



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

Date: March 10, 2009

Subject: March 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 March 1, 2009.

OVERVIEW

Significant surpluses in snowpack exists in scattered water basins across the West and over the Interior and Panhandle of Alaska. Large deficits dominate much of the Upper Columbia River Basin and the southern Arizona-New Mexico border (Fig.1). Western snowpack experienced increases during the past month over the Sierra, scattered drainages over the Cascades, Utah's Virgin River, south central Idaho, Wyoming's North Platte River, and over much of Alaska. Decreasing values occurred over much of Arizona and New Mexico as shown in Fig. 2.

This year, the La Niña has not been consistent with long-term climatology statistics. Since October, precipitation has been exceptionally higher than expected over the Lower Colorado Basin, Upper Snake River, and parts of the Central Rockies. Relative dryness has occurred over much of northern California, the Pacific Northwest, southeast Arizona, southern New Mexico, and much of Alaska (not shown) (Fig. 3).

As of March 1, 2009, the spring and summer streamflow forecasts are calling for well below normal values (<70%) over the Snake River Plain (ID), Sweetwater River (WY), Upper Columbia River (WA and Canada), western Nevada, and over southern Arizona. Above normal values (>110%) is scattered across the Central and Southern Rockies, western UT-eastern Nevada, along the Powder-Tongue Rivers (WY and MT), and over the Black Hills (SD) (Fig. 4). During the past month, the spring and summer streamflow forecasts have increased significantly across California, Nevada, southwest Utah, the Upper Columbia River Basin (Canada) (Fig. 5). Significant decrease forecast flows are noted across Arizona, New Mexico and the Okanagan-Fraser River Valley in southwest British Columbia.

The Western States show the following average statewide reservoir levels: above normal (AZ and WA) and well below normal (NV, OR, and UT) (Fig. 6). Colorado is near normal. California data are available at this time but is expect to show below normal capacity. Wyoming, also not available is expected to show near normal values.

SNOWPACK

On March 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 February, snowpack increased in the much of California and Alaska but decreased over much of the Southern Rockies and Arizona Mountains. The Central and Northern Rockies are tracking below normal after a rather dry February (Fig. 2).

SEASONAL PRECIPITATION

Preliminary seasonal precipitation is above normal, >130% of average, throughout the higher elevations of southeast California, southern Nevada, and over the western High Plains (north of 43N) including much of Montana as shown in Fig. 3. Precipitation is well below normal, <70% of average across the much of central and northern California, eastern Oregon, southwestern Idaho, southeast Arizona, southern New Mexico, and over southern British Columbia

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 (>110%) are projected for the Colorado Rockies, 4-Corners, and Lower Colorado River Basin, and Powder-Tongue River drainages. Forecasts (<70%) are noted over the Sweet Water River in Wyoming and over southwest Arizona as shown in Fig 4. Forecast increase since February is noted over much of California. Forecast of significant decreases are noted over Arizona, New Mexico, and over central-southwest Montana (Fig. 5).

Specific state streamflow summaries can be obtained from the Internet location -

<http://www.wcc.nrcs.usda.gov/cqibin/bor.pl>

RESERVOIR STORAGE

As of March 1, 2009, reservoir storage by state is shown in Fig. 5. Nevada is reflecting the worst storage and Arizona has the best storage. California and Wyoming data are not available as of March 10. Reservoir storage graph can be viewed at:

<http://www.wcc.nrcs.usda.gov/cqibin/resvqrph2.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>

