



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

Date: April 10, 2009

Subject: April 1, 2009 Western Snowpack Conditions and Water Supply Forecasts

The following information is provided for your use in describing western climate and water supply conditions as of April 1, 2009.

OVERVIEW

The first of April is near the time of peak snowpack in the northern half of the West. Much of the Pacific Northwest is at normal or above normal (typical of a La Niña pattern) (Fig.1). Elsewhere, the Northern and Central Rockies are near normal. Below normal values exist over the Kenai Peninsula in Alaska, the Upper Columbia River, the Southern Rockies, California, and in Arizona which usually has its peak snowpack in February. The Pacific Northwest, California, and much of Alaska experienced an increase in snow pack in March as shown in Fig. 2.

Since October, precipitation has been exceptionally higher than expected over the Lower Colorado Basin, Upper Snake River, and across the Northern and Central Rockies. Relative dryness has occurred over much of California, the Pacific Northwest, southeast Arizona, southern New Mexico, and the south-central of Alaska (Fig. 3).

As of April 1, 2009, the spring and summer streamflow forecasts are calling for well below normal values (<70%) scattered from southwest Utah to central Wyoming, selected basins in Nevada, northeastern New Mexico, much of Arizona, and the Upper Columbia River (Canada-Northern Washington). Above normal values (>110%) is noted over the Little Snake River (CO-WY) and over the Black Hills (SD) (Fig. 4). During the past month, the spring and summer streamflow forecasts have increased significantly across much of the Northern Tier States and eastern Alaska (Fig. 5). Significant decrease forecast flows are noted near the 4-Corners area of the West.

The Western States show the following average statewide reservoir levels: above normal (AZ and WA) and well below normal (CA, NV, NM, OR, and UT) (Fig. 6).

SNOWPACK

On April 1, 2009, western snowpack is above the long-term average over much of the Rockies and below normal over much of the West Coast States (excluding parts of the Oregon and southern Washington Cascades), and much of Alaska as shown in Fig. 1. A map containing a daily update of the west wide snowpack may be obtained from the following URL - <http://www.wcc.nrcs.usda.gov/gis/snow.html>.

During March, snowpack increased in the much of California, The Pacific Northwest, the Northern Rockies, and Alaska but decreased over much of the Great Basin, Southern Rockies,

and Arizona Mountains. The Wyoming Rockies caught up significantly and is near average conditions as a result of several winter-type snow storms that transited the state (Fig. 2).

SEASONAL PRECIPITATION

Preliminary seasonal precipitation (Water Year 2009) is above normal as would be expected for a La Niña pattern over the Northern Tier States (excluding western Oregon and Washington) as shown in Fig. 3. Amounts exceeded >130% dominated the region. An unexpected surplus of moisture is also noted over much of southern Nevada and southern California including the Colorado Rockies. Much drier conditions have occurred elsewhere across the West, especially over southern Arizona and New Mexico. Monthly and seasonal precipitation maps are available from the following location -

<http://www.wcc.nrcs.usda.gov/gis/precip.html> and
<http://www.cbrfc.noaa.gov/wsup/westwide/westwide.cgi>
http://www.hprcc.unl.edu/maps/current/index.php?action=update_product&product=PNorm

SPRING AND SUMMER STREAMFLOW FORECASTS

Streamflow forecasts are projected to be near normal or slightly above normal over parts of the Alaska, Pacific Northwest, Northern and Central Rockies, and scattered in the vicinity of the 4-Corners as shown in Fig 4. Forecast increase since March is noted over the Northern Tier States with Idaho and Montana the big winners (Fig. 5).

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, 2009, reservoir storage by state is shown in Fig. 5. Nevada is reflecting the worst storage and Arizona has the best storage. Reservoir storage graph can be viewed at:

<http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=03>.

