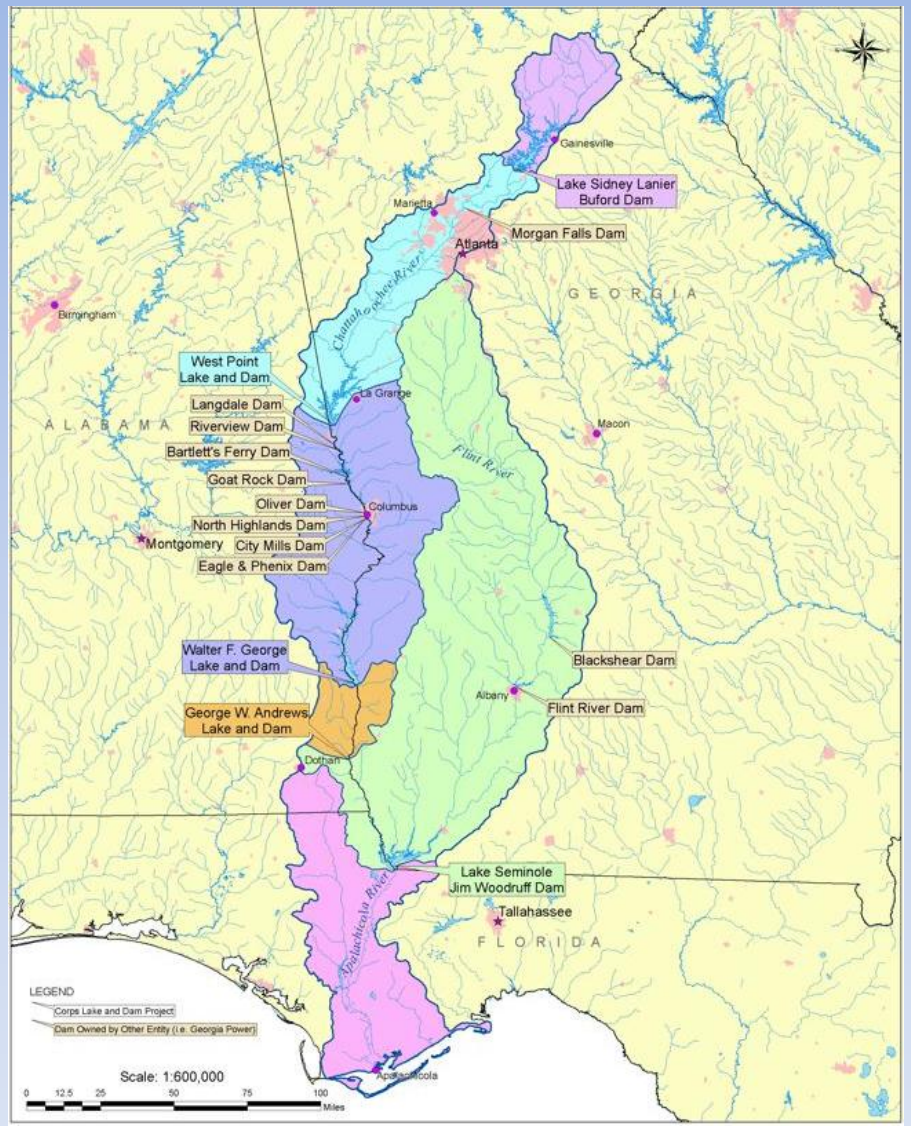
National Integrated Drought Information System

Southeast US Pilot for Apalachicola-Flint-Chattahoochee River Basin

28 February 2012



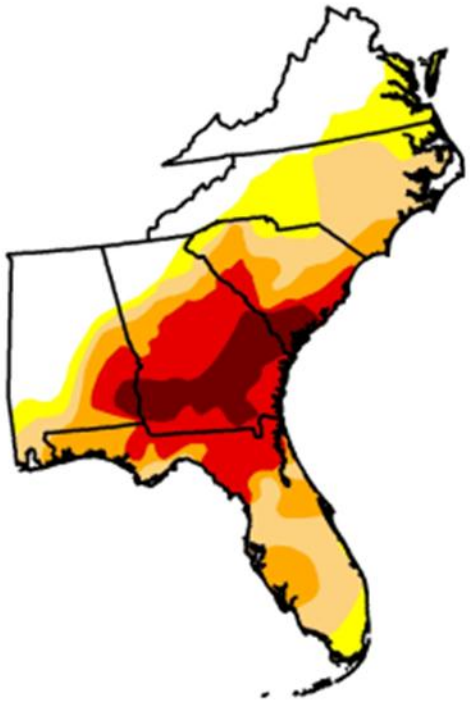
U.S. Drought Monitor

February 21, 2012
Valid 7 a.m. EST

Southeast

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.21	73.79	59.43	39.29	24.34	8.11
Last Week (02/14/2012 map)	25.86	74.14	59.78	40.41	27.91	10.41
3 Months Ago (11/22/2011 map)	40.37	59.63	47.52	34.31	23.65	0.00
Start of Calendar Year (12/27/2011 map)	40.38	59.62	43.05	28.62	18.71	0.00
Start of Water Year (09/27/2011 map)	42.24	57.76	41.82	31.77	23.48	0.00
One Year Ago (02/15/2011 map)	6.18	93.82	66.90	22.50	3.35	0.00



Intensity:

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

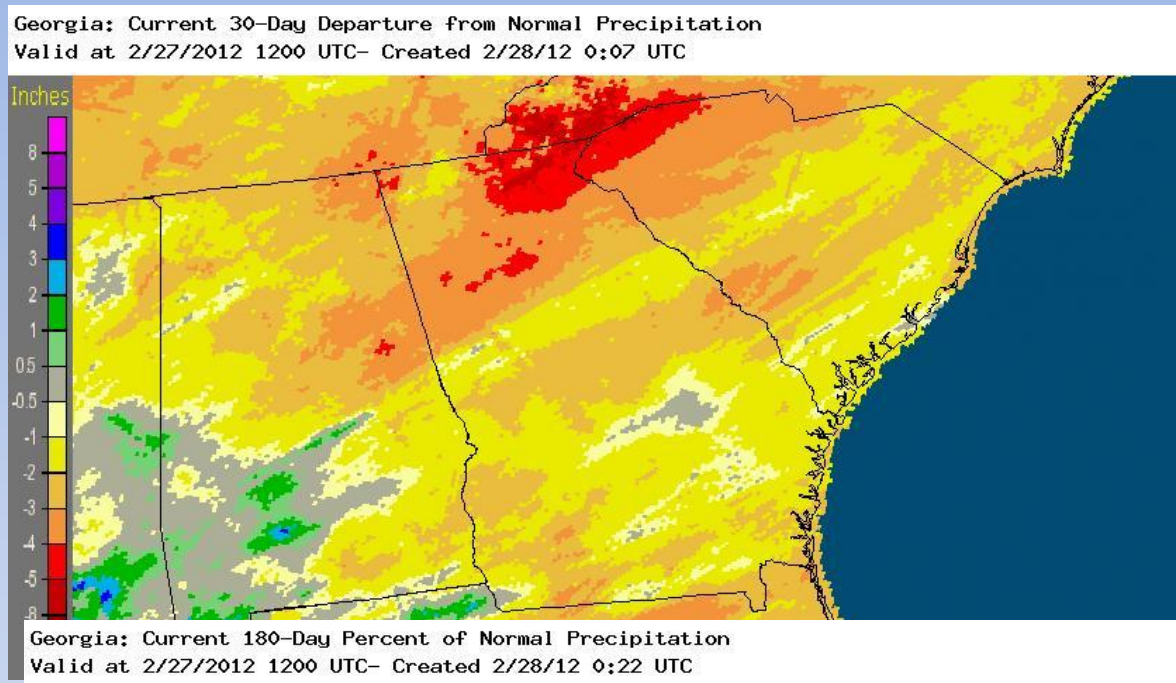
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu

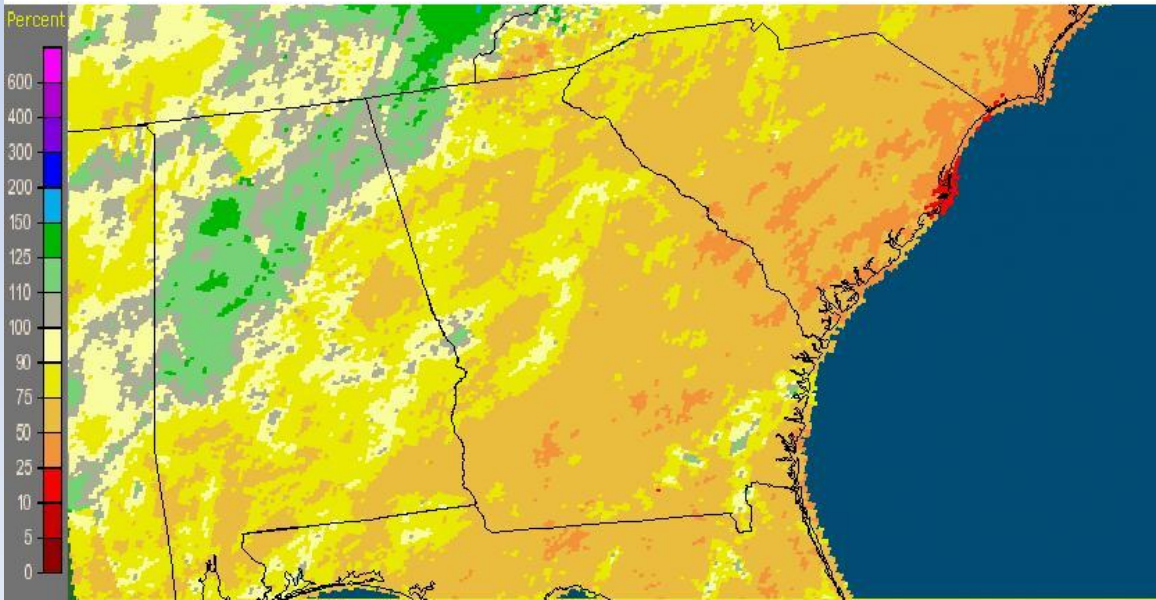
Released Thursday, February 23, 2012
Mark Svoboda, National Drought Mitigation Center

