



Natural Resources Conservation Service
P.O. Box 2890
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March 1, 2005 Western Snowpack Conditions and Water Supply Forecasts **Issued: March 18, 2005**

The following information is provided for your use in describing climate and water supply conditions in the West as of March 1, 2005.

OVERVIEW

Continued strong and persistent winter storms moving through the Southwest during the month of February have brought record snowpacks and precipitation to Arizona, Utah, southern Nevada and southwestern Colorado but have left the Pacific Northwest high and dry, with many basins reporting record low snowpacks.

Record low snowpacks and lack of precipitation in Pacific Northwest and Montana basins will result in well below average spring and summer streamflows, 50% to 70% of average, for the Columbia, Snake and Missouri basins, however a significant number of basins in the Oregon and Washington Cascades, northern Idaho and western Montana are forecast to receive spring and summer streamflows that are less than 50% of average.

Conversely, basin snowpacks in the Sierras of California, the Great Basin of eastern Nevada and southern Utah, Arizona, New Mexico and southwestern Colorado are in excess of 130% of average, with several reporting over 180% of average. The record Southwest snowpacks and precipitation will result in well above average spring and summer streamflows, with many basins forecast to receive 110% to 150% normal.

As of March 1, reservoir storages for all western states except Washington and Arizona were below historic March averages. The above average storage in Washington is the result of early snowmelt from warm temperatures and management strategies to store water in response to extremely low water supply forecasts. Arizona reservoirs are filling in response to sustained high streamflows from winter storms.

SNOWPACK

The March 1, 2005 snowpack map reflects extremely low snowpacks in the Pacific Northwest states of Washington, Oregon, Idaho and Montana (Fig. 1). Snowpacks are less than 50% of average in the Oregon and Washington Cascades and in scattered basins in Idaho and Montana. Several basins in the Oregon and Washington Cascades report snowpacks of less than 25% of average.

In contrast to the extremely low snowpacks in the Pacific Northwest, snowpacks in the Sierras of California and the Great Basin states of Nevada, and Utah are well above average. Many basins in southern Utah and in the Sierras report snowpacks greater than 150% of average. Snowpacks in southern Colorado, central Arizona, and eastern New Mexico are also well above average ranging from 110% to 180% of average. Snowpacks in Alaska are variable, with central and south central Alaska reporting above average snowpacks and northern and southwestern Alaska reporting below average snowpacks.

Water year 2005 has provided extreme contrasts in western snowpacks. An analysis of SNOTEL records with 30 or more years of record for March 1st reveals scores of new record, or near record low snowpack amounts in the Pacific Northwest and approximately one dozen new record, or near record, high snowpack amounts in the Great Basin and Southwest on March 1, 2005 (Fig. 2).

The contrast between the Pacific Northwest and the Southwest is also seen in the percentile ranking of SNOTEL site snowpacks with 30 or more years of record (Fig. 3). Scores of water year SNOTEL site snowpacks on March 8, 2005 rank in the driest 10% of historical values for March 8th in the Pacific Northwest. The opposite is true for the Southwest, Great Basin and the central Sierras of California, where several dozen SNOTEL March 1, 2005 values rank in the wettest 90% of historical values for March 1st.

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

MONTHLY AND SEASONAL PRECIPITATION

February 2005 precipitation was extremely low, less than 50% of average, Washington, Oregon, extreme northern California, northern Nevada, Idaho, Montana, eastern Wyoming and parts of eastern Colorado (Fig. 4). In contrast, much of the Southwest, including southern California, southern Nevada, southern Utah, Arizona, New Mexico, southwestern Colorado, and a small part of central Idaho reported much above, greater than 150% of average, precipitation. The rest of the West reported amounts near or slightly below average. Alaska reports above average precipitation in the western part of the state and normal to slightly below normal in most other areas.

Seasonal precipitation for the period October 1, 2004 to February 28, 2005 is below average, less than 70% of average, in coastal and north central Oregon, central Washington, central Idaho, parts of western Montana and central Wyoming (Fig. 5). Seasonal precipitation is well above average, greater than 150% of normal, in the Southwest and Great Basin, including southern California, central and southern Nevada, Arizona, Utah, southeastern Colorado and New Mexico. Alaska precipitation is above average in most basins

SPRING AND SUMMER STREAMFLOW FORECASTS

As of March 1, 2005, a majority of basins in the Pacific Northwest and the Missouri River are forecast to receive below average spring and summer streamflows, less than 70% or normal, as shown in (Fig. 6). Many Southwest basins are forecast to receive above average spring and summer streamflows, greater than 110% of normal.

