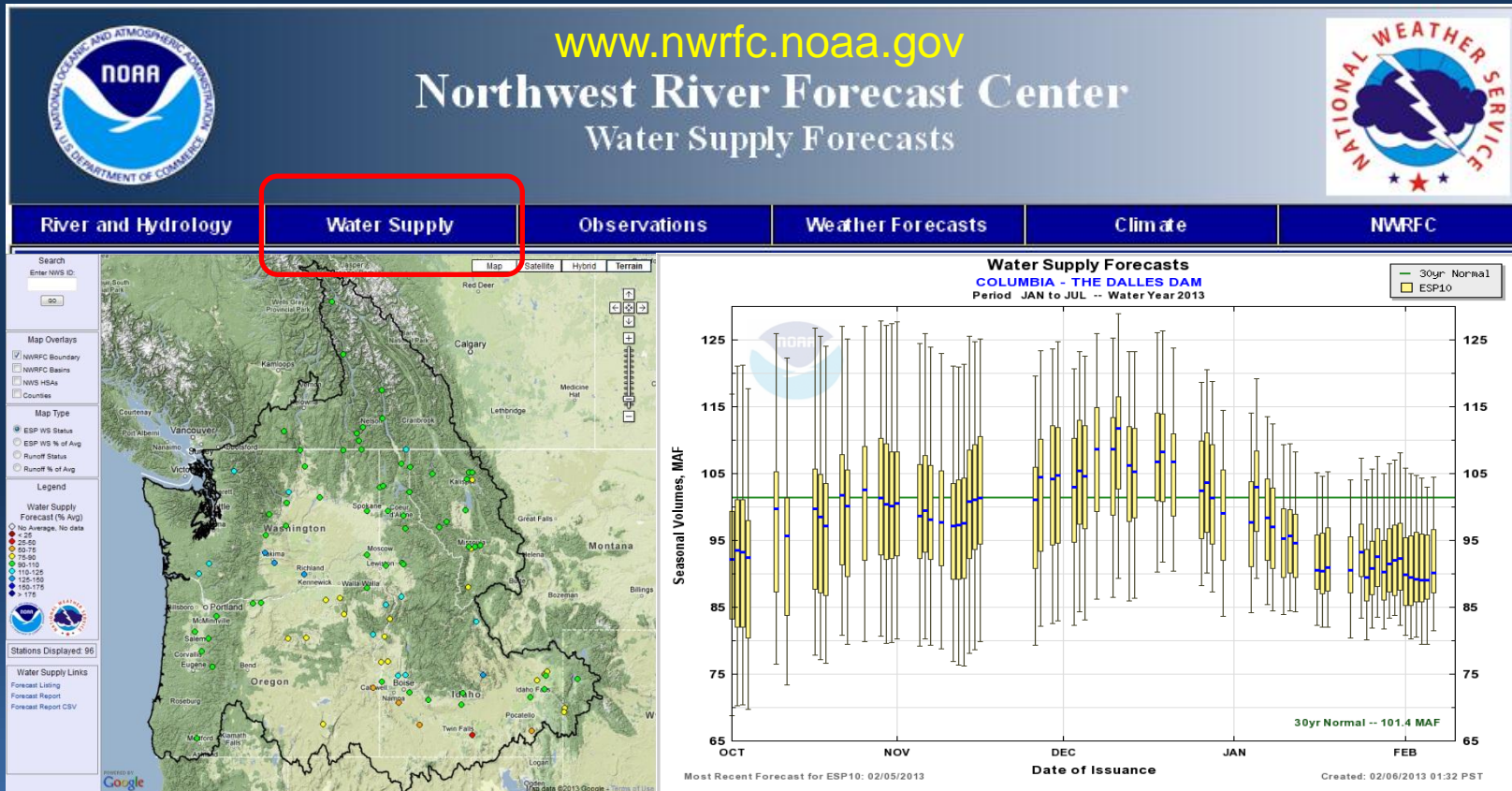


# February 2013 Water Supply Briefing



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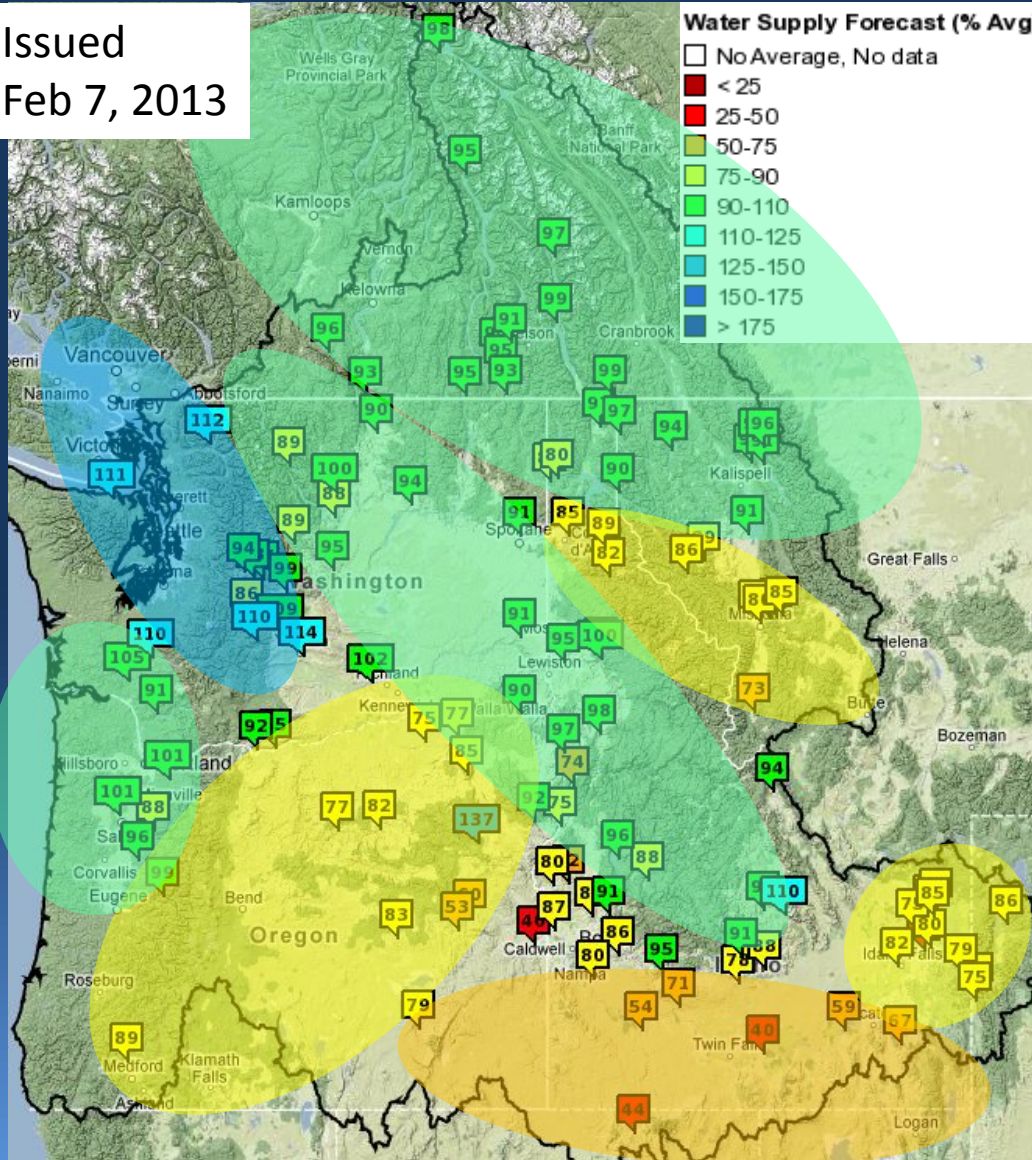
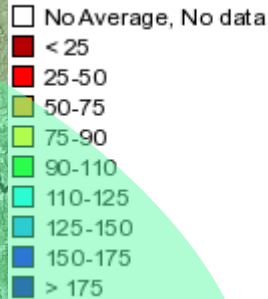


# Water Supply Summary



Issued  
Feb 7, 2013

### Water Supply Forecast (% Avg)



Most eastside Apr-Sep forecasts are near or below normal

Most forecasts have been on the decline due to current dry regime.

Conditions are generally driest in the south-eastern basins

Wettest forecasts (above 110%) are in western Washington and in the mid latitudes of Idaho.



# Observed Conditions



Precipitation

Temperature

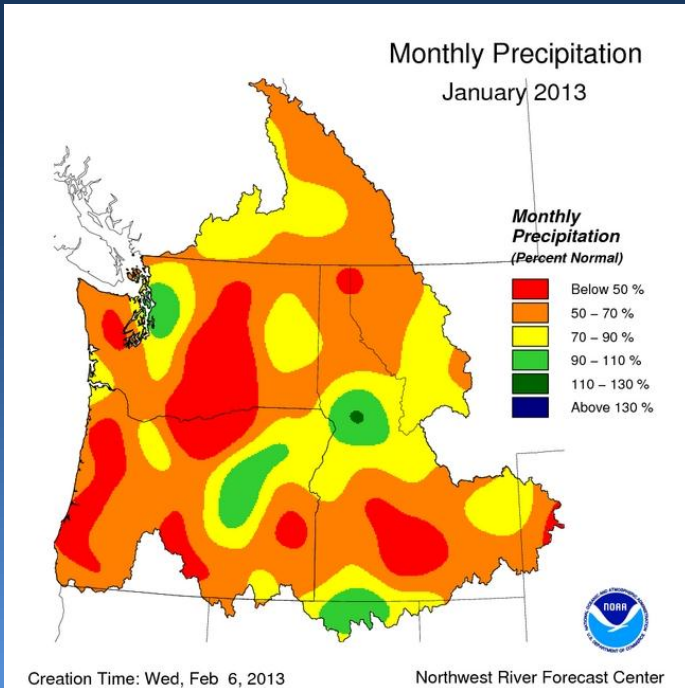
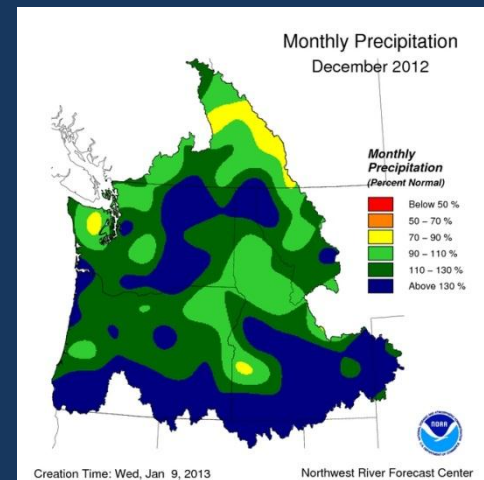
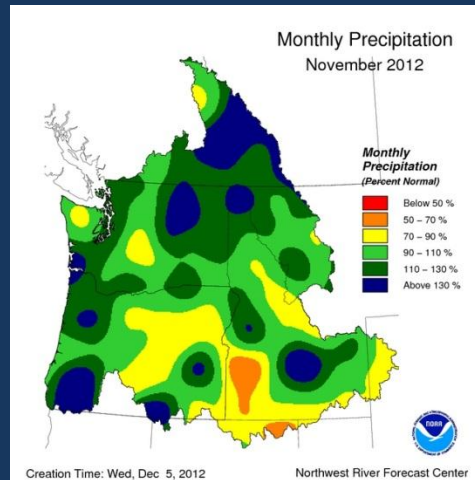
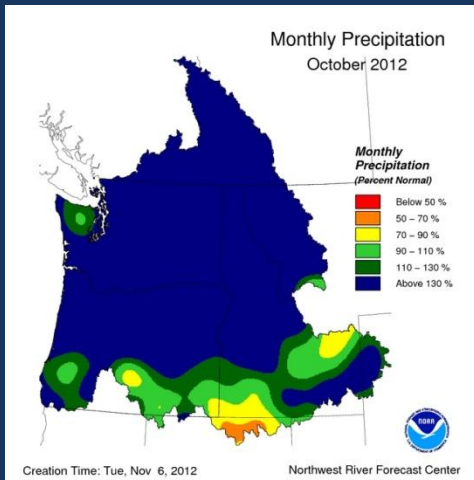
Runoff

