

# Southeastern Federal Power Alliance

## Hydrologic Outlook and Lake Level Projections

Trent Ferguson, PE

SAD Water Management

October 9, 2013



®

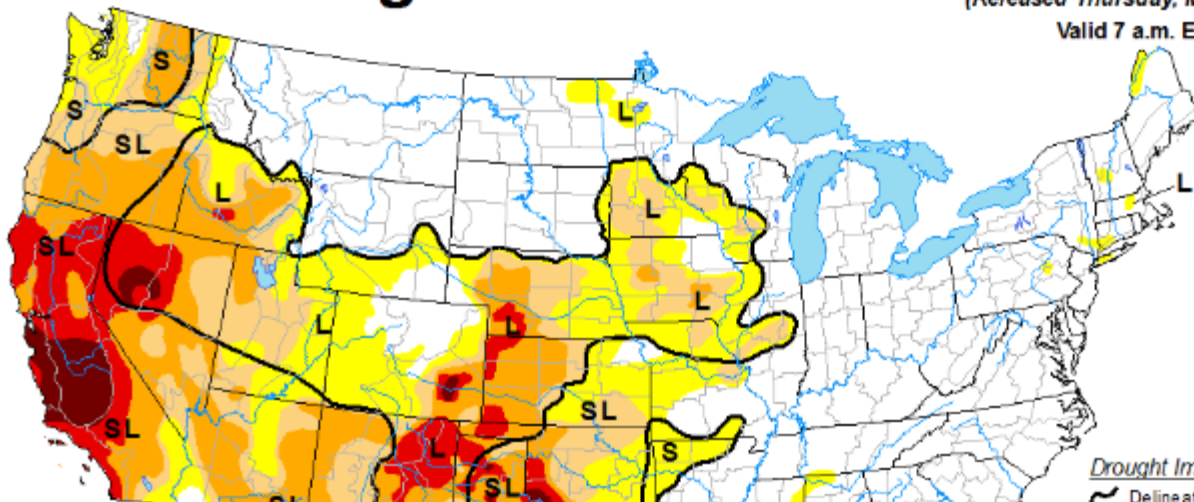
US Army Corps of Engineers  
**BUILDING STRONG**®

# Outline

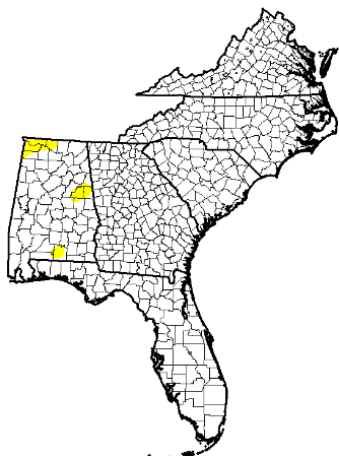
- Climatology
- Reservoir Outlook
- Questions

# U.S. Drought Monitor

March 4, 2014  
 (Released Thursday, Mar. 6, 2014)  
 Valid 7 a.m. EST



## U.S. Drought Monitor Southeast



March 4, 2014  
 (Released Thursday March 6, 2014)  
 Valid 7 a.m. Eastern

Statistics type:  Traditional (D0-D4, D1-D4, etc.)  Categorical (D0, D1, etc.)  
 Drought Condition (Percent Area):

Week	Date	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	3/4/2014	98.45	1.55	0.00	0.00	0.00	0.00
Last Week	2/25/2014	97.81	2.19	0.00	0.00	0.00	0.00
3 Months Ago	12/3/2013	57.01	42.99	0.24	0.00	0.00	0.00
Start of Calendar Year	12/31/2013	91.82	8.18	0.00	0.00	0.00	0.00
Start of Water Year	10/1/2013	90.70	9.30	0.00	0.00	0.00	0.00
One Year Ago	3/5/2013	52.00	48.00	23.91	6.65	0.00	0.00

[View More Statistics](#)

### Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying [text summary](#) for forecast statements.

### Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

### Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

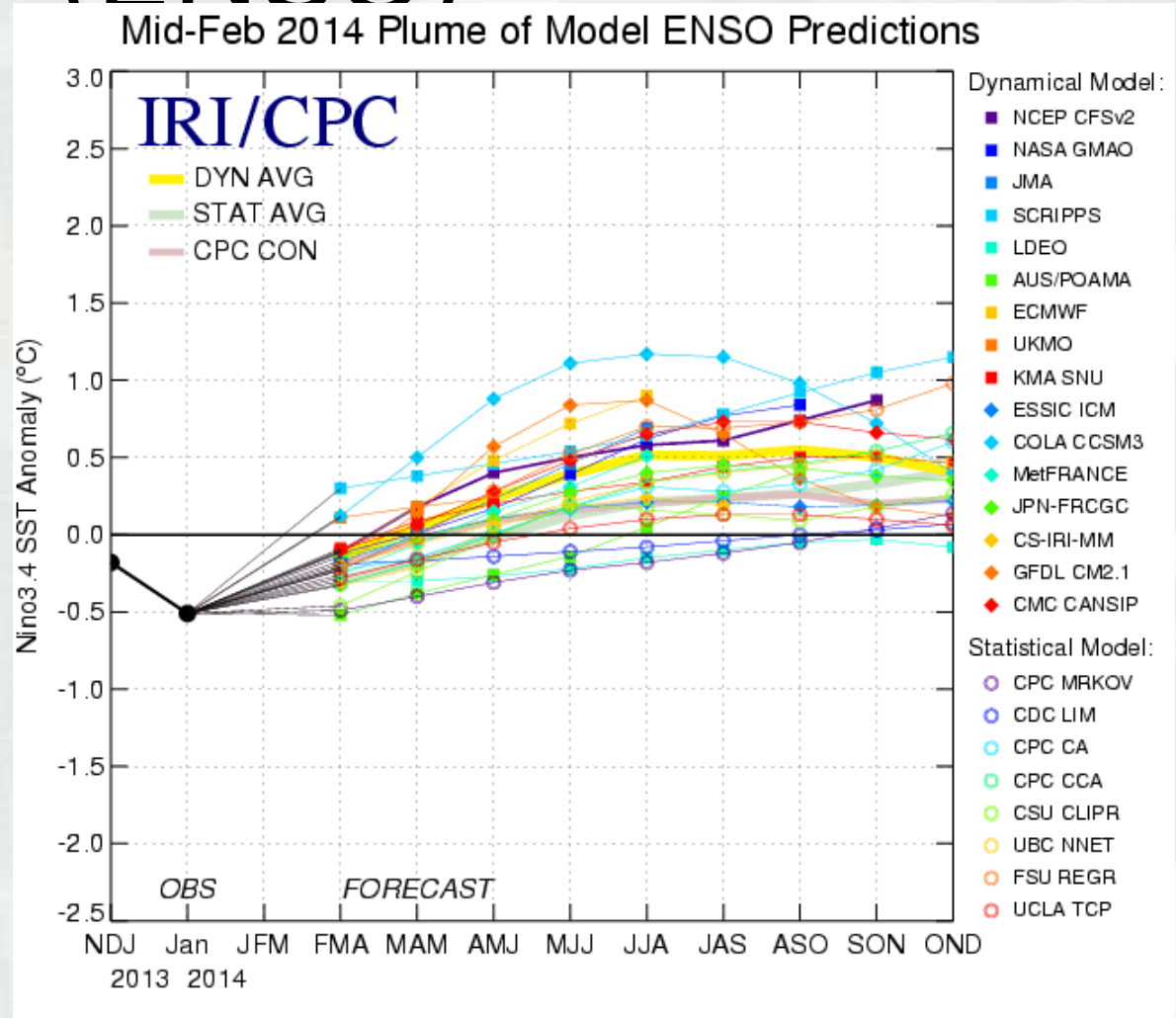


<http://droughtmonitor.unl.edu/>

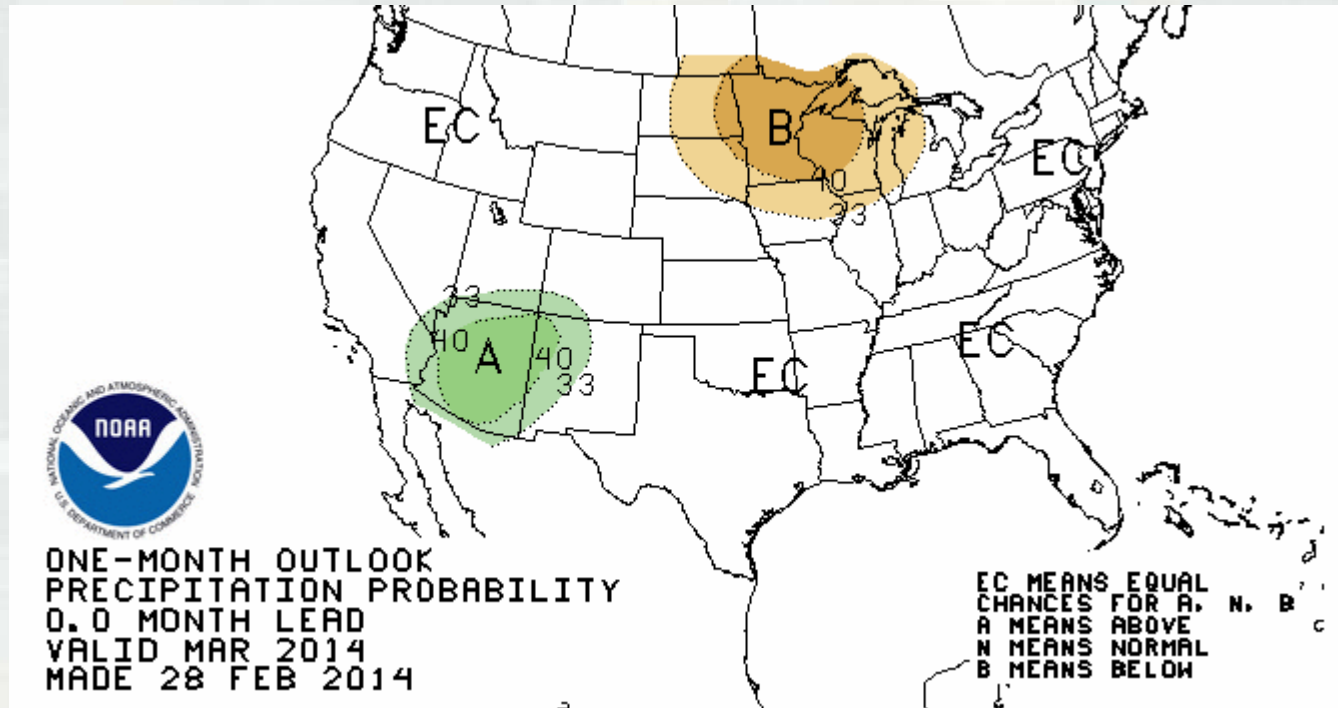


# El Nino/Southern Oscillation (ENSO)

- Most of the set of dynamical and statistical model predictions issued