FOR MORE INFORMATION

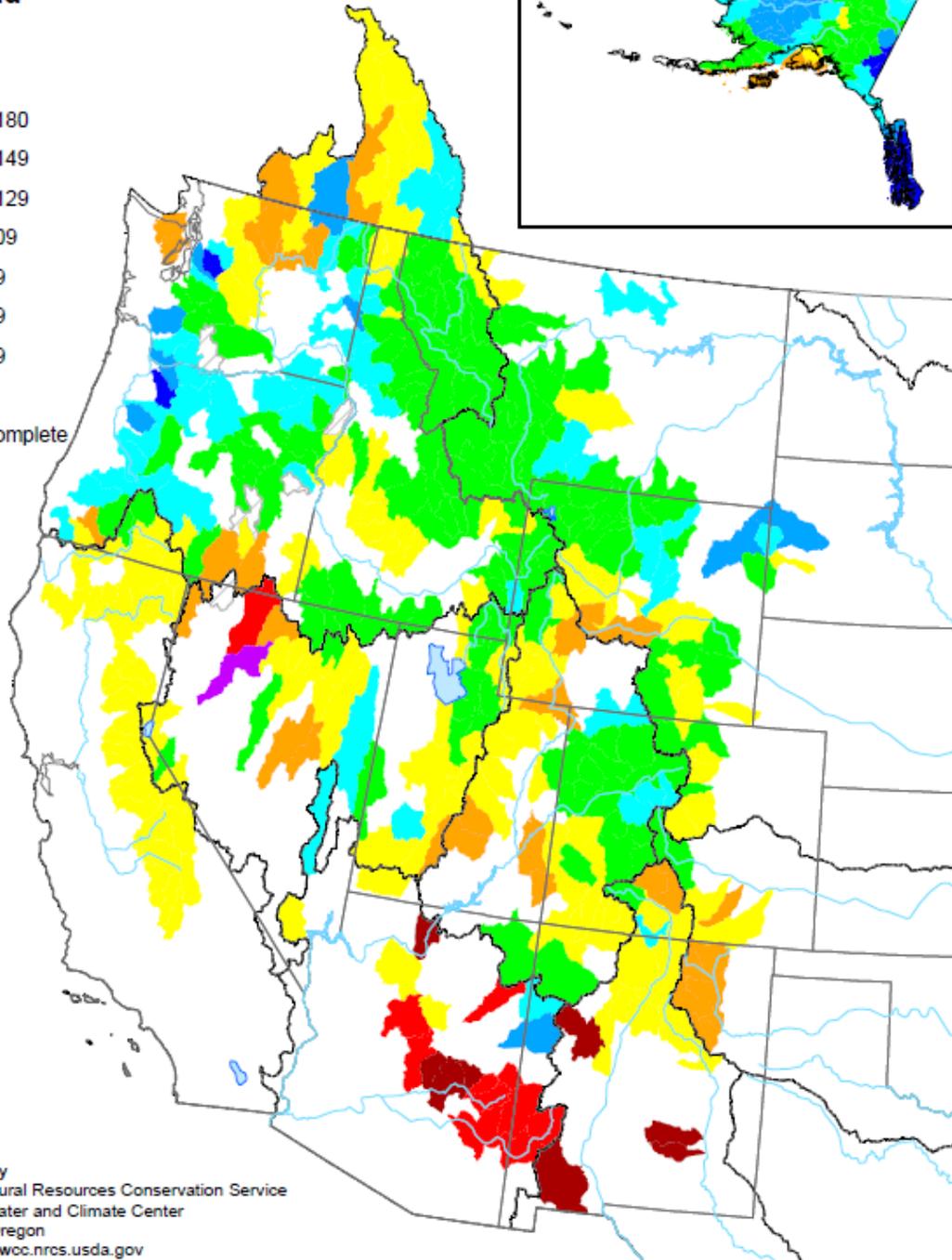
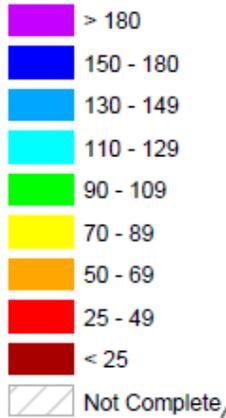
The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit us at <http://www.wcc.nrcs.usda.gov>

/s/ NOLLER HERBERT
Director, Conservation Engineering Division

Mountain Snowpack as of April 1, 2009

Legend

percent



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

Fig. 1. Mountain Snowpack, April 1, 2009

<ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/snowpack/wy2009/snow0904.gif>

