



**Drought Status and Climate Outlook for Upcoming 12 Months  
FWS SFESO – Vero Beach, FL  
October 9, 2012**

**Short Term Drought Map:**

**U.S. Drought Monitor**  
**Florida**

**October 2, 2012**  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week (09/25/2012 map)	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago (07/03/2012 map)	83.50	16.50	0.03	0.00	0.00	0.00
Start of Calendar Year (12/27/2011 map)	38.81	61.19	27.41	12.84	2.61	0.00
Start of Water Year (09/25/2012 map)	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago (09/27/2011 map)	43.12	56.88	28.83	16.85	7.85	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, October 4, 2012**  
**Anthony Artusa, NOAA/NWS/NCEP/GPC**

**Figure 1 – U.S. Drought Monitor for the State of Florida.**

**Synopsis:** There are no current short-term or long-term drought conditions in Florida.

# U.S. Drought Monitor

## Southeast

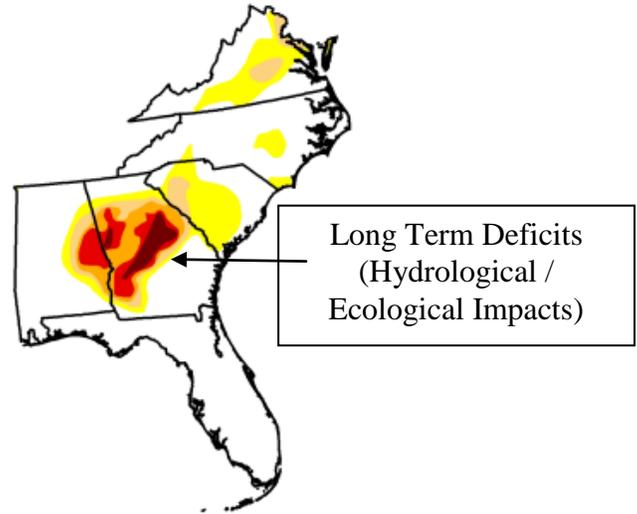
October 2, 2012  
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	70.32	29.68	15.38	10.02	5.69	1.85
Last Week (09/25/2012 map)	66.49	33.51	17.18	11.50	8.53	3.52
3 Months Ago (07/03/2012 map)	32.32	67.68	35.46	21.27	11.01	4.29
Start of Calendar Year (12/27/2011 map)	40.38	59.62	43.05	28.62	18.71	0.00
Start of Water Year (09/25/2012 map)	66.49	33.51	17.18	11.50	8.53	3.52
One Year Ago (09/27/2011 map)	42.24	57.76	41.82	31.77	23.48	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.

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**Figure 2 – U.S. Drought Monitor for the Southeast Region.**

Synopsis – In late August / early September, outer rain bands from Hurricane Isaac brought additional rains to the south and southeastern U.S. Short and long-term drought conditions improved from “extreme drought” to “severe drought” in northern Georgia and southern South Carolina. Abnormally dry conditions also improved in the remainder of South Carolina and North Carolina. In Alabama, short-term soil moisture and long-term groundwater conditions have had a very slow response to September rains. In late September, a slow-moving cold front with a “West Gulf Low” system produced widespread heavy rains in the southern Plains, the lower Mississippi Valley, and the interior Southeast U.S. East-central Alabama, northern and western Georgia, and western portions of both North and South Carolina, received in excess of 2 inches of rain prompting drought improvements in these areas. Some locations in north-central and northeastern Georgia received as much as 8 inches of rain. Last month, temperatures were generally 2-4 degrees above normal in the Southeast.

