



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

May 1, 2005 Western Snowpack Conditions and Water Supply Forecasts Issued: May 17, 2005

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

OVERVIEW

During April a series of cool winter storm systems continued to increase snowpacks in the higher elevations of the Sierras in 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 below average 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 May 1, reservoir storages for Arizona, California and Washington are above historical May 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. Reservoir storages for Colorado, Montana, Nevada, New Mexico, Oregon, Utah and Wyoming are below historical May averages. Prospects are favorable for many small and medium Southwest and Great Basin reservoirs to fill this year.

SNOWPACK

The May 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. Many 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 sites with 20 or more years of record for May 2nd reveals approximately two dozen 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 sites with 20 or more years of record (Fig. 3). Scores of Pacific Northwest SNOTEL sites on May 2, 2005 rank in the driest 10% of historical values for recorded for May 2nd. The opposite is true for the Southwest, Great Basin and the central Sierras of California, where several dozen SNOTEL sites rank in the wettest 90% of historical values for recorded for May 2nd.

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

April 2005 precipitation was above average in central Oregon, the Great Basin states of Nevada and Utah, southern Idaho, most of central Montana, northeastern Colorado, western Arizona, and northern New Mexico (Fig. 4). Western Oregon and most of Washington received below average precipitation during April. Alaska reported generally below average precipitation state-wide.

Seasonal precipitation for the period October 1, 2004 to April 30, 2005 is generally between 70% and 90% of average in most of the Pacific Northwest, Montana and northern Wyoming (Fig. 5). Isolated basins in central Washington and Idaho are reporting values ranging from 50% to 70% of average. 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 seasonal precipitation is near to above average in most basins

SPRING AND SUMMER STREAMFLOW FORECASTS

As of May 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 the Pacific Northwest, 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. Several Utah, Nevada and Tahoe basins are forecast to receive greater than 130% 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 150% 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 May 1, reservoir storages for Arizona, California and Washington are above historical May averages (Fig. 7). 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. Reservoir storages for Colorado, Montana, Nevada, New Mexico, Oregon, Utah and Wyoming are below historical May averages. Prospects are favorable for many small and medium Southwest and Great Basin 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

