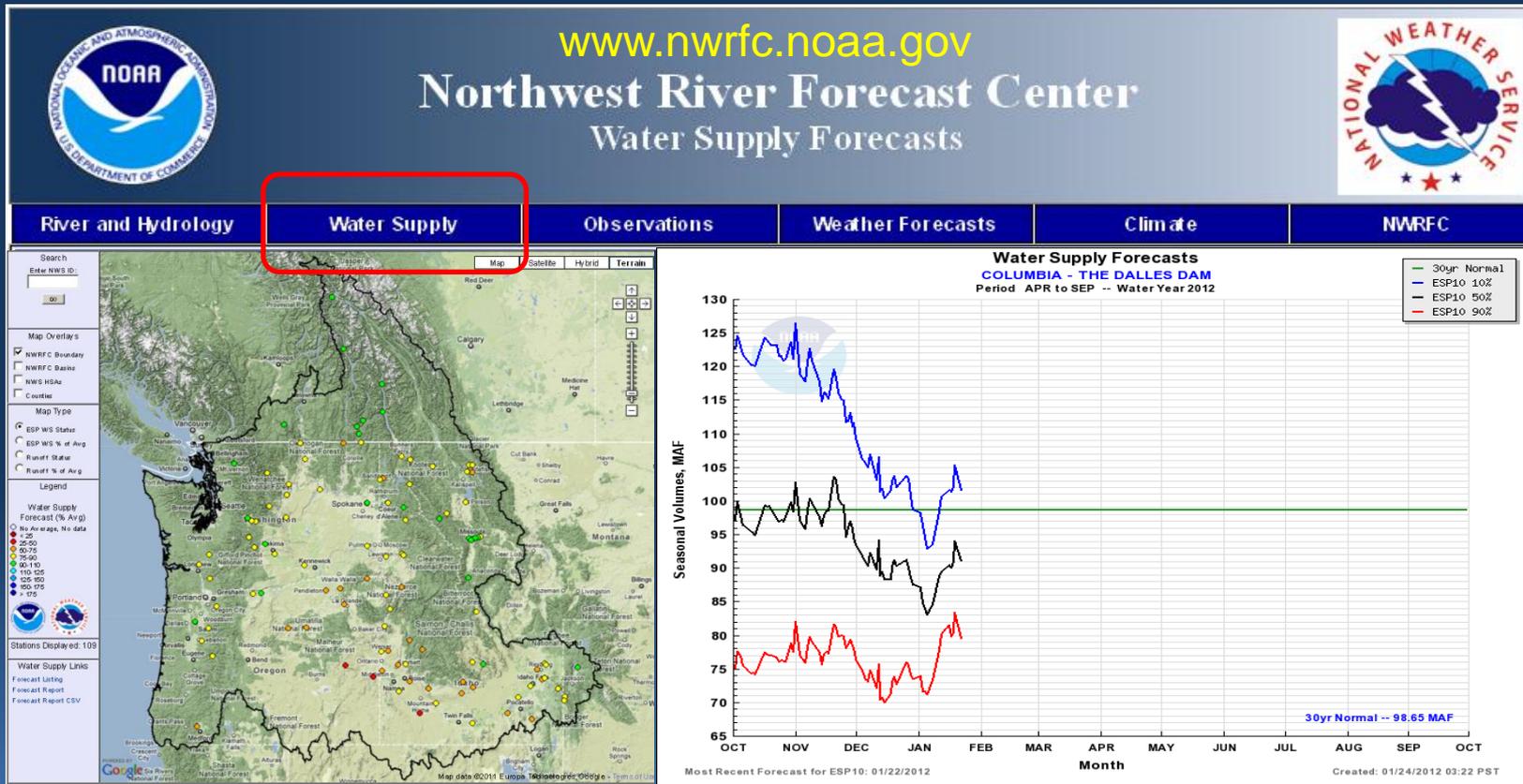


NWRFC January 2012 TMT Briefing



Steve King, NWRFC
Stephen.King@noaa.gov
(503)326-7291



Observed Conditions



Precipitation

Snowpack

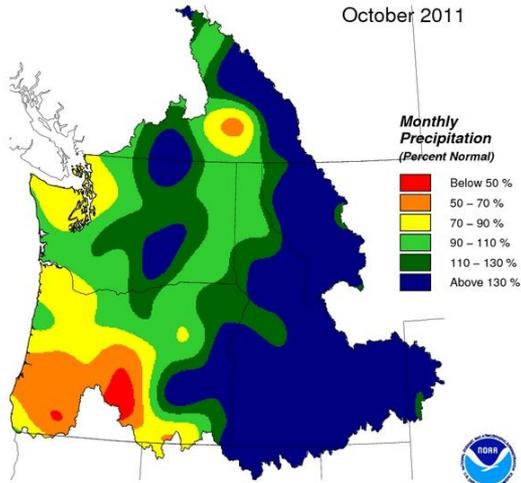
Runoff



Observed Monthly Precipitation



Monthly Precipitation
October 2011



Monthly
Precipitation
(Percent Normal)

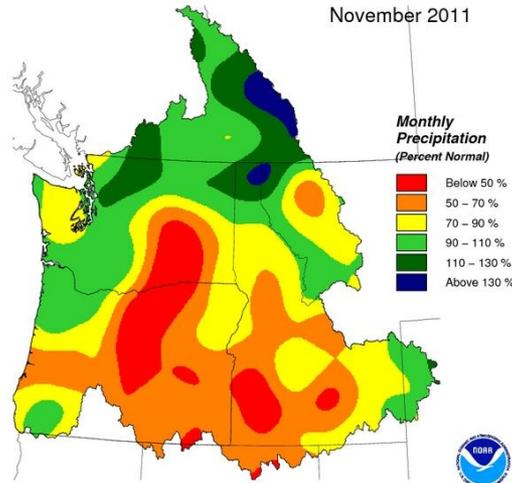
- Below 50 %
- 50 - 70 %
- 70 - 90 %
- 90 - 110 %
- 110 - 130 %
- Above 130 %



Creation Time: Mon, Nov 7, 2011

Northwest River Forecast Center

Monthly Precipitation
November 2011



Monthly
Precipitation
(Percent Normal)

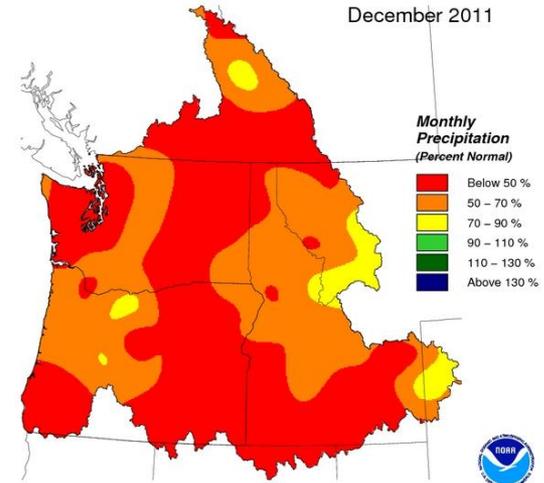
- Below 50 %
- 50 - 70 %
- 70 - 90 %
- 90 - 110 %
- 110 - 130 %
- Above 130 %



Creation Time: Wed, Dec 7, 2011

Northwest River Forecast Center

Monthly Precipitation
December 2011



Monthly
Precipitation
(Percent Normal)

- Below 50 %
- 50 - 70 %
- 70 - 90 %
- 90 - 110 %
- 110 - 130 %
- Above 130 %



Creation Time: Tue, Jan 10, 2012

Northwest River Forecast Center

Observed Jan 1 -23 precipitation

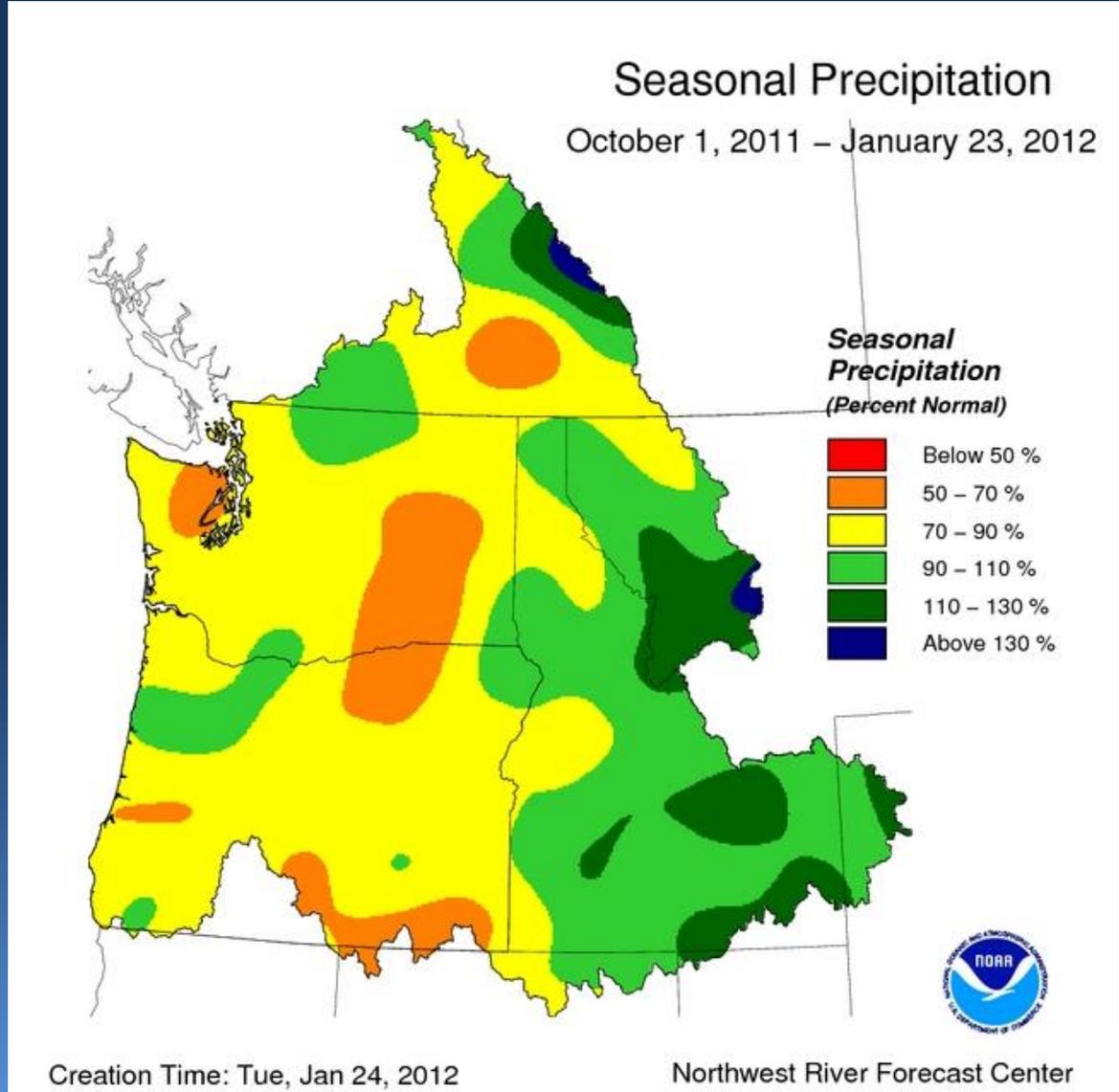
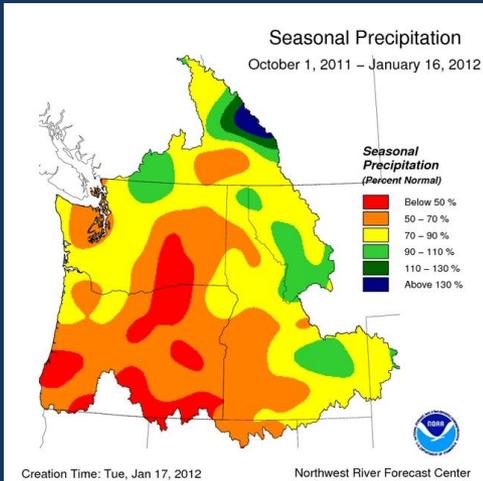
above Grand Coulee = 111%