The lack of significant precipitation events, record low snowpacks and warm temperatures have contributed to below average spring and summer streamflow forecasts for many basins in the Pacific Northwest. Many basins in central Washington, central and southeastern Oregon, southern and central Idaho, and western Montana forecast to receive less than 50% of average spring and summer streamflows.

In contrast, significant winter precipitation from a continuing series of intense fall and winter storms has set the stage for well above average spring and summer runoff for many basins in Utah, Nevada, Arizona, southern Colorado and southeastern New Mexico. Basins in the Four-Corner area of Southwest are forecast to receive 150% to 180% of average spring and summer streamflows.

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

RESERVOIR STORAGE

As of March 1, 2005 reservoir storages for Nevada, New Mexico, Utah and Wyoming are well below seasonal averages, while storages in California, Colorado, Idaho and Montana are slightly below seasonal averages (Fig. 7). Reservoir storages are above seasonal averages in Arizona due to sustained above average streamflows resulting from a continued series of winter storms. Washington storages are responding to early snowmelt from warm temperatures and management strategies to store water in response to extremely low water supply forecasts.

FOR MORE INFORMATION

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

/s/ DAVID THACKERAY

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Washington, DC

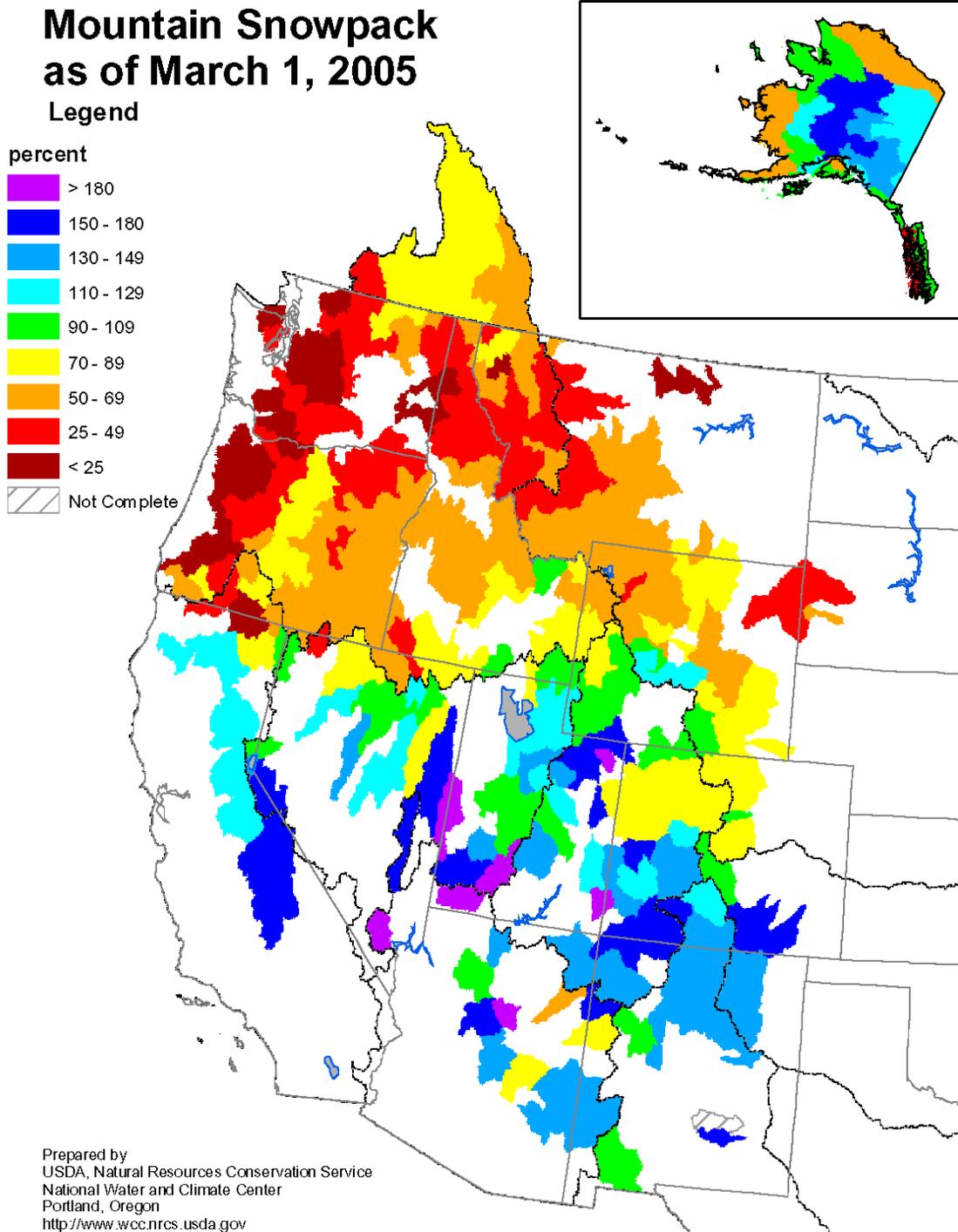


Fig. 1. Mountain Snowpack, March 1, 2005

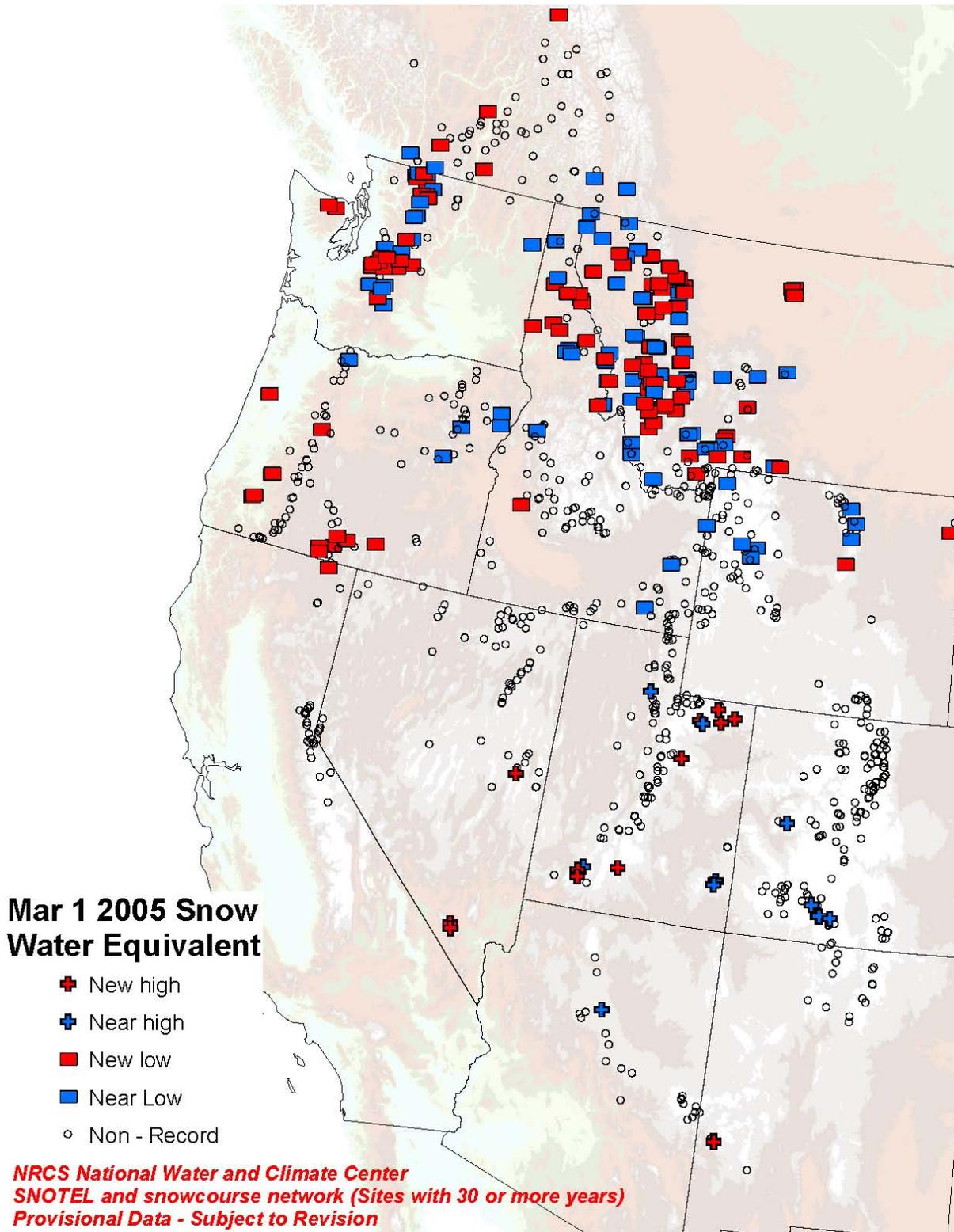
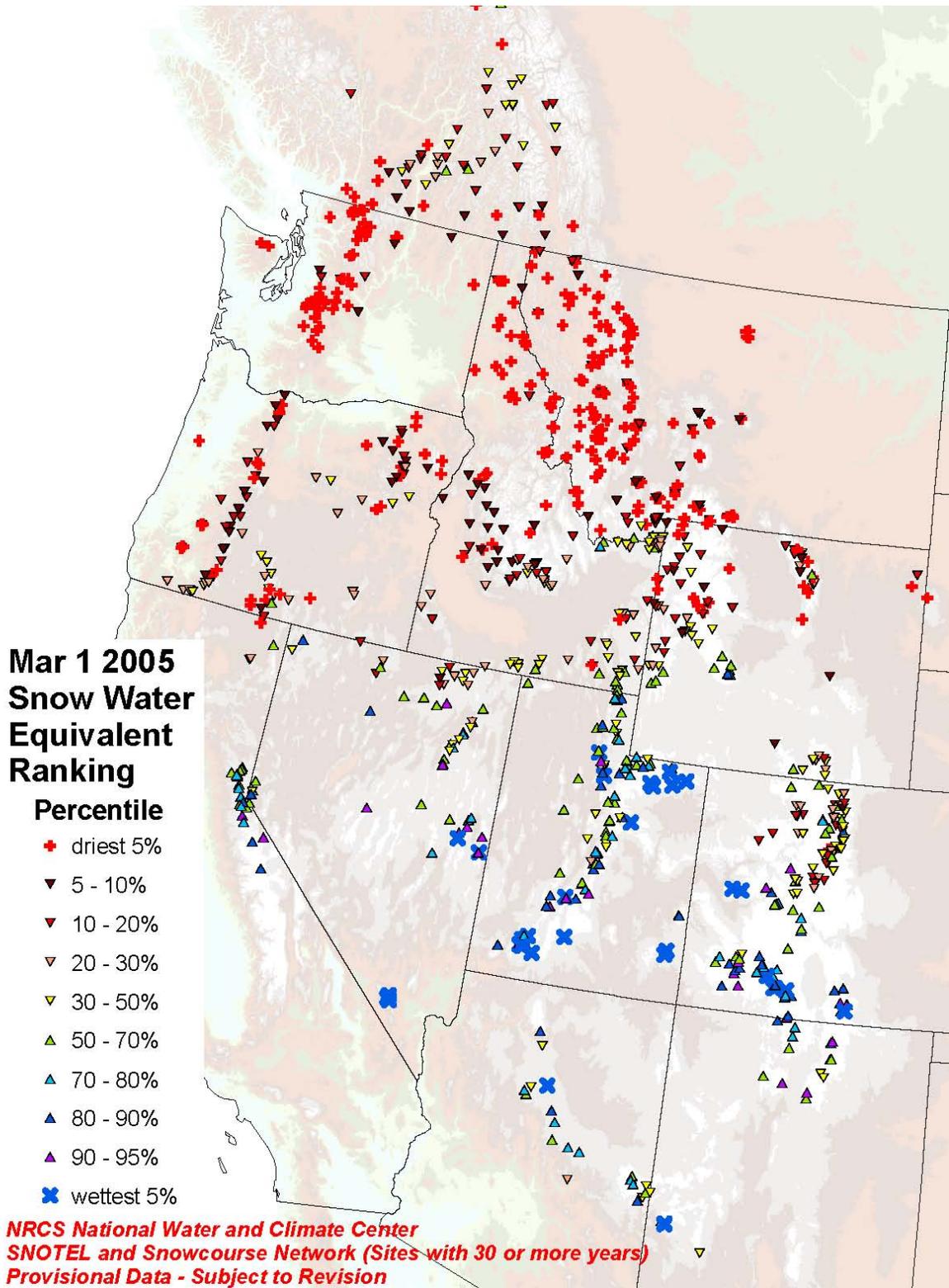