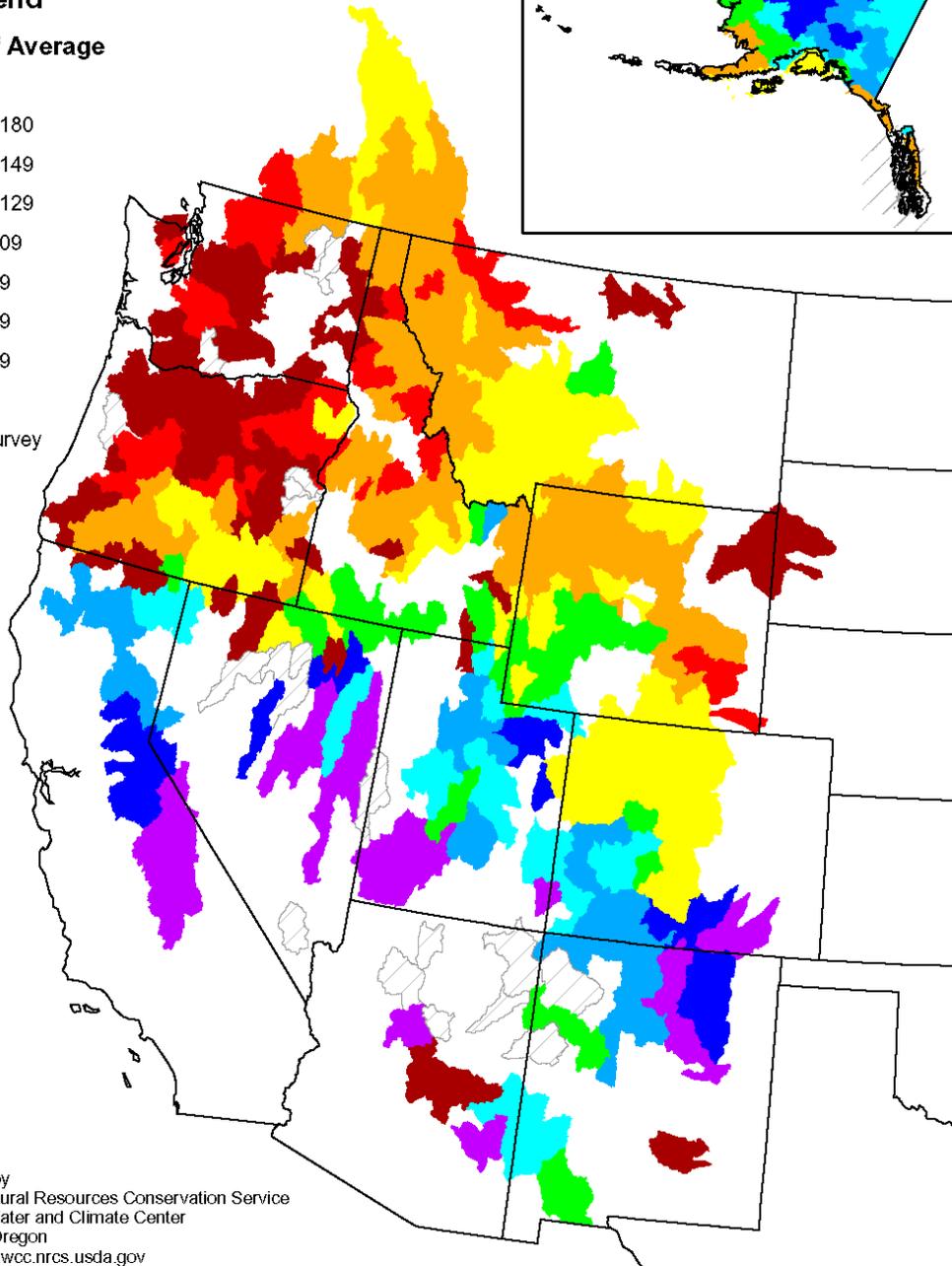
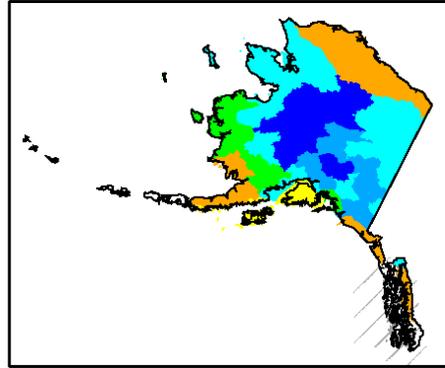
Acting Director, Conservation Engineering Division, Natural Resources Conservation Division,
Washington, DC

