

	<p>WATER MANAGEMENT MONTHLY REPORT</p> <p><u>Information Exchange Bulletin</u></p> <p>Vol. No. <u>11 -11</u></p> <p>Date: 7 December 2011</p> <p>Prepared by: U.S. Army Engineer Division, Great Lakes and Ohio River, 550 Main St. #10032, Cincinnati, OH 45202-3222</p>
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RESERVOIR OPERATION AND SYSTEM STATUS FOR NOVEMBER 2011

HIGHLIGHTS – The Ohio River at Cairo began the month at a stage of 20.38 feet. Cairo stage was at 38.15 feet at the end of the month. Flood stage at Cairo is 40 feet. Heavy rainfall during November resulted in average monthly flows between 240% and 308% of normal along the main stem of the Ohio River. A flood operation was initiated on the 29th.

WEATHER – A La Nina pattern resulted in a warmer and much wetter than normal November with record rainfall for the month reported at Cincinnati. The rainfall events from the 14th through the 17th, the 20th through the 23rd and the 27th through the 30th were the most significant contributors to this wet weather pattern. Precipitation departures in the basin ranged from 0.52 inches above normal at Pittsburgh, PA to 4.90 inches above normal at Cincinnati, OH.

Temperature departures in the basin ranged from 2.2 degrees above normal at Nashville, TN to 5.1 degrees above normal at Indianapolis, IN.

TEMPERATURE AND PRECIPITATION – NOVEMBER 2011

STATION	TEMPERATURE		PRECIPITATION	
	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	46.9	+4.0	3.75	+0.52
Charleston, WV	50.9	+3.9	4.88	+1.15
Columbus, OH	48.7	+4.3	4.77	+1.57
Cincinnati, OH	49.1	+4.0	8.33*	+4.90

Louisville, KY	52.0	+3.3	7.62	+4.03
Indianapolis, IN	48.7	+5.1	4.87	+1.17
Evansville, IN	50.3	+3.9	8.32	+3.99
Nashville, TN	52.0	+2.2	6.15	+1.84

***Record precipitation for November**

STREAMFLOW – The monthly average flows ranged from a low of 201% of normal at Paducah, KY to a high of 308% of normal at Louisville, KY.

Daily flows ranged from a low of 73% of normal at Evansville, IN to a high of 698% of normal at Pittsburgh, PA.

The following table presents the flow data summary for the Ohio River Index Stations:

FLOW DATA – NOVEMBER 2011

STATION	AVERAGE MONTHLY FLOW CUBIC FEET/SECOND	PERCENT LONG-TERM NORMAL		
		MONTHLY	DAILY	
			HIGH	LOW
Pittsburgh, PA	53,000	241	698	77
Huntington, WV	122,000	275	651	85
Cincinnati, OH	157,000	294	619	84
Louisville, KY	181,000	308	681	85
Evansville, IN	188,000	280	636	73
Paducah, KY	278,000	201	473	80

RESERVOIRS – November began with 2.8 % utilization of the total system flood control storage and ended the month at 7.9 %. System-wide augmentation storage availability began the month at 92.7% and was at 95.5 % by the end of the month.

The following table depicts storage change by tributary reservoir subsystem for November:

CHANGE IN STORAGE TRIBUTARY-RESERVOIR SUBSYSTEM	(ACRE-FEET)
Allegheny-Monongahela-Beaver	-9,600
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	+20,300
Twelvepole-Big Sandy-Little Sandy-Scioto	-76,800
Little Miami-Licking-Mill Creek-Great Miami	+72,100
Kentucky-Salt-Green-Wabash	+157,600
Cumberland	+953,000
TOTAL	+1,116,600

Prepared by:
Water Management Division
Great Lakes and Ohio River Division
U.S. Army Corps of Engineers