

# USDA NRCS Snow Surveys

NRCS California

Greg Norris

November 7-9, 2012



# New NRCS Contact for CA

## ■ Greg Norris

- NRCS, USDA  
430 G Street, Suite 4164  
Davis, California 95616
- 530-792-5609
- [Greg.norris@ca.usda.gov](mailto:Greg.norris@ca.usda.gov)

Jolyne Lea, Forecast Hydrologist  
USDA NRCS  
National Water & Climate Center  
1201 NE Lloyd Blvd., Suite 802  
Portland, OR 97232  
[Jolyne.lea@por.usda.gov](mailto:Jolyne.lea@por.usda.gov)

## ■ NRCS contact for:

- Snotel/snow course data, forecasts and products.
- NRCS Climate information and products.

## ■ Water supply forecasts and products

# SNOTEL Contacts

- Dan Greenlee, Nevada Water Supply Specialist.

(775) 857-8500 ext. 152

Nevada Snow Surveys

Natural Resources Conservation Service  
1365 Corporate Blvd.  
Reno, NV 89502

***All California sites - local contact.***

- NRCS Data Collection Offices:

Oregon Data Collection Office  
USDA NRCS  
1201 NE Lloyd Blvd., Suite 900  
Portland, OR 97232

**Sites in far northern CA**

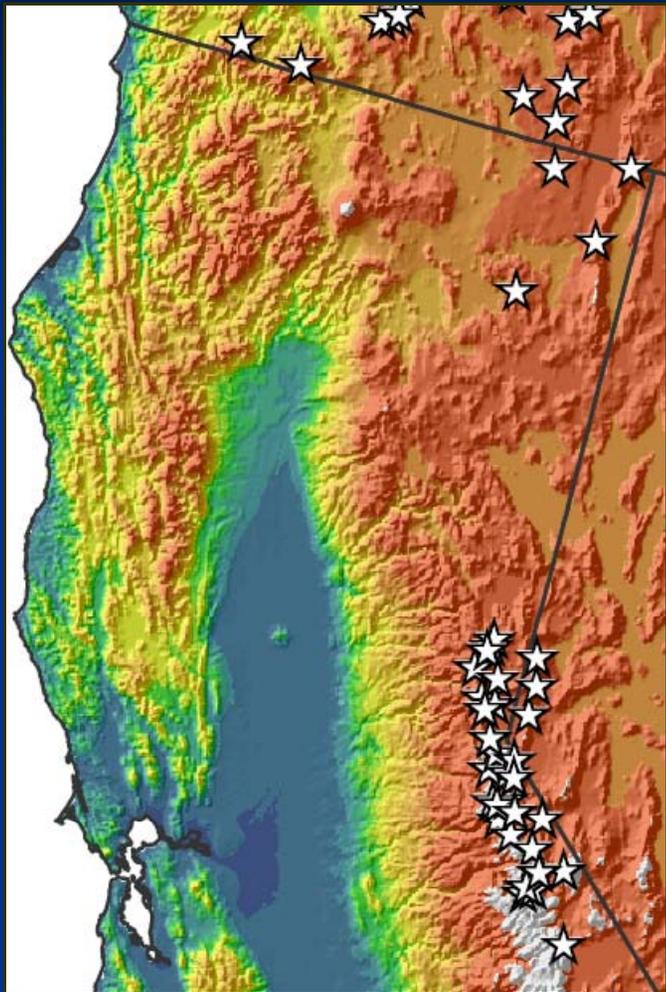
Utah Data Collection Office  
Oregon Snow Surveys  
1201 NE Lloyd Blvd., Suite 900  
Portland, OR 97232