Cumulative Rainfall Deficits

Past 30 days

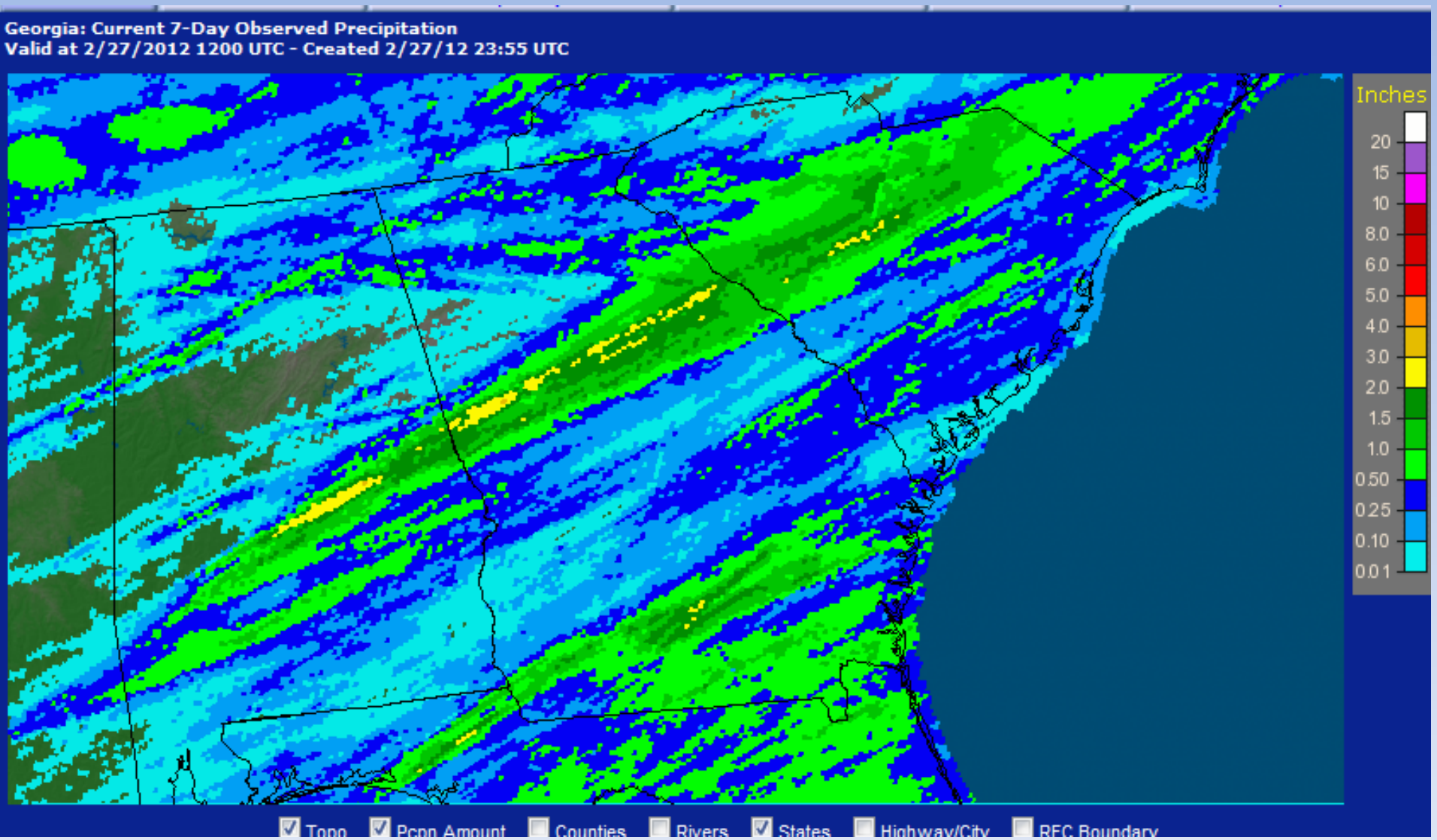


Past 180 days



http://water.weather.gov/precip/

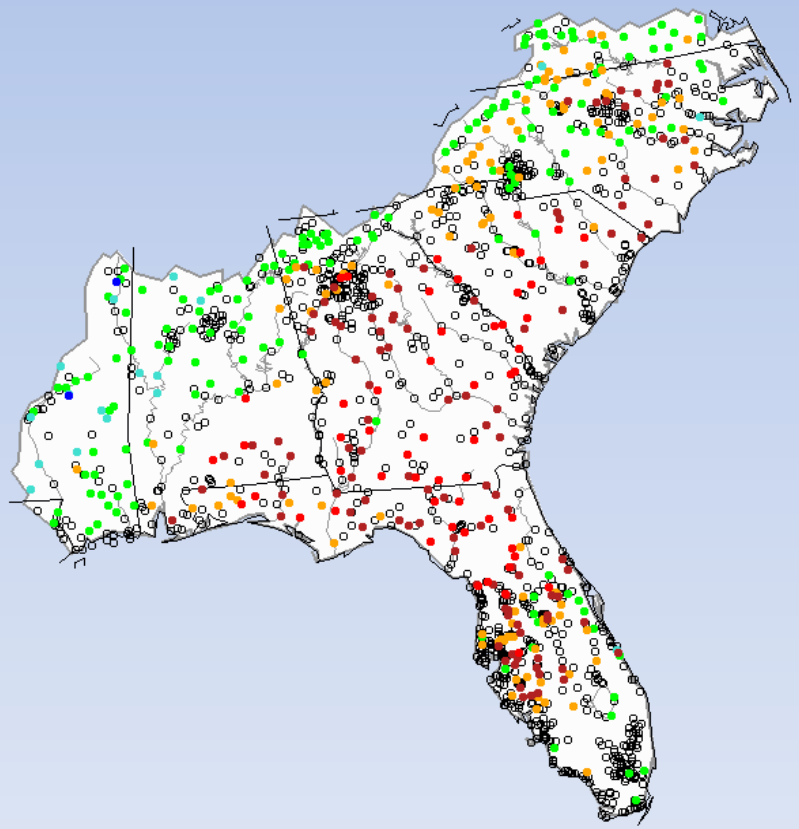
7-day Rainfall Totals



Realtime stream flow compared with historical monthly averages

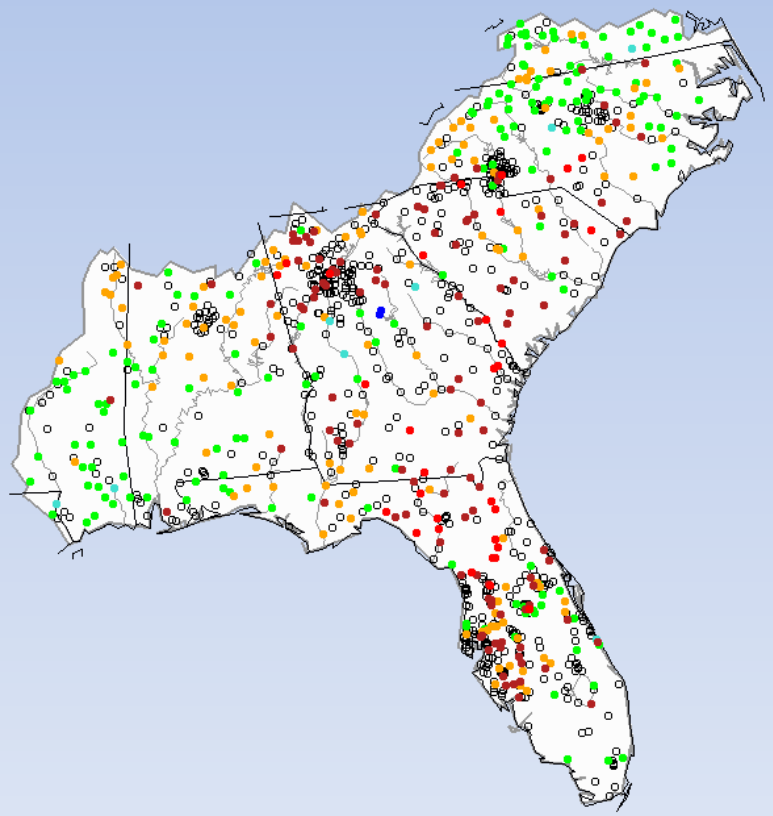
Previous Month:

Monday, February 06, 2012 12:30ET



Current:

Sunday, February 26, 2012



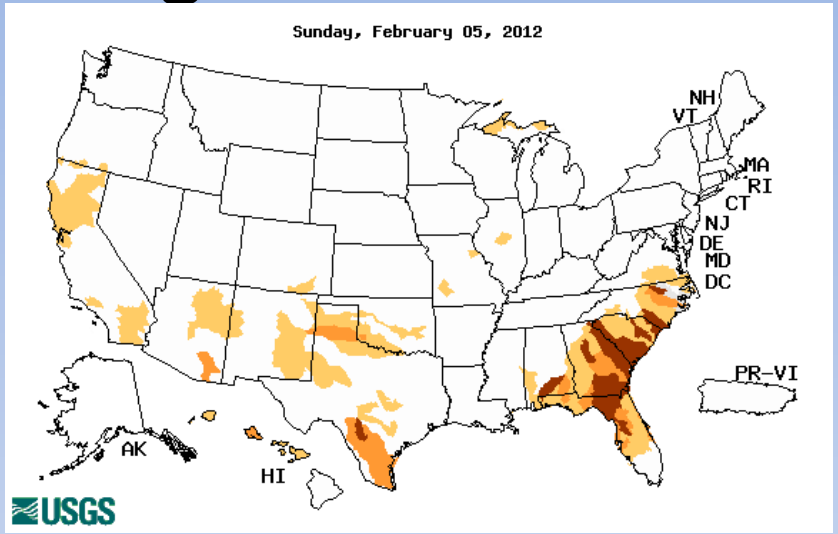
USGS

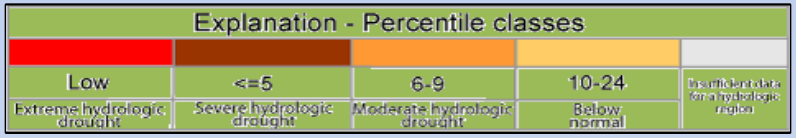
USGS

http://waterwatch.usgs.gov

Below Normal 7-day Average Streamflows

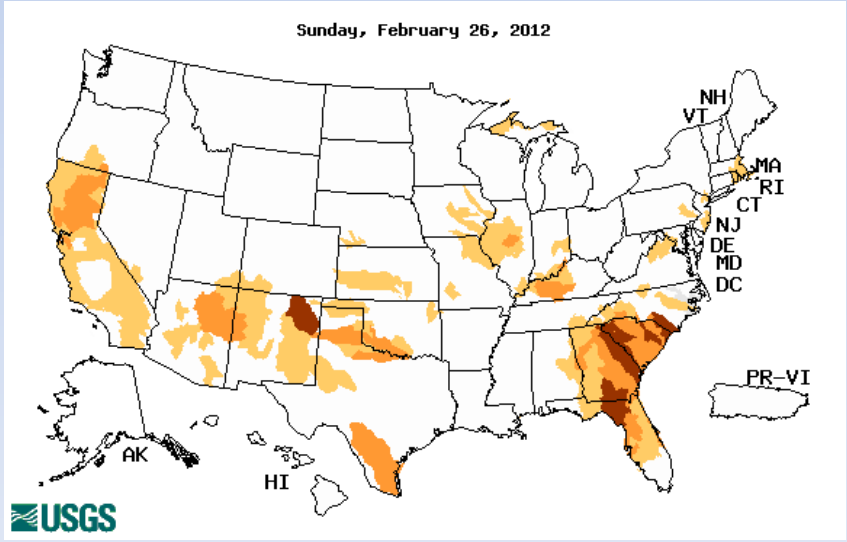
Previous month:





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

Current:

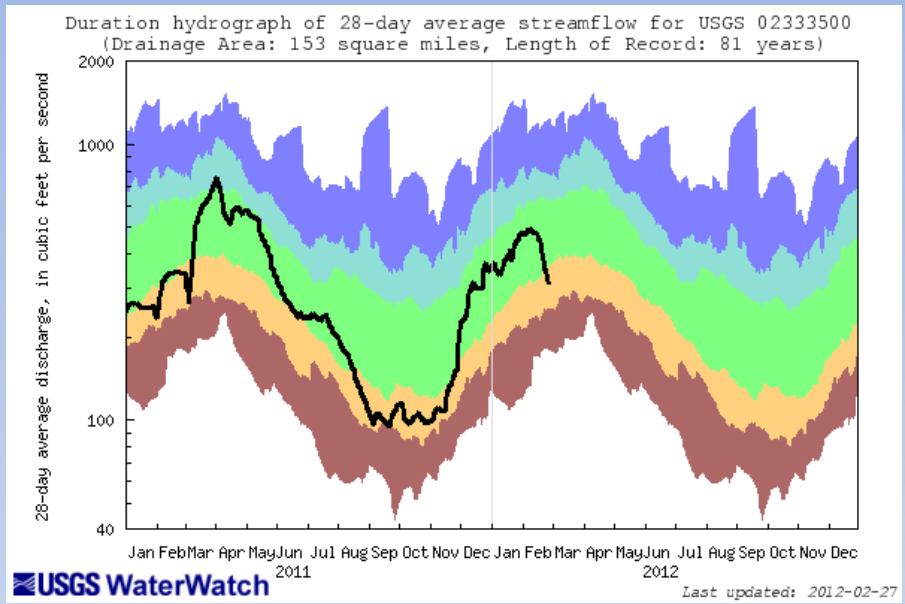


http://waterwatch.usgs.gov

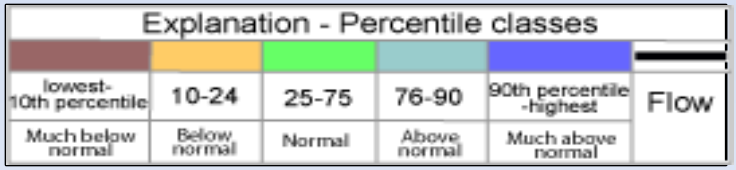
Lake Lanier Inflows

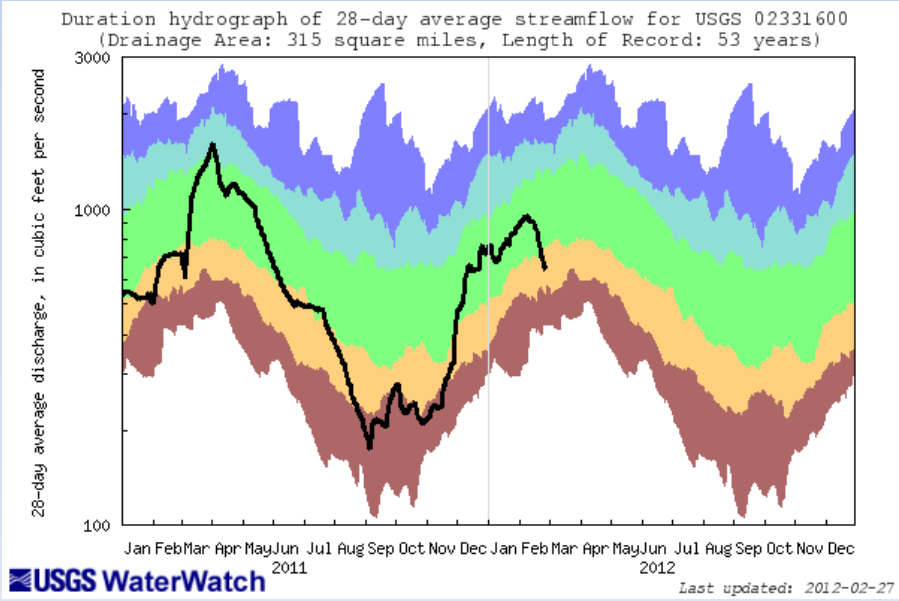
Chestatee near Dahlonega (02333500)

http://waterwatch.usgs.gov

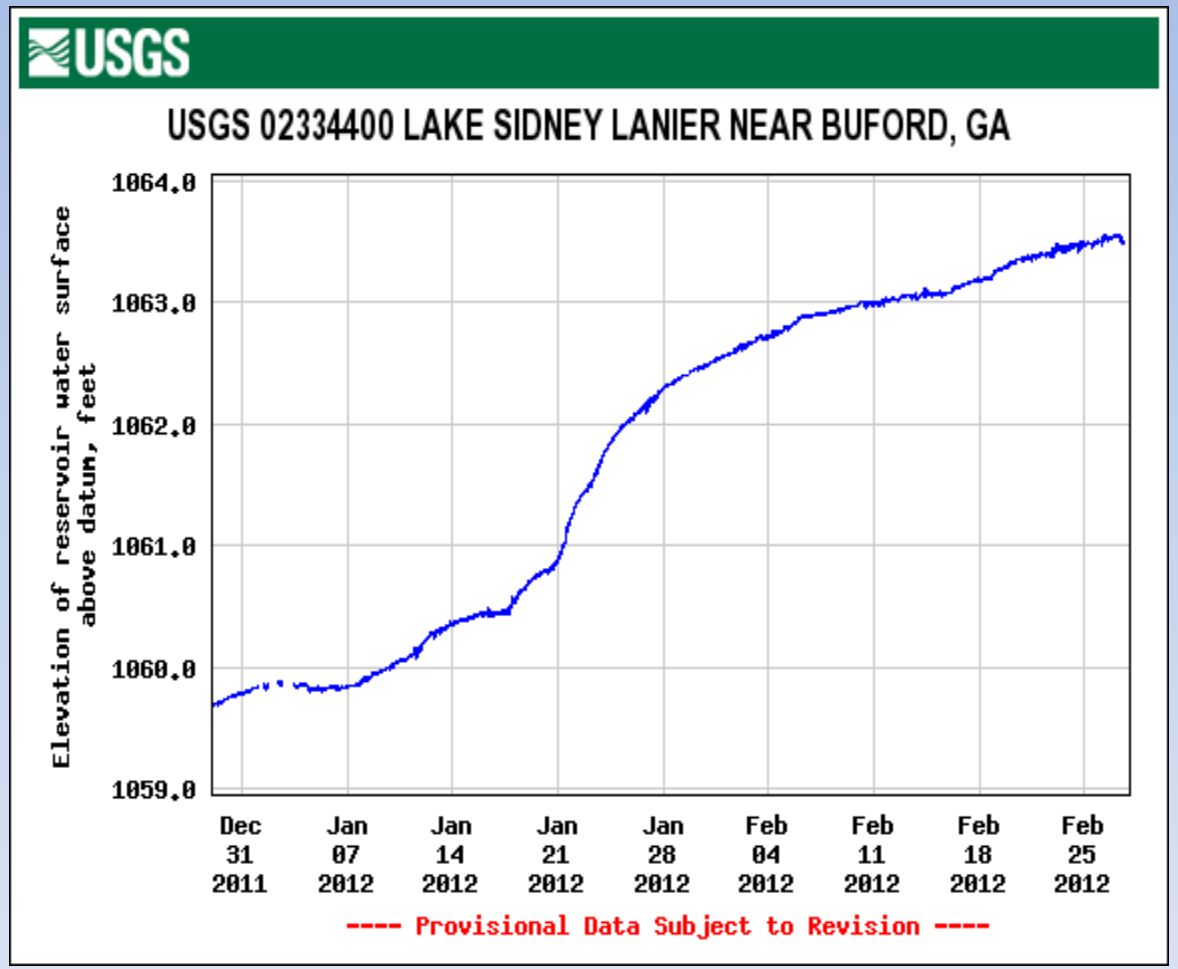


Chattahoochee near Cornelia (02331600)



