NWS FORM E-5 (11-88) (PRES. by NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) **NEW ORLEANS/BATON ROUGE, LA**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH: **APRIL** YEAR: **2011**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE KENNETH GRAHAM METEOROLOGIST-IN-CHARGE DATE **MAY 15, 2011**

When no flooding occurs, include miscellaneous river conditions, 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 Battered the Region While Drought Conditions Worsened in April 2011…

At the start of April, mostly fair, early-spring conditions persisted over southeastern Louisiana, coastal Mississippi, and southwest Mississippi. By April 4th, tumultuous weather gripped the entire southeastern United States, including Louisiana and Mississippi. Widespread damage occurred, as large hail, wind damage, and tornadoes battered the region. Surprisingly given all the severe weather, only modest rains occurred. After April 5th, weather conditions settled down and remained quiet through April 10th. Areal rainfall totals for the weather week ending April 10th were generally 0.20 inch to 0.62 inch.

Another cold front pushed across the region on April 11th, with mostly light rainfall. By April 14th and 15th, a stronger weather complex produced another round of severe storms across southwest Mississippi, coastal Mississippi, and southeastern Louisiana. Light rainfall occurred over southeastern Louisiana, with heavier amounts over Mississippi. Fair weather returned on April 16th. For the weather week ending April 17th, areal rainfall totals were generally less than 0.10 inch over southeastern Louisiana, with areal averages up to 0.30 inch over Mississippi.

Warm, moist air from the Gulf of Mexico dominated the weather from April 18th through 24th. Little to no rainfall occurred over southeastern Louisiana, though isolated thunderstorms developed across southern Mississippi. With areal average rainfall amounts near zero, soil conditions dramatically deteriorated area-wide.

Severe weather and heavy rains battered large parts of Mississippi and Louisiana during the last week of April, though rainfall was lightest over southeastern Louisiana again. Fair weather returned by April 28th. Areal rainfall totals averaged less than 0.60 inch across the region, except the areal average was only 0.05 inch for southeastern Louisiana.

Flooding…

Flooding developed in March on the Atchafalaya River at Morgan City, LA and at Red River Landing, LA on the Lower Mississippi River. Rainfall from the early April storms, along with water routed downstream on the Mississippi River and from the Ohio River, produced flooding at Baton Rouge, LA, starting April 1st. Heavy rains over Mississippi and Louisiana also produced flooding on the Lower Pearl River at Bogalusa, LA on April 2nd.

While flooding at Baton Rouge and Bogalusa receded by April 5th, the Mississippi River remained in flood at Red River landing until April 12th. With additional rainfall and routed water from upstream, flooding redeveloped at Red River Landing on April 28th. The flooding at Morgan City and at Red River Landing continued into May.

Monthly Reports by Agricultural Region	Areal Average	Departure from Normal
Southwest Mississippi (2 Sites)	1.83	N/A
South Central Mississippi (2 Sites)	1.51	N/A
Coastal Mississippi	0.83	-4.31
Central Louisiana (1 Site)	0.80	-4.77
East Central Louisiana	1.06	-4.55
South Central Louisiana (6 Sites)	1.00	-3.97
Southeast Louisiana	0.30	-4.44

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

Liverpool, LA	3.17	-2.07	Bay Saint Louis, MS	0.23	-5.20
Baton Rouge/Concord, LA	2.44	-3.17	Grand Isle, LA	0.20	-4.39
Butte La Rose, LA	2.10		Terrytown, LA	0.14	
Ben Hur Farm, LA	2.09	-3.17	Morgan City, LA	0.14	-4.08
Oaknolia, LA	2.01	-3.75	New Orleans/Audubon, LA	0.13	-4.86

Drought…

As April began, soil conditions were on a drying trend. Abnormally dry (D0) to moderate drought (D1) conditions persisted across the entire region. By April 12th, soil conditions had further deteriorated. Severe drought (D2) became established over coastal Mississippi and across the Lower Atchafalaya River Basin in Louisiana. By the end of April, abnormally dry conditions remained only over southwestern Mississippi. During the last days of the month, soil conditions eroded toward exception drought (D3) levels over much of southeastern Louisiana and coastal Mississippi.