Mountain Snowpack as of May 1, 2005

Legend

Percent of Average

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



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

Fig. 1. Mountain Snowpack, May 1, 2005

May 02, 2005

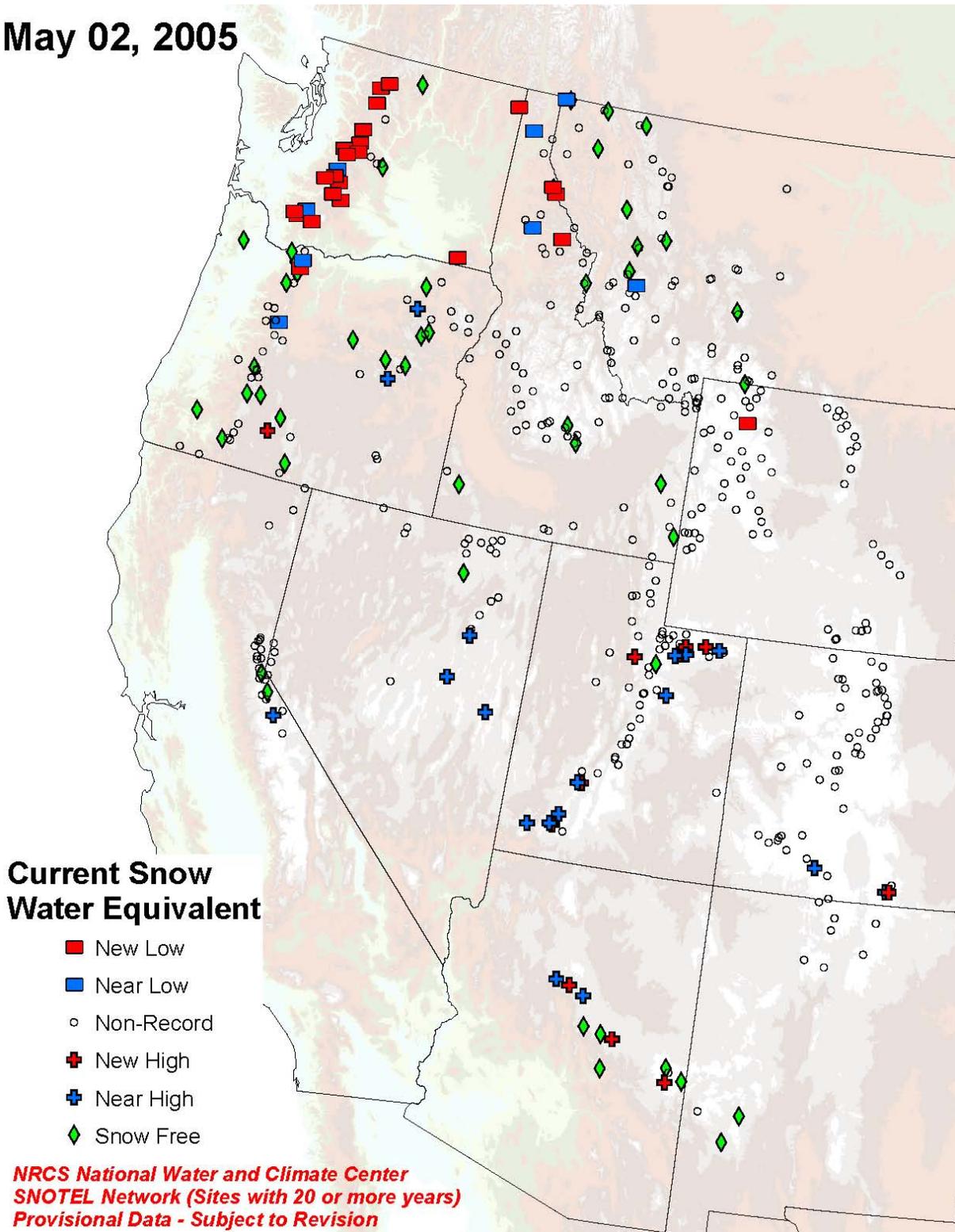


Fig. 2. New record, or near record high and low snow water equivalent values for May 2nd. SNOTEL sites with 20 or more years of record.

