



Natural Resources Conservation Service  
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Date: **March 15, 2004**

Subject: **March 1, 2004 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, 2004.

## **OVERVIEW**

As of March 1, 2004, a majority of basins in the Pacific Northwest, northern Rockies of Montana and Idaho, northern Nevada, portions of Utah, and central California are forecast to receive average, or slightly above average, spring and summer streamflows, ranging from 90% to 130% of average. Conversely, many basins in Arizona, western New Mexico, the south Platte River of Colorado, and the Bear River of southeastern Idaho are forecast to receive well below average spring streamflows, less than 50% of average.

Spring and summer streamflows are expected to be slightly below average for most basins in the Intermountain West of Utah, the eastern slopes of the Rockies in Wyoming, Colorado, and northern New Mexico, ranging from 50% to 90% of average.

Reservoir storage for all western states except California is running below historic March 1st averages, with Nevada, New Mexico, Oregon, Utah and Wyoming reporting the largest percent of average storage deficits.

## **SNOWPACK**

The March 1, 2004 snowpack map reflects the below average snowpacks, less than 70% of average, in most Southwest basins (Figure 1). In contrast, western Utah, northern Nevada, southwestern Idaho, northern California and much of Oregon report above average snowpacks, ranging from 110% to over 150% of average. Rocky Mountain snowpacks range from 70% to 110% of average along the Front Range of Colorado, Wyoming and Montana. Canadian snowpacks are now 70% to 90% of average.

Central Alaska snowpacks are in the 70% to 110% range, western Alaska snowpacks vary from 50% to 70% of average, northern slope snowpacks range from 90% to 110% of average, and southern coastal basin snowpacks vary from 50% to 110% of average.

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](http://www.wcc.nrcs.usda.gov/water/w_qnty.html)

## **SEASONAL PRECIPITATION**

Seasonal precipitation for the period October 1, 2003 to February 29, 2004 is significantly above normal, ranging from 110% to greater than 150% of average in the Pacific Northwest, northern California, southern Nevada, and north central Montana (Figure 2). The Southwest and eastern

Colorado report well below normal precipitation, ranging from less than 50% to 70% of average. The rest of the West reports average, or slightly below normal totals, ranging from 70% to 110% of average. Alaska precipitation is above average in most western basins, near average to below in central and southern Alaska, and below average in southeastern basins.

### **SPRING AND SUMMER STREAMFLOW FORECASTS**

As of March 1, 2004, a majority of basins in the Pacific Northwest, northern Rockies of Montana and Idaho, northern Nevada, portions of Utah, and central California are forecast to receive average, or slightly above average, spring and summer streamflows, ranging from 90% to 130% of average (Figure 3). Conversely, many basins in Arizona, western New Mexico, the south Platte River of Colorado, and the Bear River of southeastern Idaho are forecast to receive well below average spring streamflows, less than 50% of average.

Spring and summer streamflows are expected to be slightly below average for most basins in the Intermountain West of Utah, the eastern slopes of the Rockies in Wyoming, Colorado, and northern New Mexico, ranging from 50% to 90% of average. Alaska is forecast to receive near or slightly below average spring and summer streamflow.

Specific state streamflow summaries can be obtained from the Internet location - <http://www.wcc.nrcs.usda.gov/cgibin/bor.pl>

### **RESERVOIR STORAGE**

Reservoir storage for all western states except California is running below historic March 1st averages, with Nevada, New Mexico, Oregon, Utah and Wyoming reporting the largest percent of average storage deficits (Figure 4). Low storage values reflect carryover dryness of the continuing drought in the Intermountain West, Southwest, the southern Rockies and last year's below average seasonal runoff.