during late January and early February 2014 predict neutral ENSO conditions into northern spring 2014, with a warming tendency by late spring and into summer 2014. Development of weak El Nino conditions appears possible by the middle of 2014.



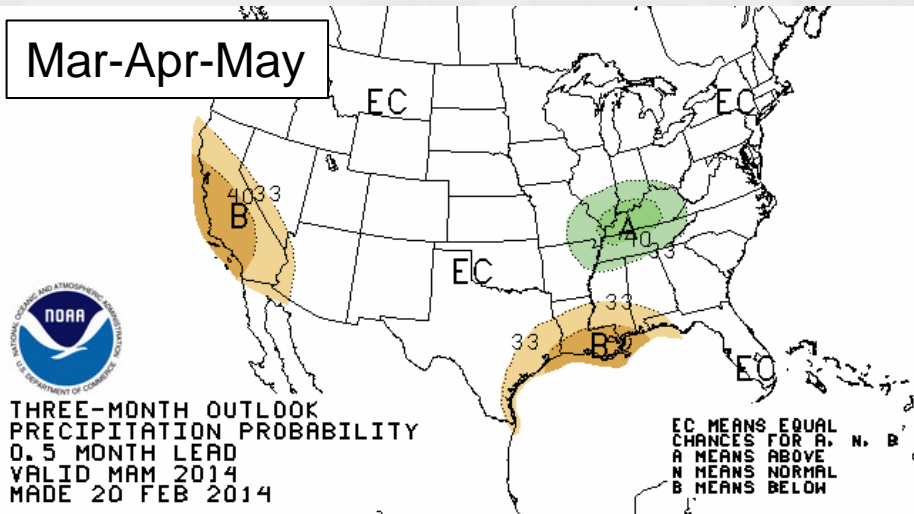
# One-Month Outlook (October) Precipitation Probability



