NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) **NWFO New Orleans/Baton Rouge, LA**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH **DECEMBER** YEAR **2010**
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 **JANUARY 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).

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

…DROUGHT INTENSIFIES IN DECEMBER…

As December started, a frontal boundary moved across southeastern Louisiana and southern Mississippi. The heaviest rains with this system occurred primarily on December 1st across extreme southeast and east-central Louisiana, along with south-central and coastal Mississippi. Precipitation totals ranged up to 0.80 inch, which was measured at Grand Isle, LA.

By December 8th, a storm system formed over the northwestern Gulf of Mexico and spread rain over the entire region. Areal average rainfall amounts for the week ending December 12th were generally 0.20 to 0.35 inch.

After a period of cold, dry weather, spotty rainfall occurred over the southeastern Louisiana and southern Mississippi from December 16th to December 19th. Areal rainfall averages for the week up to December 19th were less than 0.10 inch, except over southeast Louisiana where areal rainfall was 0.20 inch.

Another period of fair weather ended Christmas Day, as cyclogenesis started over the northern Gulf of Mexico. Widespread rainfall occurred until December 26th. Areal precipitation was generally less than 0.10 inch.

Fair weather, induced by a large area of high pressure, transitioned into stormy conditions on December 30th. On New Year's Eve, heavy rainfall and widespread severe weather pounded Louisiana and Mississippi. Conditions improved when the strong cold front responsible for the violent weather finally pushed east on January 1st. Areal rainfall totals ranged from 0.99 inch to over 2.0 inches.

Monthly Reports by Agricultural Region	**Areal Average**	**Departure from Normal**
Southwest Mississippi (2 Sites)	2.49	N/A
South Central Mississippi (2 Sites)	1.57	-4.07
Coastal Mississippi	1.19	-3.79
Central Louisiana (2 Sites)	1.14	-4.31
East Central Louisiana	2.03	-3.18
South Central Louisiana (3 Sites)	2.54	-2.46
Southeast Louisiana	1.98	-2.68

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

Butte La Rose, LA	5.29		Tylertown, MS	0.50	-4.98
Baton Rouge Airport, LA	4.58	-0.68	Stennis Airport, MS	0.46	
Baton Rouge LSU, LA	4.30		New Roads, LA	0.26	-5.37

Drought…

From early December through the middle of the month, moderate drought persisted over coastal Mississippi, Washington and St. Tammany Parishes, and parts of southwest Mississippi. Other areas were normal or abnormally dry. After December 14th, conditions deteriorated. Moderate drought conditions spread into extreme southeast Louisiana; areas that had been normal became abnormally dry. By the end of December, moderate drought covered most of the region, with abnormally dry soils primarily over the Lower Atchafalaya River Basin. At the same time, severe drought conditions became established over northern Pearl River County and southeastern Walthall County in Mississippi.