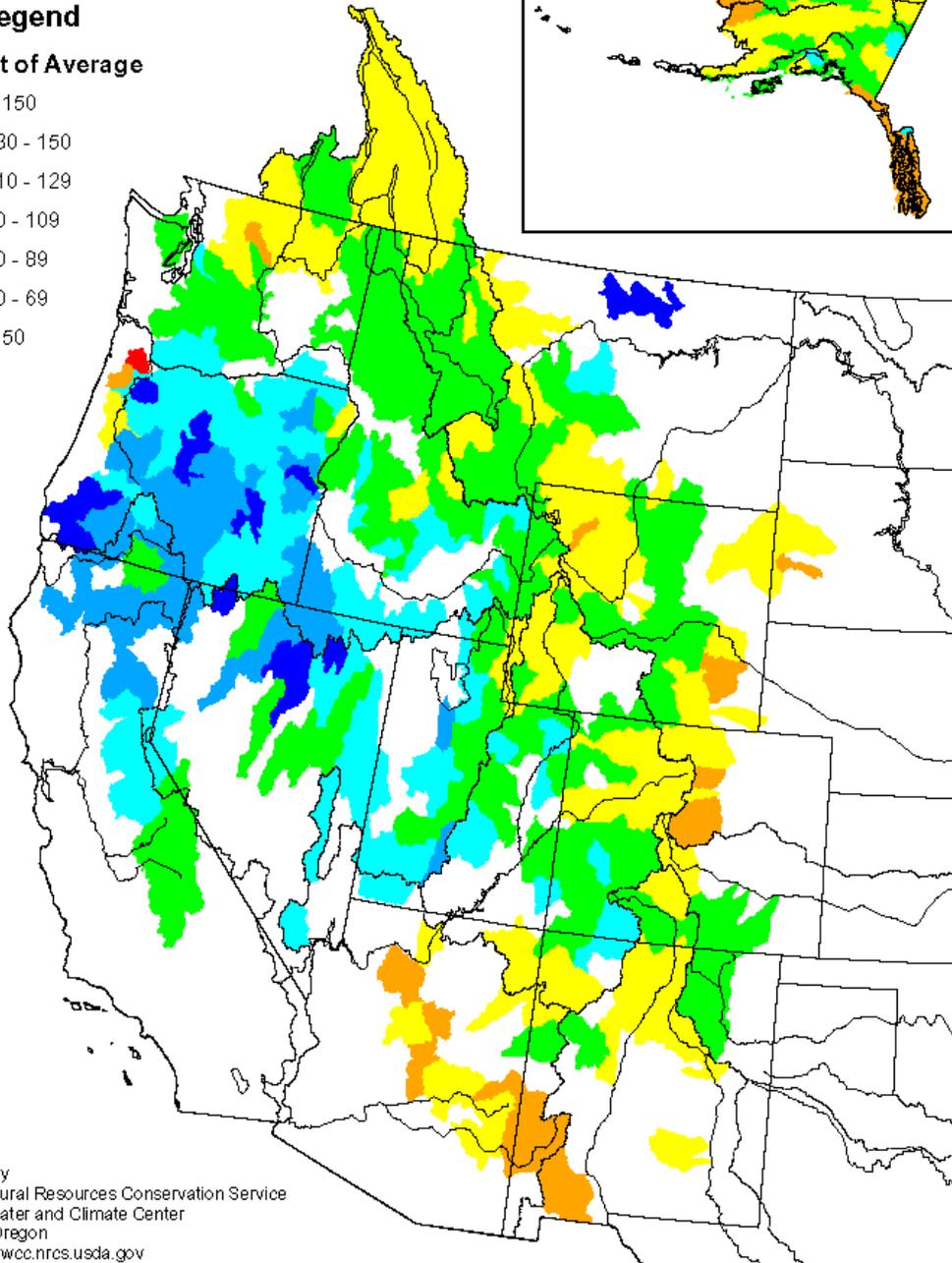
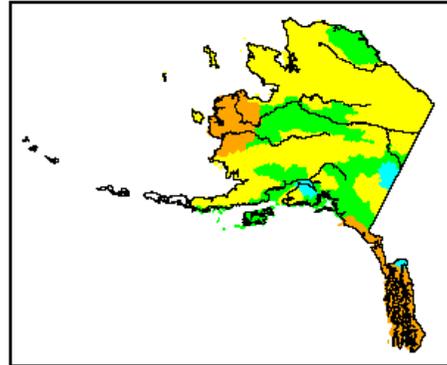
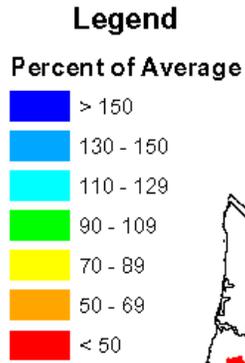
### **FOR MORE INFORMATION**