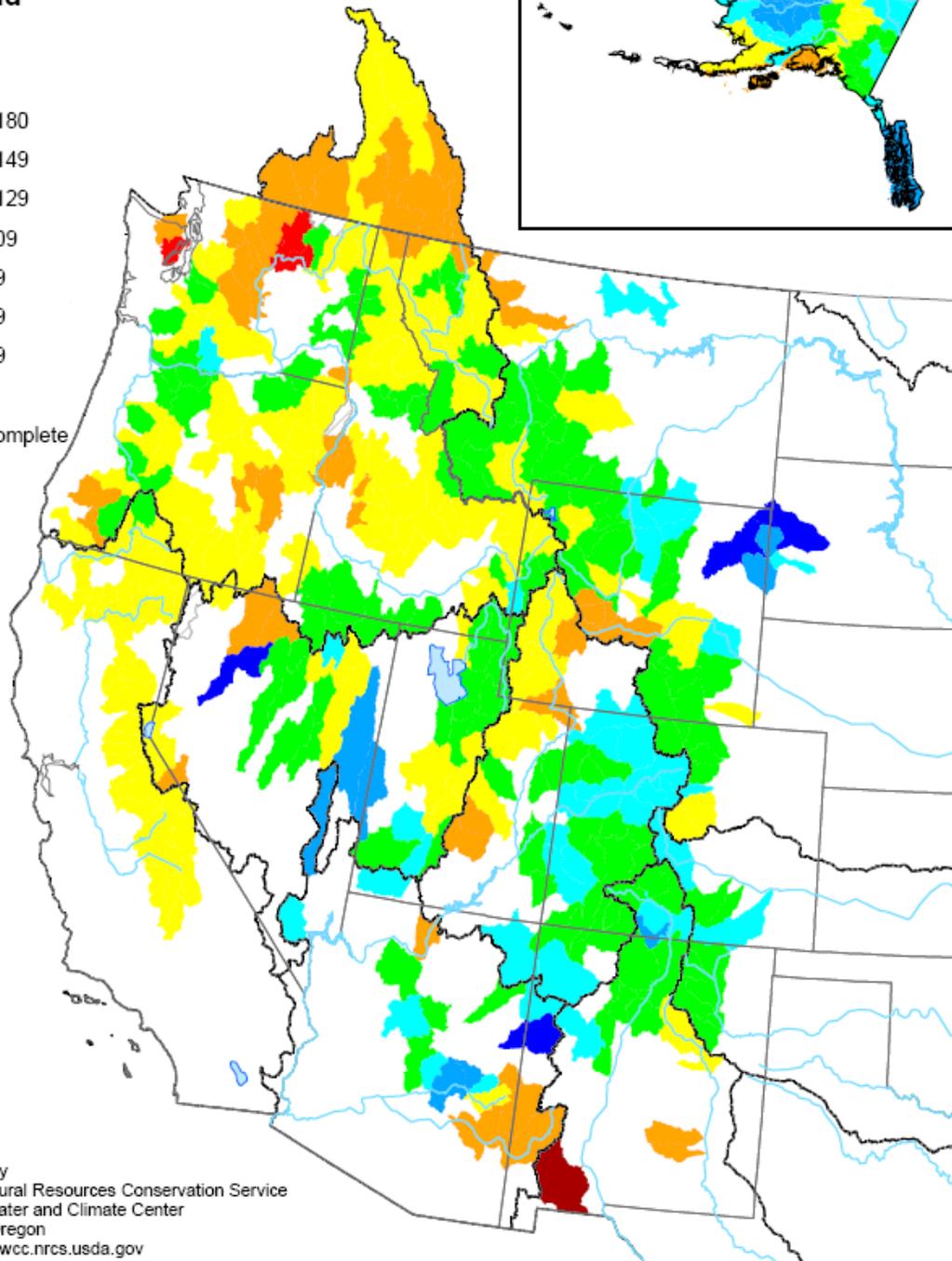
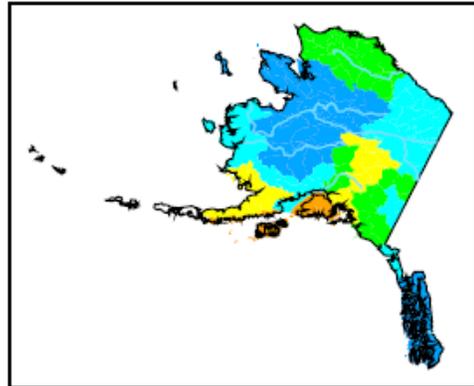
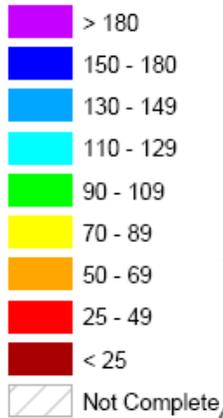
/s/ NOLLER HERBERT