May 02, 2005

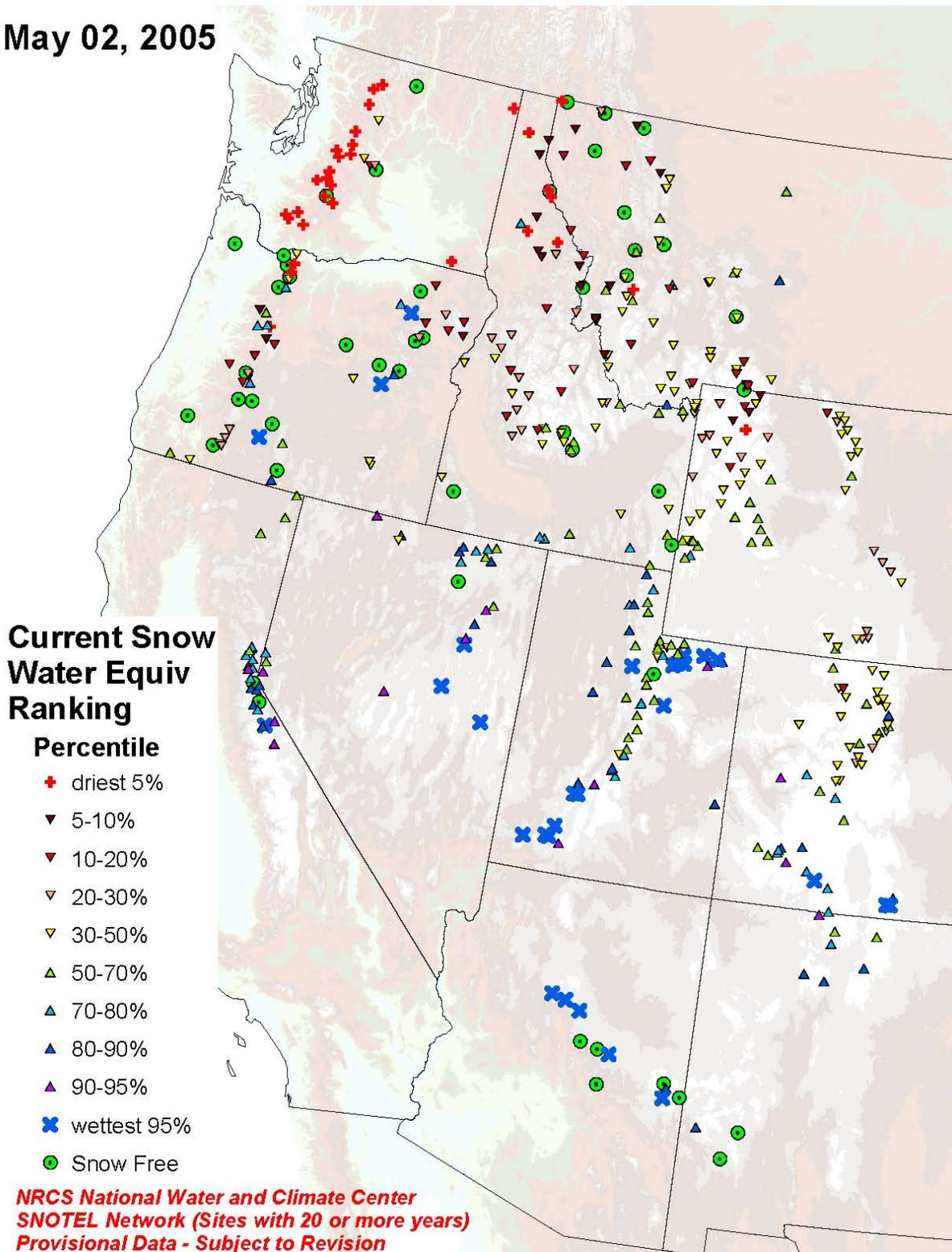


Fig. 3 Snow water equivalent rankings for May 2nd.
SNOTEL sites with 20 or more years of record.

Monthly Precipitation for April 2005

(Averaged by Hydrologic Unit)

