



Natural Resources Conservation Service
P.O. Box 2890
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February 1, 2005 Western Snowpack Conditions and Water Supply Forecasts Issued February 11, 2005

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

OVERVIEW

A very strong and persistent series of fall and winter storms have brought record snowpacks and precipitation to the Southwestern US and have left the Pacific Northwest high and dry, with many basins reporting record low snowpacks. Basin snowpacks in the Sierras of California, the Great Basin of eastern Nevada and southern Utah are in excess of 150% of average, with several reporting over 200% of average. In stark contrast to the Southwest, snowpack and seasonal precipitation in Pacific Northwest is well below average, with many basins in the Oregon and Washington Cascades, central Idaho and western Montana reporting less than 50% of average.

Seasonal runoff forecasts for most Southwest basins are well above average as a result of record fall and winter precipitation and snowpack. Conversely, Pacific Northwest basins are forecast to receive well below average spring and summer streamflows due to the lack of precipitation and snowpack.

As of February 1, reservoir storages for all western states except Washington were below historic averages.

SNOWPACK

The February 1, 2005 snowpack map reflects very 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. In contrast to the 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. 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 20 or more years of record for February 8th reveals scores of new record, or near record low snowpack amounts in the Pacific Northwest and approximately two dozen new record, or near record high snowpack amounts in the Great Basin and Southwest on February 8, 2005 (Fig. 2).

SNOTEL sites setting new record, or near record low snowpacks for February 8, 2005 include Oregon 13 record, 12 near record; Washington 19 record, 7 near record; Idaho 8 record, 10 near record; Montana 8 record, 11 near record, and Wyoming 2 record and 3 near record.

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve maintain and improve our natural resources and environment

SNOTEL sites setting new record, or near record high snowpacks for February 8, 2005 include Utah 11 record, 5 near record; Colorado 3 record and 2 near record; Nevada 2 record, and Arizona 1 record, 1 near record.

The contrast between the Pacific Northwest and the Southwest is also seen in the percentile ranking of SNOTEL site snowpacks with 20 or more years of record (Fig. 3). Scores of water year SNOTEL site snowpacks on February 8, 2005 rank in the driest 10% of historical values for February 8th in the Pacific Northwest. The opposite is true for the Southwest, Great Basin and the central Sierras of California, where several dozen SNOTEL February 8, 2005 values rank in the wettest 90% of historical values for February 8th.

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

January 2005 precipitation was extremely low, less than 50% of average, in western Washington, western and northeastern Oregon, southwestern Idaho, eastern and western Montana, and a small part of western Wyoming (Fig. 4). In contrast, much of the Southwest, including southern California, southern Nevada, most of Utah, Arizona and 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 central part of the state and near normal in most other areas.

Seasonal precipitation for the period October 1, 2004 to January 31, 2005 is well above average, greater than 150% of normal, in the Southwest states of California, Nevada, Arizona, Utah, central Idaho, southeastern Oregon, and eastern New Mexico (Fig. 5). Seasonal precipitation is well below average, less than 50% of average, in coastal Oregon, Washington, northeastern Oregon, parts of western Montana and western Wyoming. Alaska precipitation is above average in most basins.

SPRING AND SUMMER STREAMFLOW FORECASTS

As of February 1, 2005, a majority of basins in the Pacific Northwest are forecast to receive below average (less than 70%) spring and summer streamflows while many Southwest basins are forecast to receive above average (greater than 120%) spring and summer streamflows (Fig. 6).

Significant fall 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. In contrast, 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.

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

RESERVOIR STORAGE

As of February 1, 2005 reservoir storages for all western states except Washington are below historic averages (Fig. 7).