# Lake Okeechobee Water Depth Assessment Tool (WDAT)

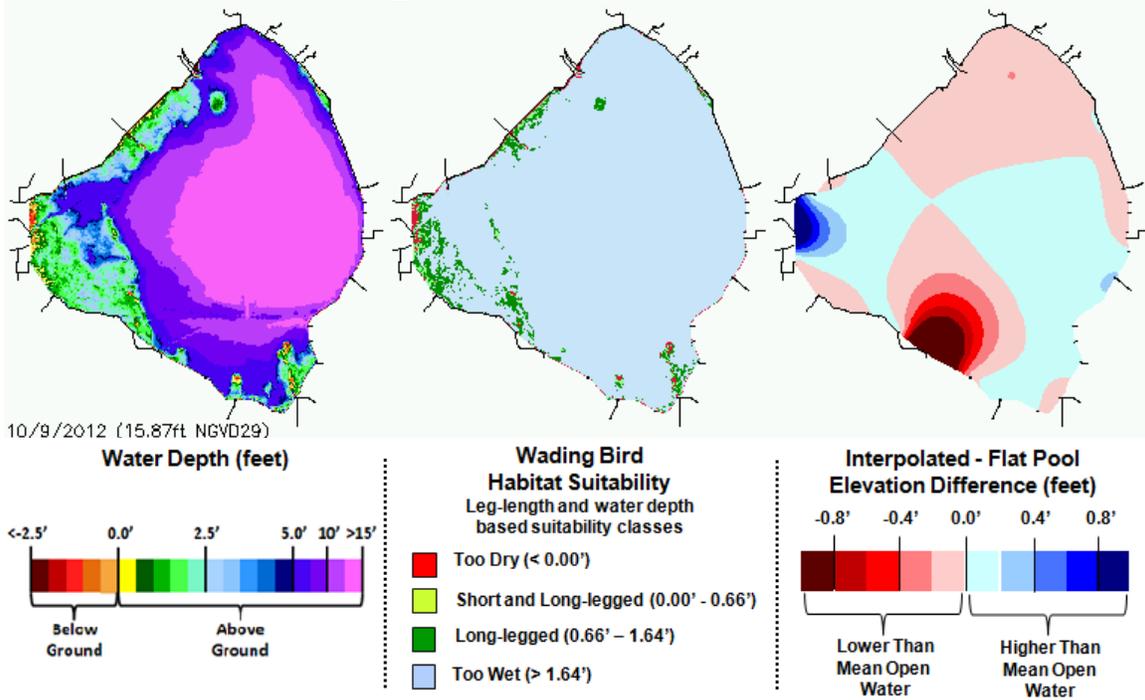


Figure 3 – SFWMD Water Depth Assessment Tool (WDAT) current water depths and wading bird habitat suitability for Lake Okeechobee.