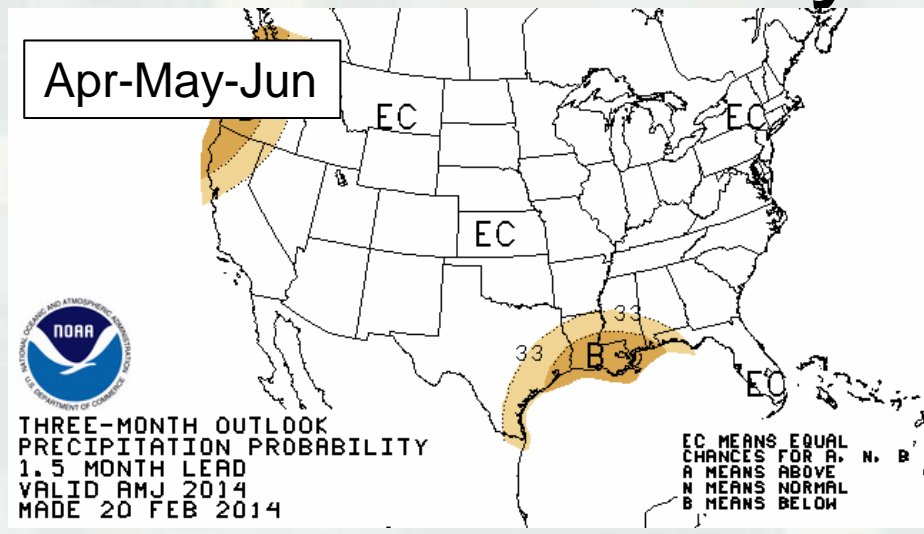


# Seasonal Precipitation Probability

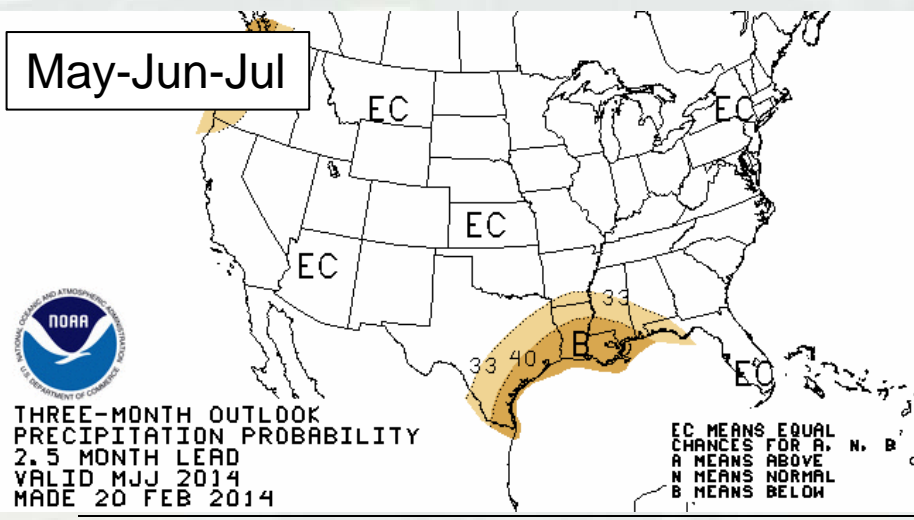
Mar-Apr-May