Snowpack





# Observed Precipitation

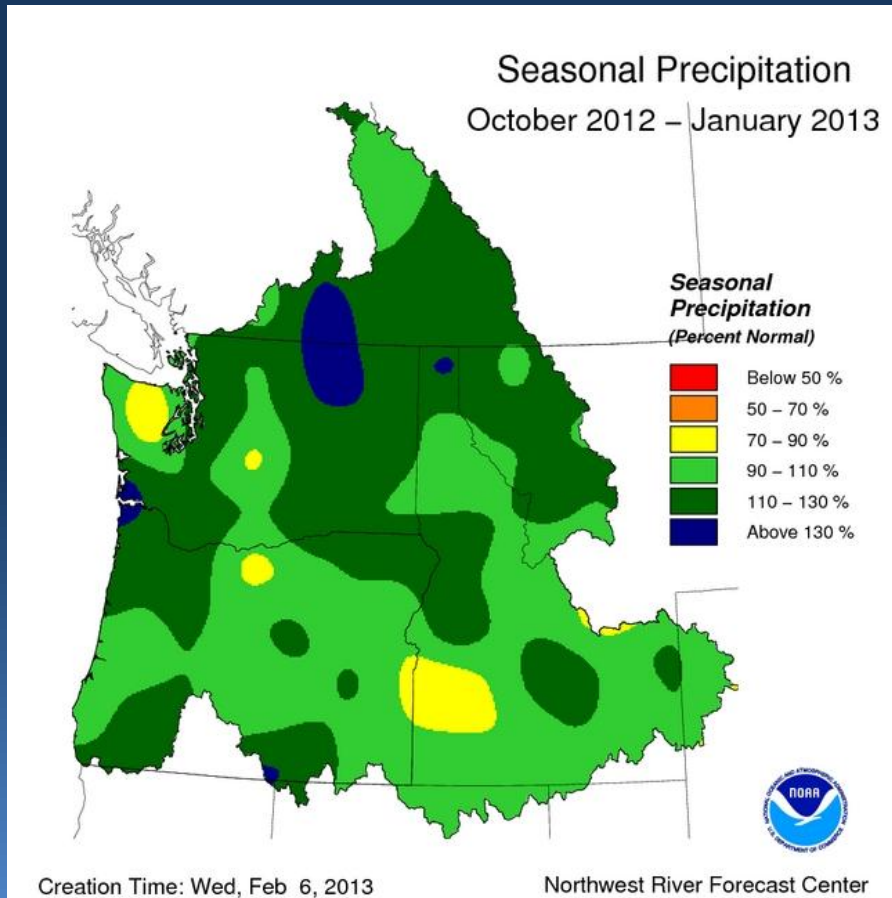


## Observed Precipitation Columbia River Above the Dalles

Oct	2012	3.13	189%
Nov	2012	2.97	105%
Dec	2012	3.61	121%
Jan	2013	1.83	66%



# Observed Precipitation

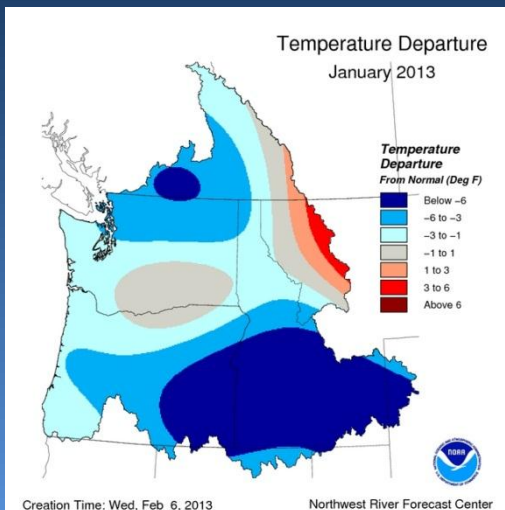
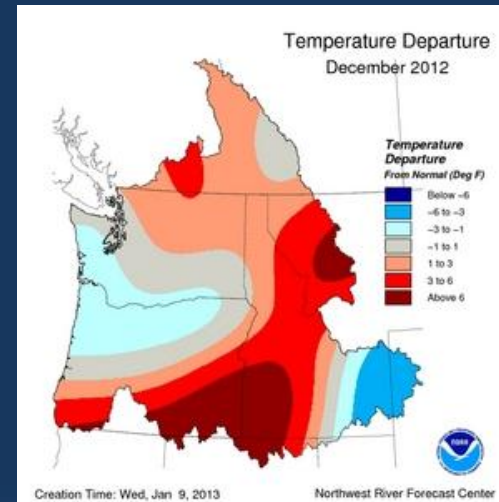
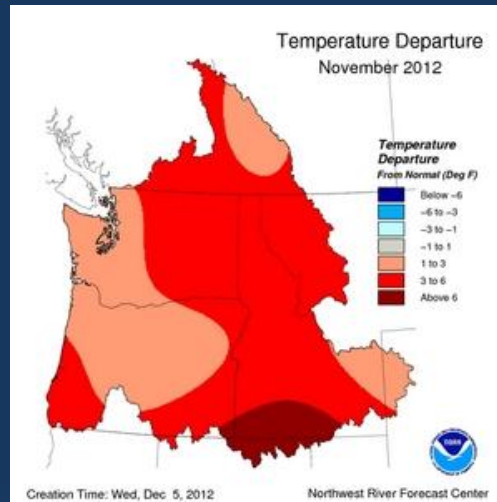
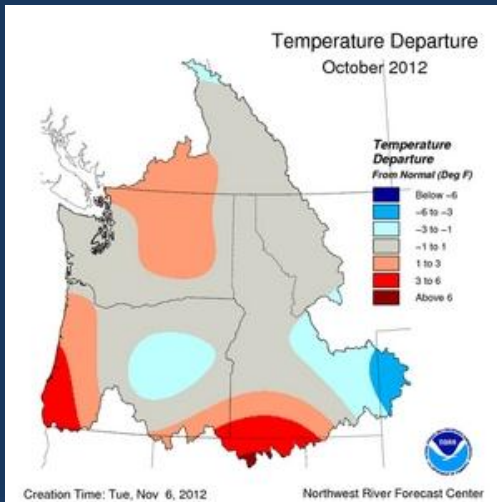


