



Subject: Western Snowpack Conditions and Water Supply Forecasts

Date: March 9, 2001

The following information is provided for your use in describing climate and water supply conditions in the West as of March 1, 2001. **The seasonal streamflow volume forecasts continue to show well below average conditions for much of the West, especially the Pacific Northwest.**

SNOWPACK

Much of the West continues to struggle with a very dry weather pattern resulting in well below average seasonal snowpacks (Figure 1). Snowpacks are less than 50% of average in northern and central Idaho and northwestern Montana. Snowpacks are less than 70% of average in the Tahoe area of California, southwest Oregon, Washington, Idaho, British Columbia, central Utah, Montana and northwestern Wyoming.

Basins reporting slightly below to slightly above average snowpacks (70% to 110%) include scattered basins in Oregon, Washington, Idaho, western Montana, southern Wyoming, central Utah, Colorado, central Arizona and central New Mexico. Basins reporting above to much above average snowpacks (>110% to >130%) include portions of eastern Nevada, southern Utah, central Arizona, eastern New Mexico, southern Colorado and an isolated basin in northeastern Wyoming.

The composite snow index for the Columbia above Castlegar (Figure 2) is 51% of average, dropping below 1977's previous March 1 record of 54%. The snowpack index above Grand Coulee Reservoir (Figure 3) is 52% of average, identical to the 1977 value. The snowpack index above The Dalles (Figure 5) is 52.6% of average, little changed from February 1, 2001, but higher than the March 1 record minimum of 43.3% set in 1977.

Western and northern Alaska report well below average snowpacks (<70%), with central sections showing near average (70% to 110%) snowpack conditions. Southern sections of Alaska report above average (>110% to >130%) snowpacks.

MONTHLY AND SEASONAL PRECIPITATION

February 2001 (Figure 6) was an extremely wet month in southern California, southern Nevada and portions of western Arizona and south central Utah. Monthly totals were in excess of 130% of average. Eastern Colorado and New Mexico also reported monthly totals in excess of 130% of average. The copious amounts reported are a stark contrast to the Pacific Northwest February precipitation, which was less than 70% of average. A very dry February did not alleviate continued concerns for drought and low spring runoff.

Similar to the snowpack, seasonal precipitation (Figure 7) in central California, western Oregon, Washington, northern and central Idaho, British Columbia, northwestern Montana and western Wyoming less than 70% of average. The Intermountain states, including a portion of central Arizona, are reporting seasonal precipitation totals that range from slightly below to slightly above average (70% to 130%). Well above seasonal precipitation (>130%) is reported in nearly all of New Mexico, southern Arizona, southern Utah and southern Nevada. Alaska reports below average (<70%) in northern sections, slightly below average (70% to 90%) in eastern sections and near average (90% to 110%) precipitation in the central and southern sections.

SPRING AND SUMMER STREAMFLOW

The scarcity of snowpack is reflected in the forecasted streamflow forecast volumes for much of the West as shown in Figure 8.

Well below average (<70%) spring and summer streamflows are forecast for portions of central California, northern Nevada, southwest, central and southeastern Oregon, Washington, Idaho, southern British Columbia, Canada, western and central Montana, western and central Wyoming, central Utah and small portions of central Colorado and central Arizona.

Slightly below average (70% to 90%) spring and summer streamflows are forecast for parts of northern California, western and north central Oregon, northern British Columbia, Canada, a small portion of eastern Idaho, southeastern Wyoming, eastern and southern Utah, northern Colorado and portions of central Arizona.

Average (90% to 110%) spring and summer streamflow are forecast for portions of southeastern Utah, south-central Colorado, central New Mexico and southeastern Arizona.

Above to much above (110% to > 130%) spring and summer streamflow are forecast portions of basins in southeastern Utah, southern Colorado and central and northern New Mexico.

The Alaska water supply forecast will be posted to the NWCC webpage when it becomes available.

RESERVOIR STORAGE

Major western storage reservoirs (Figure 9) in Montana, Nevada, Oregon and Washington report below average storage level for this time of year. Arizona, California, Colorado, Idaho, Utah and Wyoming report near average storage. Above average storage levels are reported in New Mexico.

