



Natural Resources Conservation Service  
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**Date: May 12, 2009**

**Subject: May 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 May 1, 2009.

## **OVERVIEW**

For the first of May, a rather complex snowpack pattern exists across the West with generally abundant totals over the Northern Tier States and rather low numbers in the deeper regions of the Southwestern States (Fig.1). Elsewhere, much of Alaska has above normal conditions with the exception of Kenai Peninsula and Southeast Aleutians. The Cascades and Northern Rockies have experienced a relative increase in snowpack during April with California and much of the 4-Corner States (excluding Utah) experiencing a significant decrease (Fig. 2).

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

The spring and summer streamflow forecasts are paralleling the current mountain snowpack pattern as noted in Figure 1 (Fig. 5). The greatest forecast flows are over Montana and decreases to the west and even more so to the south.

The Western States show the following average statewide reservoir levels: above normal (AZ, CO, and WA) and well below normal (CA, NV, NM, OR, and UT – WY not available) (Fig. 6).

## **SNOWPACK**

On May 1, 2009, western snowpack is greatest over parts of the Cascades, eastern Oregon, the Black Hills, and over eastern Nevada (>150%) and least over parts of the Great Basin, vicinity of the 4-Corners, the southern sections of the Southwest, and the Kenai Peninsula of Alaska (<50%) 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 April, snowpack increased across much of the Northern Tier States and northern Alaska (> 16%) and decreased over much of the Southern Tier States (excluding Nevada) (<-15%) as noted in Fig. 2.

## **SEASONAL PRECIPITATION**

Preliminary seasonal precipitation (Water Year 2009) is above normal over the Northern Tier States generally east of the Continental Divide, along the eastern Nevada-Utah Border, and

over western Alaska as shown in Fig. 3. Amounts exceeding 110% dominated the region. Large deficits exist over much of the West Coast States, over the southern reaches of the Southwest, and over eastern Alaska (<89%). 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](http://www.hprcc.unl.edu/maps/current/index.php?action=update_product&product=PNorm)

### **SPRING AND SUMMER STREAMFLOW FORECASTS**

Streamflow forecasts as shown in Fig 4 are a rather complex pattern with generally higher than average flows expected over the more northerly locations. Forecast increases in April are noted over the Northern Rockies, Wasatch Mountains in Utah, and northern ranges in California (Fig. 5). Decrease forecast flows are noted over much of Oregon, southwest Utah, and southeast Colorado.

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

<http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=05>.

