

# February 2014 Water Supply Briefing

National Weather Service/Northwest River Forecast Center

[www.nwrfc.noaa.gov/presentations/html/wy2014\\_ws/WS\\_Briefing\\_Page\\_20140206.pdf](http://www.nwrfc.noaa.gov/presentations/html/wy2014_ws/WS_Briefing_Page_20140206.pdf)

Telephone Conference : 1-888-455-2990

Pass Code : 60696

2014 Briefing Dates:

**February 6 - 10am Pacific**

March 6 - 10am Pacific

April 10 - 10am Pacific

May 8 - 10am Pacific

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# February 2014 Water Supply Briefing



[www.nwrfc.noaa.gov](http://www.nwrfc.noaa.gov)

Northwest River Forecast Center  
Water Supply Forecasts



River and Hydrology

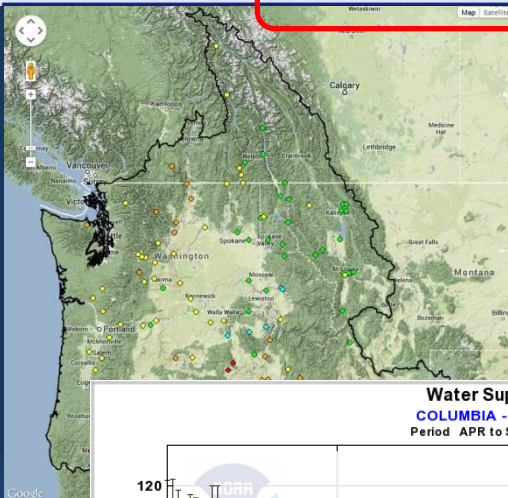
Water Supply

Observations

Weather Forecasts

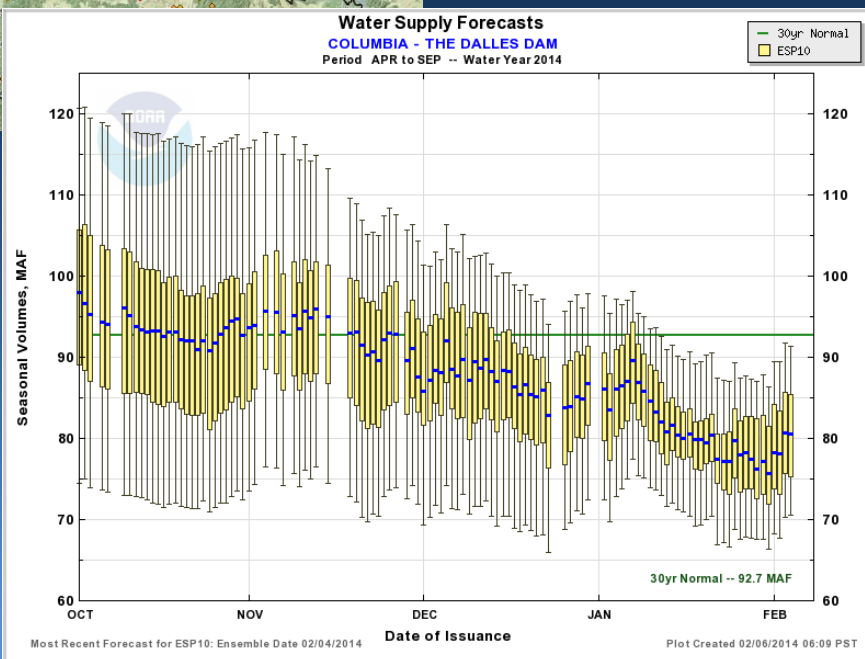
Climate

NWRFC



## Ensemble Streamflow Procedure

Feb 5<sup>th</sup> Issuance Date  
Feb 4<sup>th</sup> Ensemble Date



Official Forecasts include 10 days  
of forecast precipitation

NWRFC offers 5 and 0 day QPF

Forecasts updated daily  
All 10 day forecasts are 'official NWS'