FOR MORE INFORMATION

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit us at <http://www.wcc.nrcs.usda.gov>

/s/ PHIL PASTERIS

Team Leader, Water and Climate Services, National Water and Climate Center

Mountain Snowpack as of March 1, 2001

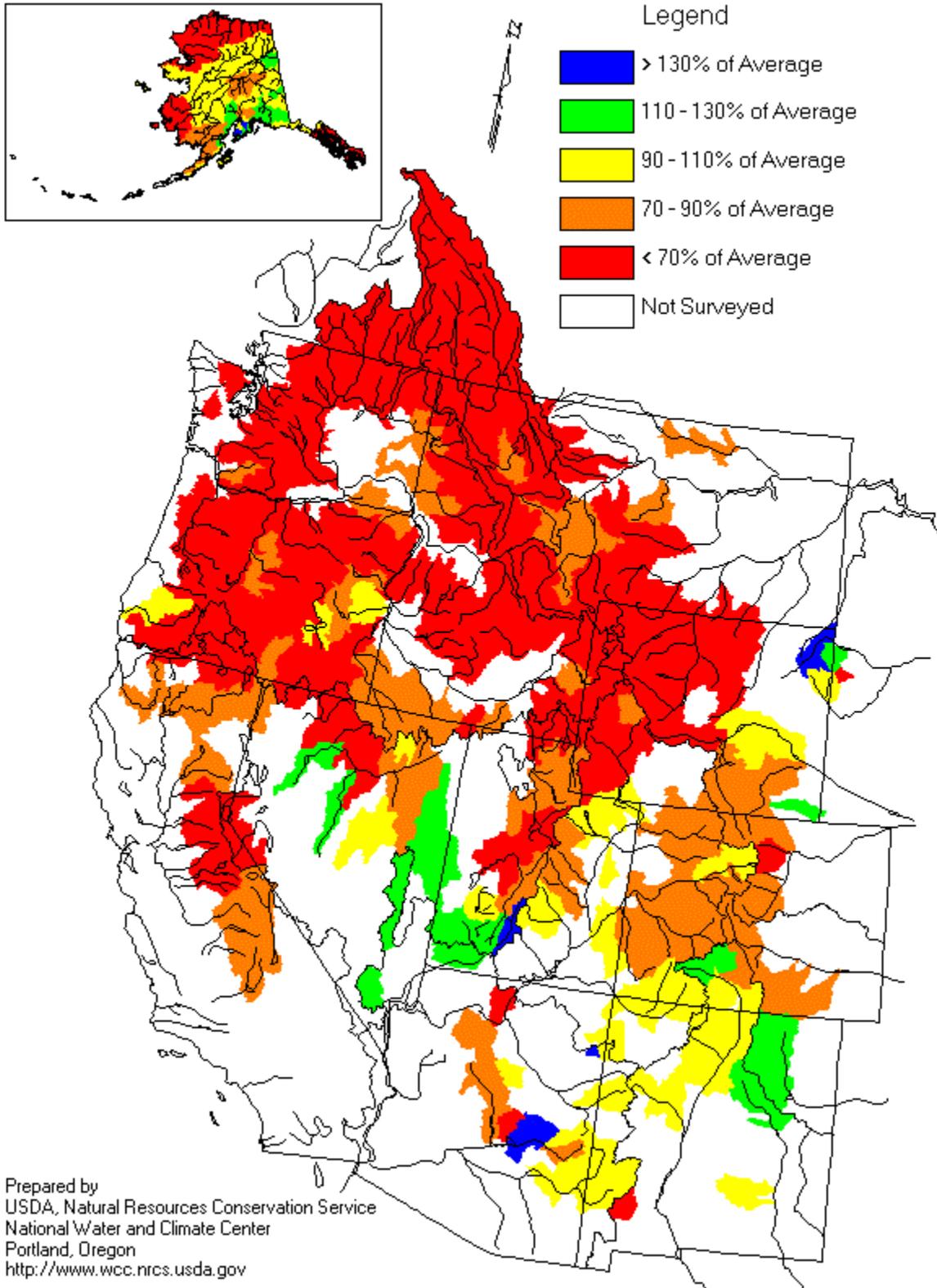


Figure 1. Mountain Snowpack

Special Snowpack Summary Report

March 2001 - Figures Follow This Narrative

The Columbia Basin snowpack percent of average was 52.3 for February 1st and on March 1st 52.6 percent. The snowfall during February was only enough to maintain the already low situation. In the upper basin, Canada and the Kootenay remained within 1% of last month (now 54 and 46 percent, respectively). These two sub-basins account for 43% of the average flow at The Dalles. The Kootenay at 46% edges out the Salmon Basin in central Idaho (47%) for holding the lowest snowpack.

Two sub-basins also vie for the best snowpack in the Columbia (a mere 62%) held by the Snake headwaters and the Eastern Oregon Wallawa Mountains. Oregon's John Day and Deschutes basins dropped from the upper 60 percent range to an even 60% each. In Washington, the North Cascades went up 1% to 55% while the Yakima dropped 2% to 58%.