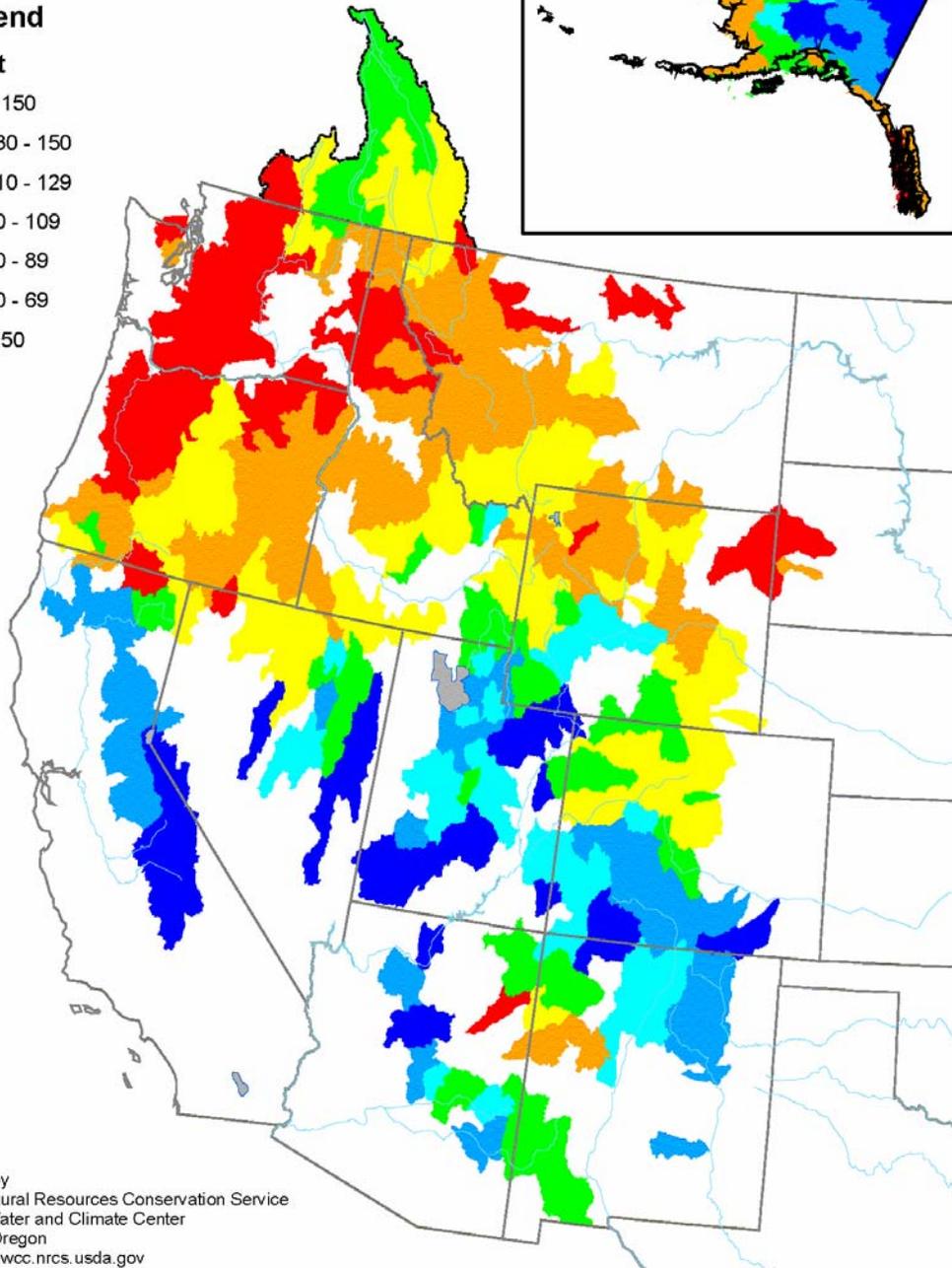
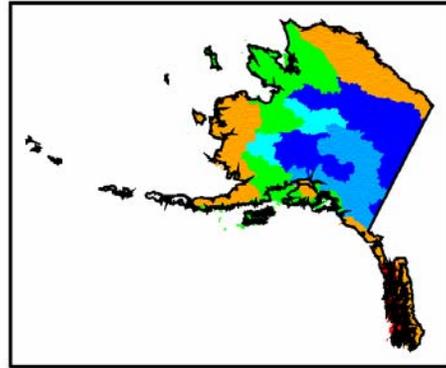
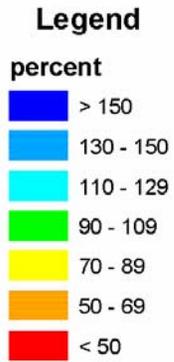
FOR MORE INFORMATION