Observed Precipitation  
Water Year to Date  
Columbia River Above the Dalles

Oct-Oct	3.13	189%
Oct-Nov	6.1	136%
Oct-Dec	9.7	130%
Oct-Jan	11.5	112%



# Temperature Departures



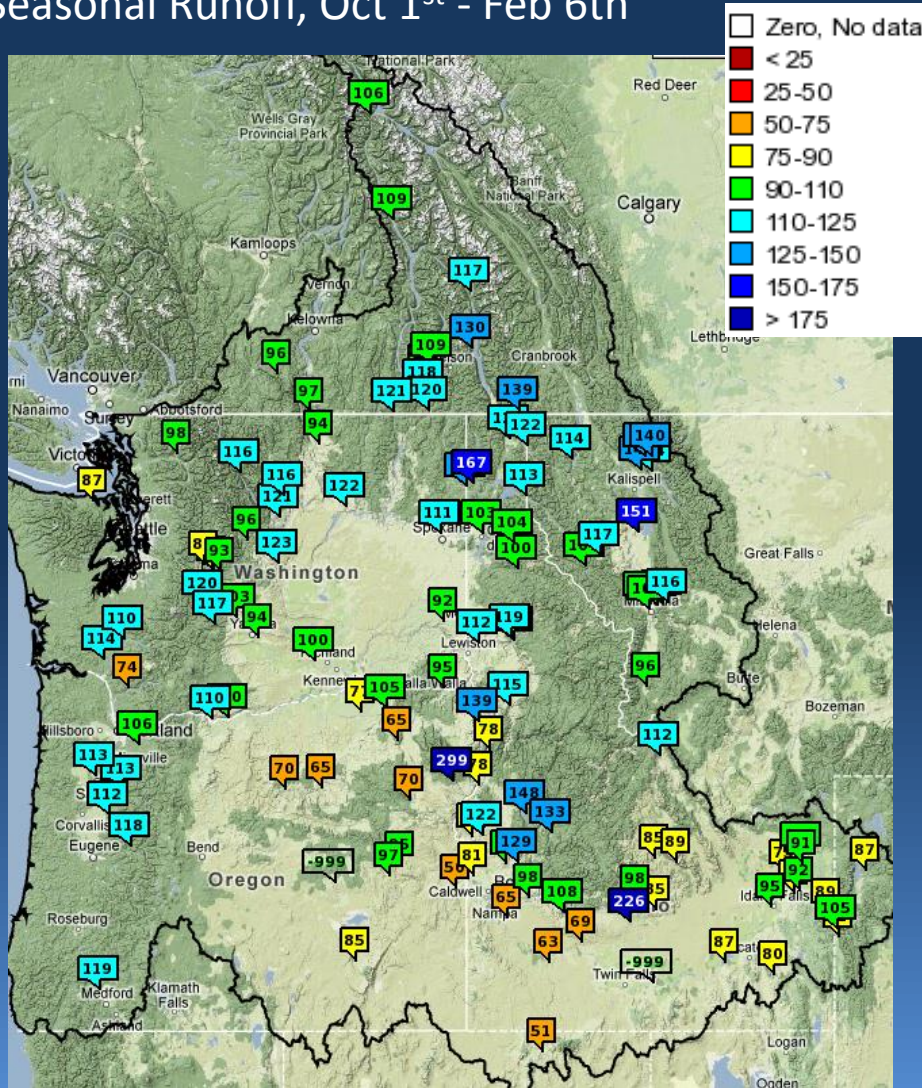




# Current Adjusted Runoff Conditions



Seasonal Runoff, Oct 1<sup>st</sup> - Feb 6<sup>th</sup>



Percent of Normal

Oct-Dec    Jan

MICA	107	98
LIBBY	121	97
GRAND COULEE	131	96
DWORSHAK	141	80
LOWER GRANITE	104	66
THE DALLES	119	88



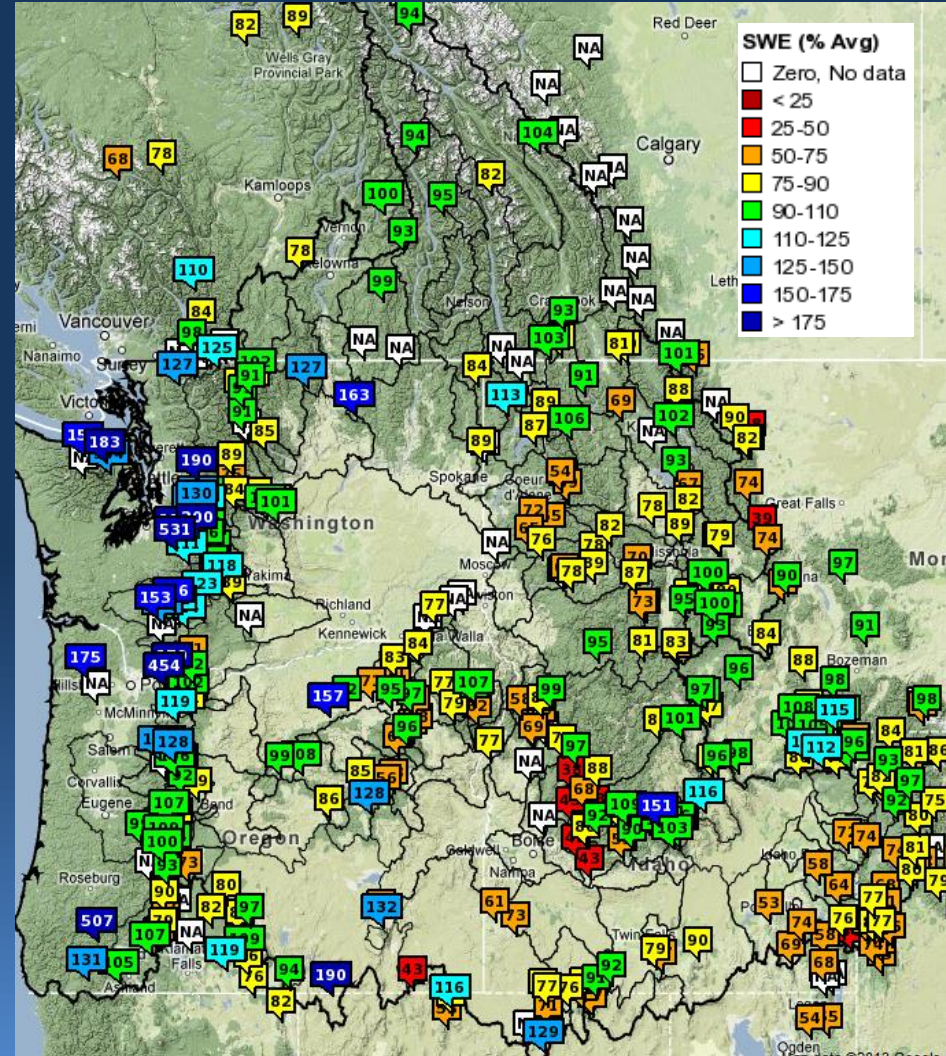
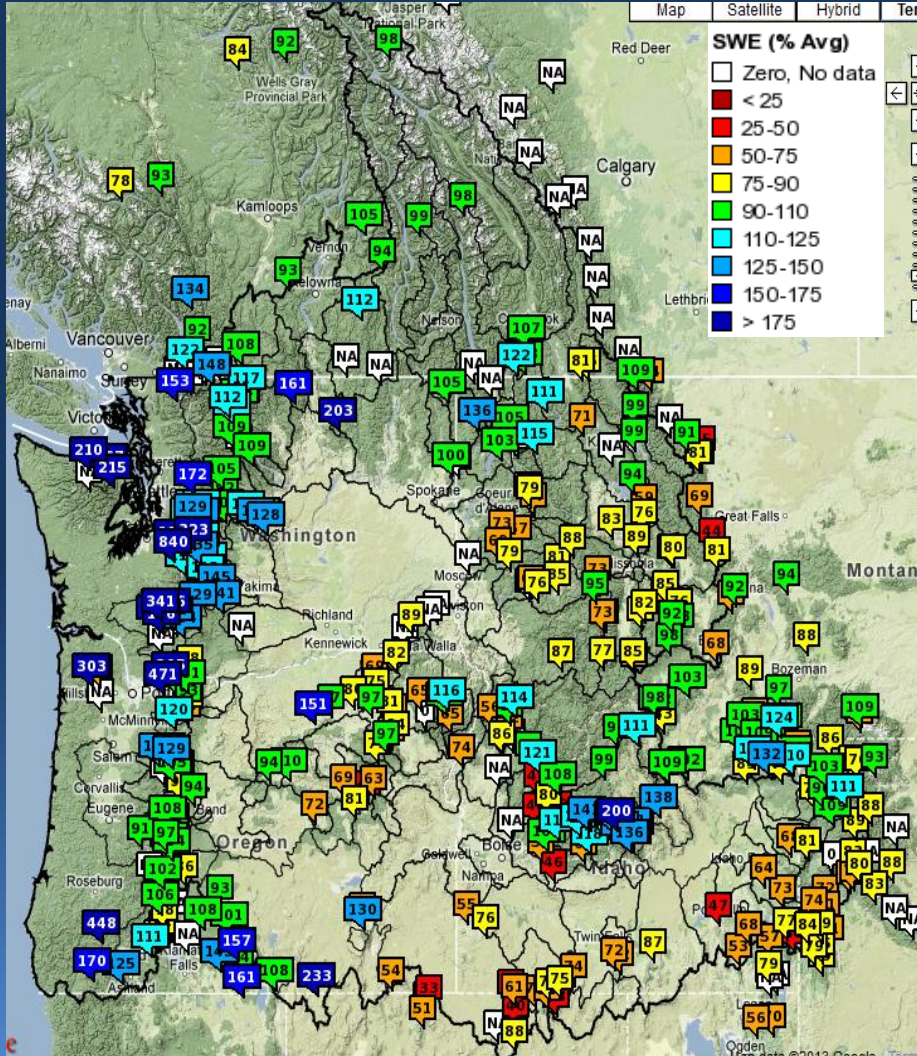


# Current Snow Conditions



Jan 10, 2013

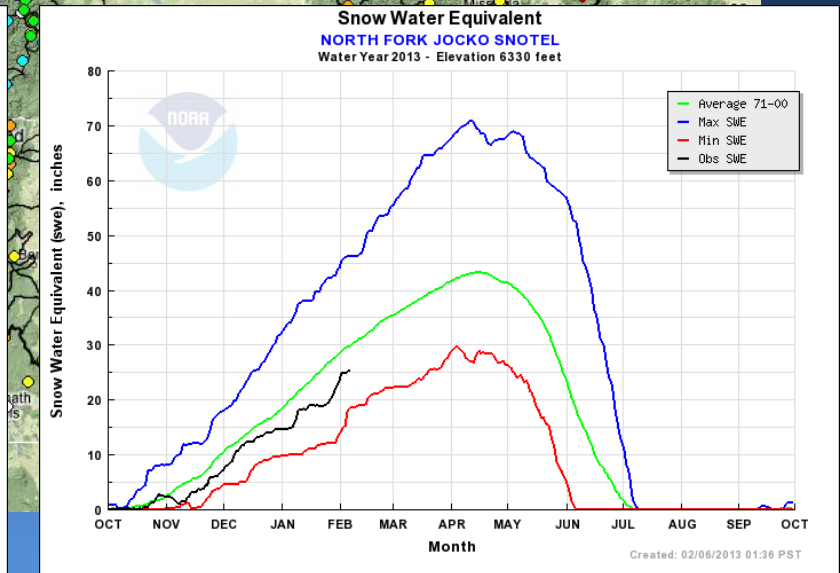
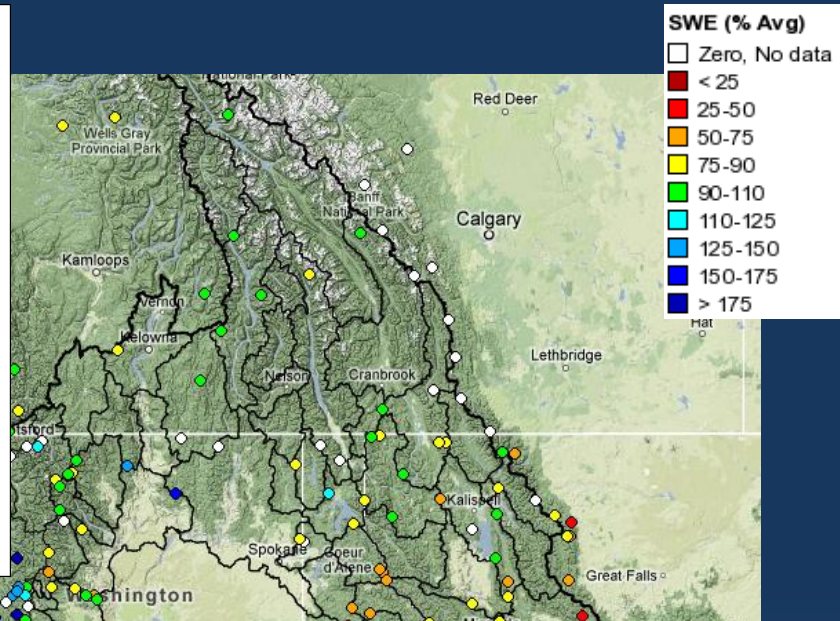
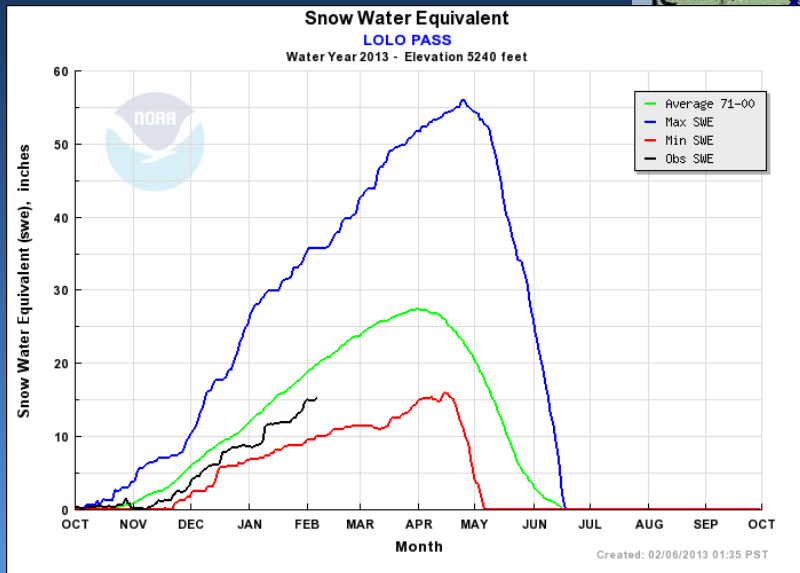
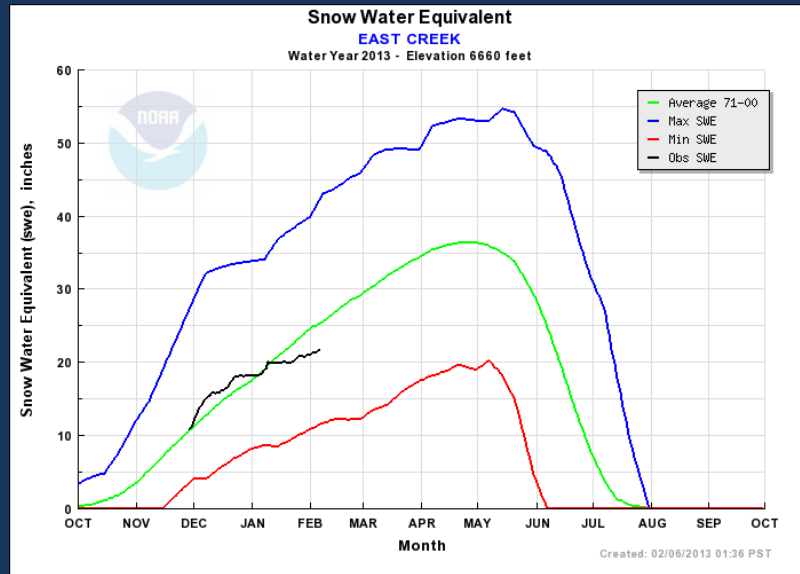
Feb 6, 2013





