

	<p>WATER MANAGEMENT MONTHLY REPORT</p> <p><u>Information Exchange Bulletin</u></p> <p>Vol. No. <u>09 – 11</u></p> <p>Date: 10 December 2009</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 2009

HIGHLIGHTS – The Ohio River at Cairo began the month at a stage of 38.39 feet. Cairo crested on the 3rd at 42.00 feet. The Cairo stage was at 25.49 feet at the end of the month. Flood stage at Cairo is 40 feet. The flood control operation that began on 30 October was terminated on 9 November as heavy rains in the Mississippi Valley subsided. The flood control operation was executed to minimize crop damages in the Mississippi Valley for crops that were not harvested.

WEATHER – November was much drier and warmer than normal across the basin as a ridge of high pressure dominated the weather for most of the month. Precipitation departures in the basin ranged from 2.06 inches below normal at Pittsburgh, PA to 3.78 inches below normal at Nashville, TN. The only major rainfall event occurred from the 10th through the 12th in the Tennessee Valley and Appalachians from the remnants of Hurricane Ida. Temperature departures in the basin ranged from 2.0 degrees above normal at Nashville, TN to 4.9 degrees above normal at Pittsburgh, PA.

TEMPERATURE AND PRECIPITATION – NOVEMBER 2009

STATION	TEMPERATURE		PRECIPITATION	
	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	47.2	+4.9	0.96	-2.06
Charleston, WV	49.4	+3.5	0.74	-2.92
Columbus, OH	47.8	+4.1	0.42	-2.77
Cincinnati, OH	47.5	+2.8	0.92	-2.54

Louisville, KY	51.2	+3.6	1.05	-2.76
Indianapolis, IN	47.4	+4.5	1.16	-2.45
Evansville, IN	49.9	+4.0	1.22	-2.96
Nashville, TN	51.2	+2.0	0.67	-3.78

STREAMFLOW – The monthly average flows ranged from a low of 87% of normal at Pittsburgh, PA to a high of 206% of normal at Paducah, KY. Daily flows ranged from a low of 46% of normal at Louisville, KY to a high of 346% of normal at Evansville, IN. The following table presents the flow data summary for the Ohio River Index Stations:

FLOW DATA – NOVEMBER 2009

STATION	AVERAGE MONTHLY FLOW CUBIC FEET/SECOND	PERCENT LONG-TERM NORMAL		
		MONTHLY	DAILY	
			HIGH	LOW
Pittsburgh, PA	19,000	87	192	51
Huntington, WV	50,000	112	186	72
Cincinnati, OH	58,000	109	221	62
Louisville, KY	74,000	125	299	46
Evansville, IN	95,000	142	346	67
Paducah, KY	284,000	206	284	122

RESERVOIRS – November began with 4.7% utilization of the total system flood control storage and ended the month at 2.9%. System-wide augmentation storage availability began the month at 92.0% and was at 91.1% 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	-136,800
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	-166,400
Twelvepole-Big Sandy-Little Sandy-Scioto	-109,600
Little Miami-Licking-Mill Creek-Great Miami	-55,000
Kentucky-Salt-Green-Wabash	-398,500
Cumberland	-145,900
TOTAL	-1,012,200

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