above Ice Harbor = 147%

above The Dalles = 119%



Observed Seasonal Precipitation



Observed Oct 1-January 23th Precipitation

above Grand Coulee = 95%
above Ice Harbor = 98%
above The Dalles = 94%

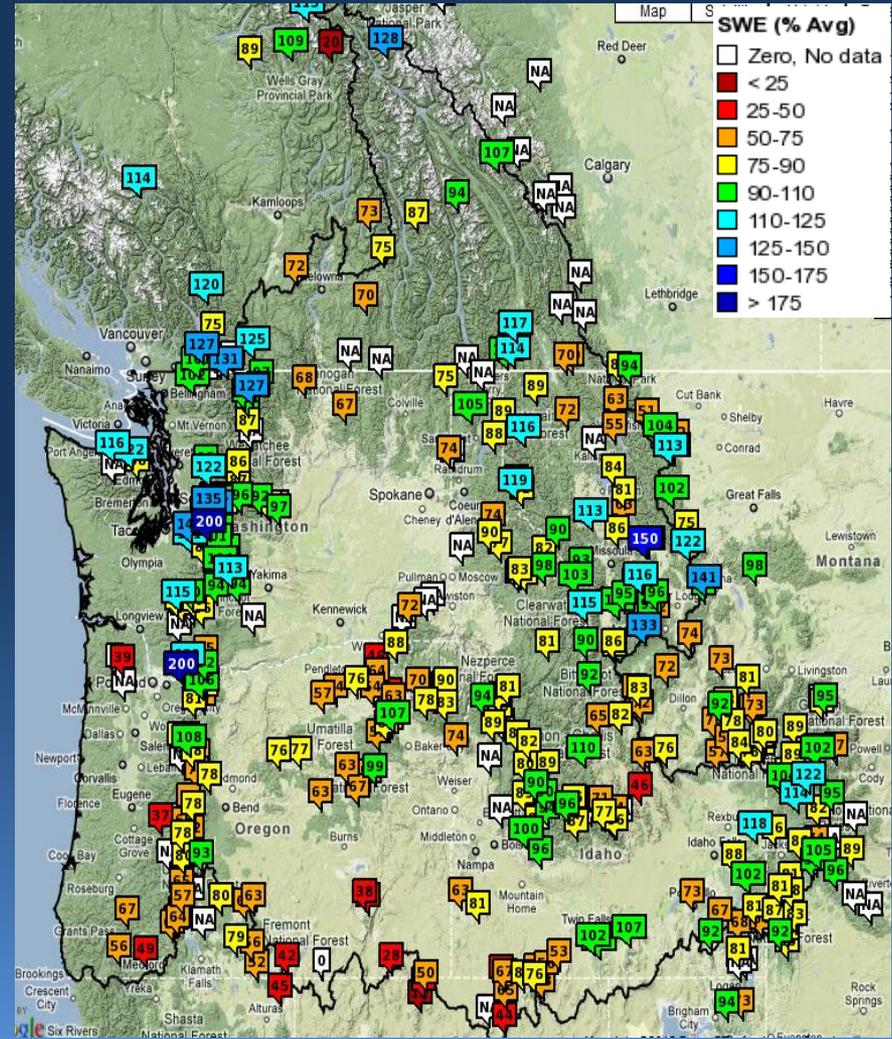
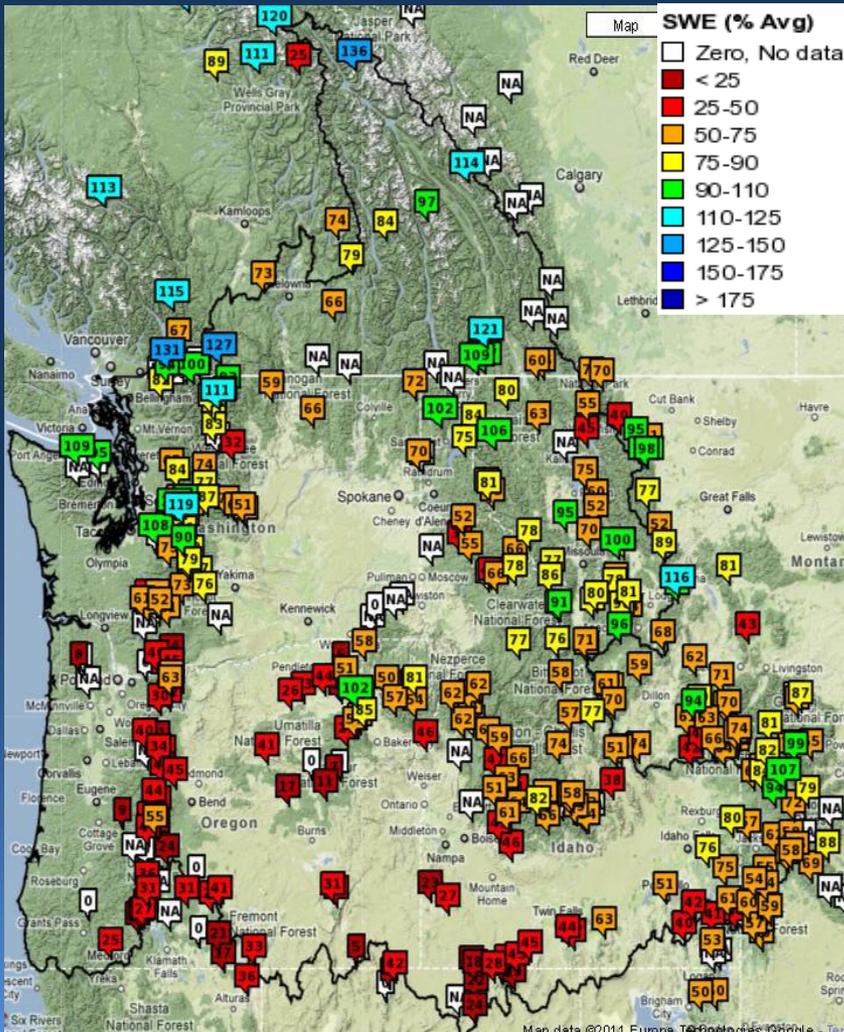


Current Snow Conditions



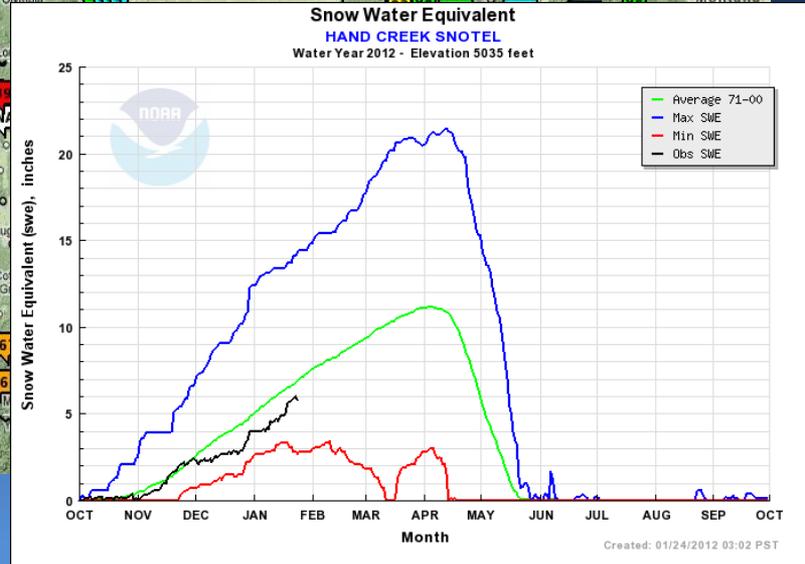
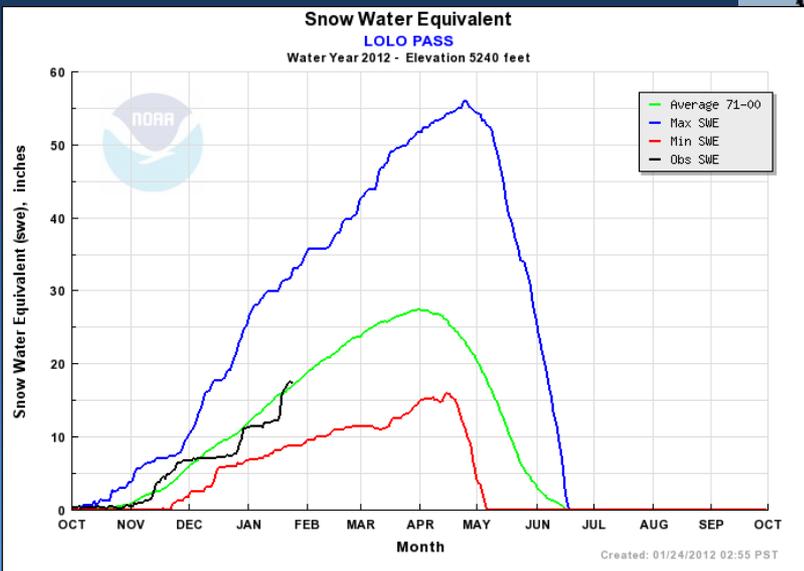
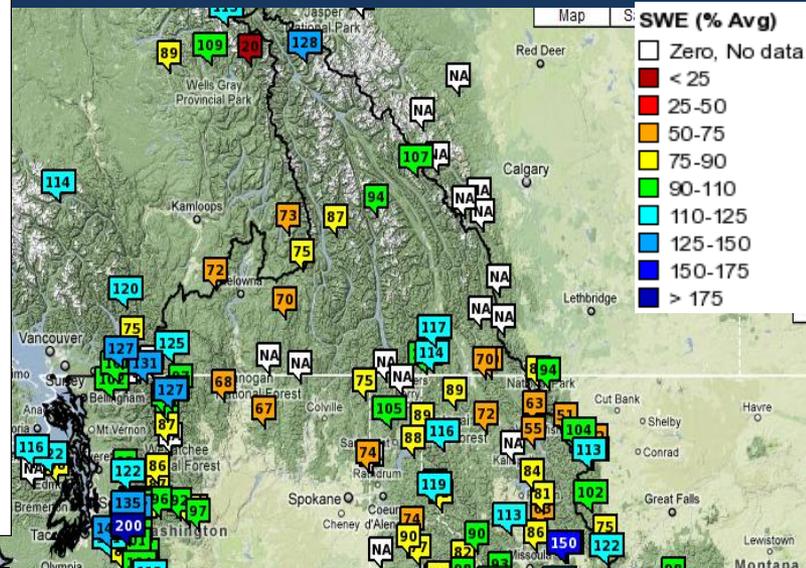
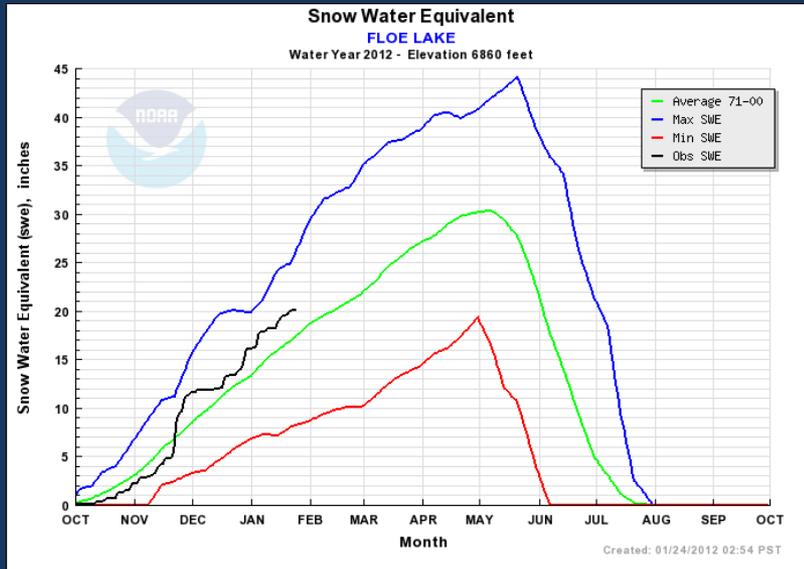
Jan 7, 2012