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/ DAVID THACKERAY

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Mountain Snowpack as of February 1, 2005



Prepared by
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<http://www.wcc.nrcs.usda.gov>

Fig. 1. Mountain Snowpack, February 1, 2005

Feb 08, 2005

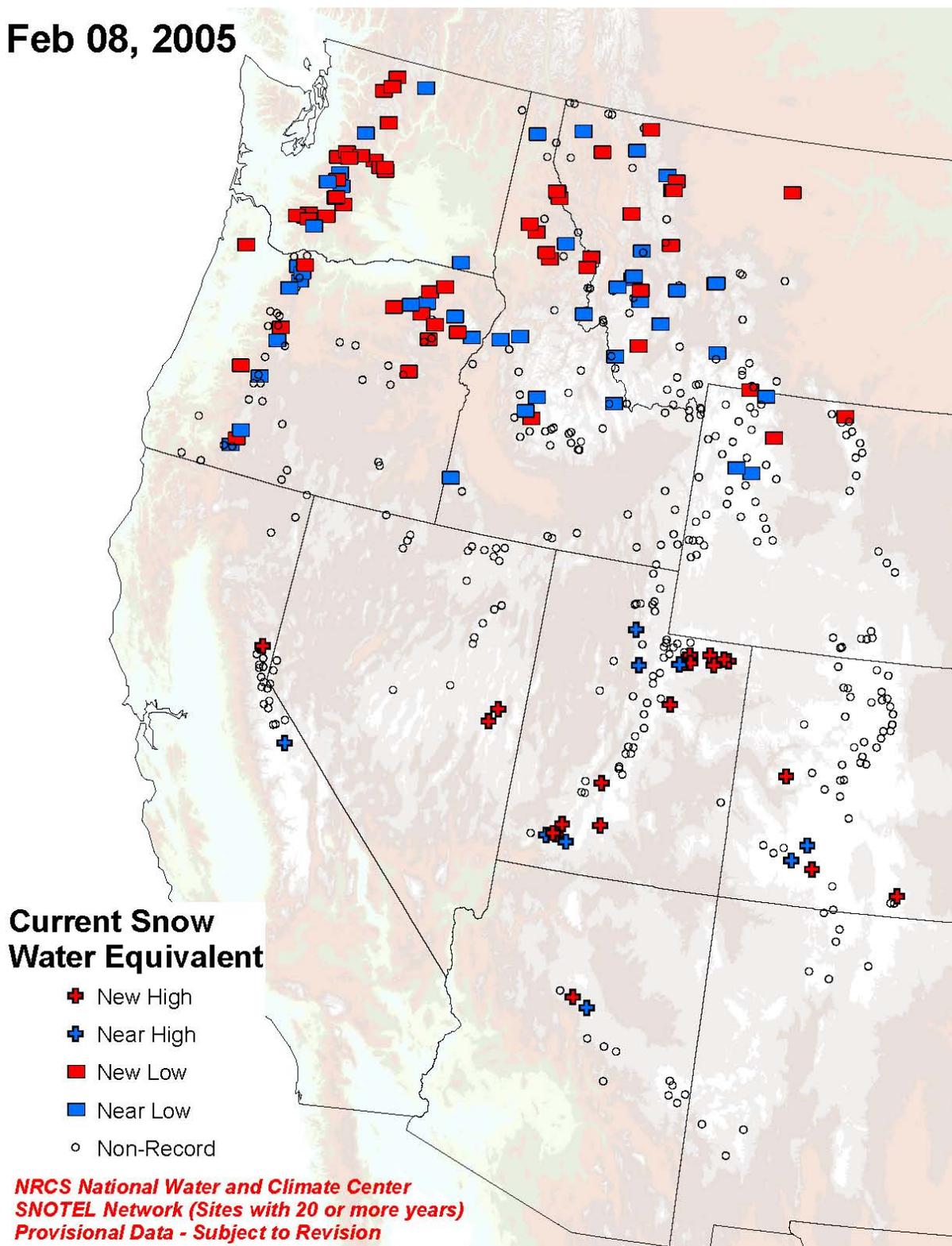


Fig. 2. New record, or near record high and low snow water equivalent values for February 8th. SNOTEL sites with 20 or more years of record.