Director, Conservation Engineering Division

Mountain Snowpack as of March 1, 2009

Legend

percent



Prepared by
USDA, Natural Resources Conservation Service
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<http://www.wcc.nrcs.usda.gov>

Fig. 1. Mountain Snowpack, March 1, 2009

<ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/snowpack/wy2009/snow0903.gif>

Mountain Snowpack Change between February 1 and March 1

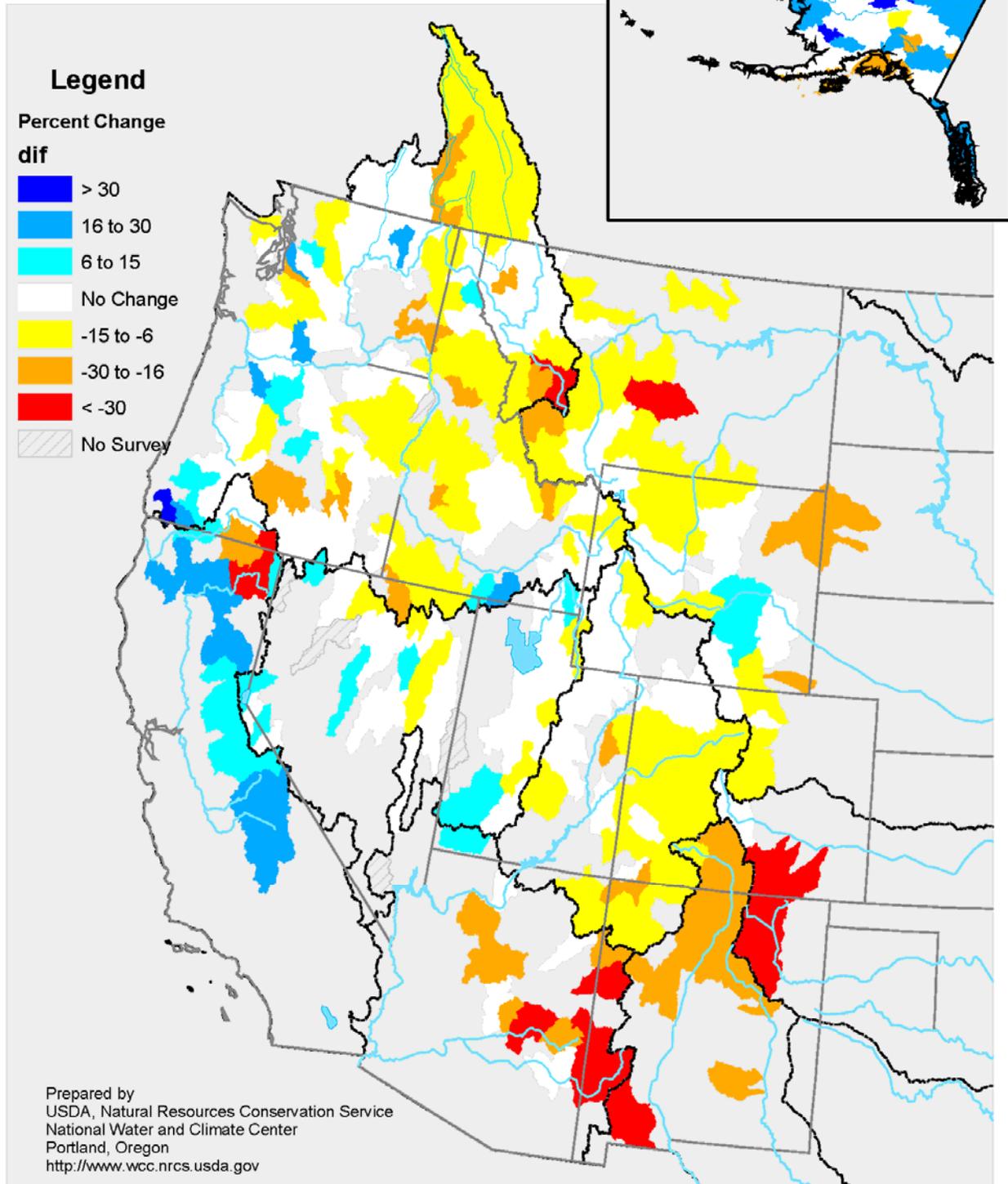


Fig. 2. Mountain Snowpack Difference from February 1 to March 1, 2009.