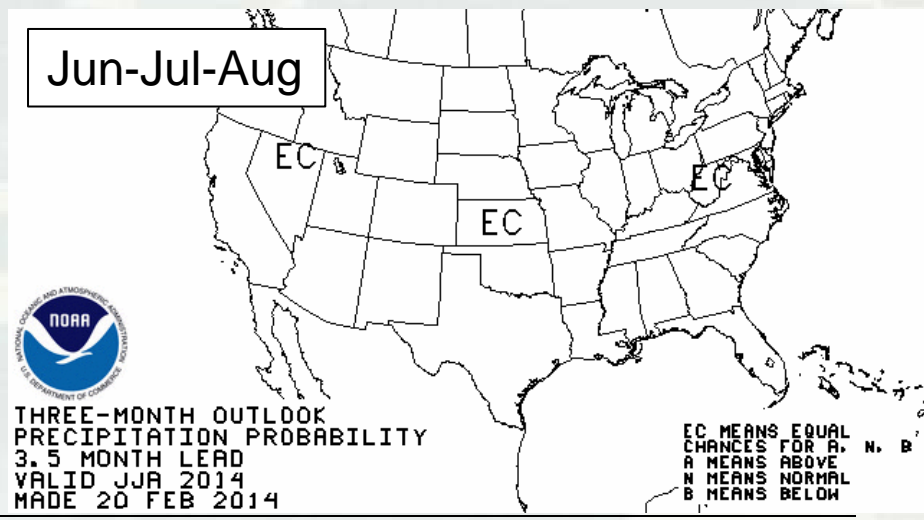
Apr-May-Jun



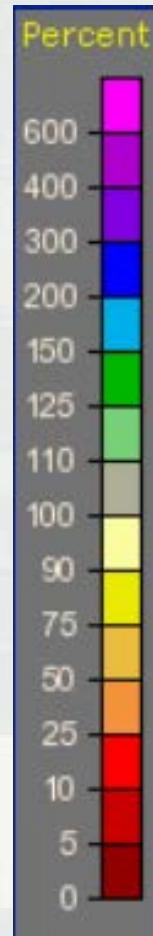
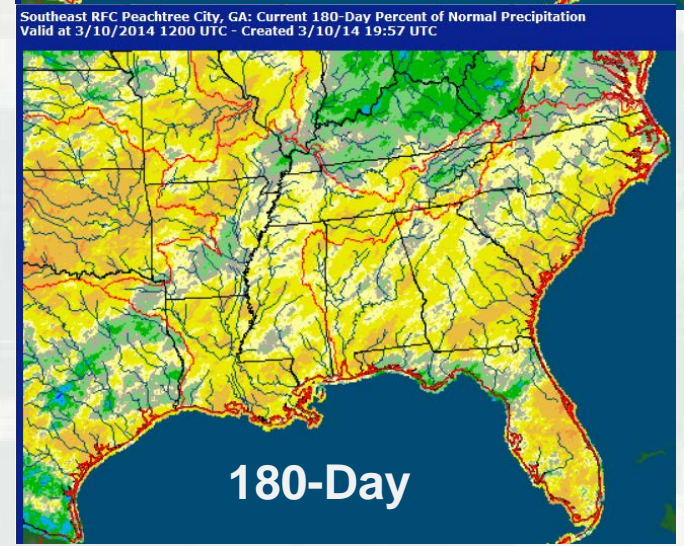