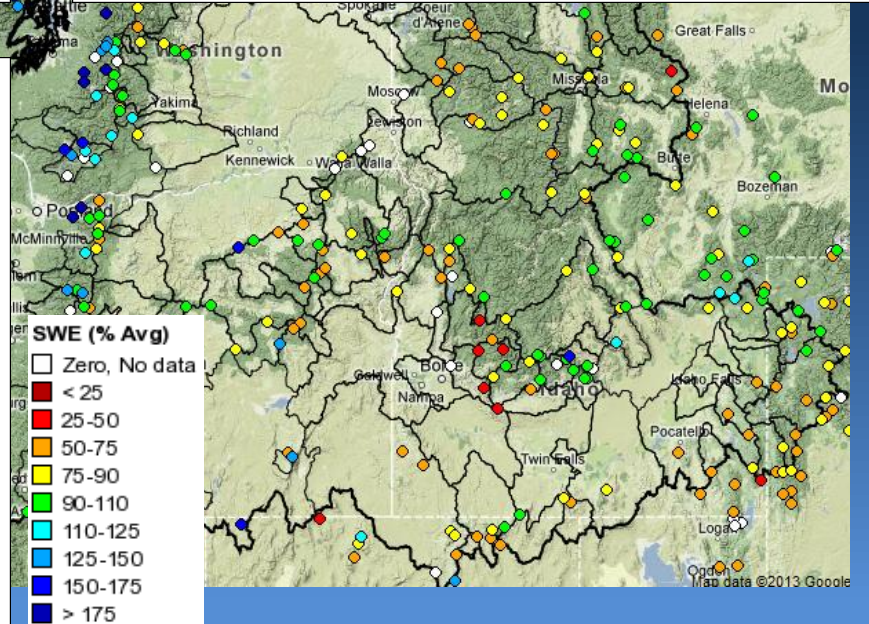
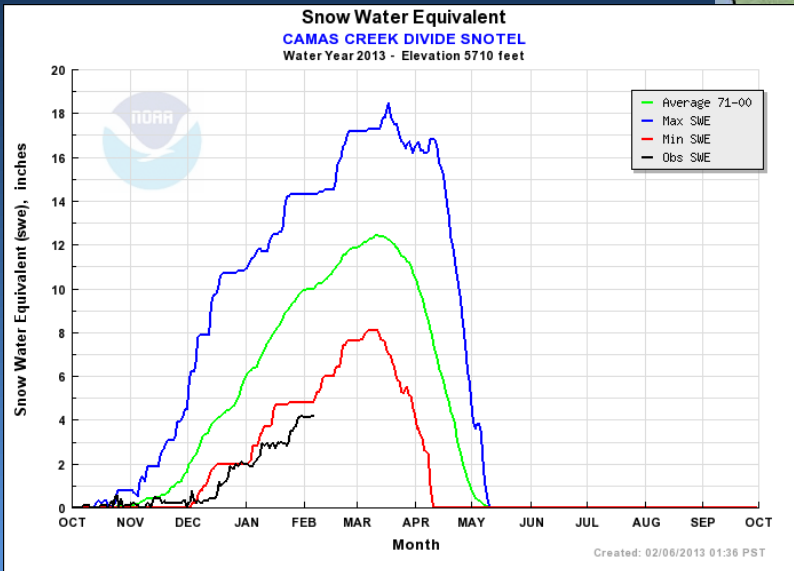
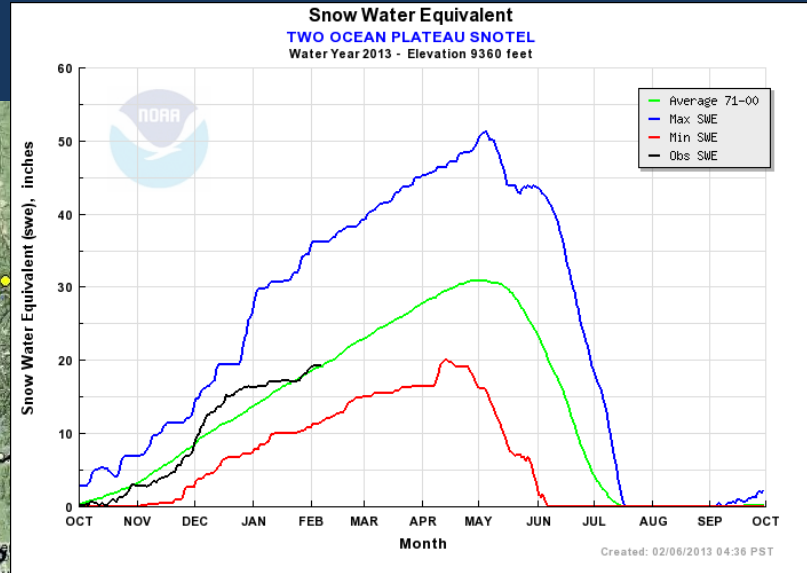
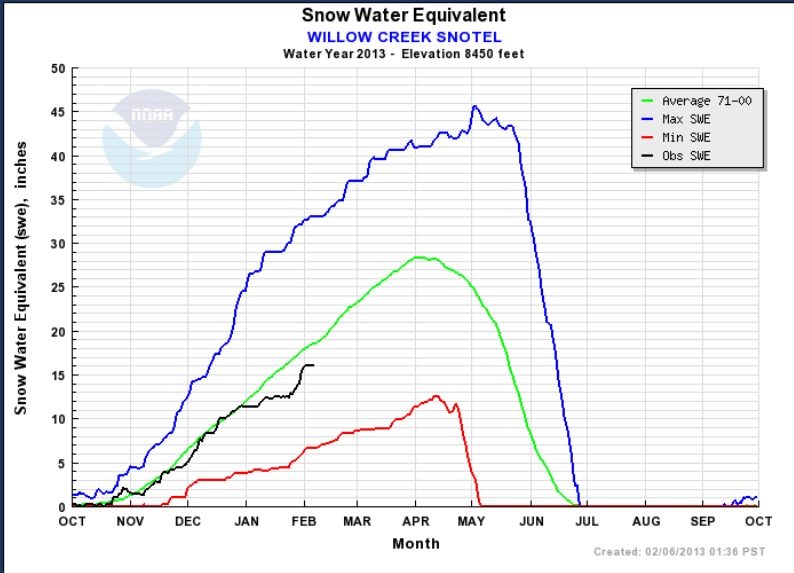


# Upper Columbia Snow Conditions



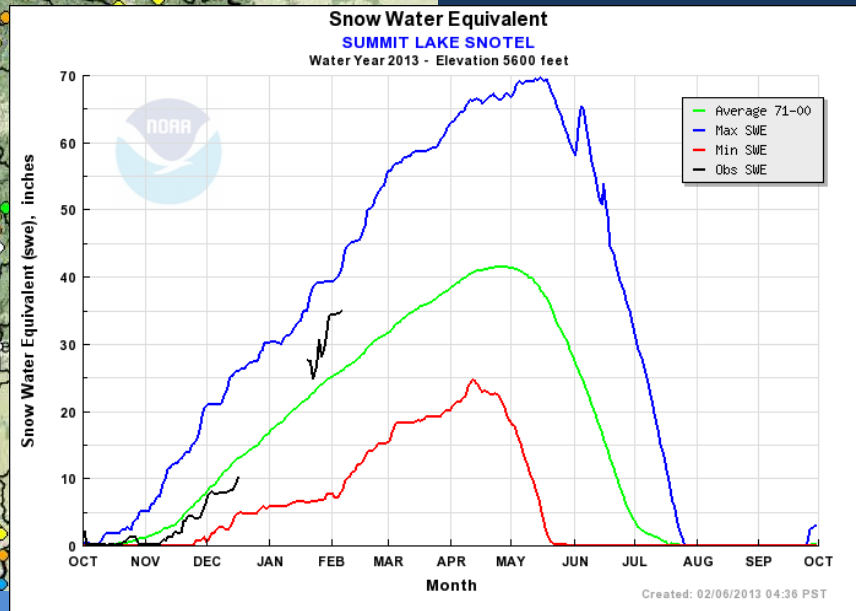
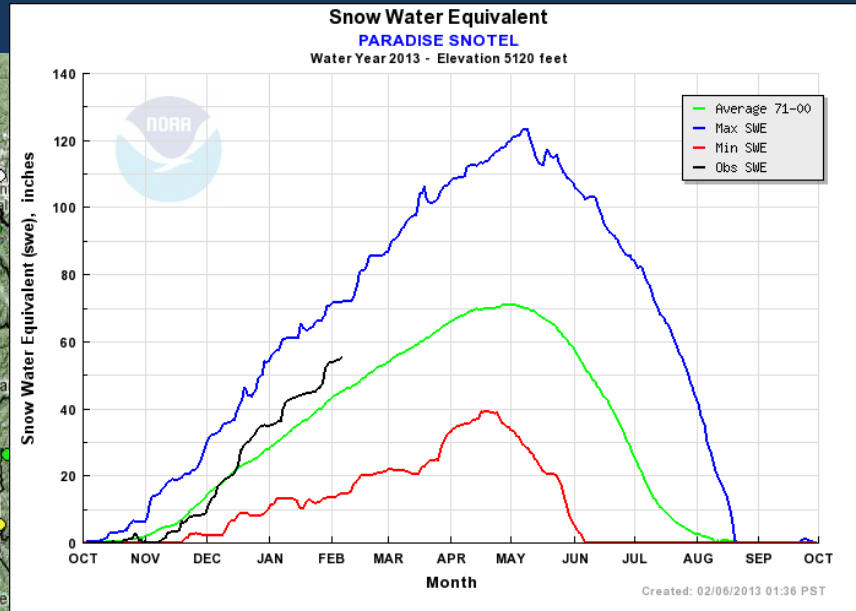
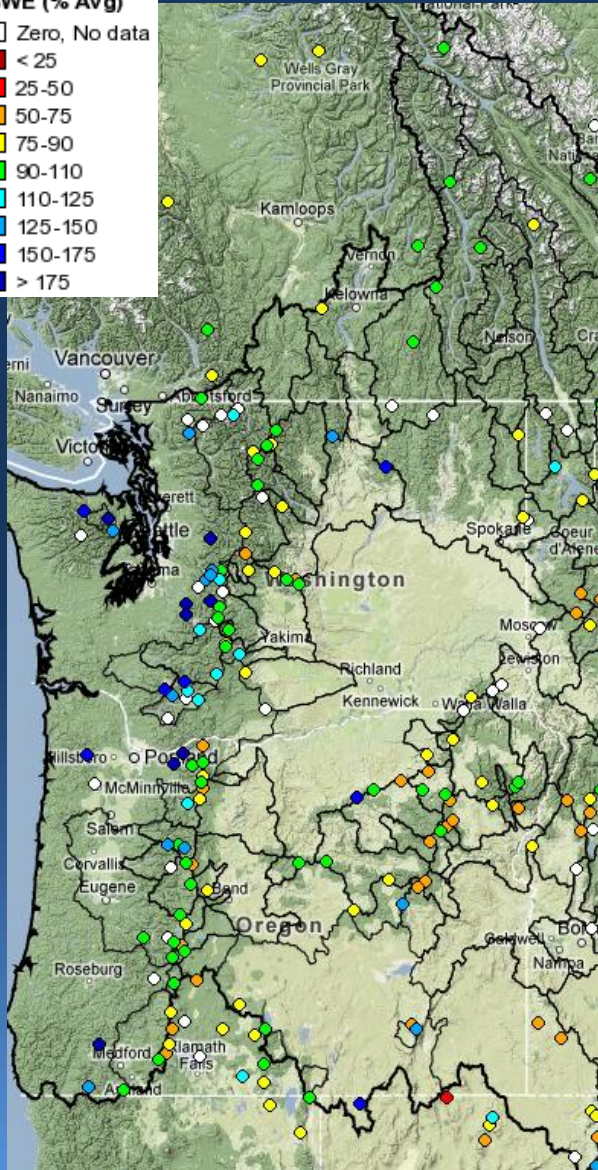
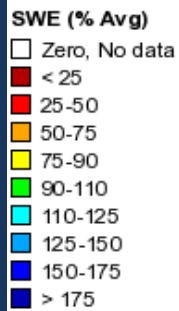


