

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
MARCH 2011

TO: Hydrologic Information Center, W/OS31
NOAA's National Weather Service
1325 East West Highway
Silver Spring, MD 20910-3283

SIGNATURE
KENNETH GRAHAM
METEOROLOGIST-IN-CHARGE

DATE
APRIL 15, 2011

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

An X inside this box indicates that no flooding occurred within this hydrologic service area.

...Severe Weather, Expanding Drought, and Flooding Made News in March 2011...

March began with mild weather over southeastern Louisiana, southern Mississippi and coastal Mississippi. By March 5th, weather conditions were conducive for severe storms, as a strong cold front drenched pre-Mardi Gras revelers across the region. Several additional episodes of damaging storms and heavy rains developed into mid-March, including on Mardi Gras, March 8th, and on Ash Wednesday, March 9th. Widespread severe weather and copious rainfall occurred across coastal Mississippi and southeastern Louisiana by March 13th. Areal rainfall for the first days of March ranged from 1.55 to 2.36 inches. Areal rainfall amounts for the week ending March 13th ranged from 0.81 inch around 2.0 inches.

Another frontal boundary crossed the region on March 14th and 15th, although little to no rainfall occurred. While a series of weather systems pushed through from March 21st through 27th, drought conditions worsened over Mississippi and Louisiana. For the week ending March 20th, areal rainfall totals were less than 0.15 inch, since most areas had no rain. Areal rainfall totals were generally near zero for the weather week ending March 27th.

As March ended, isolated rainfall developed due to a near-stationary frontal boundary that lingered along the Gulf Coast. Starting March 29th, the boundary shifted north. Severe weather and significant rains occurred over the entire region. Adverse weather continued on March 30th. Flash floods developed, mainly across New Orleans, before high pressure returned over the region on March 31st. Areal rainfall totals averaged over the last few days of March ranged from over 1.50 inches to 2.53 inches.

Flooding...

Heavy rains during the first week of March produced spring floods over St. Tammany Parish in Louisiana. Minor flooding developed on the Tchefuncte River at Covington and the Bogue Falaya River at Camp Covington and over downtown Covington. These floods ended by March 7th.

After the heavy rains from the previous week, another round of copious rainfall produced floods over the Pontchartrain Basin and across coastal Mississippi. In Louisiana, water rose again on the Bogue Falaya River in downtown Covington. Minor flooding also occurred on the Amite River at Denham Springs; on the Comite River at Comite; on the Tickfaw River at Montpelier and Holden; on the Bogue Chitto River at Bush; and on the Lower Pearl at Bogalusa and Pearl River. Moderate flooding developed on the Tangipahoa River at Robert and on the Bogue Chitto River at Franklinton. In Mississippi, flooding developed on the Bogue Chitto River at Tylertown; on the West Hobolochitto Creek at McNeil; on the East Hobolochitto Creek at Caesar; on the Biloxi River at Lyman; and on the Pascagoula River at Graham Ferry. Flood waters receded at most locations by March 13th. The flooding persisted on the Pearl River through most of March.

Heavy rainfall and snow melt over the Upper and Middle Mississippi River Valleys and the Ohio River Valley pushed a flood wave downstream. With local heavy rainfall and the routed flood wave, water rose above the flood stage by March 13th at Morgan City on the Atchafalaya River and by March 19th at Red River Landing on the Mississippi River. These floods continued into April.

Monthly Reports by Agricultural Region	Areal Average	Departure from Normal
Southwest Mississippi (2 Sites)	6.88	-0.04
South Central Mississippi (2 Sites)	5.42	N/A
Coastal Mississippi	3.97	-2.65
Central Louisiana (2 Sites)	4.09	-1.08
East Central Louisiana	5.11	-0.93
South Central Louisiana (5 Sites)	3.35	-1.67
Southeast Louisiana	6.69	+1.15

Extreme Rainfall for the Month (Inches and Departure from Normal)

Oaknolia, LA	11.66	+5.91	Napoleonville, LA	1.33	-3.60
New Orleans (MSY), LA	10.48	+5.24	Slidell (LIX), LA	1.91	-4.37
Ponchatoula, LA	10.34	+4.06	Denham Springs, LA	1.08	-4.55

Drought...

Soil conditions deteriorated by the beginning of March, as severe drought (D2) spread over all of coastal Mississippi and the remainder of the region experienced abnormally dry (D0) to moderate drought (D1). With the heavy rains early in the month, conditions improved. Abnormally dry soils covered the Atchafalaya River region and much of the River Parishes. Other areas had moderate drought (D1) conditions, with severe drought (D2) only over the extreme southeast Louisiana. By March 15th, drought conditions waned some, particularly over southwest Mississippi, the River Parishes, and the Atchafalaya River Basin. Moderate drought lingered over the coastal parishes and counties, as the areas with severe drought remained unchanged. However, over the last half of March, soils became drier, including over the Atchafalaya River Basin. As March ended, abnormally dry conditions lingered over southwest Mississippi, while moderate drought covered the remainder of the region.