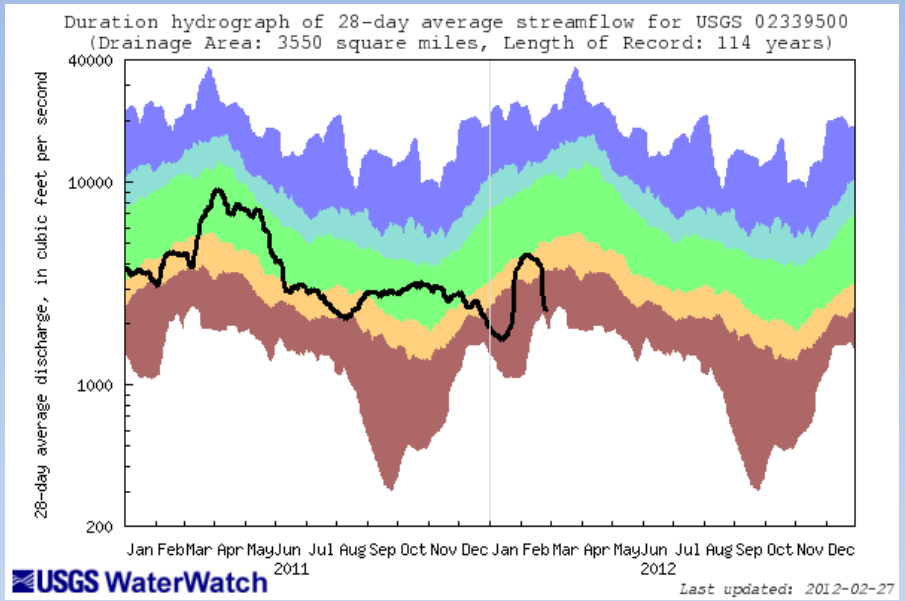


Lake Lanier Levels (02334400) for Previous 60 Days



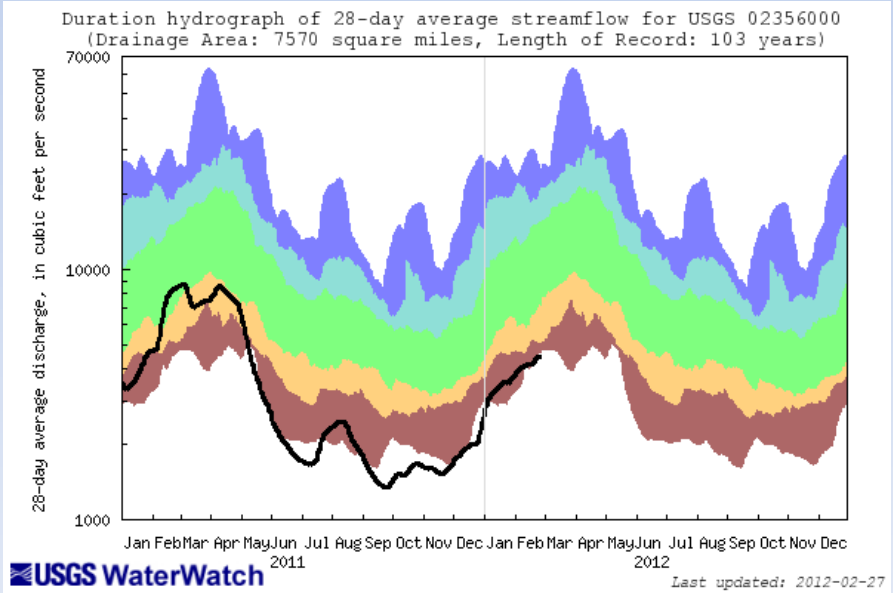
Current Streamflows

Chattahoochee at West Point (02339500)



http://waterwatch.usgs.gov

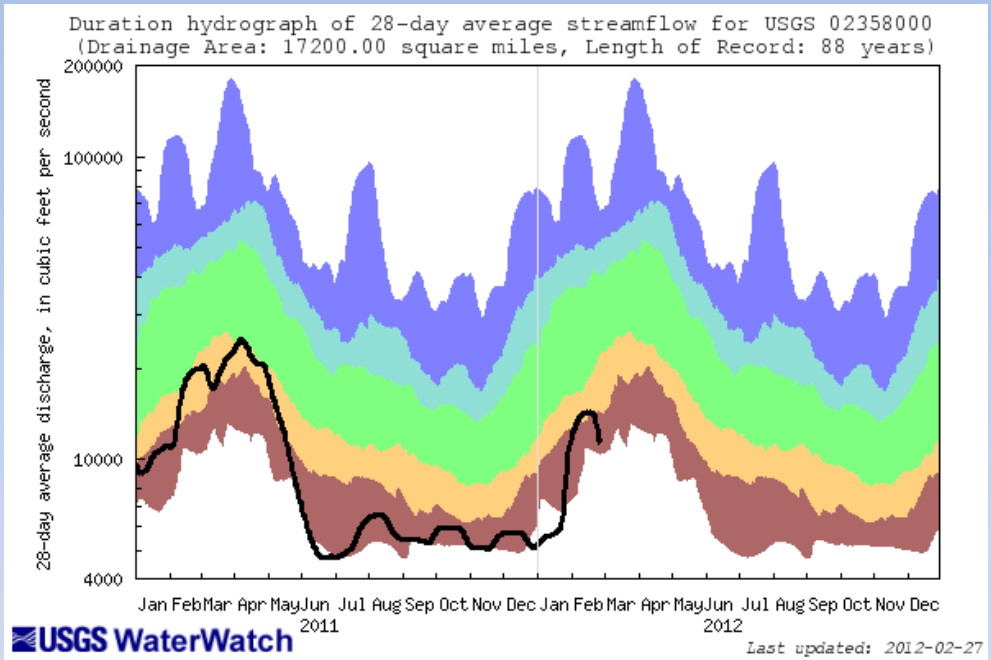
Flint at Bainbridge (02356000)



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

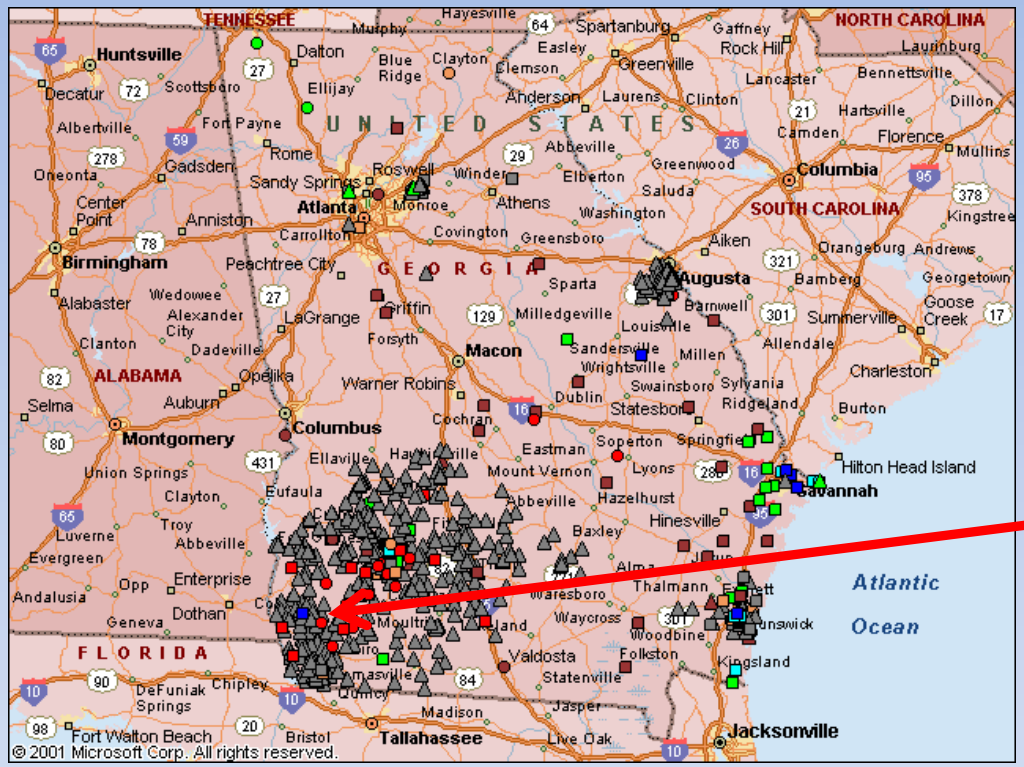
Apalachicola at Chattahoochee (02358000)

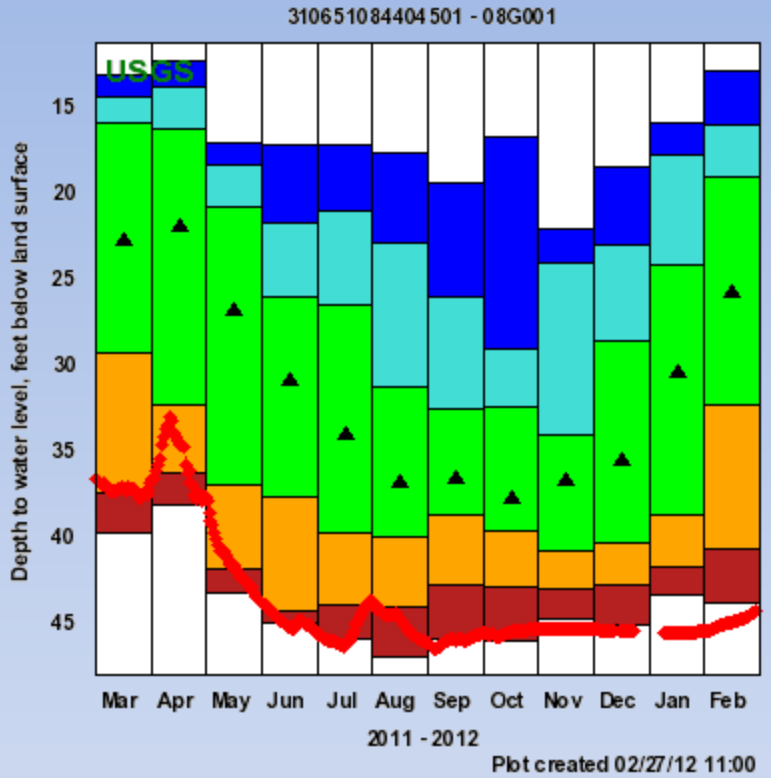


Explanation - Percentile classes					
lowest-10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow
Much below normal	Below normal	Normal	Above normal	Much above normal	

http://waterwatch.usgs.gov

Groundwater Status



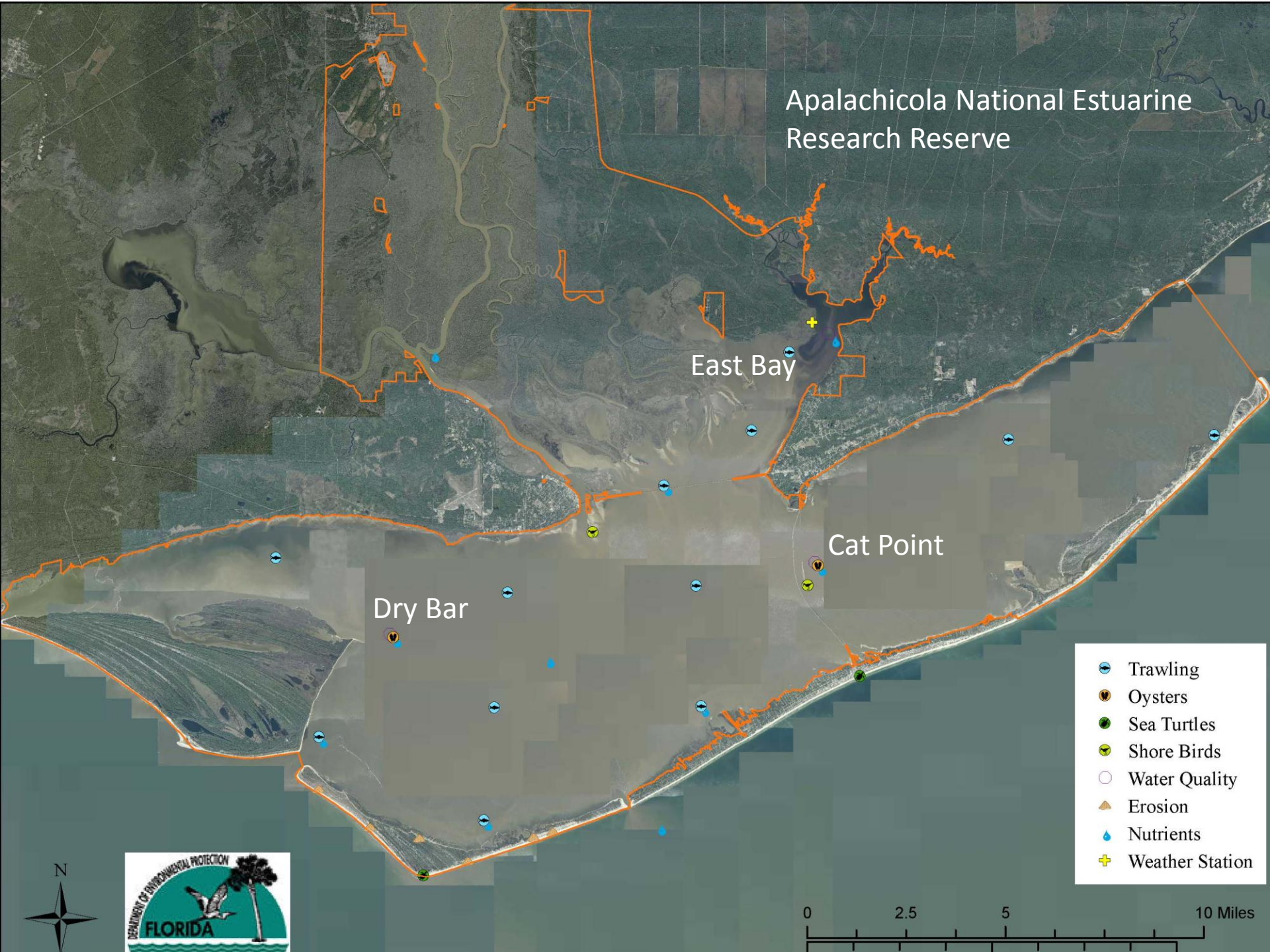


Explanation - Percentile classes (symbol color based on most recent measurement)			
	<10	10-24	
Low	Much Below Normal	Below Normal	

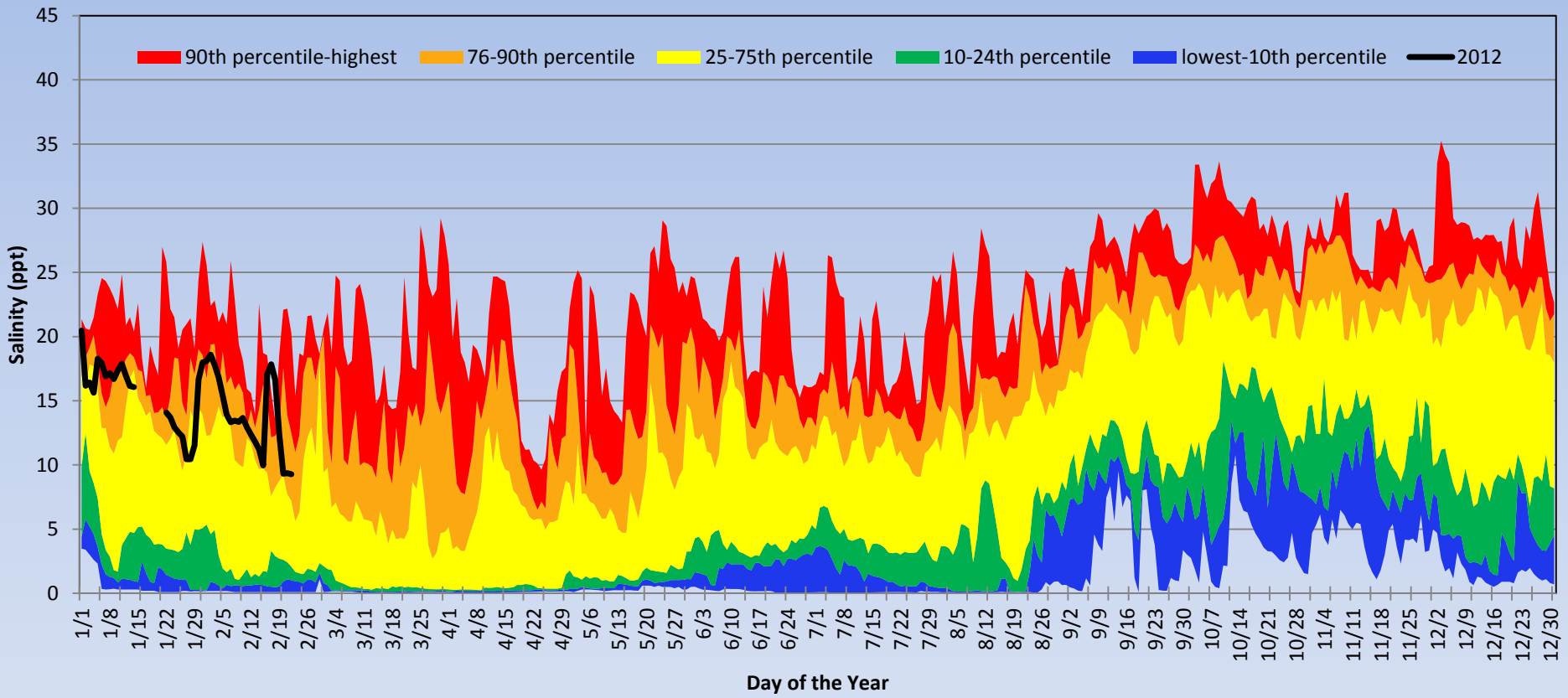
- ○ Real Time
- □ Continuous
- △ Periodic Measurements

