



Natural Resources Conservation Service
P.O. Box 2890
Washington, D.C. 20013

April 1, 2005 Western Snowpack Conditions and Water Supply Forecasts Issued: April 14, 2005

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

OVERVIEW

Winter storm systems continued to increase snowpacks in the Sierras of California, central Nevada, most of Utah, southern Colorado, northern New Mexico and parts of western Montana. Many snowpacks in Utah, southern Colorado and northern New Mexico are near record highs, while dozens of snowpacks in the Pacific Northwest report record lows.

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

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

As of April 1, reservoir storages for all western states except Washington, Arizona, and California were below historic April 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. Prospects are favorable for many small and medium Southwest reservoirs to fill this year.

SNOWPACK

The April 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 located in Idaho and western 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 150% 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 and snow course records with 30 or more years of record for April 1st reveals scores of record, or near record low snowpack amounts in the Pacific Northwest and approximately one dozen record, or near record high snowpack amounts in the Great Basin (Fig. 2).

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

March 2005 precipitation was above average in the Sierras of California, the Great Basin, southern Idaho, northwestern Montana and northern New Mexico (Fig. 4). Oregon and Washington received most to their precipitation during the last week of March which resulted in near or slightly below average totals. The Rockies of Colorado and Wyoming also reported totals near or slightly below average. Alaska reported near, to slightly above average precipitation in the middle of the state and southern part of the state, with below average amounts in the far north and a band through the middle third of the state.

Seasonal precipitation for the period October 1, 2004 to March 31, 2005 is between 70% and 90% of average in most of the Pacific Northwest, Montana and northern 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 April 1, 2005, a majority of basins in the Pacific Northwest and the Missouri River are forecast to receive below average, less than 70% of normal spring and summer streamflows (Fig. 6). The Yakima and Okanogan basins in Washington, the Klamath and many central Oregon basins, the Snake River Plain and the Big Wood basins in Idaho, and the Bitterroot and Fisher basins in Montana are expected to receive less than 50% of normal spring and summer streamflow.

In contrast to these below average streamflows, 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. The Sevier, Beaver, Virgin Provo, San Juan and Duchesne basins in Utah are forecast to receive greater than 150% of average runoff. The Rio Grande Basin in southern Colorado and northern New Mexico, the Pecos and Canadian and the Rio Hondo in New Mexico are forecast to receive greater than 130% of average streamflow. The Gila and San Francisco Basins in southwestern New Mexico and southeastern Arizona are forecast to receive greater than 130% of average streamflow.

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

RESERVOIR STORAGE

As of April 1, 2005 reservoir storages for Nevada, New Mexico, Oregon, Utah and Wyoming are well below seasonal averages, while storages in California, Colorado, Idaho and Montana are near or 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. Prospects are favorable for many small and medium Southwest reservoirs to fill this year.

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/ BARRY KINTZER

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Washington, DC

Mountain Snowpack as of April 1, 2005

Legend

percent

-  > 180
-  150 - 180
-  130 - 149
-  110 - 129
-  90 - 109
-  70 - 89
-  50 - 69
-  25 - 49
-  < 25
-  No Survey