Mountain Snowpack Change between March 1 and April 1

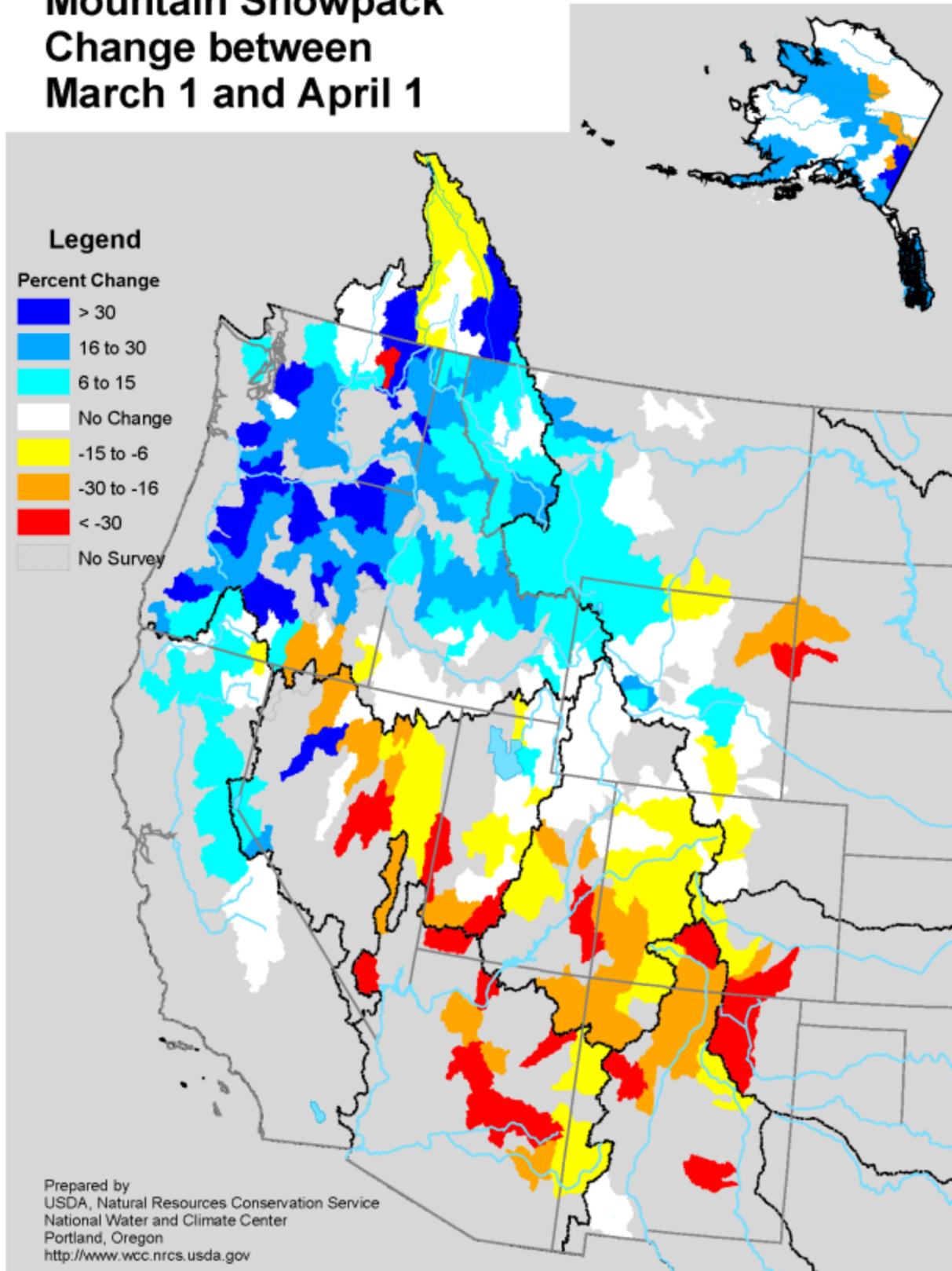


Fig. 2. Mountain Snowpack Difference from March 1 to April 1, 2009.