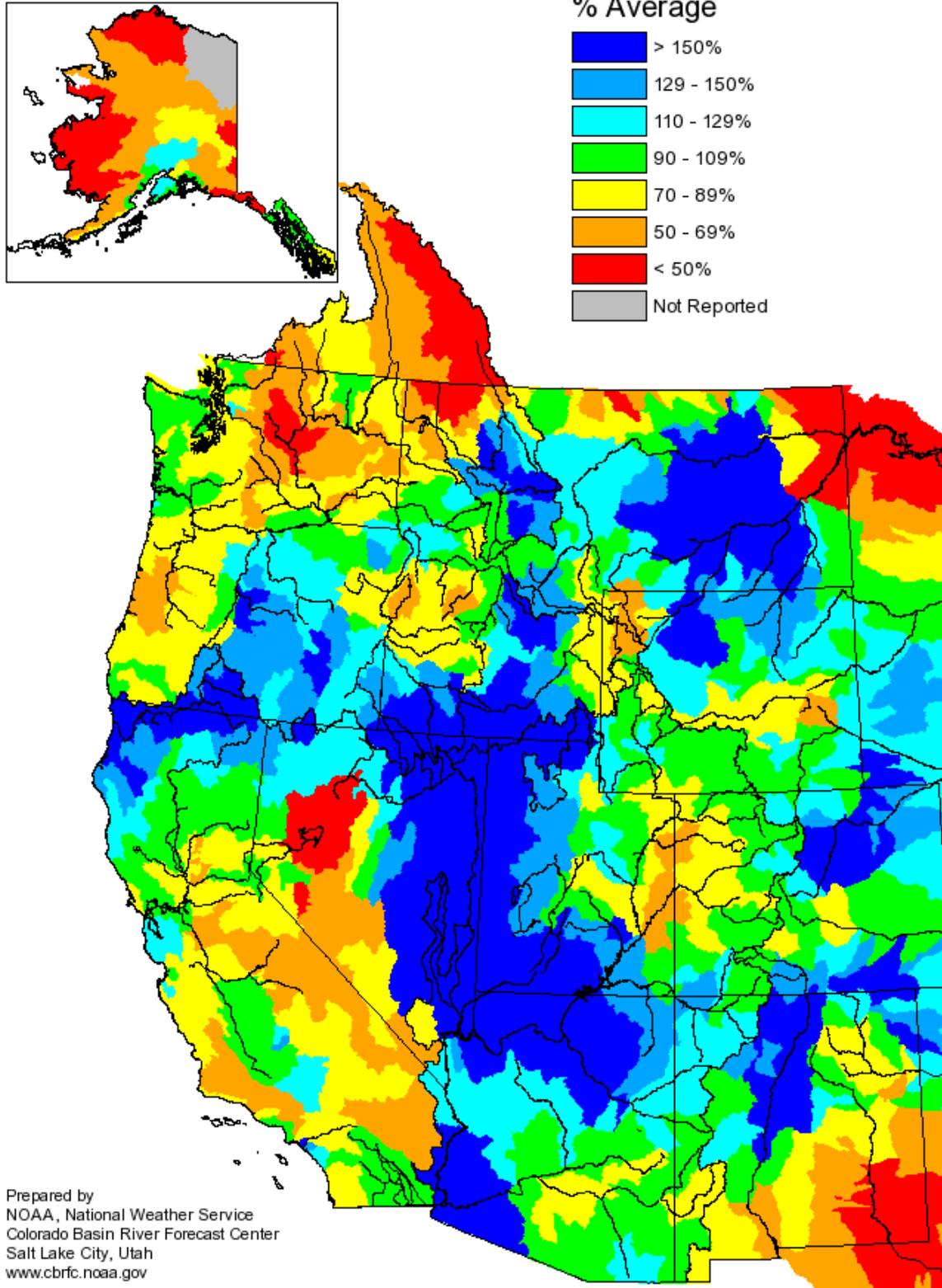