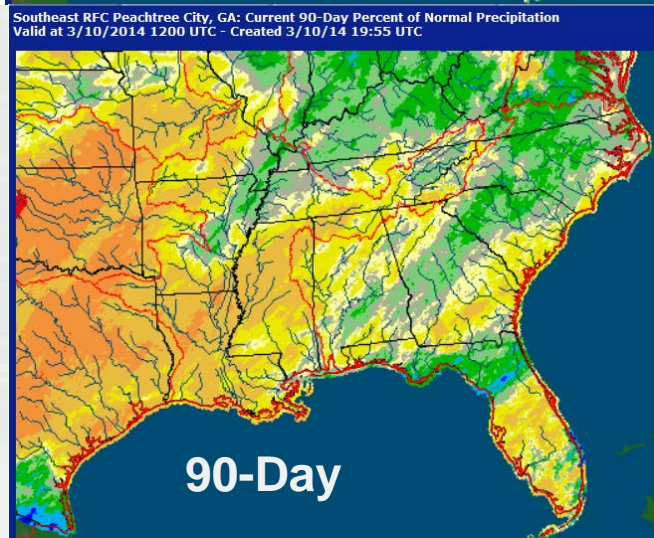
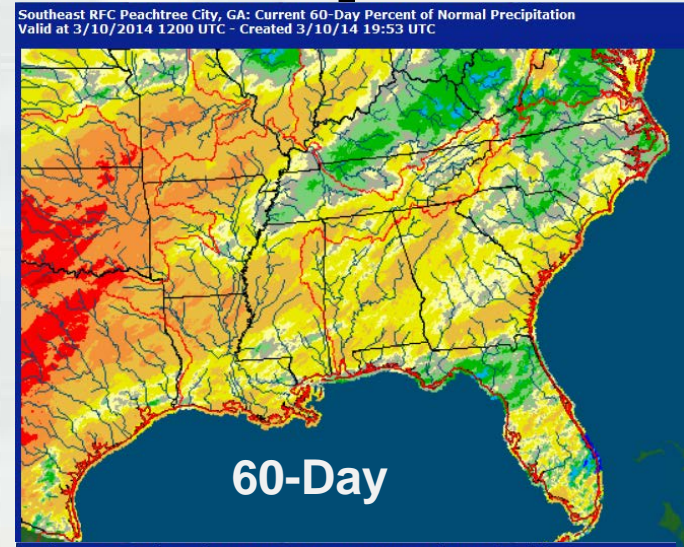
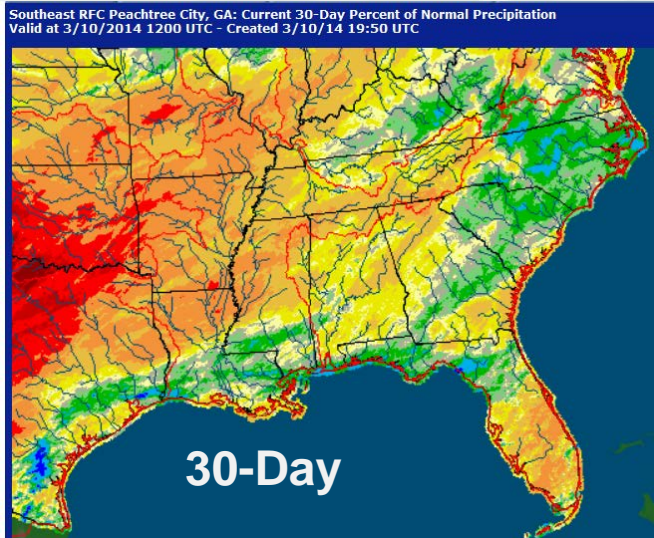
May-Jun-Jul