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

Director, Conservation Engineering Division, Natural Resources Conservation Division,  
Washington, DC

# Mountain Snowpack as of March 1, 2004

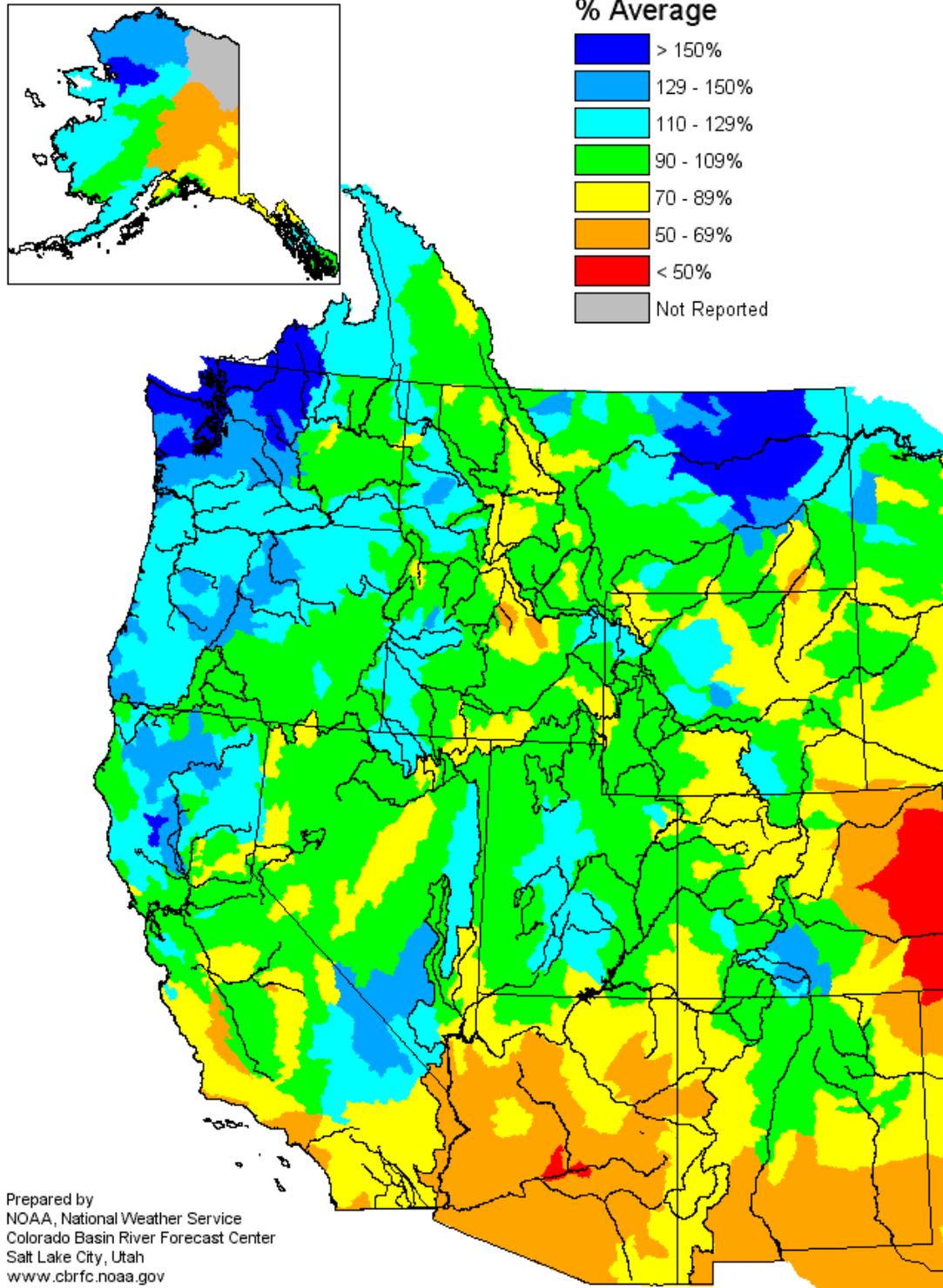


Prepared by  
USDA, Natural Resources Conservation Service  
National Water and Climate Center  
Portland, Oregon  
<http://www.wcc.nrcs.usda.gov>