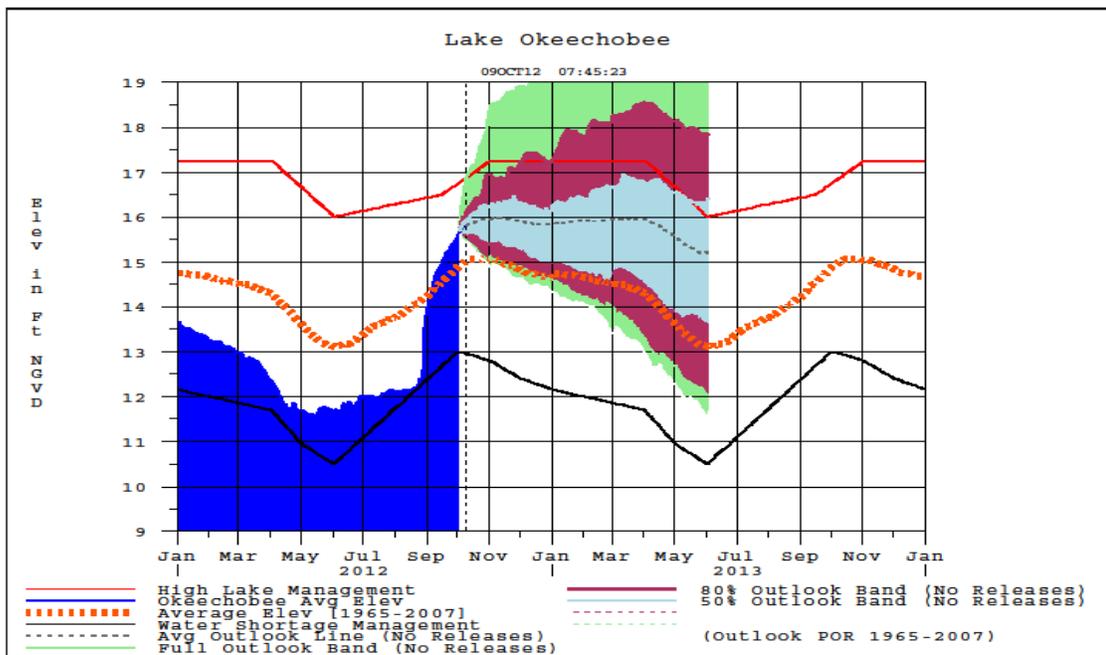
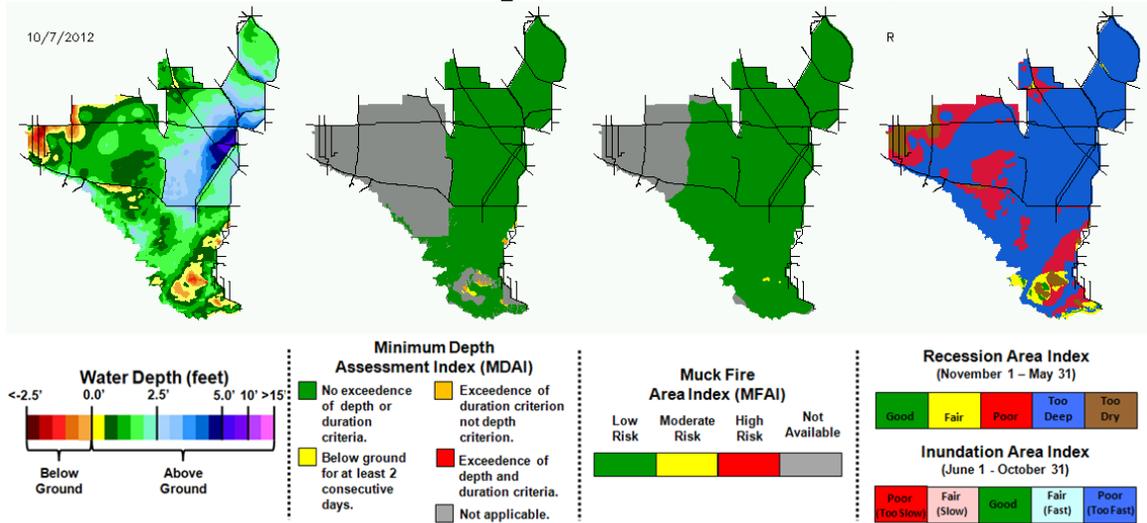


Figure 4 – USACE current lake levels, management bands, and potential outlook levels.