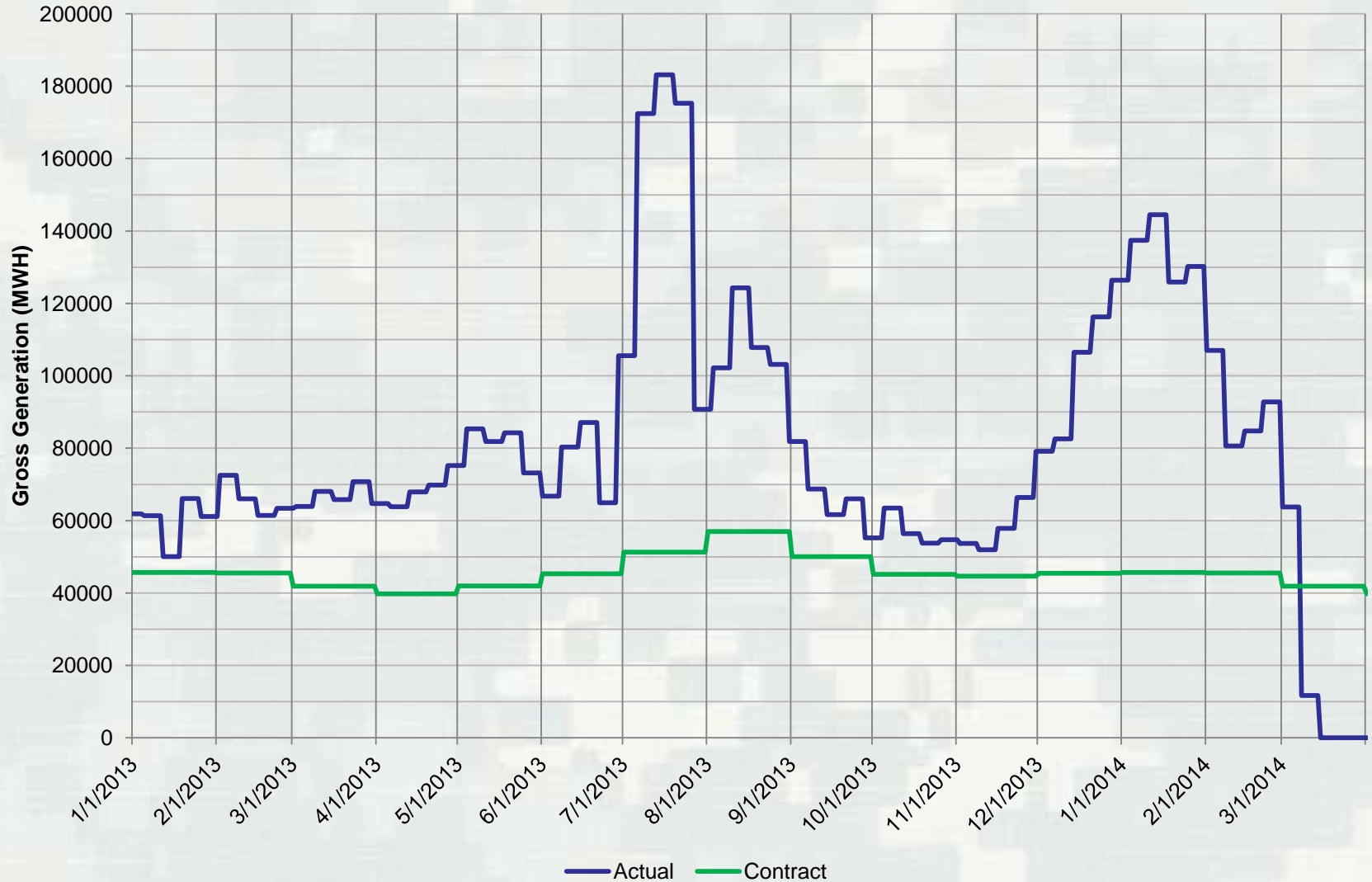
Jun-Jul-Aug



# Percent of Normal Precipitation



# Gross HydroPower Generation ACF-ACT-Savannah Projects (10 Projects)





# Current Reservoir Elevations

	3/9/2014			10/9/2013	
	Guide Curve (ft)	Current Elevation (ft)	Depth Below Guide Curve (ft)	Current Elevation (ft)	Depth Below Guide Curve (ft)
<b>ACF River Basin - Mobile District</b>					
Buford	1070.00	1070.51	0.51	1071.60	1.60
West Point	629.39	630.19	0.80	635.20	5.81
George	188.00	188.30	0.30	189.02	1.02
Woodtuff		76.54		76.66	
<b>ACT River Basin - Mobile District</b>					
Allatoona	831.42	832.81	1.39	838.37	6.95
Carters	1072.00	1074.50	2.50	1073.00	1.00
R.F. Henry		125.08		125.25	
Millers Ferry		79.76		79.34	
<b>Savannah River Basin - Savannah District</b>					
Hartwell	658.98	660.53	1.55	660.61	1.63
Russell	475.00	474.43	-0.57	474.23	-0.77
Thurmond	328.98	330.03	1.05	329.09	0.11
<b>Roanoke River Basin - Wilmington District</b>					
Philpot	972.80	974.37	1.57	972.37	-0.43
Kerr (John H)	297.12	301.34	4.22	297.92	0.80

# Six Week Out Look

- All lakes expected to stay near Guide Curve



# Questions