**Sites in Central Sierras.**

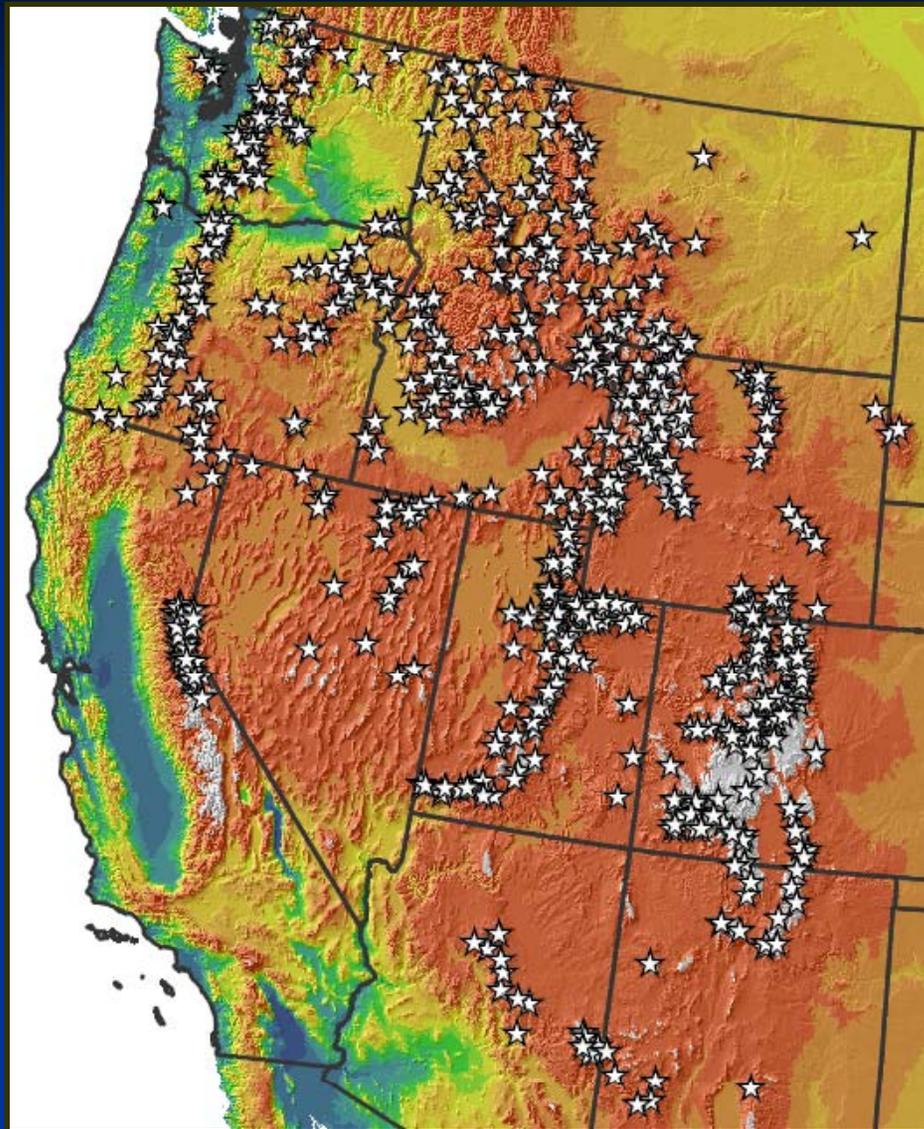


November 7-9, 2012

# Westwide SNOTEL Network



33 SNOTEL sites in  
California

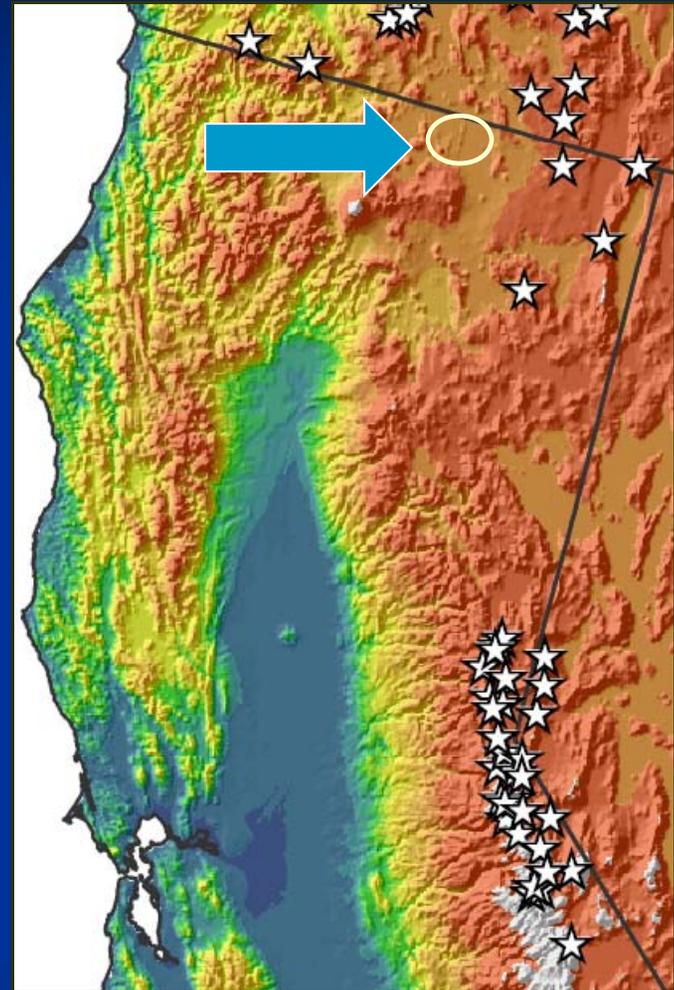


November 7-9, 2012



# New SNOTEL Site

- A new SNOTEL site is proposed for the SE Klamath Basin near Clear Lake National Wildlife Refuge in Northeastern CA. There is very little data in this area, and forecasts for the Clear Lake Inflow are poor. The Bureau of Reclamation will be supporting this new site, and it is planned for installation in 2013.



# Many SNOTEL Sites have climate and soil sensors

## ➤ Soil Moisture/Temperature Monitoring

- Vitel Hydra Probes located in a vertical profile at 2", 4", 8", 20" and 40"
- Complete soil descriptions, lab sampling, and bulk density measurements at monitoring sites