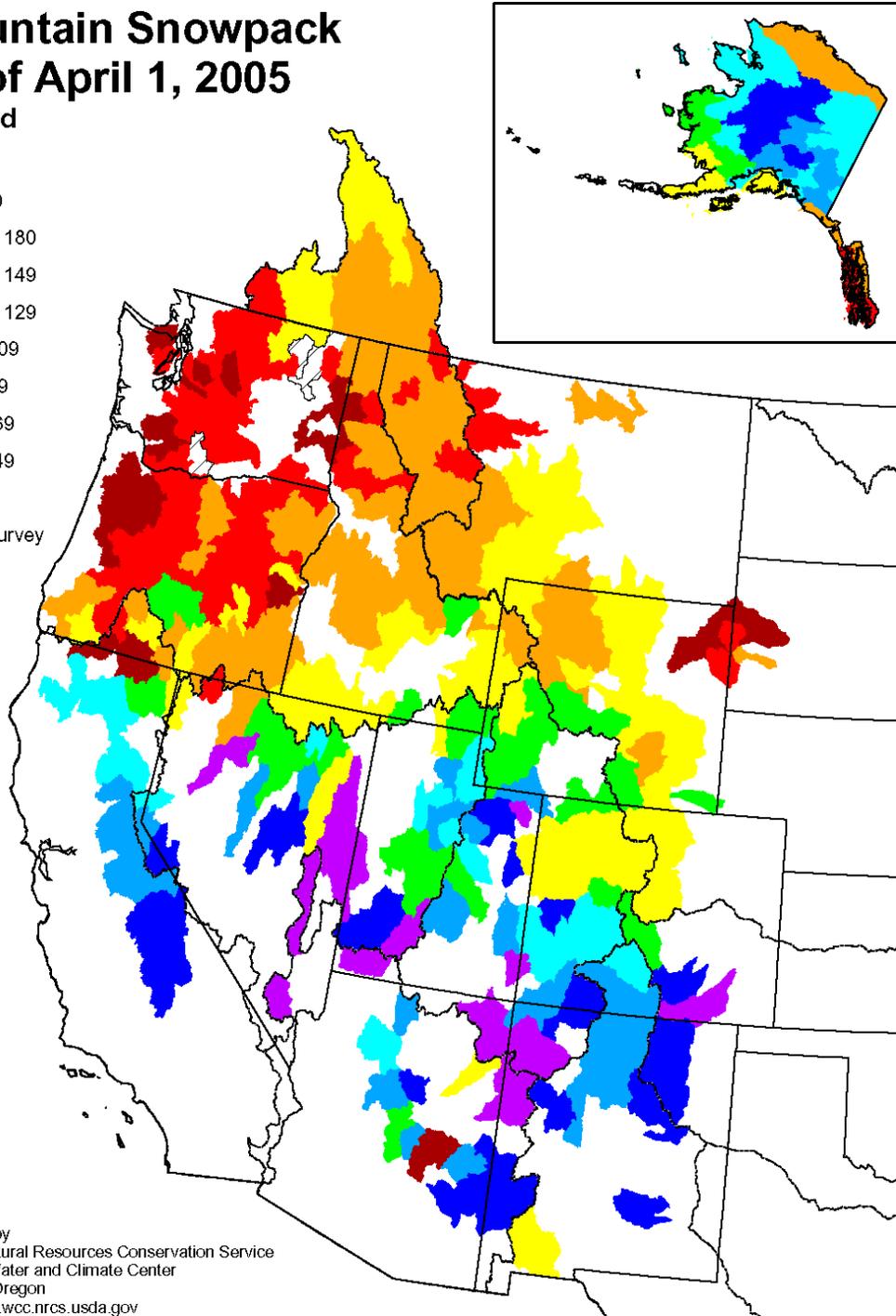


Fig. 1. Mountain Snowpack, April 1, 2005

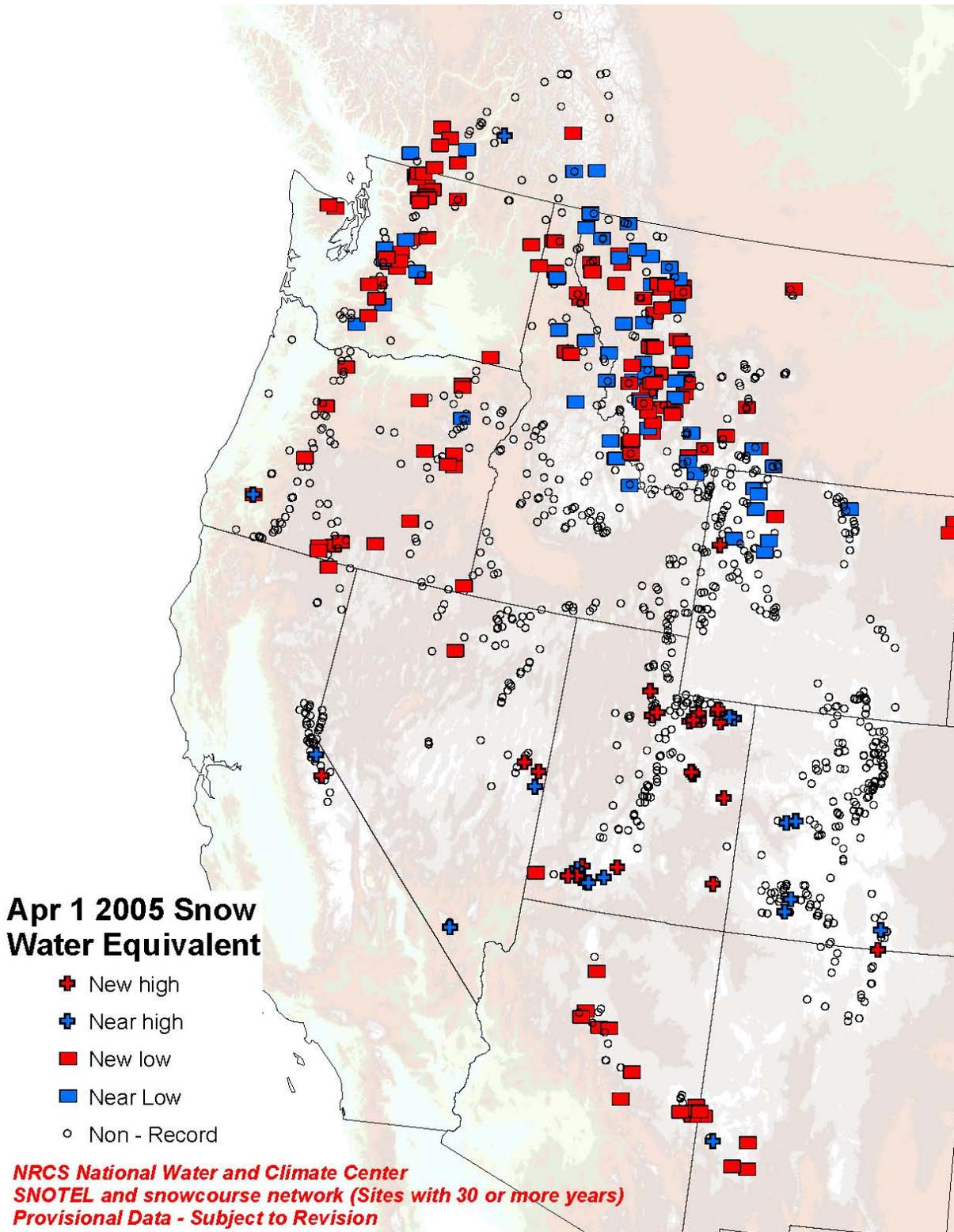


Fig. 2. New record, or near record high and low snow water equivalent values for April 1st. SNOTEL sites with 30 or more years of record.