# Snake River Snow Conditions





# Lower Columbia Snow Conditions





# Future Conditions



Climate Outlooks

10 Day Precipitation Forecast

Water Supply Forecasts





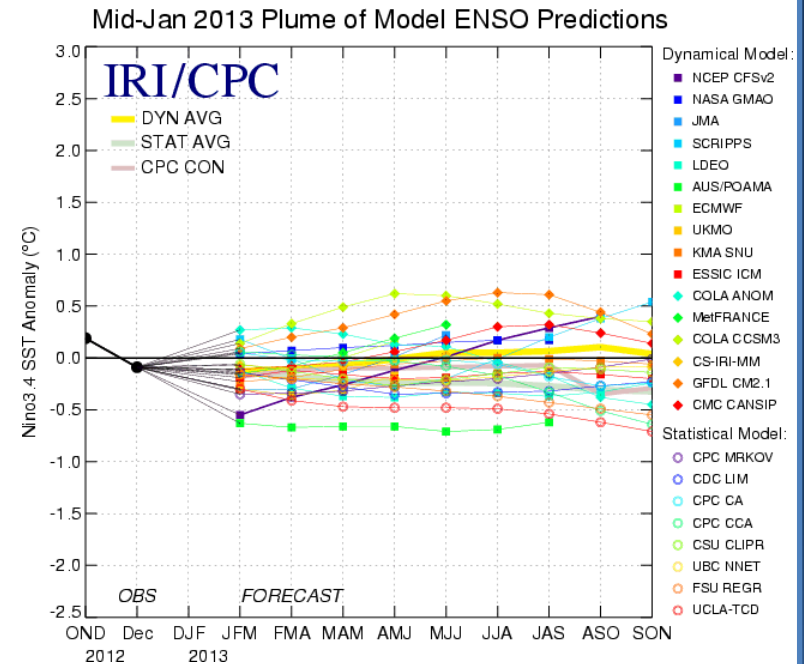
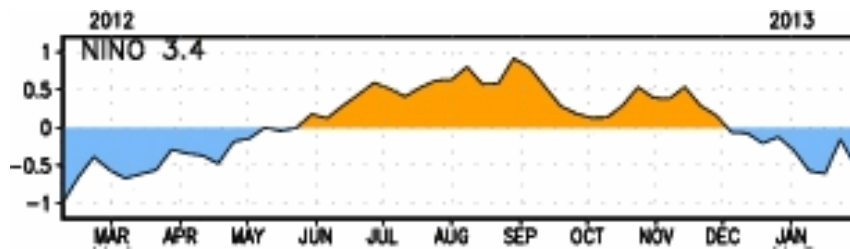
# Enso: Observed and Forecast

## SST Anomaly (Deg C)



Latest observed: SST 3.4 ~ -0.5 Deg C

Latest calculated ONI 3.4 = 0.4 Deg C  
(ONI = 5 month running mean of SST)



**CPC Synopsis: ENSO-neutral conditions favored this winter and into spring 2013.**

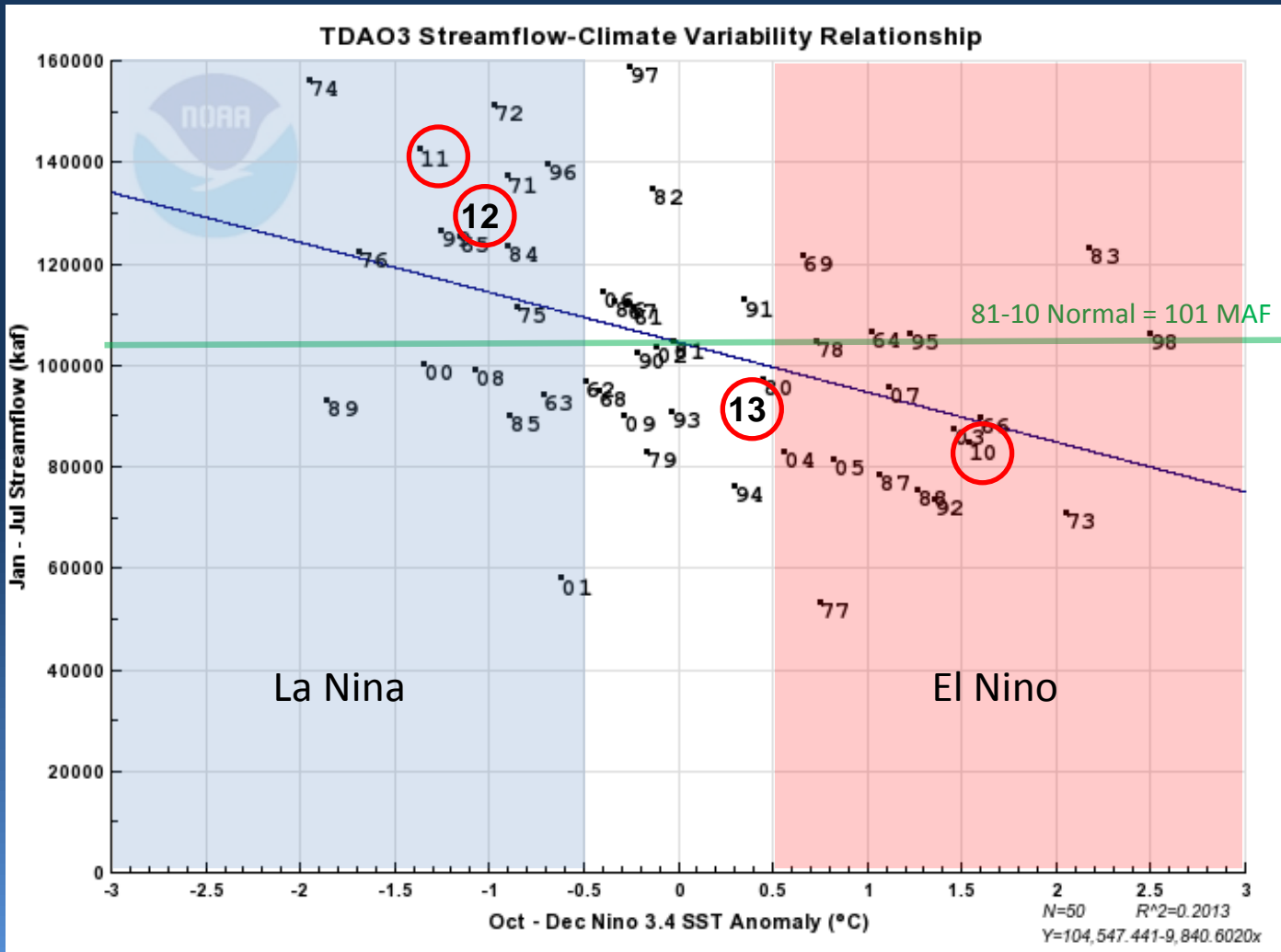
Source: Climate Prediction Center Weekly ENSO Update

[http://www.cpc.ncep.noaa.gov/products/analysis\\_monitoring/lanina/enso\\_evolution-status-fcsts-web.pdf](http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf)



# SST Anomaly vs Streamflow

## Columbia River near The Dalles



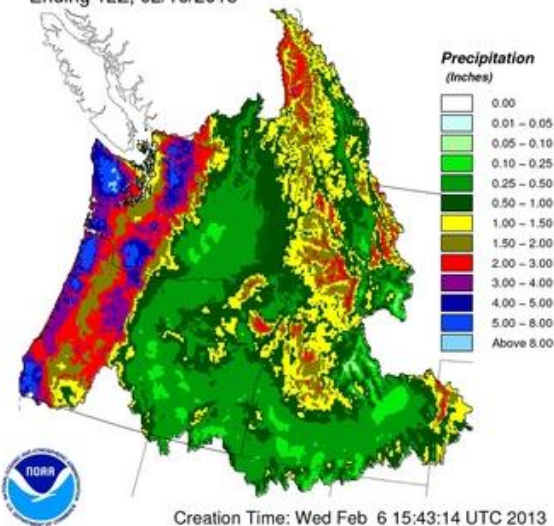




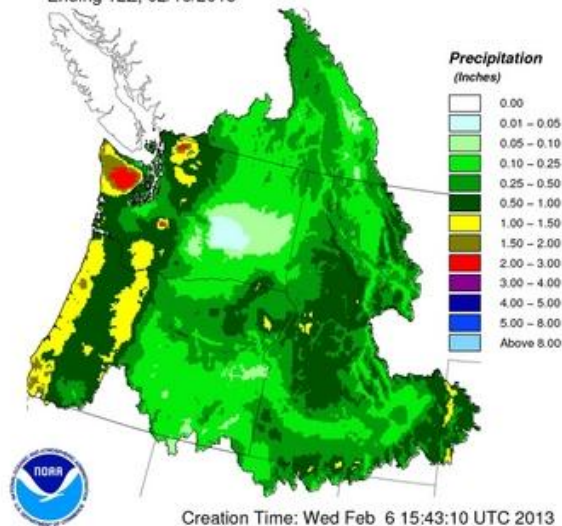
# ESP 10 Day Precipitation Forecast



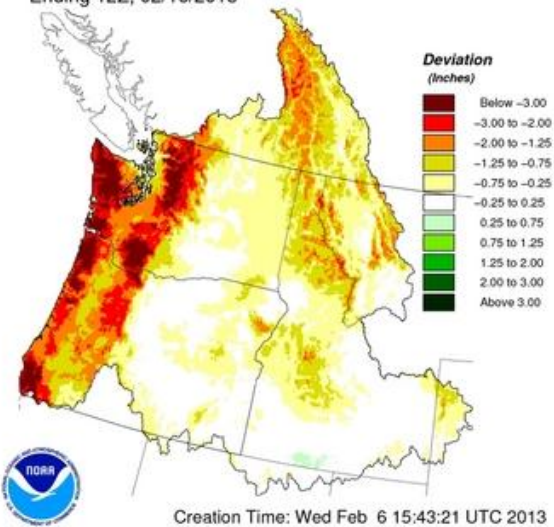
10 Day Precipitation Climatology  
Ending 12Z, 02/16/2013