November 7-9, 2012

## ➤ Climate Monitoring

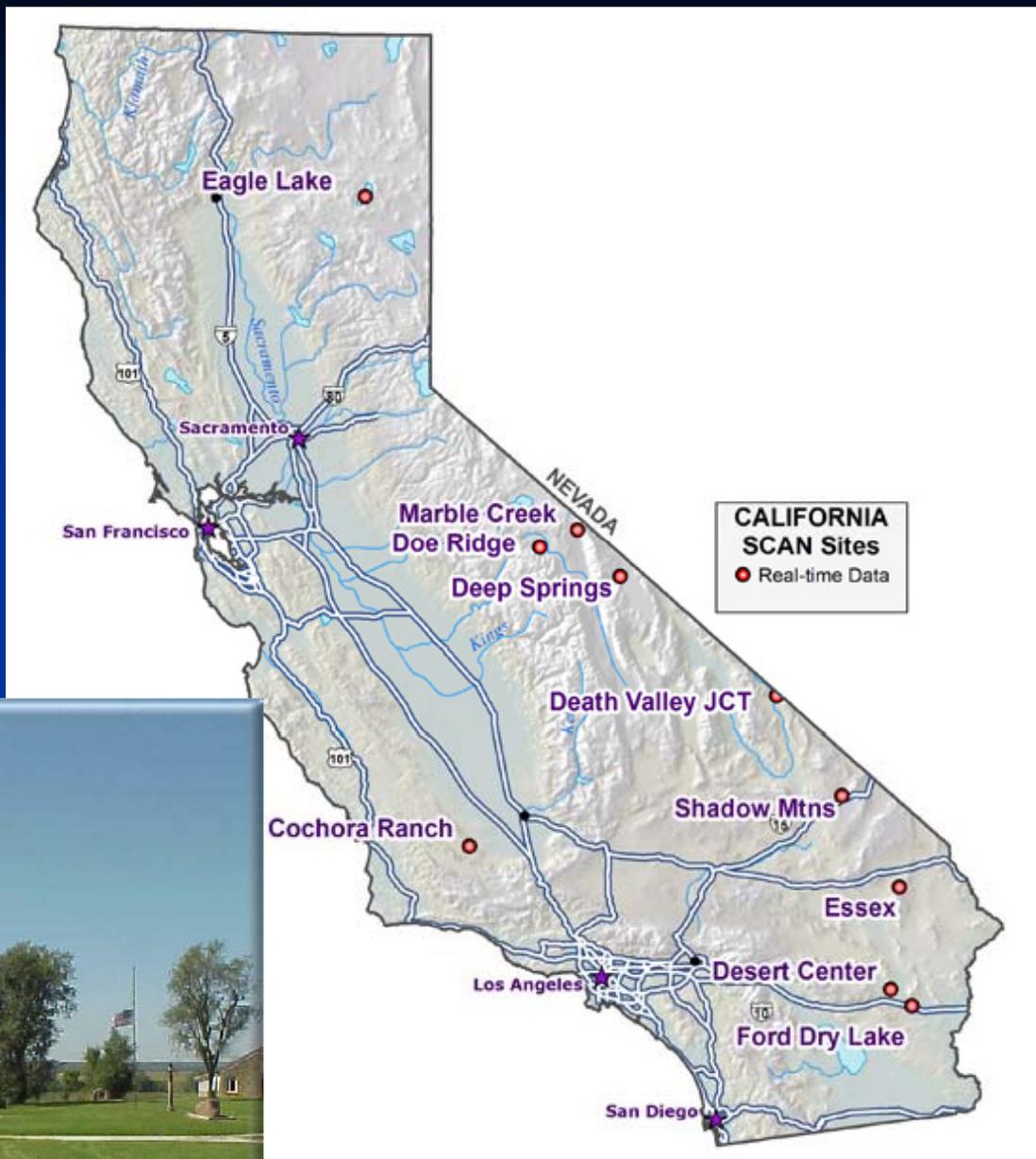
- Air Temperature
- Relative Humidity
- Solar Radiation
- Wind Speed & Direction
- Vapor Pressure



# NRCS SCAN Sites (Soil – Climate Analysis Network)

10 NEW sites installed this year.

Sites collect climate data as well as soil moisture and soil temperature.