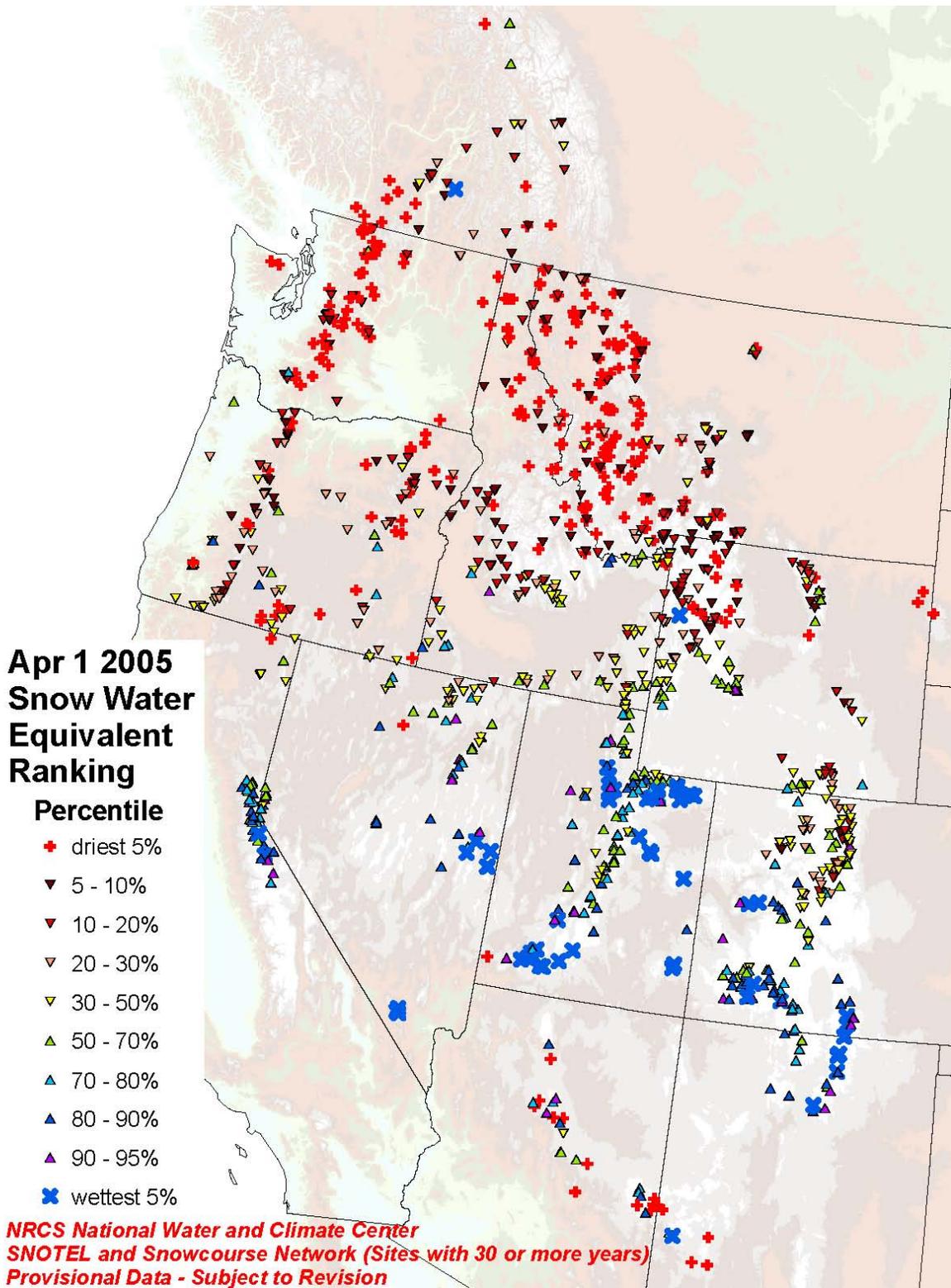