Feb 08, 2005

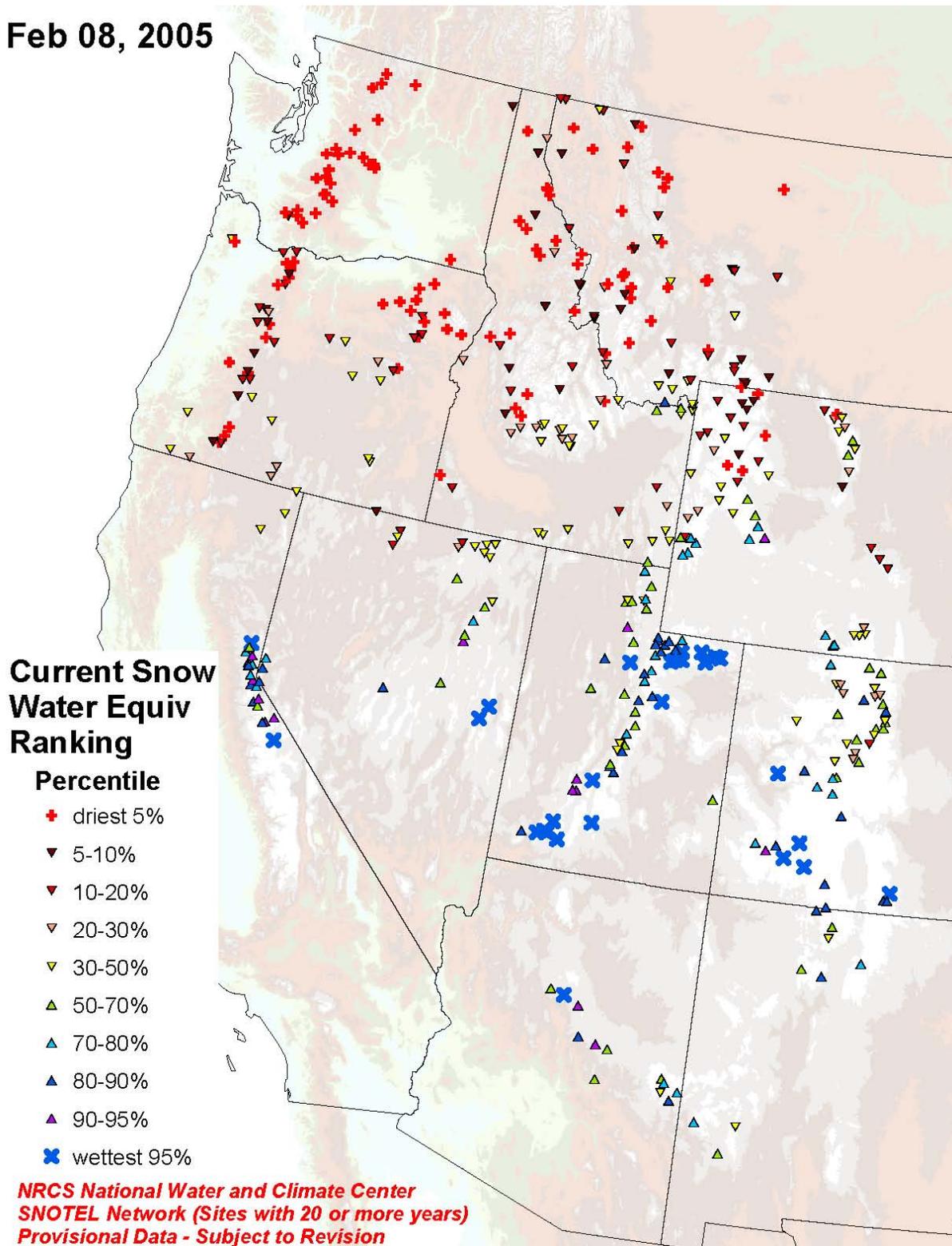


Fig. 3 Current snow water equivalent rankings for February 8th.
SNOTEL sites with 20 or more years of record.