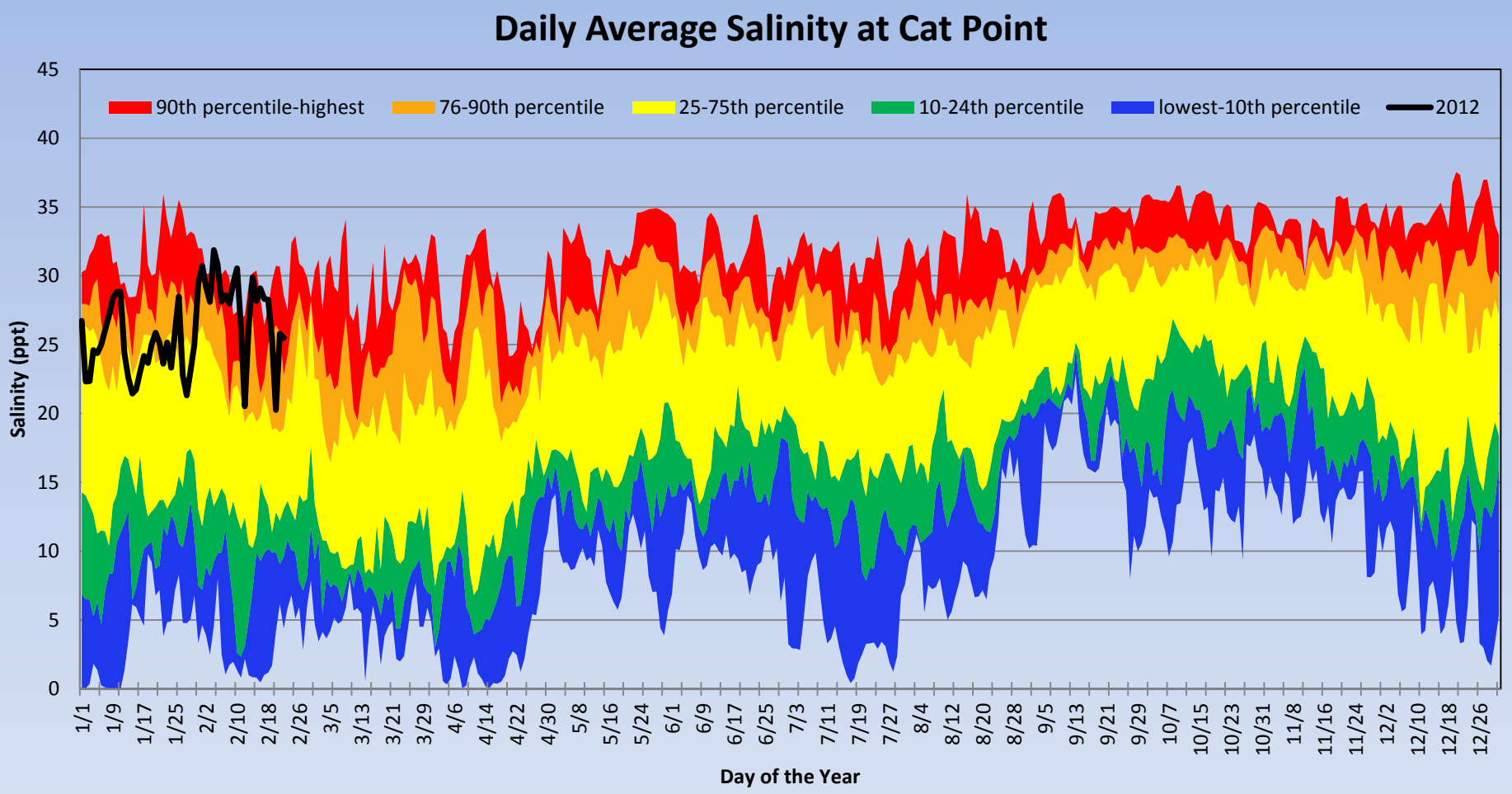
Miller County, GA
(Upper Floridan Aquifer)

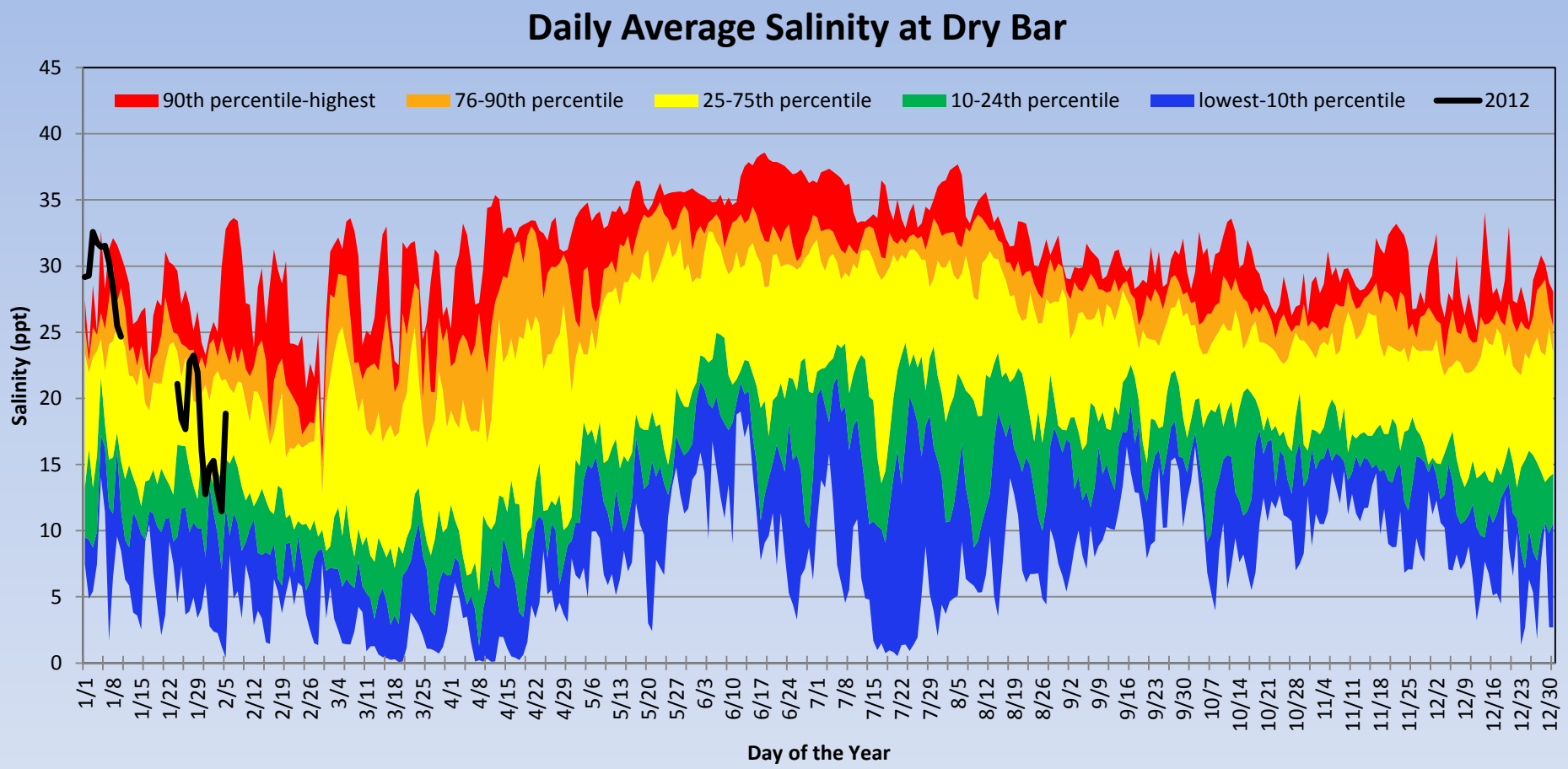
http://groundwaterwatch.usgs.gov


Apalachicola National Estuarine Research Reserve
East Bay
Cat Point
Dry Bar
Trawling
Oysters
Sea Turtles
Shore Birds
Water Quality
Erosion
Nutrients
Weather Station
N
0
2.5
5
10 Miles
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FLORIDA

Daily Average Salinity at East Bay Bottom



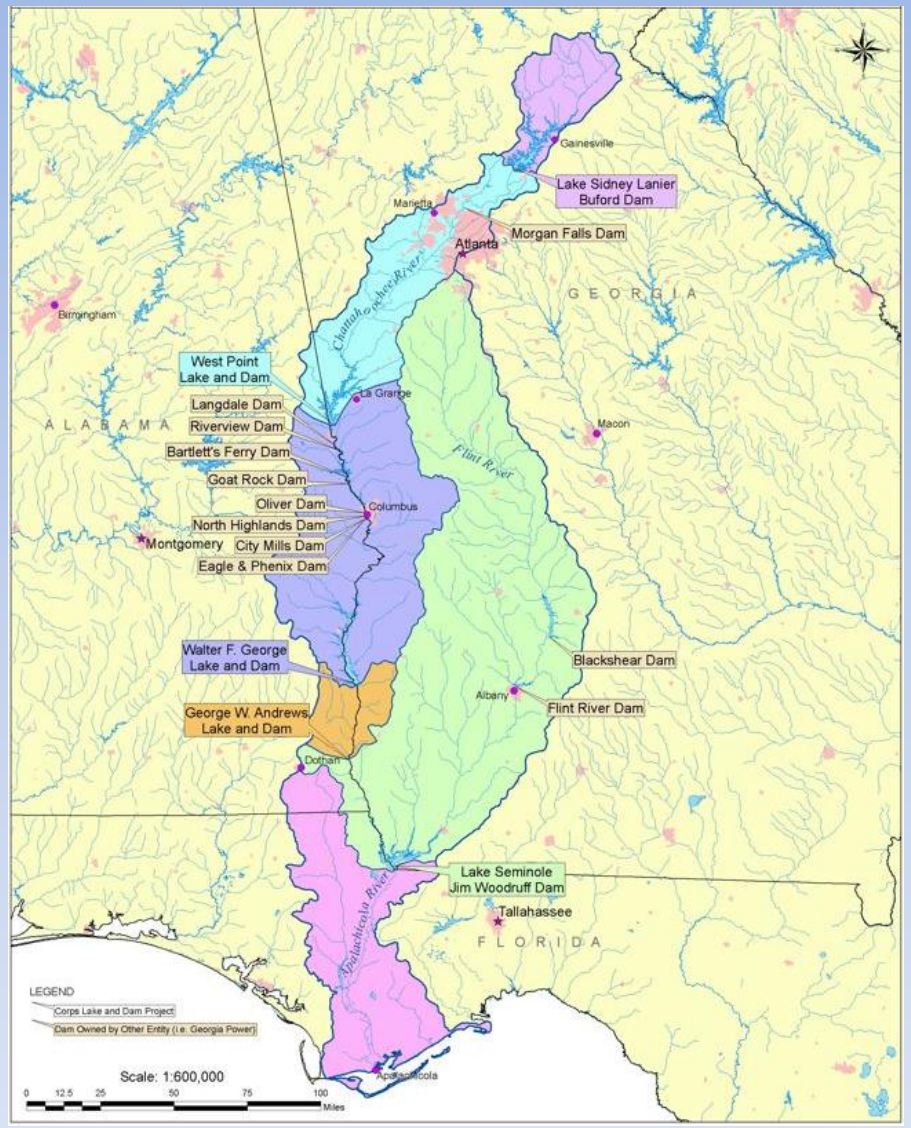

Daily Average Salinity at Cat Point
90th percentile-highest
76-90th percentile
25-75th percentile
10-24th percentile
lowest-10th percentile
2012
Salinity (ppt)
45
40
35
30
25
20
15
10
5
0
1/1
1/9
1/17
1/25
2/2
2/10
2/18
2/26
3/5
3/13
3/21
3/29
4/6
4/14
4/22
4/30
5/8
5/16
5/24
6/1
6/9
6/17
6/25
7/3
7/11
7/19
7/27
8/4
8/12
8/20
8/28
9/5
9/13
9/21
9/29
10/7
10/15
10/23
10/31
11/8
11/16
11/24
12/2
12/10
12/18
12/26
Day of the Year

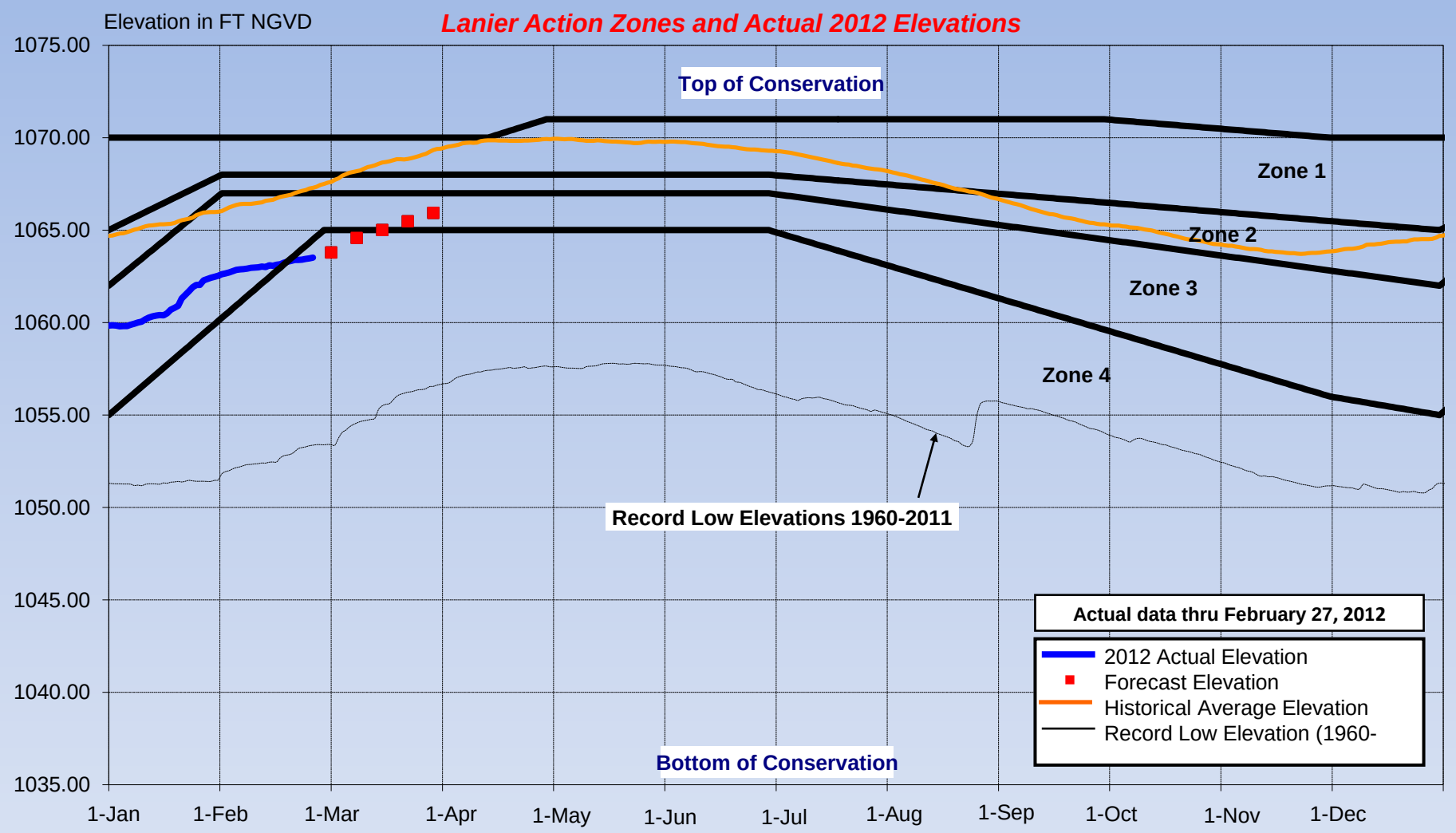

Daily Average Salinity at Dry Bar
90th percentile-highest
76-90th percentile
25-75th percentile
10-24th percentile
lowest-10th percentile
2012
Salinity (ppt)
45
40
35
30
25
20
15
10
5
0
1/1
1/8
1/15
1/22
1/29
2/5
2/12
2/19
2/26
3/4
3/11
3/18
3/25
4/1
4/8
4/15
4/22
4/29
5/6
5/13
5/20
5/27
6/3
6/10
6/17
6/24
7/1
7/8
7/15
7/22
7/29
8/5
8/12
8/19
8/26
9/2
9/9
9/16
9/23
9/30
10/7
10/14
10/21
10/28
11/4
11/11
11/18
11/25
12/2
12/9
12/16
12/23
12/30
Day of the Year