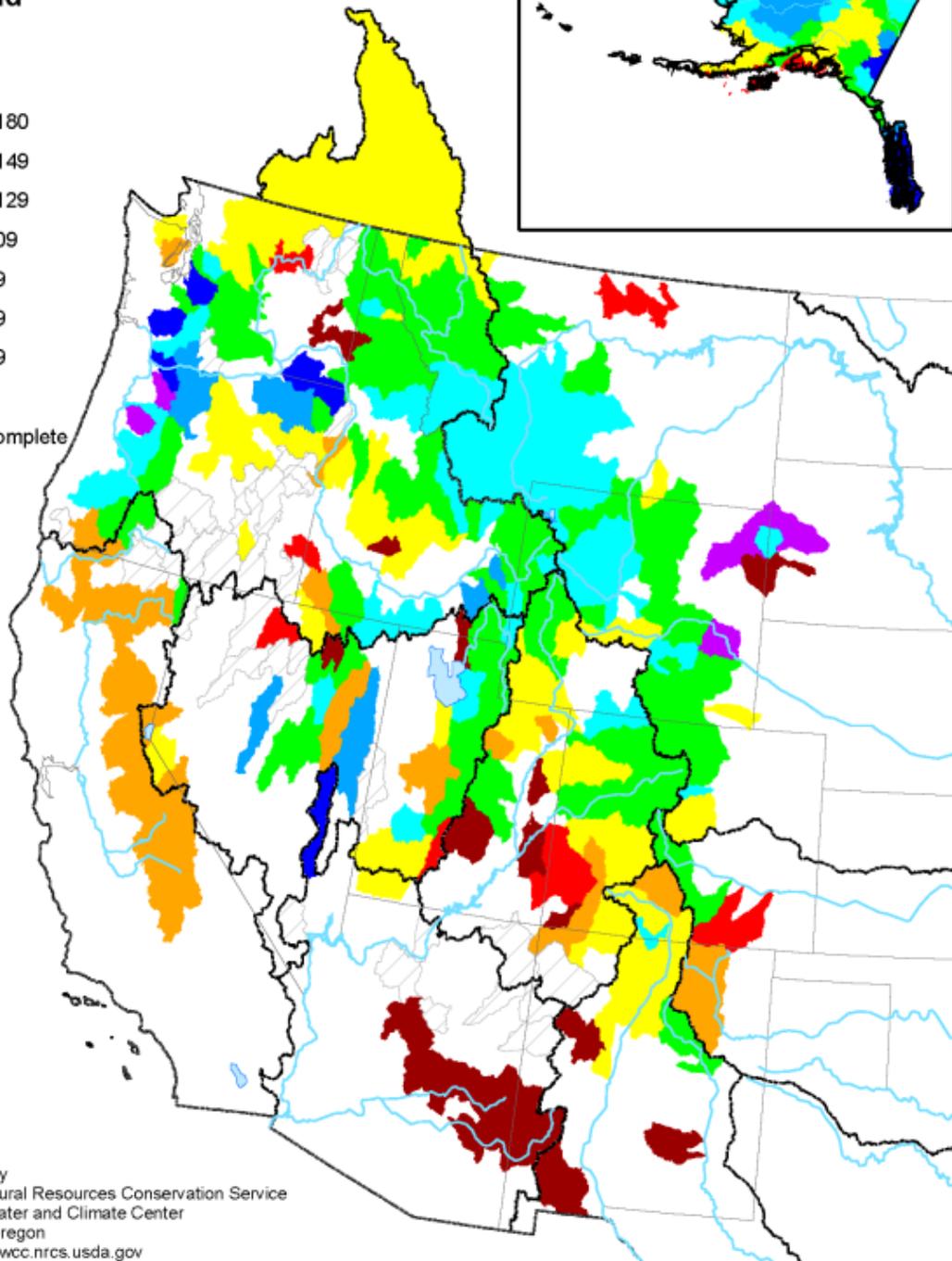
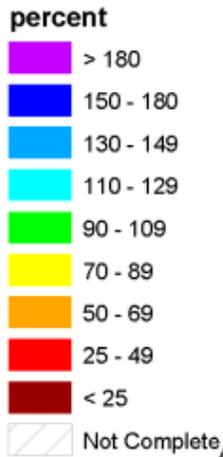
### **FOR MORE INFORMATION**

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 May 1, 2009

## Legend



**Fig. 1. Mountain Snowpack, May 1, 2009**

<ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/snowpack/wy2009/snow0905.gif>