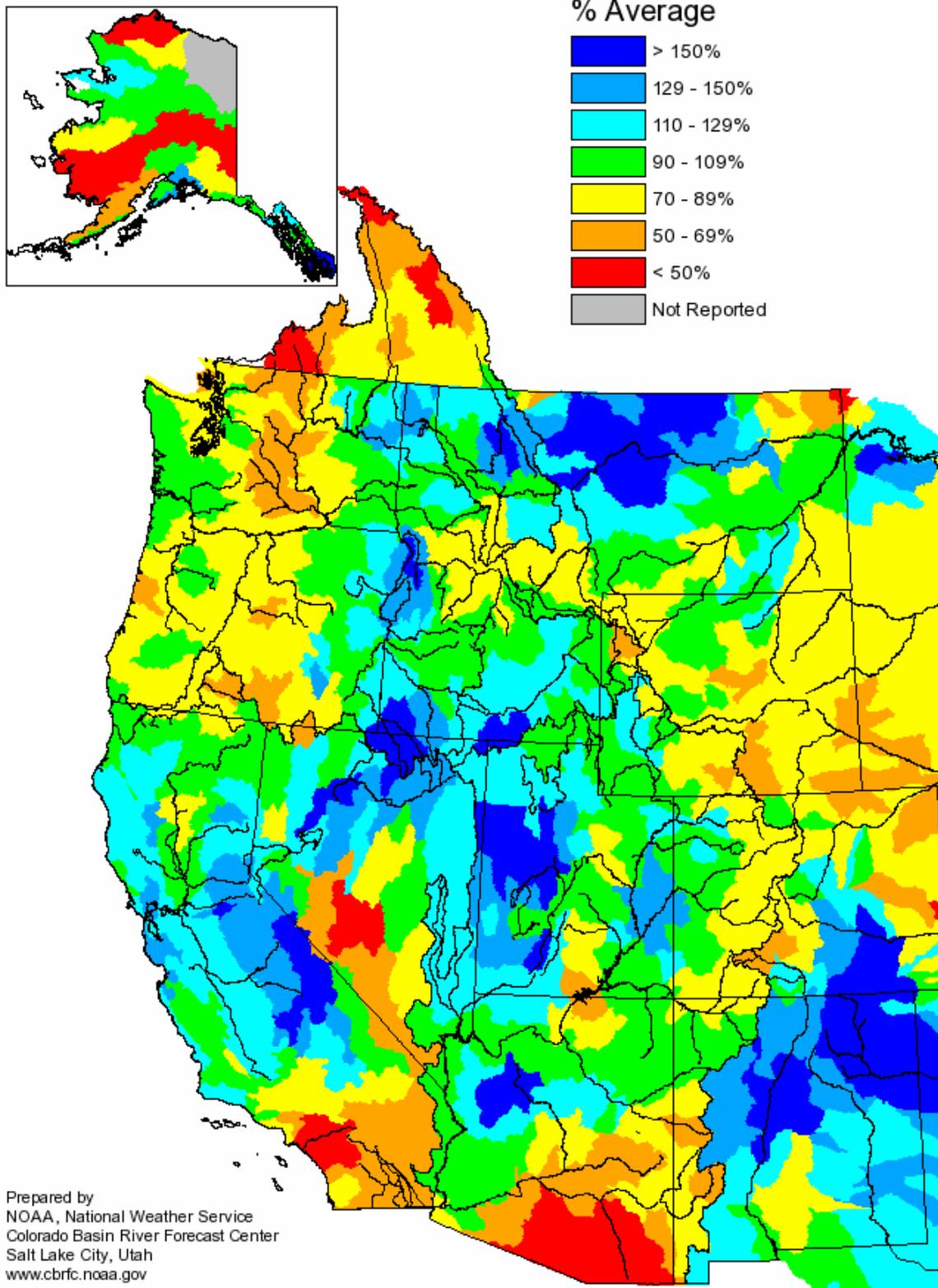


