



Natural Resources Conservation Service
National Water and Climate Center
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Date: **March 17, 2003**

Subject: **March 1, 2003 Western Snowpack Conditions and Water Supply Forecasts**

The following information is provided for your use in describing climate and water supply conditions in the West as of March 1, 2003.

WATER SUPPLY OVERVIEW

As of March 1, 2003 no western river basin is forecast to receive above average spring or summer streamflow. Western water supply volume forecasts showed a slight improvement in the Southwest, the Rockies of Colorado, Wyoming and Montana while volume forecasts have decreased in much of the Columbia Basin, eastern Oregon and the California Sierra Nevada. Spring and summer streamflow for the Intermountain West are forecast to be than 50% of average.

Below average water supply forecasts come on the heels last year's record low, or near record low runoff in the Southwest, Intermountain West and southern Rockies. In many of these areas, this year's low snowpack is resting on very dry soils, which generally translate into reduced snowmelt runoff. Additionally, all western states report below average March reservoir storage.

SNOWPACK

The March 1, 2003 Mountain Snowpack map (Figure 1) reflects the below average snowpacks that continue to be a concern westwide. Significantly low snowpacks (<50% of average) are reported in western and parts of eastern Oregon, central Nevada, and southwestern Utah. The entire Pacific Northwest reports below average snowpacks ranging from 50% to 89% of average. Below average snowpacks also predominate from the northern Rockies to New Mexico and throughout the Intermountain West. The only basins reporting average snowpacks are located in northern California.

Most Alaska snowpacks are significantly below, to below average (<50% to 89%). Alaska has experienced warm temperatures this winter, which have inhibited snowpack accumulation.

A map containing a daily update of the westwide snowpack may be obtained from the following URL - http://www.wcc.nrcs.usda.gov/water/w_qnty.html

SEASONAL AND MONTHLY PRECIPITATION

Seasonal precipitation (October 1, 2002 to February 28, 2003) is generally improved from last month in the Southwest and southern Rockies (Figure 2). Above average seasonal totals are reported in southern and northern California, southwest Oregon, central Washington, central Wyoming and parts of New Mexico. The Intermountain West seasonal amounts are significantly below average (<50%) in northern Nevada, southeastern Idaho, parts of northern Montana,

central Wyoming and southern Arizona. Southern Alaska's seasonal precipitation is above average (>110%) with the interior reporting average or slightly below average values.

February precipitation was significantly above average (>150%) in southern California, Arizona, southeastern Utah, most of New Mexico Colorado, Wyoming, central Montana and western Alaska (Figure 3). In contrast to the above average totals in the Southwest and Rockies, significantly below average precipitation (<50%) was observed in central California, southeastern and western Oregon, southern Idaho, northwest and northern Washington, and the Canadian Rockies. Well below average precipitation (50% to 69%) was reported in northwestern and central Oregon, northwestern Utah and eastern Idaho. The remainder of the West reported near average precipitation for February.

SPRING AND SUMMER STREAMFLOW FORECASTS

As of March 1, 2003 no western river basin is forecast to receive above average spring or summer streamflow (Figure 4). The Intermountain West continues to show significantly below average (<50%) spring and summer volume forecasts. Much of central Utah, Nevada, southeastern Idaho and eastern Oregon are forecast to receive less than 50% of average spring and summer streamflow. This area expanded significantly in Nevada and eastern Oregon during the past month.

The Southwest and Rockies volume forecasts improved, but are still a patchwork of well below average, or below average (50% to 89%) values. On the Colorado River, the March 1, 2003 Lake Powell April - July volume forecast is 61% of average, which is higher than the observed volume of 14% measured during 2002. Central Wyoming and parts of central Montana are forecast to receive less than 50% of average spring and summer streamflow.

The March 1, 2003 Columbia Basin April-September volume forecast for The Dallas dropped 2% during the past month, to 68% of average. This is higher than observed volume of 53% measured during the 2001 drought. Alaska water supply forecasts range from below average to average.

Several low western water supply forecasts follow water year 2002's extremely low runoff for many Southwestern and Rocky Mountain basins. Specific state streamflow summaries can be obtained from the Internet location - <http://www.wcc.nrcs.usda.gov/water/snow/bor.pl>

RESERVOIR STORAGE

As of March 1, 2003, the total storage for all major western storage reservoirs in each state is below seasonal averages (Figure 5). This reflects the carryover dryness of last year's drought in the Rockies and the continued drought resulting from this water year's seasonal precipitation deficiencies throughout most of the West.