# Mountain Snowpack Change between April 1 and May 1

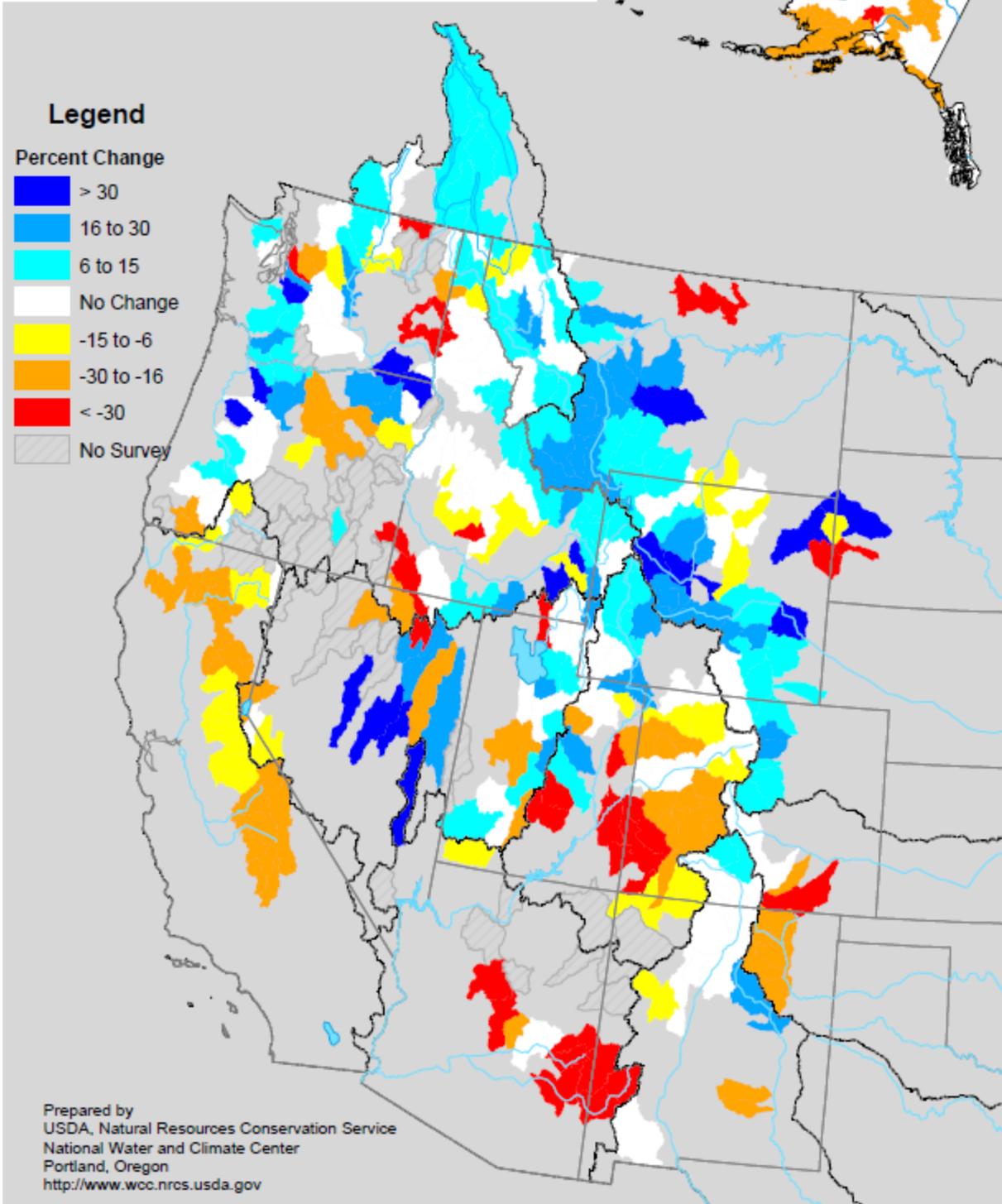
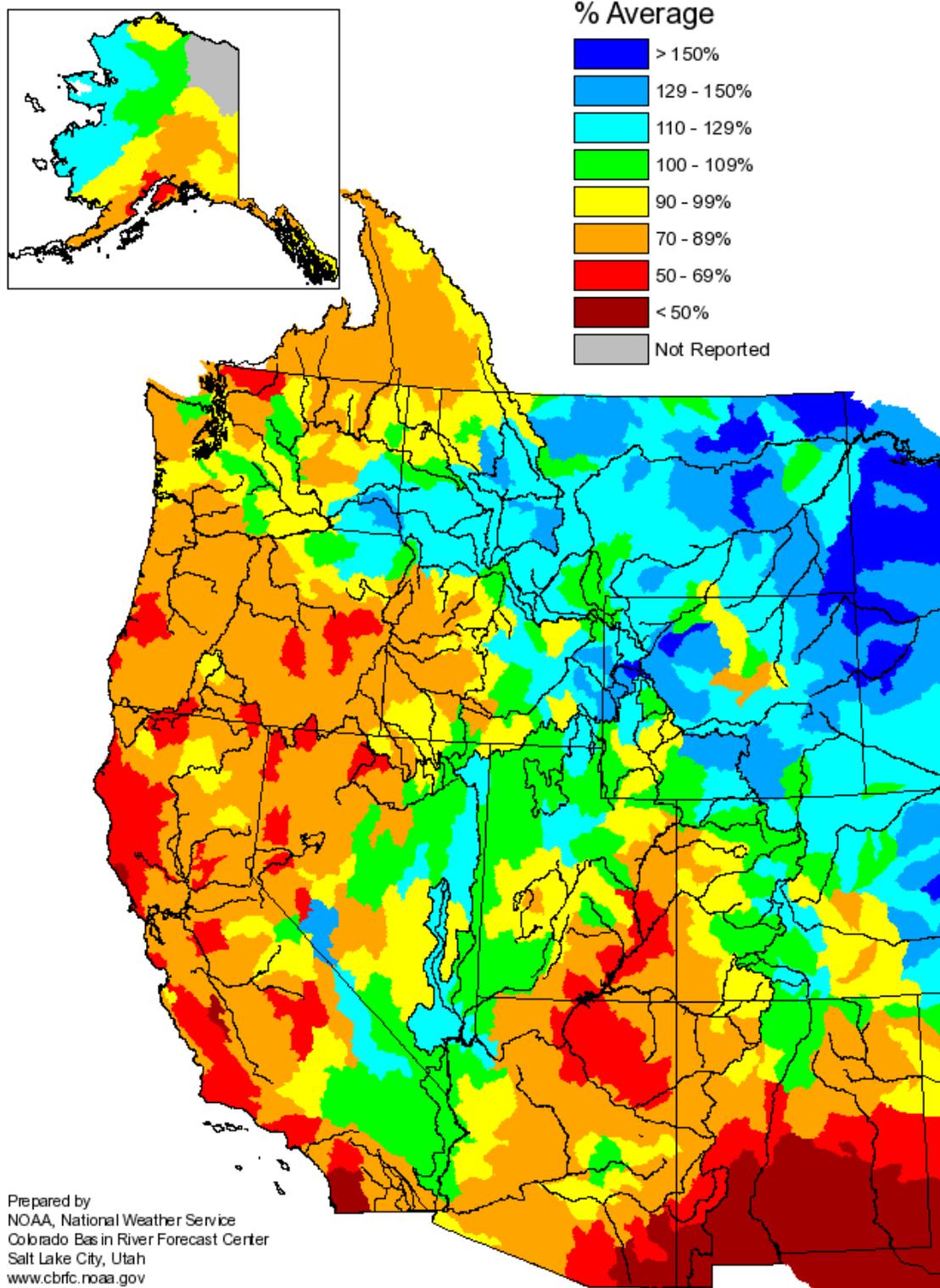