Overall, the snowpack above The Dalles is 45% of a normal year's peak accumulation, with only 1977, at 37%, being a lower year on record. The most similar year of more recent times was 1988, which held a March snowpack at 63% of peak.

The upper basin is still setting records for low snowpack. The Columbia above Castlegar is at 51%, dropping below 1977's previous record of 54%. The Columbia above Grand Coulee set new records for January 1st and February 1st, but for March 1st, comes up slightly to tie the 1977 value at 52%.

Last year was as close to average as the record has seen and 2001 follows with a definitive low year. One thing seems sure: variation is nature's specialty.

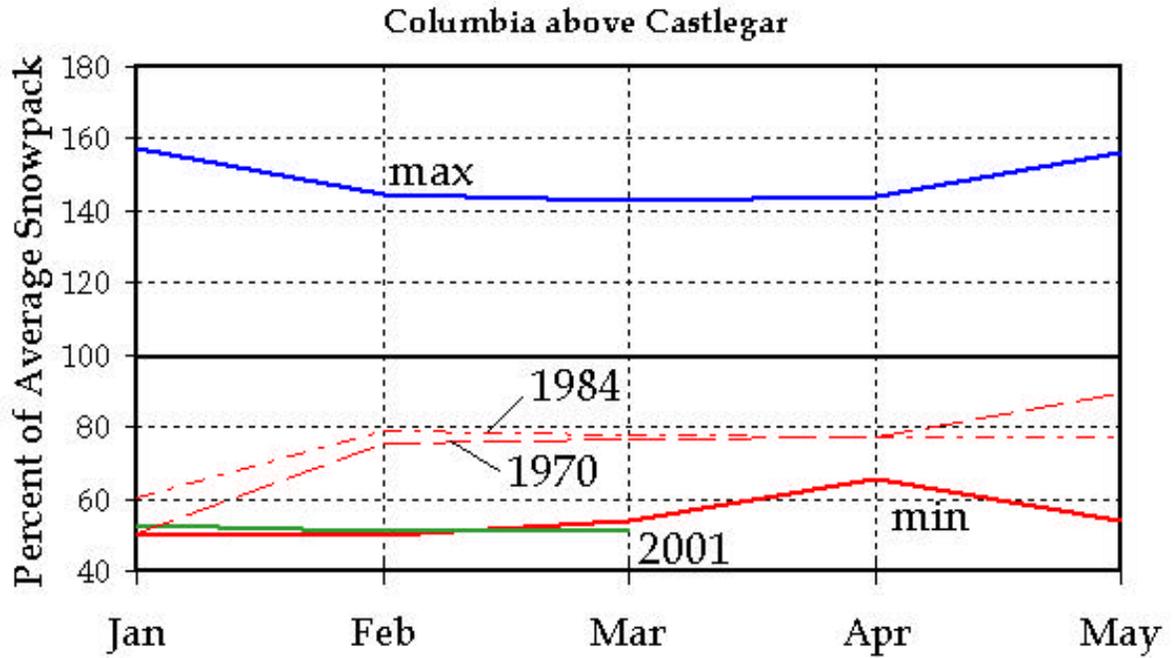


Figure 2. Composite Snow Index for Mountain Snowpack - Columbia above Castlegar

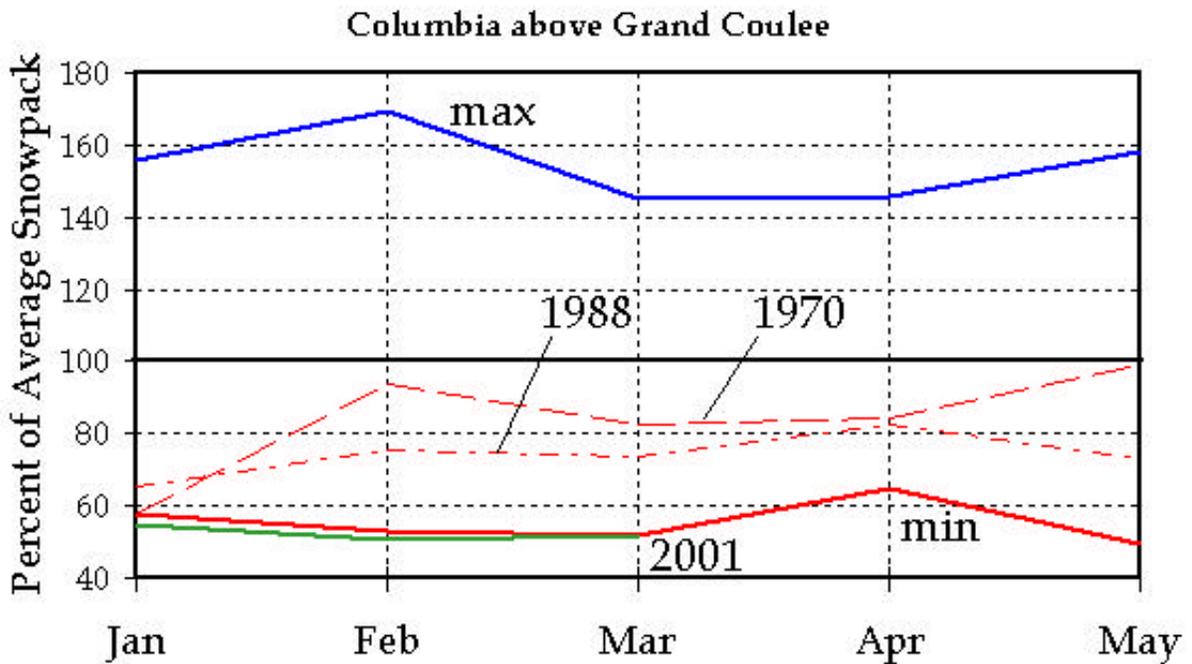


Figure 3. Composite Snow Index for Mountain Snowpack - Columbia above Grand Coulee