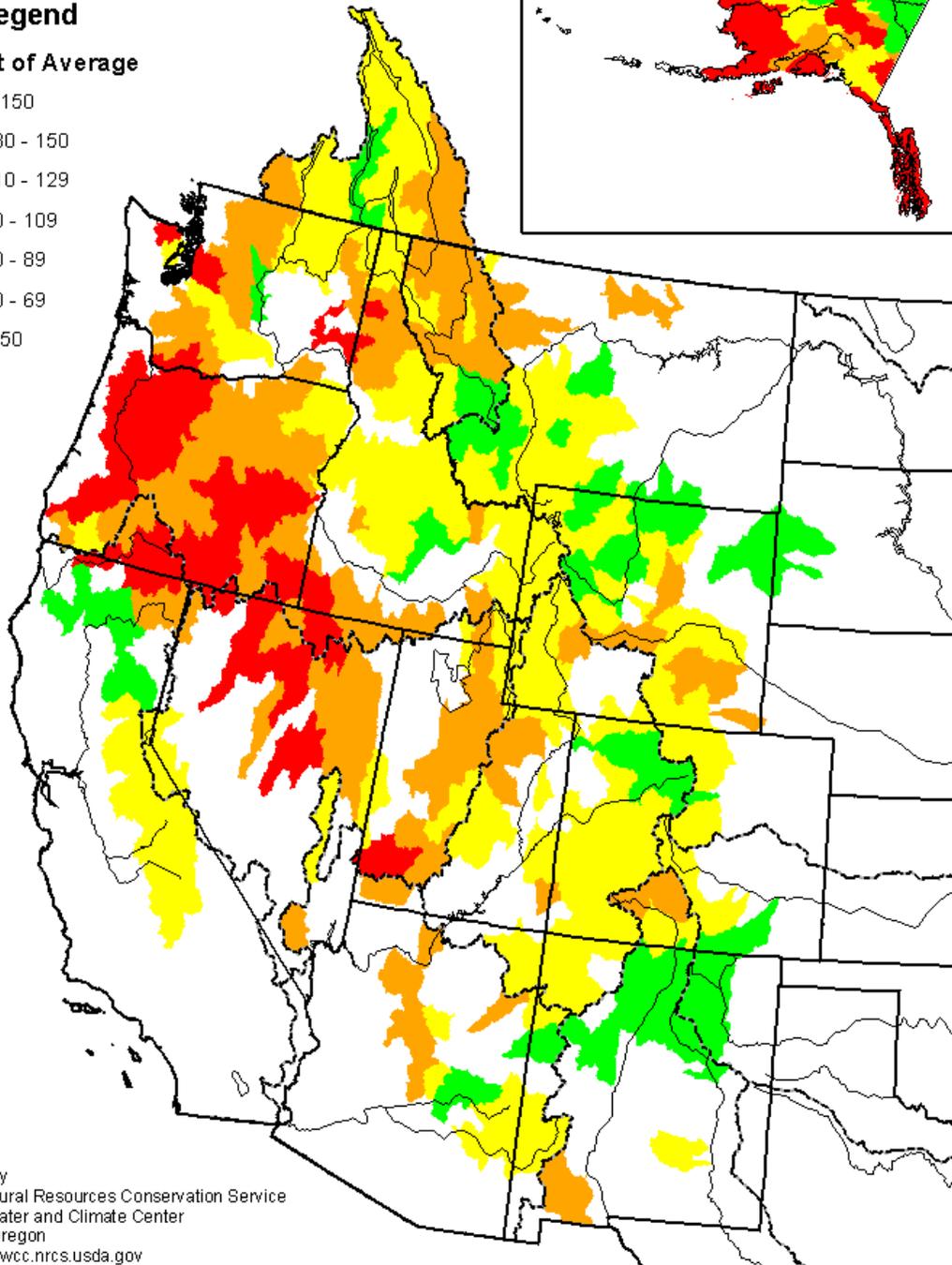
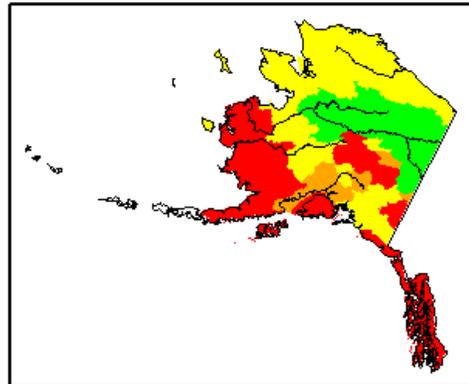
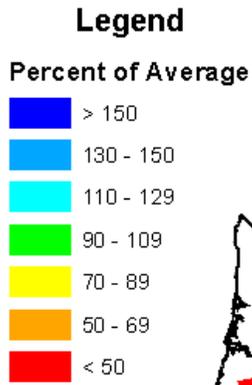
FOR MORE INFORMATION