Fig. 2. Mountain Snowpack Difference from April 1 to May 1, 2009.

## Seasonal Precipitation, October 2008 - April 2009

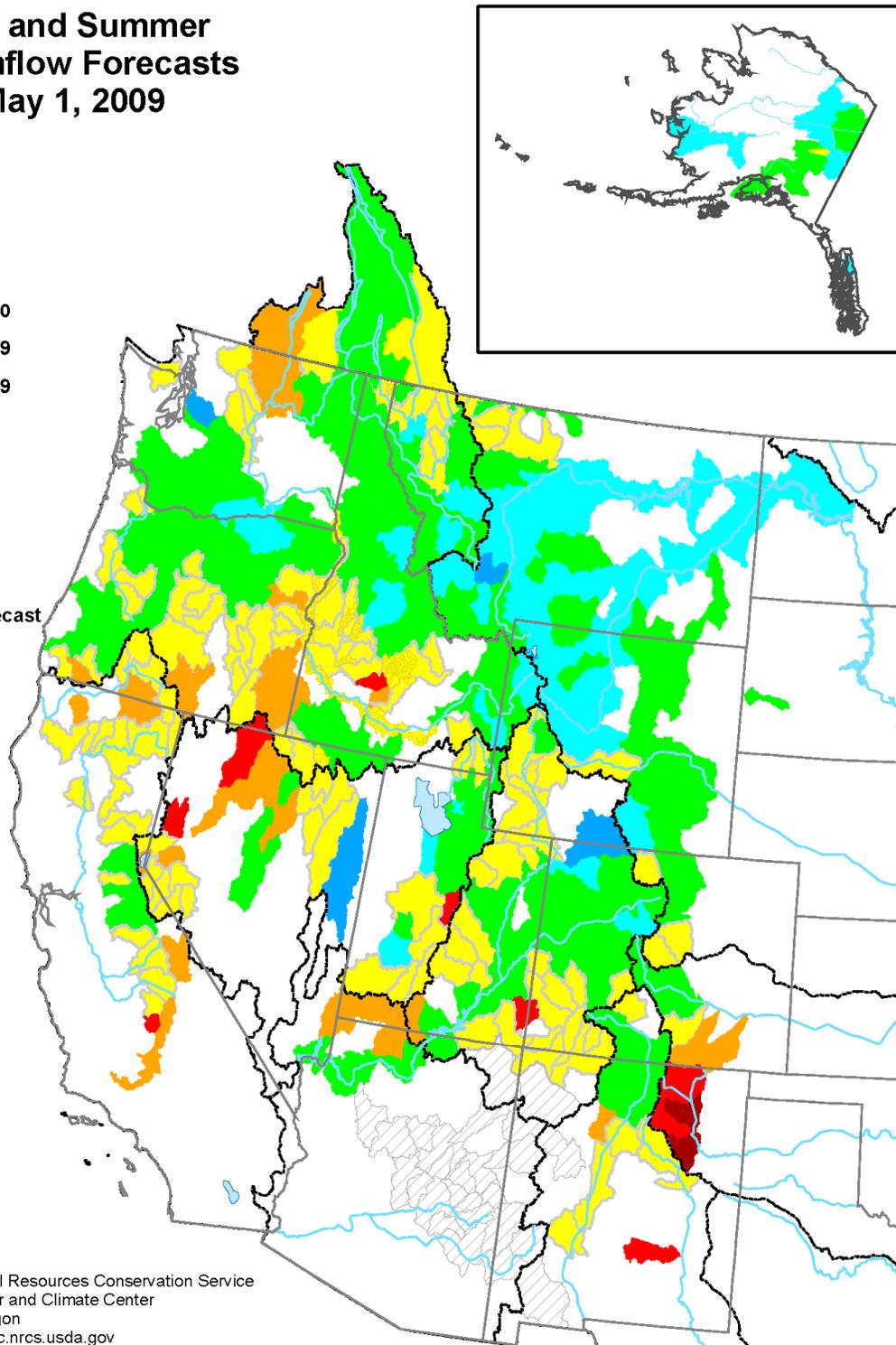
(Averaged by Hydrologic Unit)