Jan 24, 2012



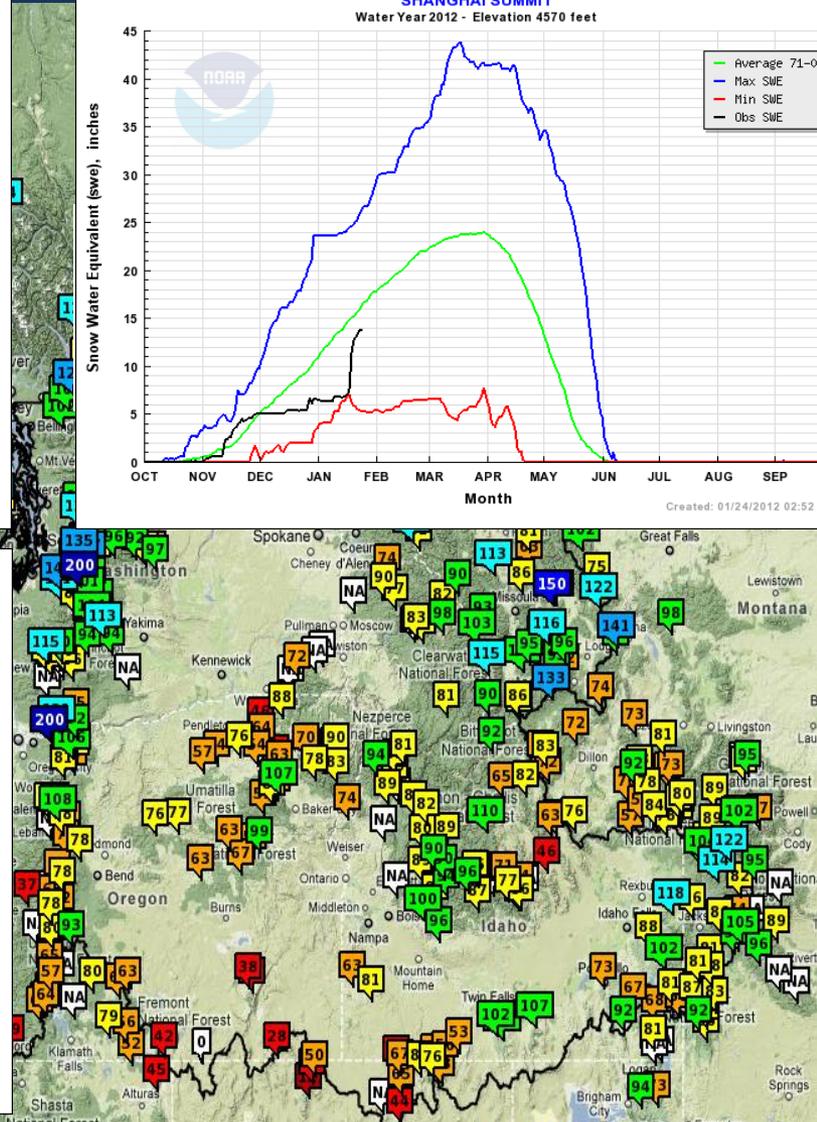
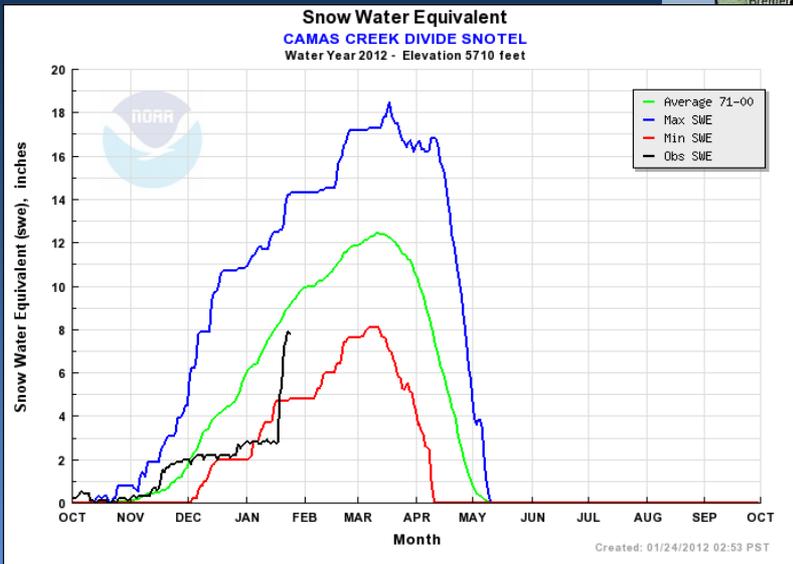
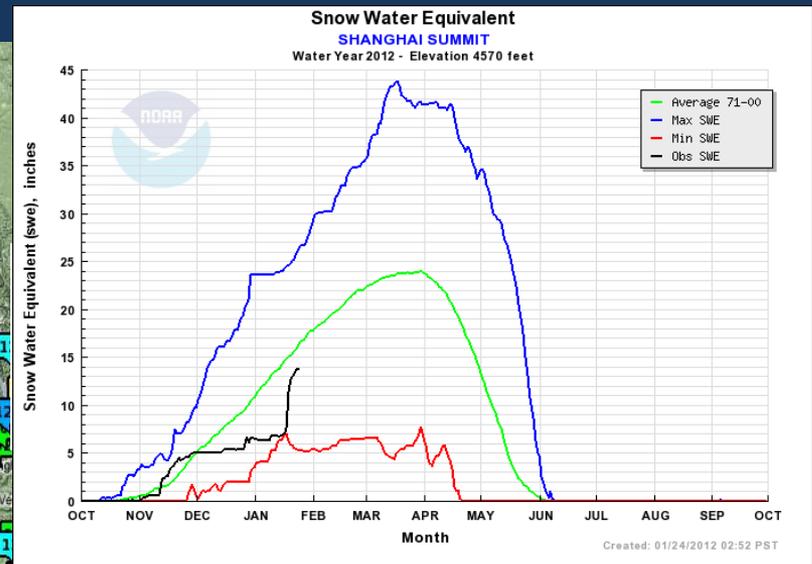
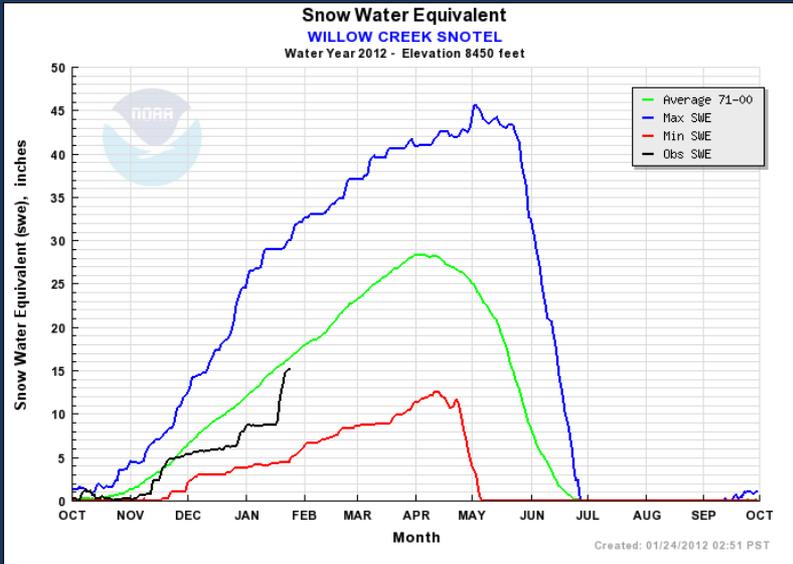


Upper Columbia Snow Conditions



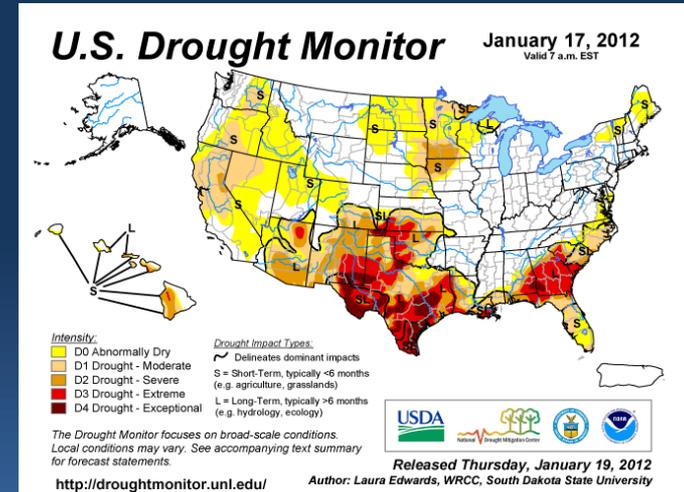
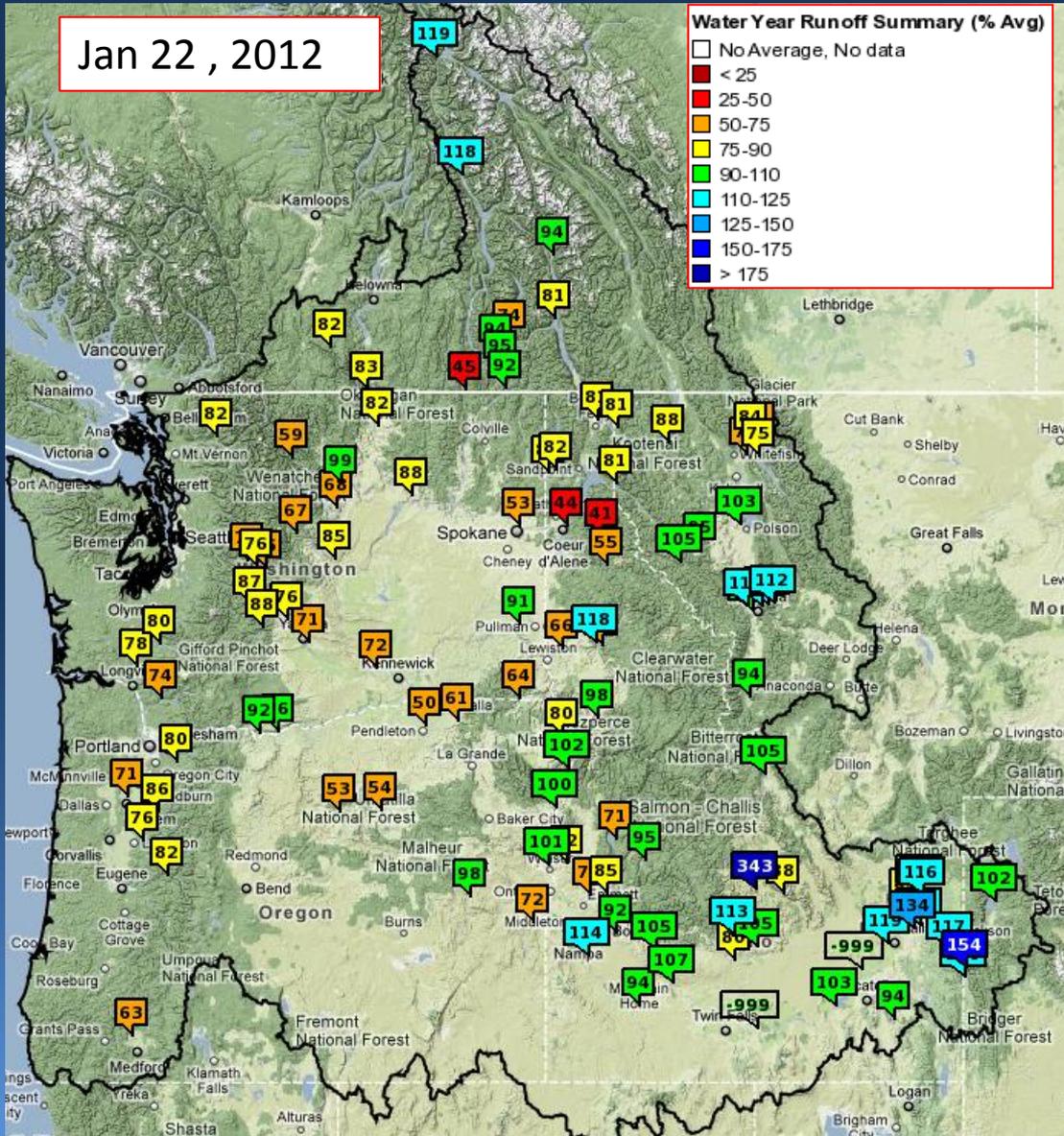