Fig. 3 Current snow water equivalent rankings for April 1st.
SNOTEL sites with 30 or more years of record.

Monthly Precipitation for March 2005

(Averaged by Hydrologic Unit)



Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

Fig. 4. March 2005 Precipitation

Seasonal Precipitation, October 2004 - March 2005

(Averaged by Hydrologic Unit)

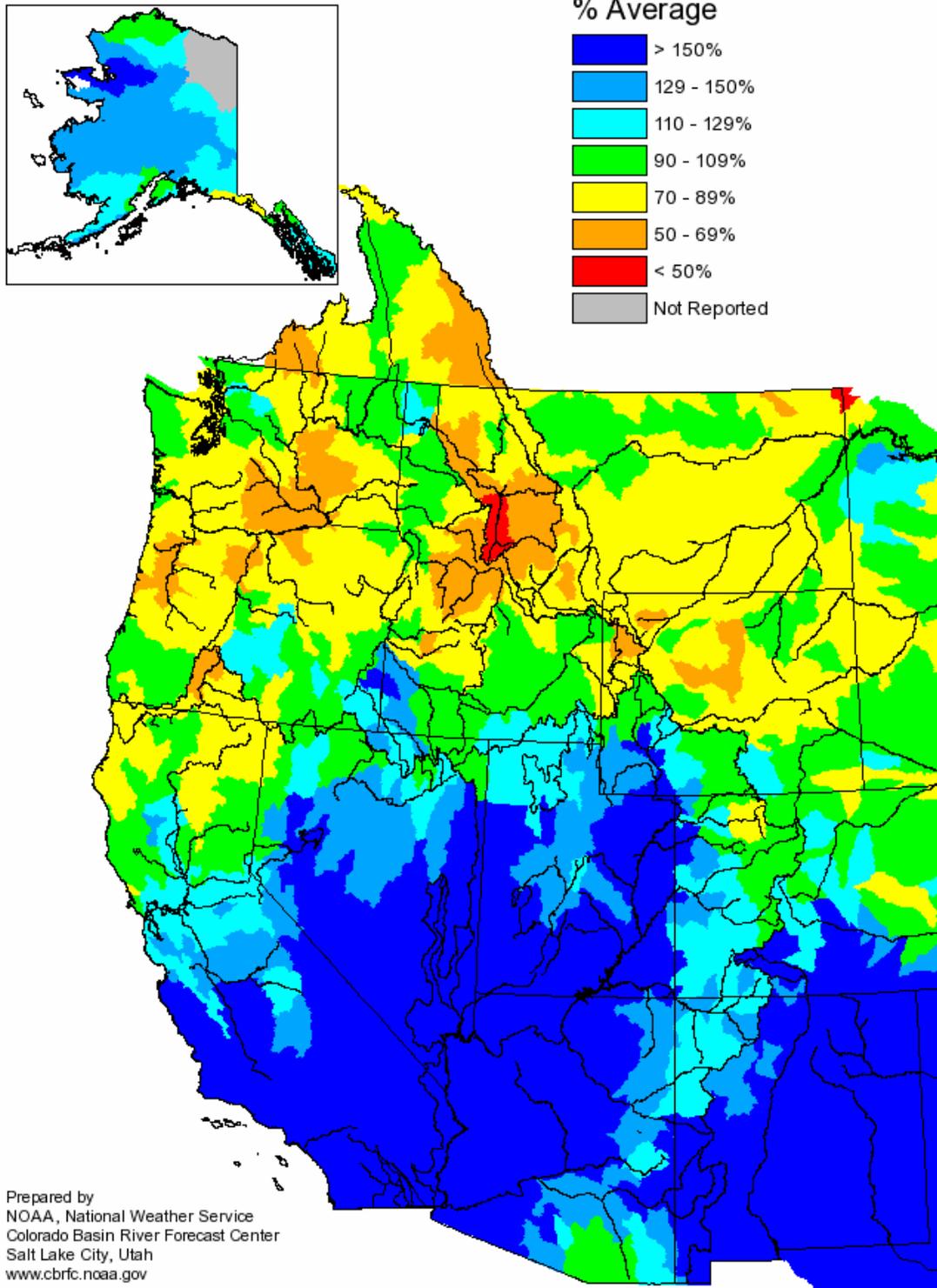
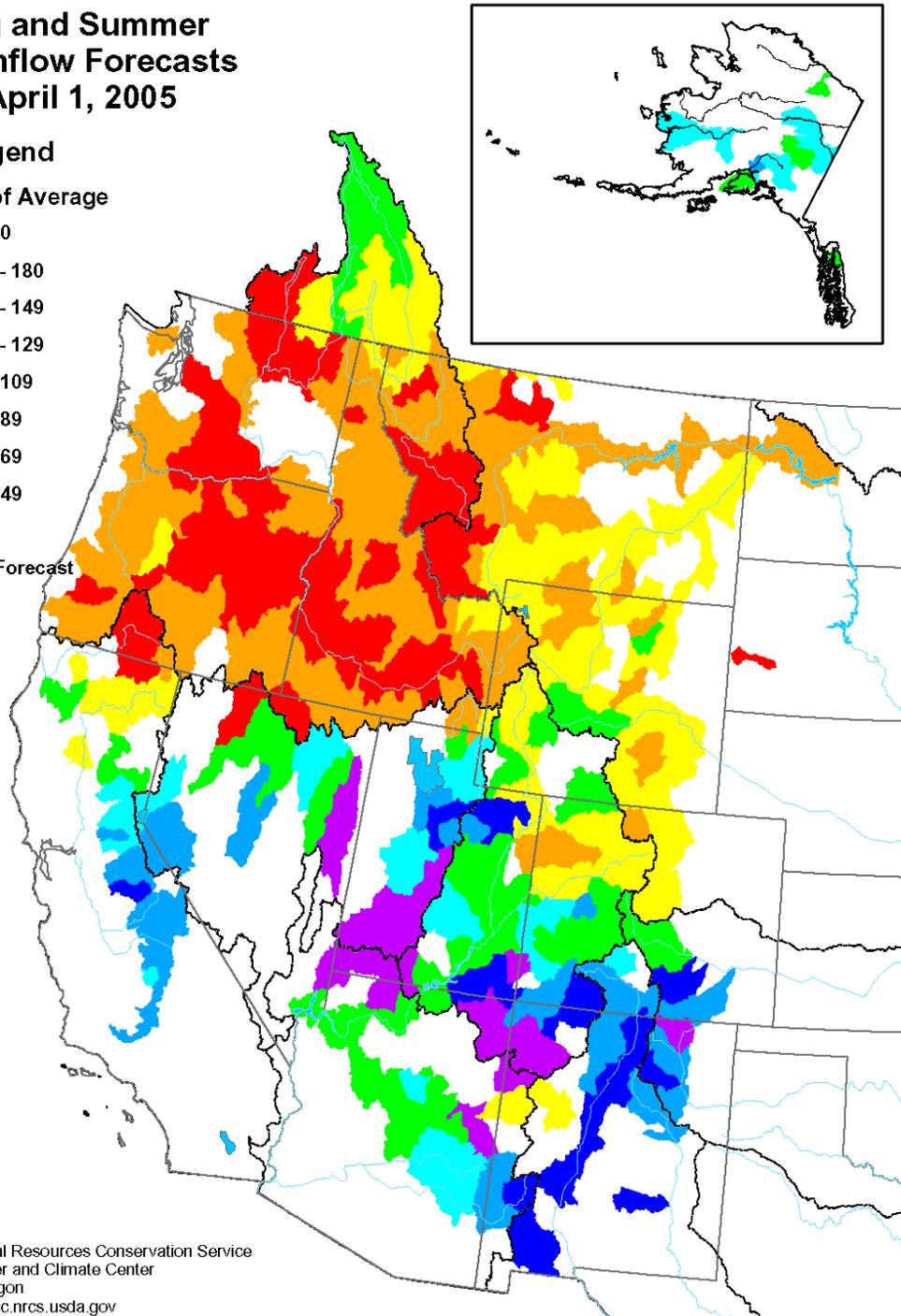
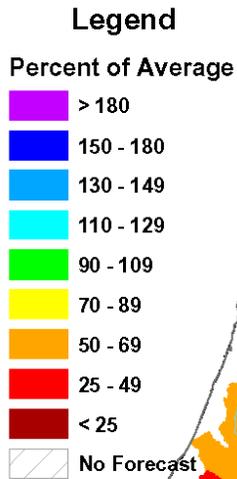