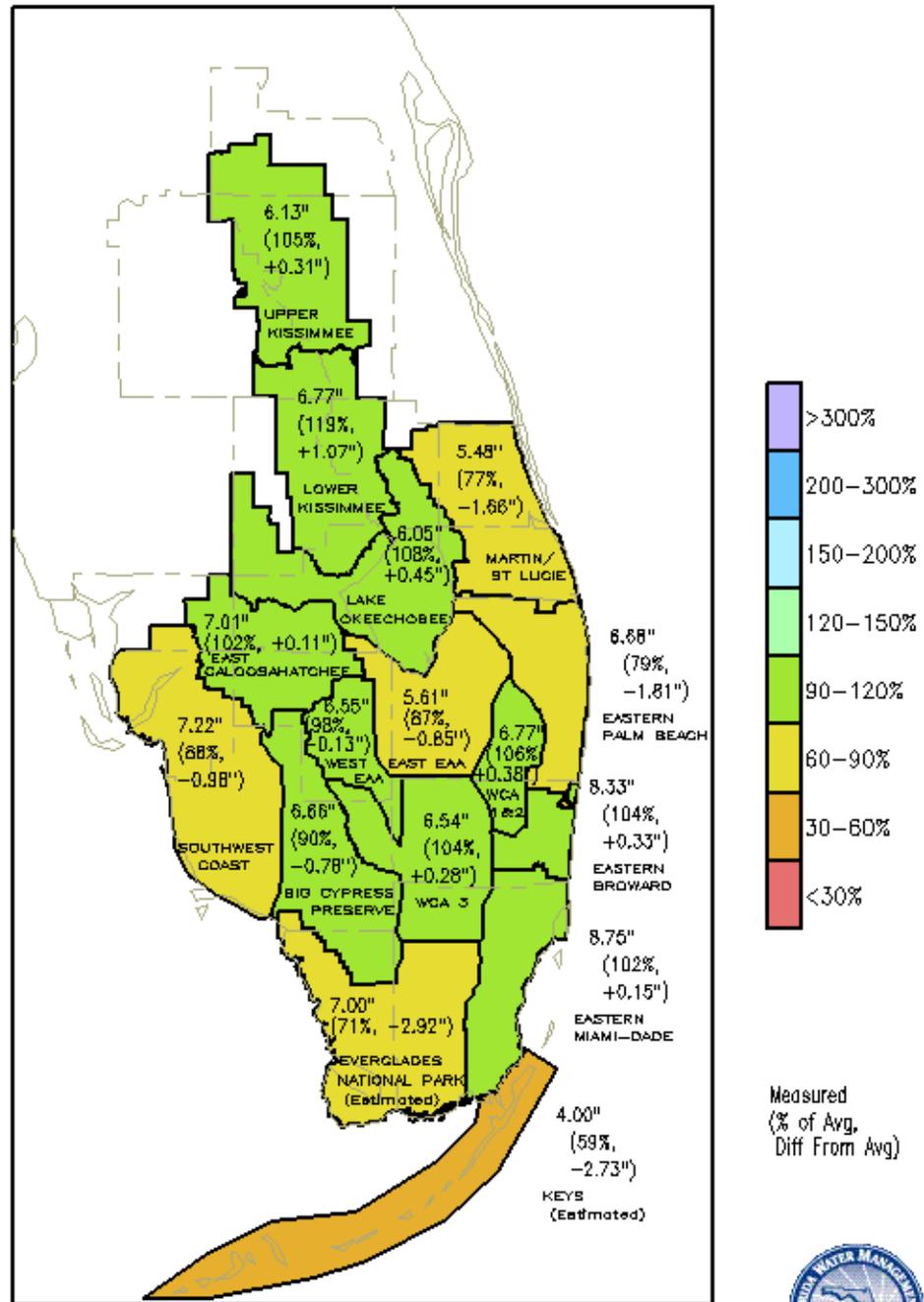
# Everglades

## South Florida Water Depth Assessment Tool (SFWDAT)



**Figure 5 – SFWMD South Florida Water Depth Assessment Tool (SFWDAT) with current water depths, muck fire hazards and wading bird recession rates for the Greater Everglades.**