Snake River Snow Conditions





Current Runoff Conditions





Future Conditions



Climate Outlooks

10 Day Precipitation Forecast

Water Supply Forecasts

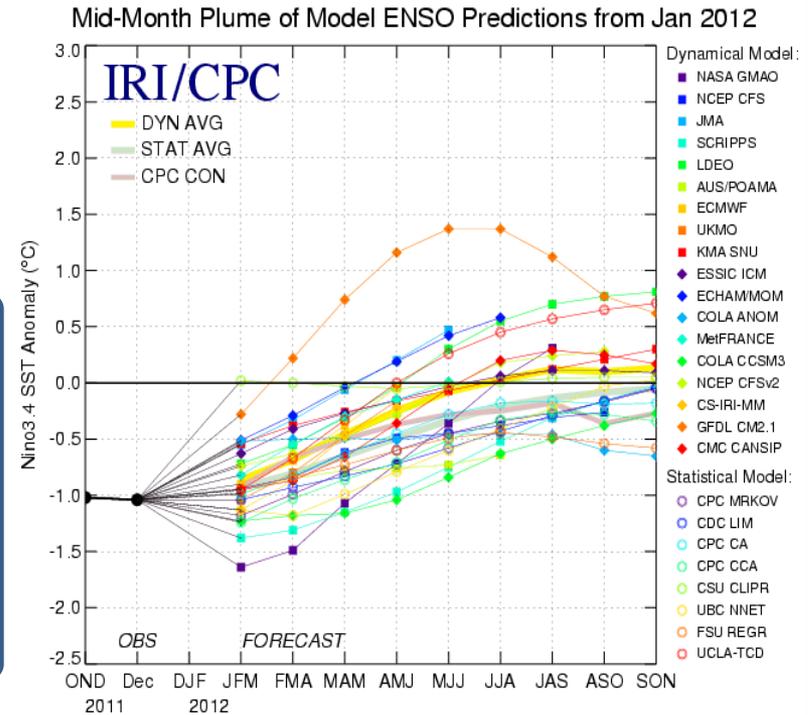
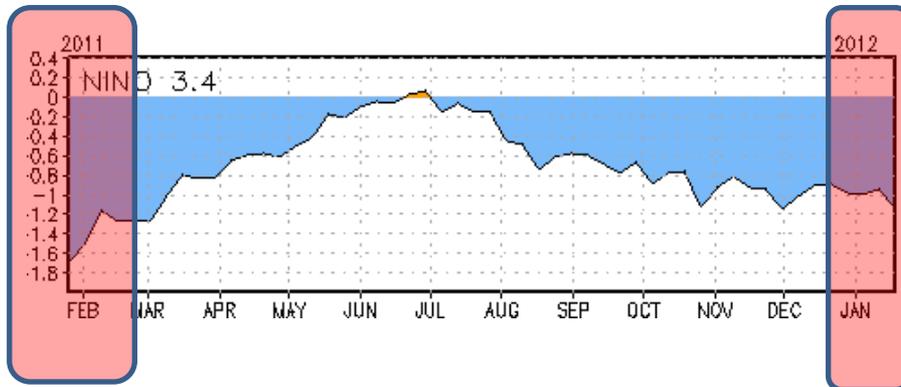


Enso: Observed and Forecast

SST Anomaly (Deg C)



Latest observed: SST 3.4 ~ -1.1 Deg C



CPC Synopsis: moderate La Niña is present and continues into spring 2012

Source: Climate Prediction Center Weekly ENSO Update

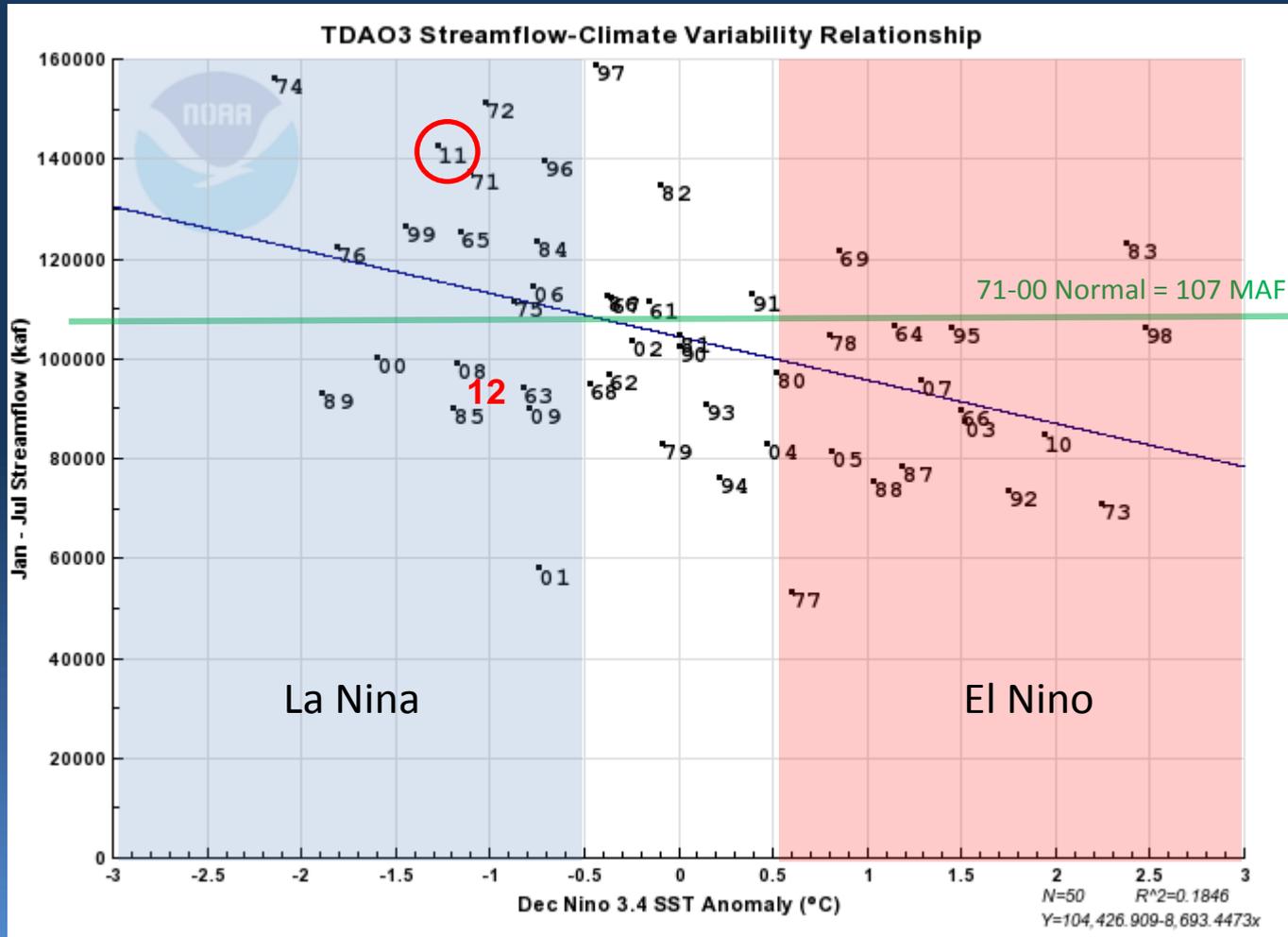
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-status-fcsts-web.pdf