Agency Collaborated

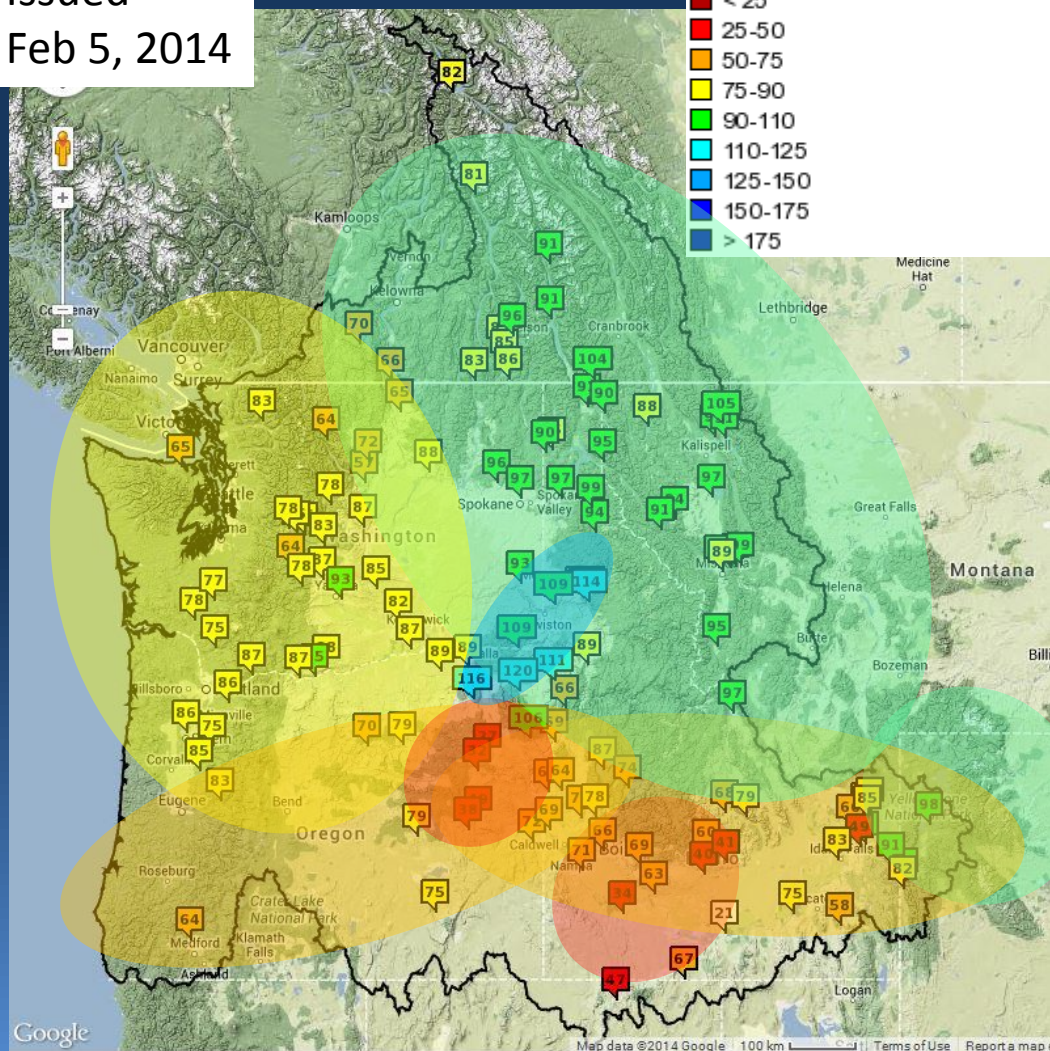
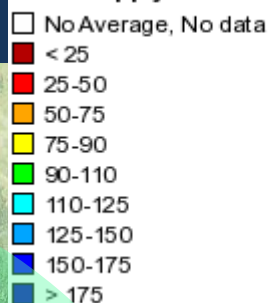
Model States/Snow/Runoff updated  
continuously through month

Compared to 30 yr Runoff Normal  
(1981-2010)

# Water Supply Summary

Issued  
Feb 5, 2014

## 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 100%) are in the mid latitudes of Idaho, northeast Oregon, and western Montana.



# Observed Conditions



Precipitation

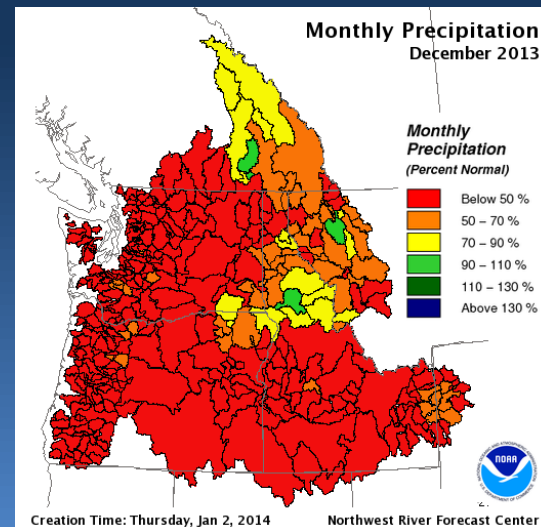
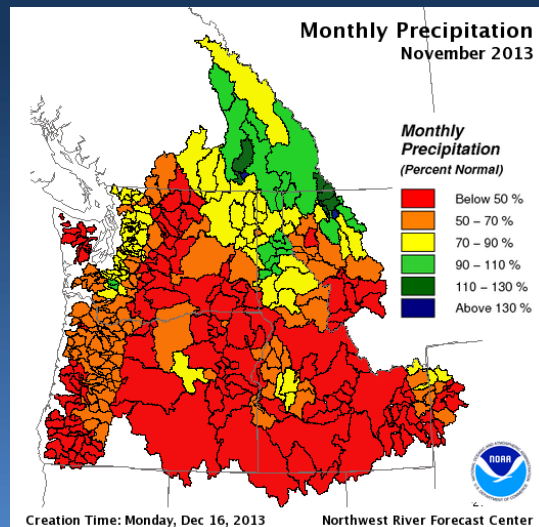
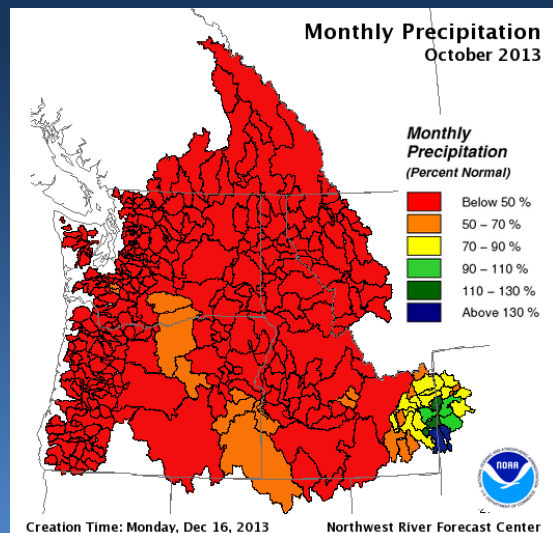
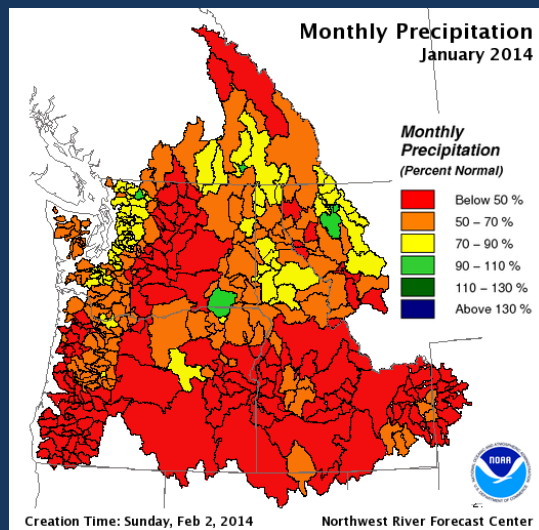
Temperature

