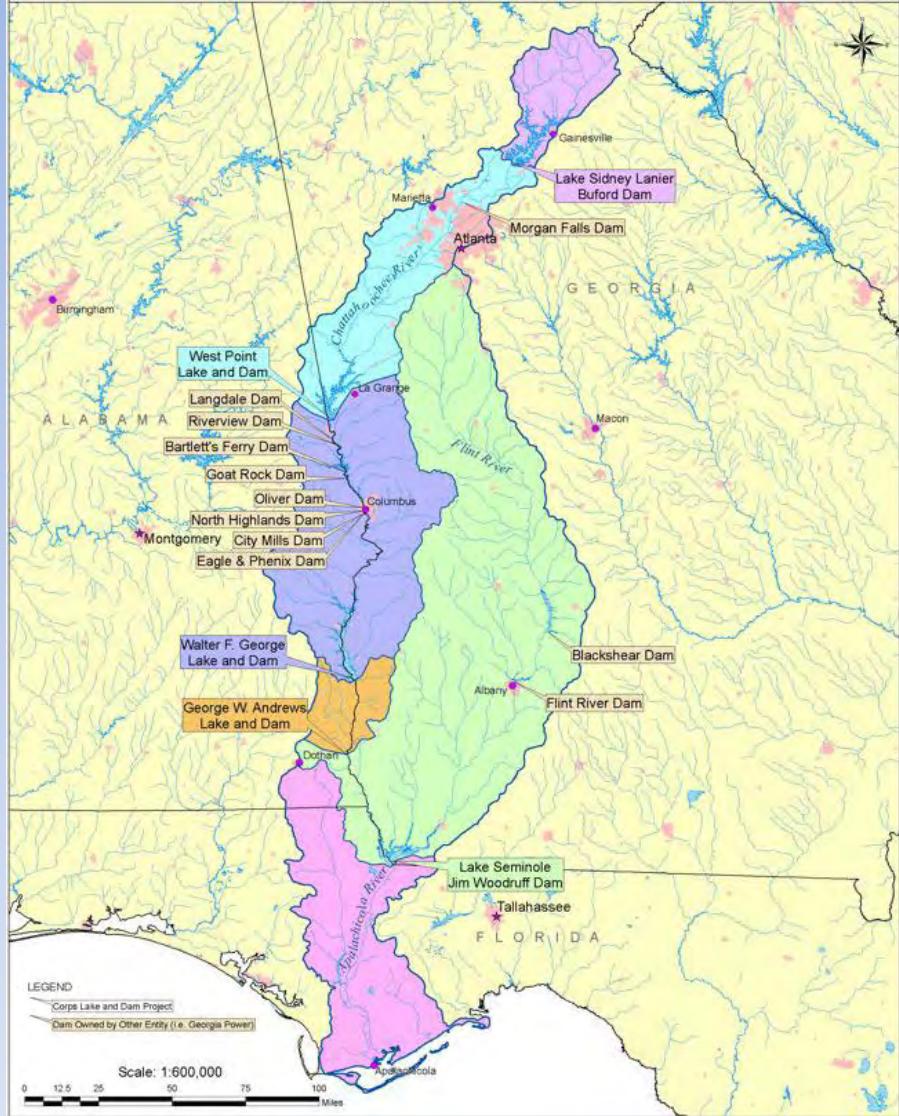
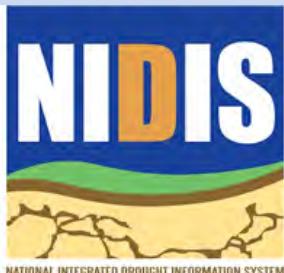


National Integrated Drought Information System

Southeast US Pilot for Apalachicola- Flint-Chattahoochee River Basin

19 February 2013



Outline

Welcome – Pam Knox, University of Georgia

Current drought status and how we got here –
David Zierden, Florida Climate Center, FSU

Streamflows and groundwater – Tony Gotvald,
USGS

Reservoir status and projections – Bailey Crane,
US ACE

Apalachicola Bay Salinity – Jenna Harper, ANERR

Seasonal forecasts and outlooks – David Zierden,
FSU

Summary and Discussion – Pam Knox, UGA

Current drought status from Drought Monitor

U.S. Drought Monitor

Southeast

February 5, 2013

Valid 7 a.m. EST

Drought Conditions (Percent Area)

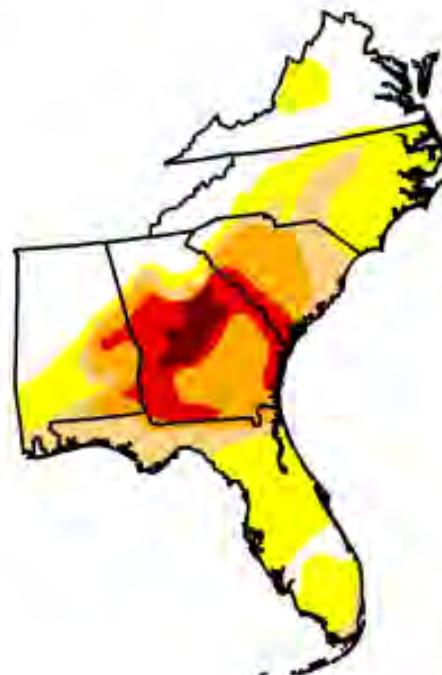
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	29.10	70.90	41.59	27.20	11.72	2.46
Last Week (01/29/2013 map)	30.26	69.74	42.90	26.30	11.78	2.46
3 Months Ago (11/08/2012 map)	53.19	46.81	22.90	12.30	6.85	3.52
Start of Calendar Year (01/01/2013 map)	29.15	70.85	45.65	20.64	9.58	2.10
Start of Water Year (09/25/2012 map)	66.49	33.51	17.18	11.50	8.53	3.52
One Year Ago (01/31/2012 map)	27.29	72.71	55.82	35.76	20.34	3.71

Intensity:



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

<http://droughtmonitor.unl.edu>

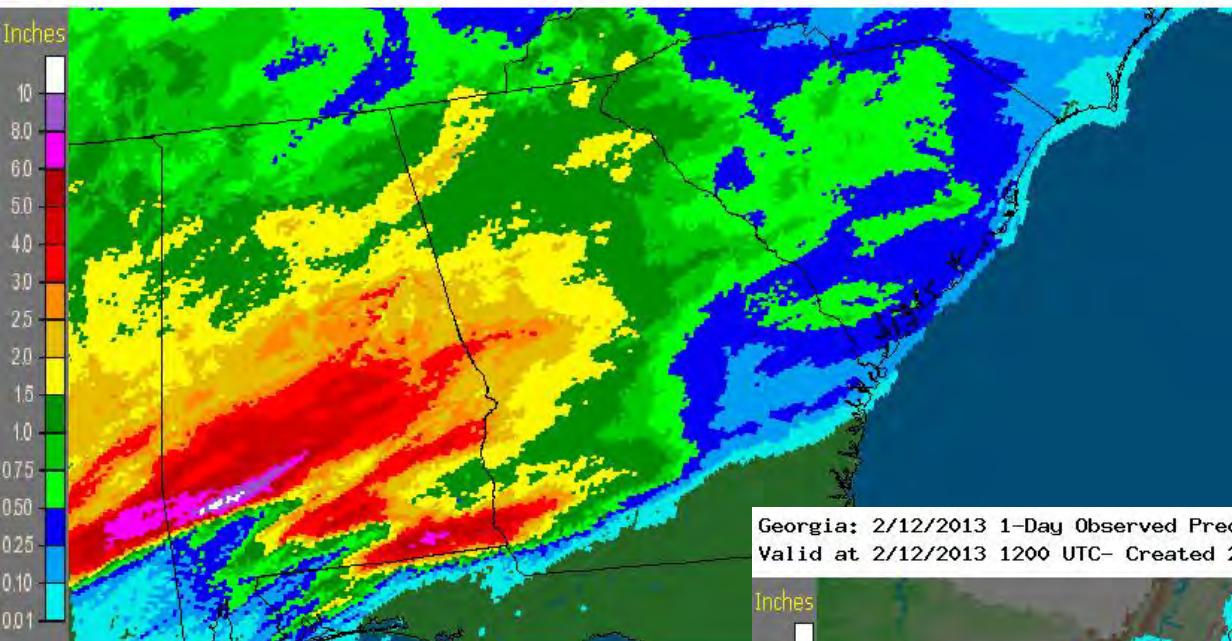


Released Thursday, February 7, 2013
Michael Brewer, National Climatic Data Center, NOAA

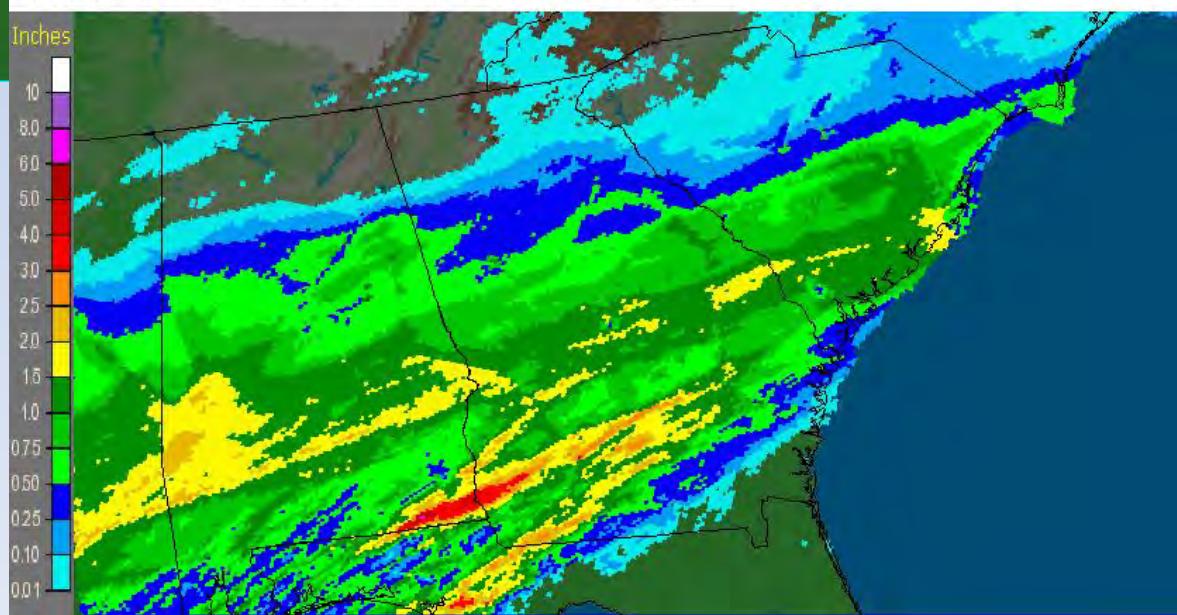
<http://www.drought.unl.edu/dm/monitor.html>

Recent Precipitation

Georgia: 2/11/2013 1-Day Observed Precipitation
Valid at 2/11/2013 1200 UTC- Created 2/12/13 13:31 UTC

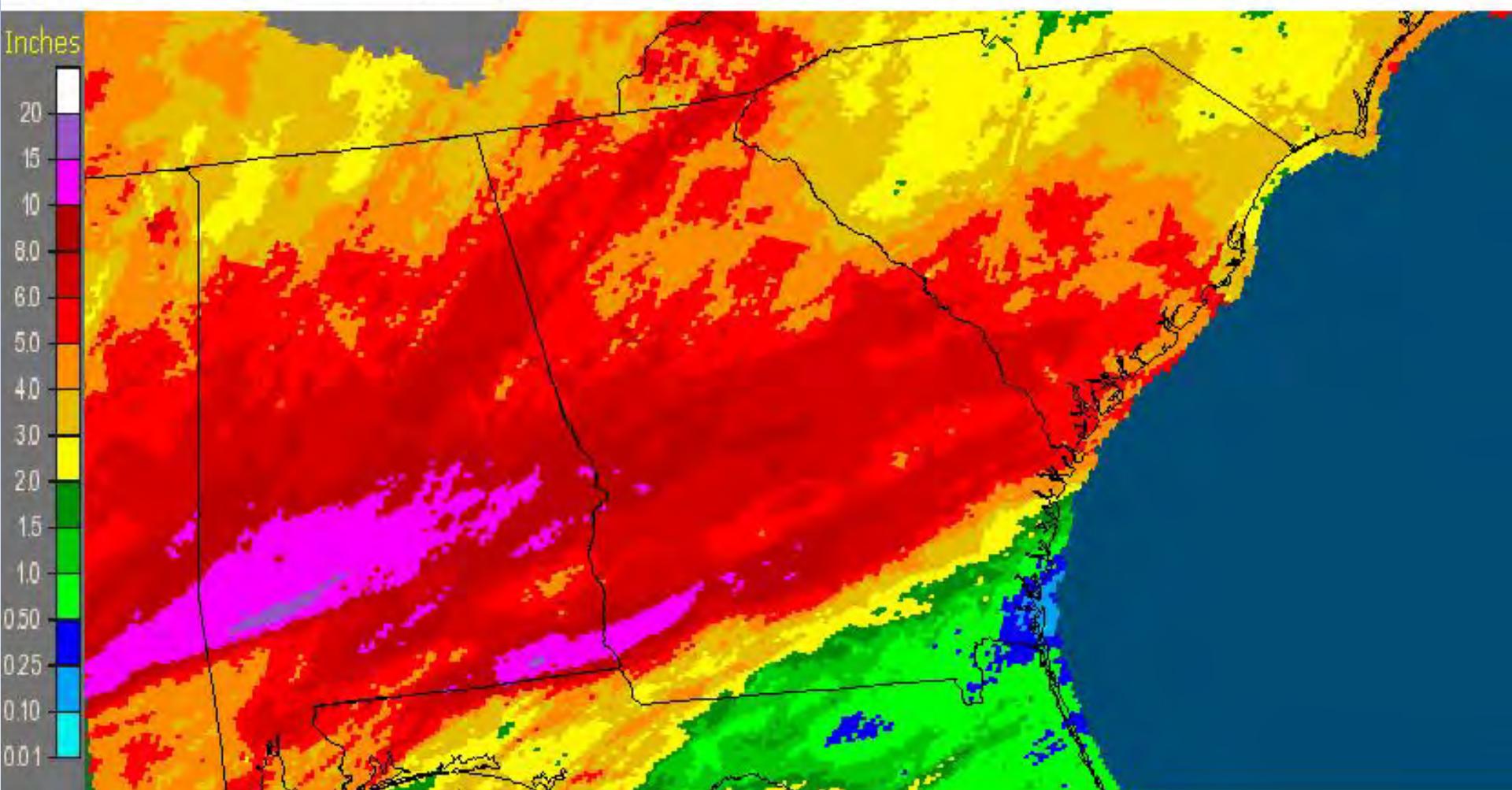


Georgia: 2/12/2013 1-Day Observed Precipitation
Valid at 2/12/2013 1200 UTC- Created 2/12/13 13:40 UTC



30-Day Rainfall Totals

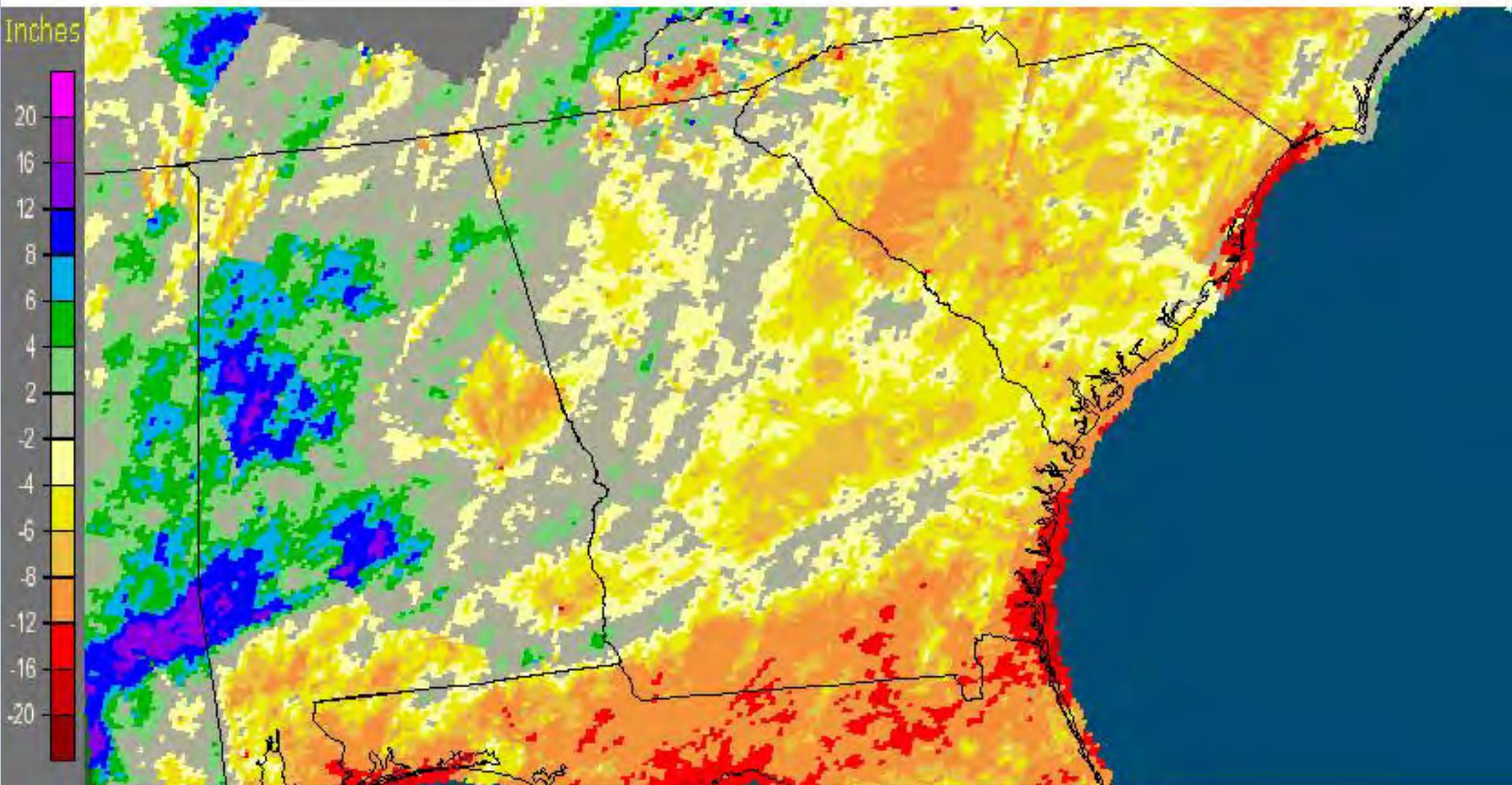
Georgia: Current 30-Day Observed Precipitation
Valid at 2/19/2013 1200 UTC - Created 2/19/13 14:04 UTC