UPDATE



SST Anomaly vs Streamflow

Columbia River near The Dalles

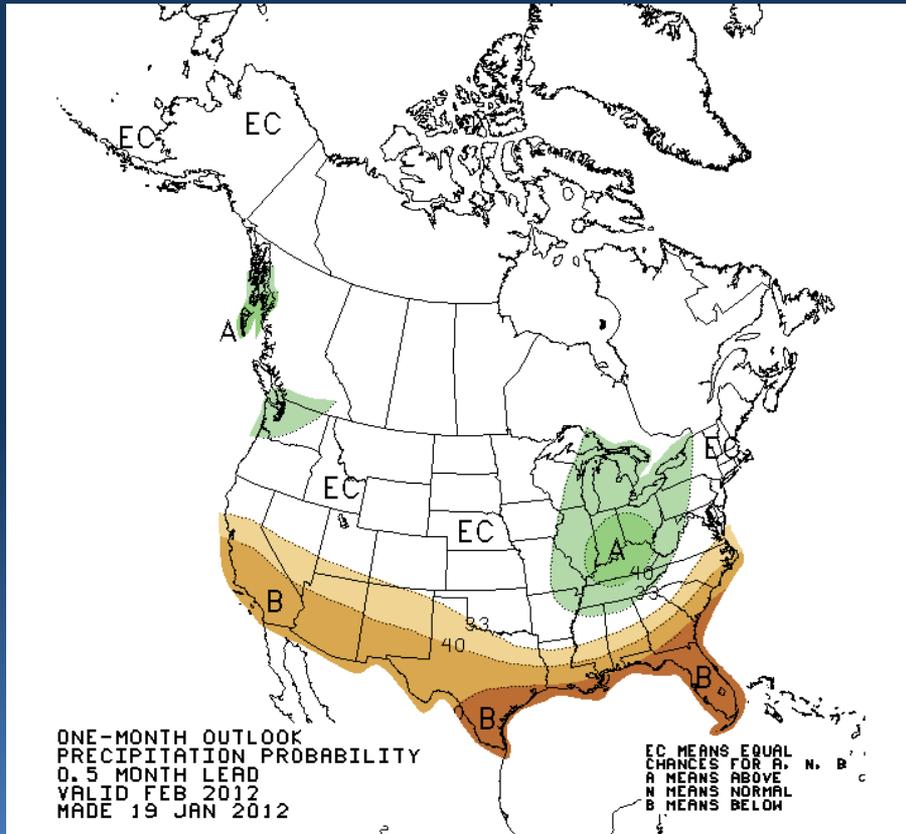




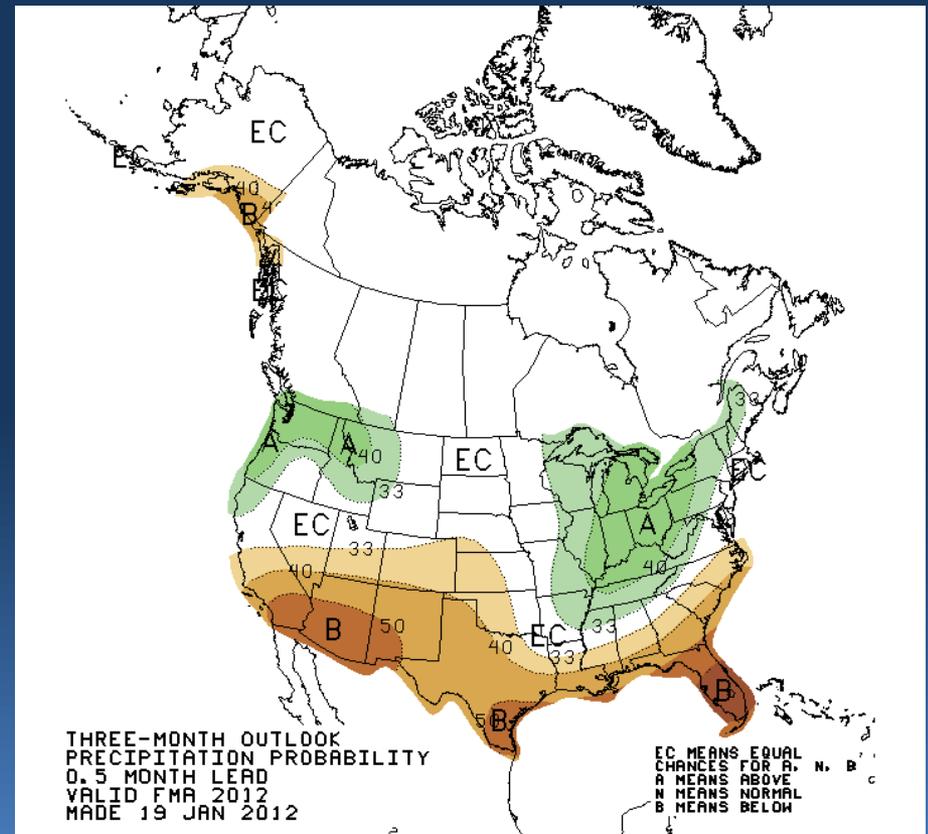
Climate Outlook: Precipitation



Current Month Outlook



Three Month Outlook

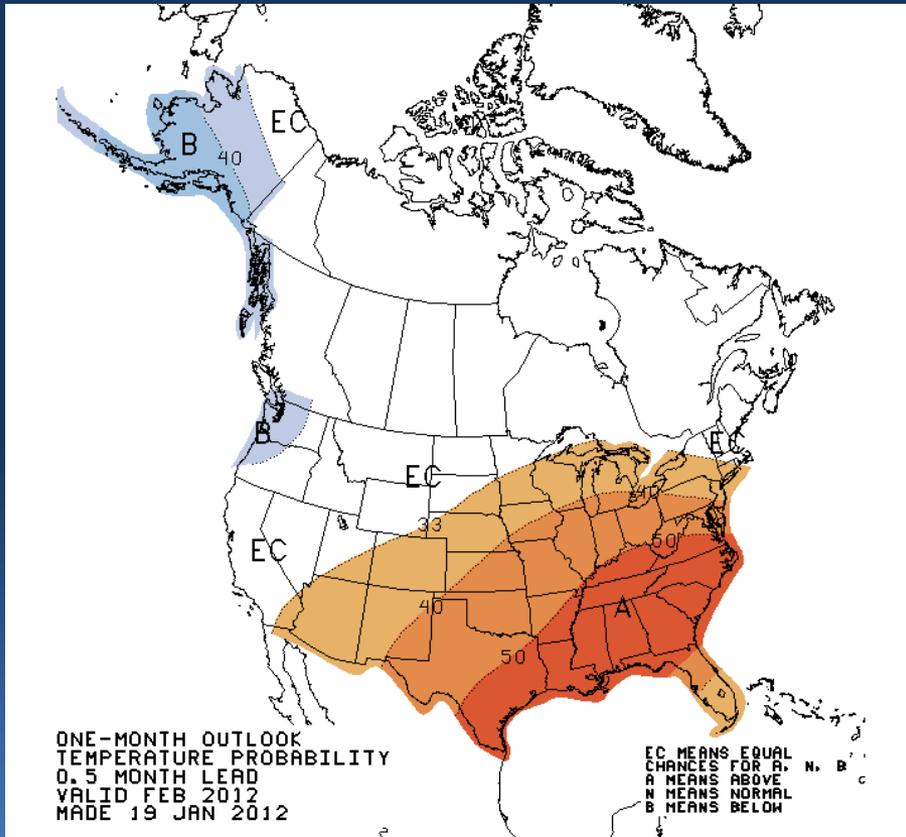




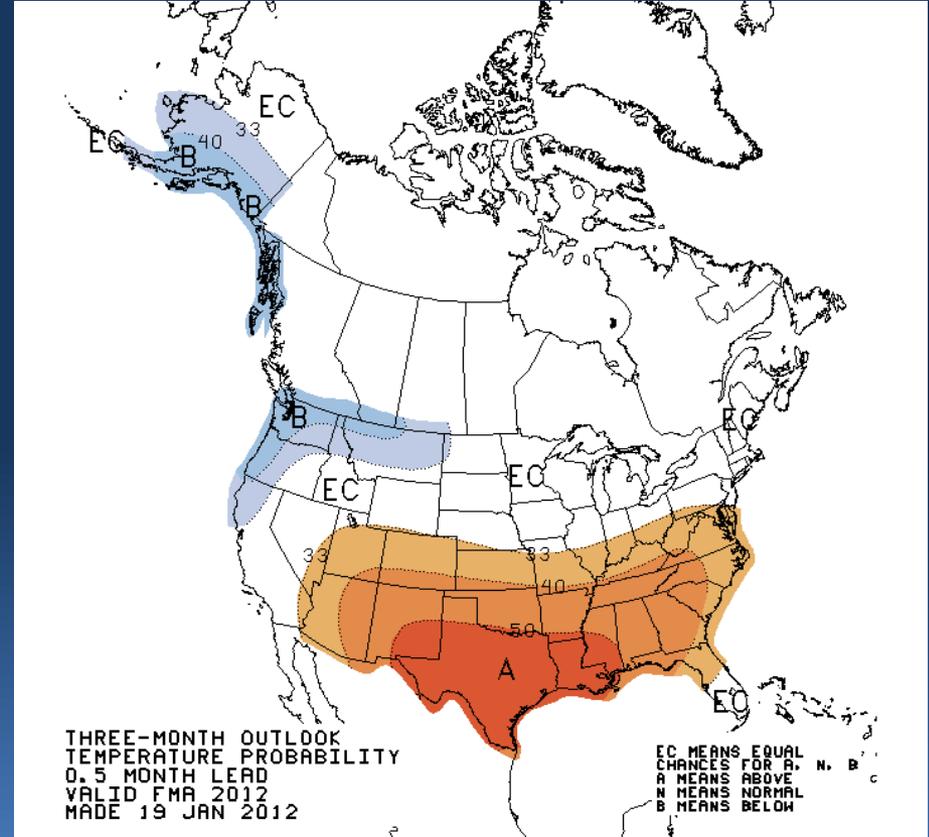
Climate Outlook: Temperature



Current Month Outlook



Three Month Outlook

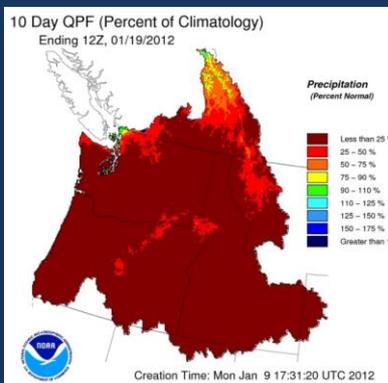




ESP 10 Day Precipitation Forecast

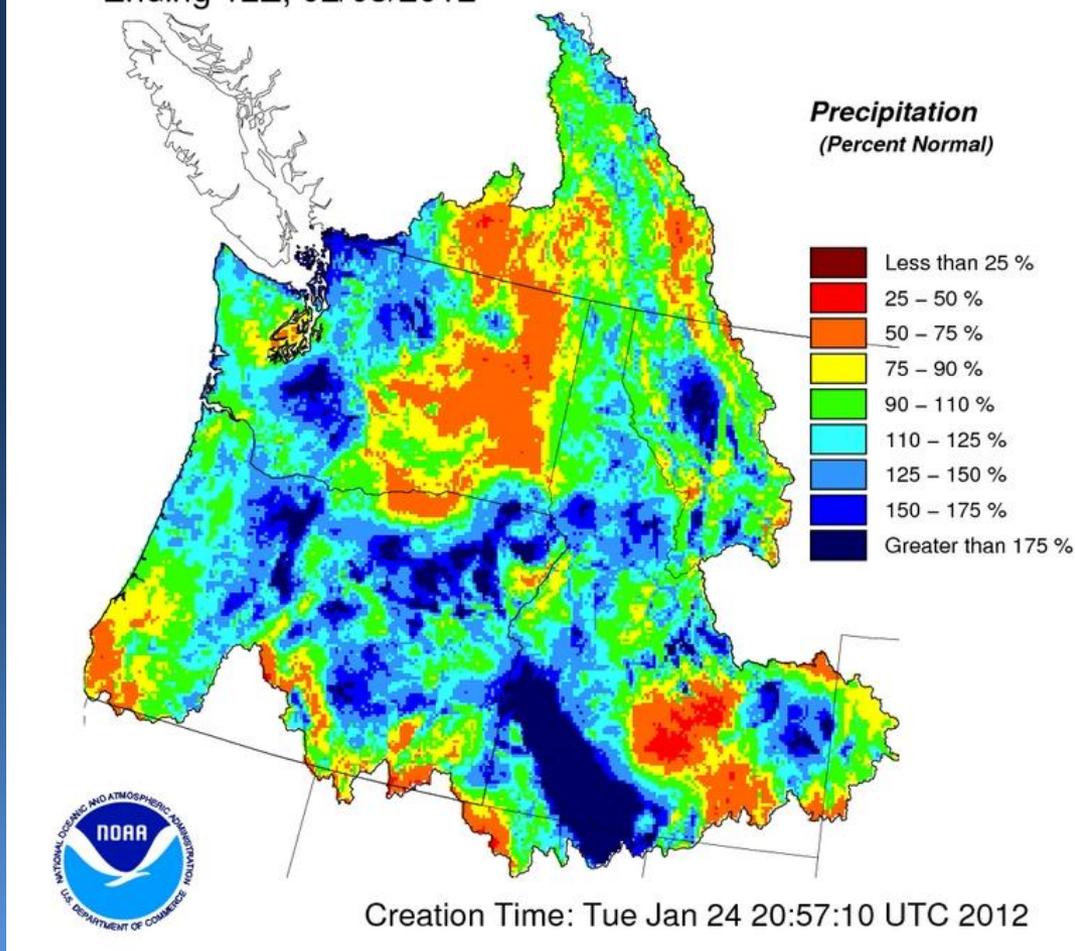


Previous Forecast Issued Jan 9th

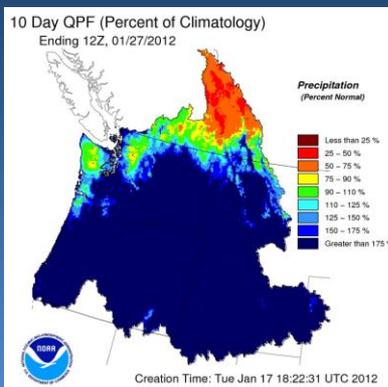


Forecast used in Jan 24 ESP Run

10 Day QPF (Percent of Climatology) Ending 12Z, 02/03/2012



Previous Forecast Issued Jan 17





Update NWRFC Water Supply Product

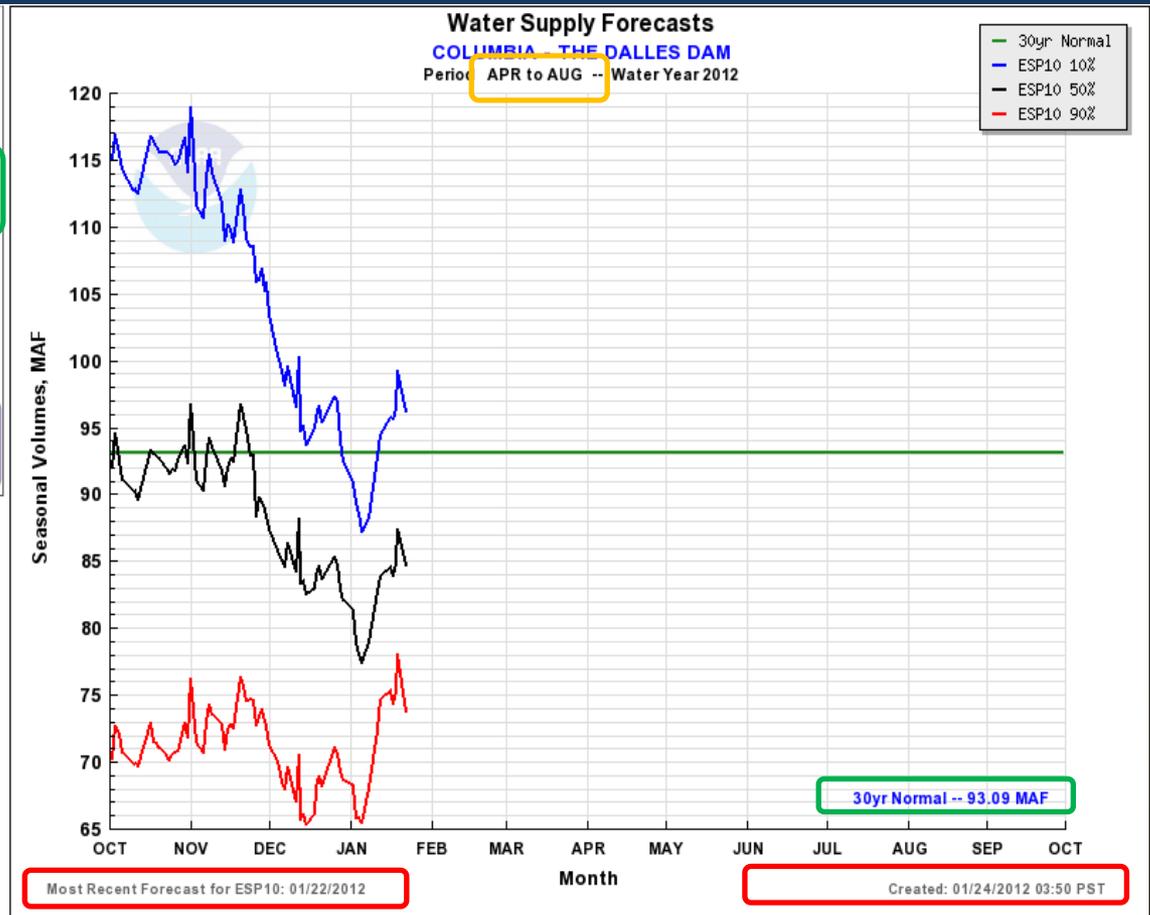


(TDAO3) COLUMBIA - THE DALLES DAM Forecasts for Water Year 2012					
Ensemble Date: 2012-01-22 Issue Date: 2012-01-23					
Official Forecast with 10 days of QPF					
Forecast Period	Forecasts Are in KAF				30 Year Average
	90 %	50 %	% Average	10 %	
APR-SEP	79588	91139	92	101652	98650
APR-JUL	66386	75754	89	86635	84650
APR-AUG	73797	84682	91	96220	93090
JAN-JUL	83533	93219	87	107430	107300
with 3 days of QPF Forecast Not Available					
with 0 days of QPF Forecast Not Available					