Snowpack



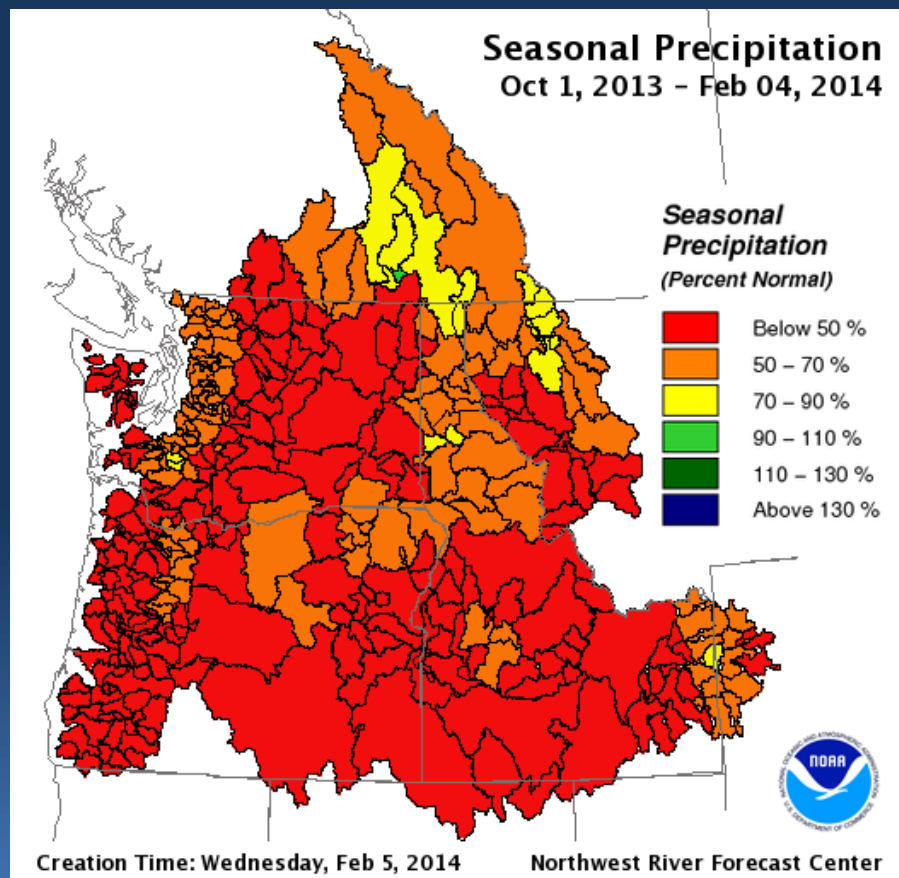


# Observed Monthly Precipitation





# Observed Seasonal Precipitation



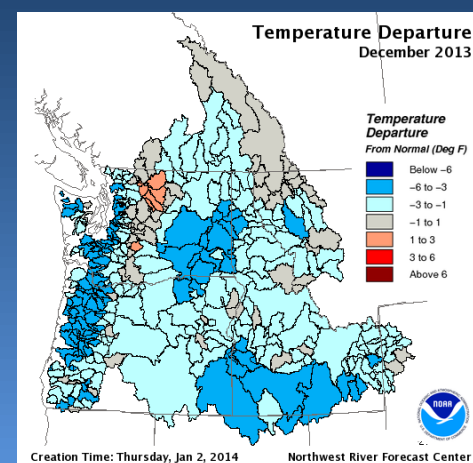
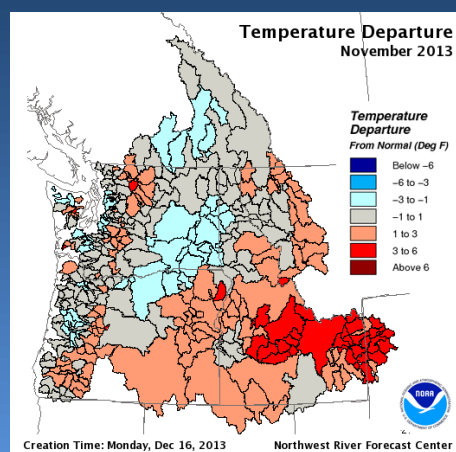
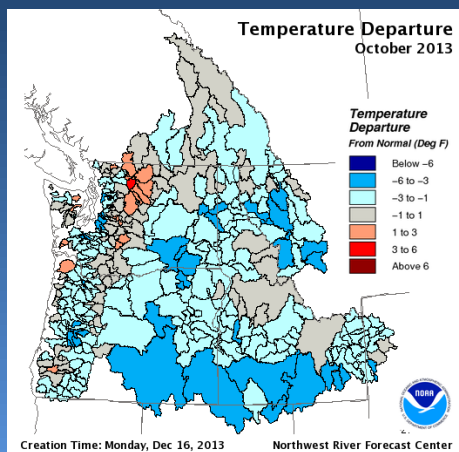
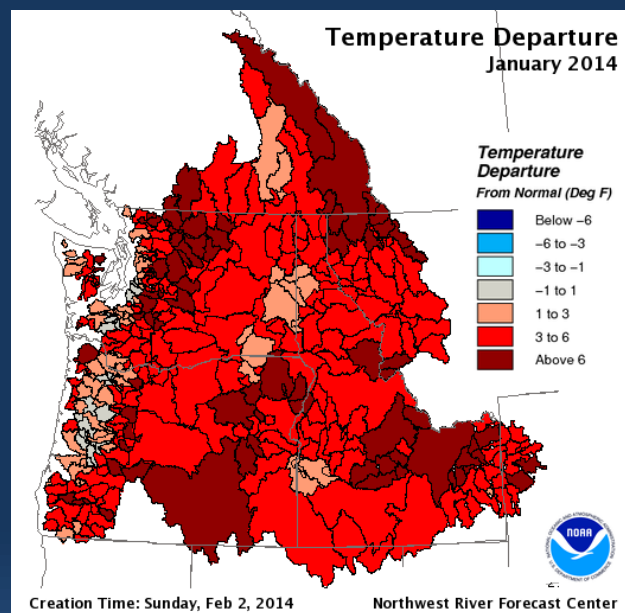
## Observed Precipitation Water Year to Date Columbia River Above the Dalles