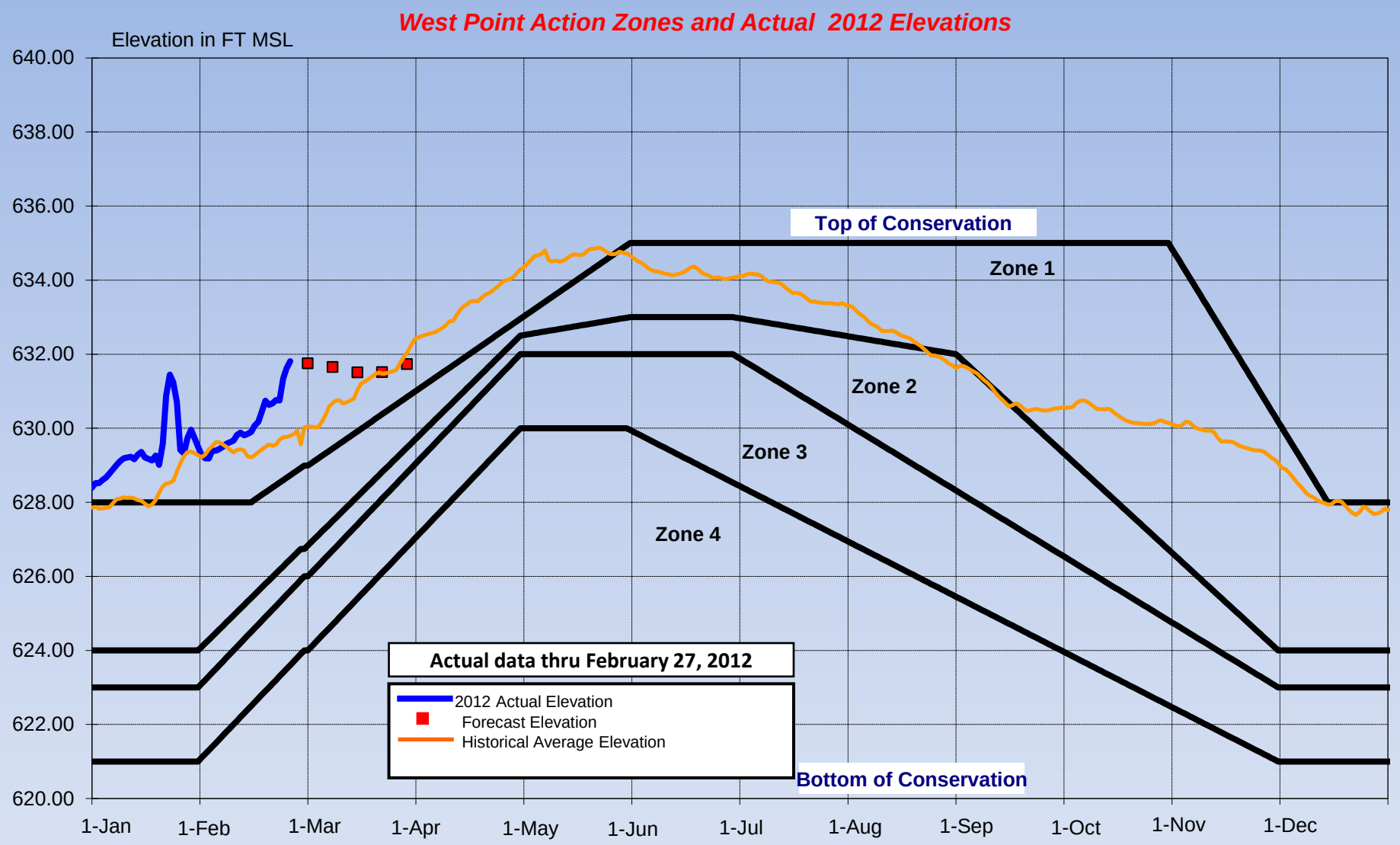
USACE – ACF Reservoir Forecasts

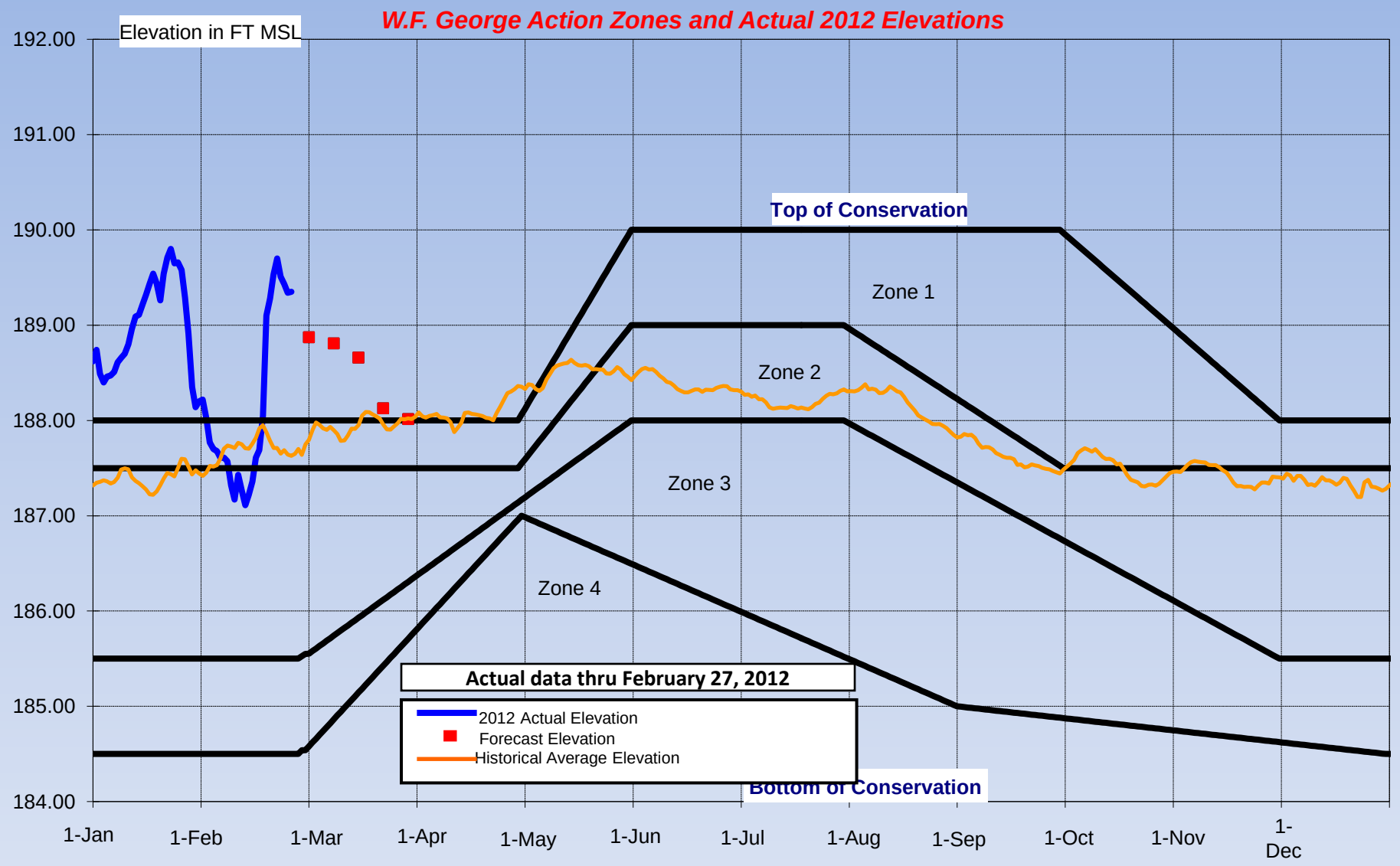
Water Management

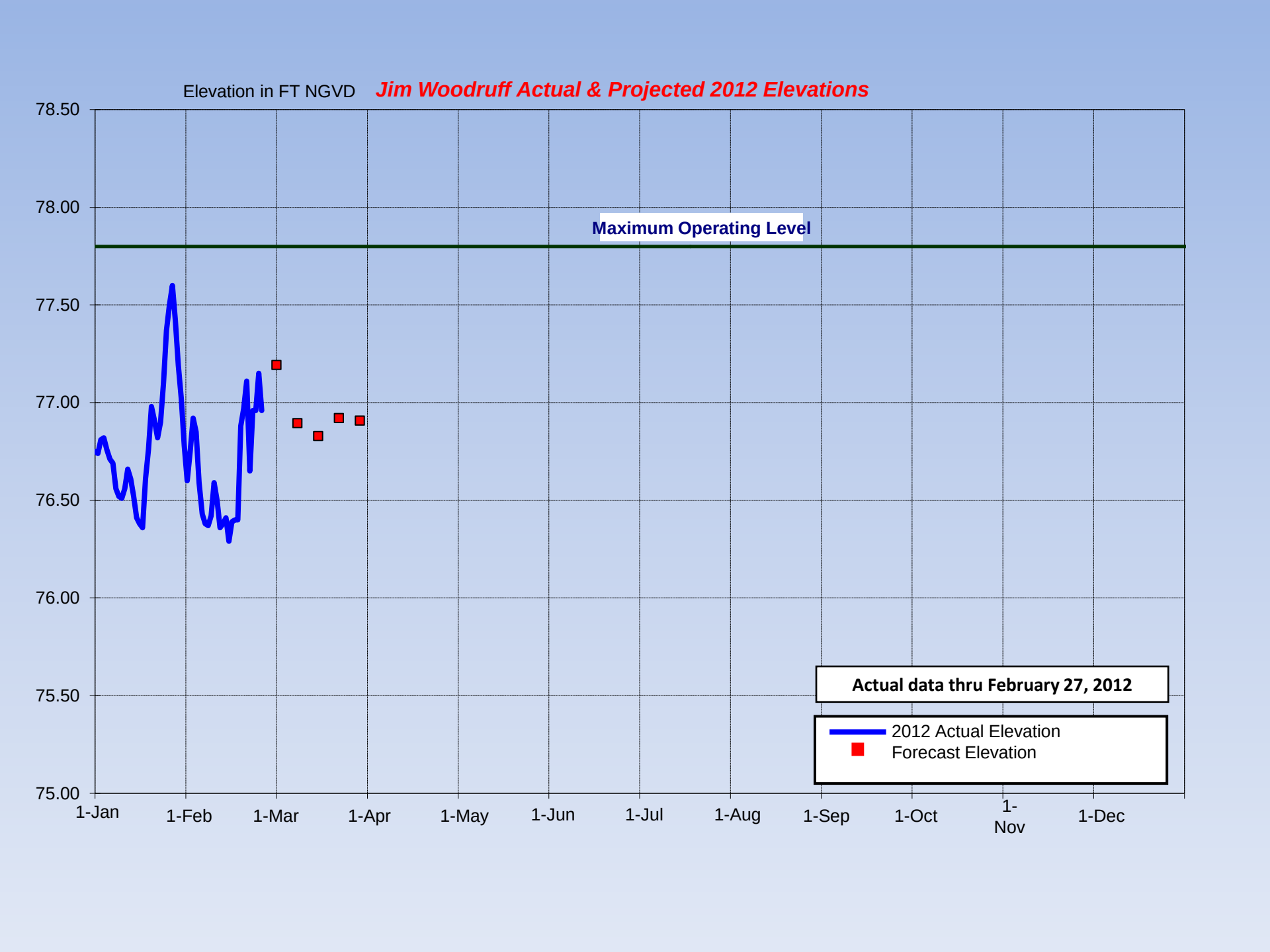
USACE, Mobile District



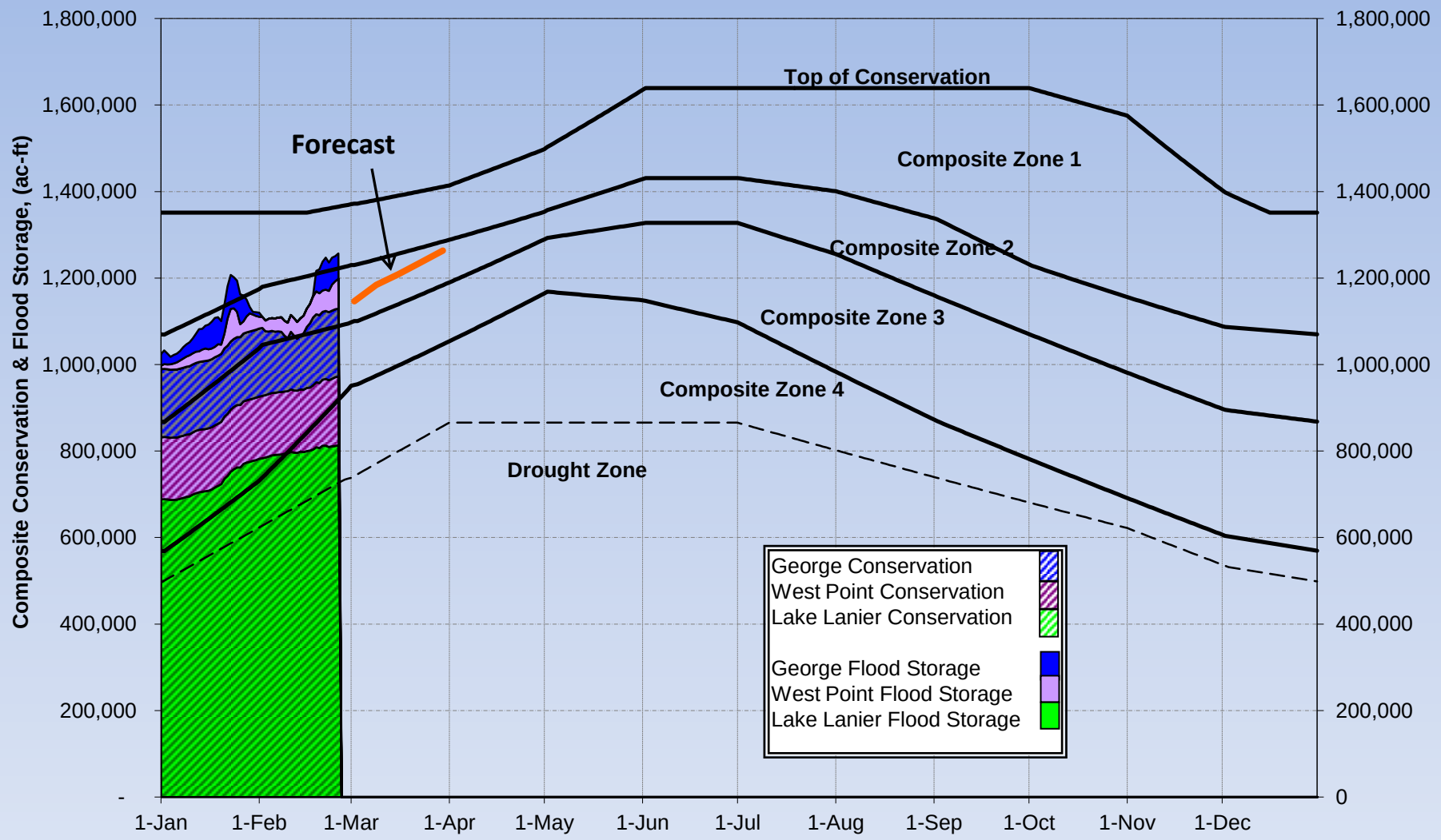

Elevation in FT NGVD
Lanier Action Zones and Actual 2012 Elevations
1075.00
1070.00
1065.00
1060.00
1055.00
1050.00
1045.00
1040.00
1035.00
Top of Conservation
Zone 1
Zone 2
Zone 3
Zone 4
Record Low Elevations 1960-2011
Bottom of Conservation
Actual data thru February 27, 2012
2012 Actual Elevation
Forecast Elevation
Historical Average Elevation
Record Low Elevation (1960-
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec


West Point Action Zones and Actual 2012 Elevations
Elevation in FT MSL
640.00
638.00
636.00
634.00
632.00
630.00
628.00
626.00
624.00
622.00
620.00
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec
Top of Conservation
Zone 1
Zone 2
Zone 3
Zone 4
Bottom of Conservation
Actual data thru February 27, 2012
2012 Actual Elevation
Forecast Elevation
Historical Average Elevation


W.F. George Action Zones and Actual 2012 Elevations
Elevation in FT MSL
192.00
191.00
190.00
189.00
188.00
187.00
186.00
185.00
184.00
Top of Conservation
Zone 1
Zone 2
Zone 3
Zone 4
Bottom of Conservation
Actual data thru February 27, 2012
2012 Actual Elevation
Forecast Elevation
Historical Average Elevation
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec


Elevation in FT NGVD
Jim Woodruff Actual & Projected 2012 Elevations
78.50
78.00
77.50
77.00
76.50
76.00
75.50
75.00
Maximum Operating Level
Actual data thru February 27, 2012
2012 Actual Elevation
Forecast Elevation
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec

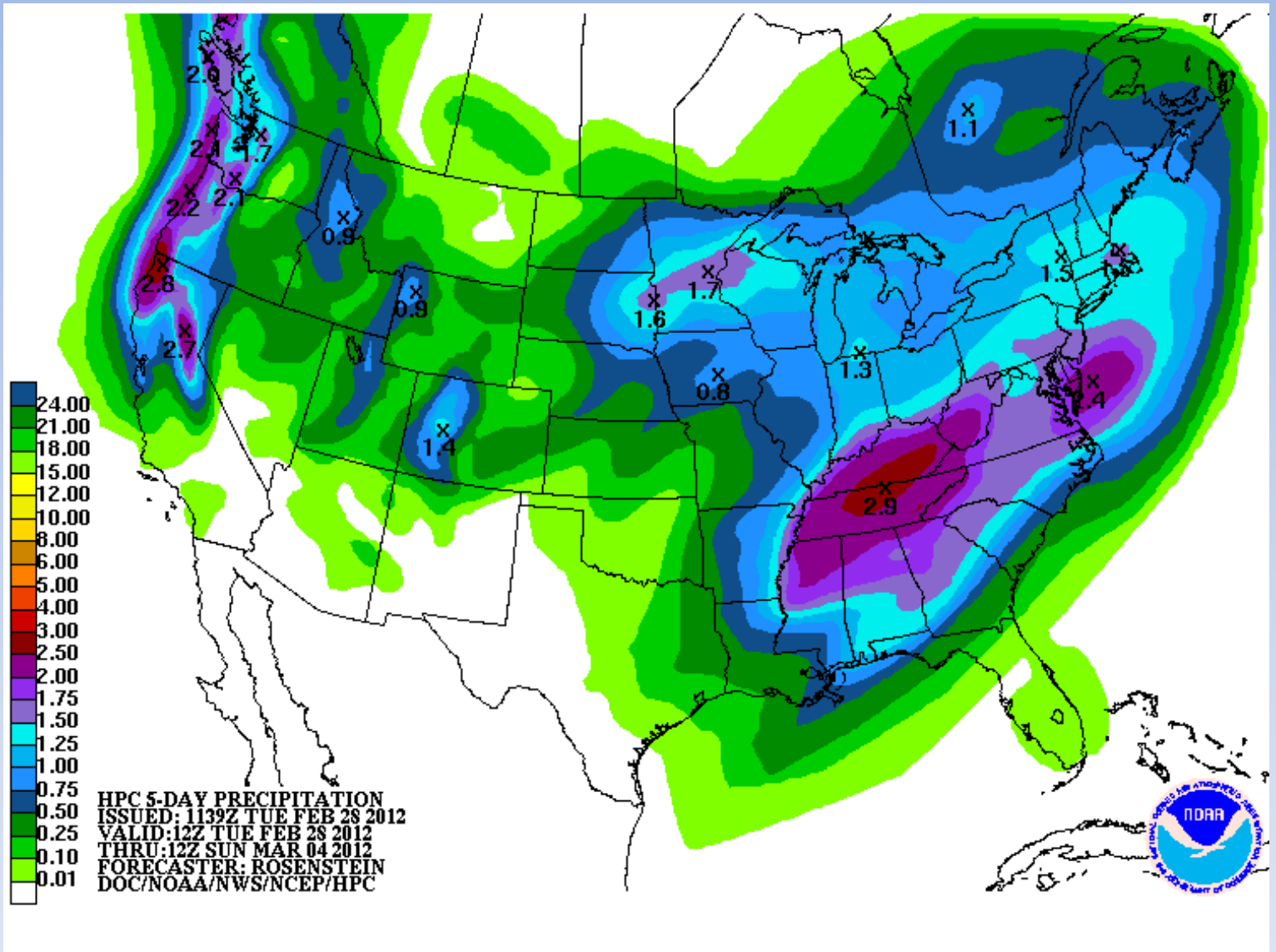
2012 ACF Basin Composite Conservation & Flood Storage



Actual data through 2-27-2012

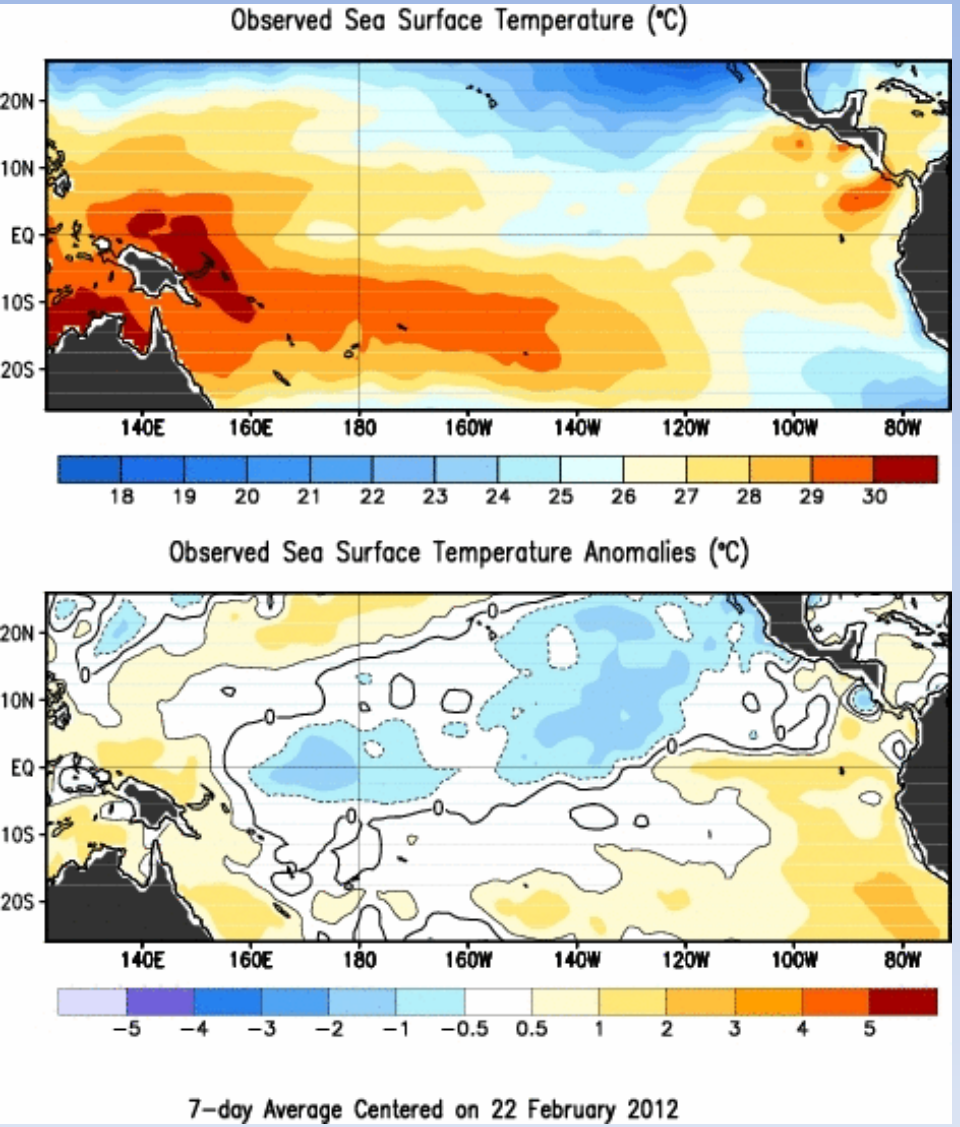
Add value of 1,856,000 acre-ft to include inactive storage.

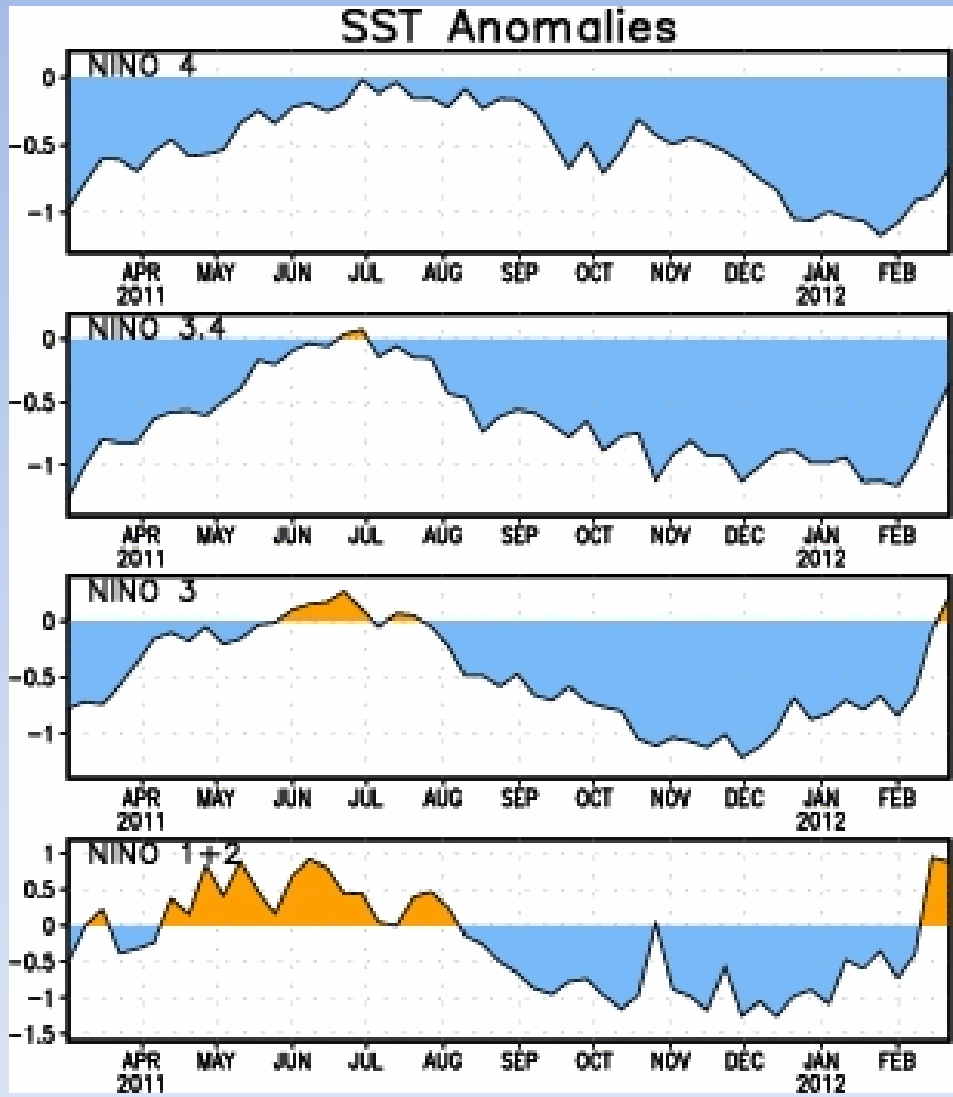
5-Day Precipitation Forecast



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

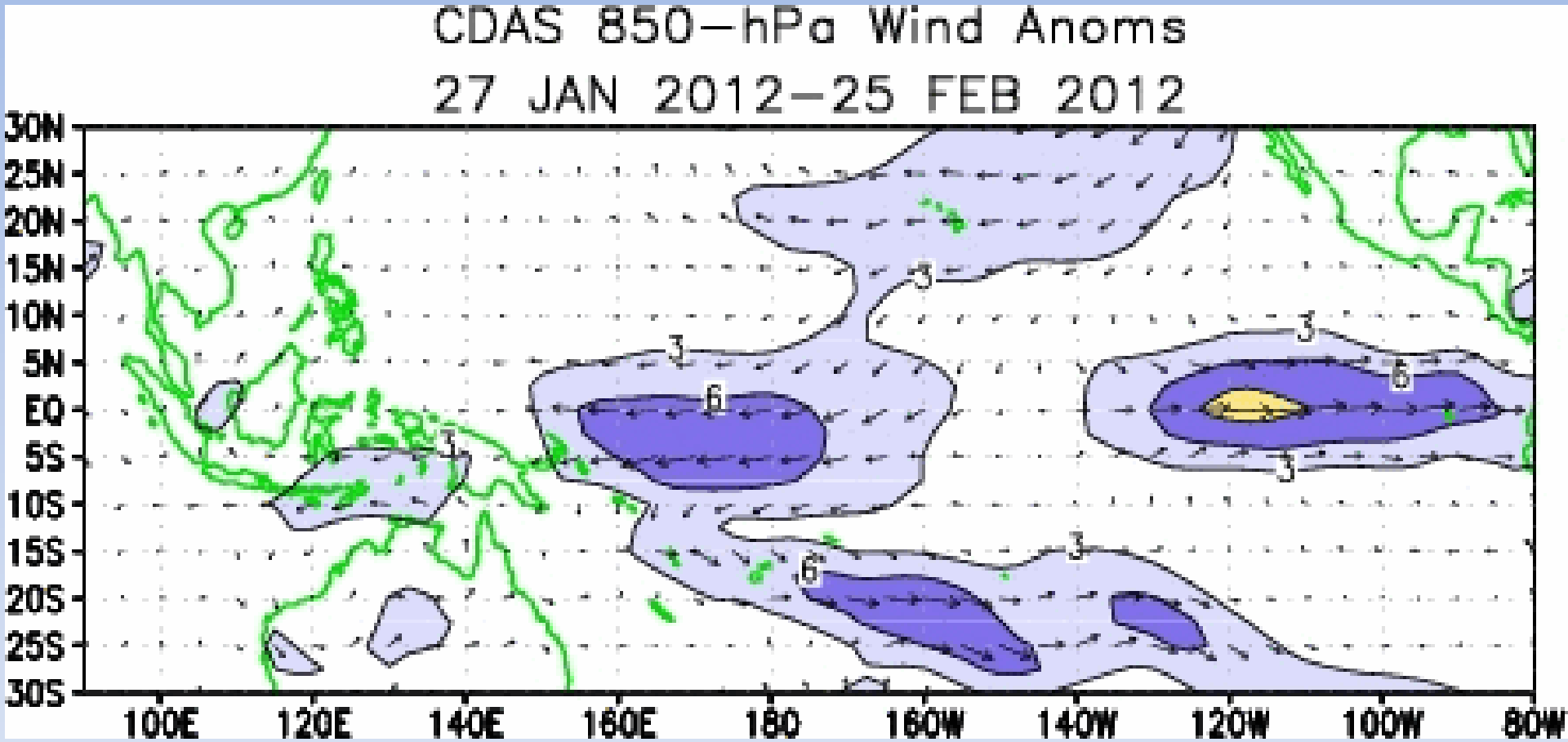
7-day average Pacific Ocean SST Anomalies





