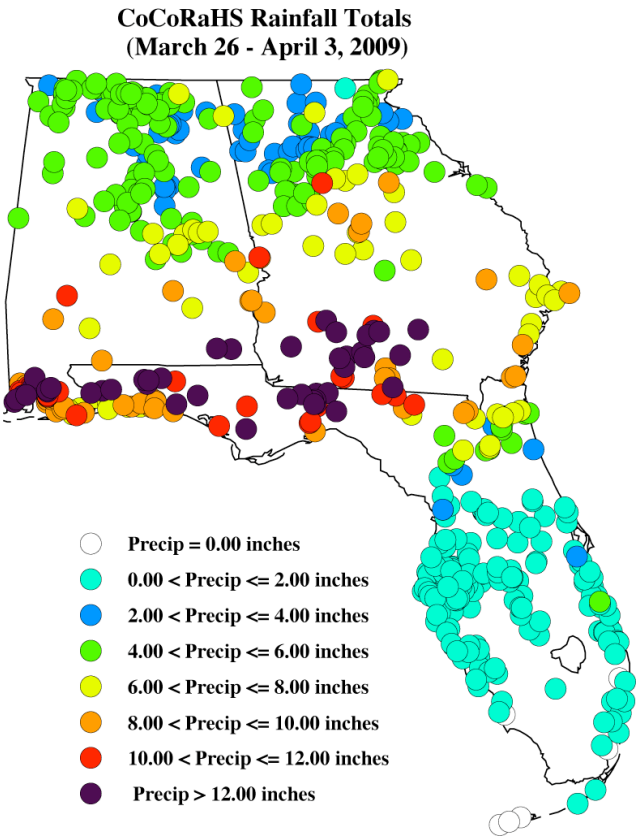
SECC Spring/Early Summer Climate Outlook

Date updated: April 9, 2009

Current Conditions

Unusually active weather pattern brings frequent torrential rains to the Southeast. The last week of March and first week of April brought a shift in the large-scale weather patterns across the Southeast U.S., characterized by an active pattern with frequent low pressure systems moving across the northern Gulf Coast. Several of these systems were slow-moving, allowing soaking rains and thunderstorms to dump heavy accumulations of rain over the two-week period across most of Georgia, Alabama, and North Florida. A large swath of the Florida Panhandle, South Alabama, and South Georgia received over 12 inches during these two weeks with a greater area seeing 6-8 inches. The widespread nature of the heavy rainfall has resulted in flooding of low-lying or poorly-drained areas and record or near-record floods on some Georgia and North Florida Rivers. More information on area flooding can be found from the following resources.

NWS Southeast River Forecast Center
U.S. Geological Survey
Florida Division of Emergency Management
Georgia Emergency Management Agency