DIVISION NAME	OBS (in)	% Norm
Snake River abv Ice Harbor Dam	4.4	45
Columbia River abv Grand Coulee	10.3	61
Columbia River abv The Dalles	6.4	50



# Temperature Departures

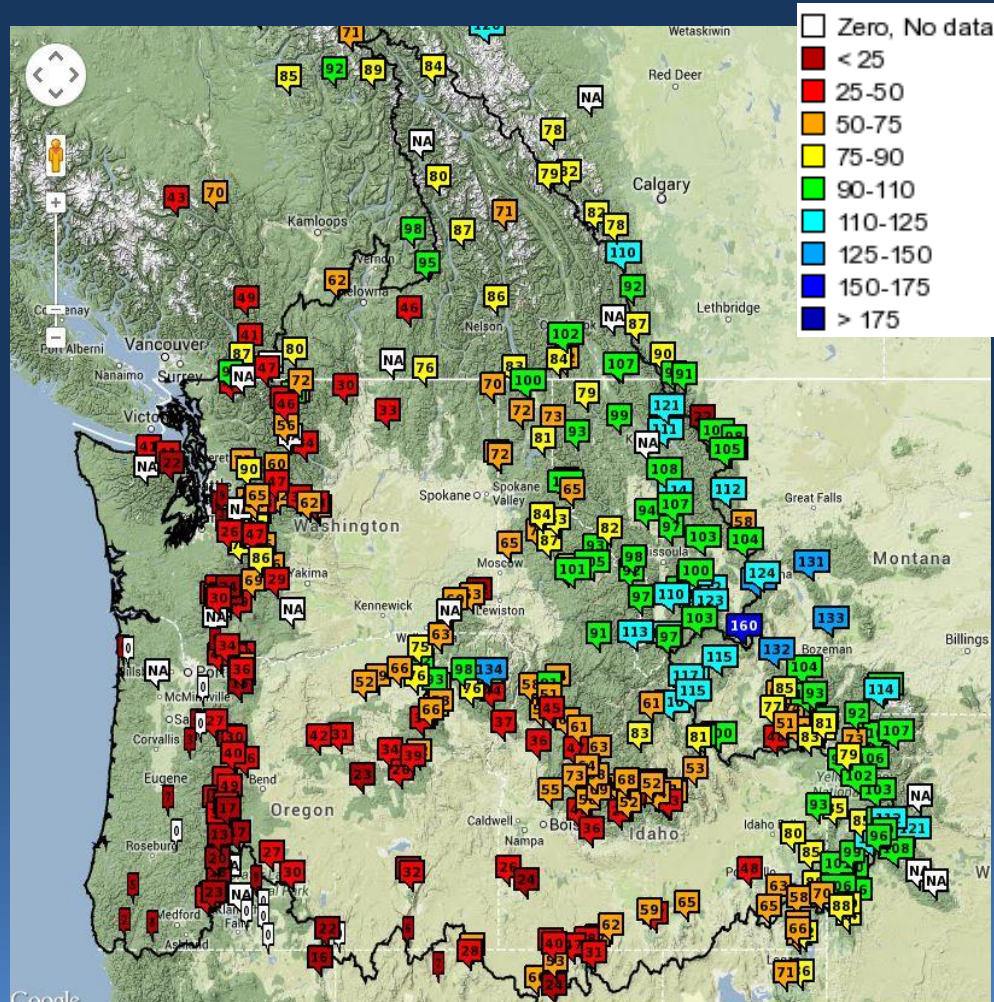
## Water Year 2014





# Current Snow Conditions

Feb 3, 2014



Near and above normal Snow amounts are in western Montana, eastern Canada, the very upper Snake, and northeast Oregon

Large swaths of below normal snow pack exist along the Oregon Cascades and the southern half of the region