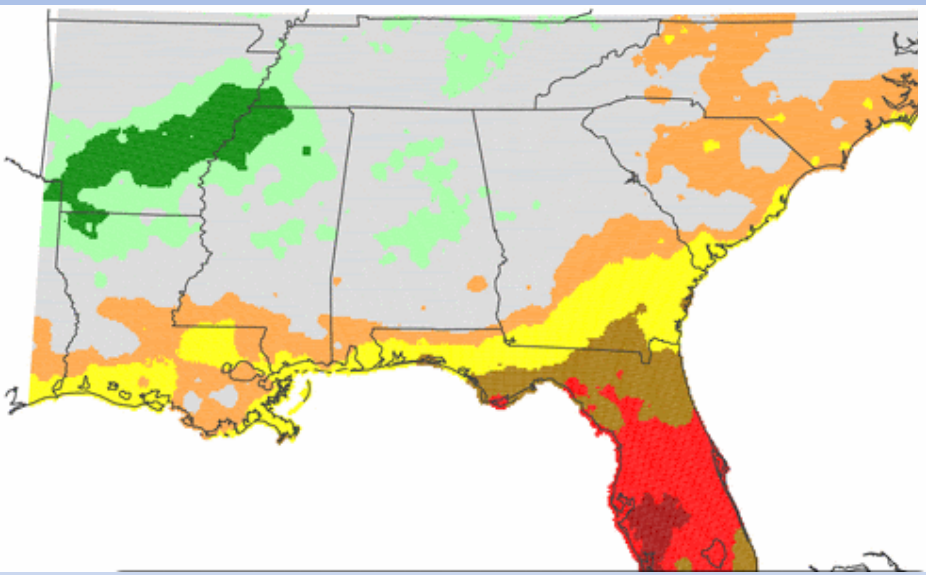
http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/enso.shtml

850 mb Winds

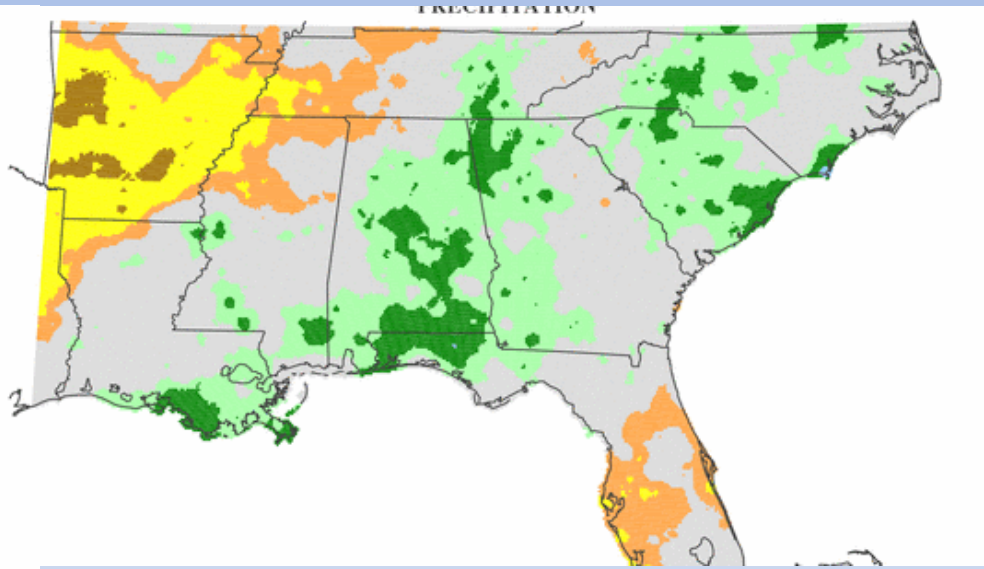

CDAS 850-hPa Wind Anoms
27 JAN 2012-25 FEB 2012
30N
25N
20N
15N
10N
5N
EQ
5S
10S
15S
20S
25S
30S
100E
120E
140E
160E
180
160W
140W
120W
100W
80W
3
6

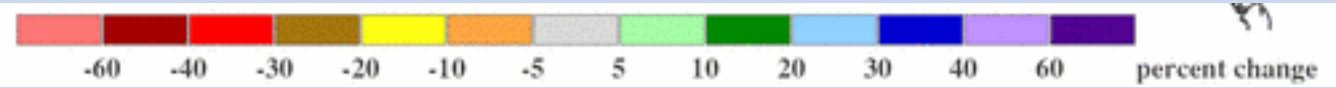
La Niña Composites

March



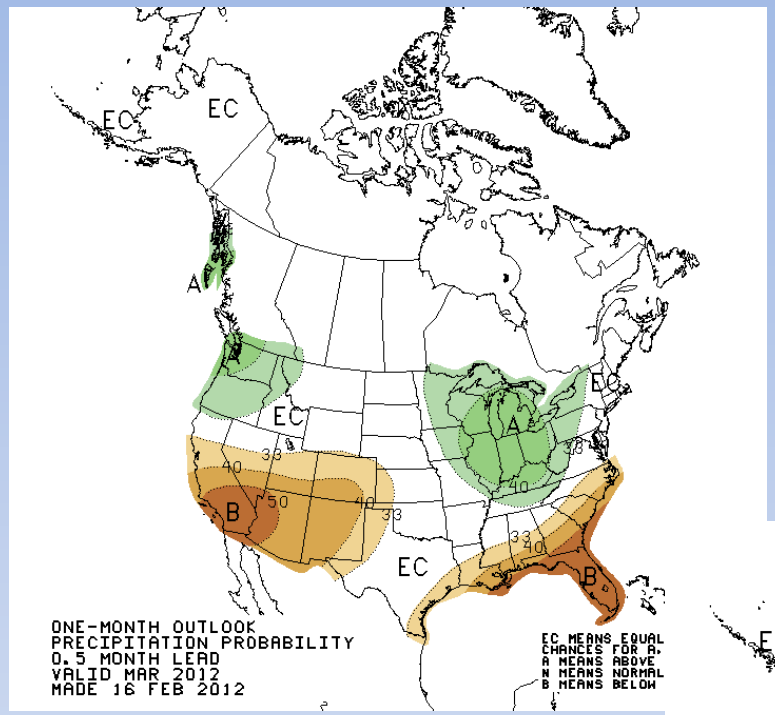
June



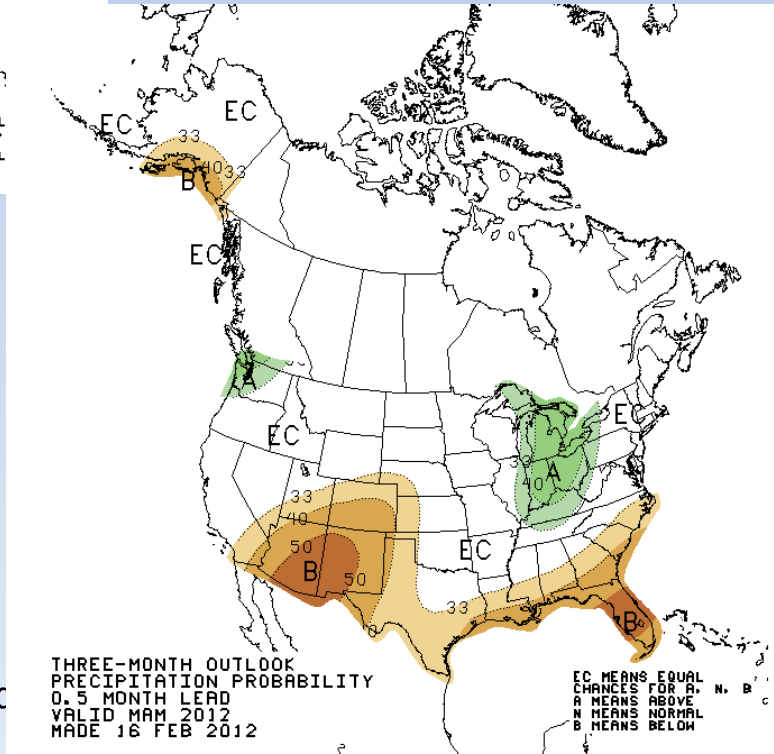


Precipitation Outlook

1-month

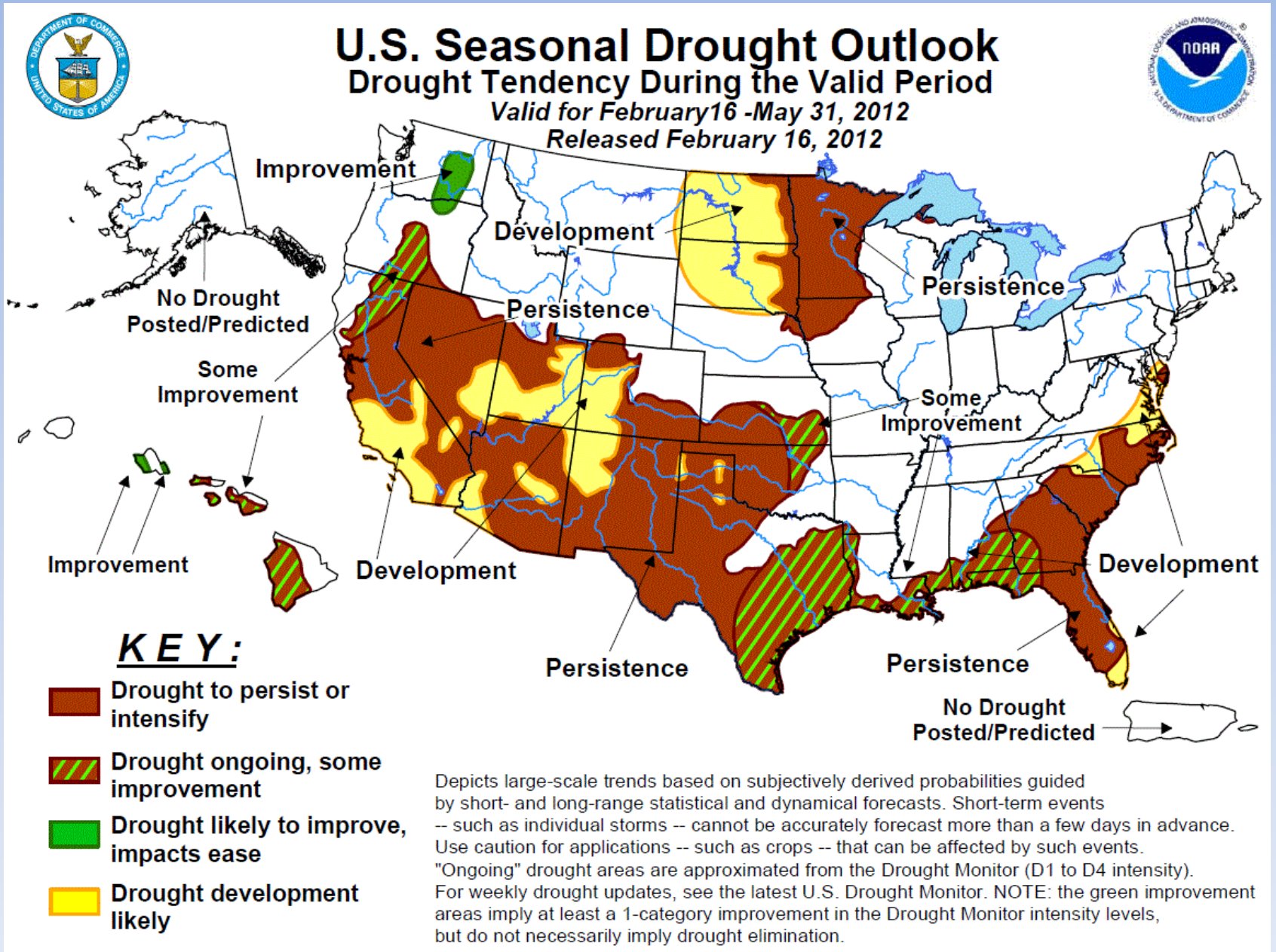


3-month (MAM)