Fig. 5. Seasonal Precipitation, October 1, 2004 to March 31, 2005

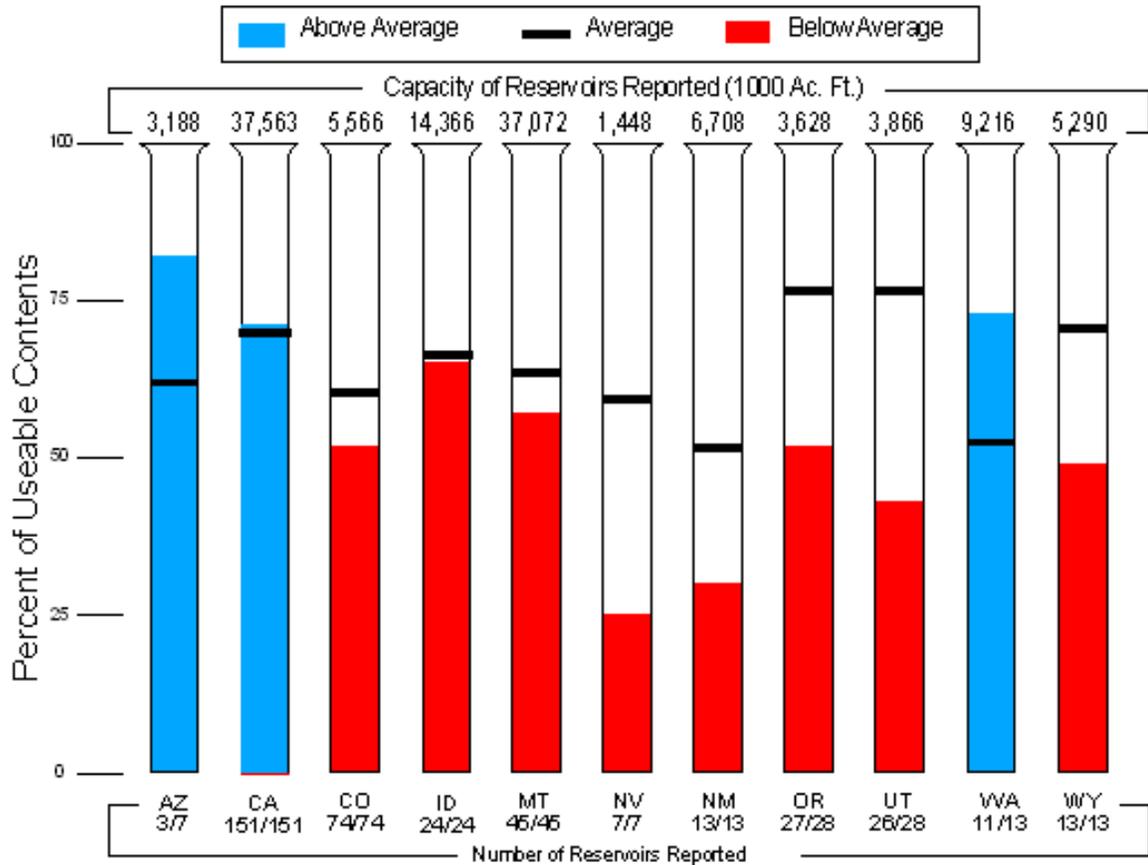
Spring and Summer Streamflow Forecasts as of April 1, 2005



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 - April 1, 2005

Reservoir Storage as of April 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 - April 1, 2005