## SFWMD Rainfall 02-sep-2012 to 01-oct-2012

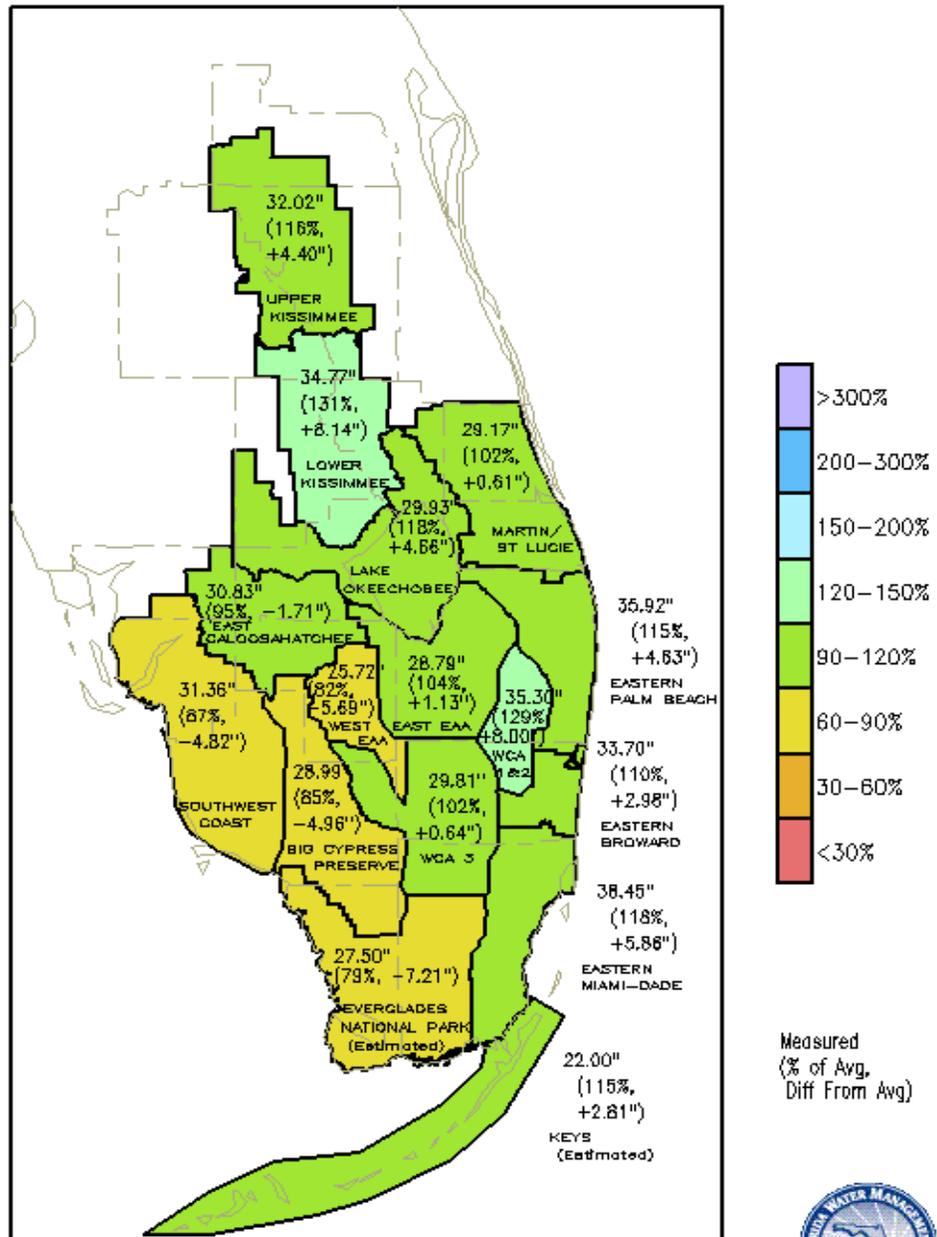


GrADS: COLA/IGES

**Figure 6 – South Florida Water Management District rain totals for the month of September 2012. Lake O, Kissimmee basin, and the WCAs received 100-120% of average rainfall for the month. The Keys, ENP and the eastern EAA received lesser amounts of 60-80% of average.**



## SFWMD Rainfall 02-jun-2012 to 01-oct-2012



DISTRICT-WIDE: 31.51" (105%, +1.61")

GRIDS: COLA/IGES

**Figure 7 – South Florida Water Management District Wet Season rainfall totals from June 1, to September 30, 2012. Rainfall of 100-130% above average fall over the entire Kissimmee / Greater Everglades system. Whereas, 80-90% of average fall over southwestern Florida.**