**Fig. 3. Seasonal Precipitation, October 2008 to April 2009.**

Ref: <http://www.cbrfc.noaa.gov/precip/qpe/mapsum/map/westS200904.png>

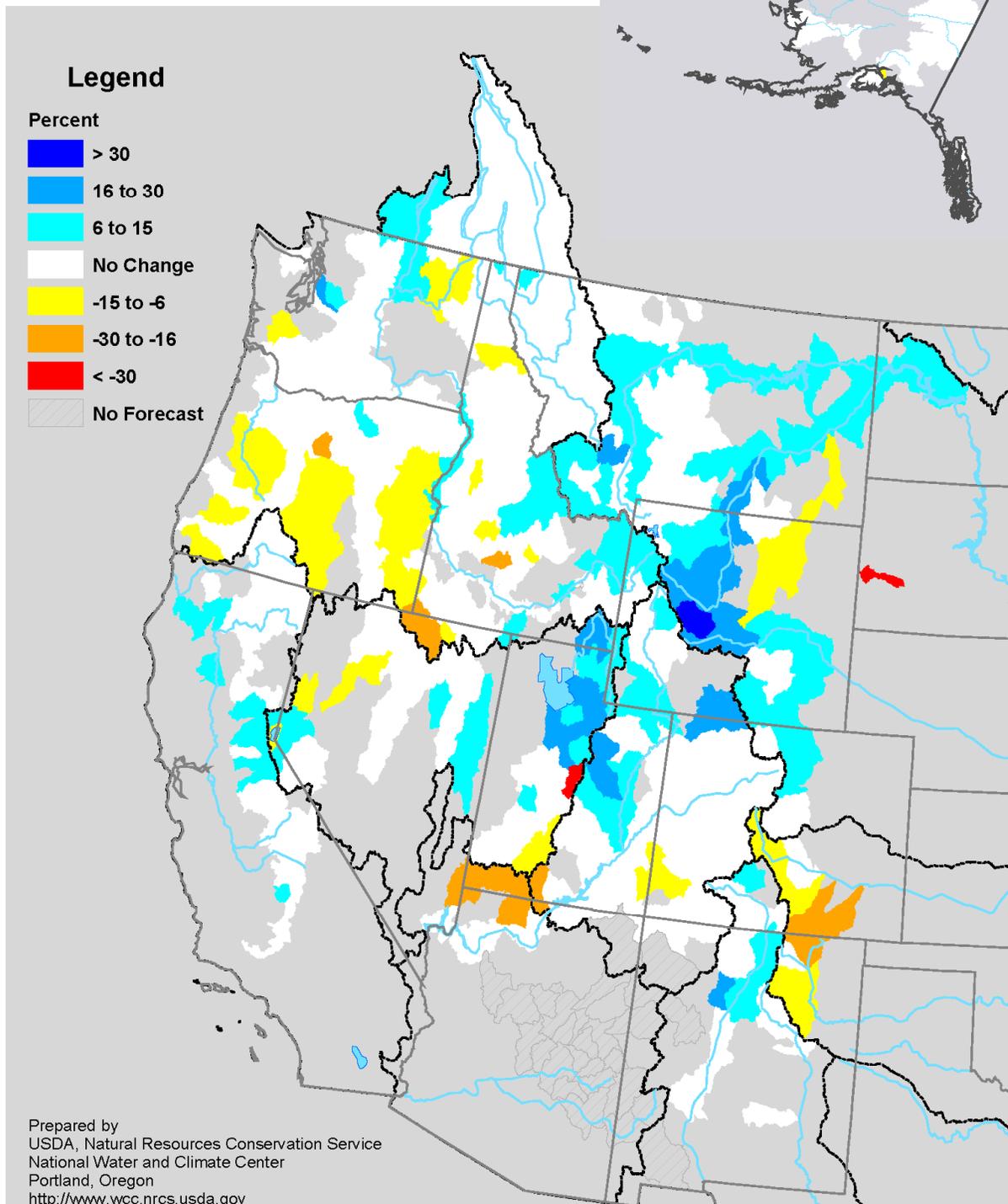
### Spring and Summer Streamflow Forecasts as of May 1, 2009