# Future Conditions



Climate Outlooks

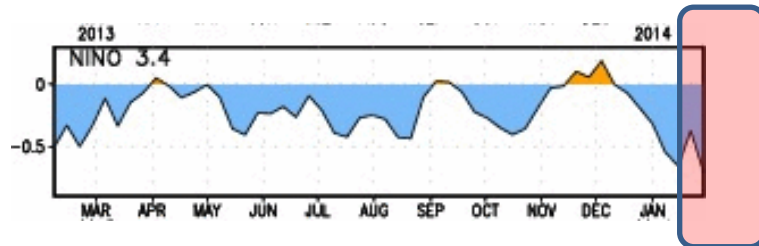
Water Supply Forecasts



# NOAA ENSO: Outlook

## SST Anomaly (Deg C)

Latest observed: SST -0.7 Deg C



El Nino : SST  $\geq +.5C$

Neutral : SST  $-0.5C$  to  $+0.5C$

La Nina: SST  $\leq -0.5C$

**CPC Synopsis: *ENSO-neutral* conditions are expected to continue into the Northern Hemisphere Summer 2014.**

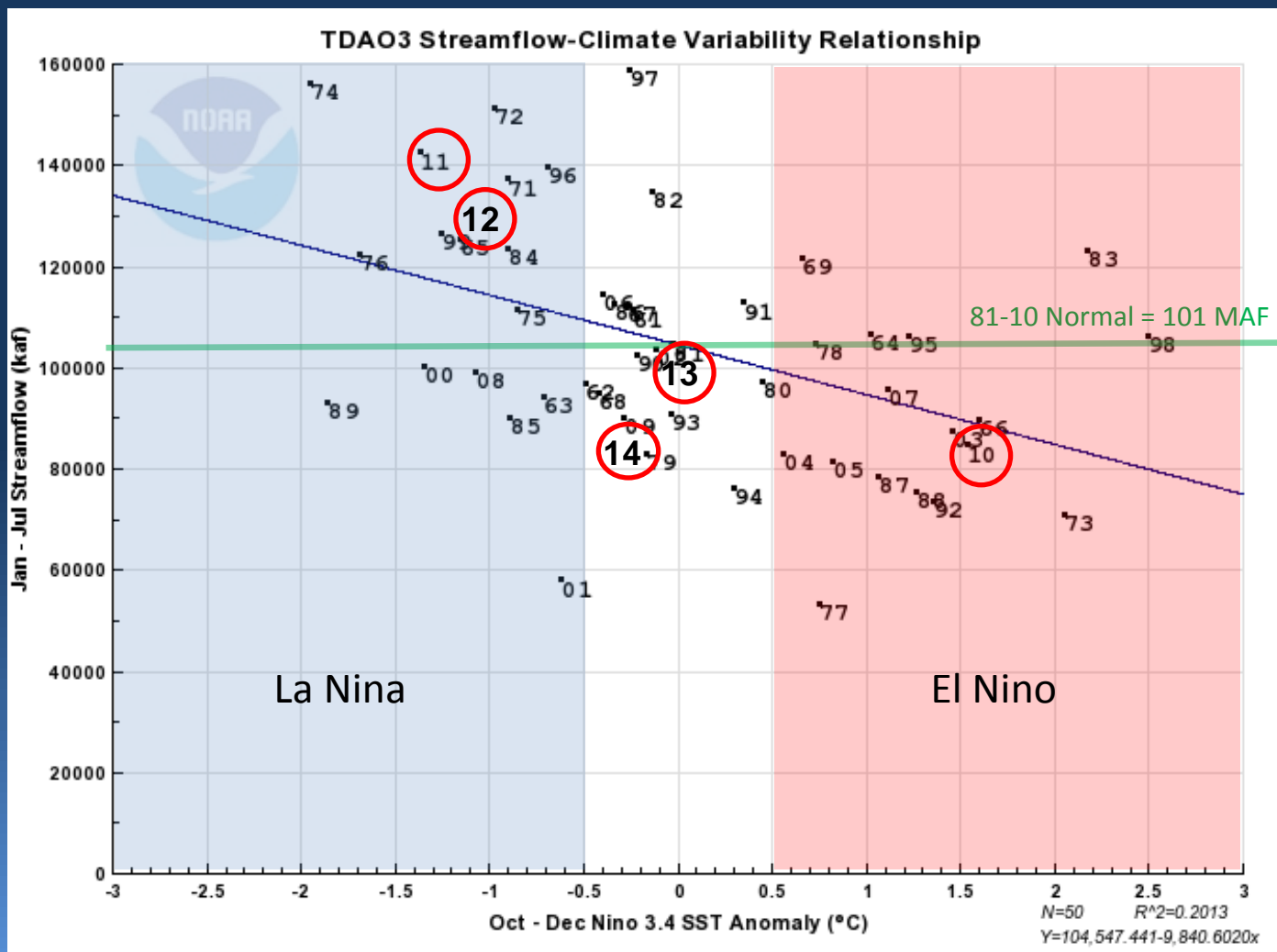
Source: *Climate Prediction Center Weekly ENSO Update*

[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

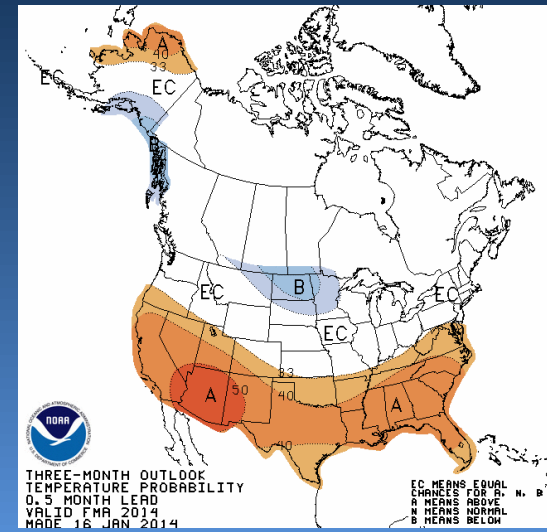
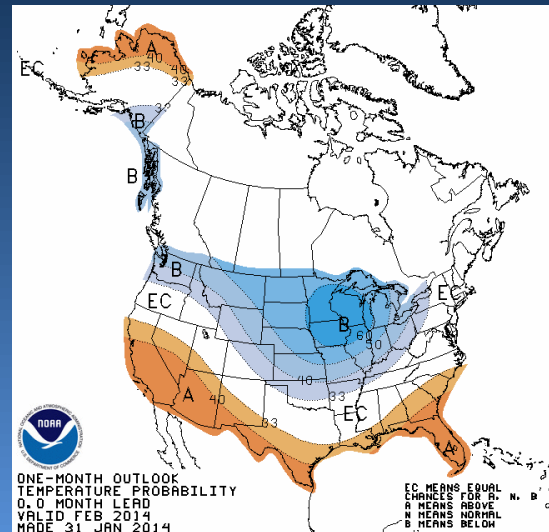
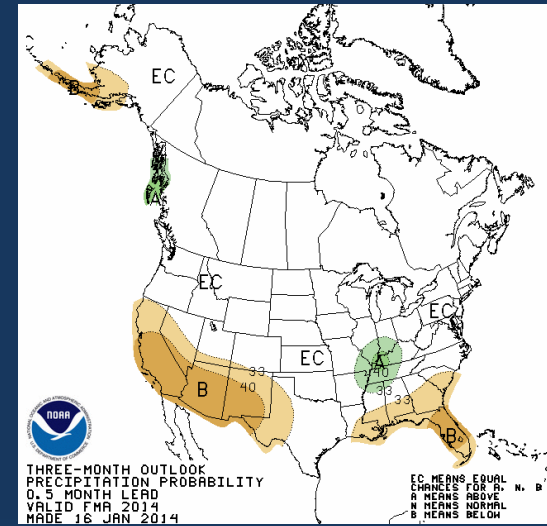
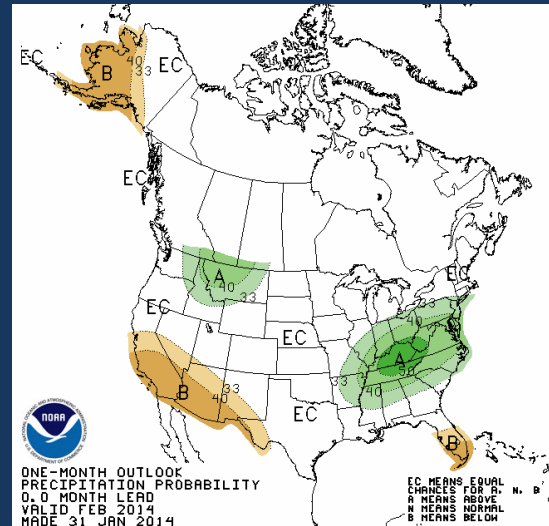