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

Variety of addition formats:

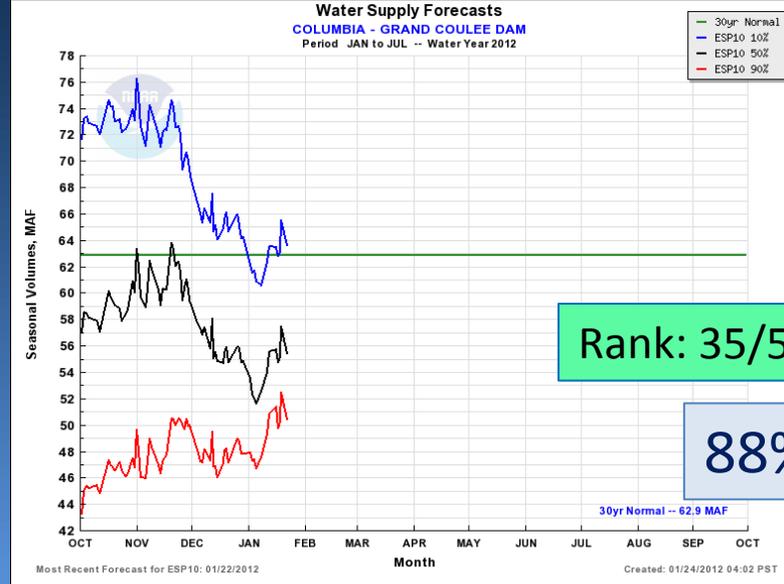
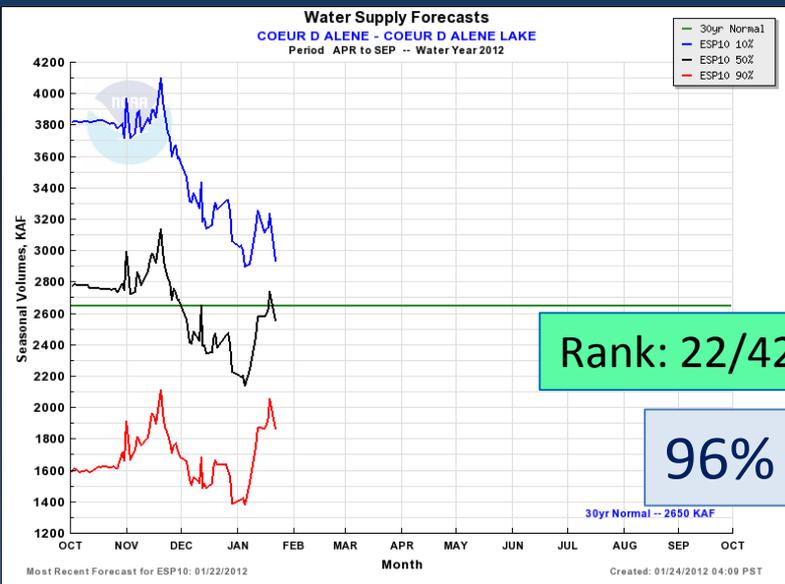
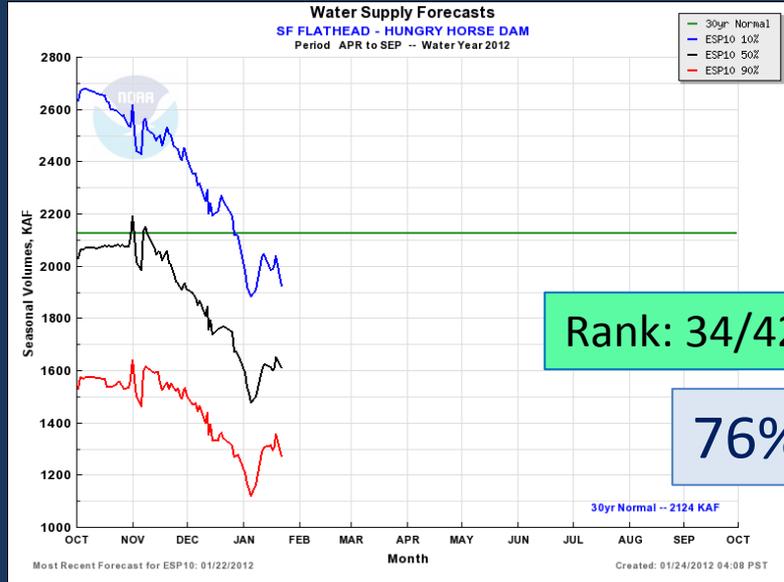
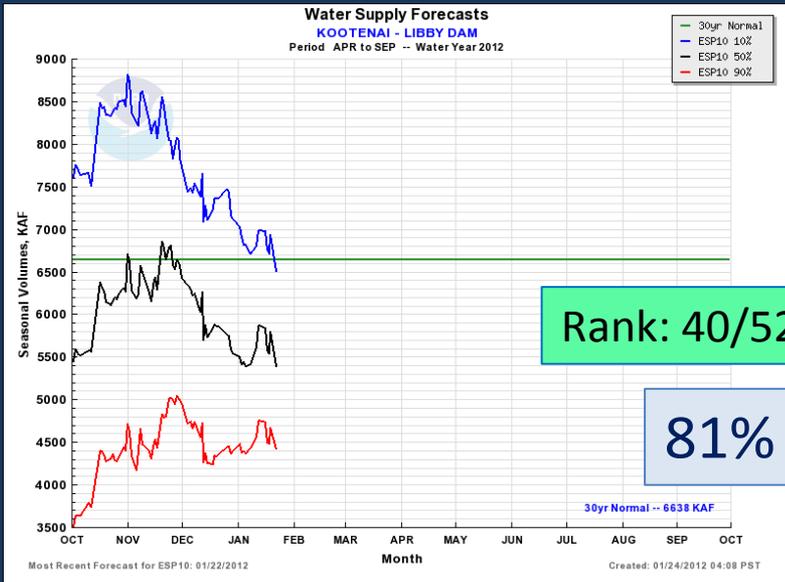
- Text
- CSV
- Report
- Listing
- Map



- 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)

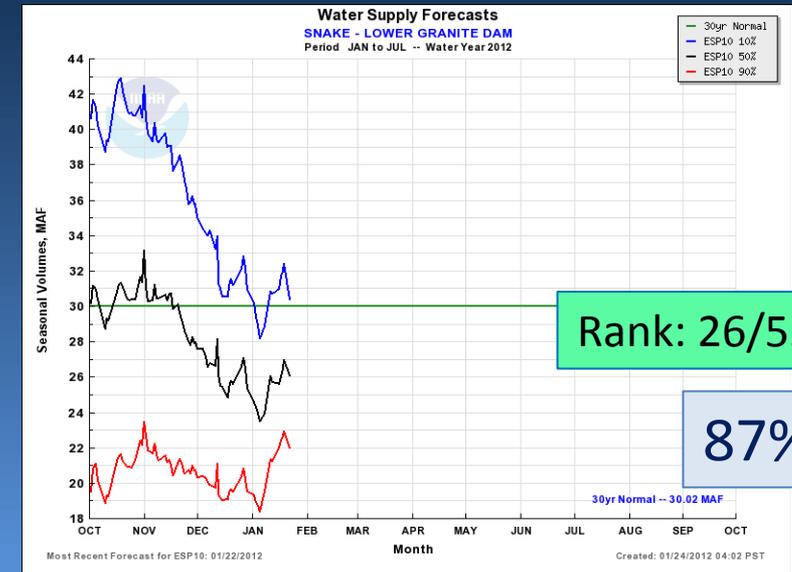
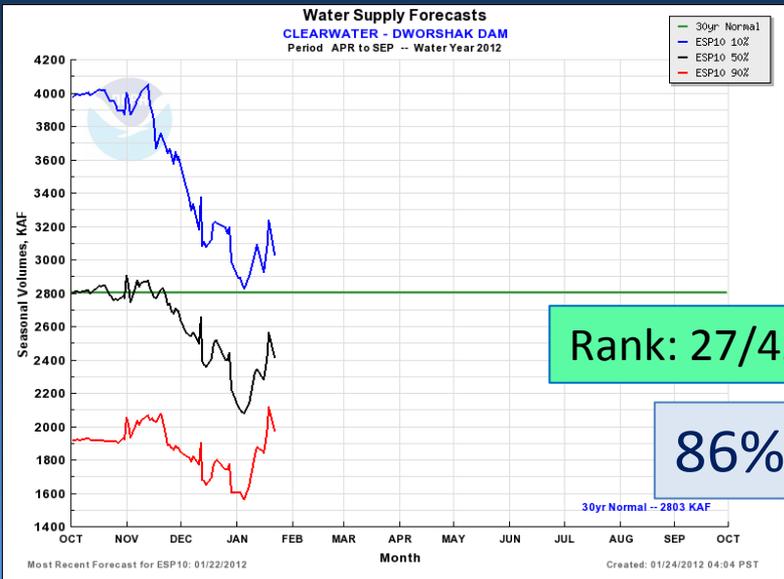
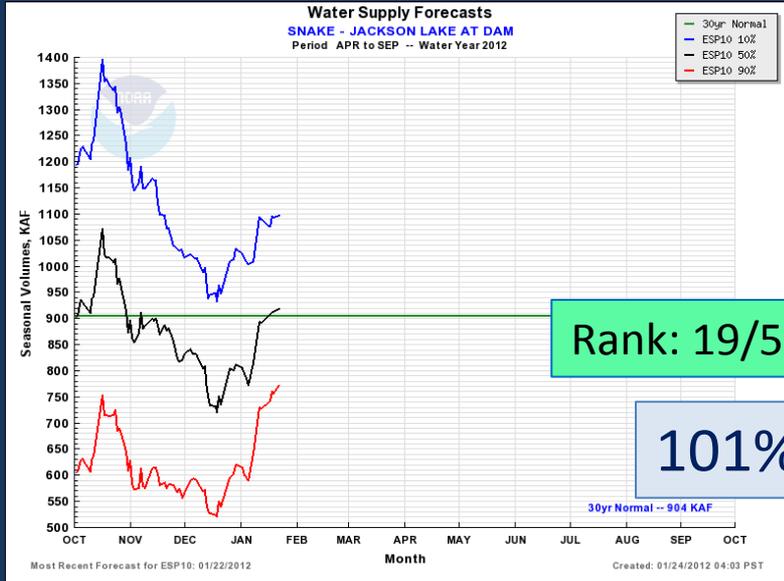