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/ RON MARLOW

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Mountain Snowpack as of March 1, 2003



Prepared by
USDA, Natural Resources Conservation Service
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Figure 1. March 1, 2003 Snowpack

Seasonal Precipitation, October 2002 - February 2003

(Averaged by Hydrologic Unit)

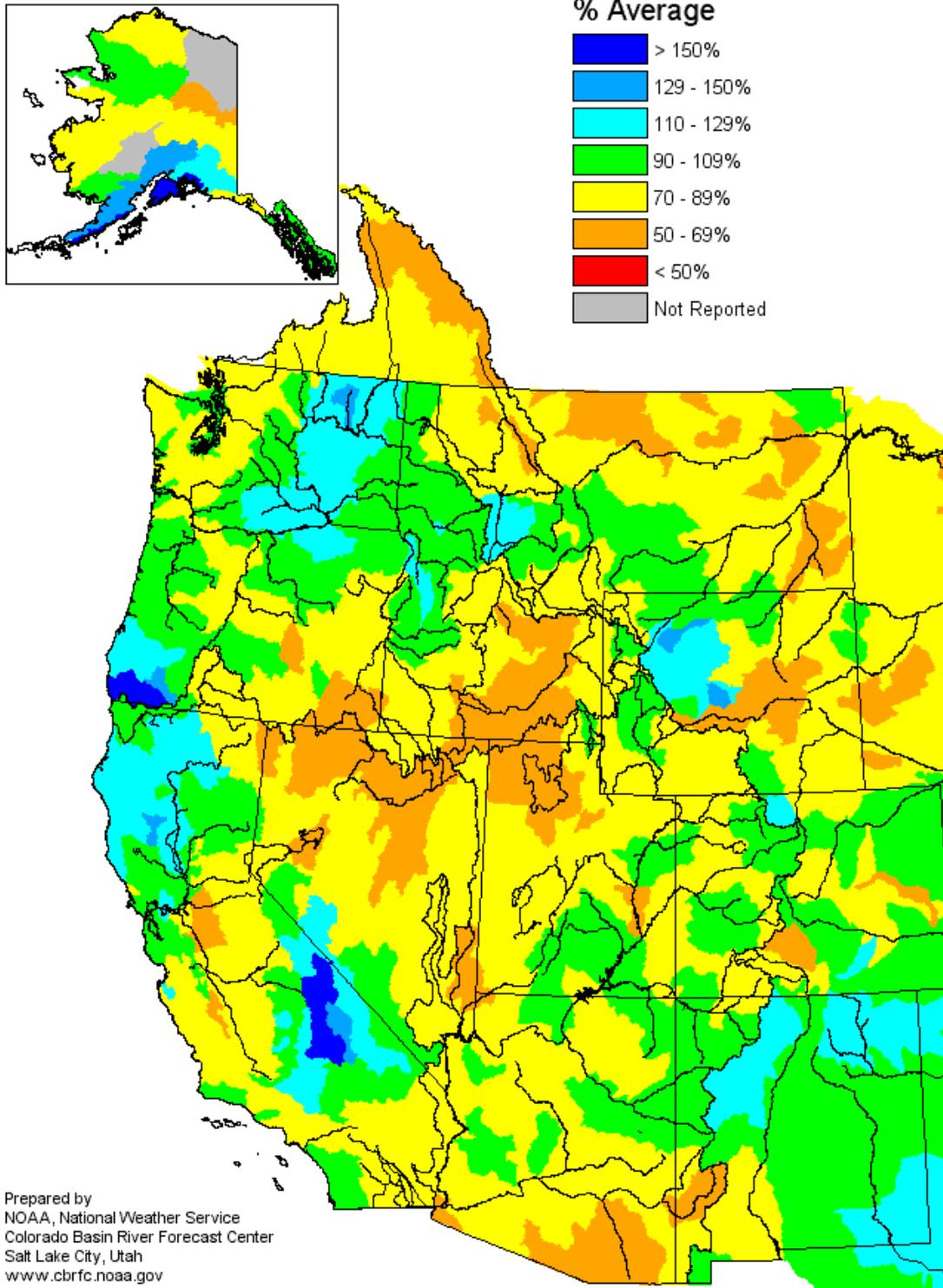


Figure 2. Seasonal Precipitation to Date Starting October 1, 2002

Monthly Precipitation for February 2003

(Averaged by Hydrologic Unit)