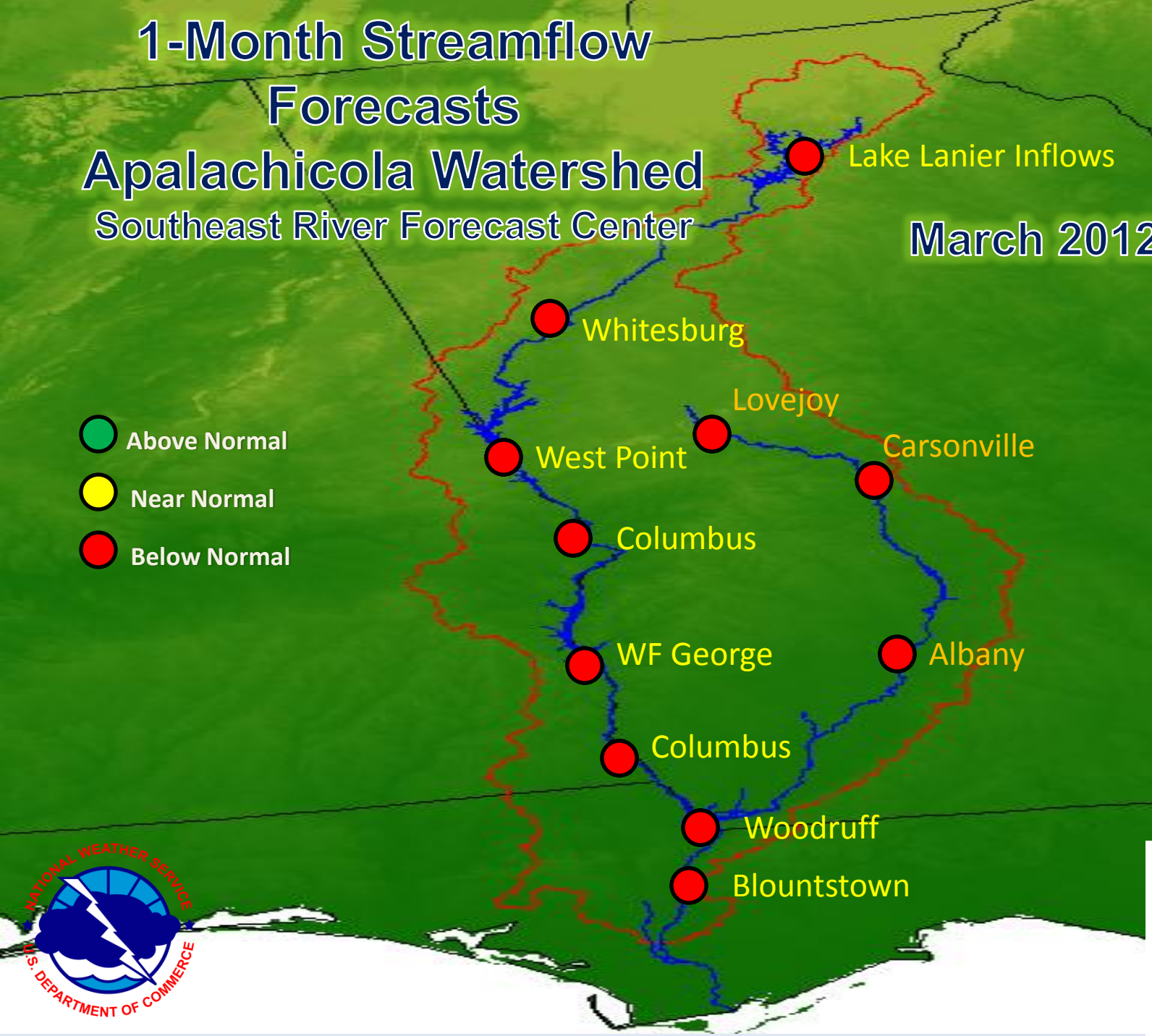
http://www.cpc.ncep.noaa.gov/products/predictions/30c

U.S. Drought Outlook



1-Month Streamflow Forecasts
Apalachicola Watershed
Southeast River Forecast Center

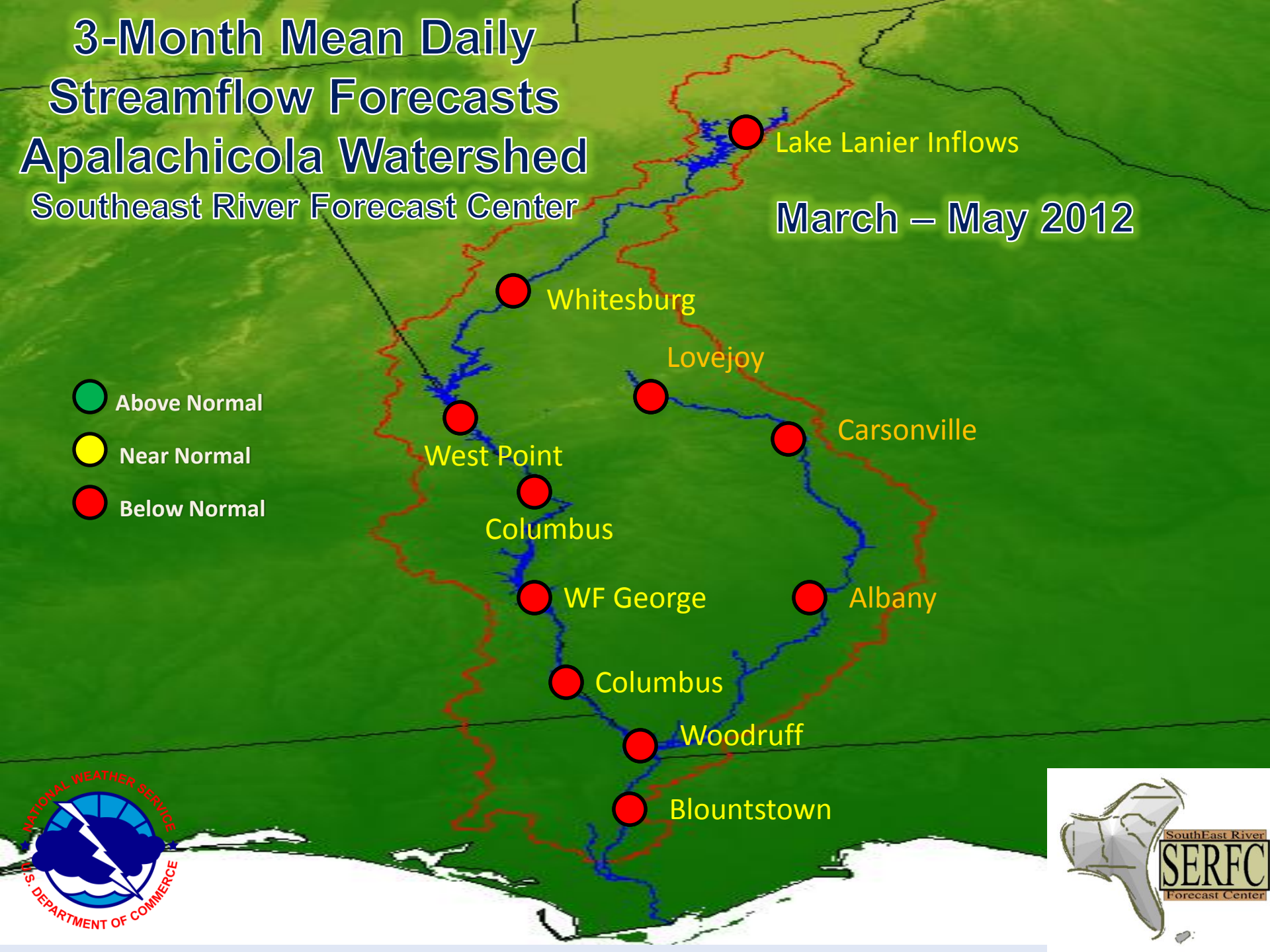
March 2012



3-Month Mean Daily Streamflow Forecasts Apalachicola Watershed

Southeast River Forecast Center

March – May 2012



Summary

- Recent rains have provided some relief from drought, though streamflows and ground water levels in the southern part of the basin remain very low
- The steep gradient from exceptional drought in a band along the middle of the coastal plan, to no drought in the north remains
- Outlooks for streamflows and precipitation indicate that drought conditions will continue in the basin for at least three months
- La Niña conditions are weakening
- Though a third La Niña year in a row is rare, we need to remain prepared for this possibility

References

Speakers

David Zierden, FSU

Brian McCallum, USGS

Jennifer Wanat, FDEP

Bailey Crane, US ACE

Jeffry Dobur, SERFC

Victor Murphy

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

http://waterwatch.usgs.gov

Groundwater monitoring

http://groundwaterwatch.usgs.gov

Next scheduled briefing

20 March

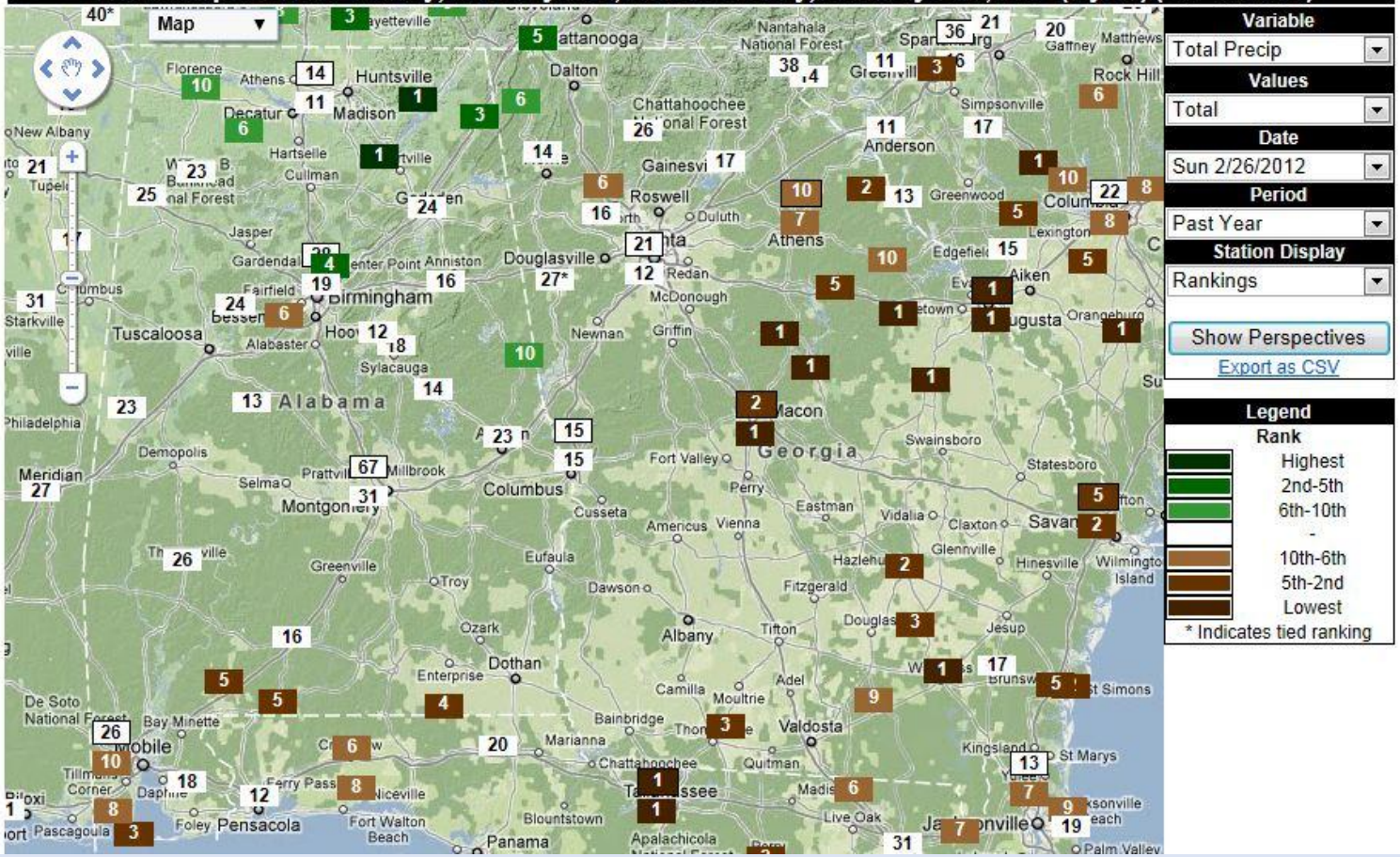
Southeast Climate Perspectives Map

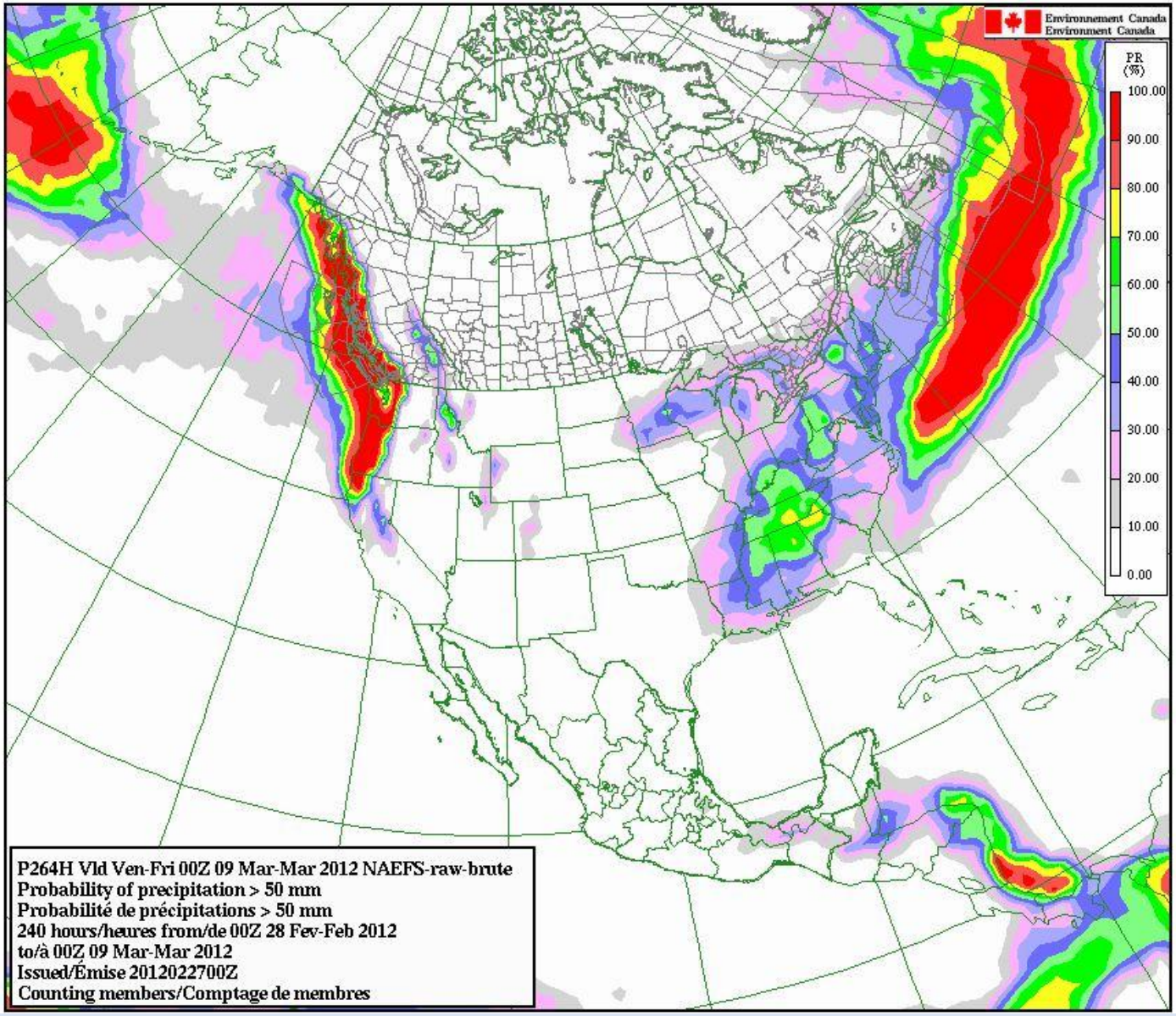
Local Station Perspective | Regional Map Perspective | Streaks and Thresholds

For any problems, comments or suggestions, please drop us a line.

This tool shows map of recent conditions in a historical perspective. About This Product...

Total Precipitation for Sunday, February 27th, 2011 to Sunday, February 26th, 2012 (1 year) (263 stations)




Environnement Canada
Environment Canada
PR
(%)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
P264H Vld Ven-Fri 00Z 09 Mar-Mar 2012 NAEFS-raw-brute
Probability of precipitation > 50 mm
Probabilité de précipitations > 50 mm
240 hours/heures from/de 00Z 28 Fev-Feb 2012
to/à 00Z 09 Mar-Mar 2012
Issued/Émise 2012022700Z
Counting members/Comptage de membres