Monthly Precipitation for January 2005

(Averaged by Hydrologic Unit)

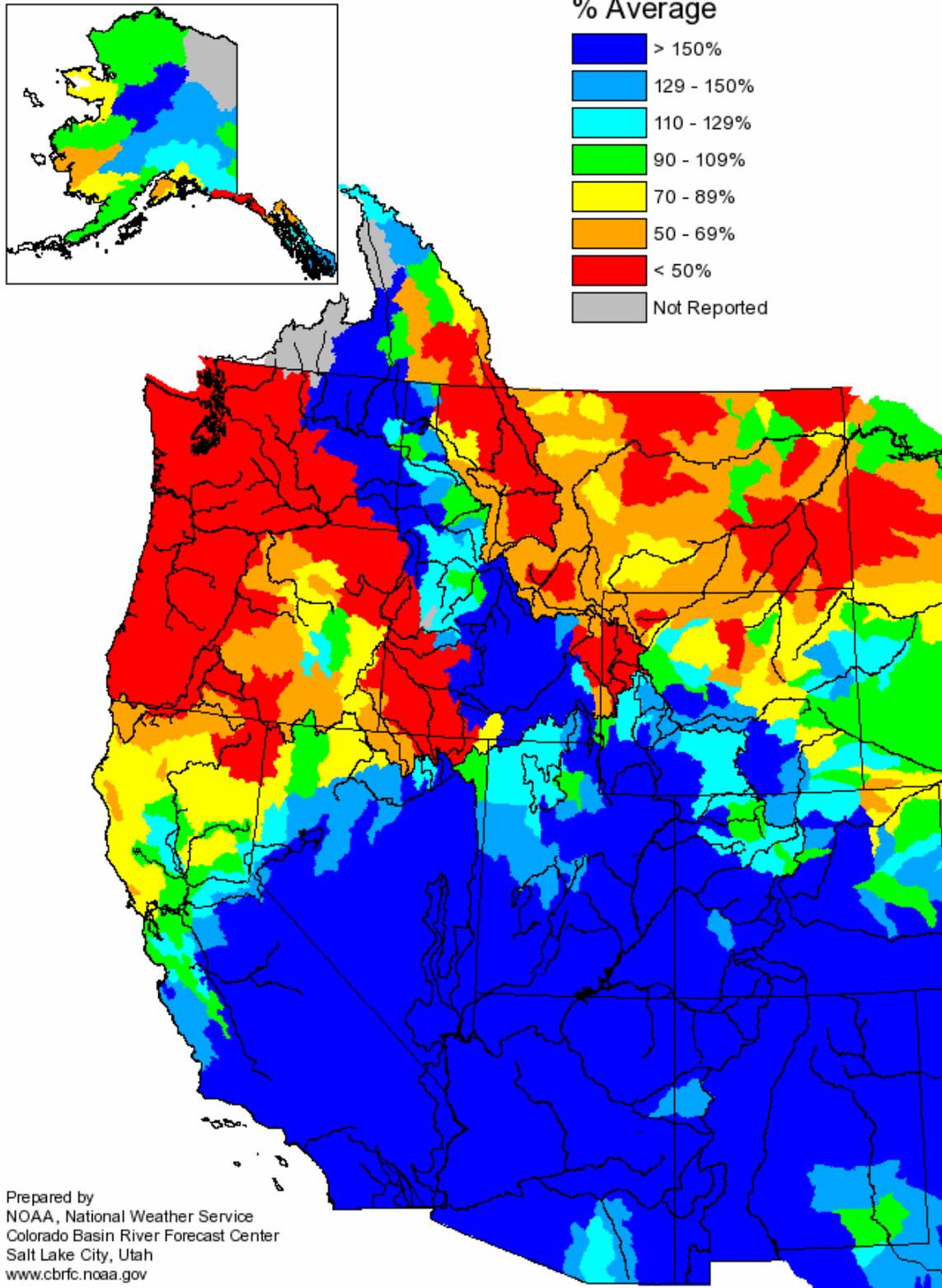


Fig. 4. January 2005 Precipitation

Seasonal Precipitation, October 2004 - January 2005

(Averaged by Hydrologic Unit)