180-day Rainfall Deficits

Georgia: Current 180-Day Departure from Normal Precipitation

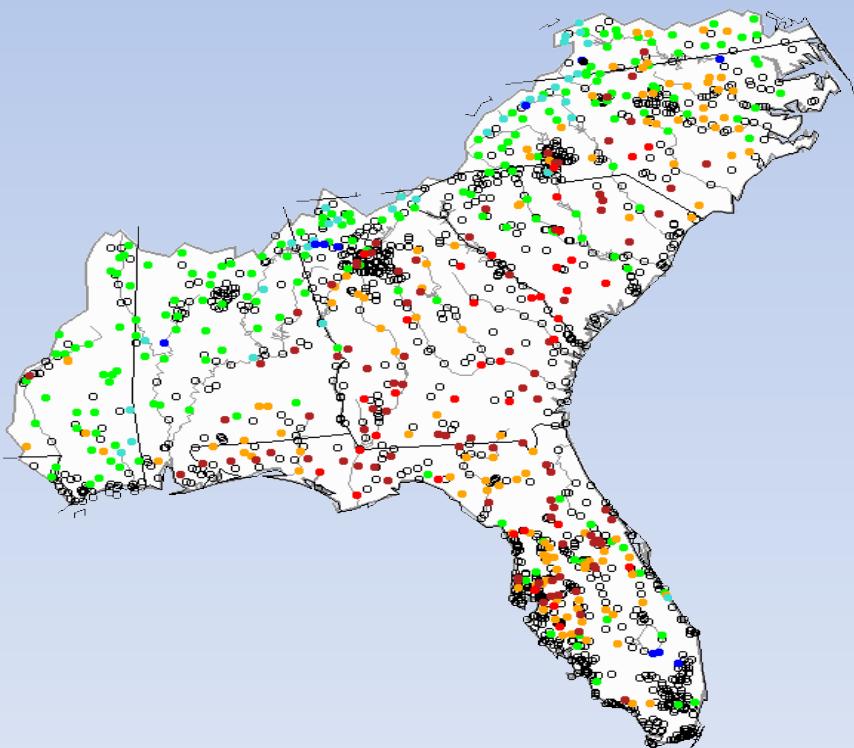
Valid at 2/19/2013 1200 UTC - Created 2/19/13 14:19 UTC



Realtime stream flow compared with historical monthly averages

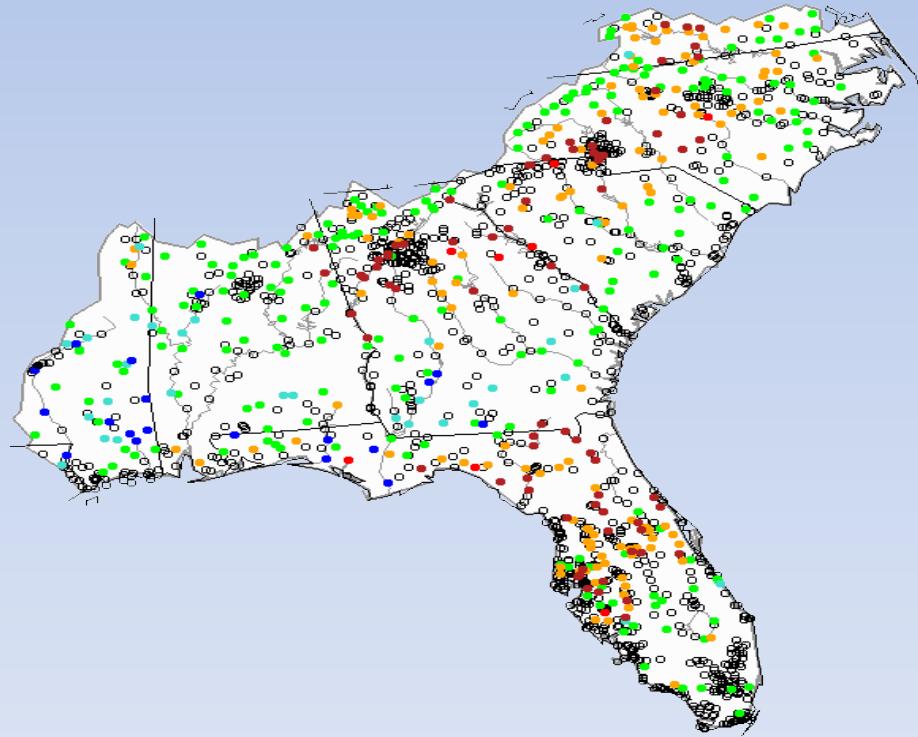
Previous Brief:

Monday, February 04, 2013 11:30ET



Current:

Tuesday, February 19, 2013 06:30ET



Explanation - Percentile classes						
●	●	●	●	●	●	●
Low	<10	10-24	25-75	76-90	>90	High

Much below normal Below normal Normal Above normal Much above normal

<http://waterwatch.usgs.gov>

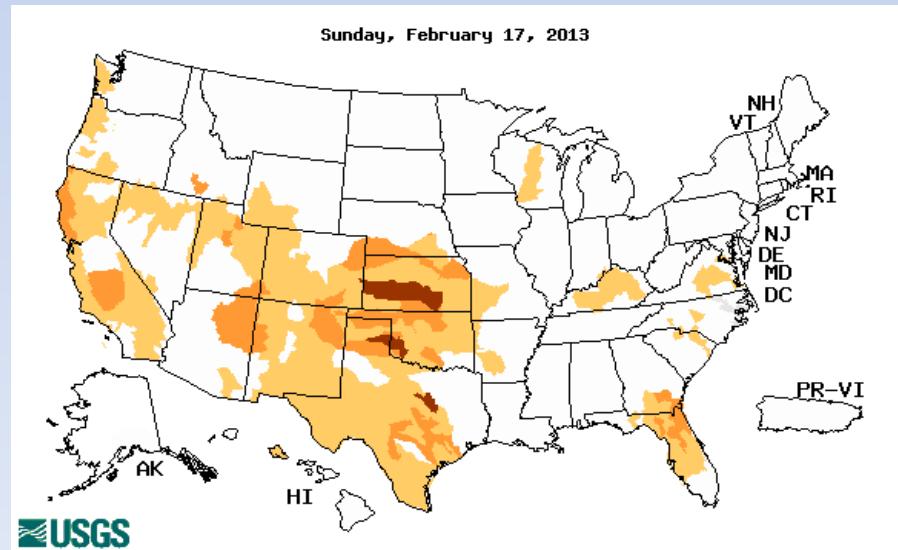
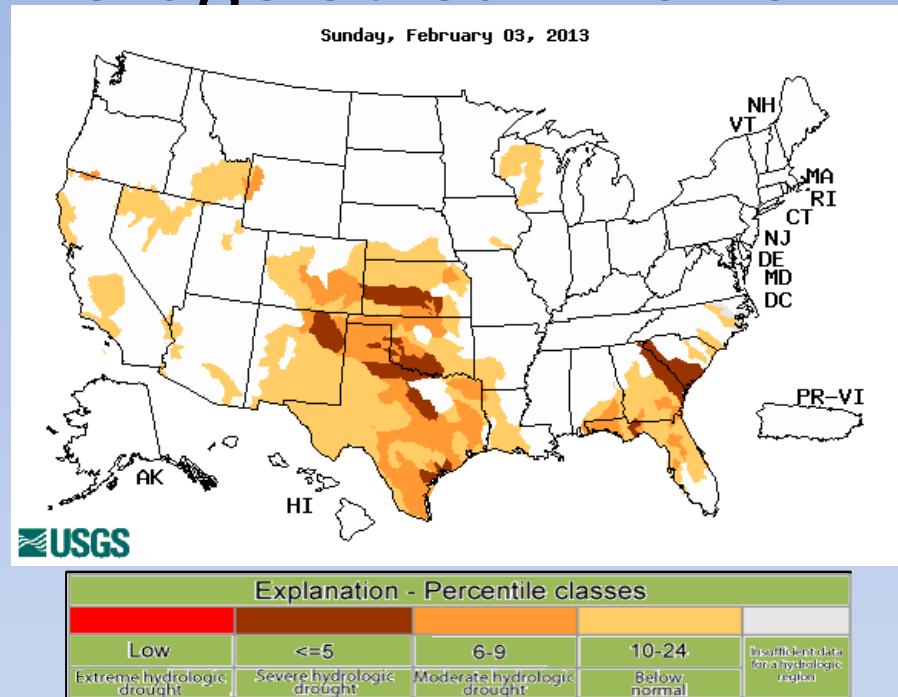
Below Normal 7-day Average Streamflows

Previous brief:

Below normal 7-day average streamflow as compared with historical streamflow for day shown

Current:

<http://waterwatch.usgs.gov>



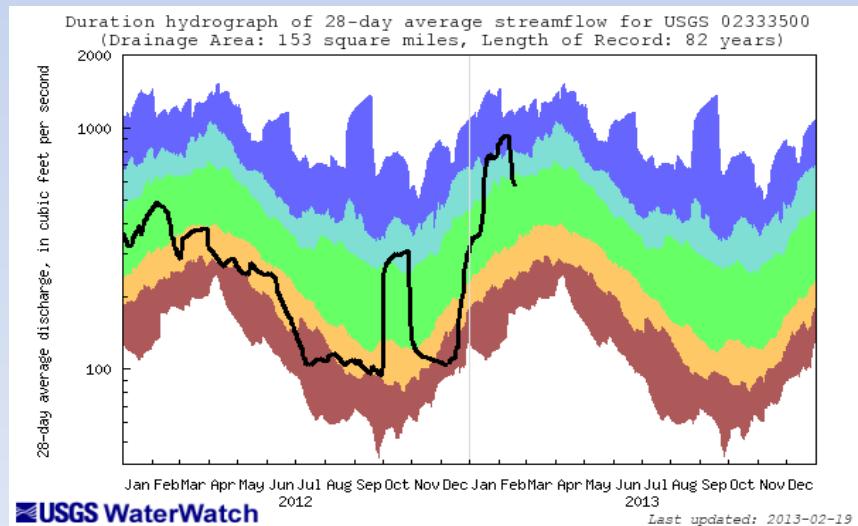
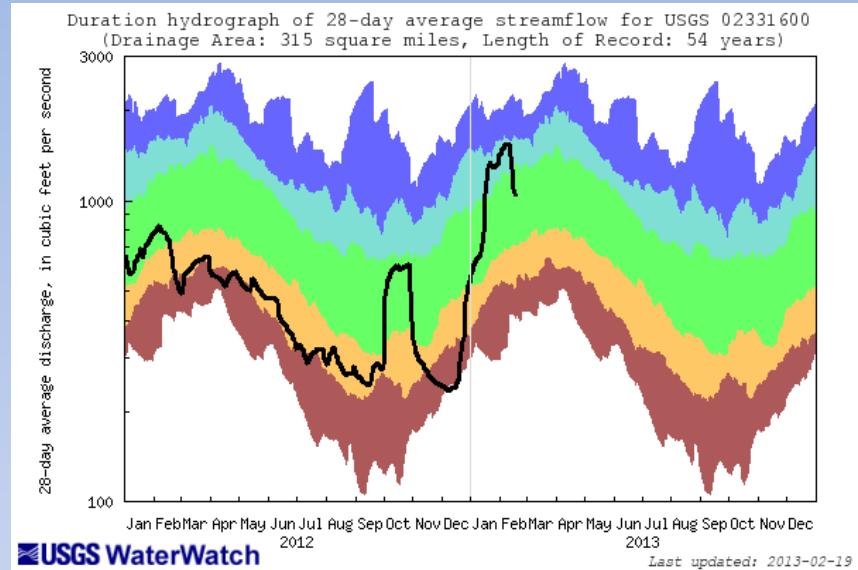
Lake Lanier Inflows

Chattahoochee near
Cornelia (02331600)

<http://waterwatch.usgs.gov>

Chestatee near
Dahlonega (02333500)

Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	



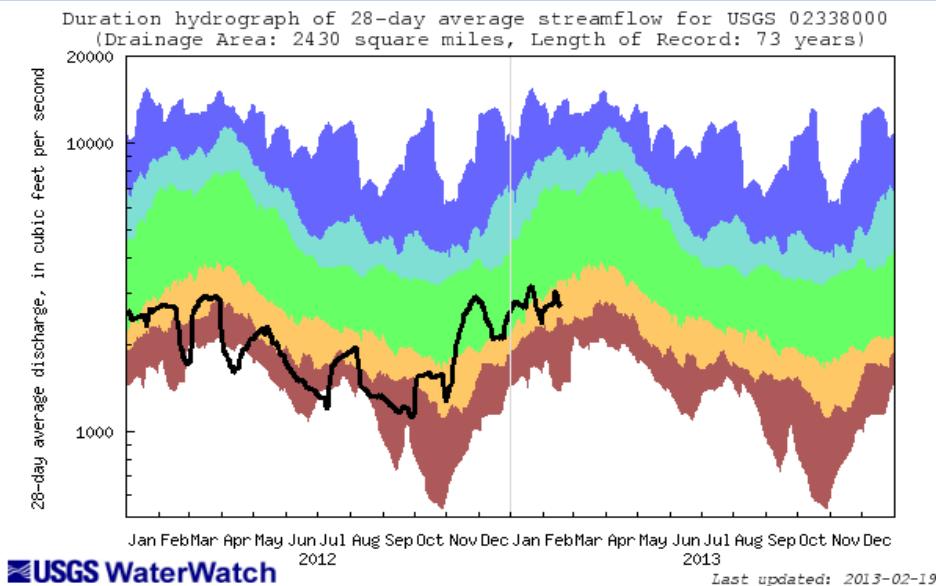
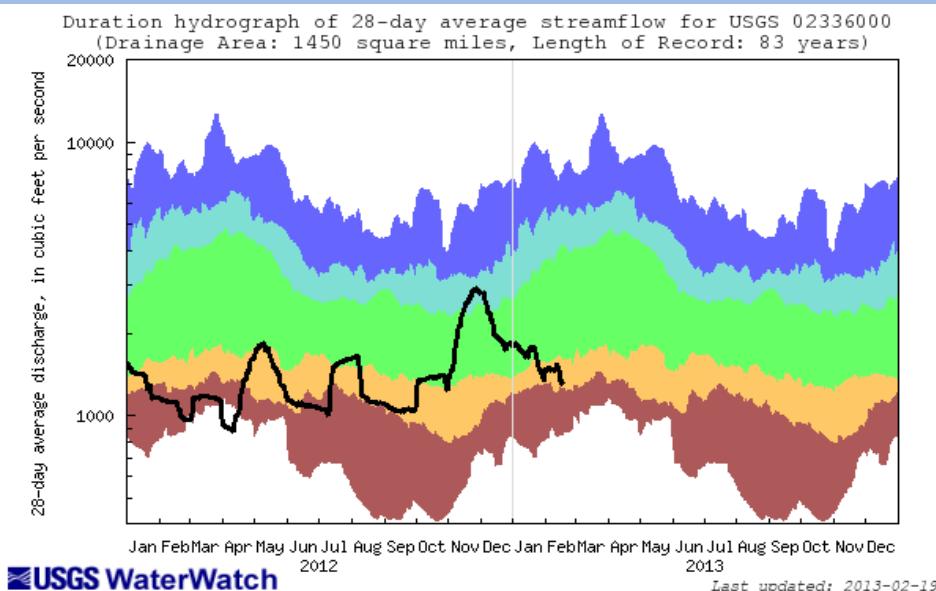
Current Streamflows