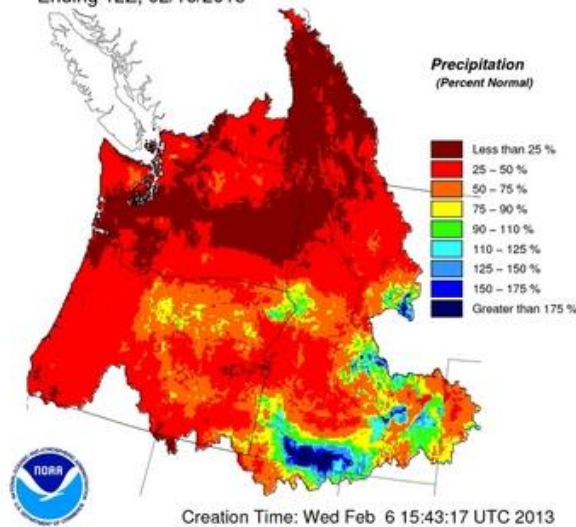
10 Day QPF  
Ending 12Z, 02/16/2013



10 Day QPF (Deviation from Climatology)  
Ending 12Z, 02/16/2013



10 Day QPF (Percent of Climatology)  
Ending 12Z, 02/16/2013

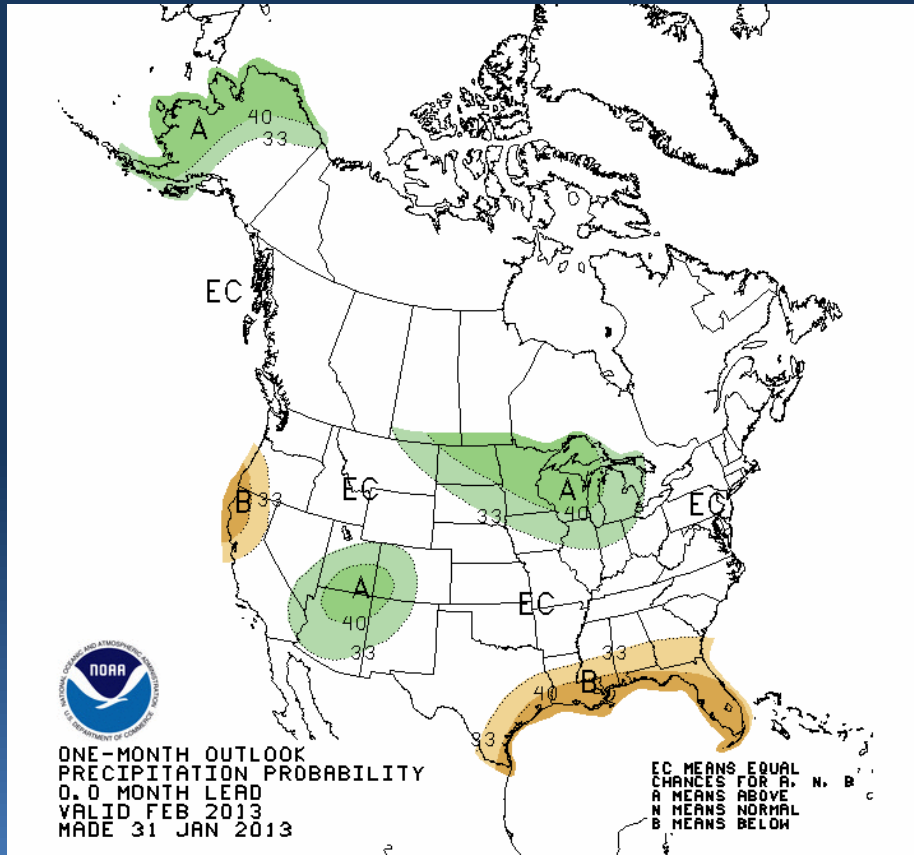




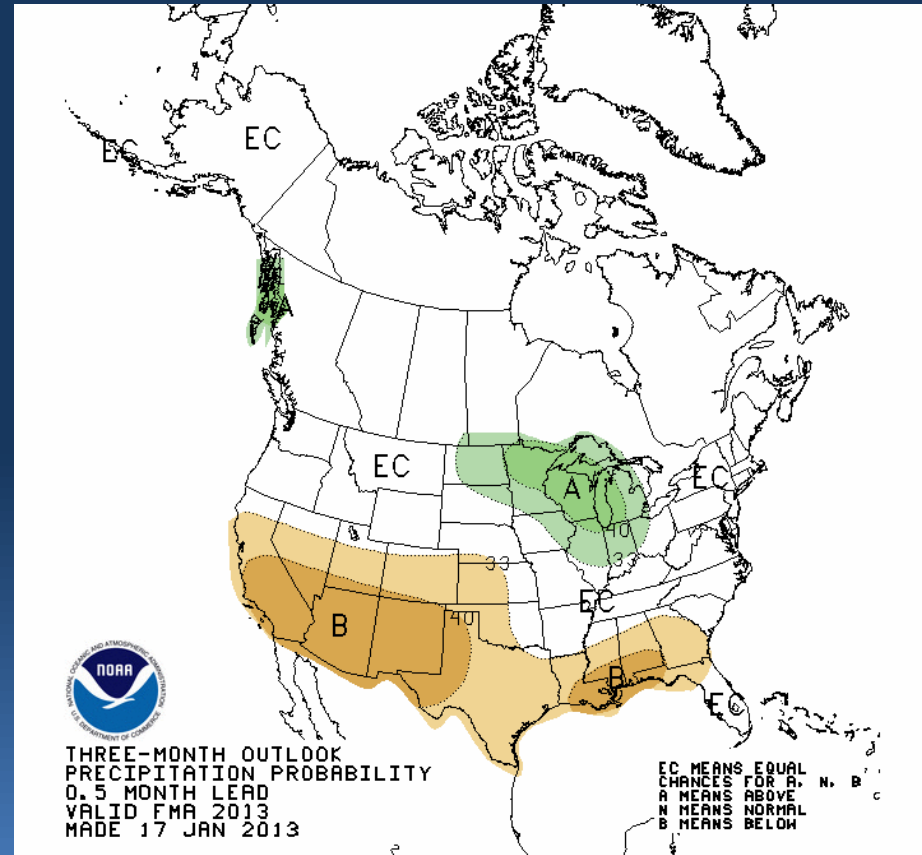
# Climate Outlook: Precipitation



## Current Month Outlook



## Three Month Outlook

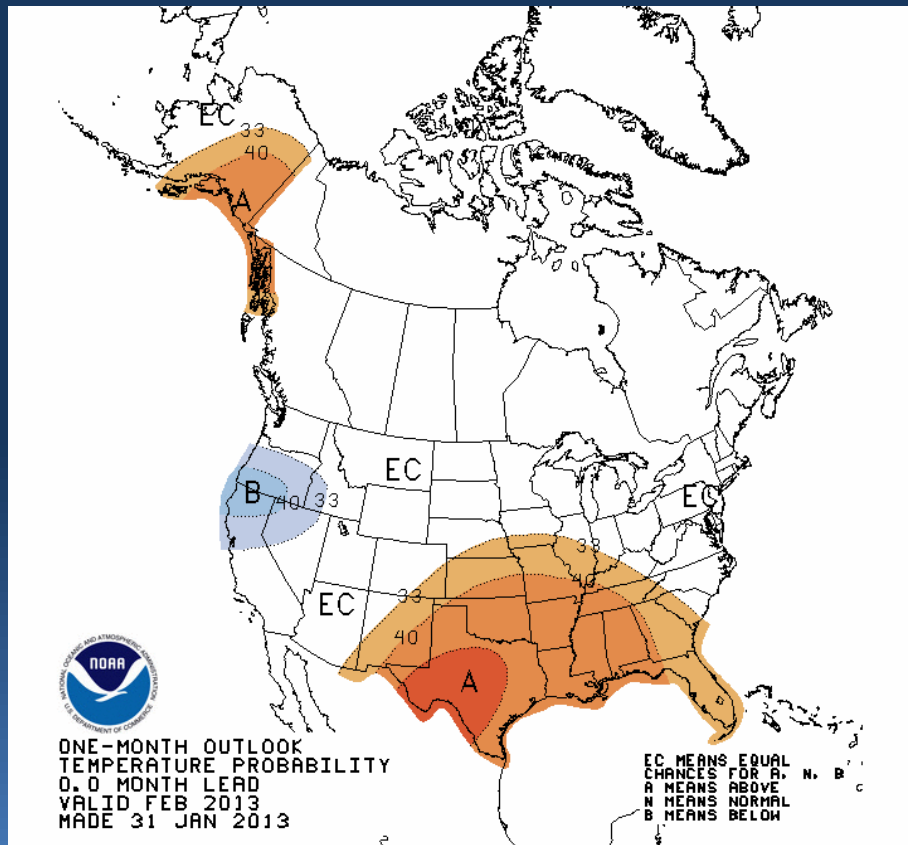




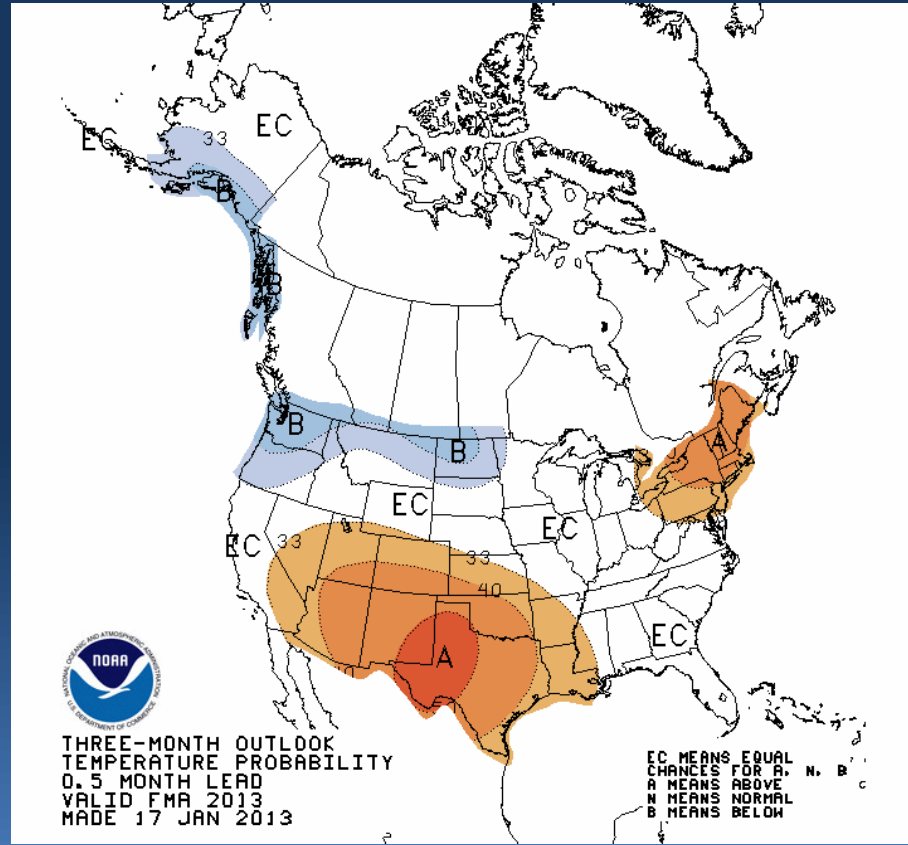
# Climate Outlook: Temperature



## Current Month Outlook



## Three Month Outlook







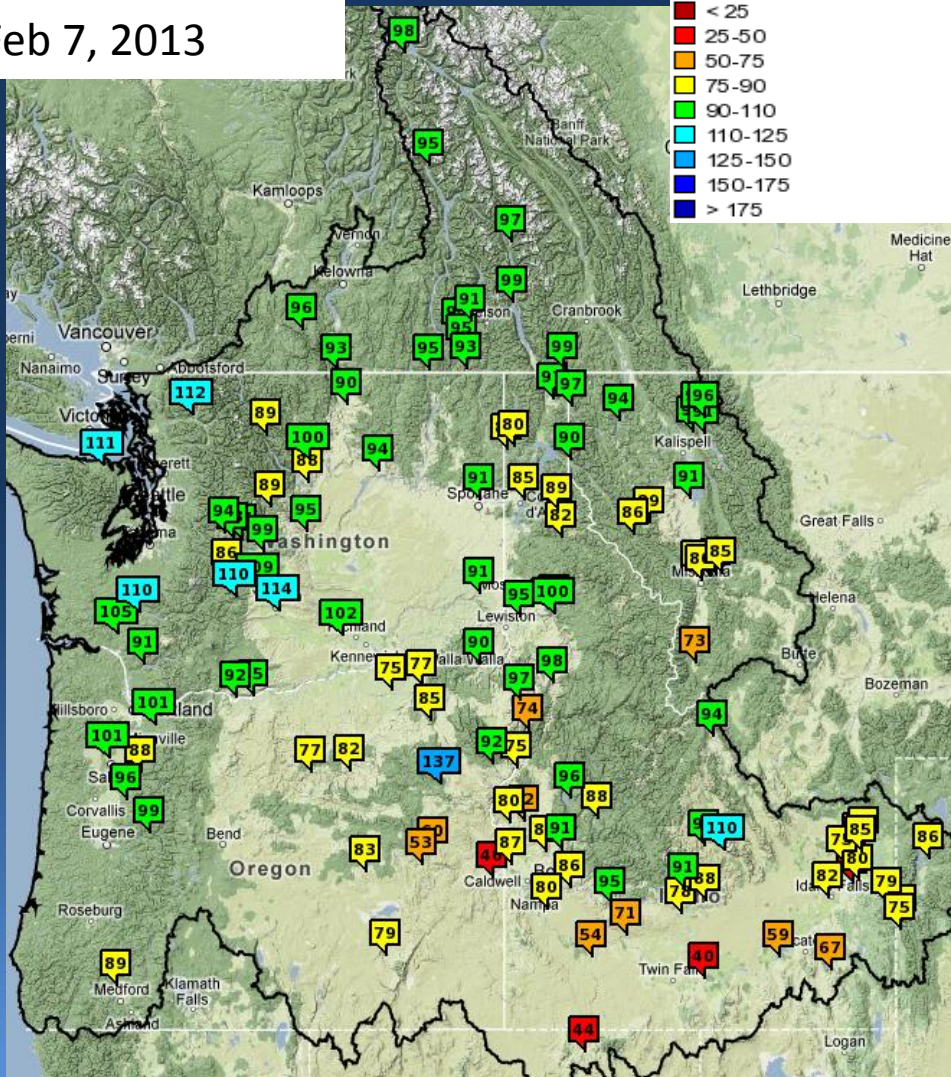
# Water Supply Forecasts



Issued  
Feb 7, 2013

### Water Supply Forecast (% Avg)

- No Average, No data