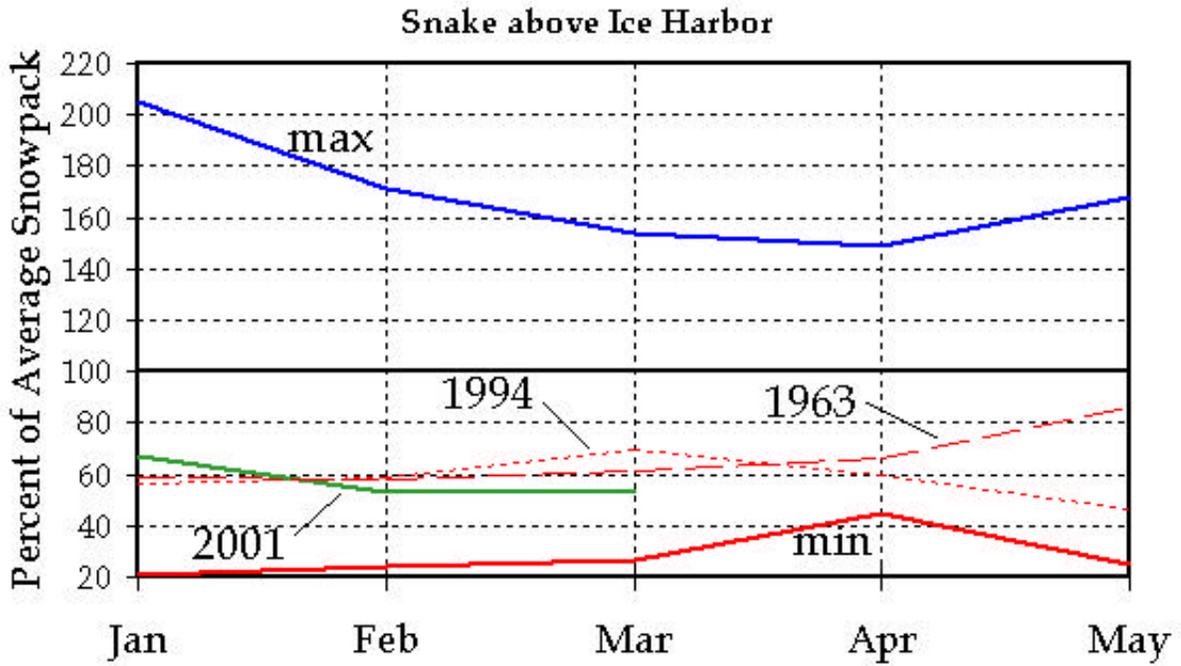


Figure 4. Composite Snow Index for Mountain Snowpack - Snake above Ice Harbor

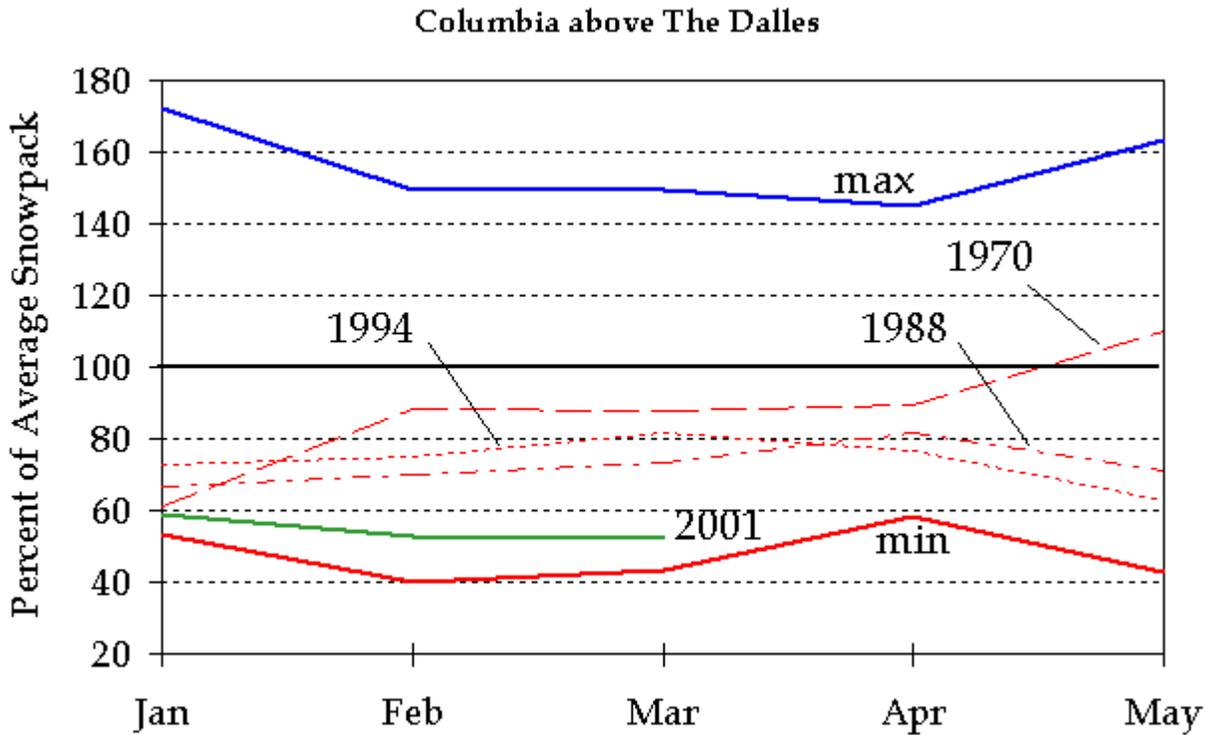


Figure 5. Composite Snow Index for Mountain Snowpack - Columbia above The Dalles

Monthly Precipitation for February 2001

(Averaged by Hydrologic Unit)