Chattahoochee at Atlanta (02336000)

<http://waterwatch.usgs.gov>

Chattahoochee near Whitesburg (02338000)

Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

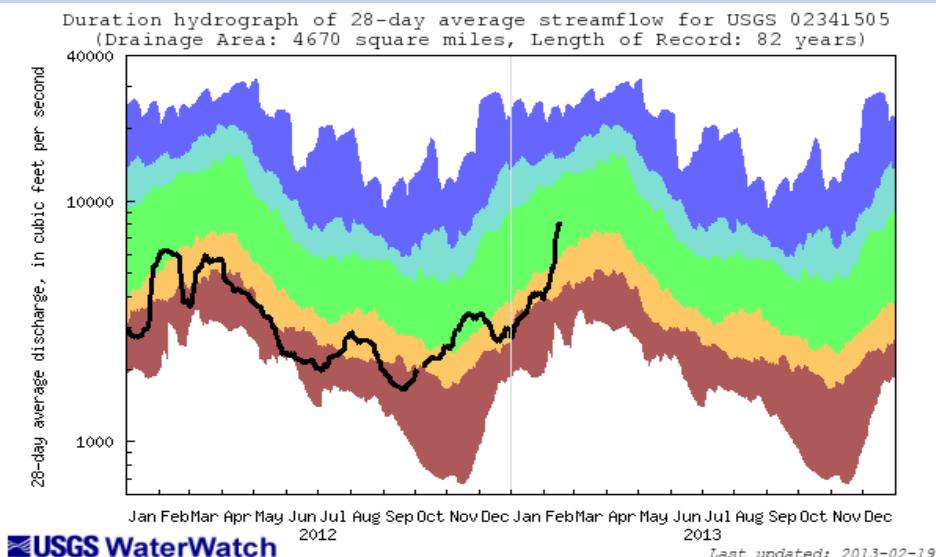
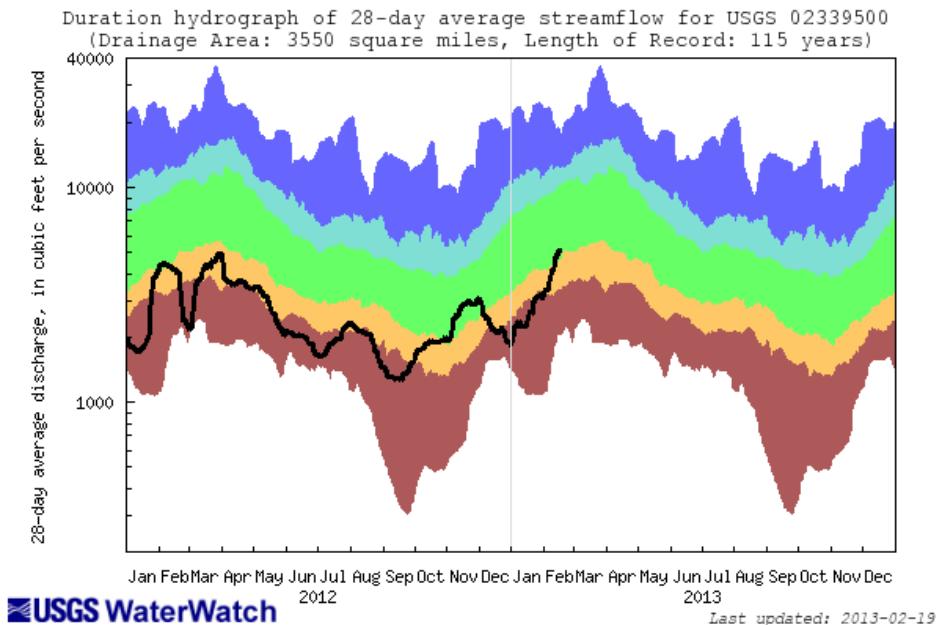
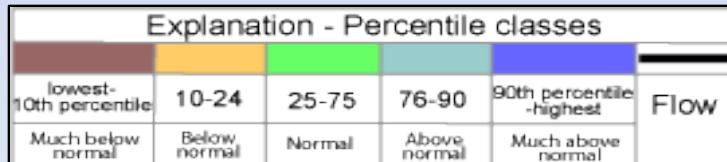


Current Streamflows

Chattahoochee at West Point (02339500)

<http://waterwatch.usgs.gov>

Chattahoochee near Columbus (02341505)



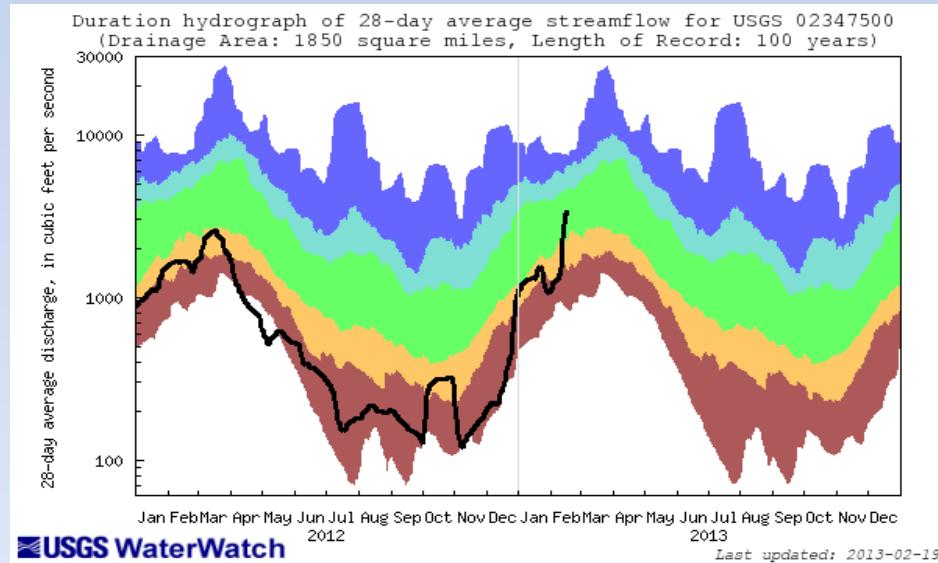
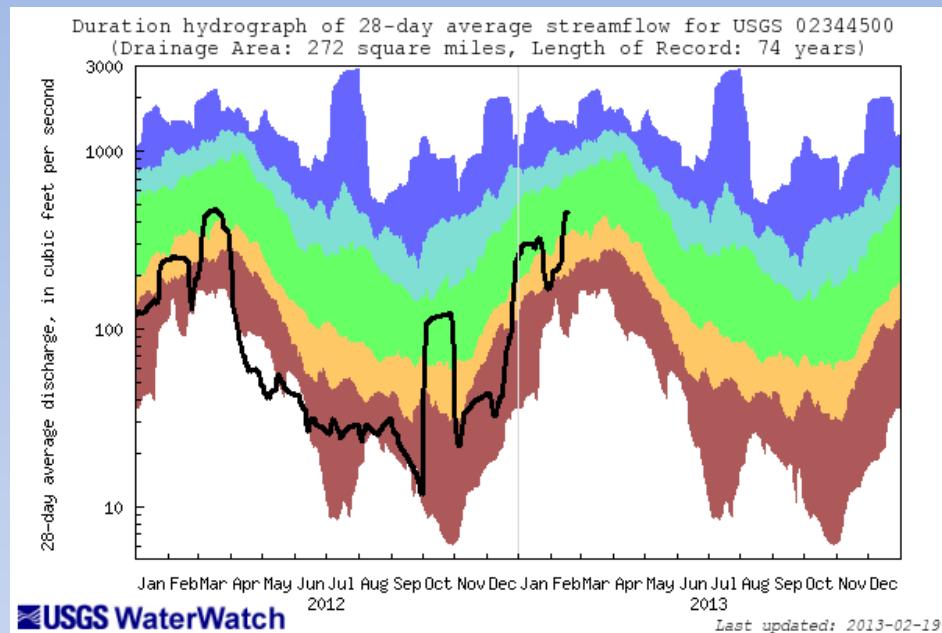
Current Streamflows

Flint River near Griffin
(02344500)

<http://waterwatch.usgs.gov>

Flint River near
Carsonville
(02347500)

Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile-highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	



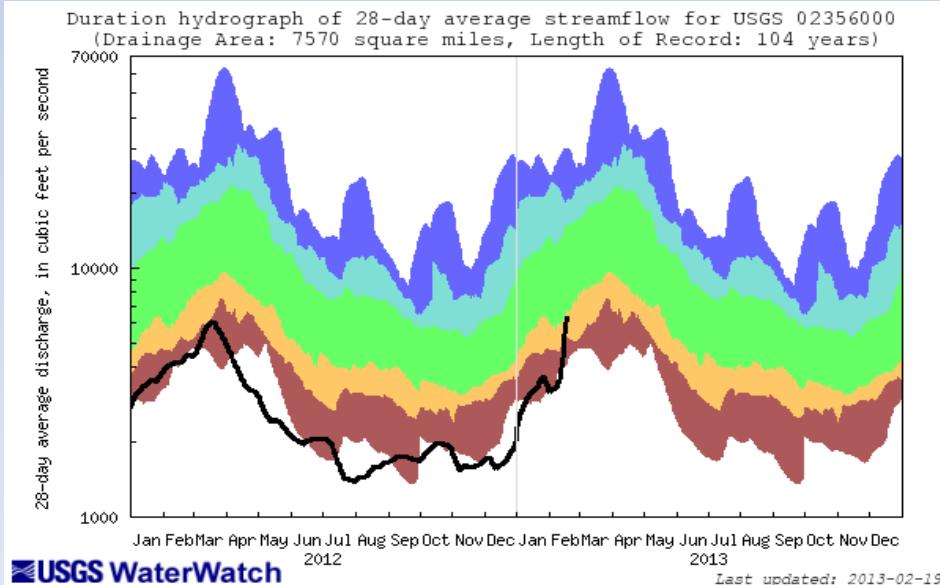
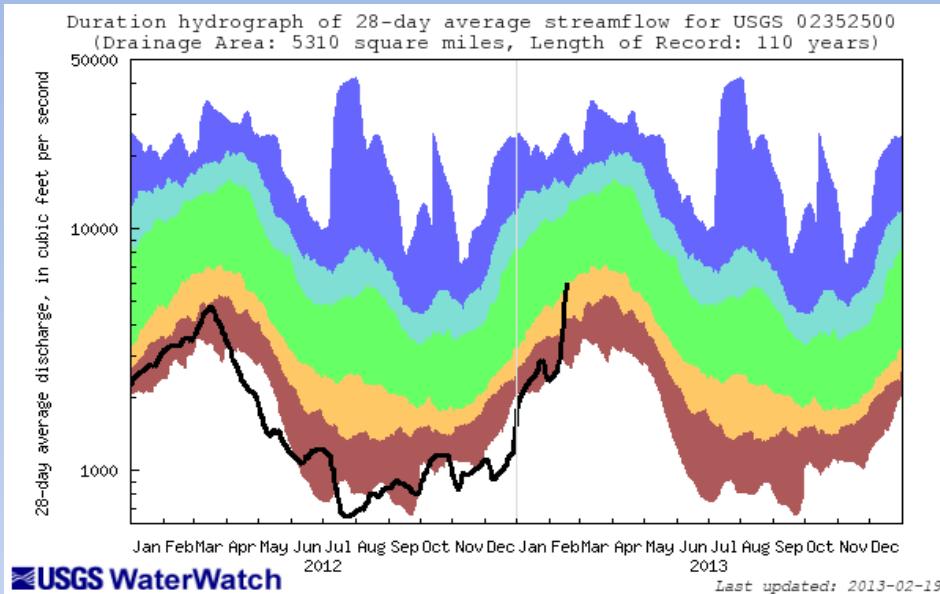
Current Streamflows

Flint River at Albany (02352500)

<http://waterwatch.usgs.gov>

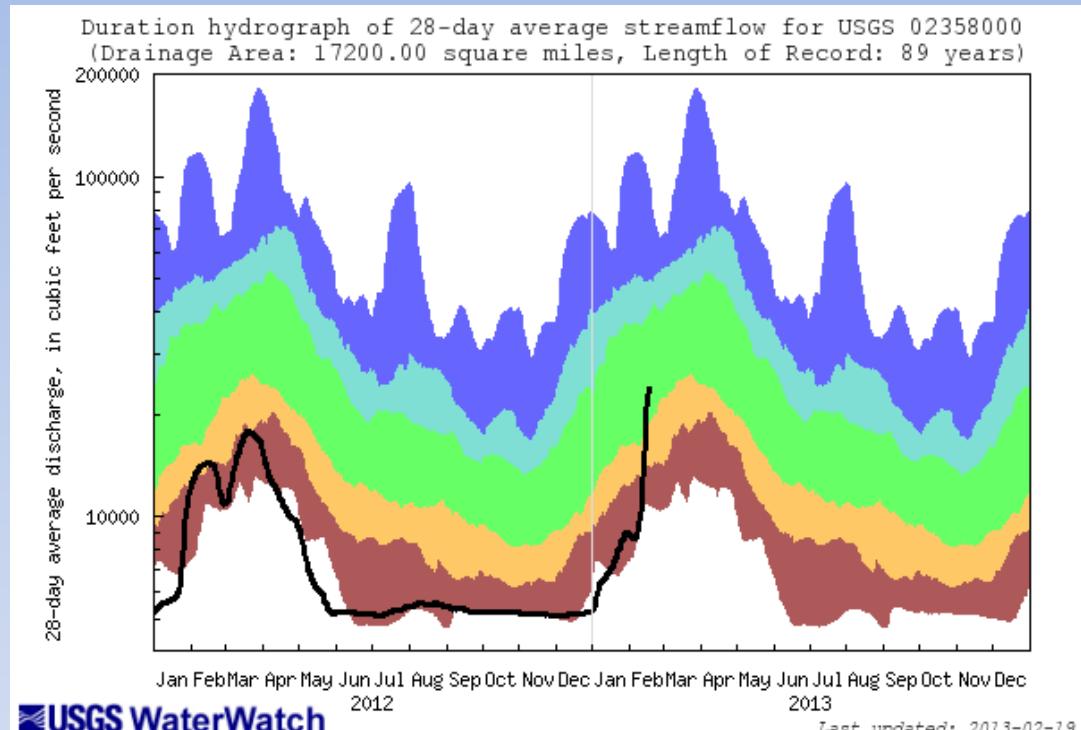
Flint at Bainbridge (02356000)

Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile-highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	



Streamflows

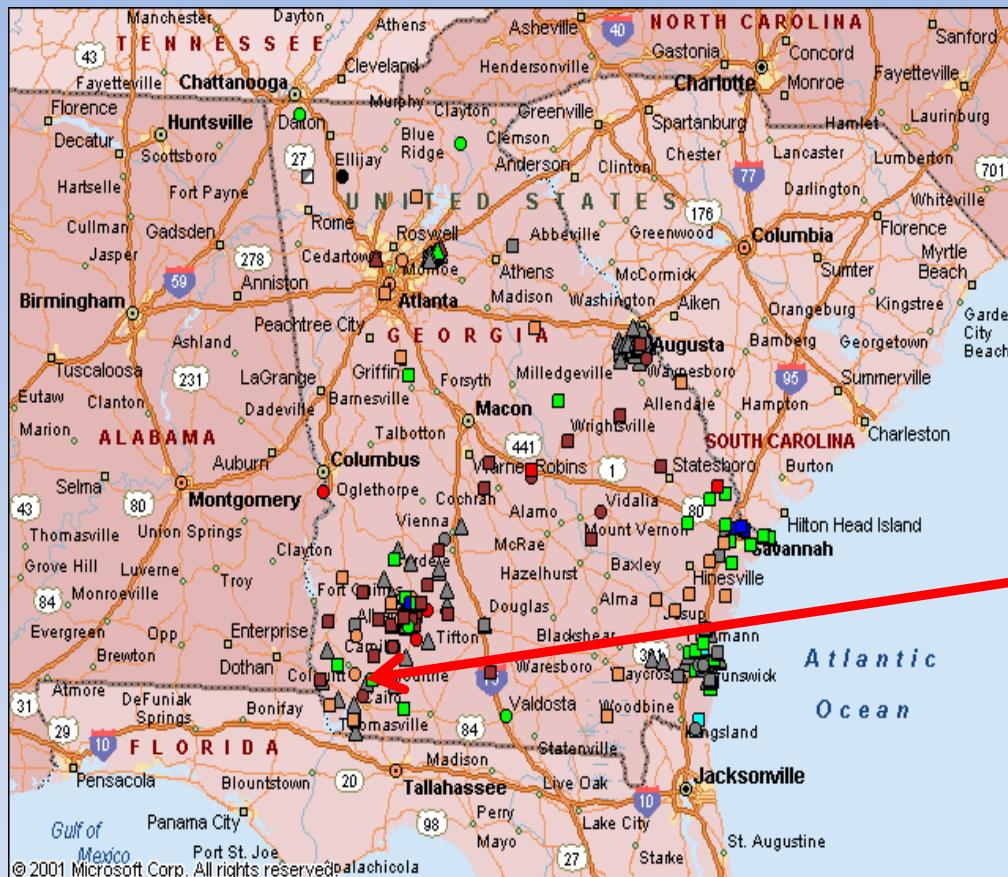
Apalachicola at
Chattahoochee
(02358000)