Cochora Ranch

November 7-9, 2012



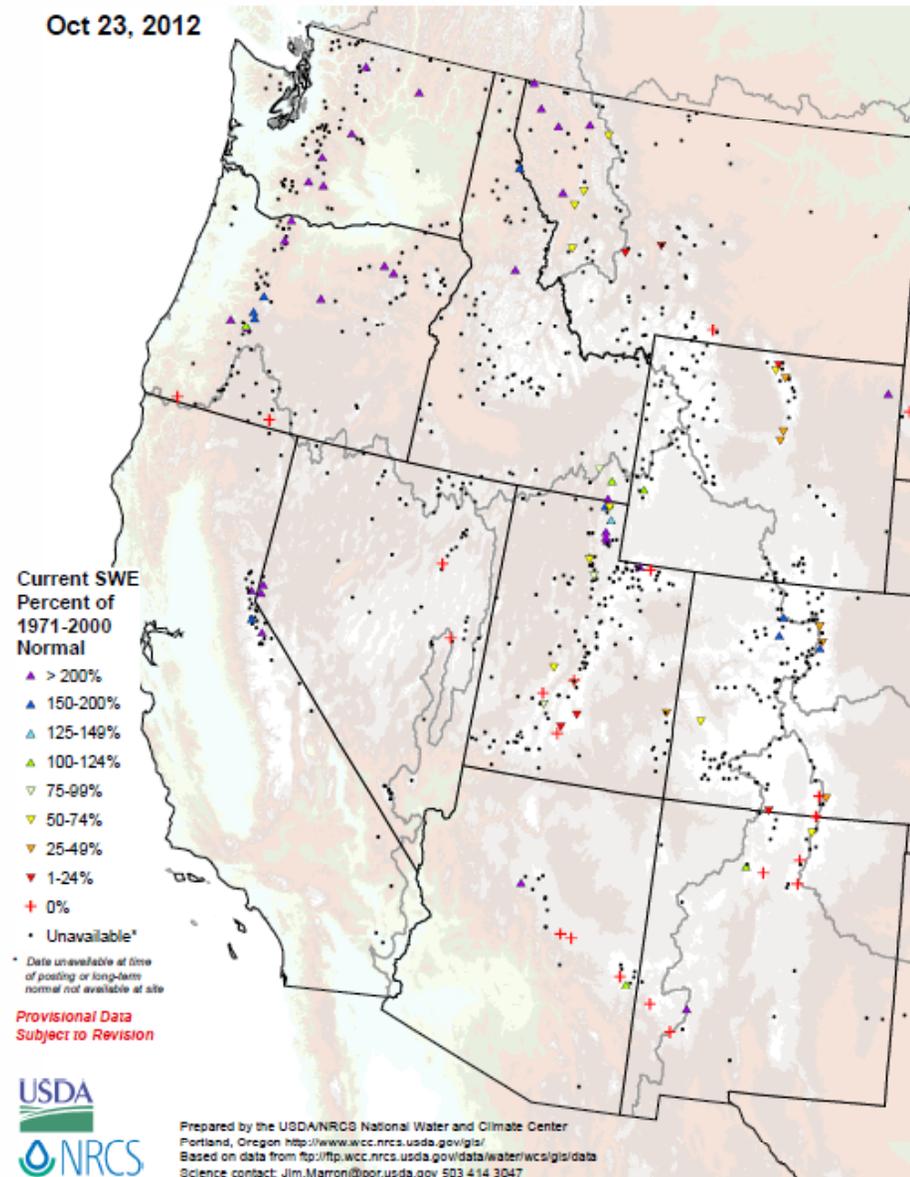
# GIS Products:

- Current data maps.
- Changes over different selectable timeframes maps.
- State, basin and West maps.
- Data and percent of normal.

<http://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/WestwideSWEPercent.pdf>