Seasonal Precipitation, October 2008 - March 2009

(Averaged by Hydrologic Unit)

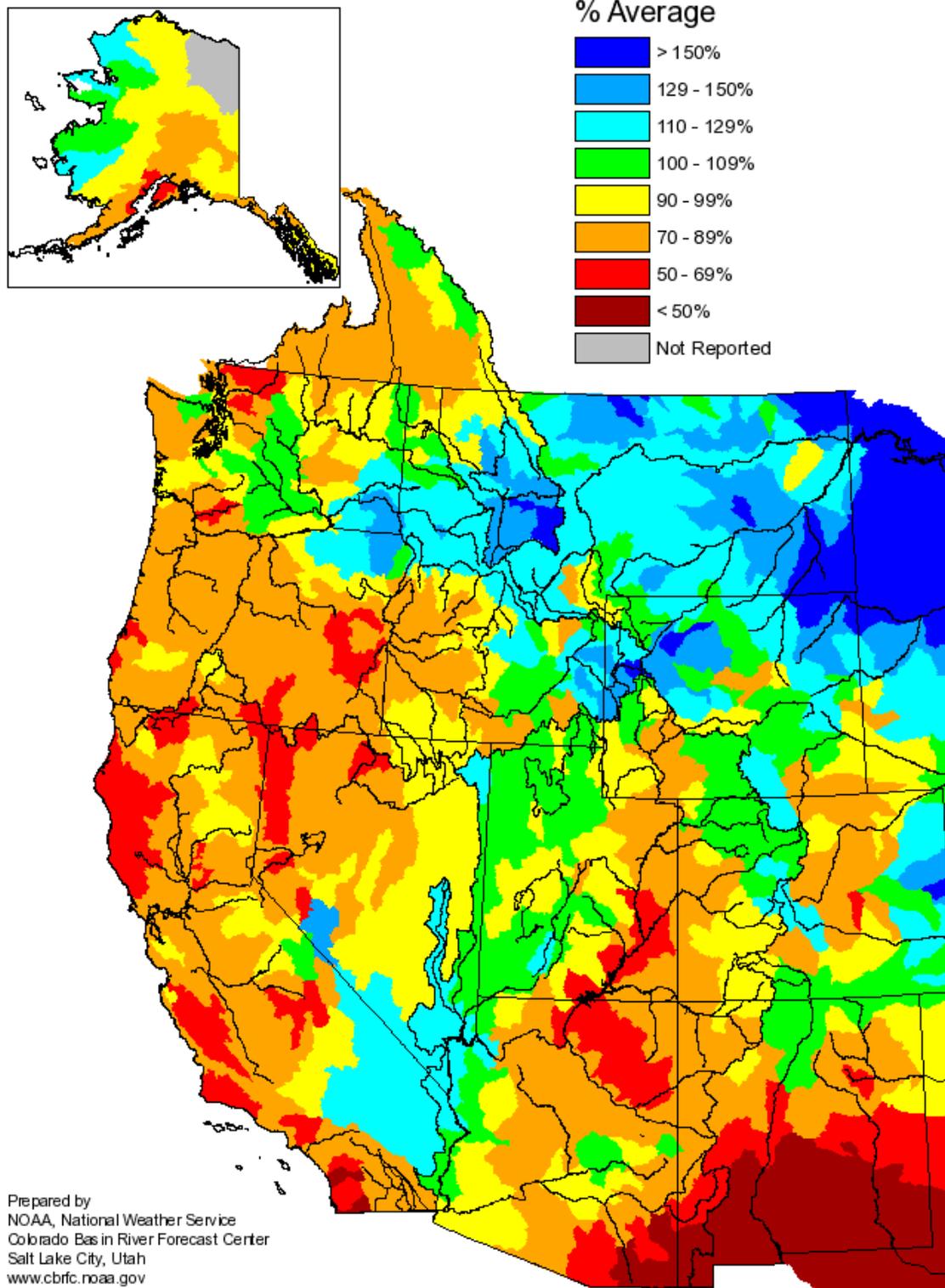


Fig. 3. Seasonal Precipitation, October 2008 to March 2009.