Seasonal Precipitation, October 2008 - February 2009

(Averaged by Hydrologic Unit)

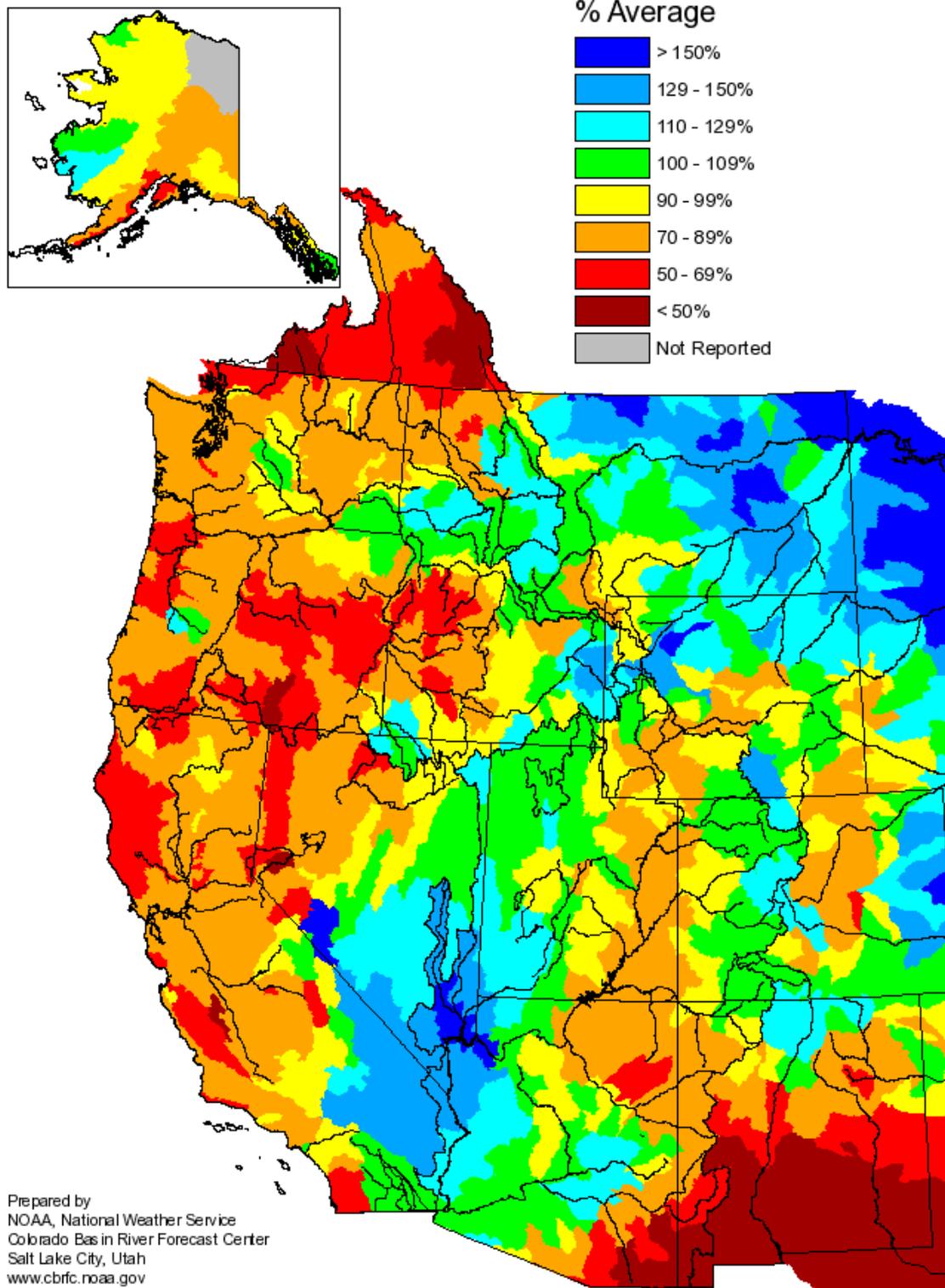


Fig. 3. Seasonal Precipitation, October 2008 to February 2009. Alaska data not available as of 10 March.