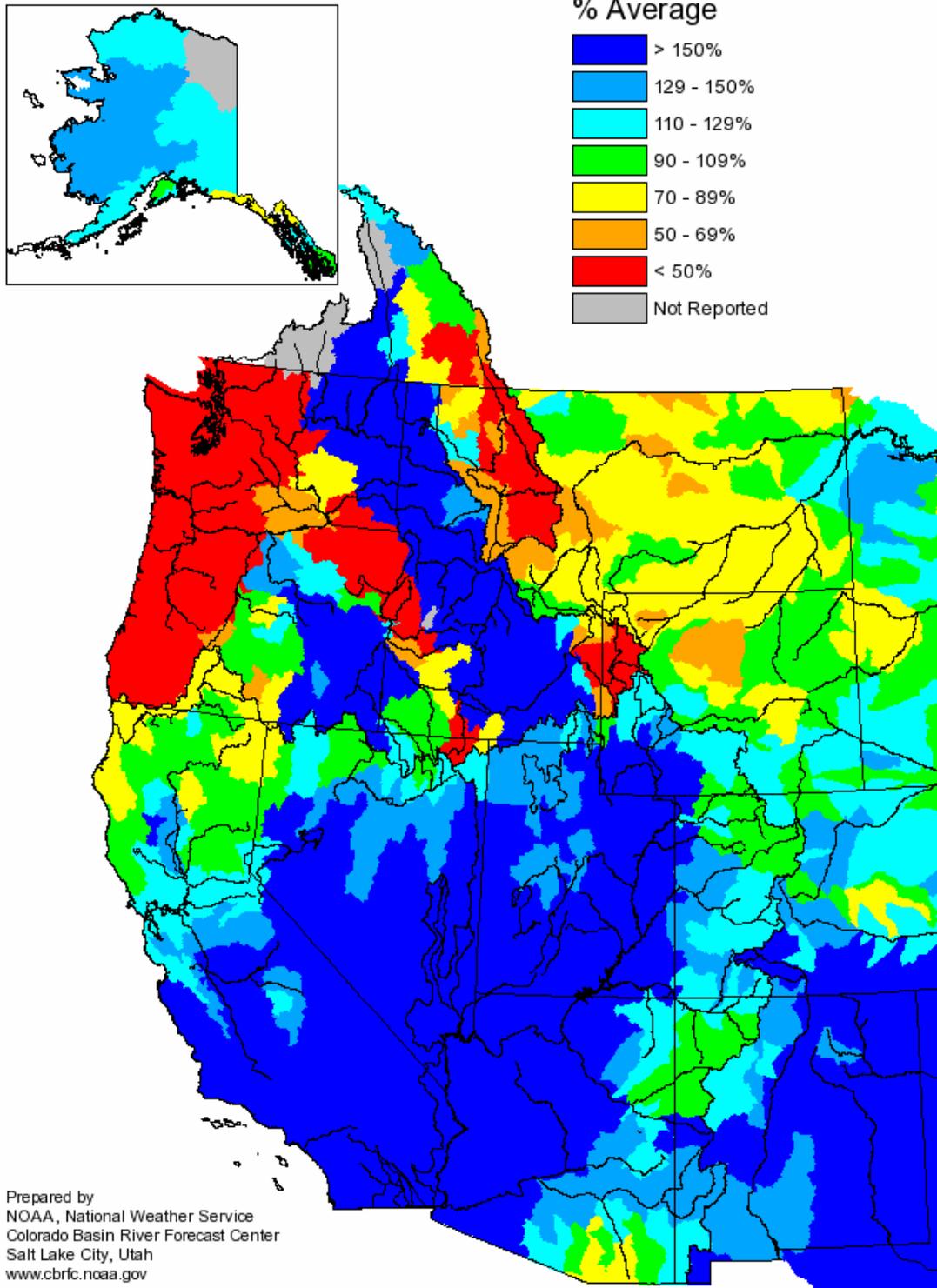


Fig. 5. Seasonal Precipitation, October 1, 2004 to January 31, 2005

Spring and Summer Streamflow Forecasts as of February 1, 2005