**Fig. 4. Seasonal Water Supply Forecasts - May 1, 2009.**

<ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/strm0905.gif>

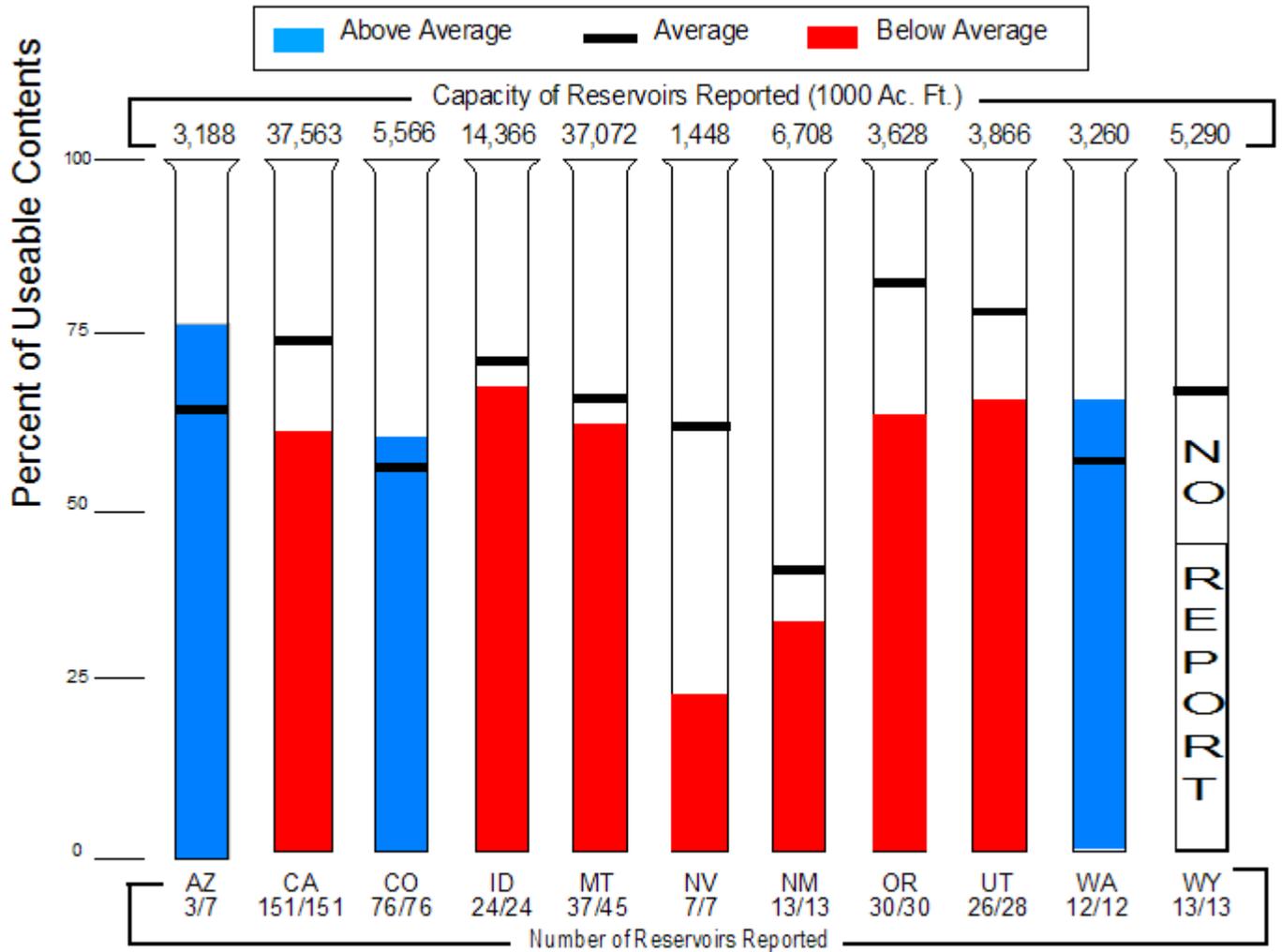
### Change in Spring and Summer Streamflow Forecasts from April 1 to May 1, 2009



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

Ref: <ftp://ftp.wcc.nrcs.usda.gov/support/water/westwide/streamflow/wy2009/difstrm0905.gif>

## Reservoir Storage as of May 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 - May 1, 2009. Daily California updates:**

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

Ref: <http://www.wcc.nrcs.usda.gov/cgibin/resvgrph2.pl?area=west&year=2009&month=05>