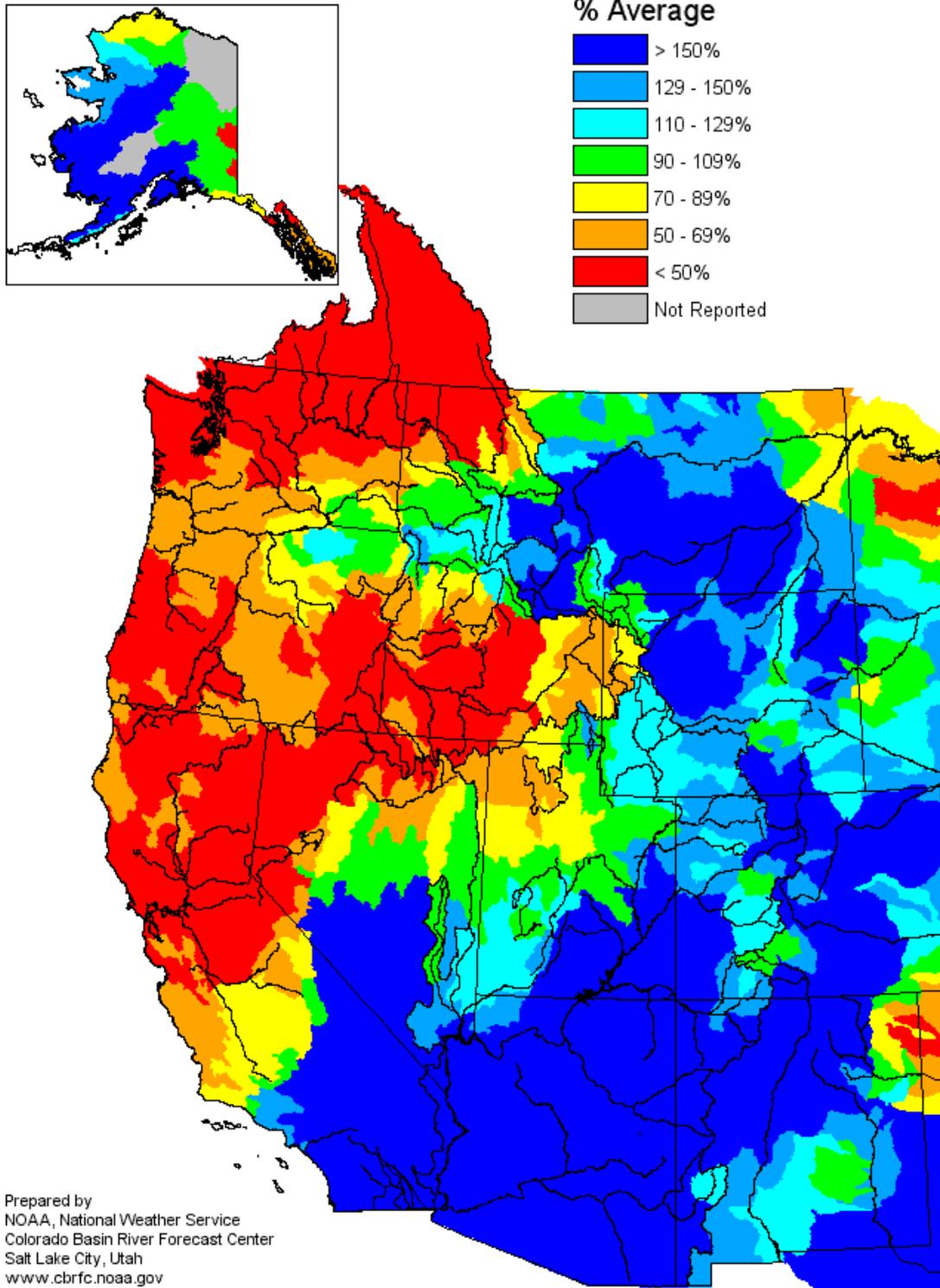


Figure 3. Monthly Precipitation - February 2003

Spring and Summer Streamflow Forecasts as of March 1, 2003

Legend