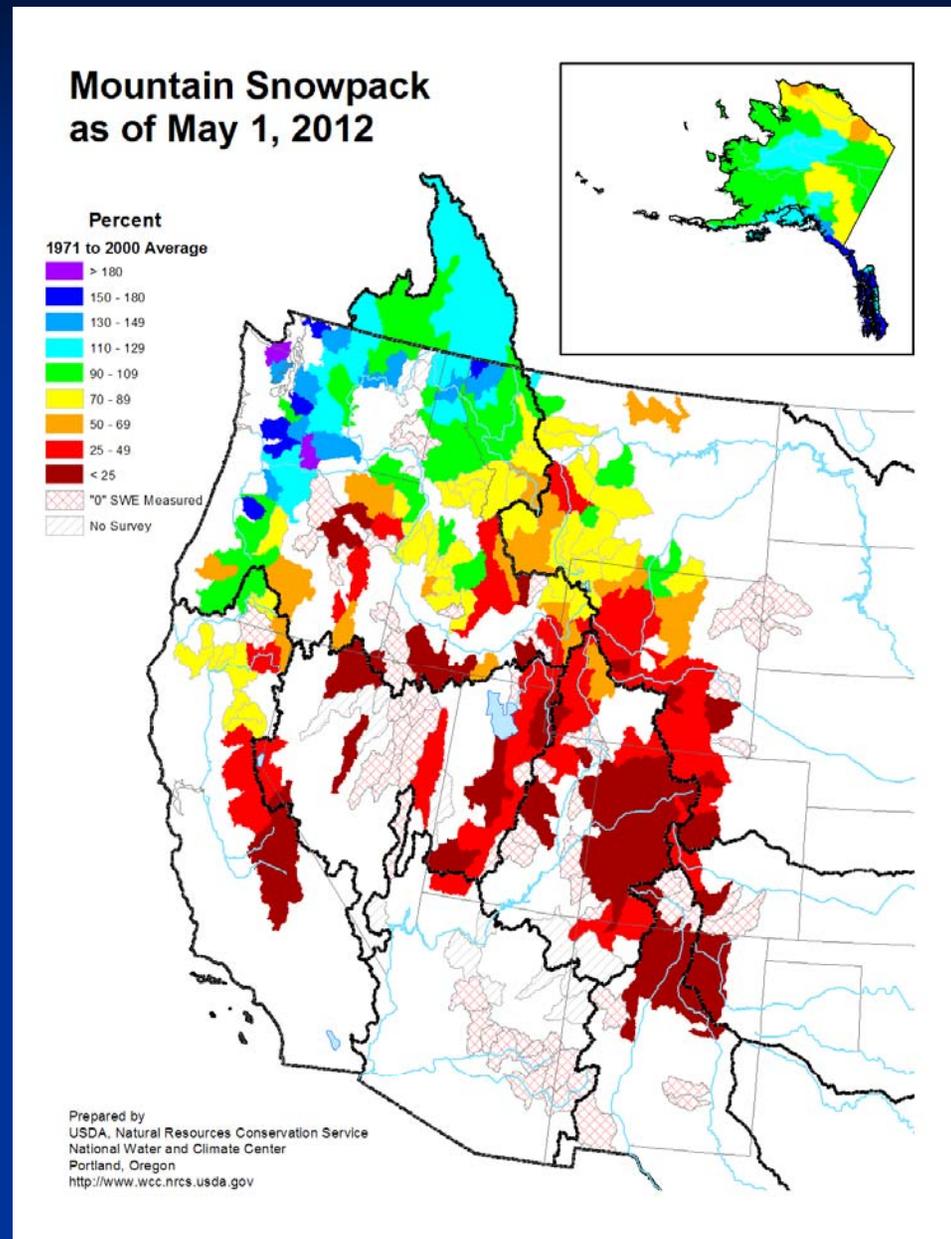
November 7-9, 2012

SNOTEL Current Snow Water Equivalent (SWE) Percent of Normal  
Oct 23, 2012



# Where We Are:

Snowpack  
Last Year  
Conditions:



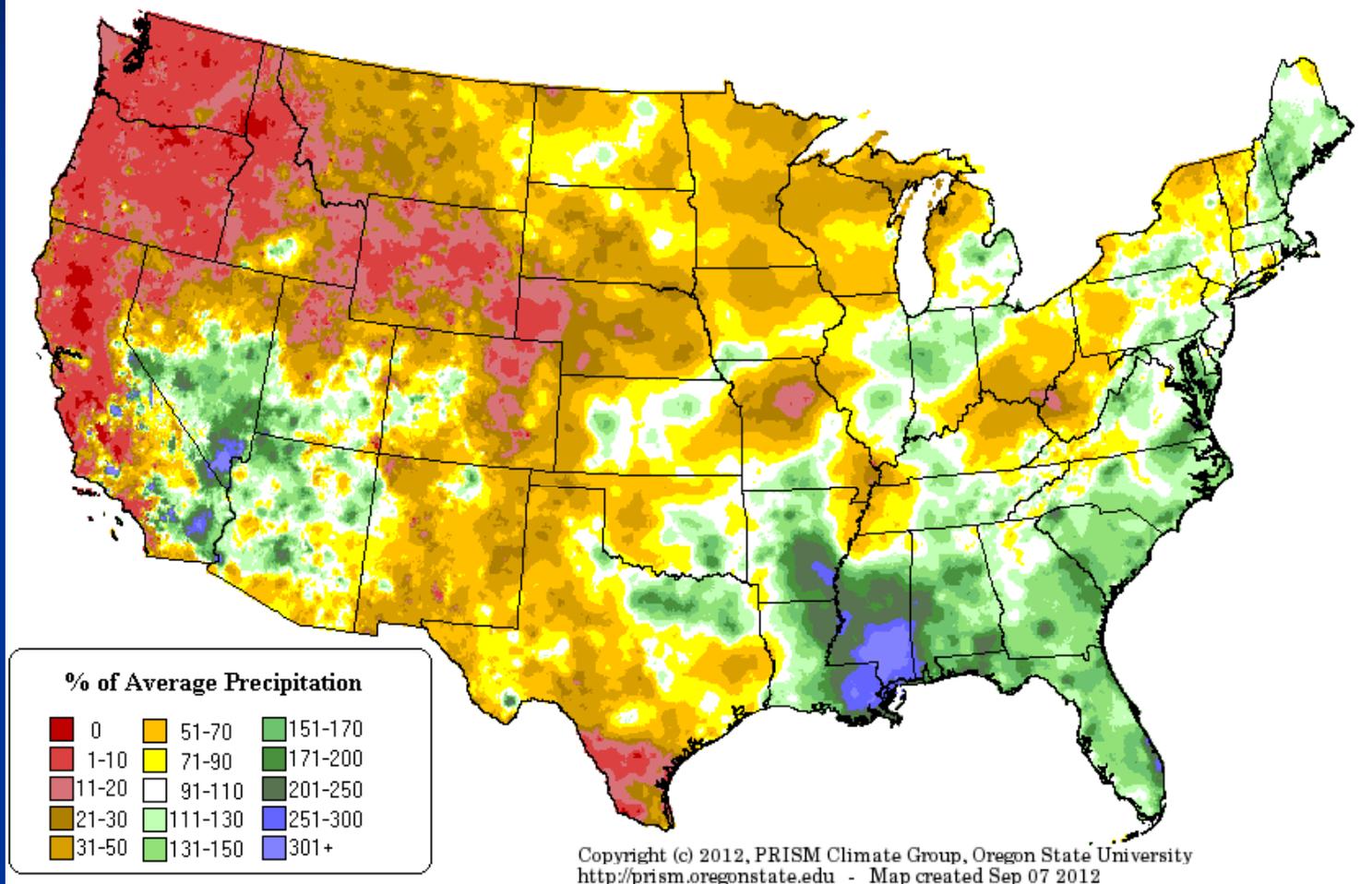
November 7-9, 2012



## PRISM – Late summer maps.

*Precipitation Products supported by the NRCS.*

### 1-month Percent of Average Precipitation: Aug 2012



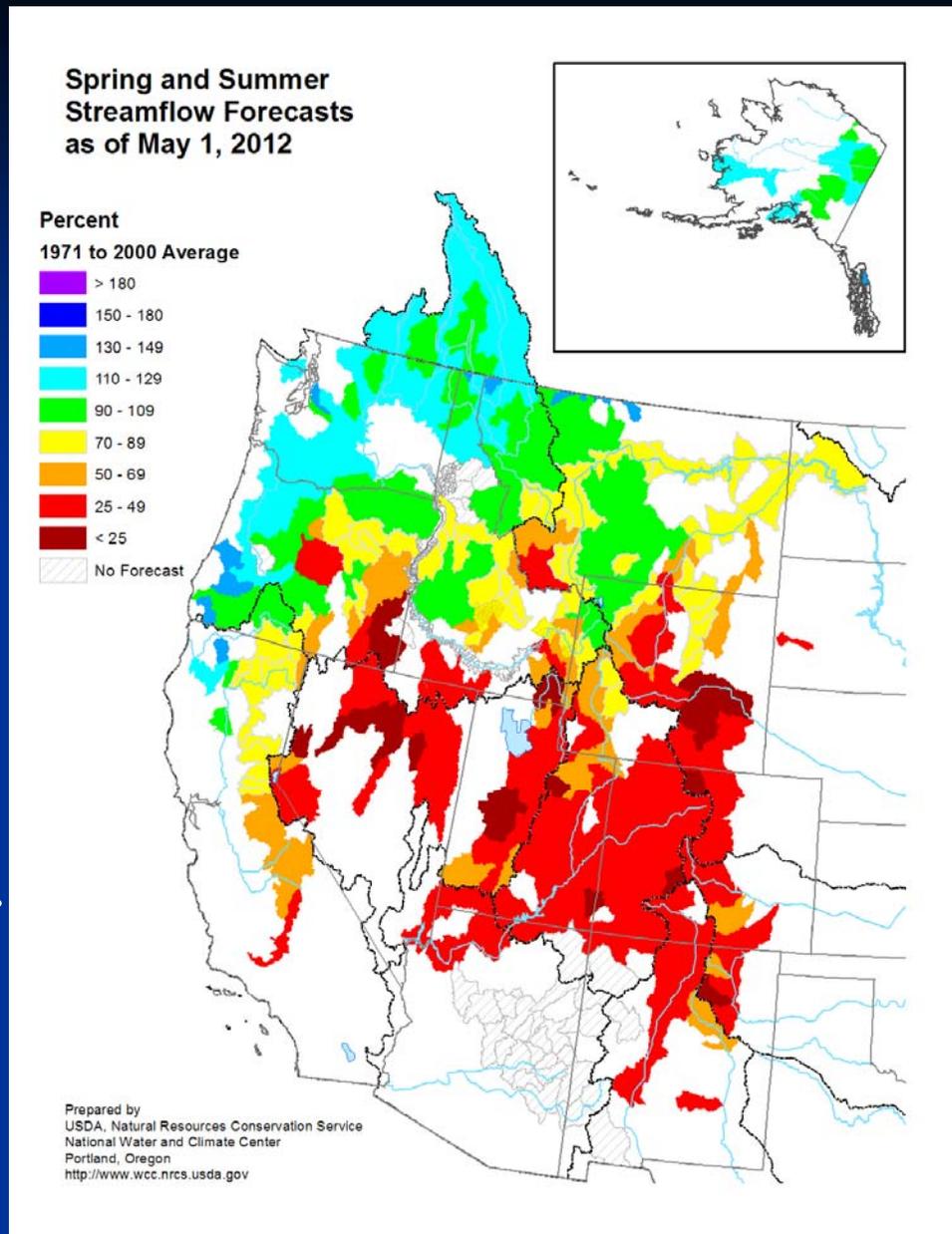
November 7-9, 2012



Where we are:

- Last May Monthly Forecast Maps.

*This product combines NRCS forecasts with CA-DWR forecasts.*