Legend

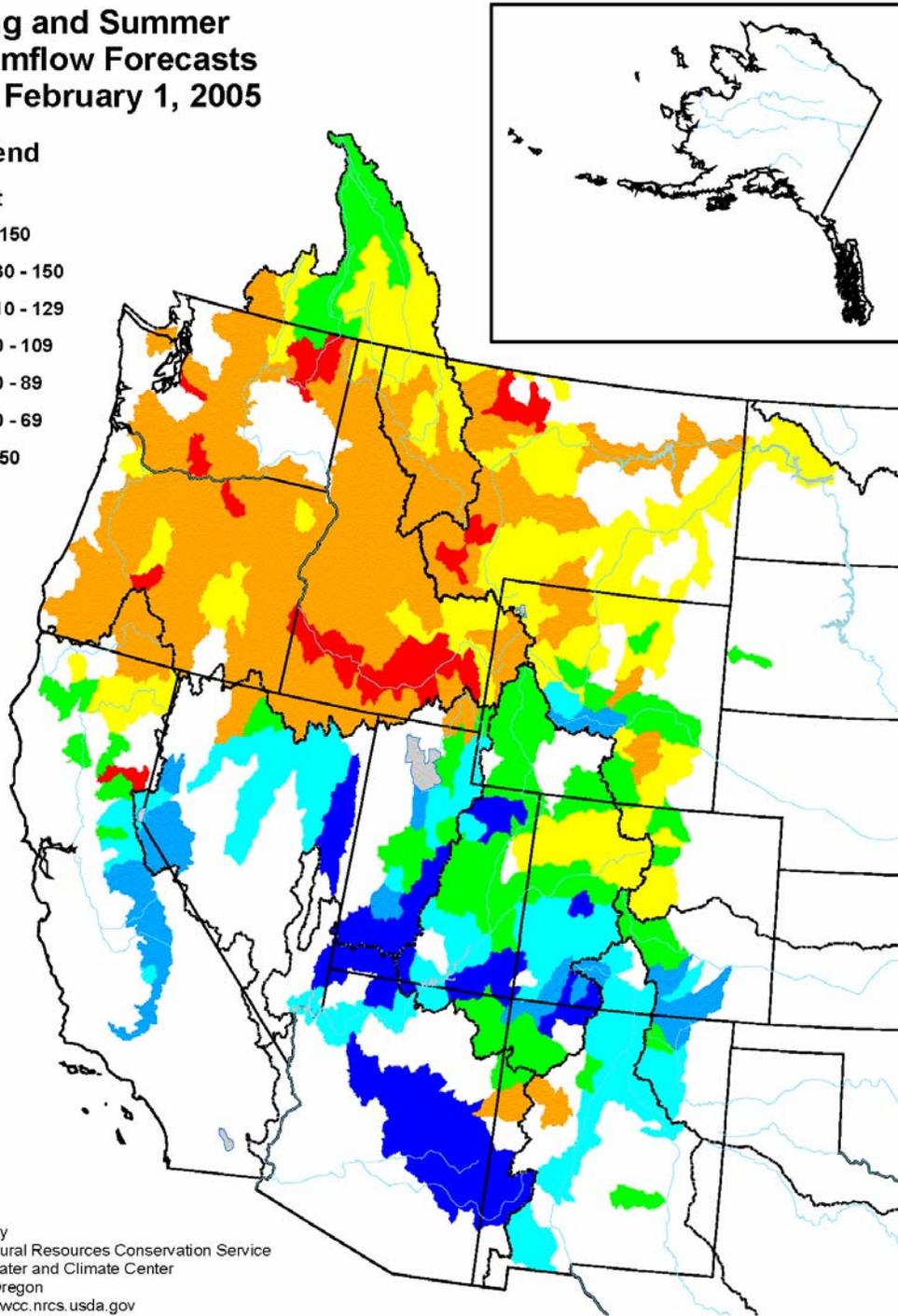
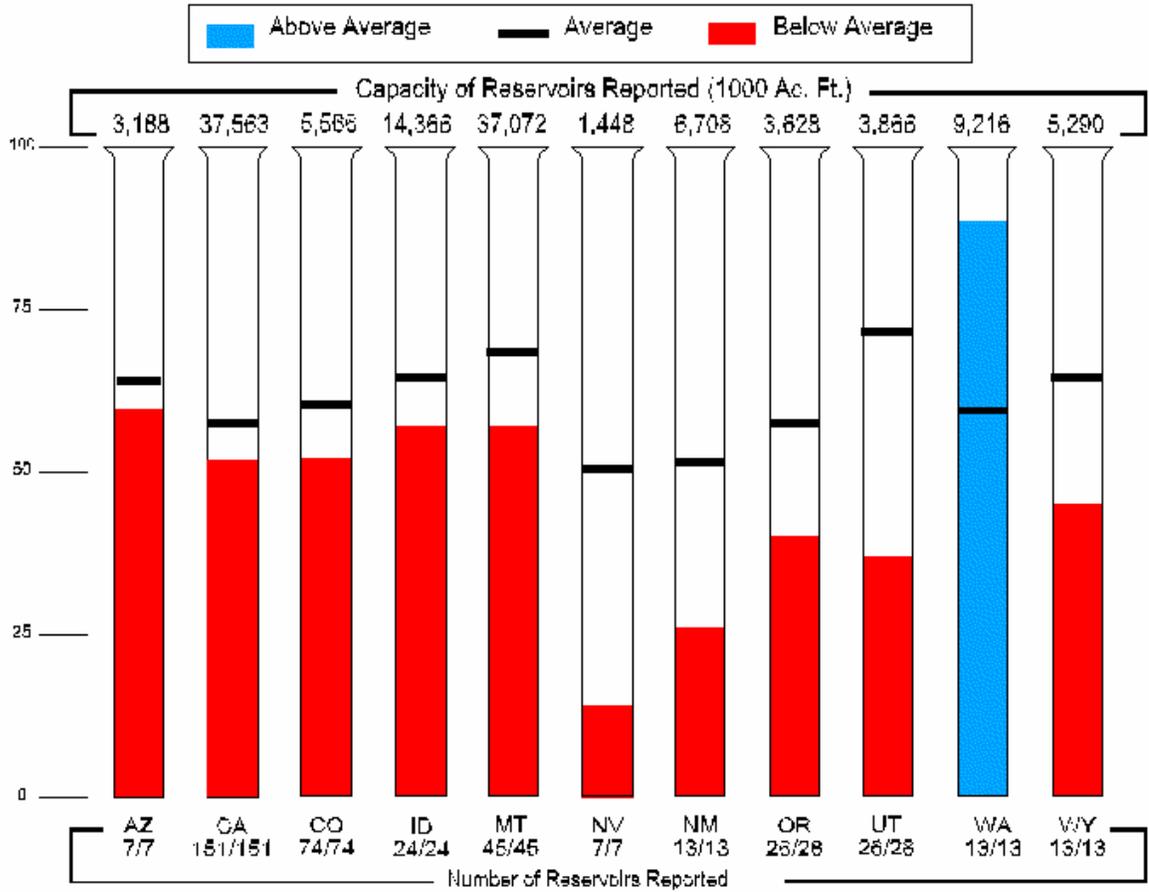


Fig. 6. Seasonal Water Supply Forecasts - February 1, 2005

Reservoir Storage as of February 1, 2005



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

Fig. 7. Reservoir Storage - February 1, 2005