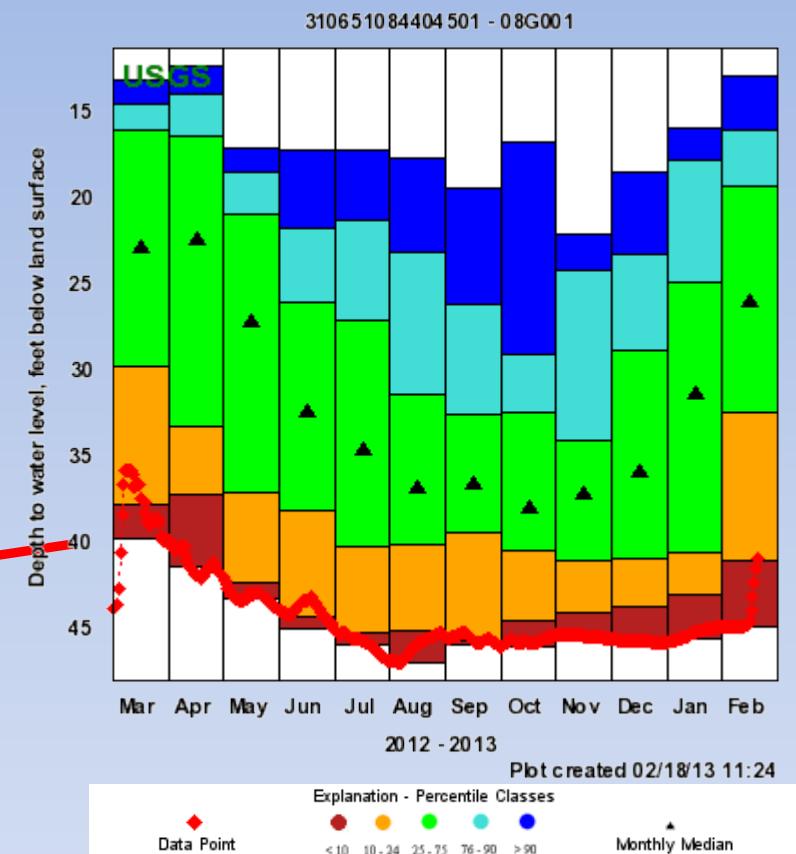
Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile-highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

<http://waterwatch.usgs.gov>

Groundwater Status

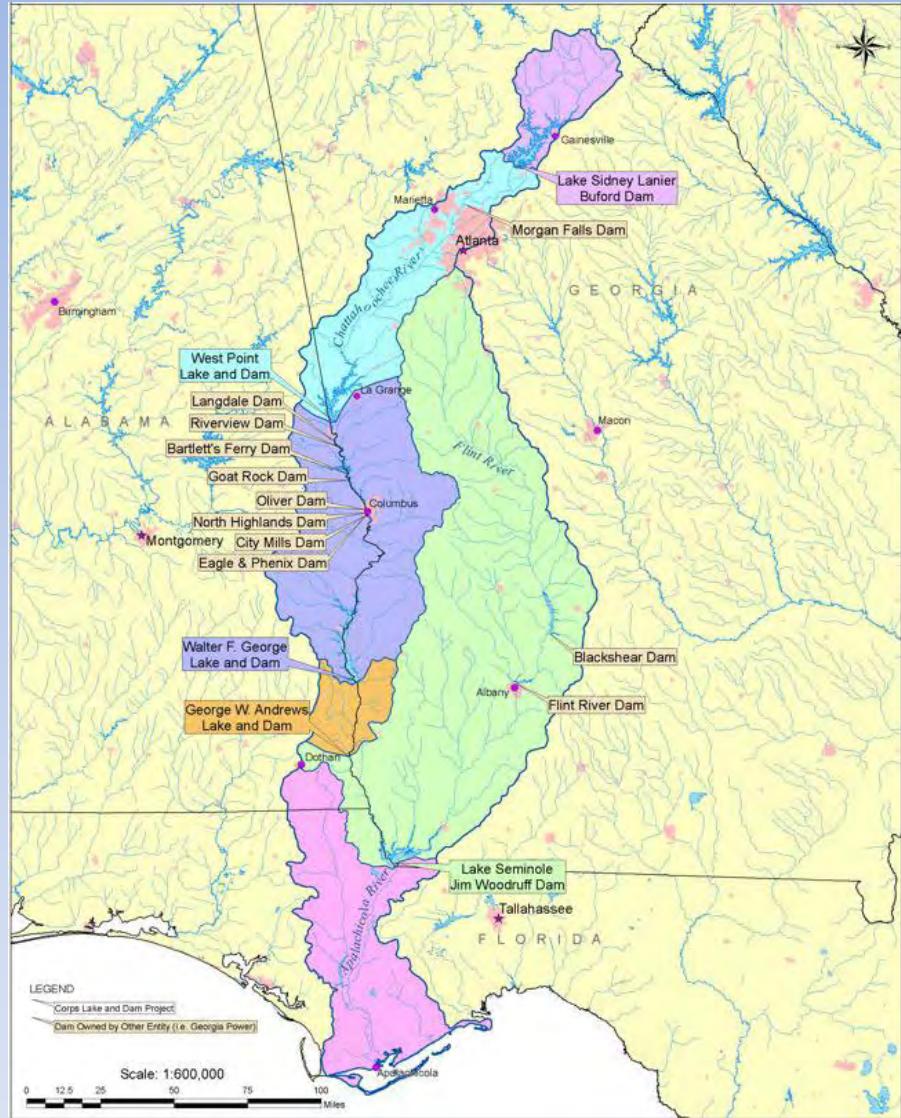
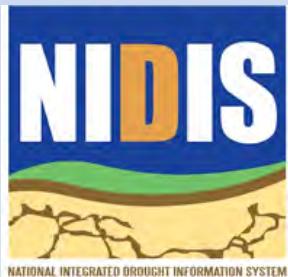
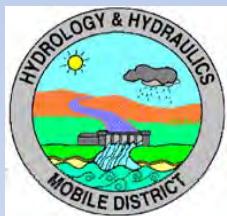


Explanation - Percentile classes (symbol color based on most recent measurement)							
	●	●	●	●	●	●	●
Low	<10	10-24	25-75	76-90	>90	High	Not Ranked
Much Below Normal	Below Normal	Normal	Above Normal	Much Above Normal			

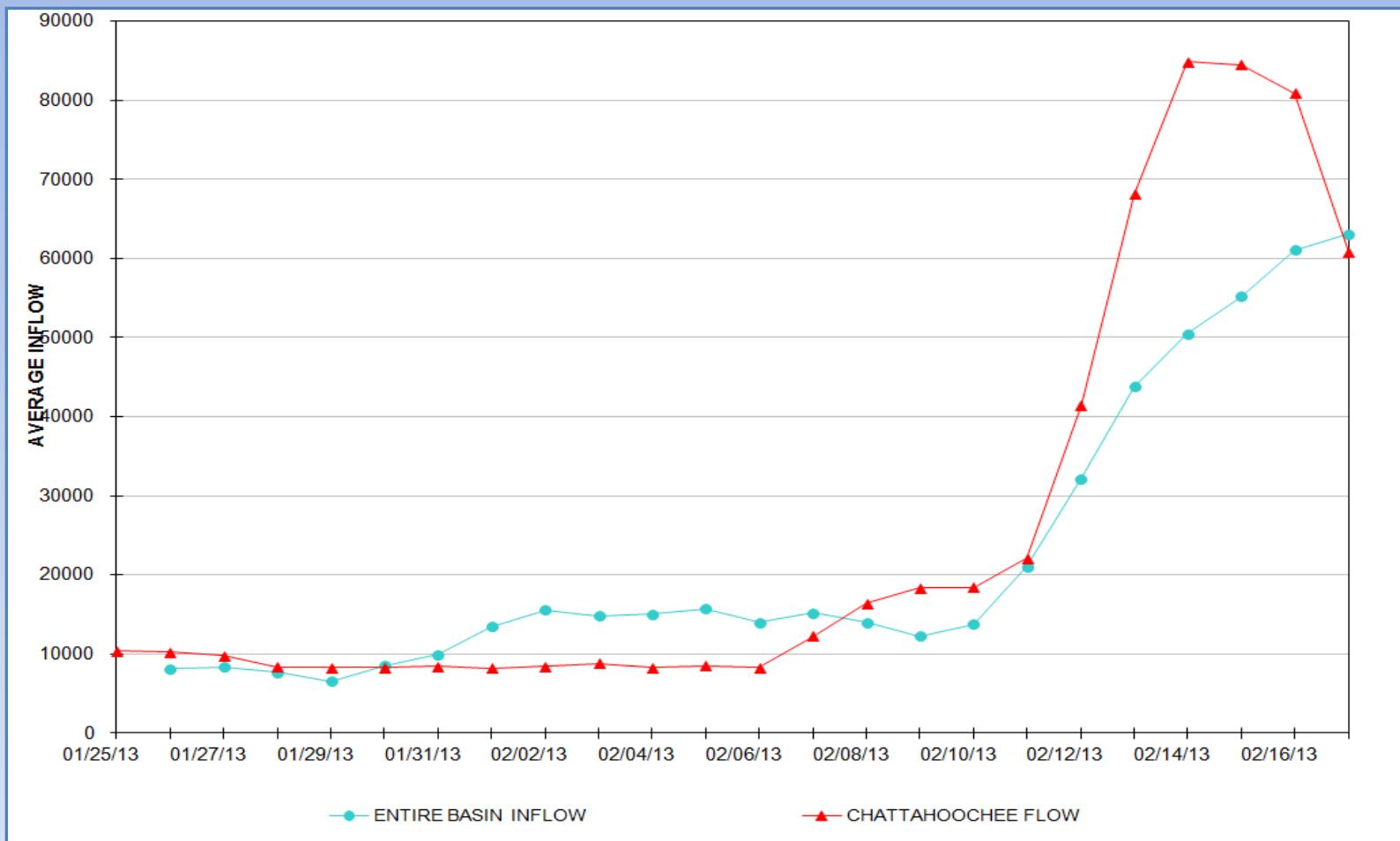


Miller County, GA
(Upper Floridan Aquifer)

USACE – ACF Operations



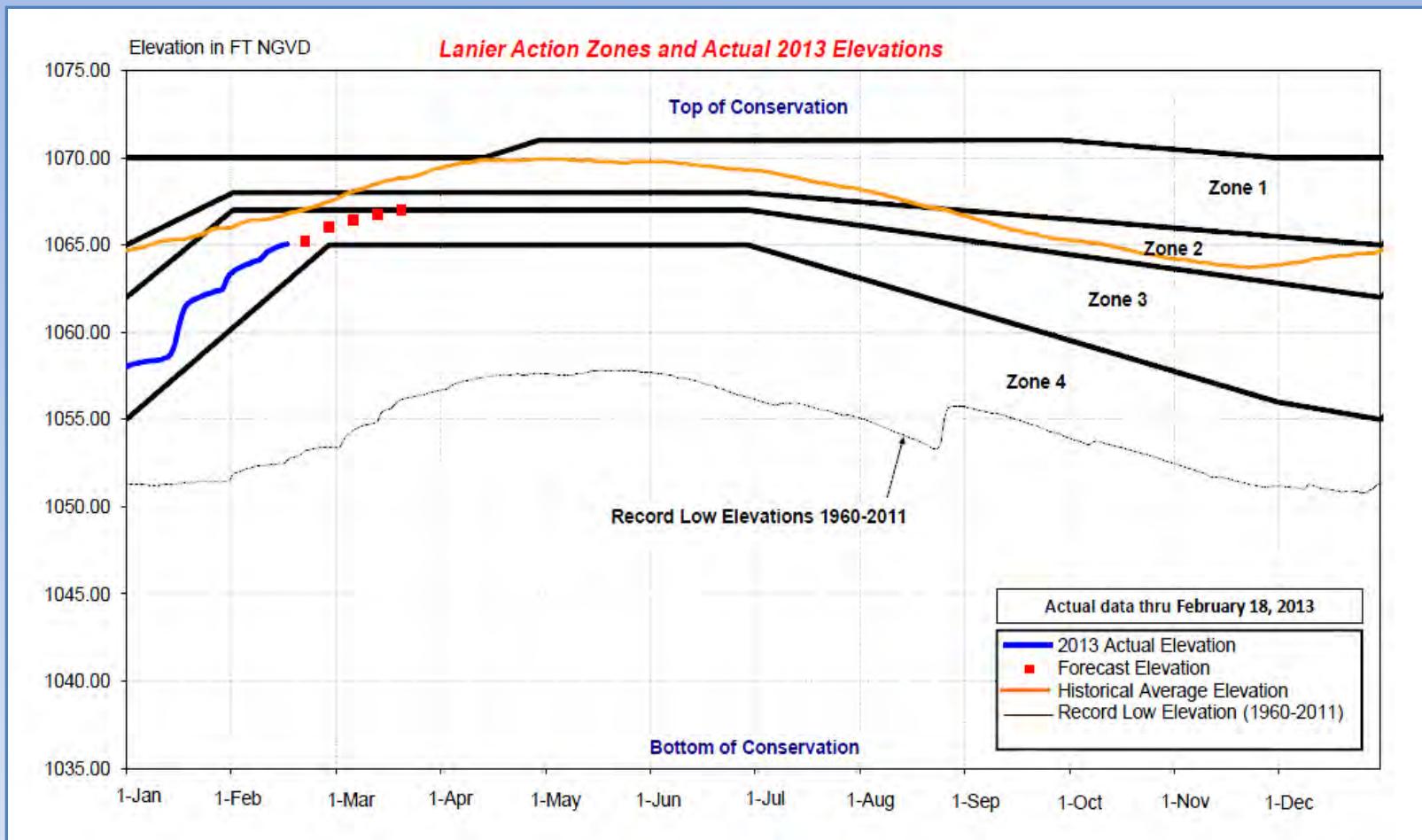
7-Day Moving Average Inflow Versus 1-Day Chattahoochee Gage Flow