Fig. 2. New record, or near record high and low snow water equivalent values for March 1st. SNOTEL sites with 30 or more years of record.



**Fig. 3 Current snow water equivalent rankings for March 1st.
SNOTEL sites with 30 or more years of record.**

Monthly Precipitation for February 2005

(Averaged by Hydrologic Unit)

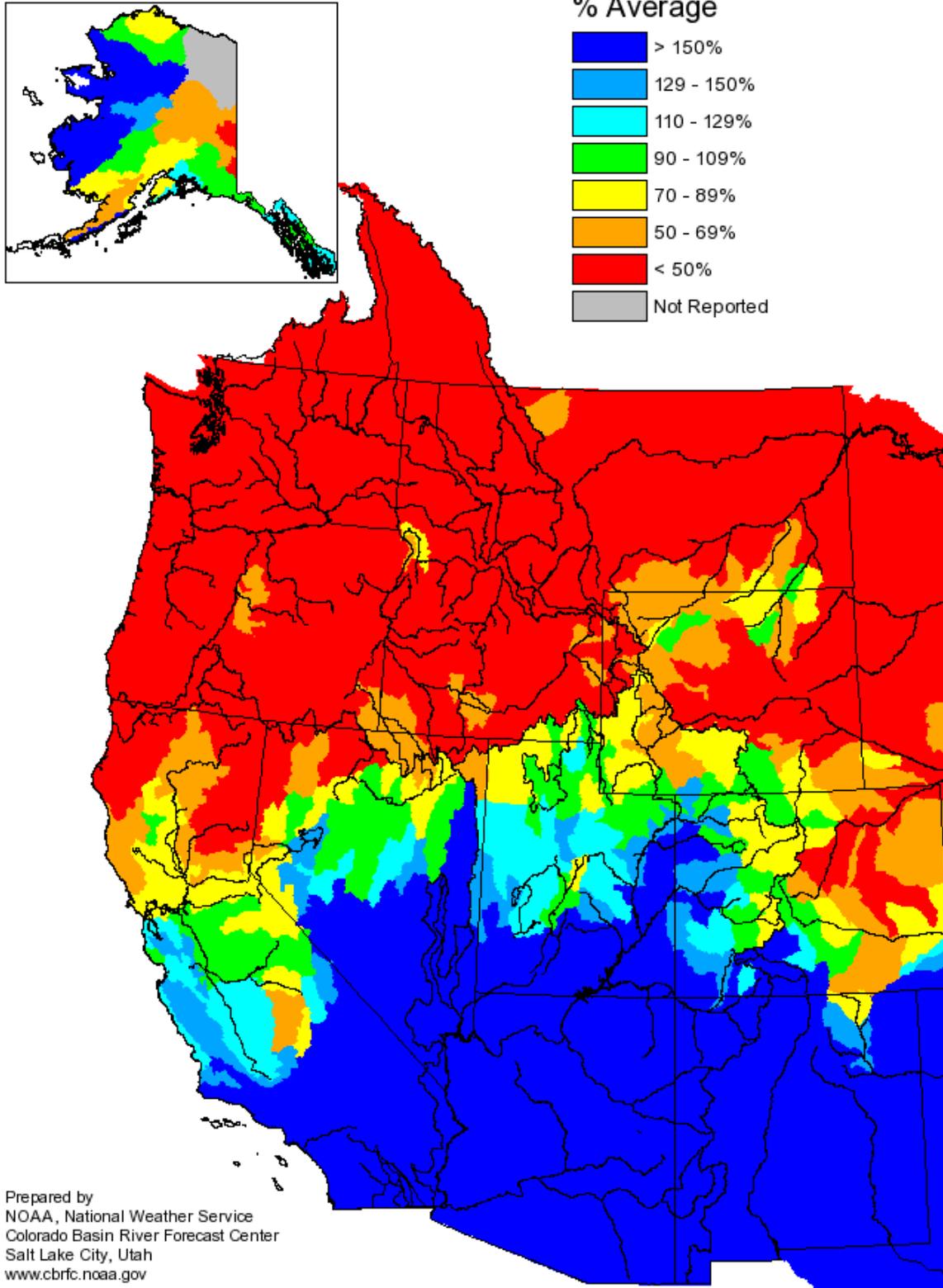
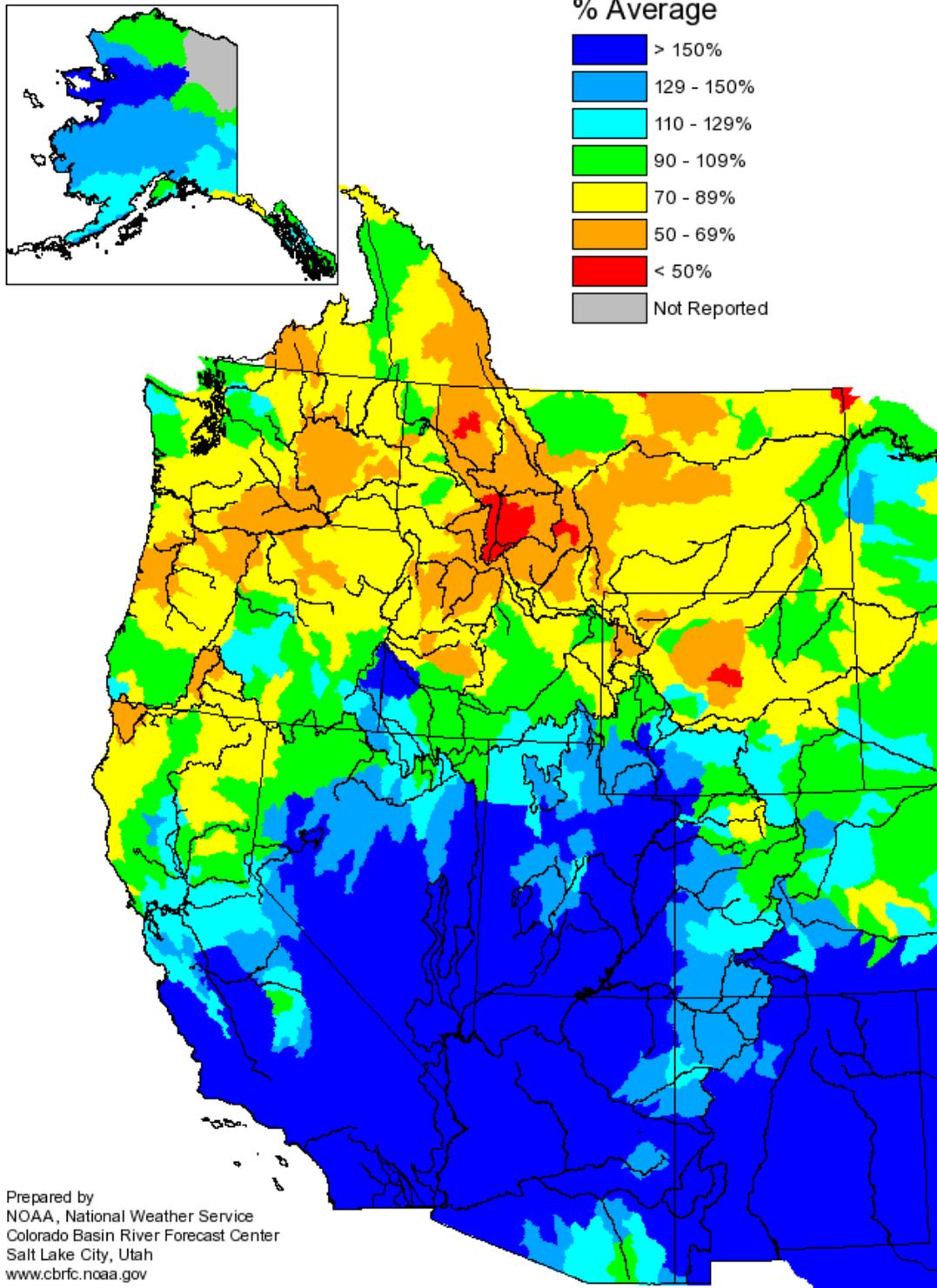