**Last Week's Rain:**

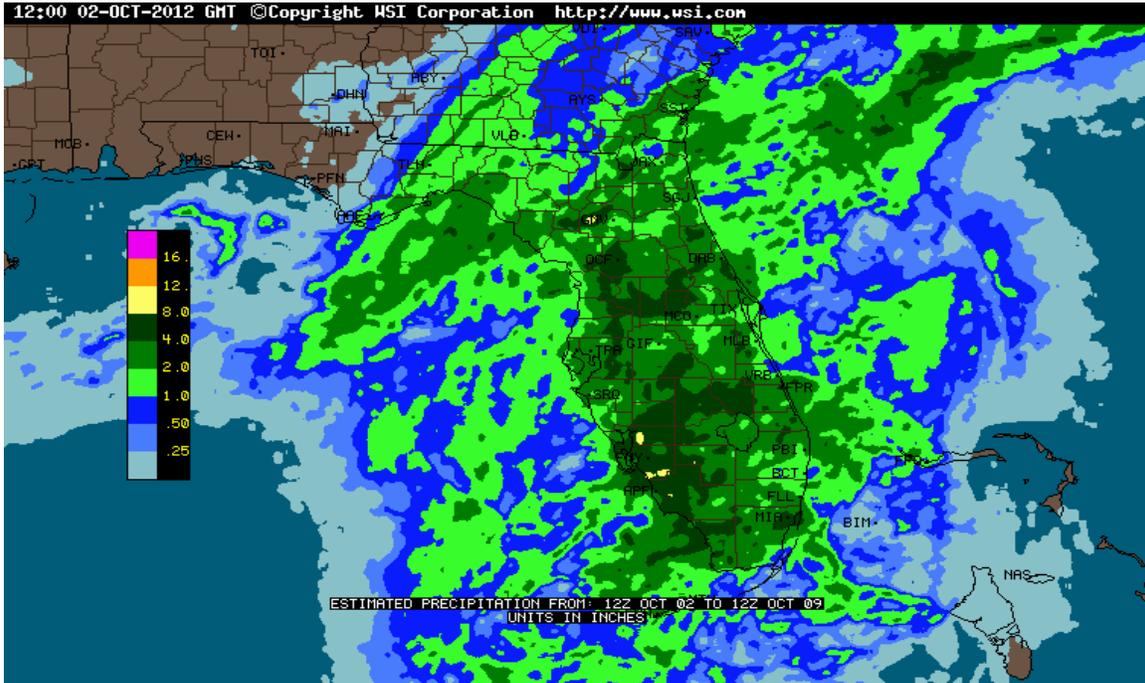


Figure 7 – Two active cold fronts moved into the State over the last week bringing significant rain. Rainfall totals of 4-8 inches fell over the