# CPC Climate Outlook

## Current Month Outlook

## Three Month Outlook



Precipitation

Temperature



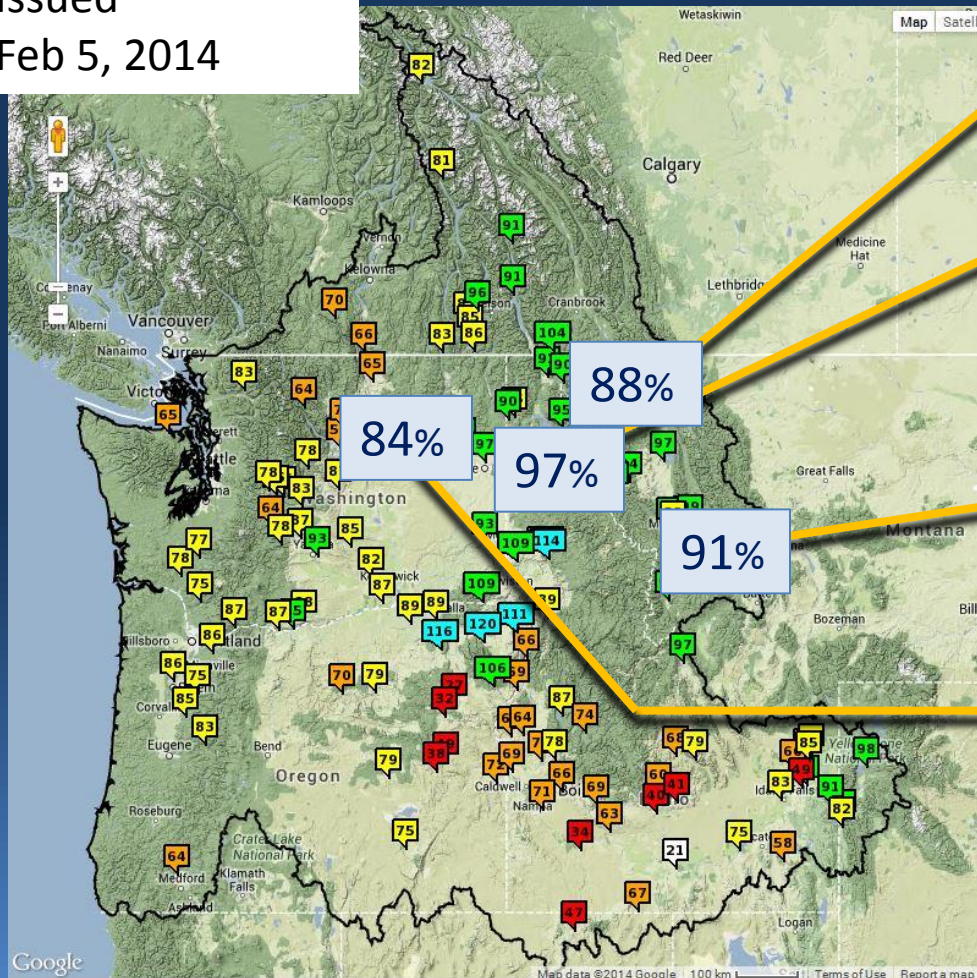


# Water Supply Forecasts

## Apr-Sep

Jan / Feb Change

Issued  
Feb 5, 2014



Kootenai

**-12%**

– Libby Dam

Rank: 38/54

Coeur d'Alene

**-1%**

– Coeur d'Alene Lake

Rank: 25/44

SF Flathead

**-5%**

– Hungry Horse Dam

Rank: 31/44

Columbia

**-11%**

– Grand Coulee Dam

\*\*Jan-Jul

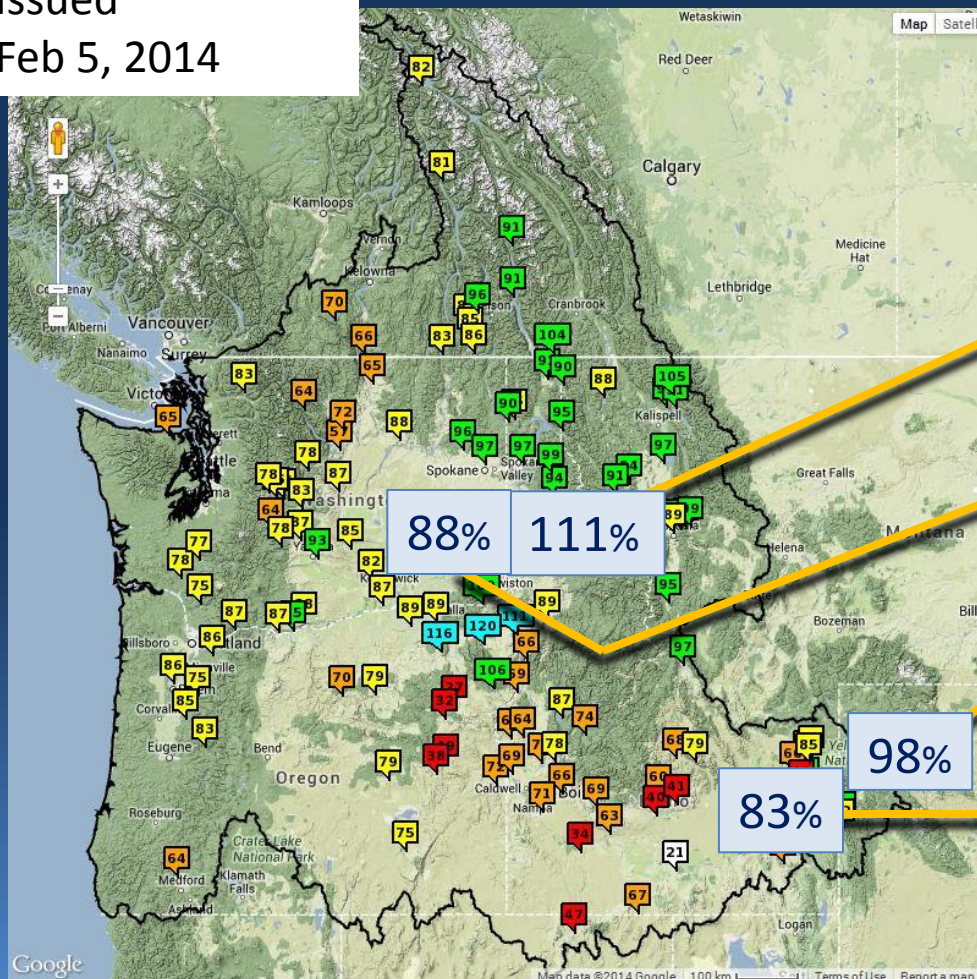
Rank: 43/54



# Water Supply Forecasts

## Apr-Sep

Issued  
Feb 5, 2014



Jan / Feb Change

NF Clearwater **+8**

– Dworshak Dam

Rank: 19/54

Snake

**-2**

– Lower Granite Dam

\*\*Jan-Jul

Rank: 31/54

Snake

**+0**

– Jackson Lake Dam

Rank: 22/44

Snake

**-3**

– near Shelley

Rank: 28/44

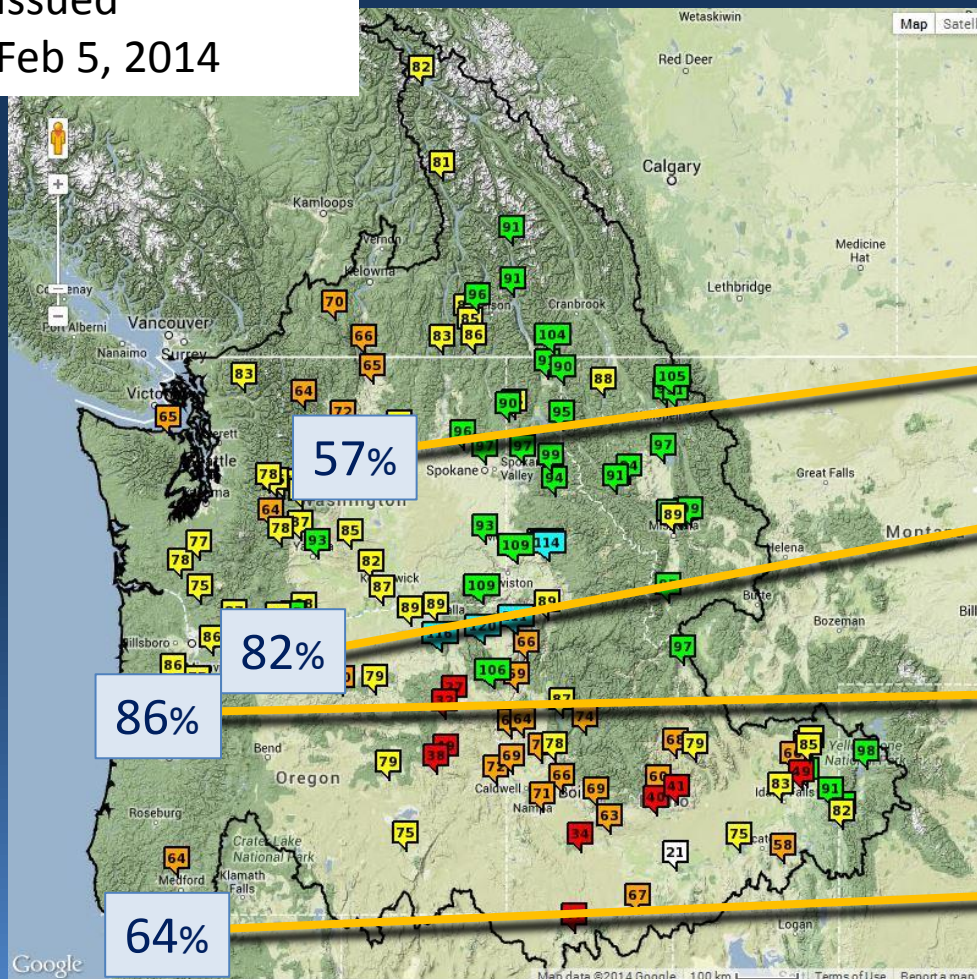