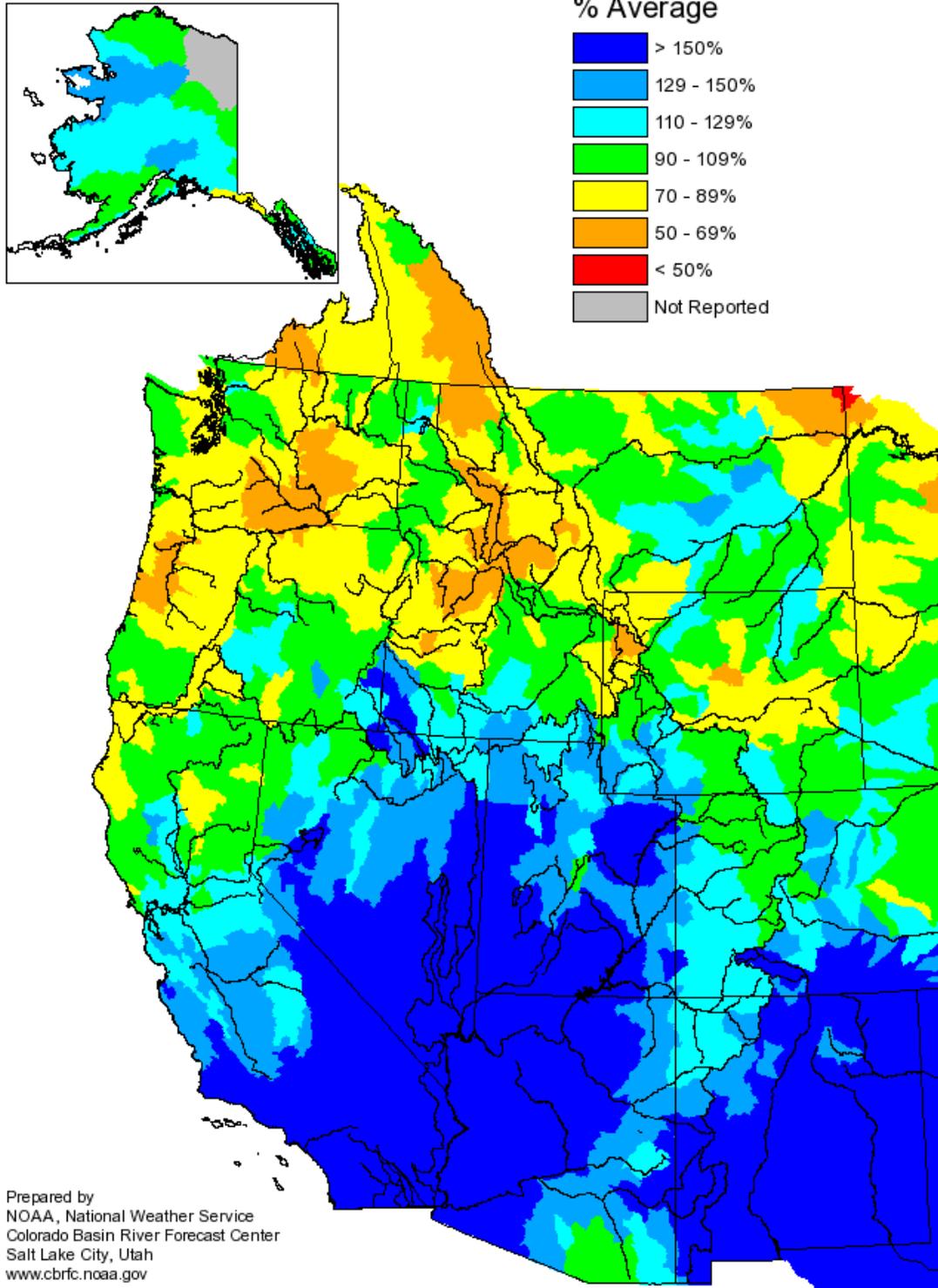