Ref: <http://www.cbrfc.noaa.gov/precip/qpe/maps/sum/map/westS200903.png>

Spring and Summer Streamflow Forecasts as of April 1, 2009

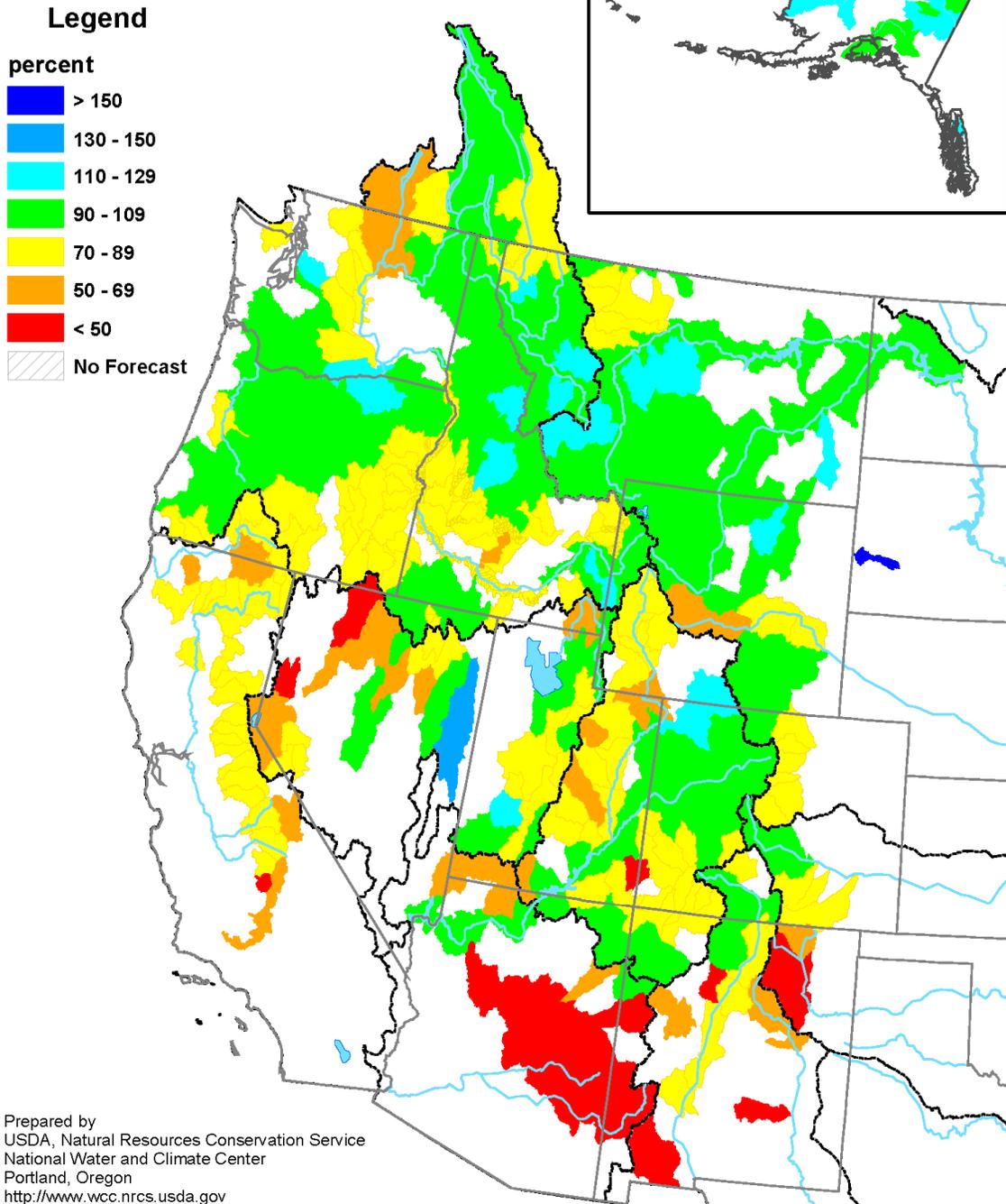


Fig. 4. Seasonal Water Supply Forecasts - April 1, 2009.

<ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/strm0904.gif>

Change in Spring and Summer Streamflow Forecasts from March 1 to April 1, 2009

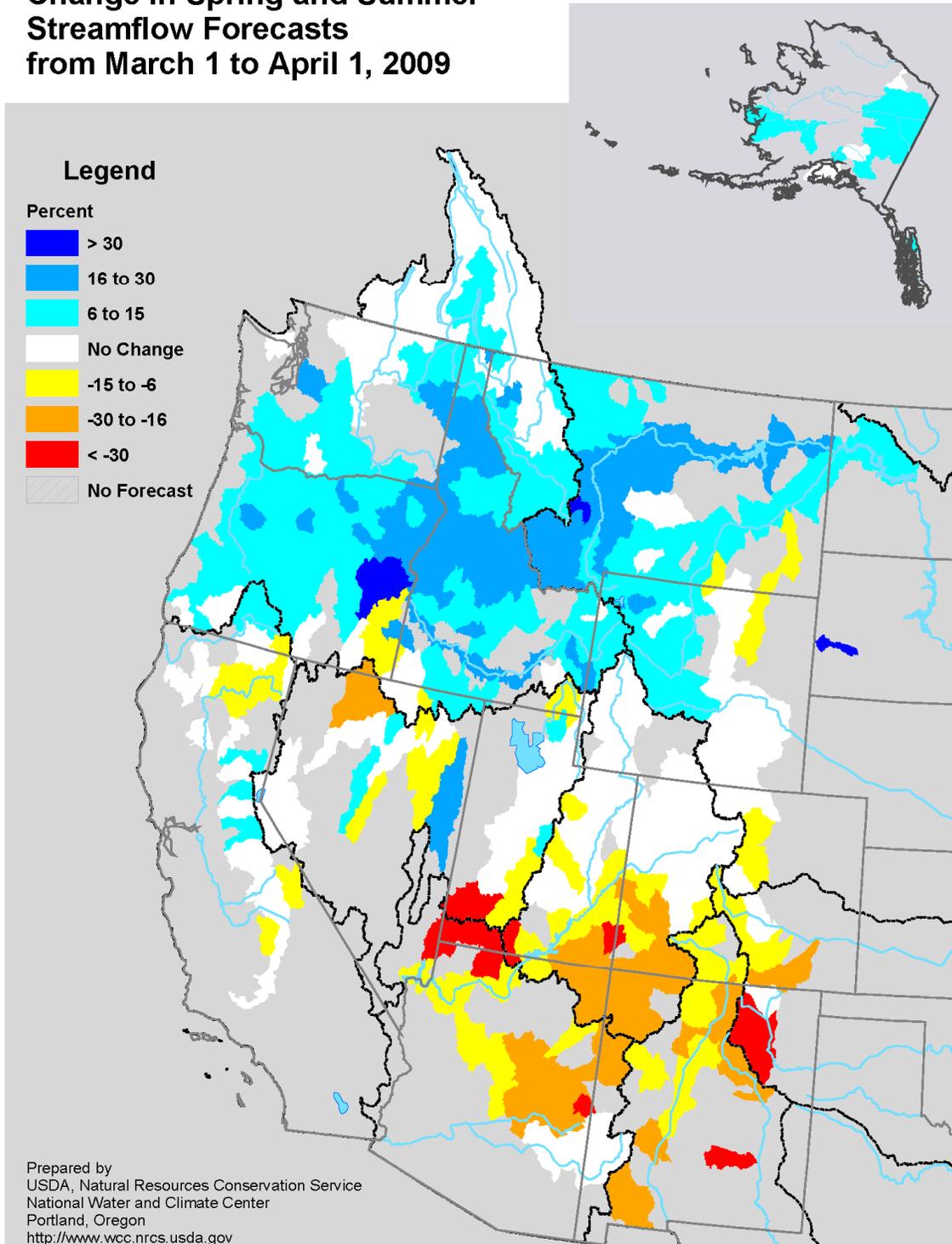
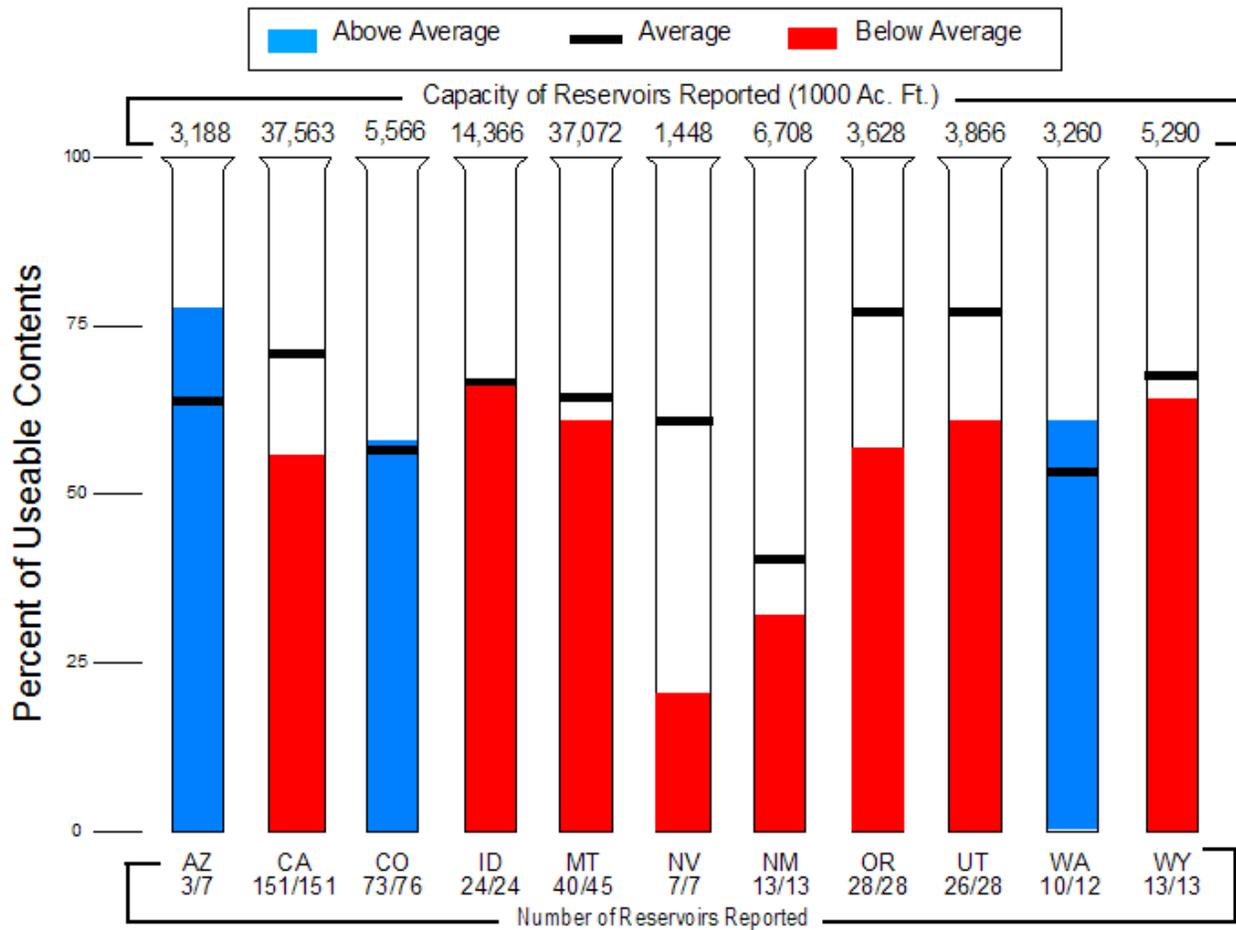


Fig. 5. Change in streamflow forecast between March 1 and April 1, 2009.

Ref: <ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/difstrm0904.gif>

Reservoir Storage as of April 1, 2009



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

Fig. 6. Reservoir Storage - April 1, 2009. Daily California updates:

<http://cdec.water.ca.gov/reservoir.html>.

Ref: <http://www.wcc.nrcs.usda.gov/cgi-bin/resvgrph2.pl?area=west&year=2009&month=04>