**Figure 1. Mountain Snowpack, March 1, 2004**

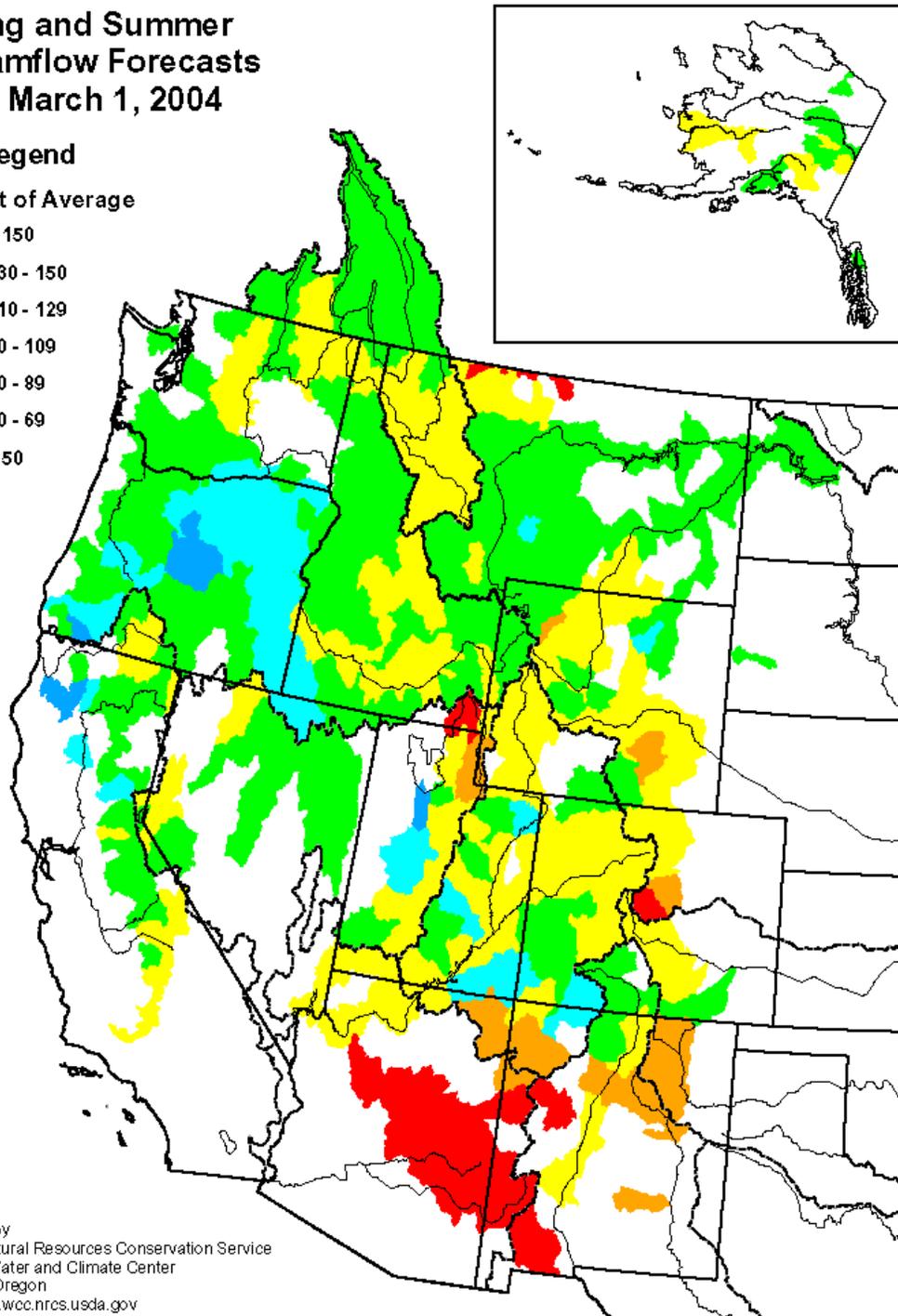
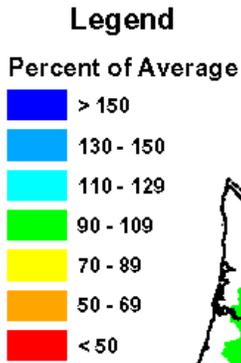
# Seasonal Precipitation, October 2003 - February 2004