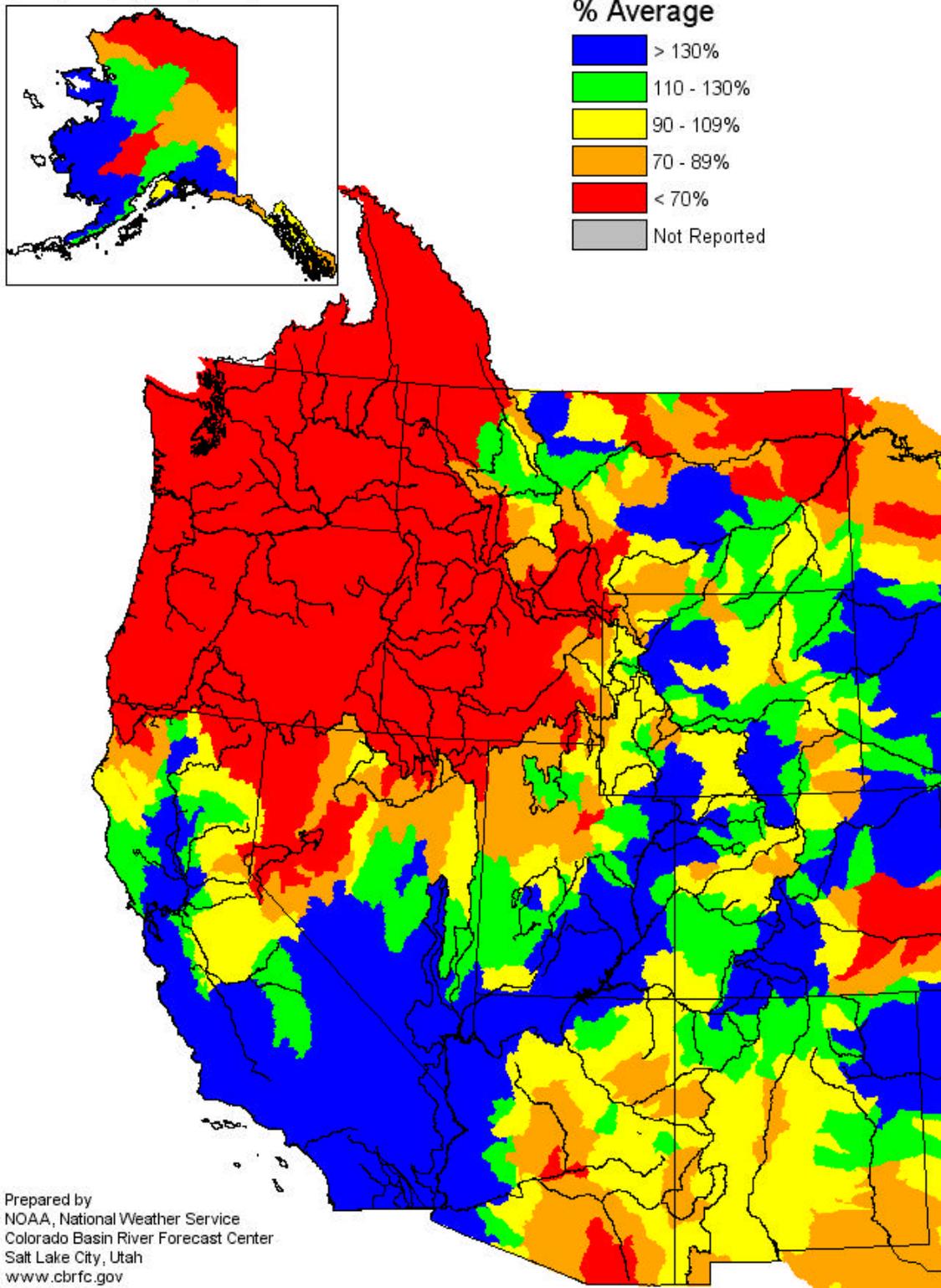


Figure 6. Previous Month's Precipitation

Seasonal Precipitation, October 2000 - February 2001

(Averaged by Hydrologic Unit)