# Water Supply Forecasts

## Apr-Sep

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Jan / Feb Change

Chelan **-17**  
– Lake Chelan Dam  
Rank: 42/44

Columbia **-11**  
– The Dalles Dam  
\*\* Jan-Jul  
Rank: 44/54

Willamette **-3**  
– at Salem  
Rank: 33/44

Rogue **-9**  
– at Raygold  
Rank: 40/44



# NWRFC Water Supply Webpage

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



2014 Schedule for <i>Live</i> Water Supply Briefings					
Jan	Feb	Mar	Apr	May	Jun
<b>9</b>	<b>6</b>	<b>6</b>	<b>10</b>	<b>8</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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# Questions ?



## COLUMBIA - THE DALLES DAM (TDA03) Forecasts for Water Year 2014

### Official Forecast

10 days QPF: Ensemble: 2014-02-04 Issued: 2014-02-05

Forecast Period	Forecasts Are in KAF				30 Year Average (1981-2010)
	90 %	50 %	% Average	10 %	
APR-SEP	70594	80603	87	91331	92704
APR-JUL	59558	67393	84	78664	79855
APR-AUG	65939	75579	86	86142	87532
JAN-JUL	73777	83470	82	96554	101368

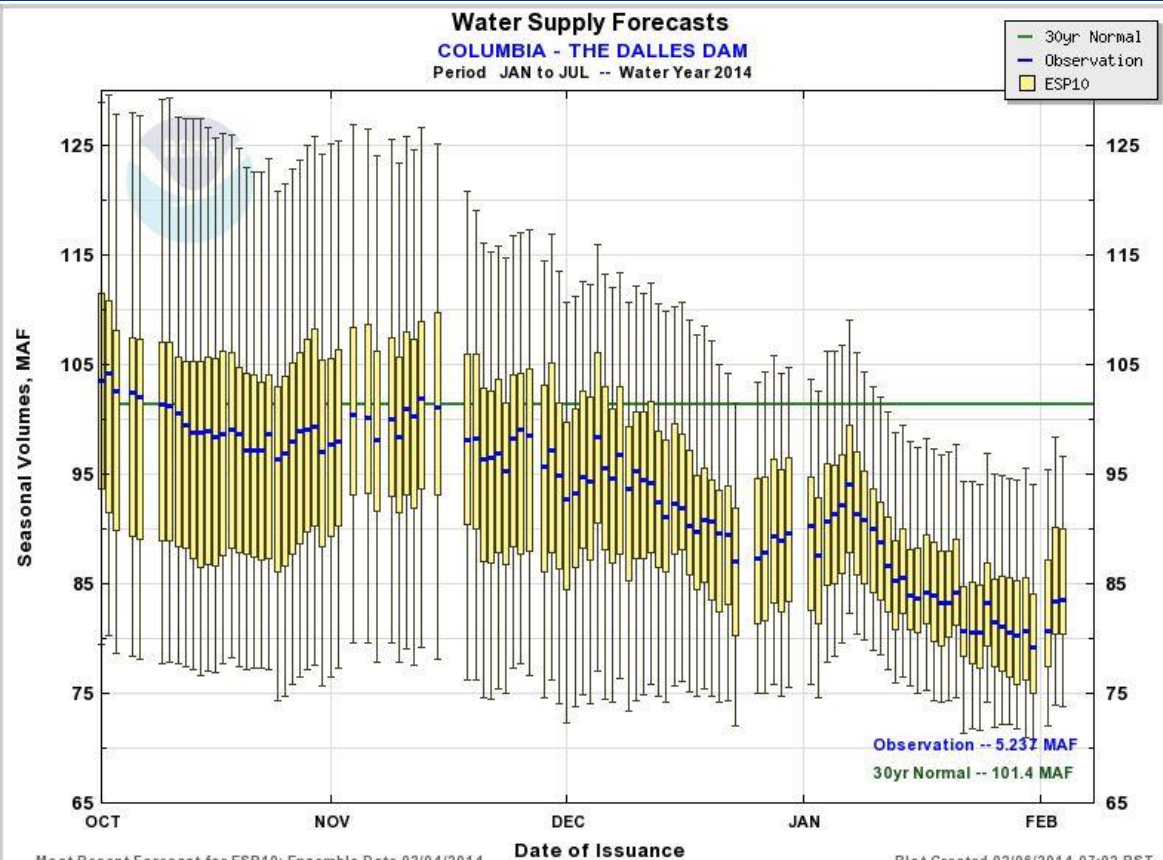
5 days QPF: Ensemble: 2014-02-04 Issued: 2014-02-05

APR-SEP	67533	77175	83	87927	92704
APR-JUL	55709	65183	82	75846	79855
APR-AUG	62306	71853	82	83260	87532
JAN-JUL	70906	80630	80	95604	101368

0 days QPF: Ensemble: 2014-02-04 Issued: 2014-02-05

APR-SEP	68214	79078	85	88832	92704
APR-JUL	56502	66292	83	76357	79855
APR-AUG	62682	74205	85	84067	87532
JAN-JUL	73509	82495	81	95948	101368

Move the mouse over the desired "Forecast Period" to display a graph.



90% -> 9 in 10 chance of volume being exceeded (quite likely)  
10% -> 1 in 10 chance of volume being exceeded (a possibility)  
50% -> 5 in 10 chance of volume being exceeded (most expected)