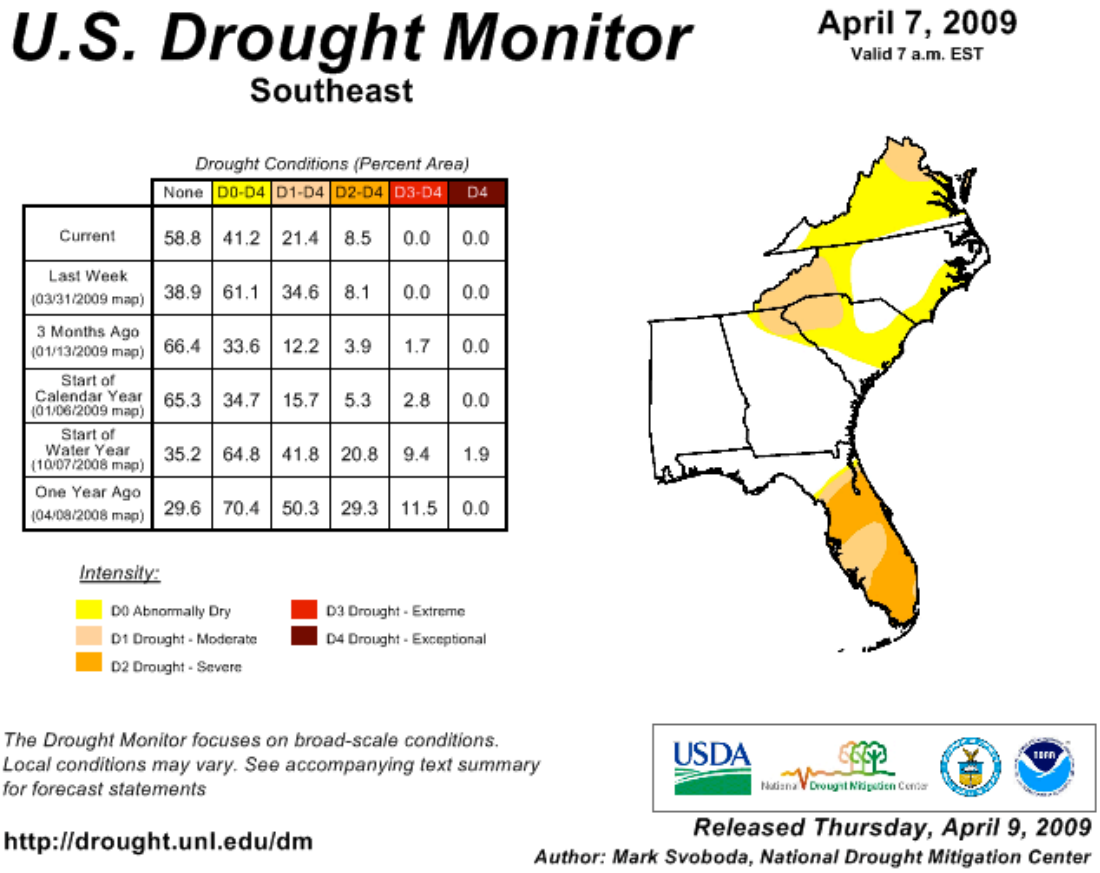
Rainfall total for late March/Early April from CoCoRaHS observations (volunteer observers).

Drought worsens in peninsular Florida, persists in North Georgia and the Carolinas. Unfortunately, these torrential rains failed to progress down the peninsula where the driest areas of the Florida are located. South of a diagonal line from Gainesville to St. Augustine, the peninsula received only 1-2 inches during the month of March and continued the string of months with below-normal rainfall. With winter rainfall deficits from 5 to 10 inches, drought continues to worsen across central and south Florida. According to the U. S. Drought Monitor, most of the peninsula is now classified as being in moderate or severe drought. Fortunately, Lake Okeechobee levels are higher this year (due to tropical storm Faye) heading into the critical spring period than they were during the last drought years of 2007 and 2008. The big lake is a critical resource for municipal and agricultural water supply in south Florida. The one exception is the area around Pompano Beach, where a localized heavy storm produced 6.05 inches on March 18. CoCoRaHS observers (volunteer network) in the area also reported totals over 6 inches.

The heaviest rainfall in the last two weeks also fell south of the drainage basins that fill the major reservoirs in north-central and northeast Georgia, leaving Lake Lanier and Lake Hartwell

with very low levels. Lake Lanier is major source of water for metropolitan Atlanta. The interior sections of the Carolinas did receive beneficial rains, but the mountainous and coastal regions remain classified as abnormally dry or moderate drought according to the U.S. Drought.

Monitor.