- < 25
- 25-50
- 50-75
- 75-90
- 90-110
- 110-125
- 125-150
- 150-175
- > 175



Ensemble Streamflow Procedure  
 Feb 7 Issuance Date  
 Feb 6 Ensemble Date

Official Forecasts include 10 days  
 of forecast precipitation

NWRFC offers 3 and 0 day QPF  
 (limited network and releases)

Forecasts updated weekly/daily  
**All 10 day forecasts are 'official NWS'**

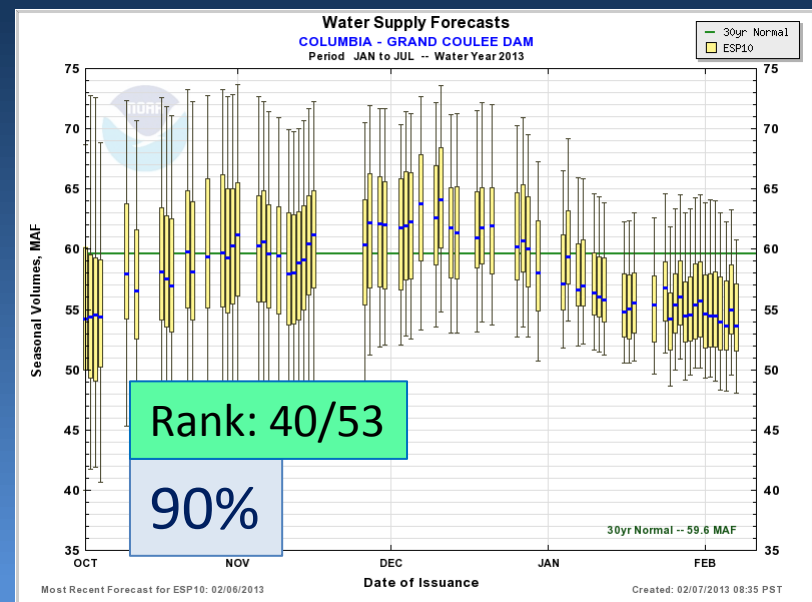
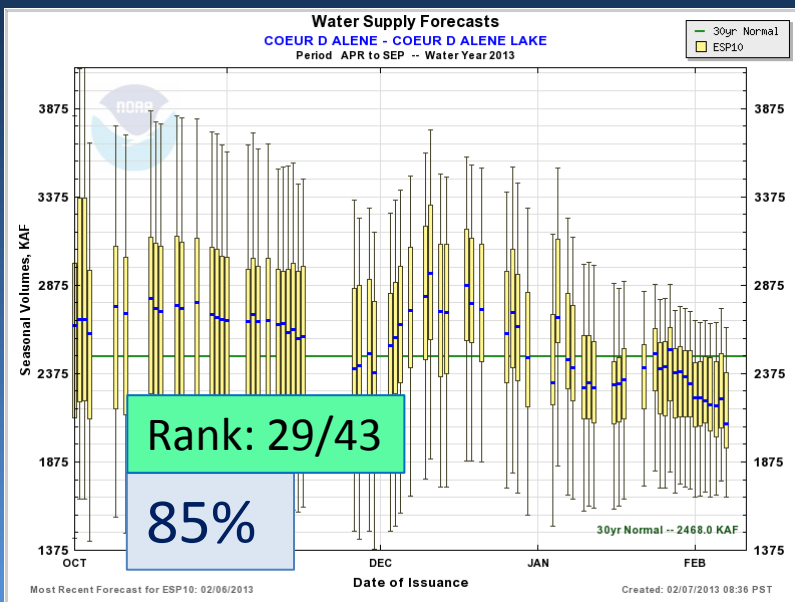
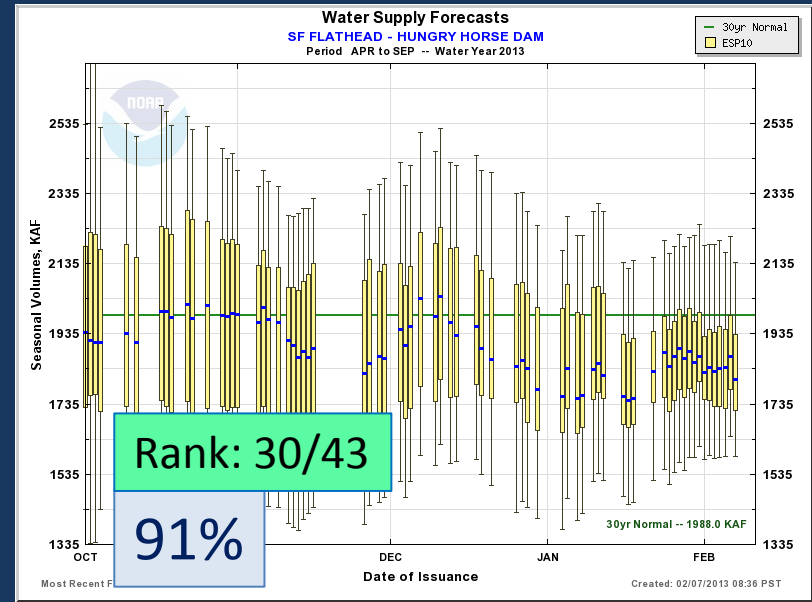
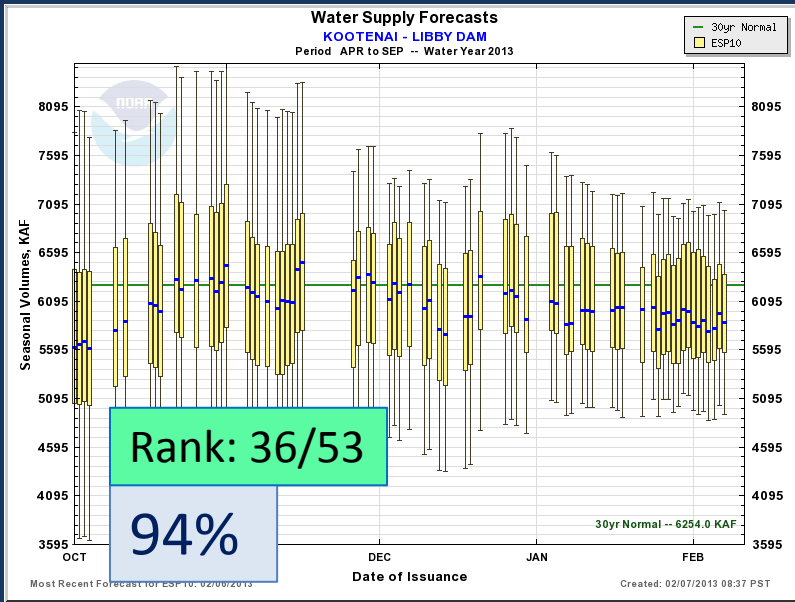
Agency Collaborated

Model States/Snow/Runoff updated  
 continuously through month

Compared to 30 yr Runoff Normal  
 (1981-2010)