Fig. 4. April 2005 Precipitation

Seasonal Precipitation, October 2004 - April 2005

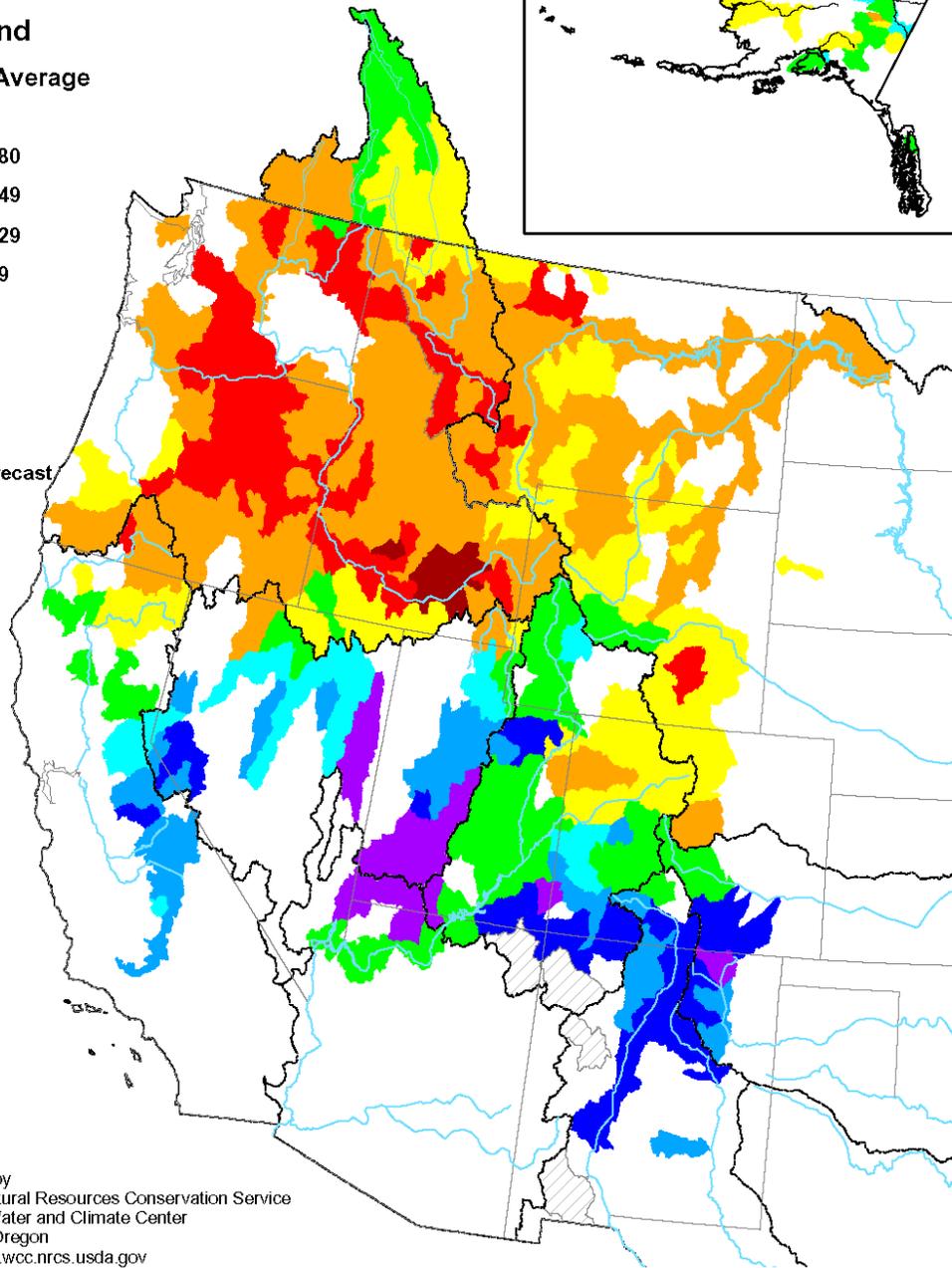
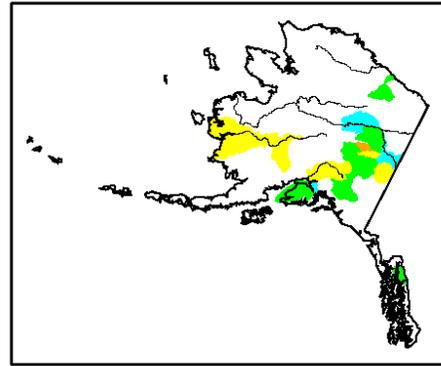
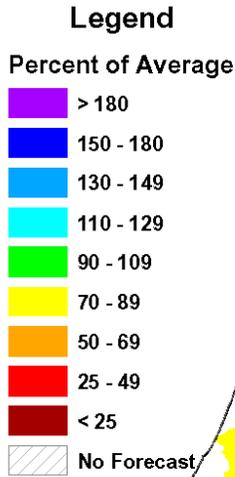
(Averaged by Hydrologic Unit)