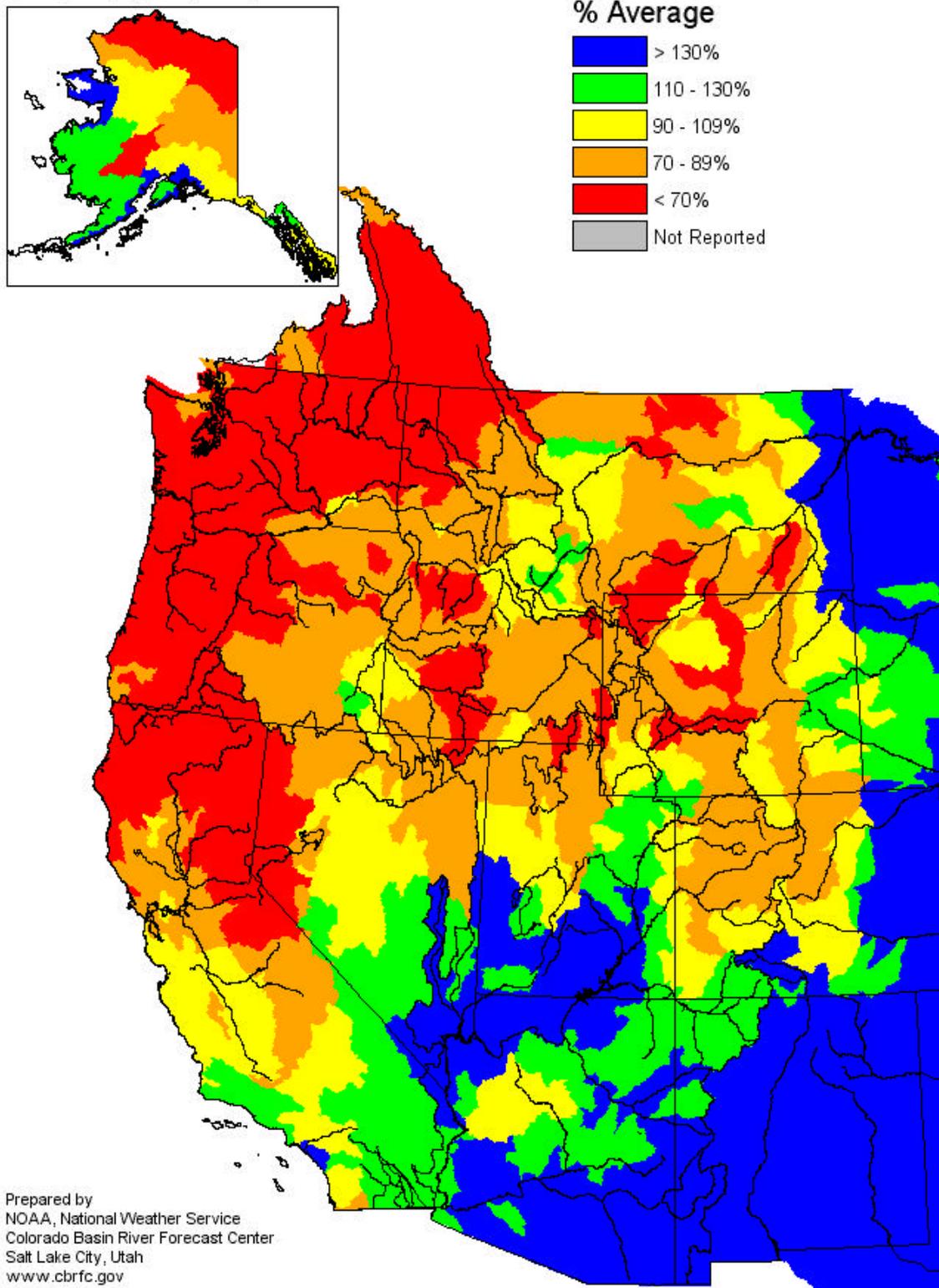


Figure 7. Seasonal Precipitation to Date beginning in October 2000

Spring and Summer Streamflow Forecasts as of March 1, 2001