Ref: <http://www.cbrfc.noaa.gov/precip/qpe/maps/sum/map/westS200902.png>

Spring and Summer Streamflow Forecasts as of March 1, 2009

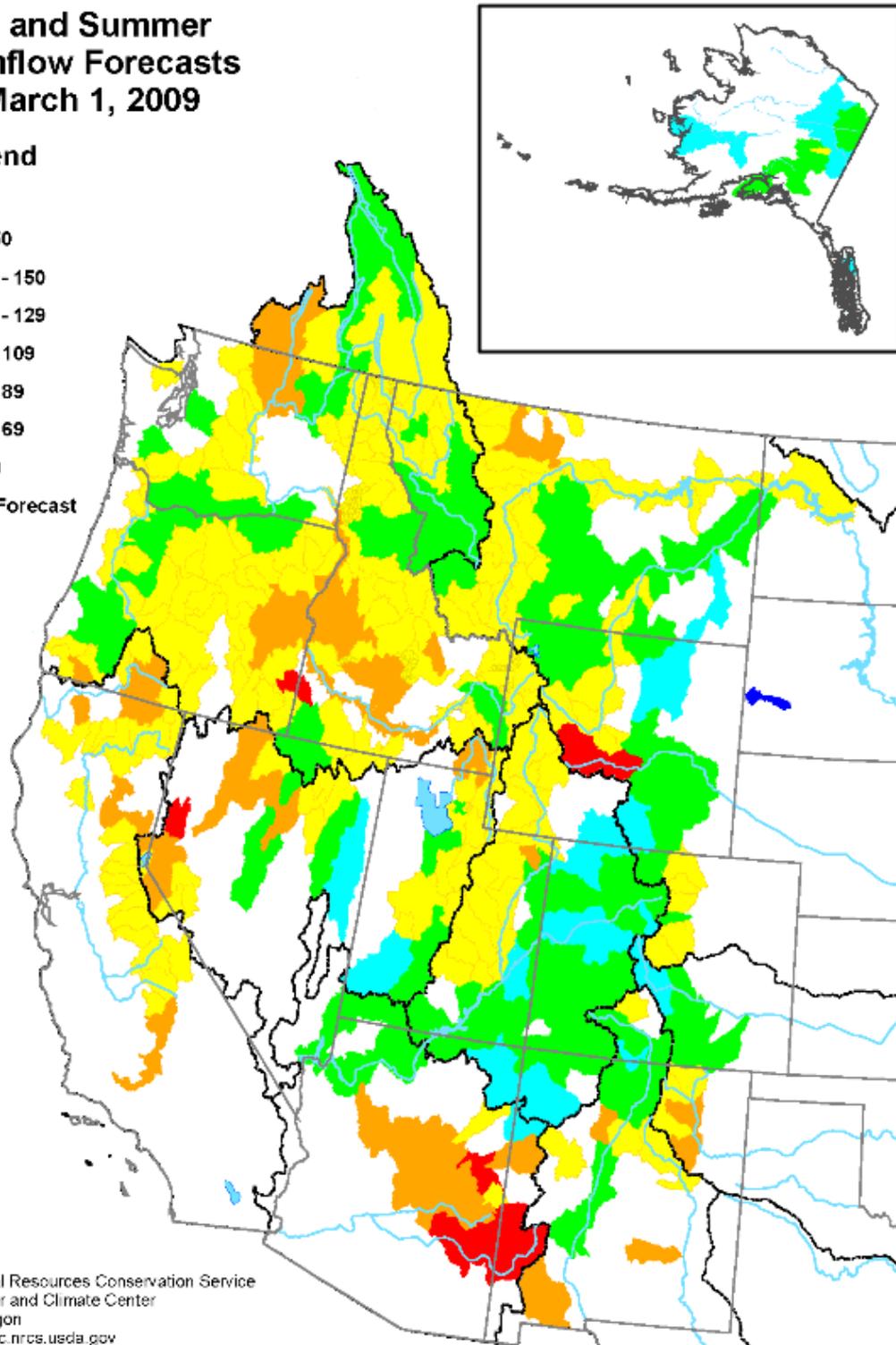


Fig. 4. Seasonal Water Supply Forecasts - March 1, 2009.