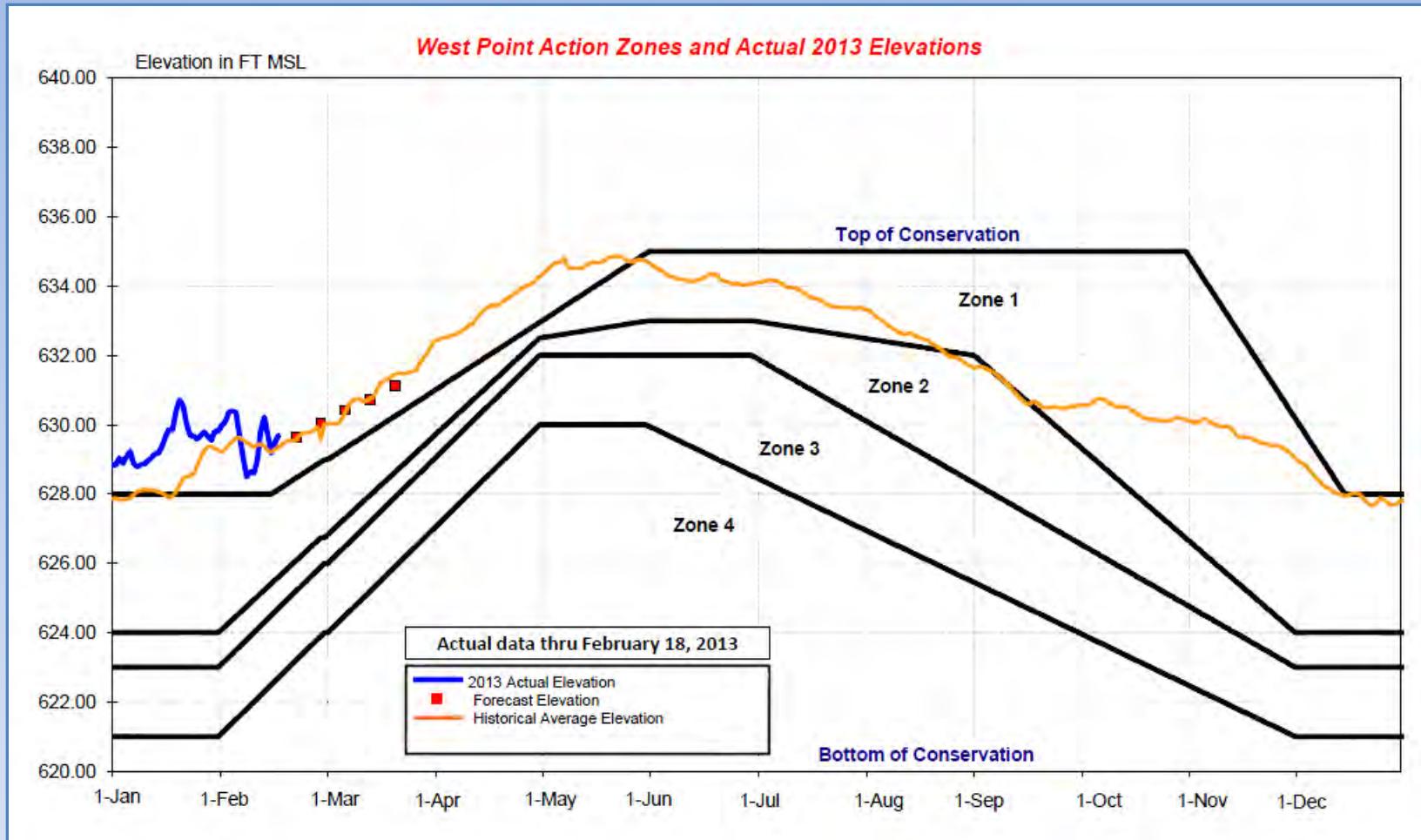
Local Inflows into Lakes by Month

2013	BUFORD LOCALS			WEST POINT LOCALS			GEORGE LOCALS			WOODRUFF LOCALS			ACF TOTAL		
	HISTORICAL	2013	%	HISTORICAL	2013	%	HISTORICAL	2013	%	HISTORICAL	2013	%	HISTORICAL	2013	%
	Avg	Avg	Normal	Avg	Avg	Normal	Avg	Avg	Normal	Avg	Avg	Normal	Avg	Avg	Normal
	(CFS)	(CFS)		(CFS)	(CFS)		(CFS)	(CFS)		(CFS)	(CFS)		(CFS)	(CFS)	
JAN	2556	3469	136%	4059	2549	63%	5846	1879	32%	14887	3816	26%	27347	11712	43%
FEB	2837	2411	85%	4957	4705	95%	7407	14744	199%	18838	11529	61%	34039	33389	98%
MAR	3249		0%	5865		0%	9578		0%	21180		0%	39873	0	0%
APR	2699		0%	4289		0%	6312		0%	17241		0%	30541	0	0%
MAY	2067		0%	3048		0%	3070		0%	11544		0%	19728	0	0%
JUN	1571		0%	2143		0%	2206		0%	9235		0%	15155	0	0%
JUL	1338		0%	2109		0%	2709		0%	9597		0%	15753	0	0%
AUG	1186		0%	1342		0%	1711		0%	7748		0%	11987	0	0%
SEP	1084		0%	1369		0%	1333		0%	6376		0%	10163	0	0%
OCT	1194		0%	1505		0%	1726		0%	6650		0%	11075	0	0%
NOV	1478		0%	2363		0%	2538		0%	6882		0%	13260	0	0%
DEC	2003		0%	2874		0%	3969		0%	10065		0%	18911	0	0%
YTD	2065	2940	142%	3242	3627	112%	4034	8311	206%	11687	7672	66%	20653	3758	18%