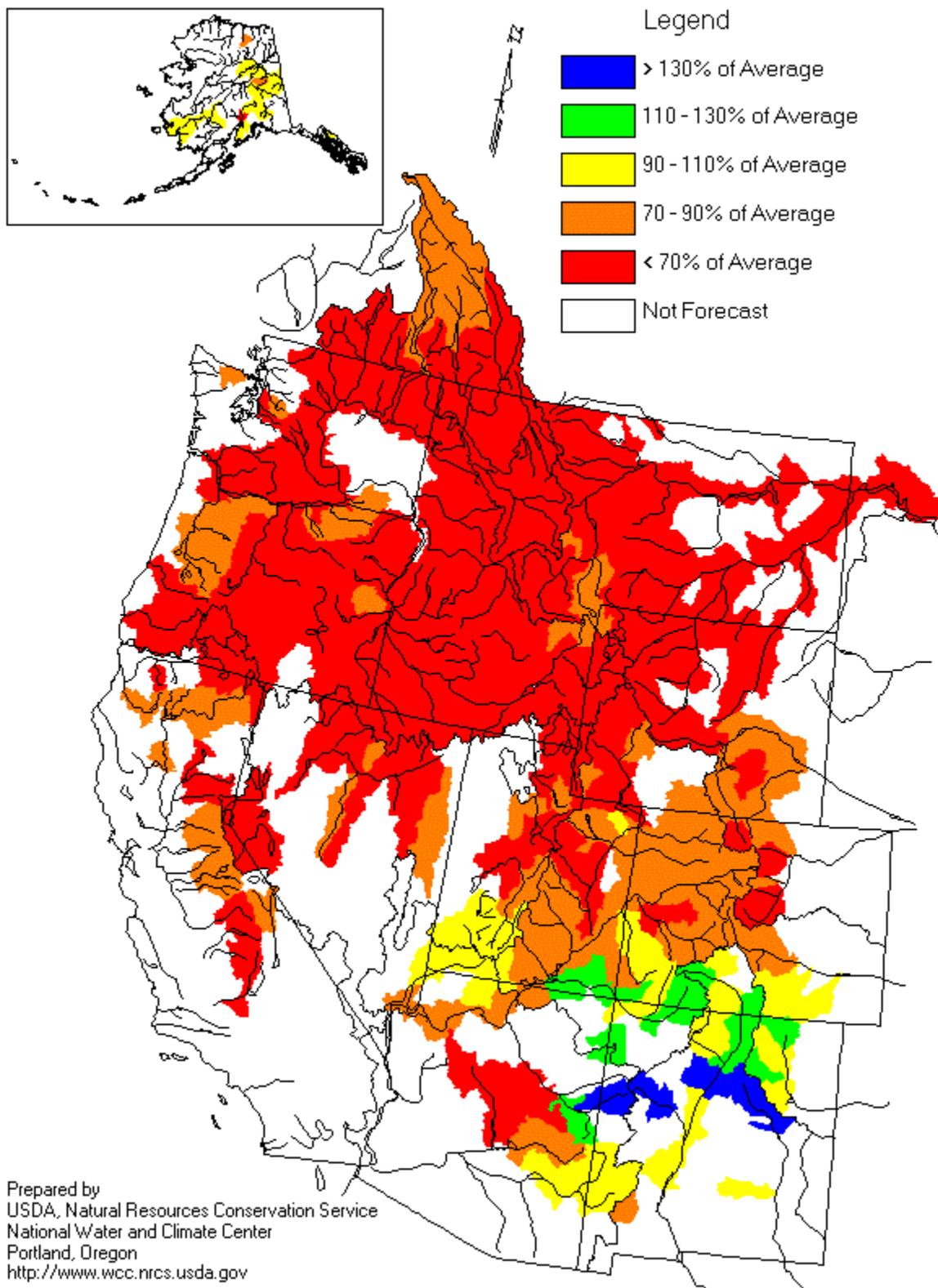
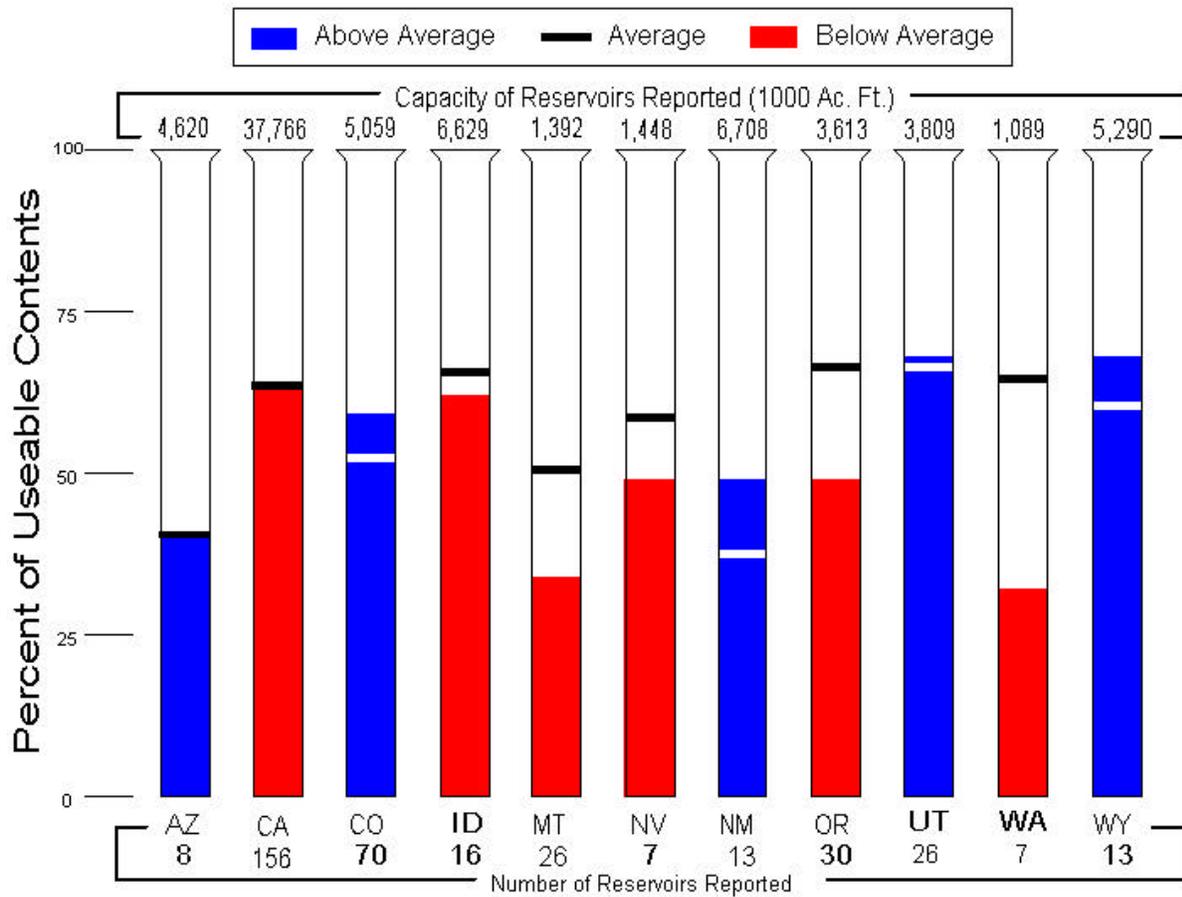


Figure 8. March 1 Seasonal Water Supply Forecasts

Reservoir Storage as of March 1, 2001



Prepared by: USDA, Natural Resources Conservation Service, National Water and Climate Center, Portland, OR
<http://www.wcc.nrcs.usda.gov>

Figure 9. Current Reservoir Storage