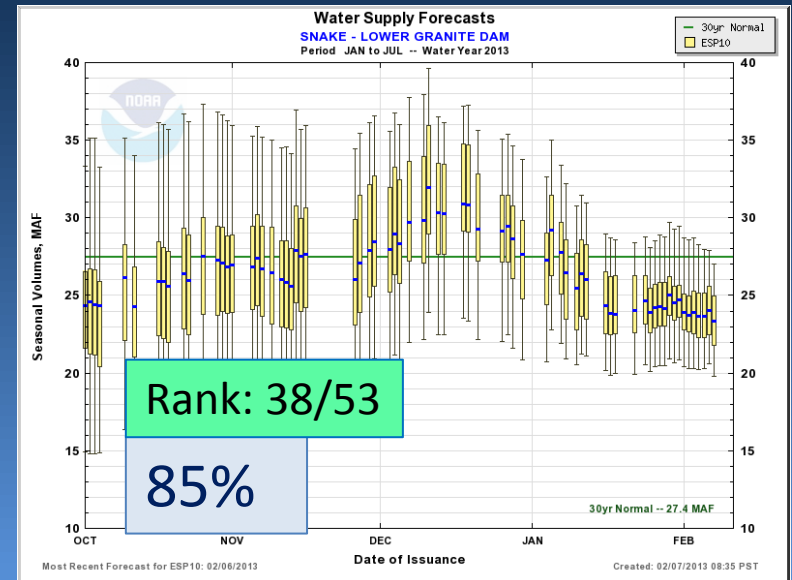
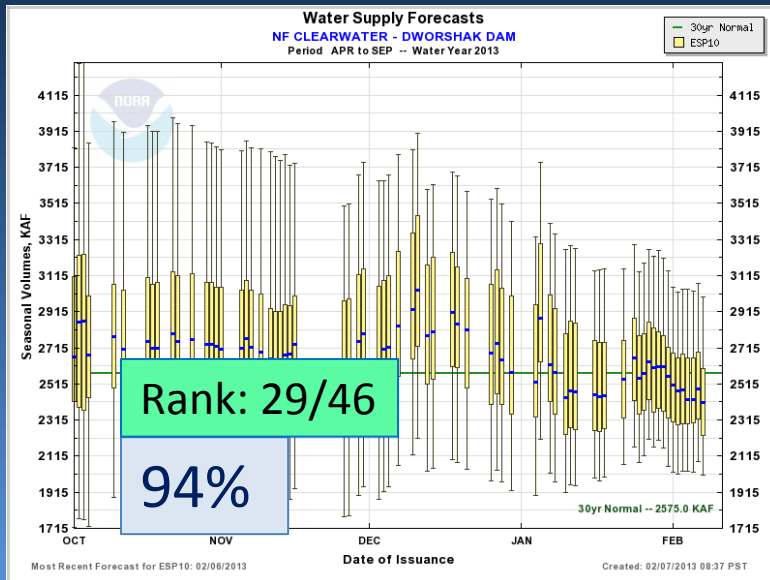
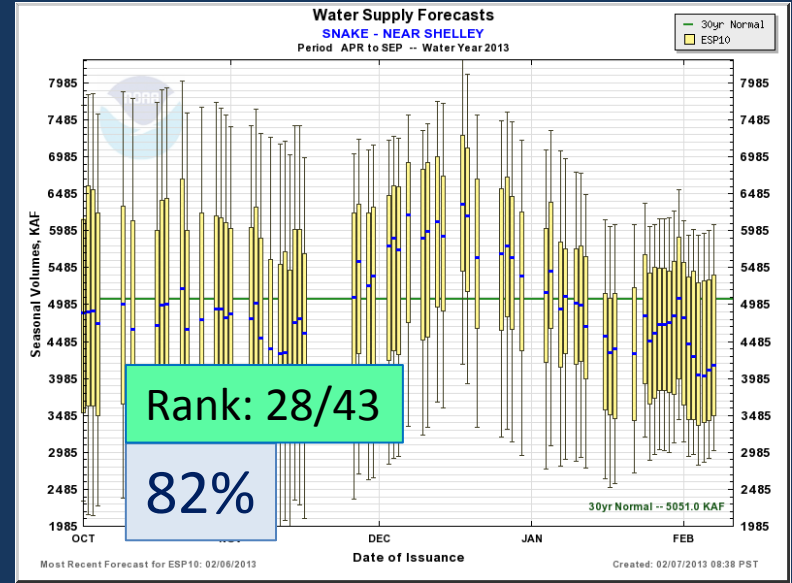
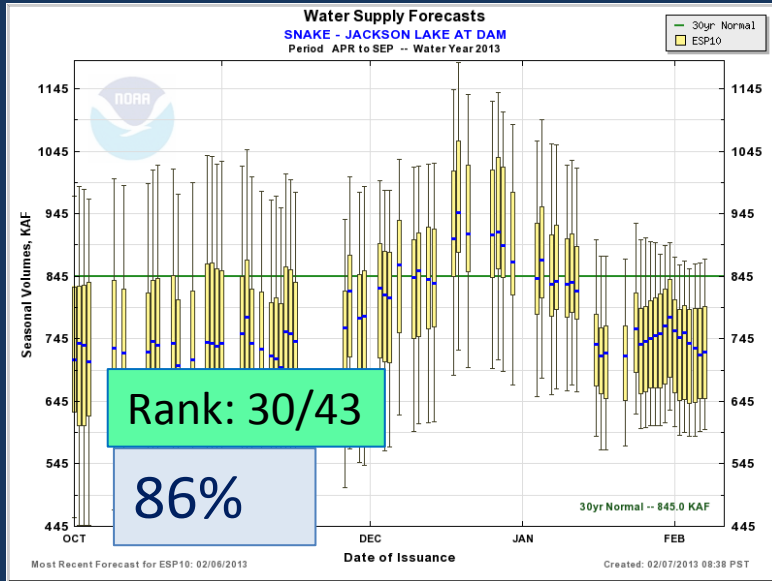


# Water Supply Forecast: Upper Columbia





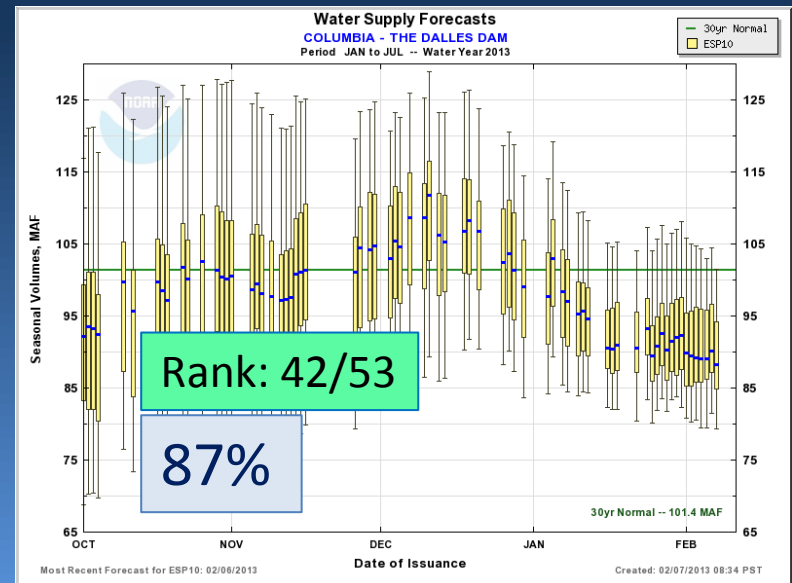
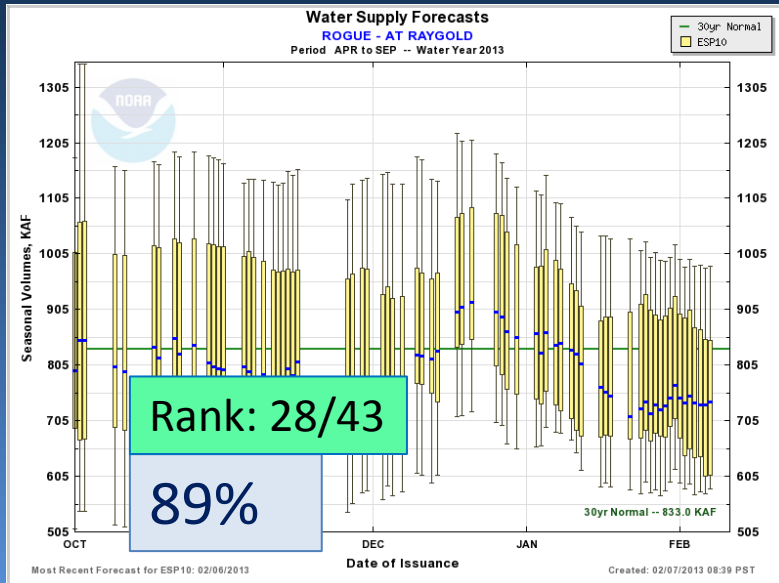
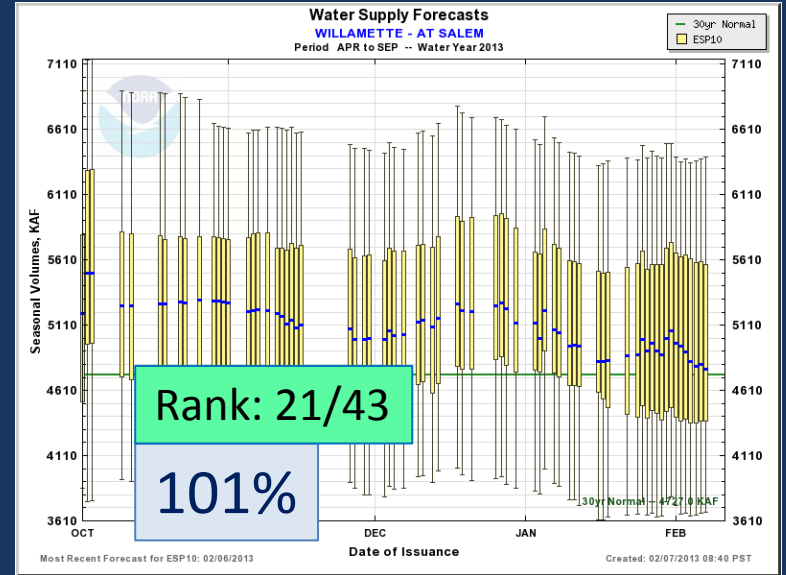
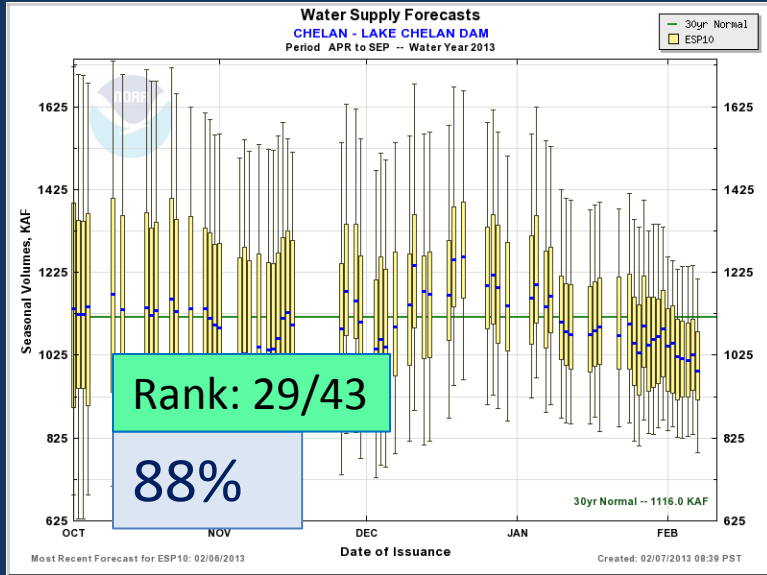
# Water Supply Forecast: Snake







# Water Supply Forecast: Lower Columbia





# NWRFC Water Supply Webpage

[http://www.nwrfc.noaa.gov/water\\_supply/ws\\_schd.cgi](http://www.nwrfc.noaa.gov/water_supply/ws_schd.cgi)



2013 Schedule for <i>Live Water Supply Briefings</i>					
Jan	Feb	Mar	Apr	May	Jun
<b>10th</b>	<b>7th</b>	<b>7th</b>	<b>4th</b>	<b>9th</b>	<b>TBD</b>
<i>All presentations held at 10am PDT/PST, unless noted otherwise</i>					
<b><i><a href="#">Click here for Registration Information</a></i></b>					
<b><i><a href="#">Archive of Previous Briefings</a></i></b>					

<http://www.nwrfc.noaa.gov/presentations/presentations.cgi>

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