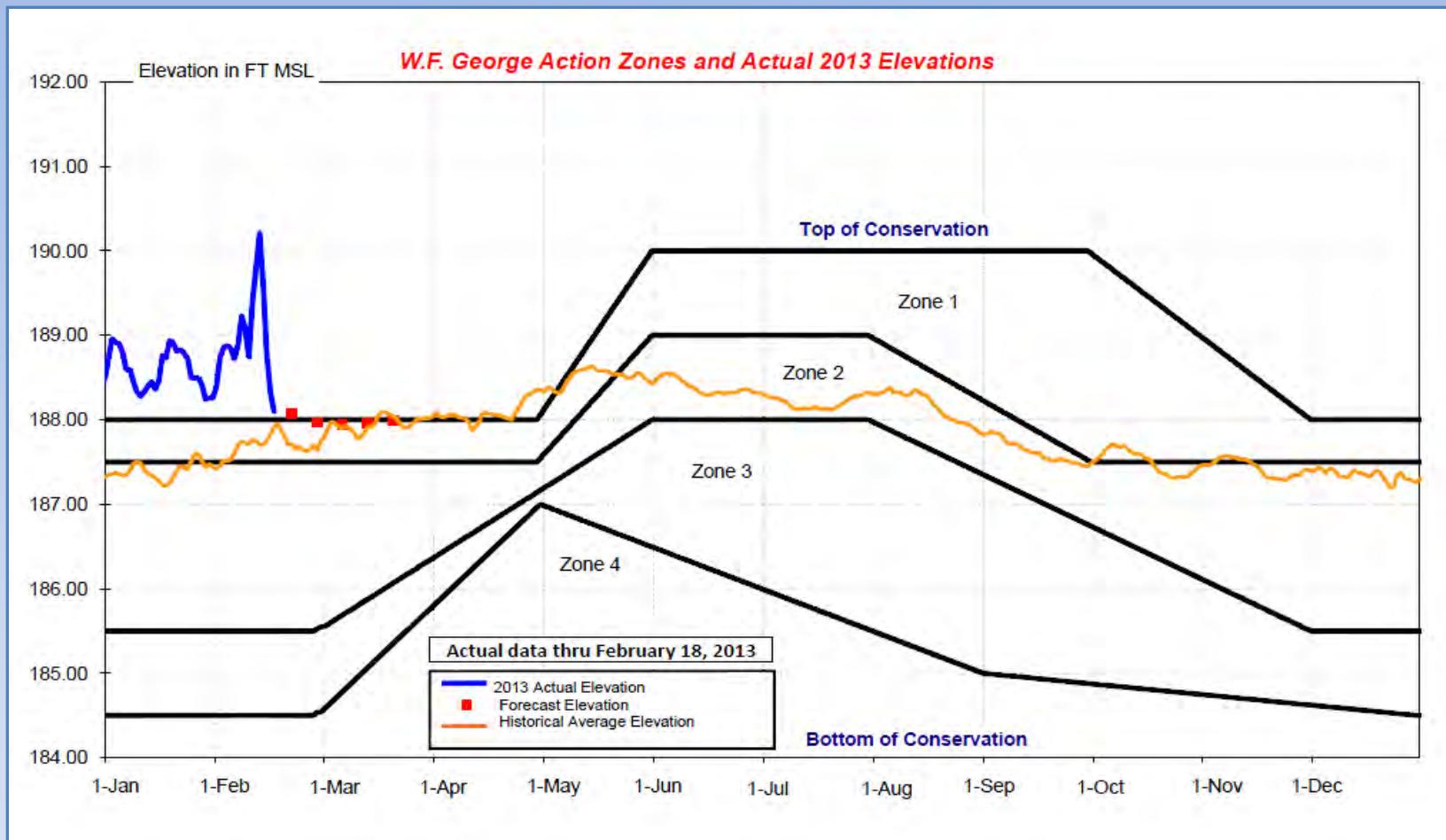
Lake Lanier



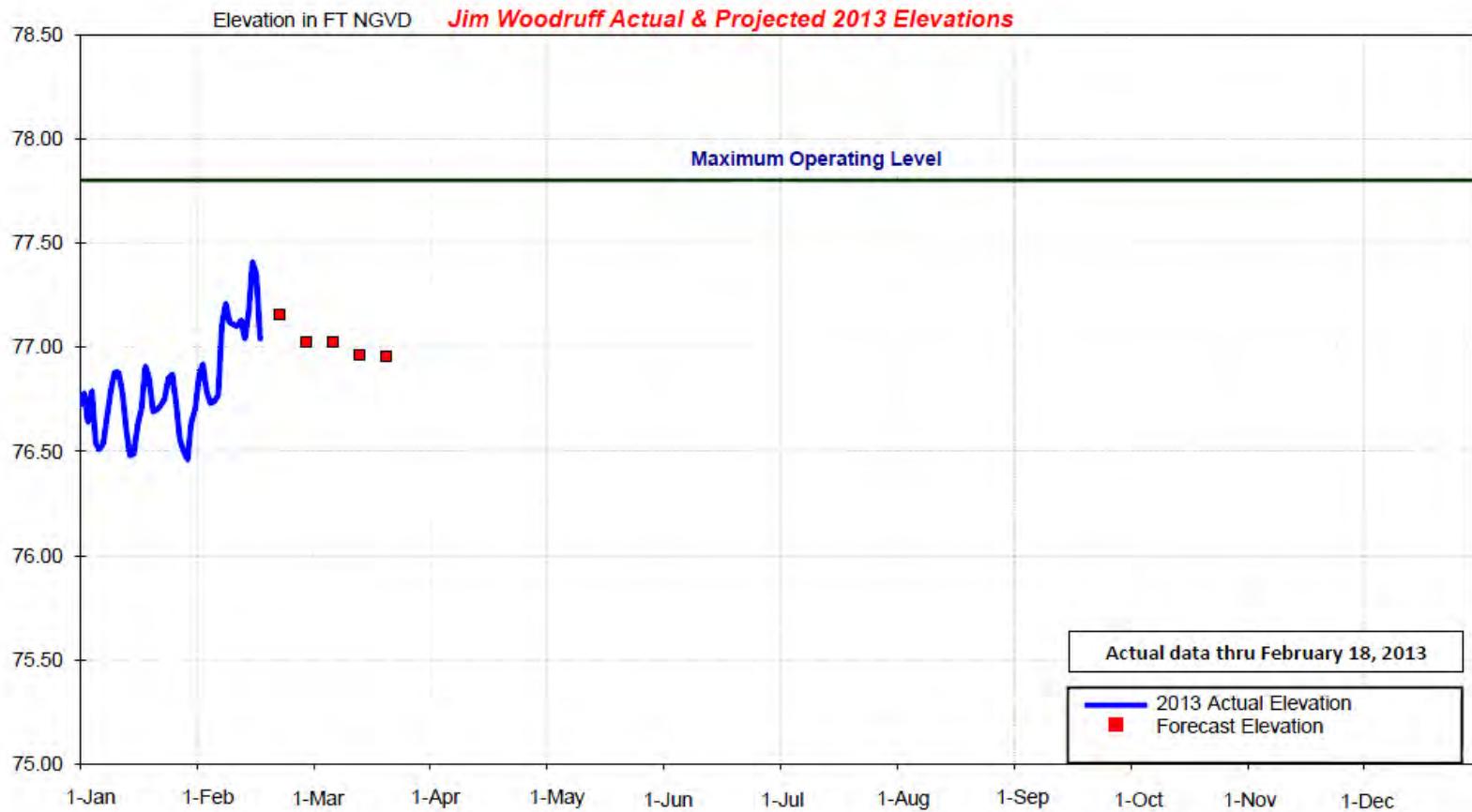
West Point



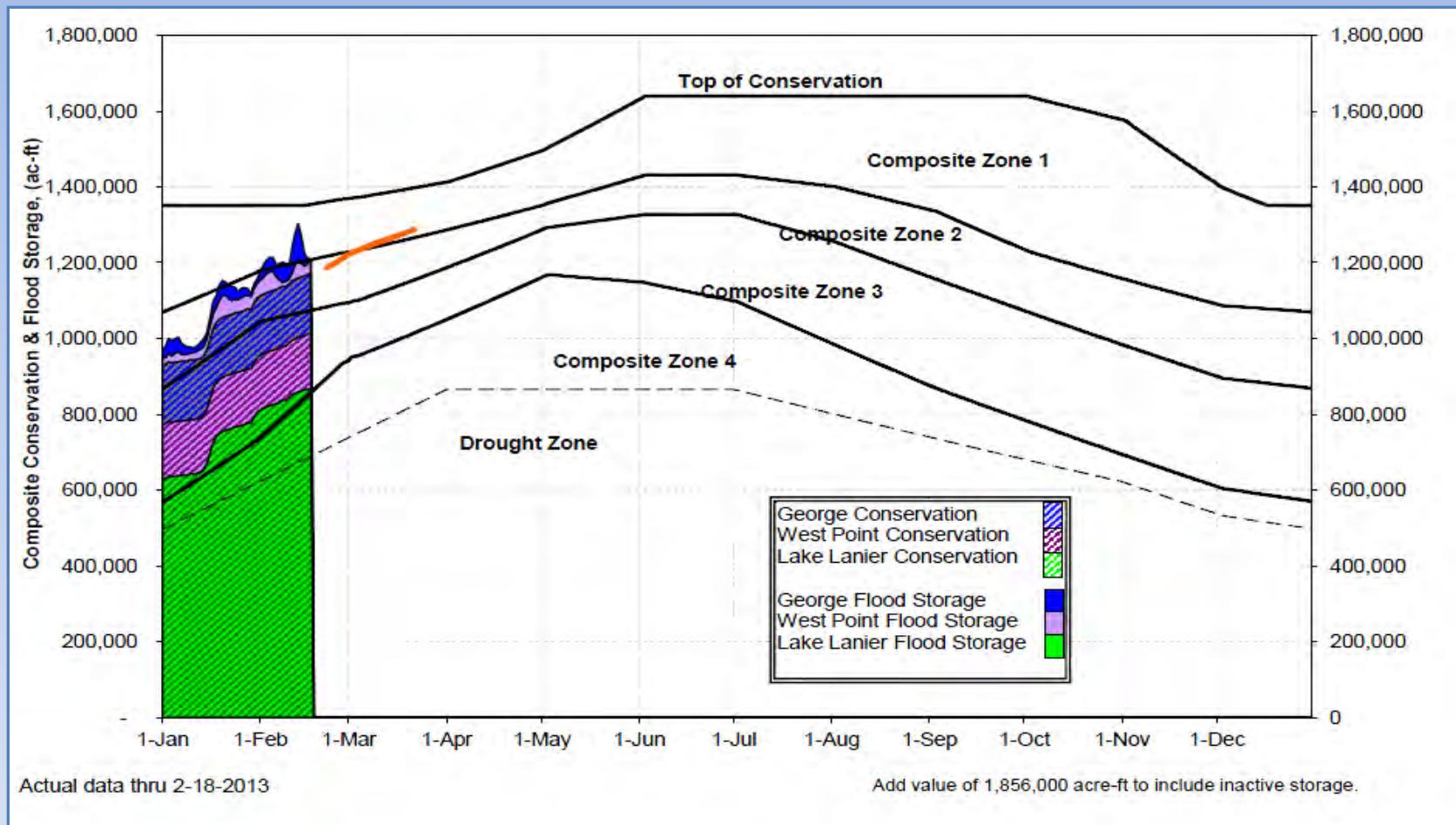
W.F. George



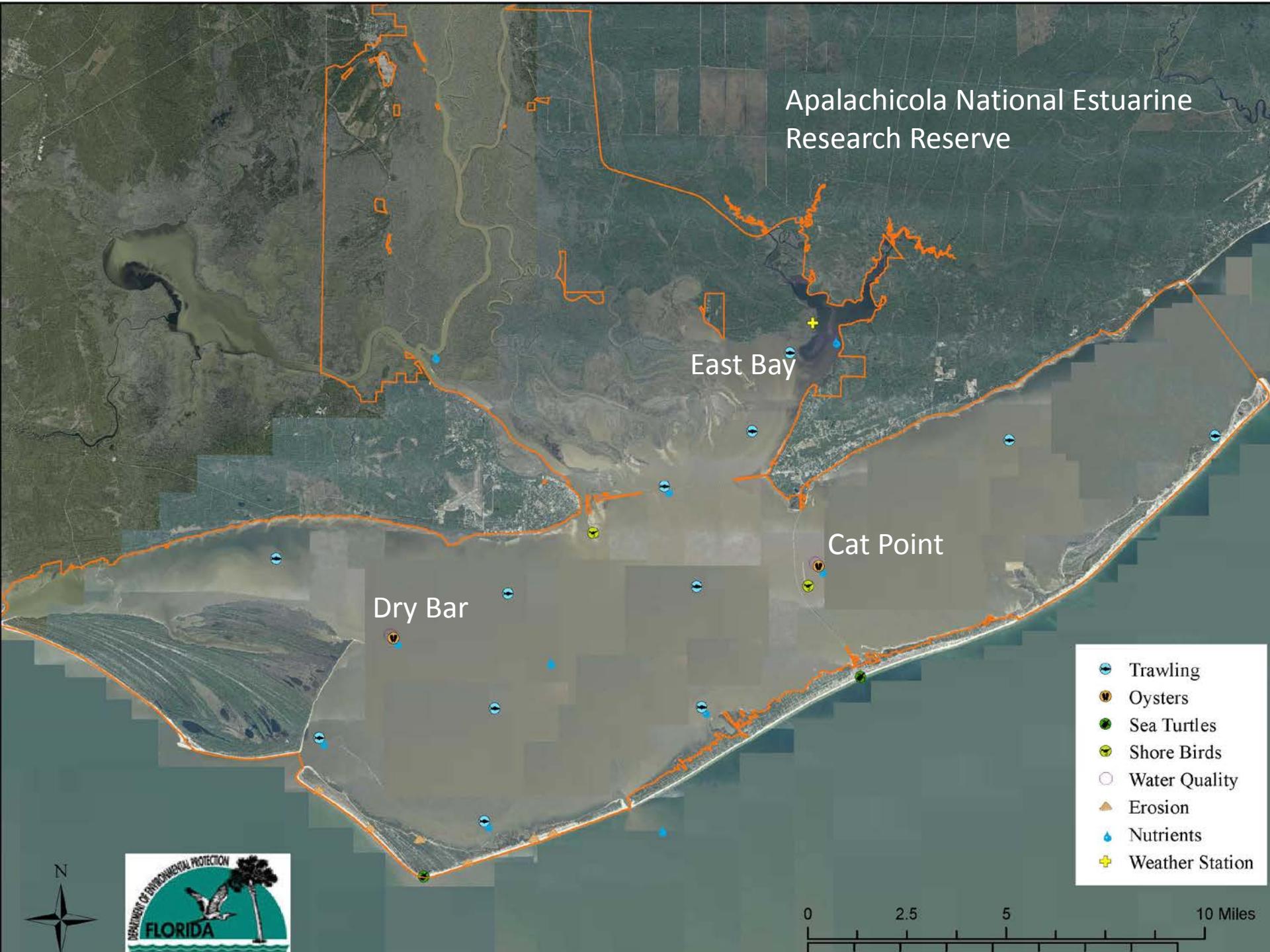
Woodruff



2013 ACF Basin Composite Conservation Storage

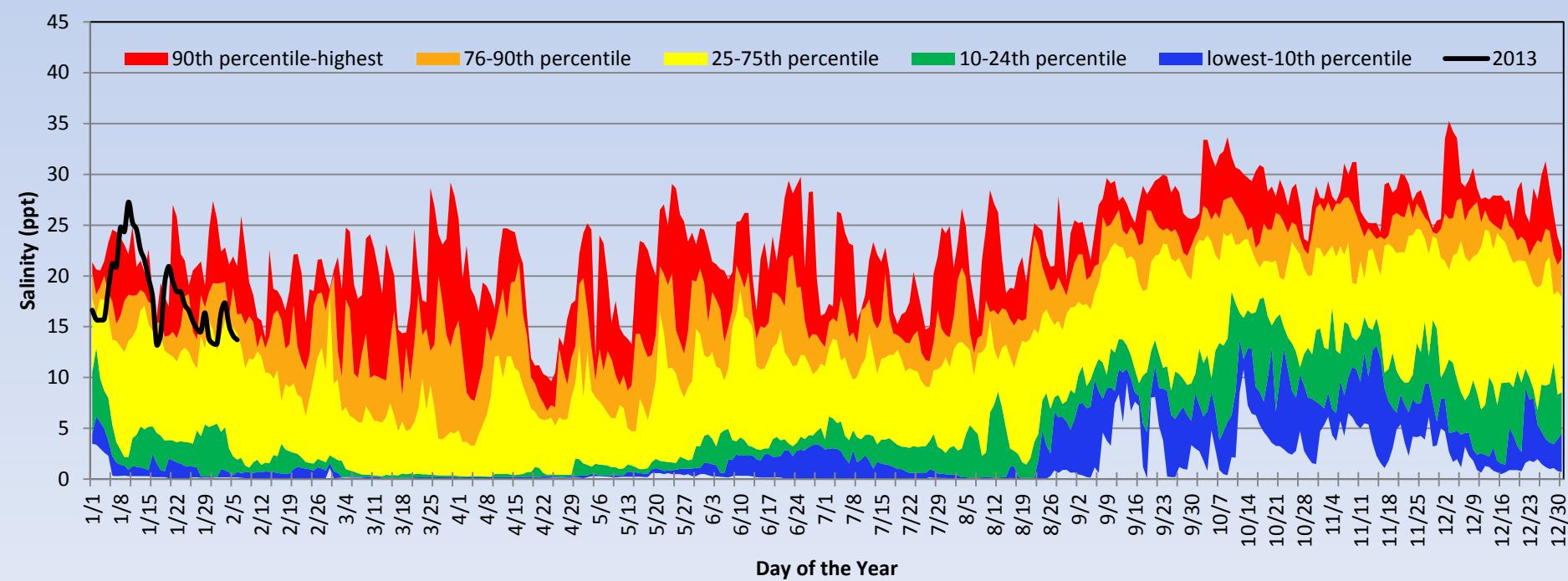
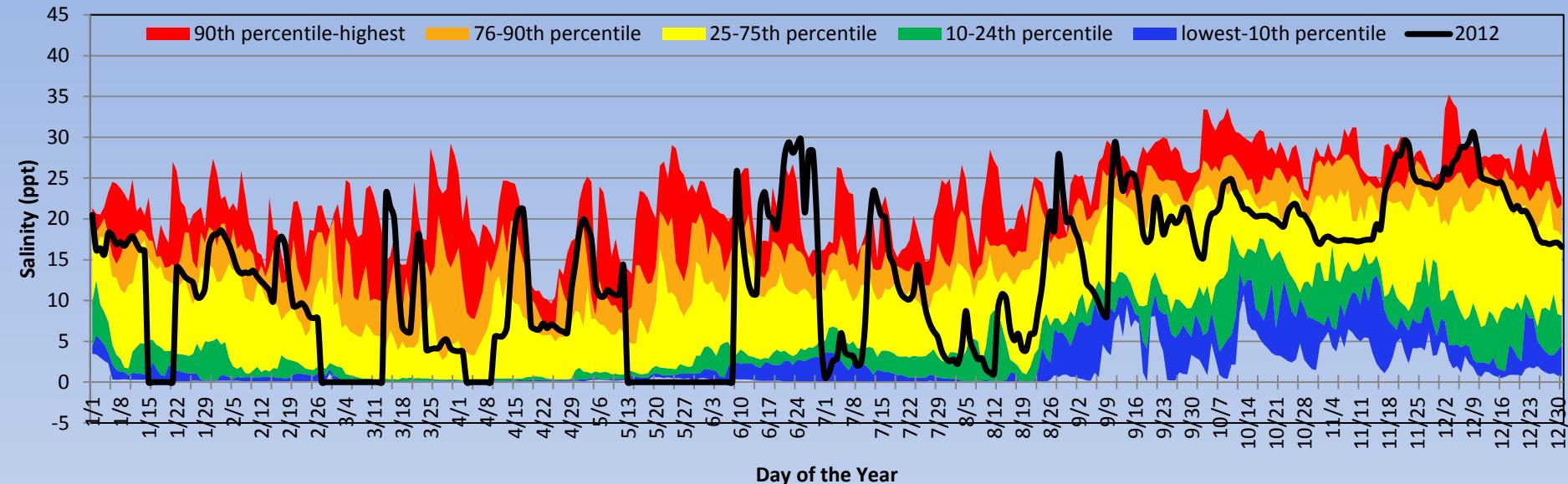


Apalachicola National Estuarine Research Reserve

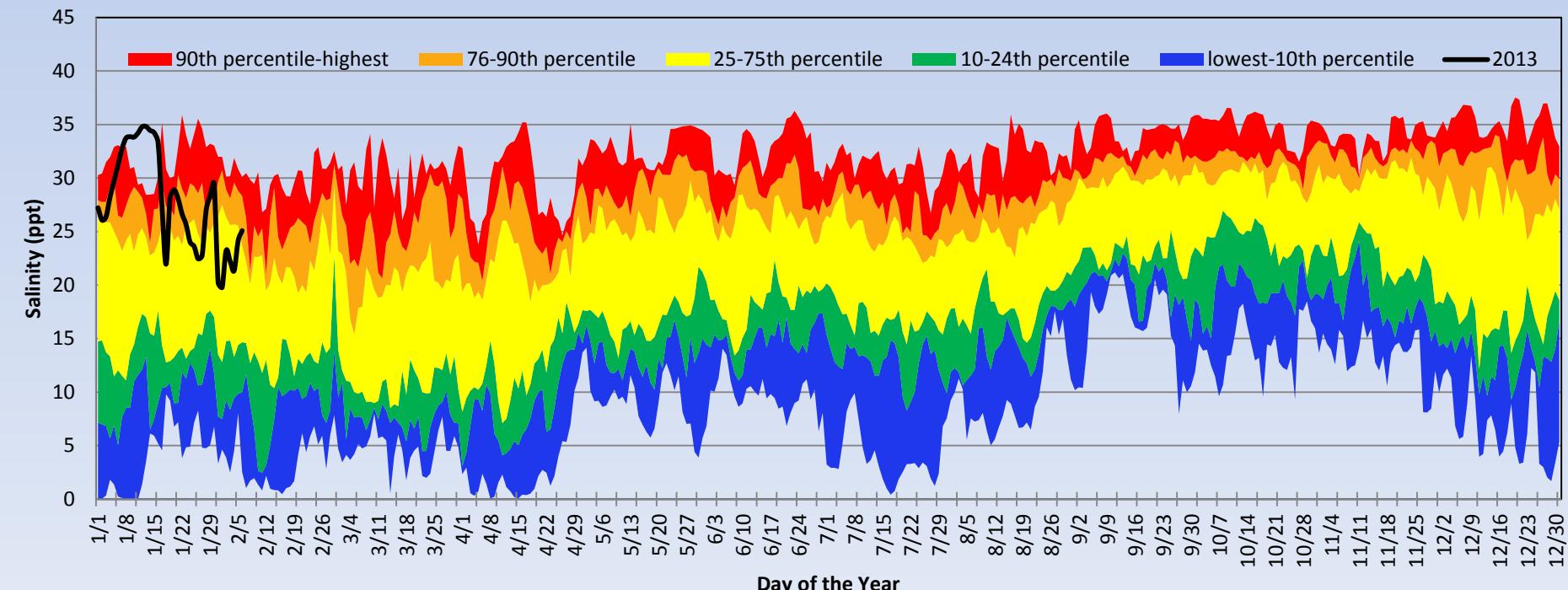
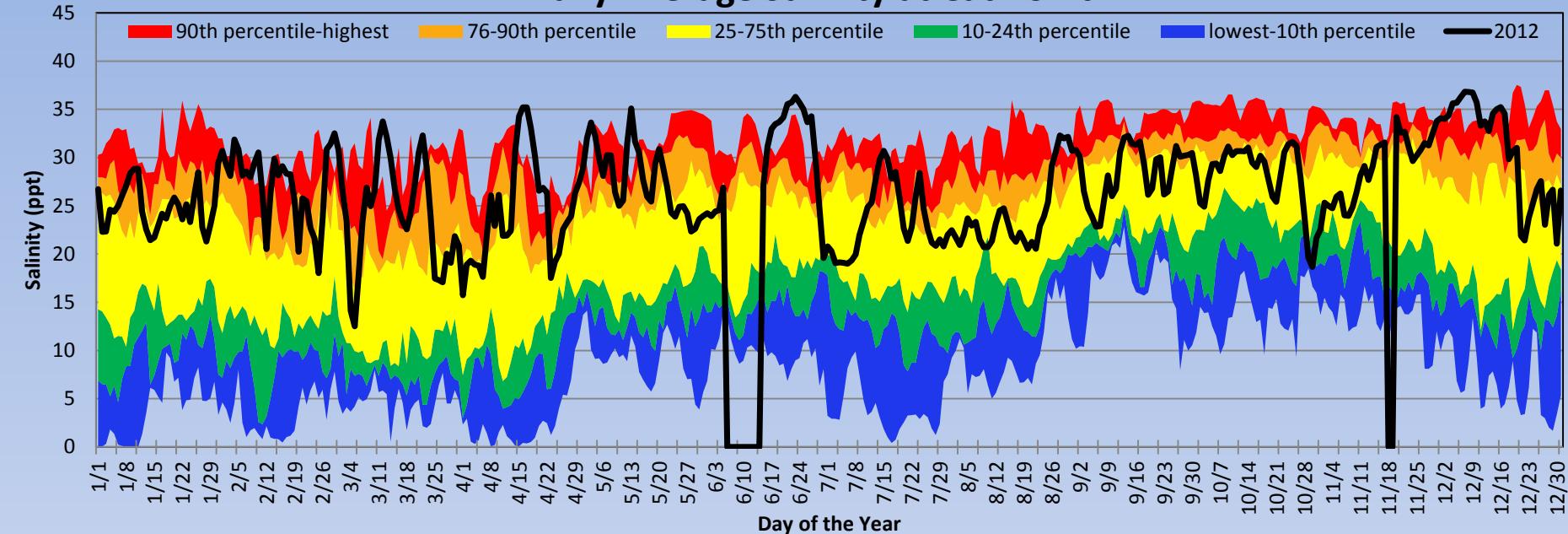


0 2.5 5 10 Miles

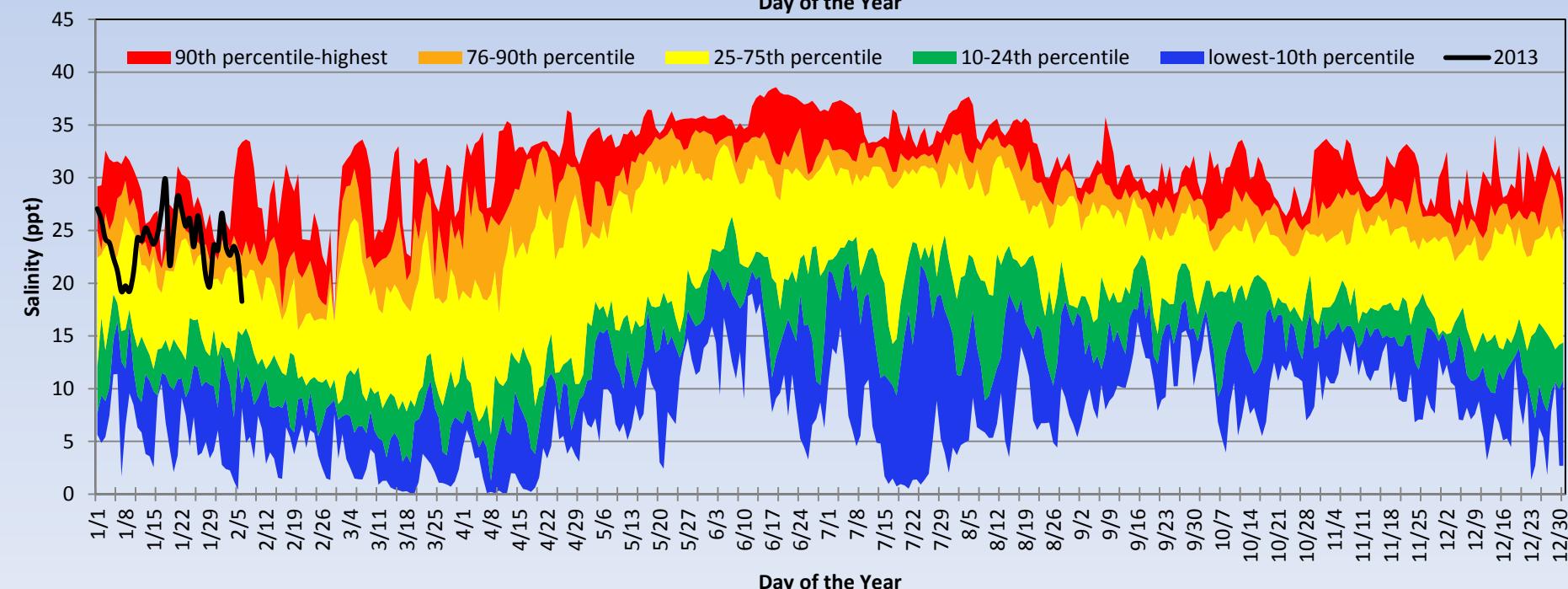
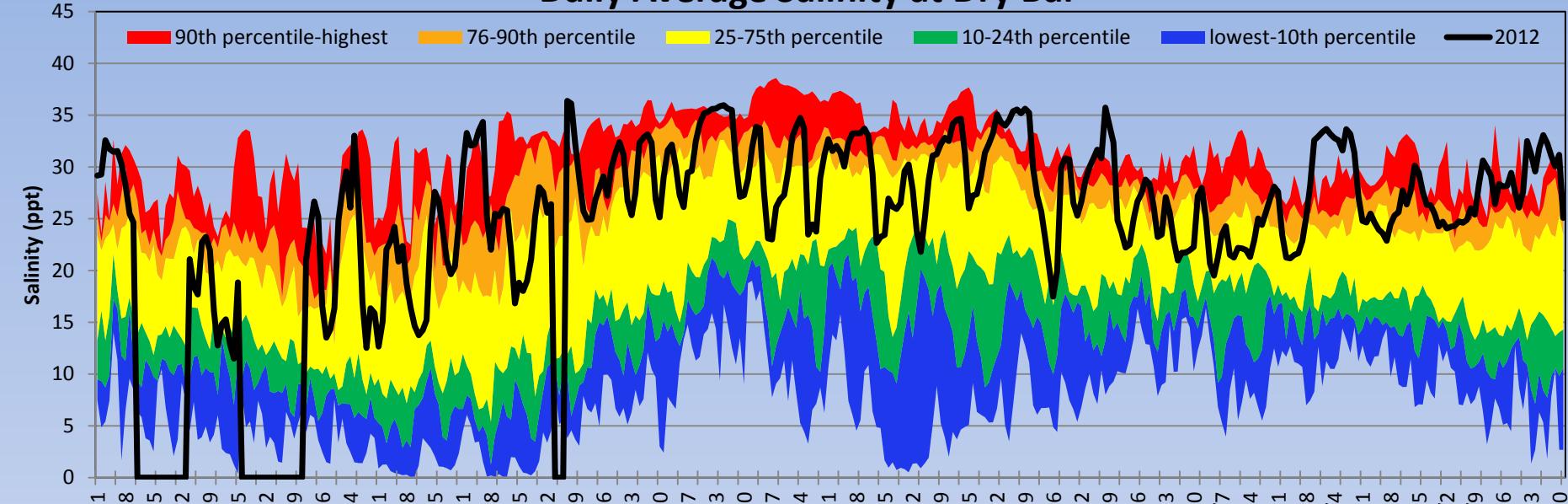
Daily Average Salinity at East Bay Bottom