Kissimmee basin with 2-4 inches over the remainder of the central and southern system.

**Drought Outlook for the Next 3 Months:**

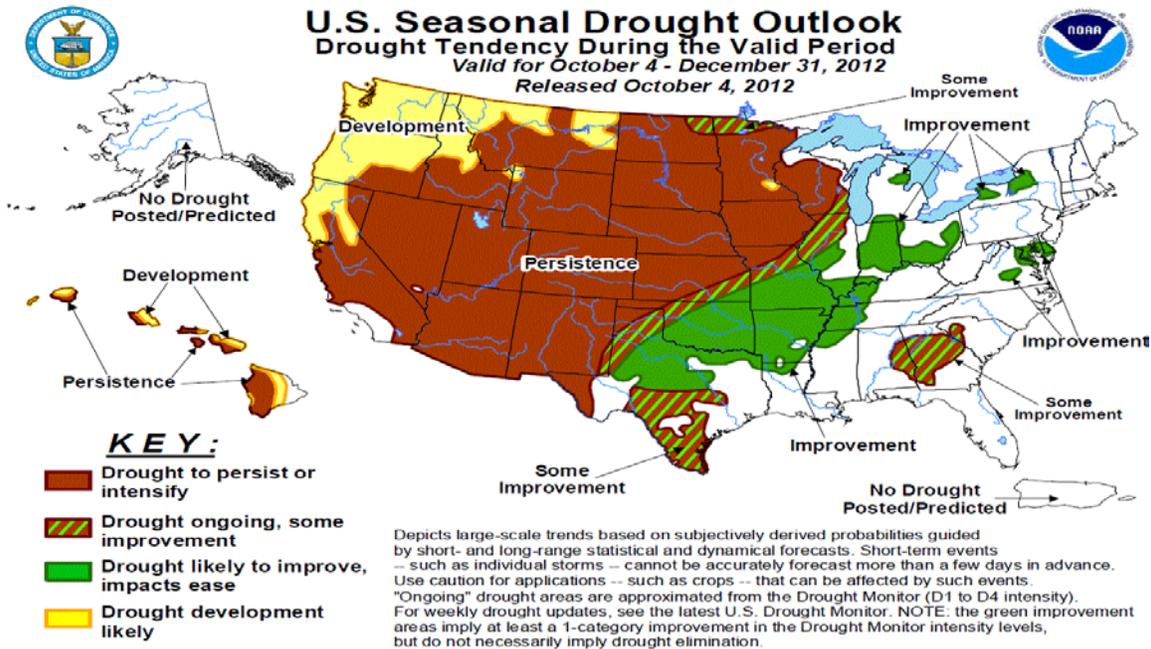
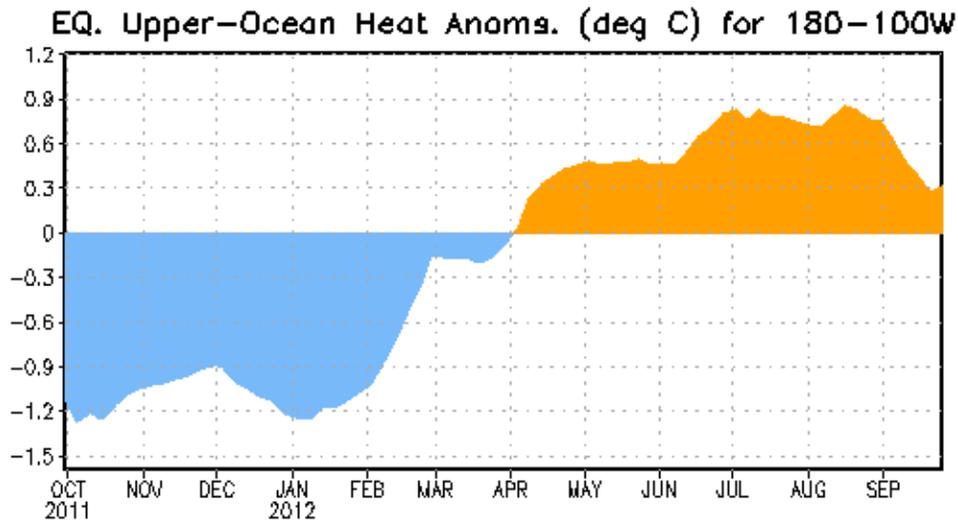


