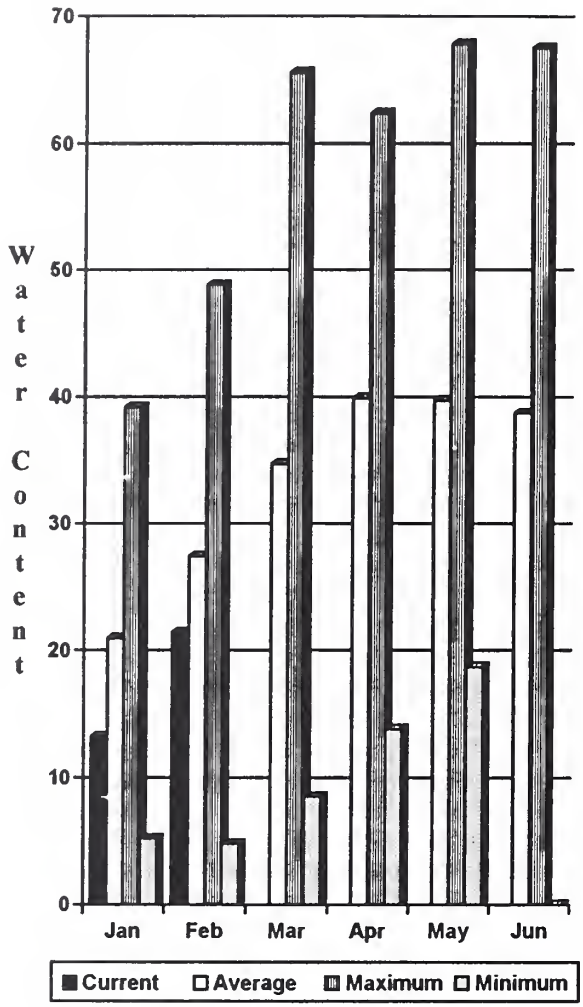
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Stampede Pass SNOTEL
Elevation 3860 ft.