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

Fig. 5. Seasonal Precipitation, October 1, 2004 to April 30, 2005

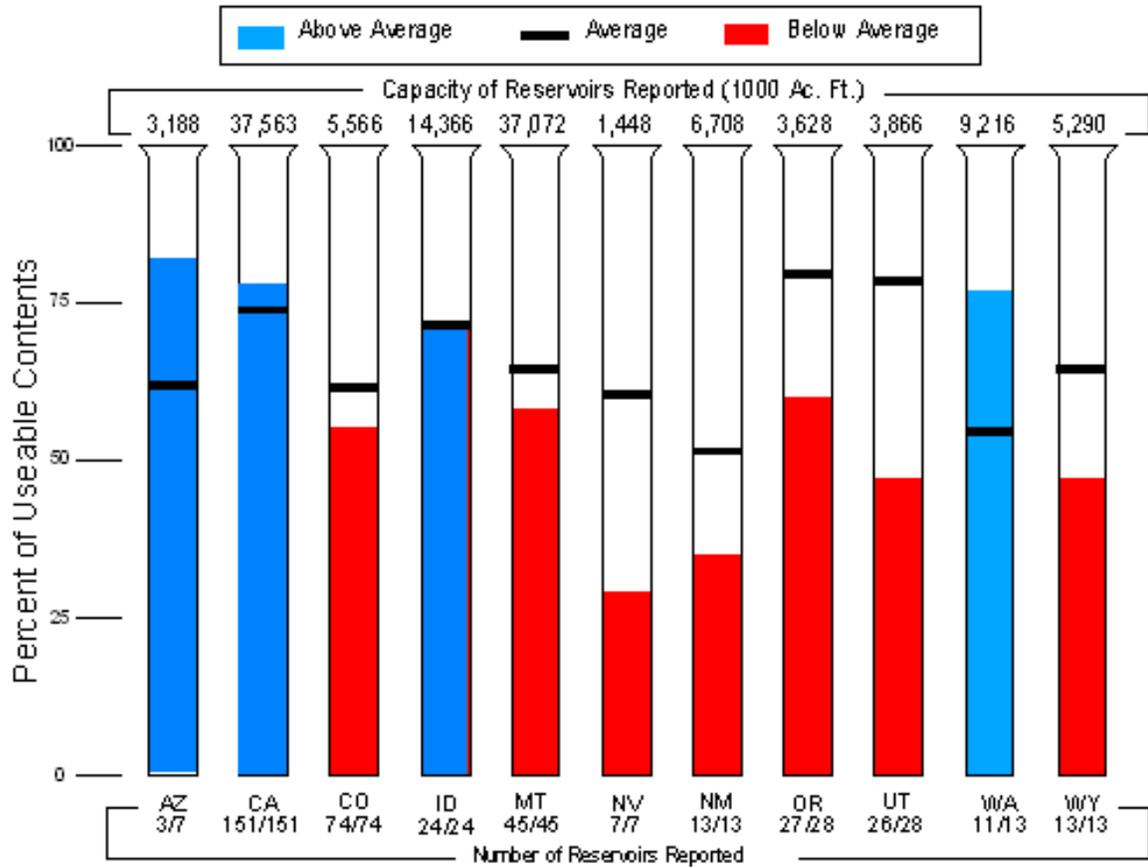
Spring and Summer Streamflow Forecasts as of May 1, 2005



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 - May 1, 2005

Reservoir Storage as of May 1, 2005



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

Fig. 7. Reservoir Storage - May 1, 2005