Water Supply Forecast: Upper Columbia



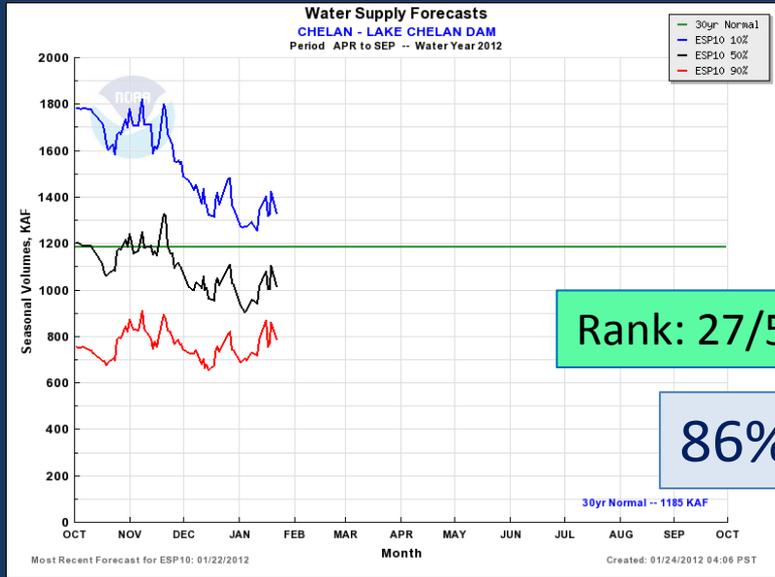


Water Supply Forecast: Snake



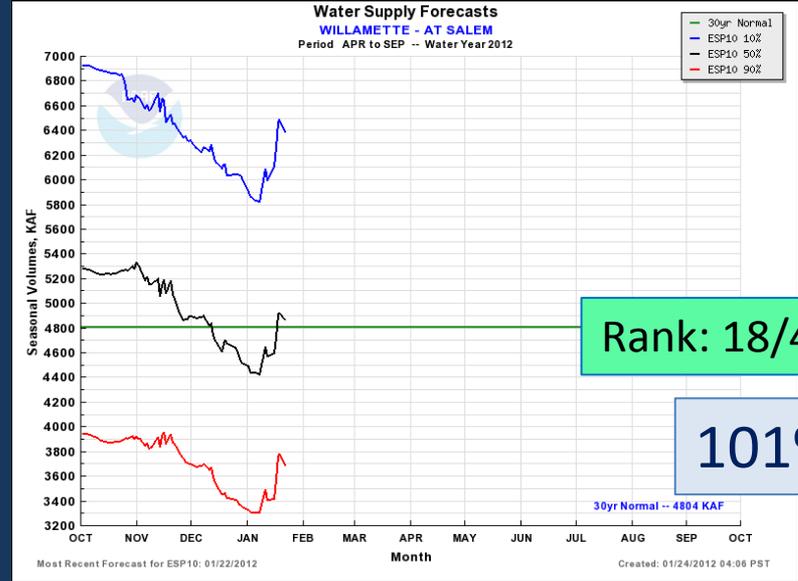


Water Supply Forecast: Lower Columbia



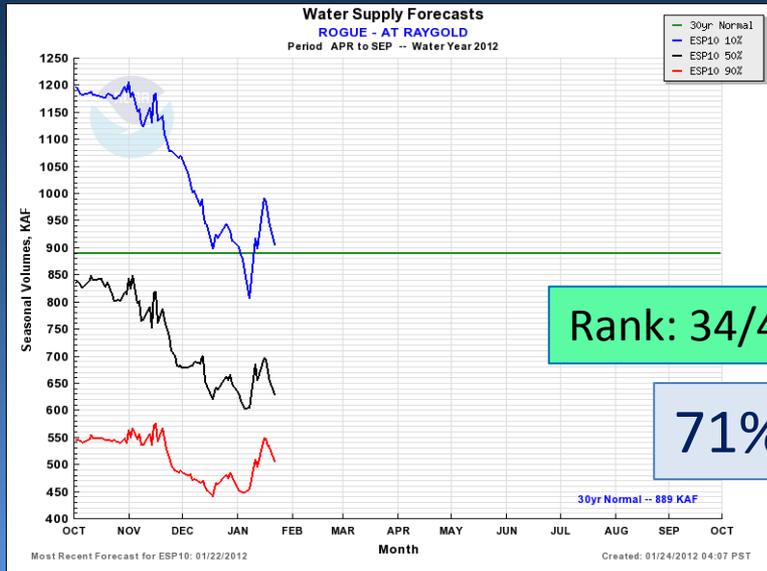
Rank: 27/52

86%



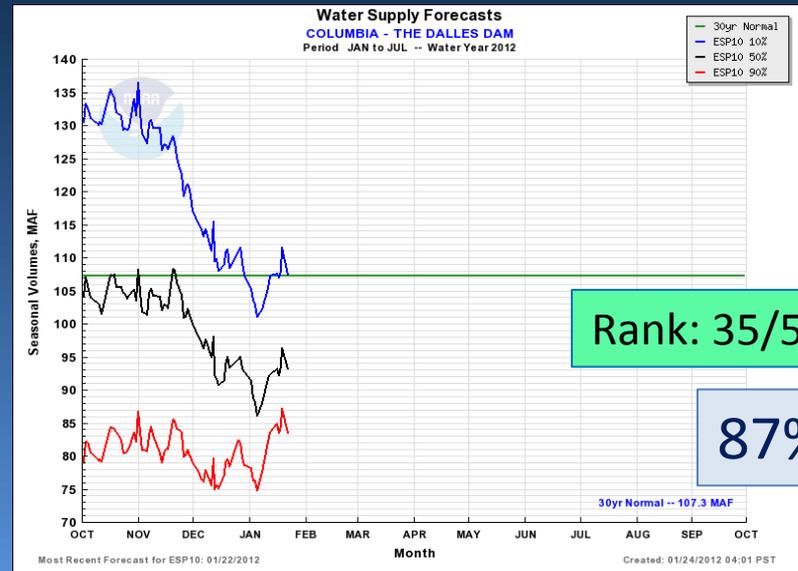
Rank: 18/42

101%



Rank: 34/42

71%



Rank: 35/52

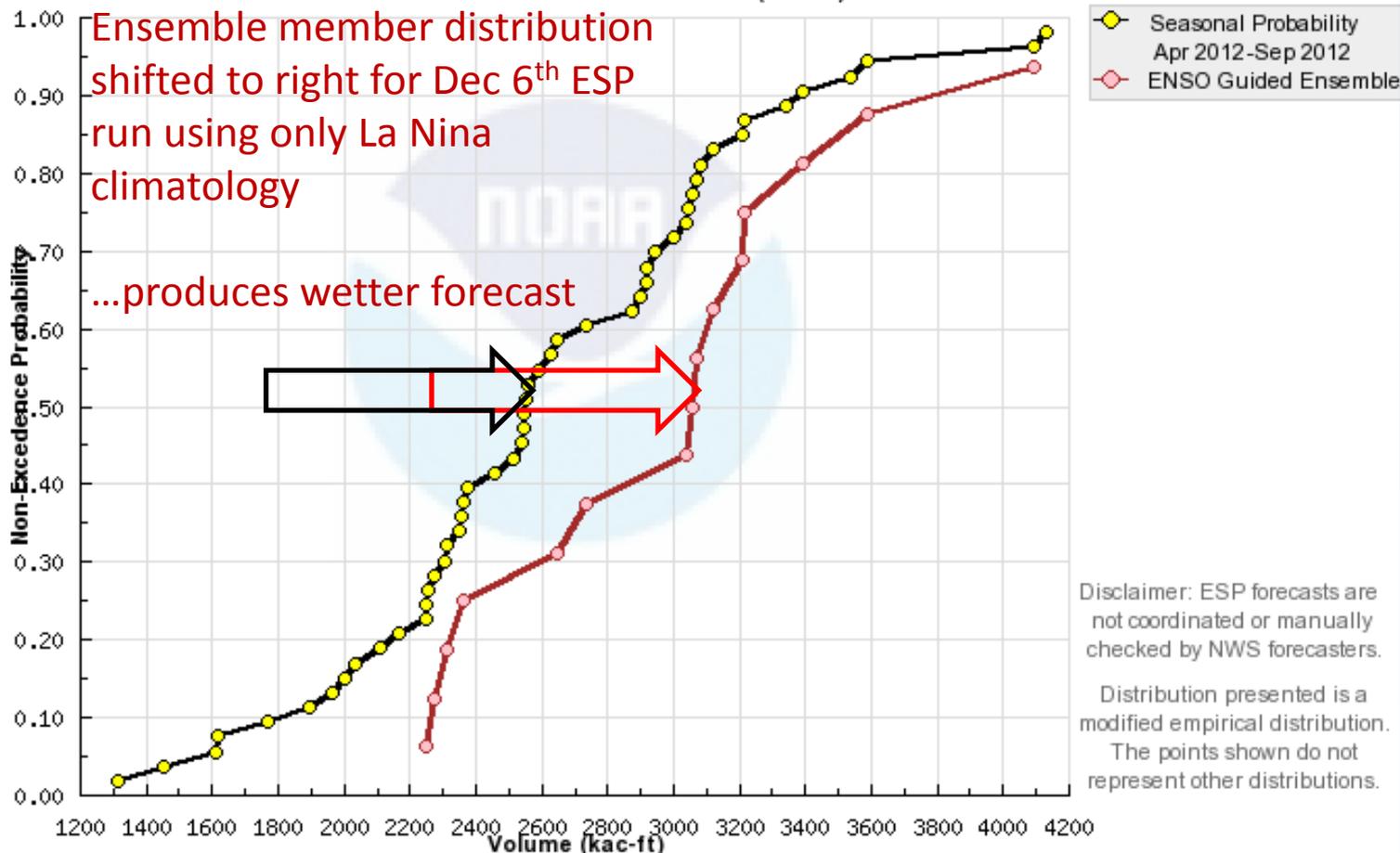
87%



ESP Analysis using La Nina Year Forcings

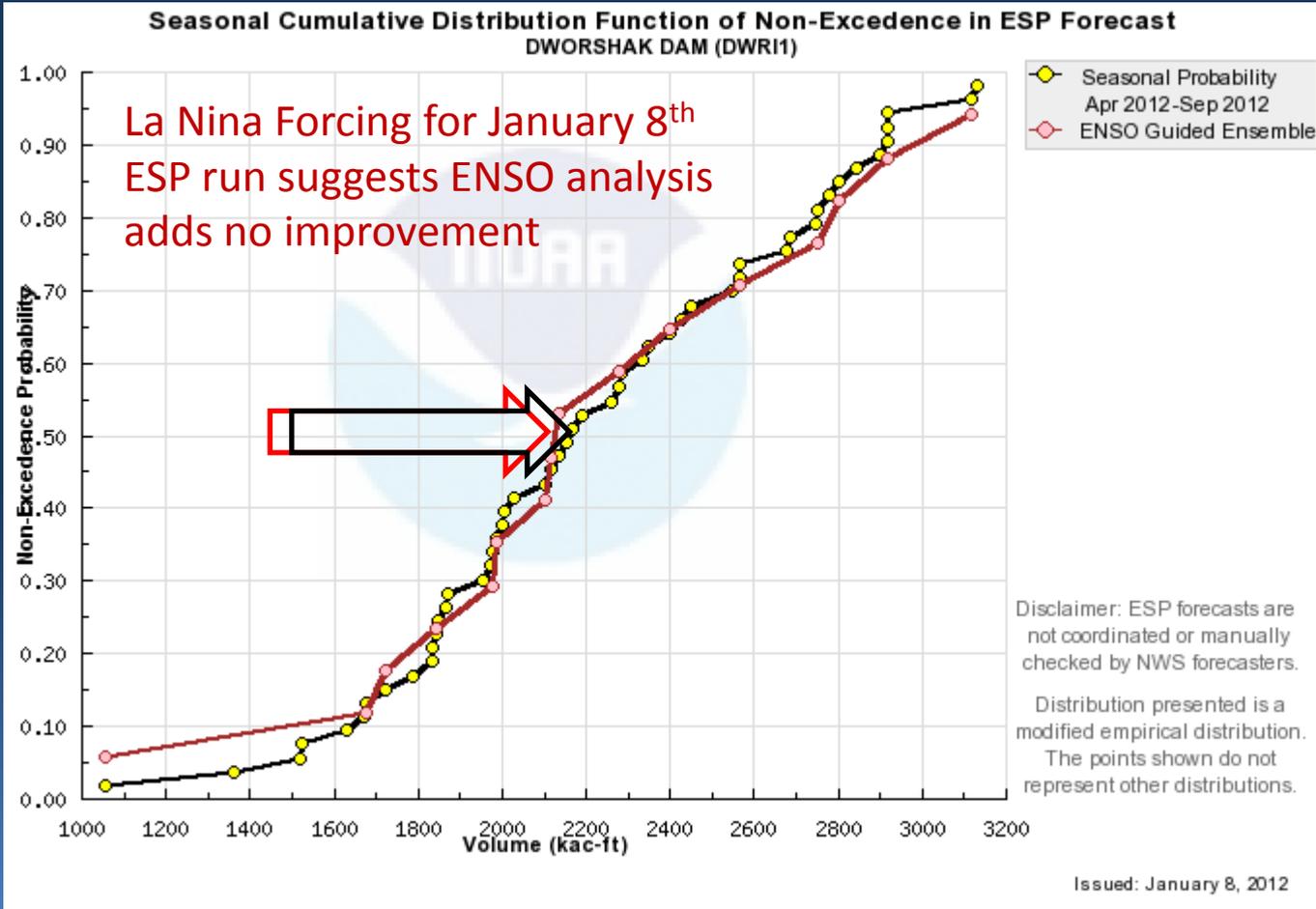


Seasonal Cumulative Distribution Function of Non-Excedence in ESP Forecast
DWORKSHAK DAM (DWRI1)