(Averaged by Hydrologic Unit)



**Figure 2. Seasonal Precipitation, October 1, 2003 to February 29, 2004**

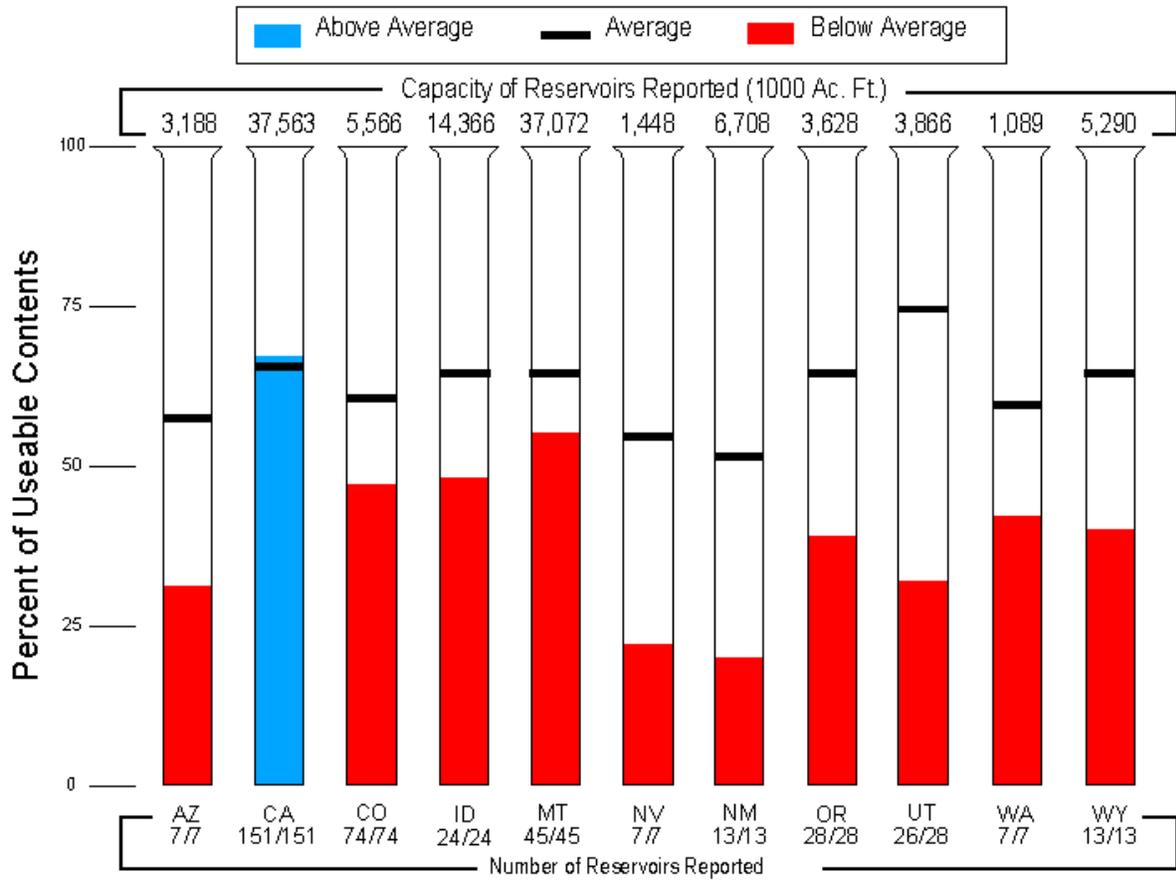
### Spring and Summer Streamflow Forecasts as of March 1, 2004



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**Figure 3. Seasonal Water Supply Forecasts - March 1, 2004**

### Reservoir Storage as of March 1, 2004



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

**Figure 4. Current Reservoir Storage - March 1, 2004**