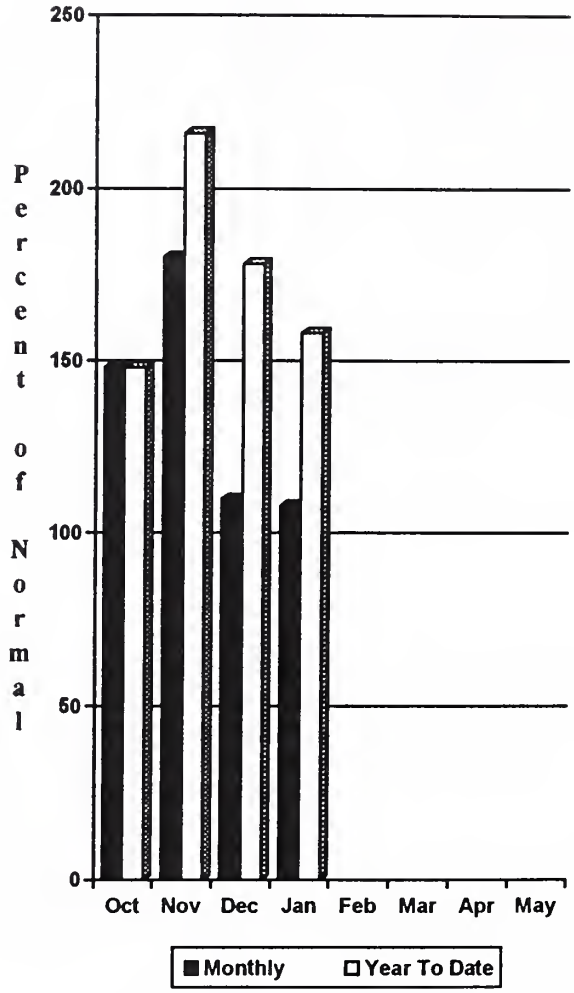


North Puget Sound River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Forecast for the Skagit River streamflow is for 95% of normal for the spring and summer periods. January streamflow in the Skagit River was 143% of average. Other forecast points included the Baker River at 91% and Thunder Creek at 96%. Basin-wide precipitation for January was 108% of average, bringing water-year-to-date to 158% of normal. February 1 snow cover in the Skagit River Basin was 90%, the Baker River Basin was, 66% and the Snohomish River Basin was 77% of average. Rainy Pass SNOTEL, at 4,780 feet, had 36.5 inches of water content. Normal February 1 water content is 24.5 inches. February 1 reservoir storage showed Ross Lake at 115% normal and 84% of capacity.

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

NORTH PUGET SOUND RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	APR-JUL	188	205	216	94	227	244	230
	APR-SEP	285	303	315	96	327	345	328
	APR-JUN	112	129	140	94	151	168	149
SKAGIT RIVER at Newhalem (2)	APR-SEP	1586	1880	2080	95	2280	2574	2185
	APR-JUL	1327	1573	1740	95	1907	2153	1830
	APR-JUN	1026	1213	1340	95	1467	1654	1410
BAKER RIVER near Concrete	APR-JUL	645	719	770	92	821	895	836
	APR-SEP	820	911	973	91	1035	1126	1064
	APR-JUN	472	536	579	95	622	686	611

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

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS		NO REPORT		
DIABLO RESERVOIR		NO REPORT		
GORGE RESERVOIR		NO REPORT		

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Snohomish River	4	53	77
Skagit River	13	75	90
Baker River	9	60	66

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

The average is computed for the 1961-1990 base period.

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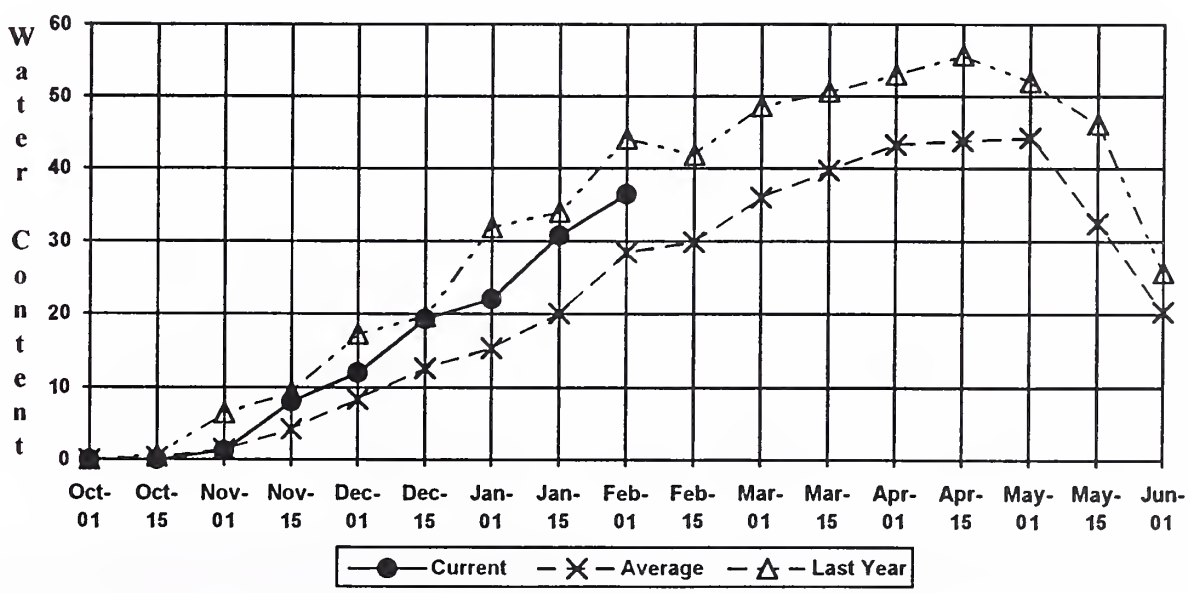
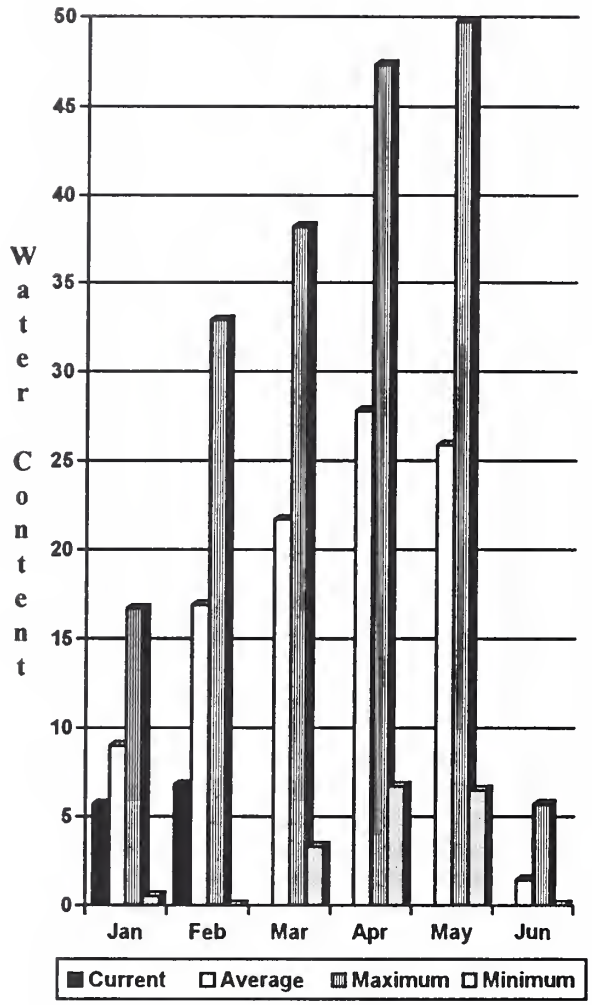
(2) - The value is natural flow - actual flow may be affected by upstream water management.