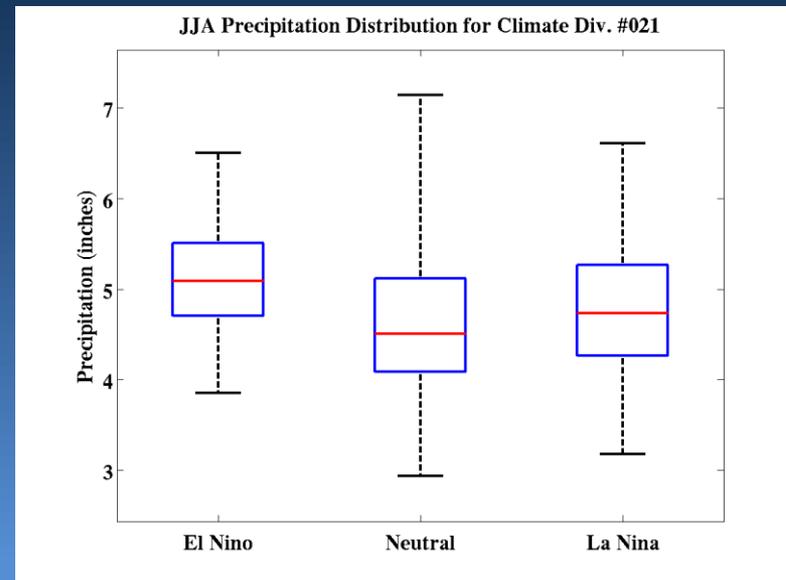
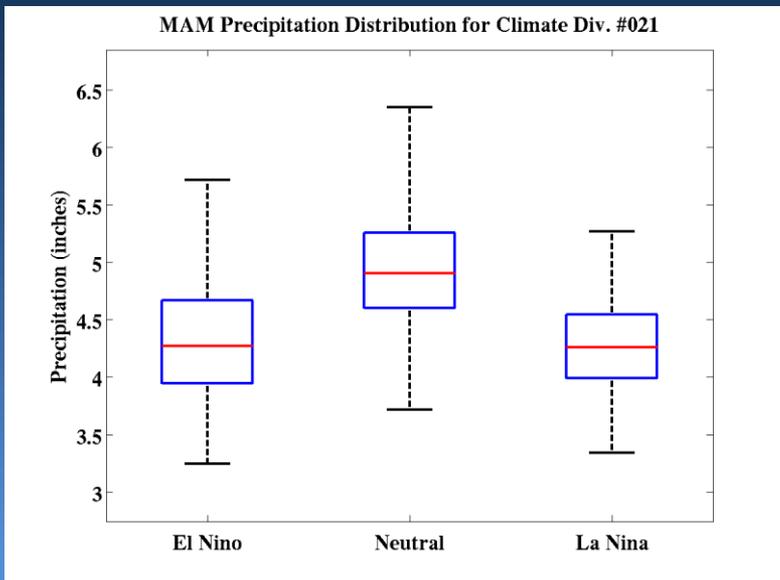
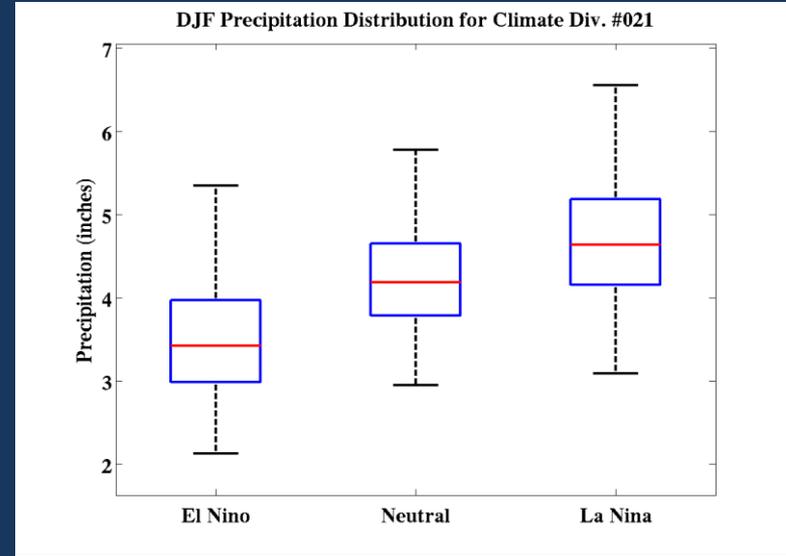
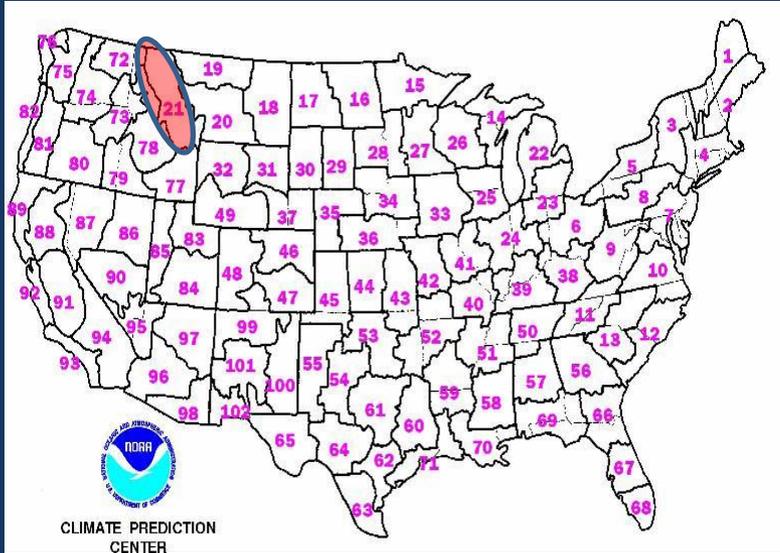


ESP Analysis using La Nina Year Forcings





ENSO Box and Whiskers Analysis 3 month Precipitation Distribution



February 2012 Water Supply Briefing

(Posted: Tuesday, January 10, 2012 to Thursday, February 9, 2012)

The next schedule water supply briefing will be held on Wednesday, Feb 8th at 10:00 am Pacific Time. Click [here](#) for more information.

(TDAO3) COLUMBIA - THE DALLES DAM Forecasts for Water Year 2012

Ensemble Date: 2012-01-22 Issue Date: 2012-01-23

Official Forecast with 10 days of QPF

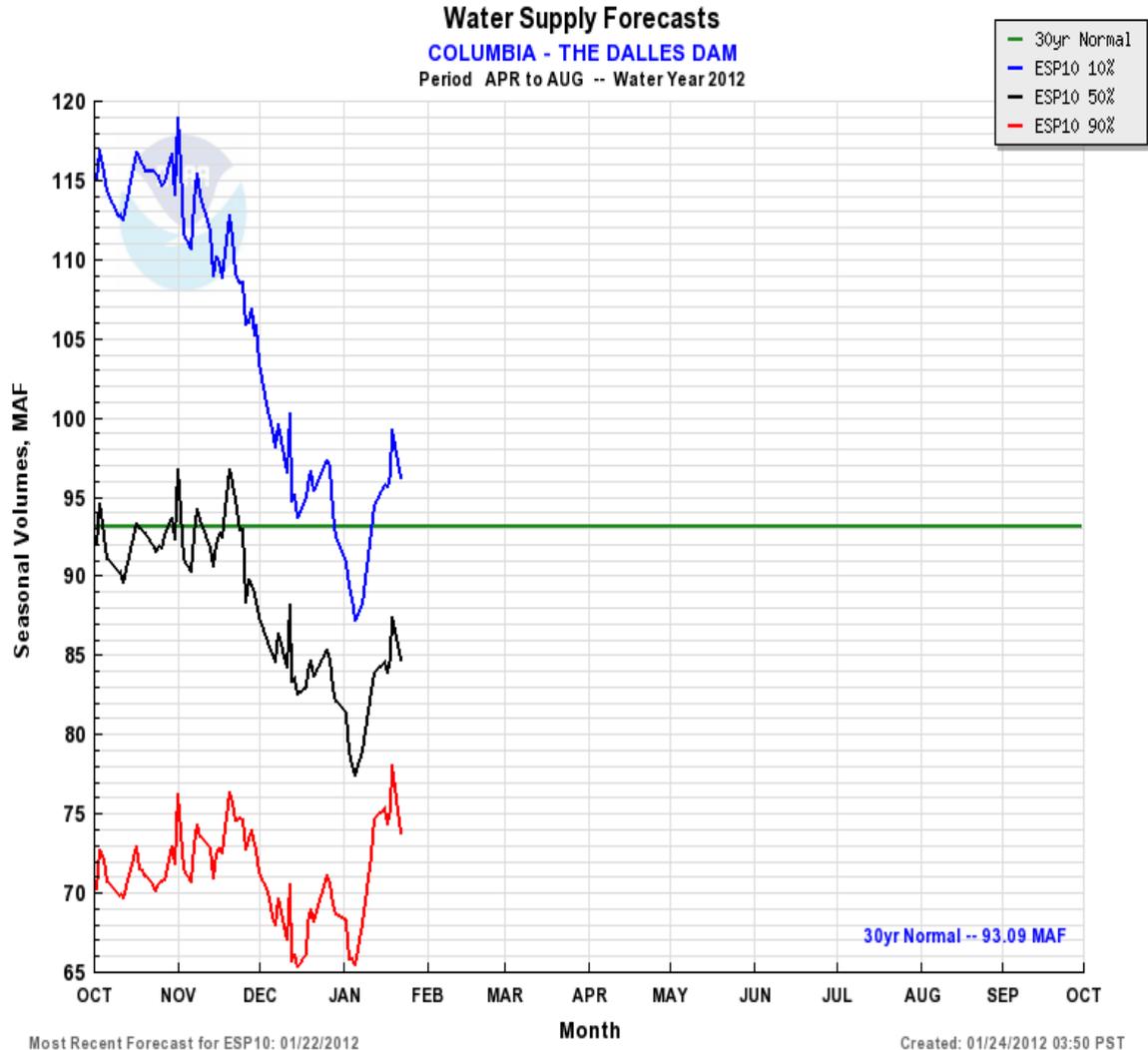
Forecast Period	Forecasts Are in KAF				30 Year Average
	90 %	50 %	% Average	10 %	
APR-SEP	79588	91139	92	101652	98650
APR-JUL	66386	75754	89	86635	84650
APR-AUG	73797	84682	91	96220	93090
JAN-JUL	83533	93219	87	107430	107300

with 3 days of QPF Forecast Not Available

with 0 days of QPF Forecast Not Available

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

```
# Water Supply Forecast for COLUMBIA - THE DALLES DA
# ESP Generated Forecasts with 10 day QPF
ID,Forecast Date,Start Month,End Month,90% FCST,50%
TDAO3,2012-01-16,JAN,JUL,84930.9,93143.8,107582
TDAO3,2012-01-12,JAN,JUL,83570.4,92318.8,107186.4
TDAO3,2012-01-11,JAN,JUL,82121.5,91767.3,105423.9
TDAO3,2012-01-08,JAN,JUL,77565.1,87914.6,102126.9
TDAO3,2012-01-05,JAN,JUL,74806.4,86041.1,101037.8
TDAO3,2012-01-04,JAN,JUL,76177.3,88147.5,102963.9
TDAO3,2012-01-03,JAN,JUL,76172.5,88653.2,103554.9
TDAO3,2012-01-02,JAN,JUL,78157.9,91428.6,105243.1
TDAO3,2011-12-29,JAN,JUL,78531.1,92709.5,107414.9
TDAO3,2011-12-28,JAN,JUL,79649,93260.1,109210.5
TDAO3,2011-12-27,JAN,JUL,82067.2,95129,111613
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For Data Used In Plot Click Here: CSV



NWRFC Water Supply Webpage

http://www.nwrfc.noaa.gov/water_supply/ws_schd.cgi



Schedule for *Live Water Discussion*

Jan	Feb	Mar	Apr	May	Jun
10	8	8	9	8	8