Fig. 4. February 2005 Precipitation

Seasonal Precipitation, October 2004 - February 2005

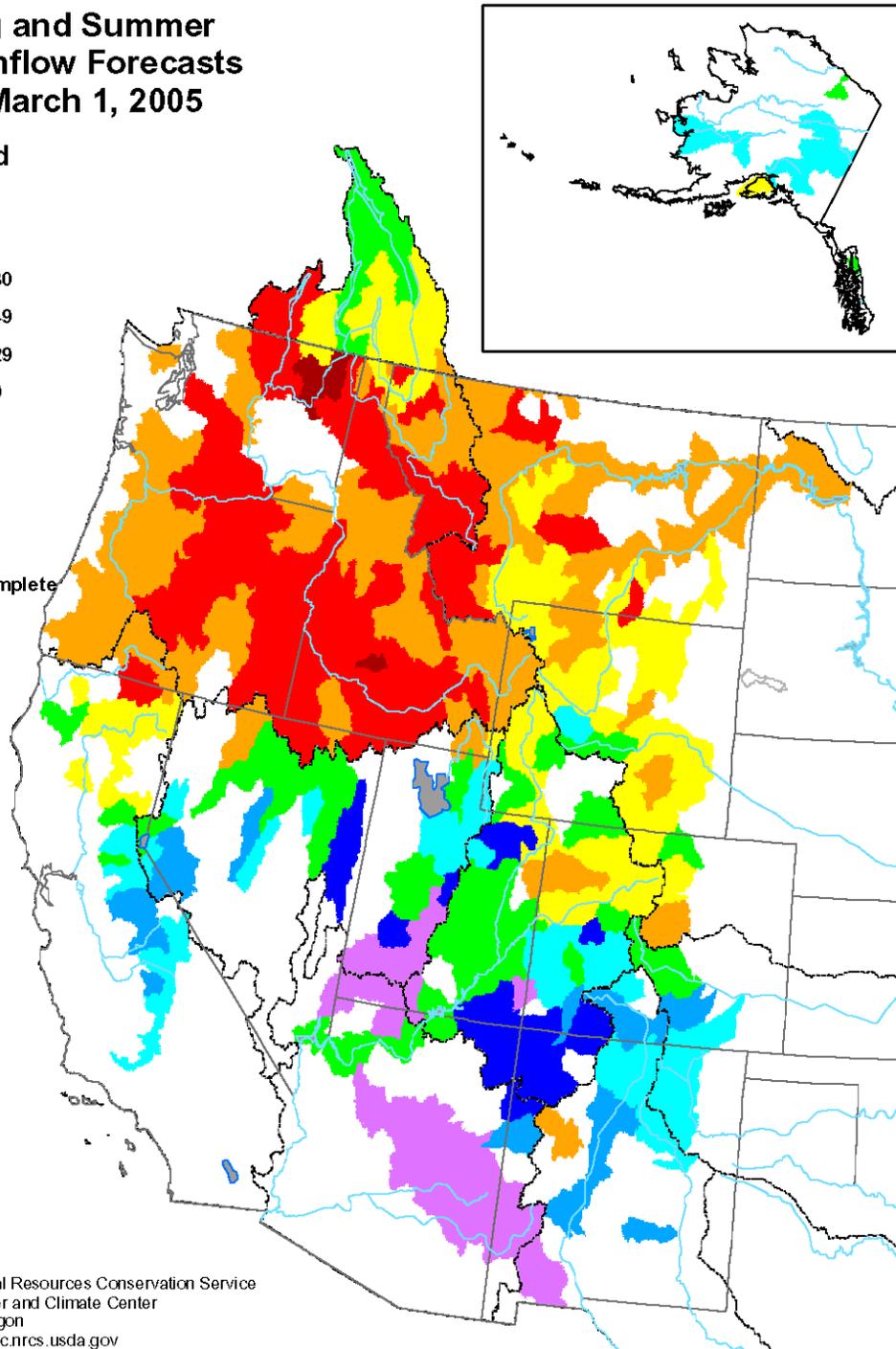
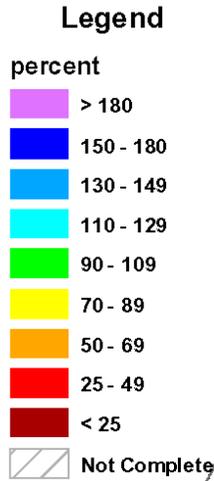
(Averaged by Hydrologic Unit)



Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
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Fig. 5. Seasonal Precipitation, October 1, 2004 to February 28, 2005

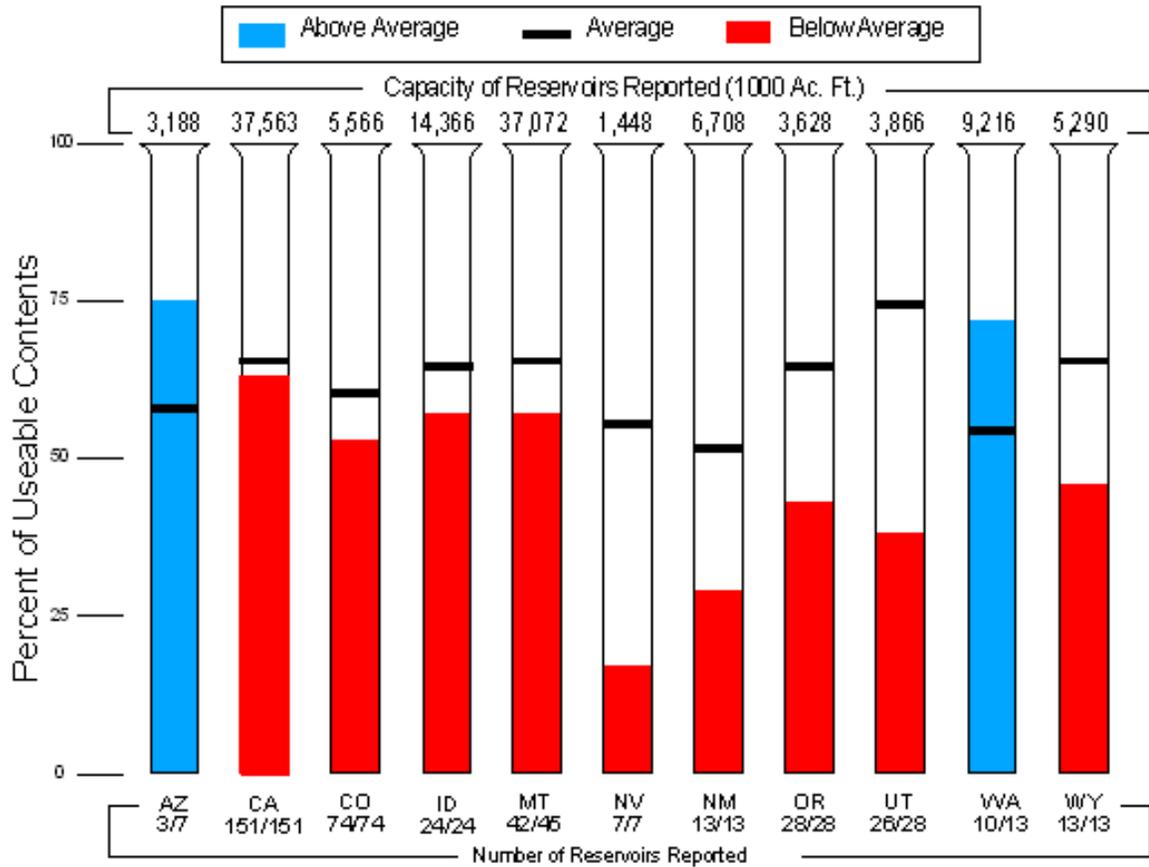
Spring and Summer Streamflow Forecasts as of March 1, 2005



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

Fig. 6. Seasonal Water Supply Forecasts - March 1, 2005

Reservoir Storage as of March 1, 2005



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

Fig. 7. Reservoir Storage - March 1, 2005