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

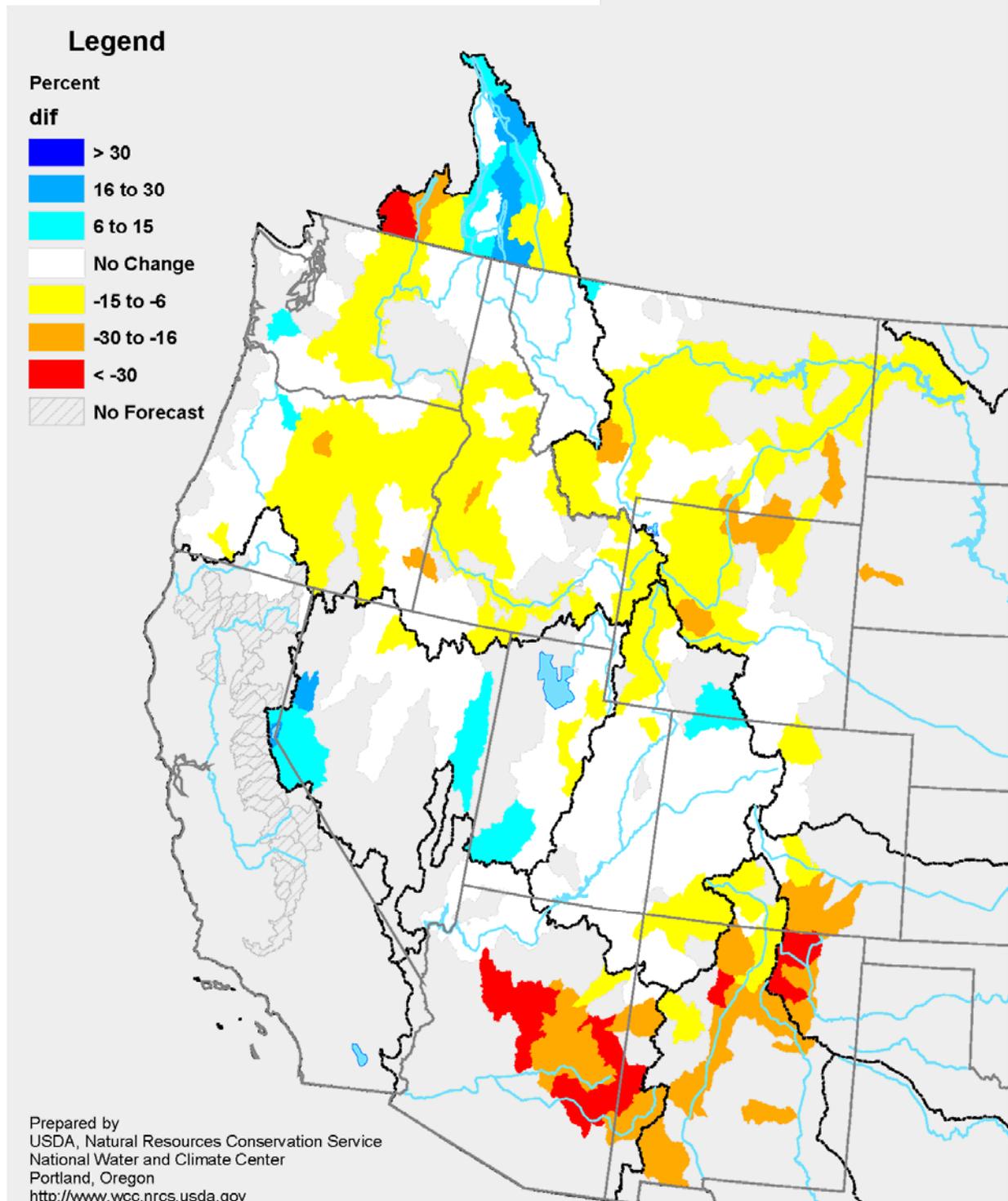
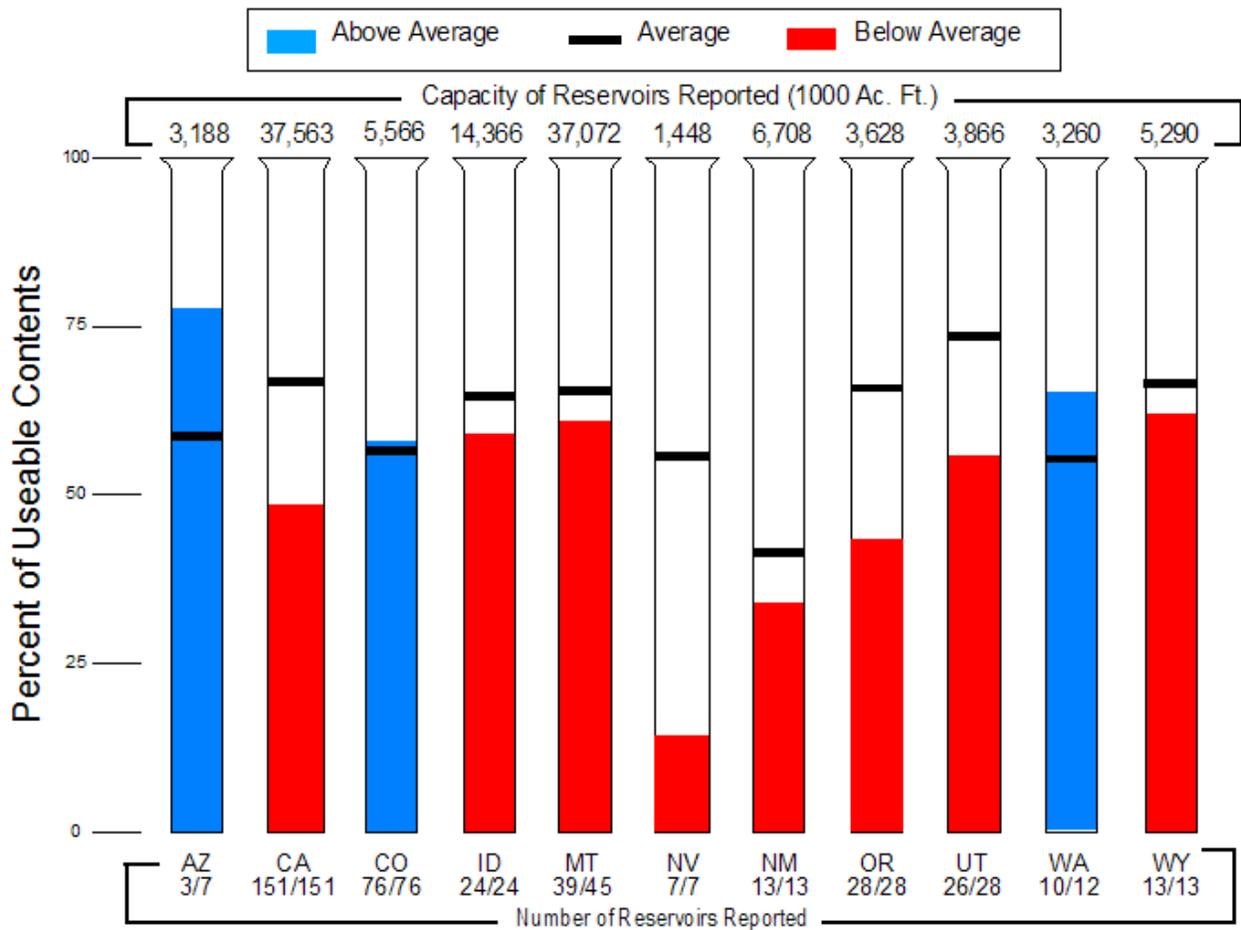


Fig. 5. **Change in streamflow forecast** between February 1 and March 1, 2009.

Reservoir Storage as of March 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 - March 1, 2009. Ref:
<http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=03>