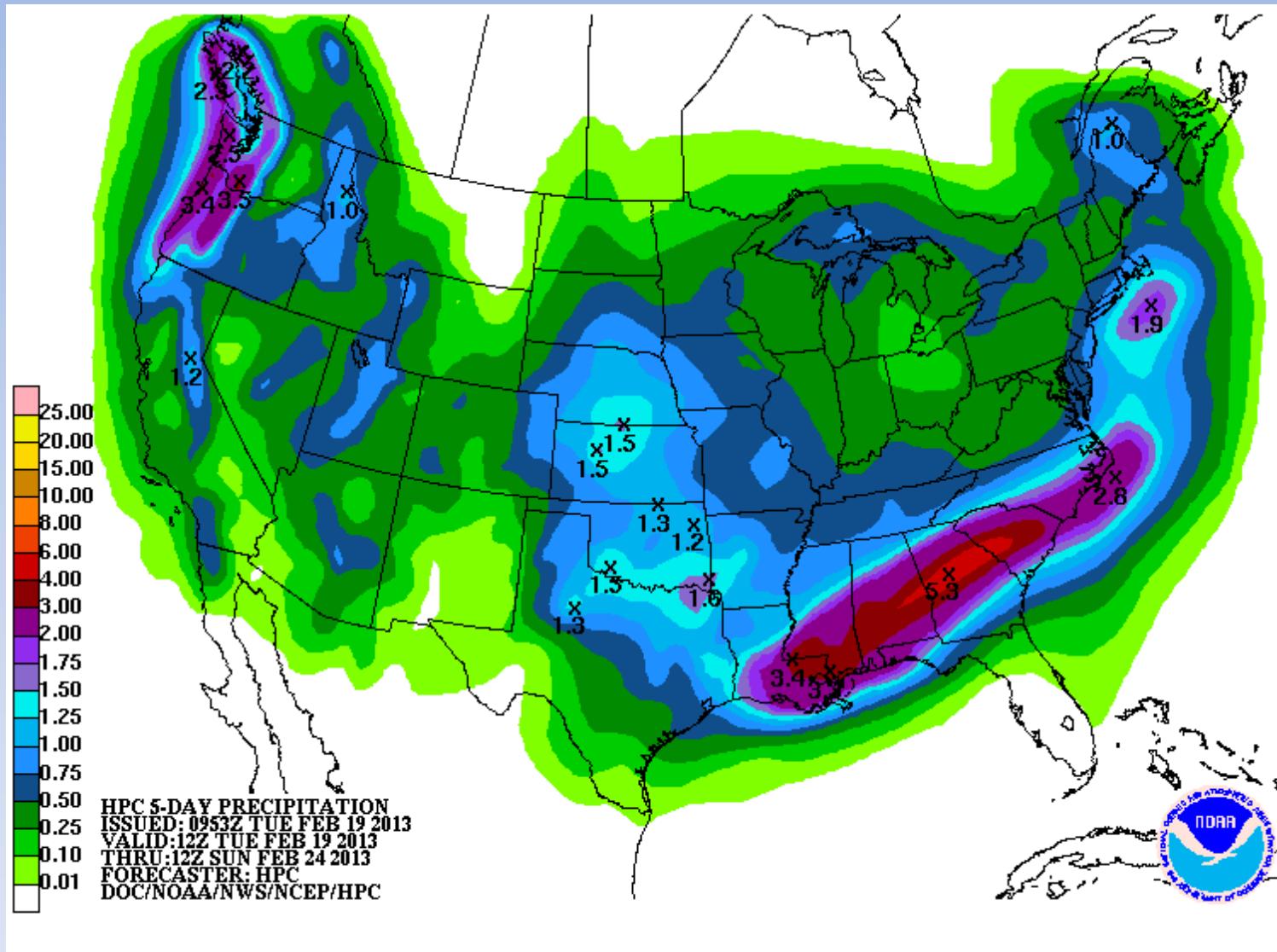
Daily Average Salinity at Cat Point



Daily Average Salinity at Dry Bar

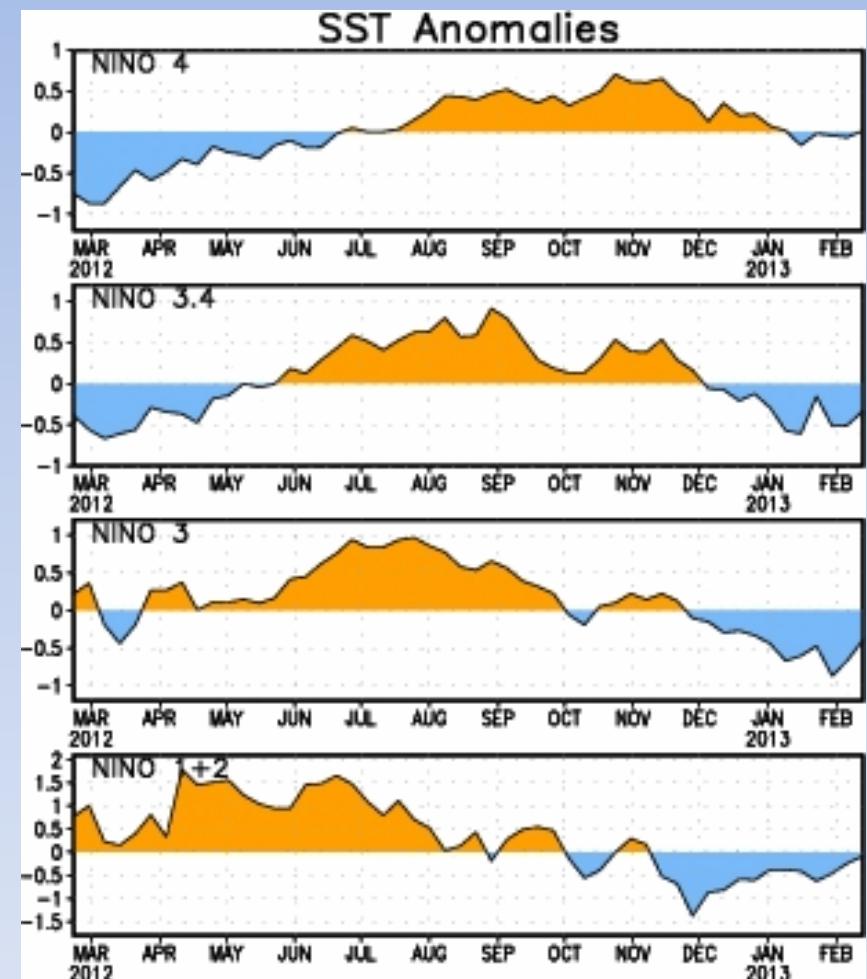
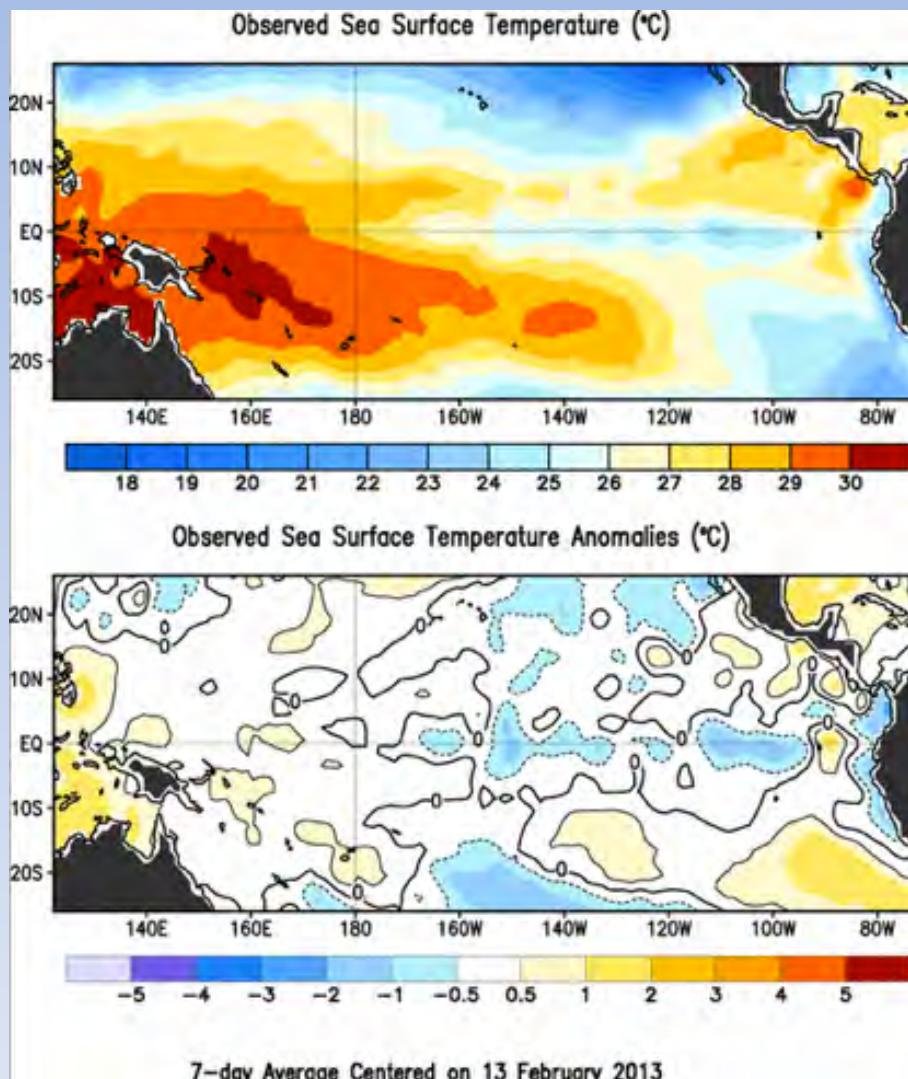


5-Day Precipitation Forecast

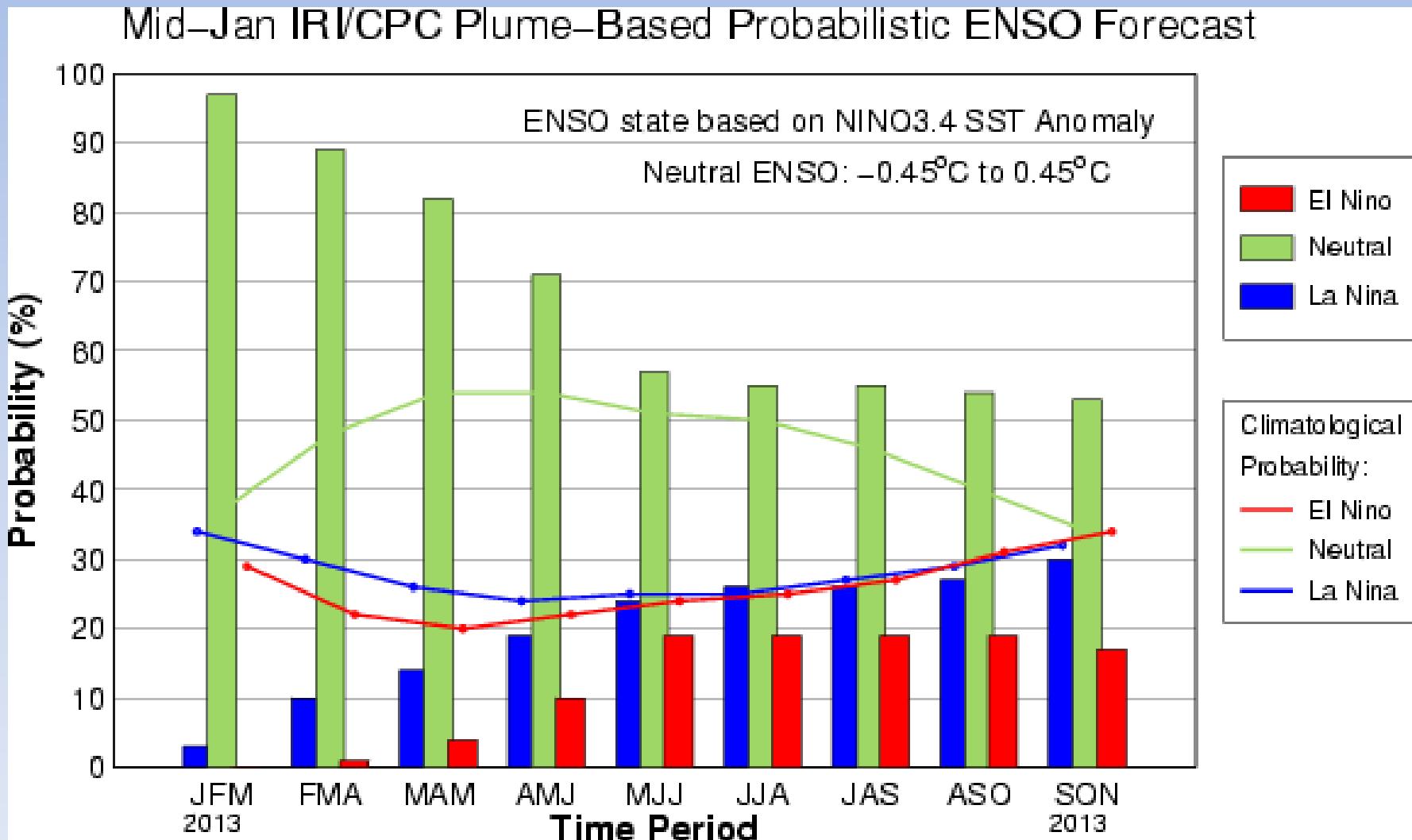


<http://www.hpc.ncep.noaa.gov/qpf/day1-5.shtml>

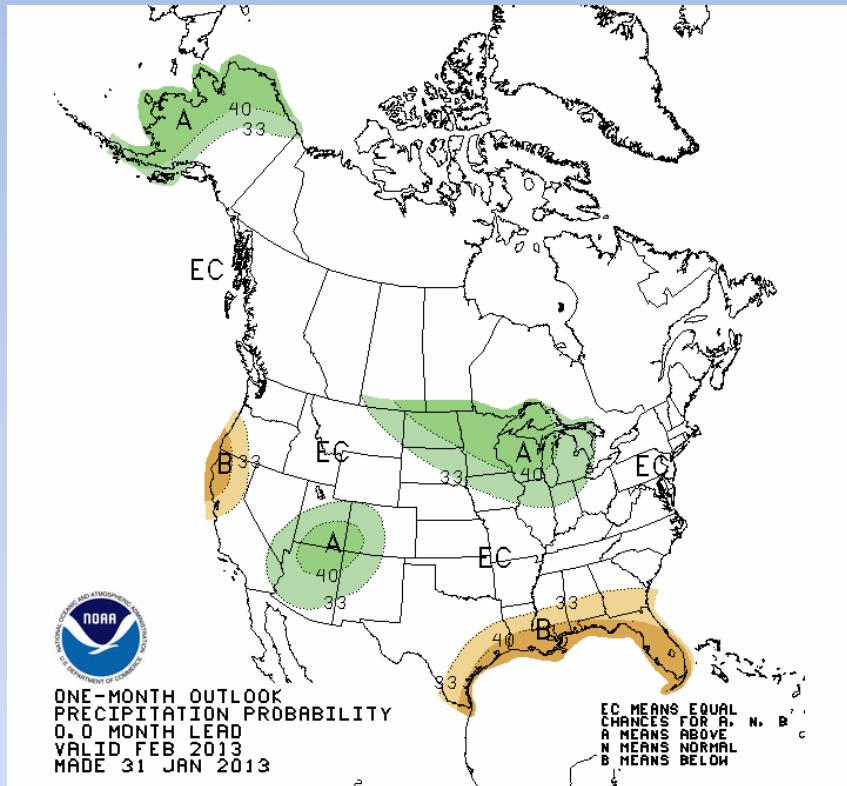
7-day average Pacific Ocean SST Anomalies