Figure 8 – Drought Outlook for the next 3 months indicating some improvements.

**El Nino / La Nina (ENSO) Status – El Nino Watch is in effect for remainder of 2012.**  
(Climate Prediction Center)

**Highlights - ENSO-neutral or weak El Niño conditions are expected to continue through the winter months of 2012-13. El Nino could possibly strengthen during the fall months.**

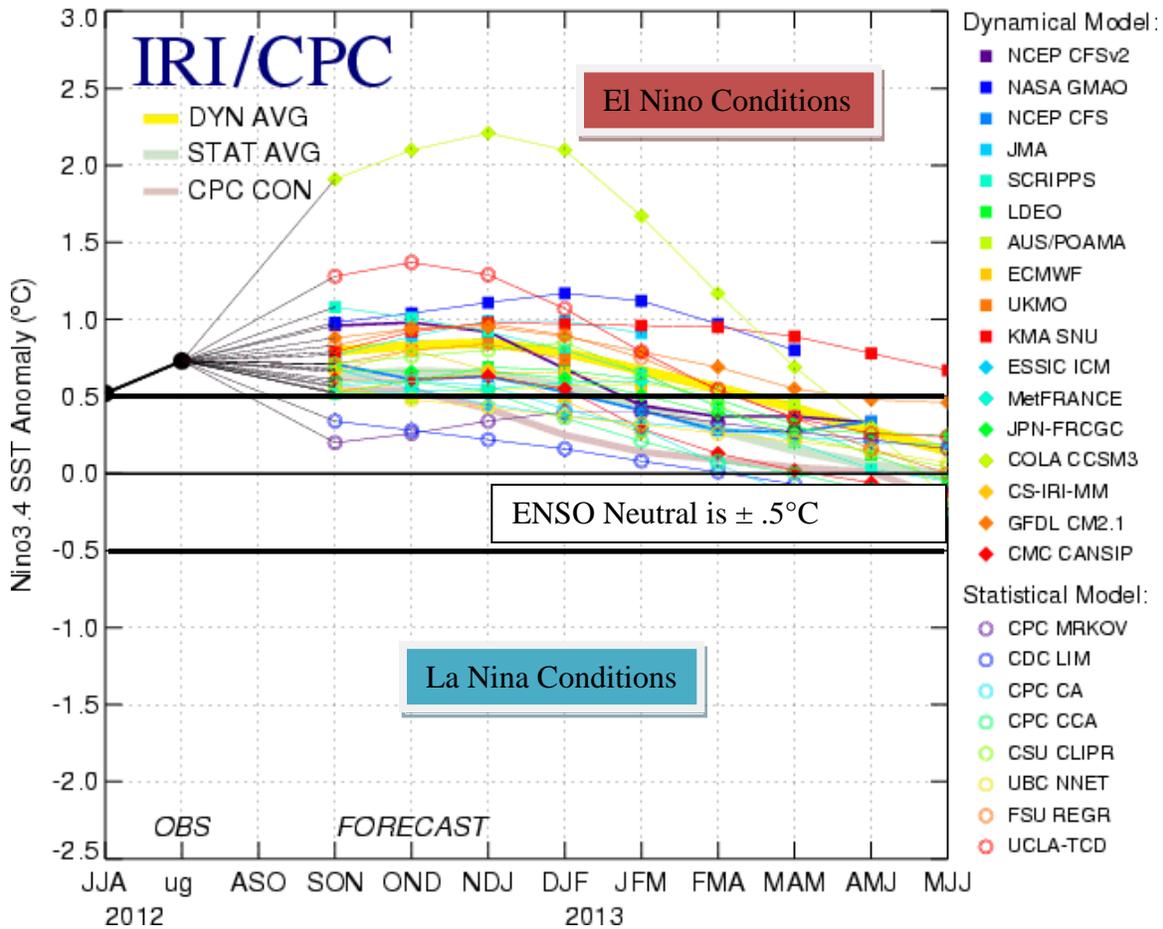
During September, equatorial sea surface temperatures (SST) remained warmer than average across the Pacific Ocean (Fig. 9). But, the rate of warming sharply declined over the last few weeks. Near surface westerly trade winds continue to indicate the likely strengthening of El Nino. However, the atmosphere is still reacting in an ENSO-neutral way, as reflected by the Southern Oscillation index and near-average upper-level and lower-level winds across much of the Pacific. Tropical convection increased near the Date Line, which is consistent with weak El Niño conditions.



**Figure 9 – The upper 300m of the Pacific Ocean indicating the sharp decline in warming.**

Compared to the past few months, the probability for a moderate El Nino developing is reduced for the fall/winter 2012-13. Because of the warming slowdown, it is not clear whether a full scale El Niño will develop. The majority of models indicate that borderline ENSO-neutral / weak El Niño conditions will continue, and about half suggest that El Niño could develop, but remain weak (Fig. 10). The official forecast therefore favors the continuation of borderline ENSO-neutral / weak El Niño conditions into Northern Hemisphere winter 2012-13, with the possibility of strengthening during the next few months.

## Mid-Sep 2012 Plume of Model ENSO Predictions



**Figure 10 - All climate model runs from September 2012. The yellow line is climate forecaster's preferred dynamical model average indicating a progression towards El Niño developing by September 2012.**

### Expected El Niño effects for Florida include:

- Jet streams are farther south leading to a colder winter
- Wetter dry season
- Above average surface water elevations during the dry season
- Fewer fires with smaller burn areas
- Decreased lightning
- Decreased hurricane activity both the summer before and after the El Niño event

## **2012 Hurricane Season**

Colorado State University August Prediction with current tropical cyclone statistics in parentheses:

<b>August 3 - Forecast:</b>	<b>Actual:</b>
Tropical Storms = 14	(14 – as of 10/9/12)
Hurricanes = 6	(7 – as of 10/9/12)
Major Hurricanes = 2	(1 – as of 10/9/12)

Hurricane Strike on eastern Florida = 24% chance

### **Central & South Florida Temperature Outlook:**

October thru November – Average  
December – Cooler than Average  
January thru February 2013 – Much Cooler than Average  
March 2013 – Cooler than Average  
April 2013 – Average  
June 2013 – Warmer than Average  
July thru September 2013 – Much Warmer than Average

### **Central & South Florida Rainfall Outlook:**

October thru November – Wetter than Average  
December thru March 2013 – Much Wetter than Average  
April 2013 – Wetter than Average  
May thru September 2013 - Average

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