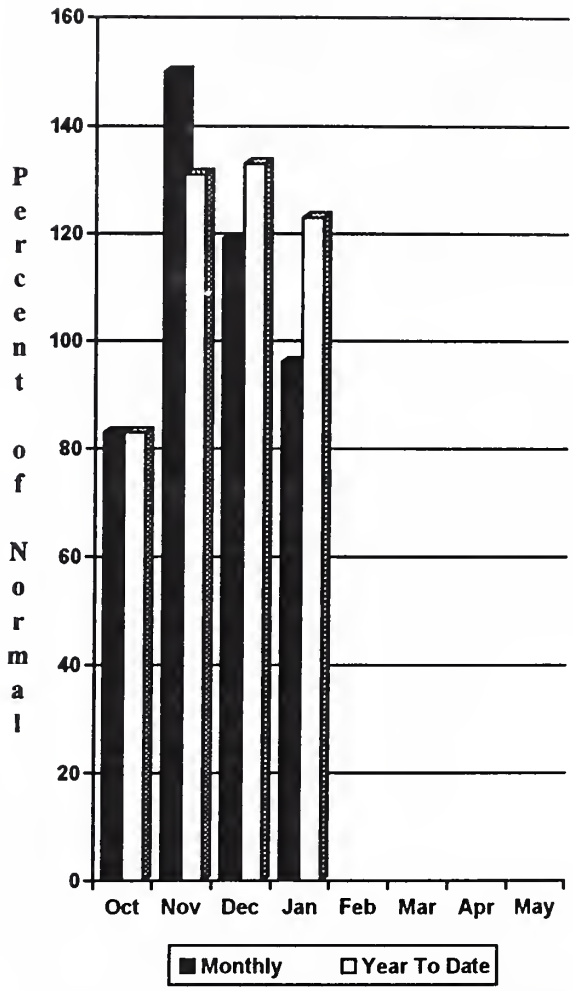
Rainy Pass SNOTEL
Elevation 4780 ft.



Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

February forecasts of runoff for streamflow in the Dungeness River Basin is 94% of average, and the Elwha River is forecasted for 88% of average. The Big Quilcene can expect near normal runoff this summer also. January precipitation was 96% of average. Precipitation has accumulated at 123% of normal for the water year. January precipitation at Quillayute was 13.9 inches, which is slightly below normal at 95% of average. Average February 1 snow cover in the Olympic Basin was much below average at 40%. The Mount Crag SNOTEL near Quilcene had 10.3 inches of snow-water-equivalent on February 1, normal for this site is 16.9 inches.

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

OLYMPIC PENINSULA RIVER BASINS

Streamflow Forecasts - February 1, 1996

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS RIVER nr Sequim	APR-SEP	118	137	150	94	163	182	160
	APR-JUL	97	113	123	94	133	149	131
	APR-JUN	73	84	92	94	100	111	98
ELWHA RIVER nr Port Angeles	APR-SEP	330	396	440	88	484	550	502
	APR-JUL	280	334	370	89	406	460	417

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

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

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - February 1, 1996

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Elwha River	1	25	22
Morse Creek	1	38	43
Dungeness River	1	40	33
Quilcene River	1	43	61
Wynoochee River	0	0	0

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

The average is computed for the 1961-1990 base period.

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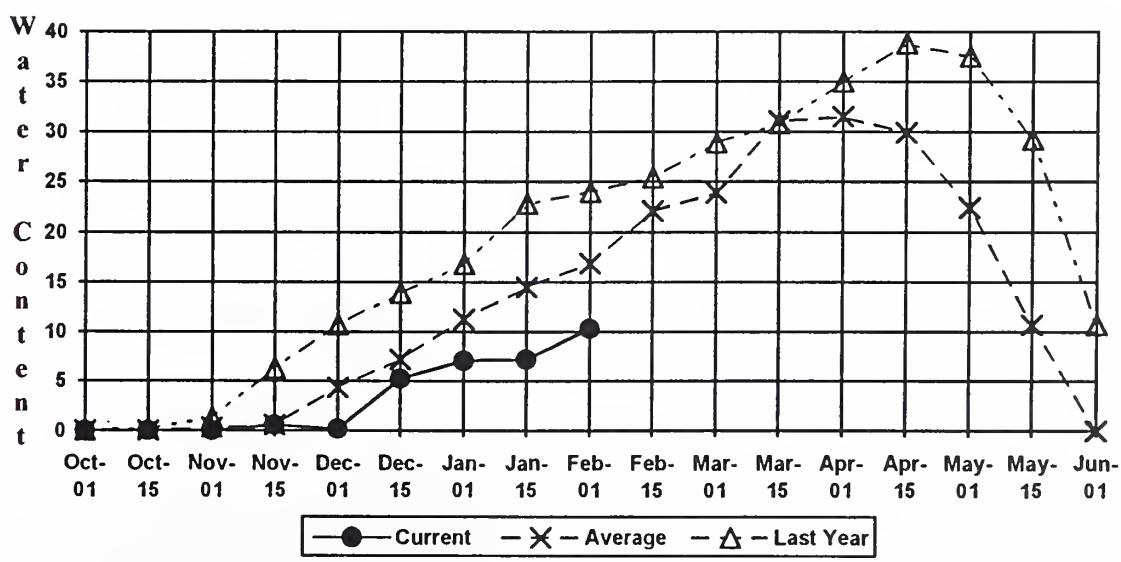
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Mount Crag SNOTEL
Elevation 4050 ft.



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

Canada	Ministry of the Environment Investigations Branch, 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
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
Private	Okanogan Irrigation District Wenatchee Heights Irrigation District Newman Lake Homeowners Association

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

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Washington
Basin Outlook Report

Natural Resources Conservation Service
Spokane, WA