November 7-9, 2012



# NRCS 2013 Snow School

- January 13 - 18, 2013
- Bend, Oregon
  
- Copies of the invitation letter are available.
- See Greg or the DWR folks for more info.

# NRCS WESTWIDE COOPERATIVE SNOW SURVEY TRAINING SCHOOL

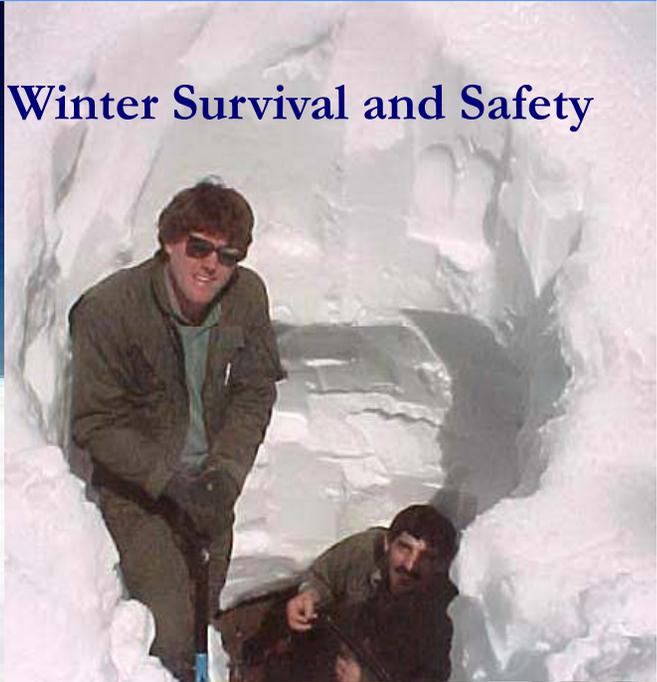
Avalanche Training



Snow Measurement Training



Winter Survival and Safety



Winter travel



November 7-9, 2012