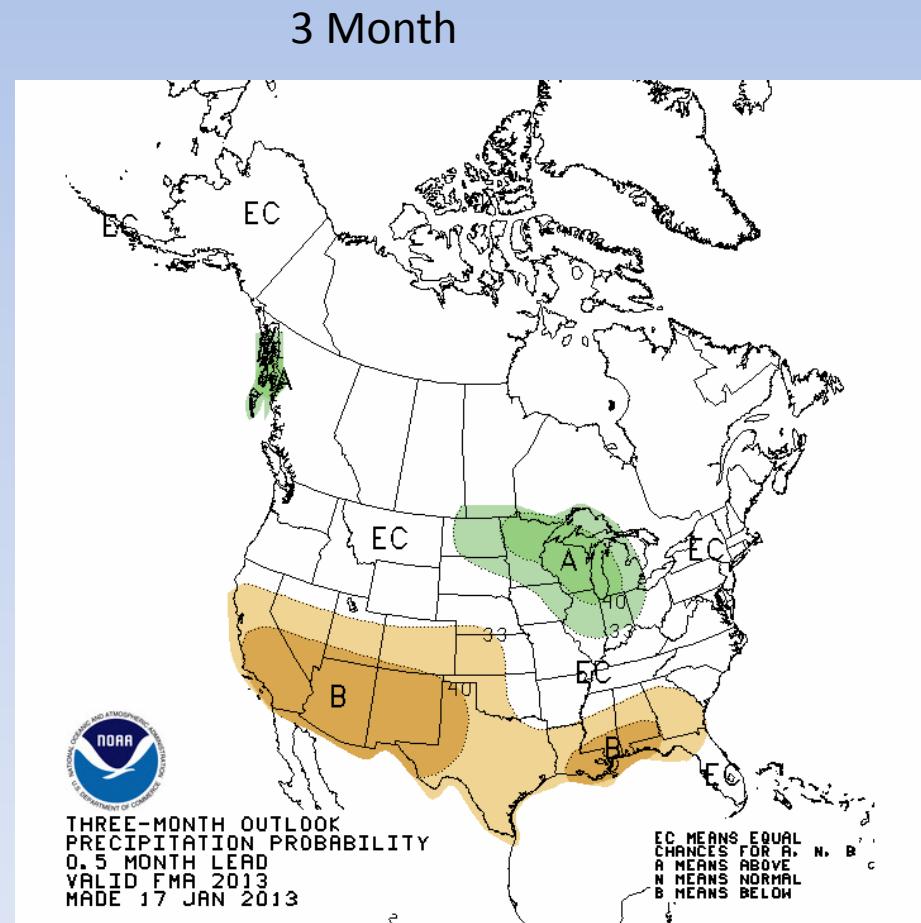
ENSO forecast from IRI



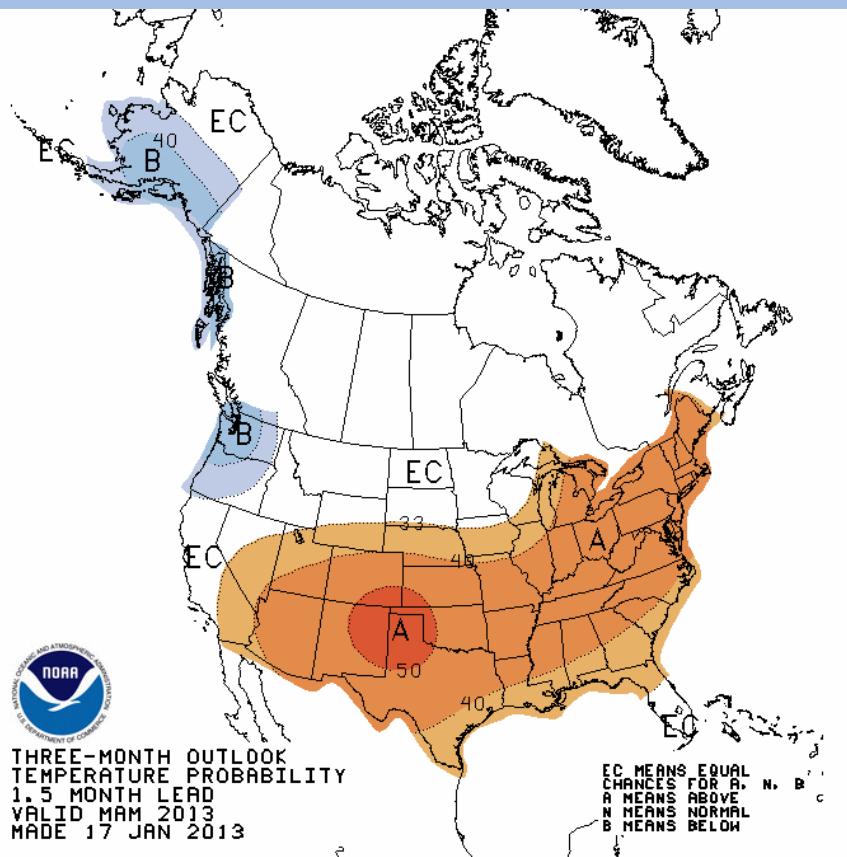
1-3 Month Precipitation Outlook



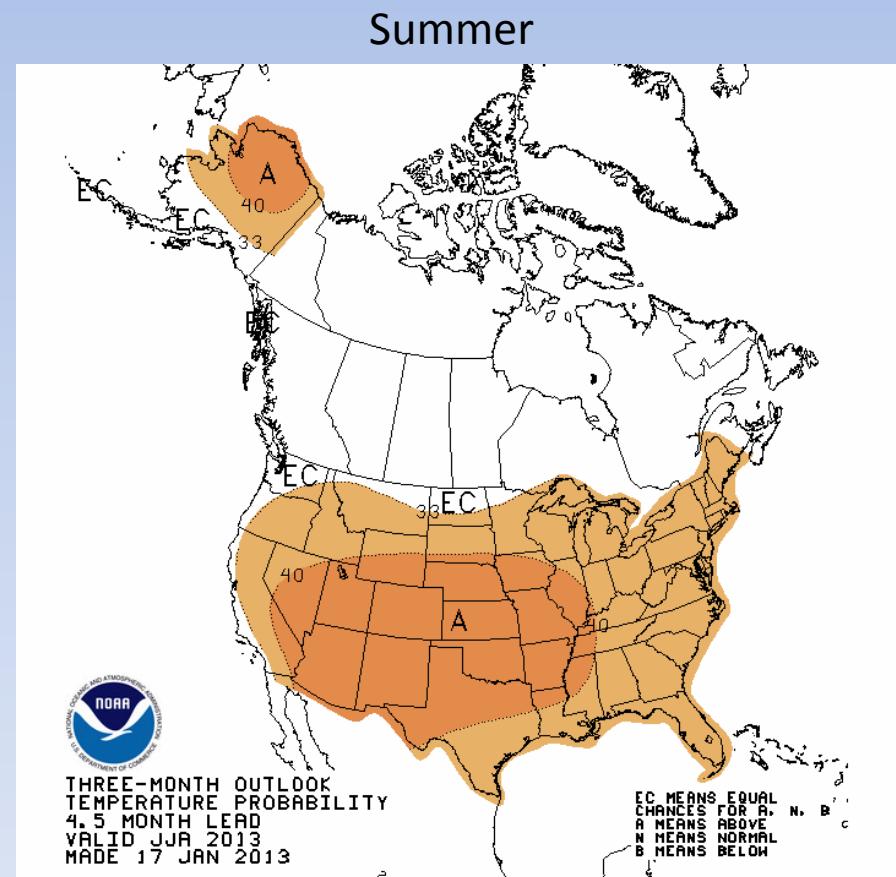
1 Month



Temperature Outlooks

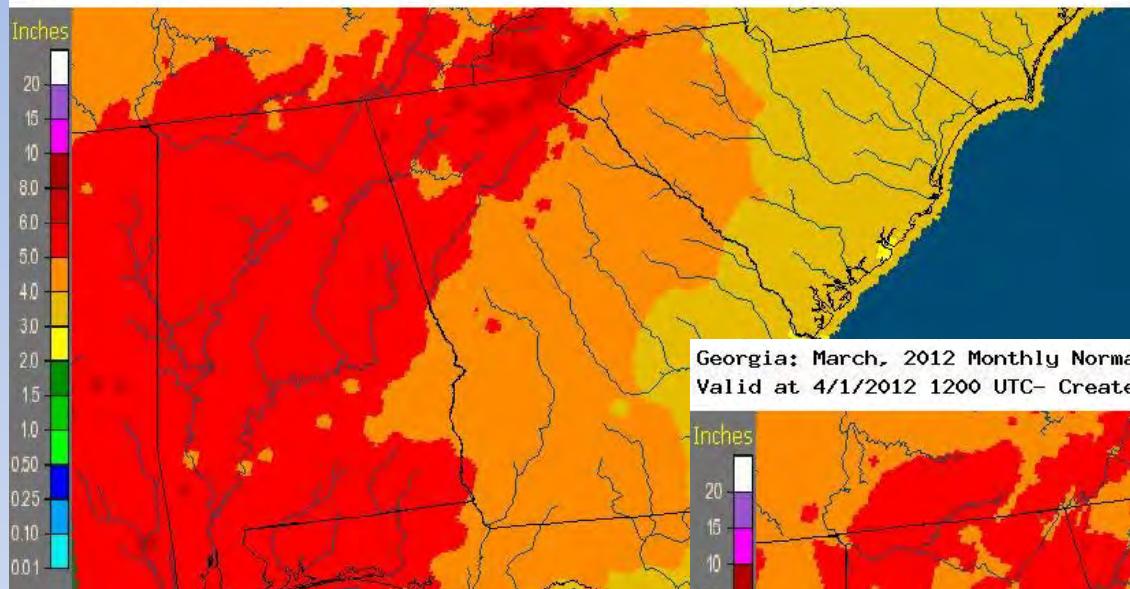


Spring

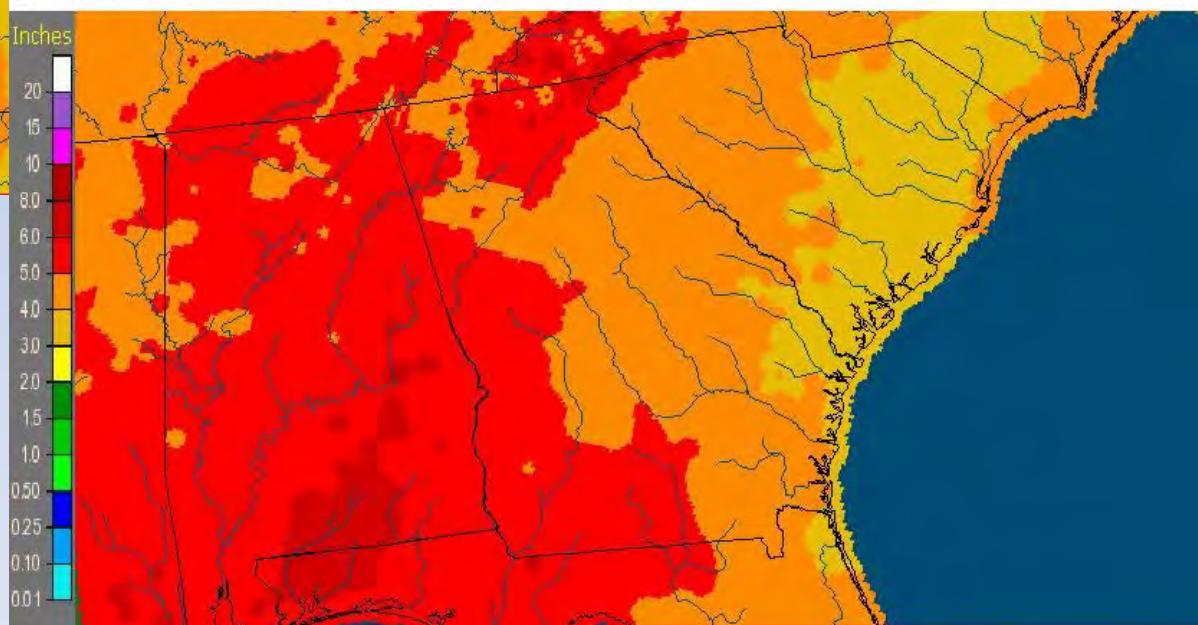


Fall Rainfall Climatology

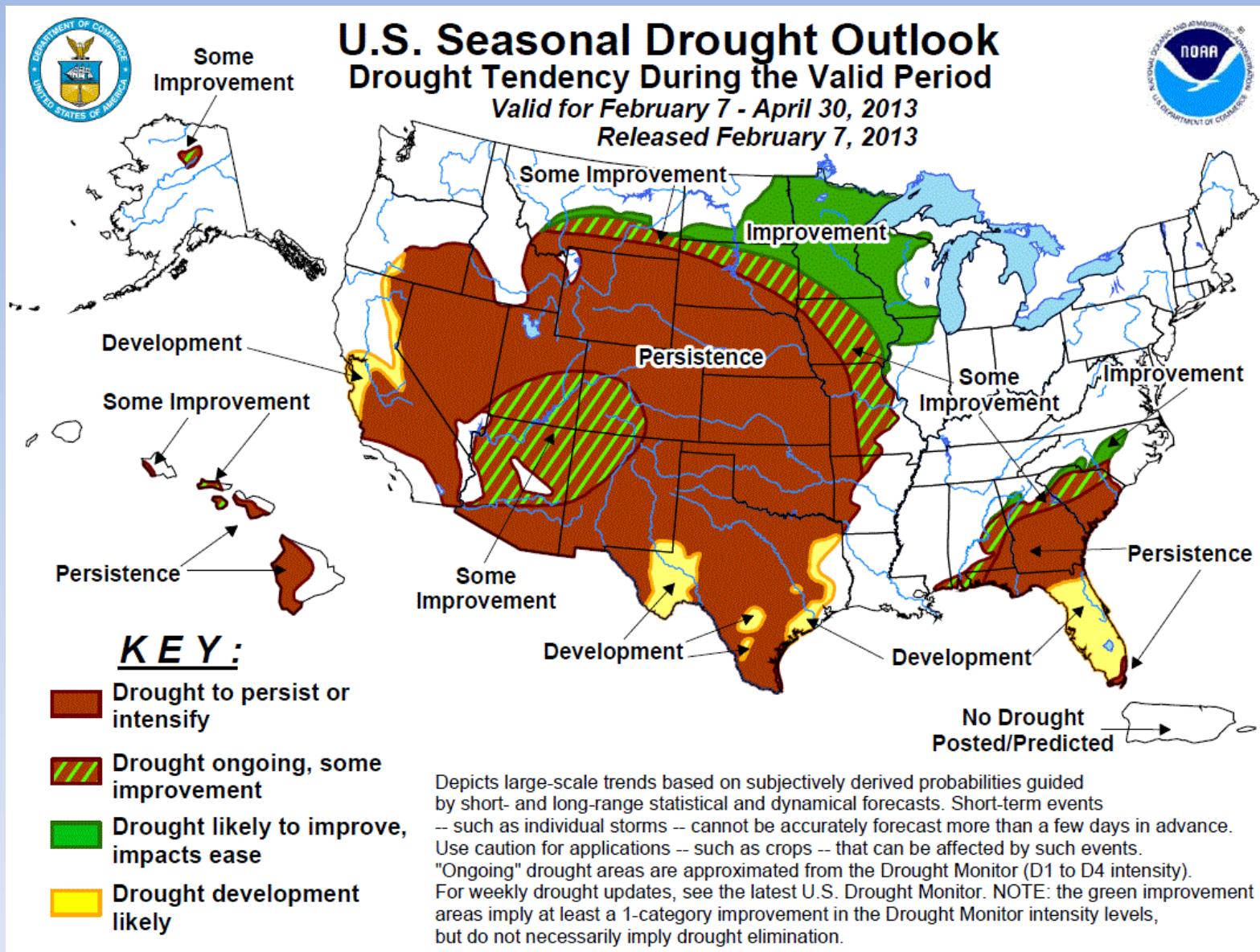
Georgia: February, 2012 Monthly Normal Precipitation
Valid at 3/1/2012 1200 UTC- Created 10/16/12 5:08 UTC



Georgia: March, 2012 Monthly Normal Precipitation
Valid at 4/1/2012 1200 UTC- Created 10/16/12 7:32 UTC



U.S. Drought Outlook



Summary

- Drought conditions have eased somewhat the basin; there are no longer areas in the category exceptional drought
- Most streamflows are in the normal range and groundwater in S Georgia is touching on range of the bottom the 10 to 24% of historic observations
- Total basin inflows have increased dramatically from about 10,000 cfs to 60,000 cfs

Summary

- The level of Lake Lanier continues to increase steadily,
- Levels of West Point and WF George are above guide curve so that the composite for the basin has stayed near the border between conservation zones 1 and 2
- Total conservation in the basin is now in conservation 2 but is projected to reach conservation zone 1 in the next few weeks
- Salinity levels in Apalachicola Bay are mostly near normal

Summary

- Short-term rainfall should continue to reduce drought conditions, particularly in the northern parts of the basin
- ENSO conditions are likely to continue at neutral for the next few months
- Rainfall has an enhanced chance of being below normal and temperatures above normal for the next few months, which could limit reduction of drought

References

Speakers

David Zierden, UGA

Tony Gotvald, USGS

Bailey Crane, USACE

Jenna Harper, ANERR

Moderator

Pam Knox, UGA

Additional information

General drought information

<http://drought.gov>

<http://www.drought.unl.edu>

General climate and El Niño information

<http://agroclimate.org/climate/>

Streamflow monitoring & forecasting

<http://waterwatch.usgs.gov>

<http://www.srh.noaa.gov/serfc/>

Groundwater monitoring

<http://groundwaterwatch.usgs.gov>

Thank you!

Next briefing – 12 March 2013, 1:00 pm EST

Slides from this briefing will be posted at

<http://drought.gov/drought/content/regional-programs/regional-drought-webinars>

Please send comments and suggestions to:

ktingram@ufl.edu