Percent of Average

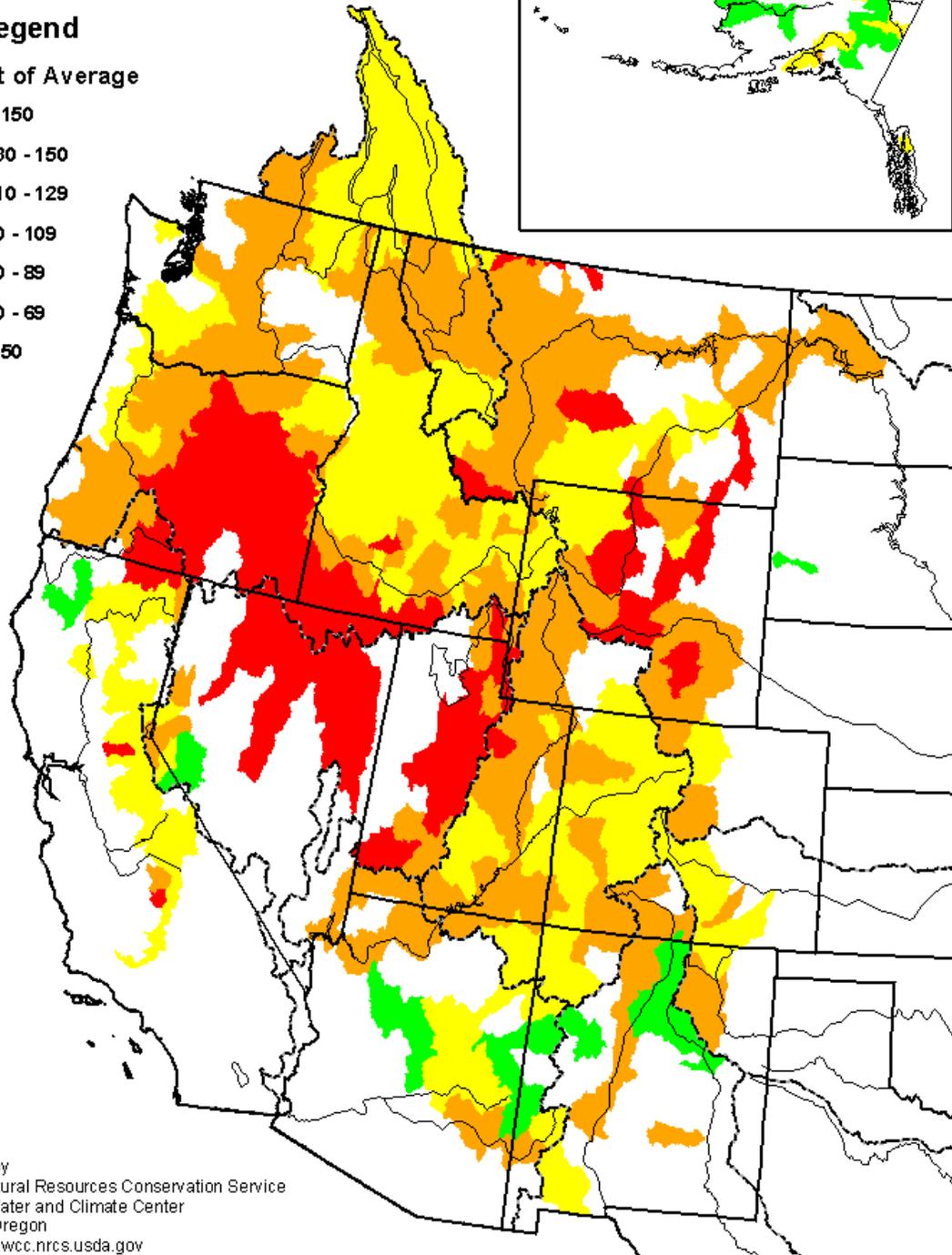
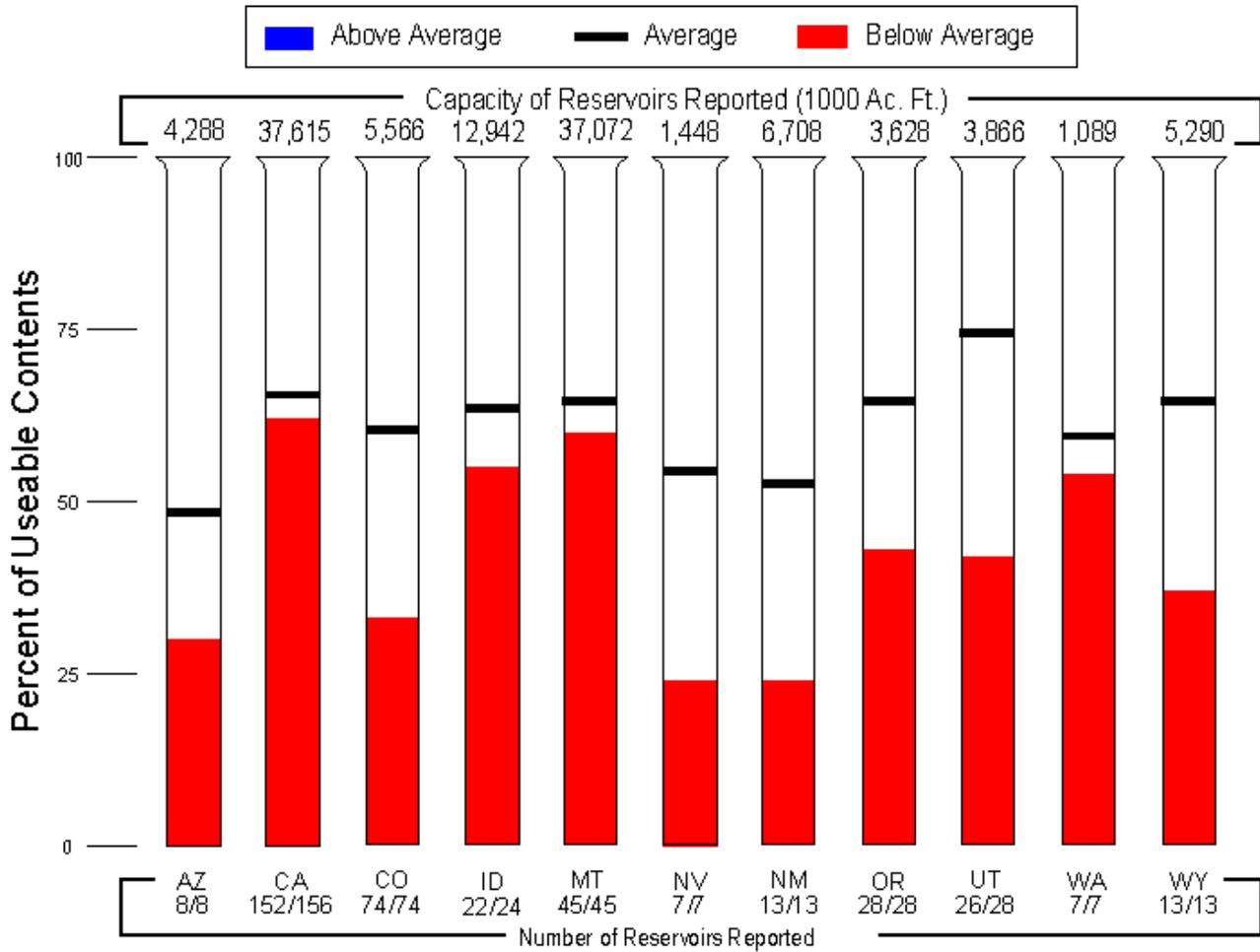


Figure 4. Seasonal Water Supply Forecasts - March 1, 2003

Reservoir Storage as of March 1, 2003



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

Figure 5. Current Reservoir Storage - March 1, 2003