For more detailed information on drought conditions, please see the resources below:

U.S. Drought Monitor

Georgia Drought Statement

Southwest Florida Water Restrictions

South Florida Water Restrictions

For more detailed information on recent weather, please see the resources below:

Florida Automated Weather Network

Georgia Automated Environmental Monitoring Network

Alabama Office of the State Climatologist

Southeast Regional Climate Center

NWS Radar-derived Precipitation Totals

Climate Outlook

The Pacific Ocean has returned to Neutral signaling the end of La Niña. Ocean temperatures have warmed to near-normal in the past month near the Pacific equator and the atmosphere over the region is now behaving more like neutral conditions. All sea-surface temperature indices have now risen above the -0.5 C threshold commonly used to designate La Niña events. Atmospheric indicators including easterly trade winds, cloudiness and rain over the western tropical Pacific, and surface pressure patterns (usually tracked with the Southern Oscillation Index) have all returned to near-normal. We anticipate that NOAA will also declare that La Nia is over later this week.

Normal patterns should set in through spring and summer. With La Niña no longer influencing the weather patterns of the Southeast, we can anticipate normal spring and early summer climate patterns. Normal does not necessarily imply that seasonal temperature and/or precipitation will be near the long-term average, rather that there is no inclination towards wetter, drier, warmer, or colder due to events in the Pacific Ocean. Near normal rainfall and temperature is the most likely, but we can also anticipate the normal variability of weather and climate to be a factor in the next several months.

The recent heavy rains across North Florida, South Alabama, and South Georgia have saturated soils and filled area lakes, ponds, and rivers. This should provide sufficient moisture for planting field crops and greening of pastures for the next month or more. Standing water or saturated soils could hinder field preparations.

April and early May is the spring dry season in Florida, so the peninsula should continue to dry as temperatures and evapotranspiration increases. Elsewhere in North Alabama, North Georgia, and the Carolinas, spring potentially brings the last chance of meaningful recharge for surface and groundwater. Evapotranspiration exceeds normal rainfall during the summer months, so winter and spring recharge is important for water resources. As we progress through April, the threat of a late season freezes gets less and less. However, the occurrence of a late freeze is not tied to any particular phase of the Pacific Ocean.

During the summer the Southeast is characterized by hot, humid conditions and convective thundershowers. Coverage and frequency of these afternoon thunderstorms is higher in Florida and extreme South Georgia, but more "hit and miss" in the remainder of Georgia, Alabama, and the Carolinas. While normal summer rainfall is not enough to make up for the long term deficits, these rains may mitigate drought effects in selected areas.

Over Florida, the onset of the summer rainy season is usually anywhere from mid-May to early June. The summer rains effectively end the wildfire season in the state, but potential for large fires will continue until rains begin in earnest. The wildfire season rarely lasts past mid-June. Unlike Georgia and Alabama, summer is the season for recharge in Lake Okeechobee.

For more detailed information on El Niño/ La Niña climate shifts in your particular county, please refer to the Climate Risk Tool at AgClimate:

Climate Risk Tool

Wildfire Season

Dangerously dry conditions persist across Central and South Florida. The peninsula of Florida (South of Gainesville) has missed most of the heavy rainfall and is still in moderate to severe drought according to the U.S. Drought Monitor. The Keetch-Byrum Drought Index is 600 to 650 over most of South Florida and over 700 in Hendry and Collier Counties, corresponding to the severe risk. Widespread heavy rains across south Alabama, South Georgia, and north Florida in March and early April eased wildfire concerns here for the foreseeable future. Florida is now well into the spring dry season when brush and forests dry due to rising temperatures and normally light rainfall. Several winter freezes that penetrated into South Florida also helped kill or brown small vegetation and provide additional fuel.

Our Keetch-Byrum Drought Index forecast indicates there is a good likelihood that high wildfire risk will persist through April and May over the Florida peninsula. Keep in mind that wildfires are a normal fixture of Florida's climate in the late spring. The peninsula is generally fairly dry throughout the winter season and vegetation and fuels continue to dry through the spring until the summer convective rains set in. The summer rains effectively end the wildfire season in the state, but potential for large fires will continue until rains begin in earnest. The wildfire season in Florida rarely lasts past mid-June.

Wildfire Threat Forecast