

	<p>WATER MANAGEMENT MONTHLY REPORT</p> <p><u>Information Exchange Bulletin</u></p> <p>Vol. No. <u>11 – 03</u></p> <p>Date: 5 April 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 MARCH 2011

HIGHLIGHTS – The Ohio River at Cairo began the month at a stage of 43.63 feet. The Cairo crest was 53.41 feet on the 18th. The Cairo stage was at 44.70 feet at the end of the month. Flood stage at Cairo is 40 feet. A Lower Ohio / Mississippi flood damage reduction operation was in effect for the entire month.

WEATHER – March was wetter than normal across the Ohio Valley and generally warmer than normal to the south and slightly cooler than normal north. A series of rainfall events that began in February resulted in significant flooding across most of the Ohio Valley. Rainfall events during March that were responsible for the flood event were the end of a major rainfall from Feb 28th through the 1st, the 4th through the 6th, the 8th through the 10th, and the 14th through the 16th. The Ohio Valley experienced drier weather for the second half of March with one event in the Tennessee Valley on the 26th to the 27th. Precipitation departures in the basin ranged from 0.28 inches below normal at Nashville, TN to 1.82 inches above normal at Pittsburgh, PA.

Temperature departures in the basin ranged from 0.9 degrees below normal at Columbus, OH to 2.8 degrees above normal at Louisville, KY.

TEMPERATURE AND PRECIPITATION – MARCH 2011

STATION	TEMPERATURE		PRECIPITATION	
	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	39.2	-0.6	4.99	+1.82
Charleston, WV	46.4	+1.1	4.32	+0.42
Columbus, OH	41.1	-0.9	4.58	+1.69

Cincinnati, OH	44.5	+0.6	4.55	+0.65
Louisville, KY	49.7	+2.8	5.17	+0.76
Indianapolis, IN	43.6	+1.9	3.73	+0.29
Evansville, IN	47.4	+1.6	5.34	+1.05
Nashville, TN	51.3	+1.2	4.59	-0.28

STREAMFLOW – The monthly average flows ranged from a low of 157% of normal at Paducah, KY to a high of 179% of normal at Pittsburgh, PA.

Daily flows ranged from a low of 51% of normal at Pittsburgh, PA to a high of 332% of normal at Pittsburgh, PA.

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

FLOW DATA – MARCH 2011

STATION	AVERAGE MONTHLY FLOW	PERCENT LONG-TERM NORMAL			
		CUBIC FEET/SECOND	MONTHLY	DAILY	
				HIGH	LOW
Pittsburgh, PA	123,000	179	332	51	
Huntington, WV	269,000	163	258	71	
Cincinnati, OH	347,000	163	239	68	
Louisville, KY	415,000	166	227	79	
Evansville, IN	504,000	168	258	87	
Paducah, KY	818,000	157	185	118	

RESERVOIRS – March began with 8.1% utilization of the total system flood control storage and ended the month at 7.3%. System-wide augmentation storage availability began the month at 98.6% and was at 98.3% by the end of the month. During the flood damage reduction operations, the maximum number of projects utilizing more than 25% of their flood control storage peaked at 50 on the 14th. On the 13th and 14th, 17 projects

were utilizing more than 50% of their flood control storage. Maximum flood storage utilization was 27.4% on the 13th. There were only three other years (1994, 1997, and 2005) since 1992 that recorded a higher peak division-wide storage total.

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

CHANGE IN STORAGE TRIBUTARY-RESERVOIR SUBSYSTEM	(ACRE-FEET)
Allegheny-Monongahela-Beaver	+49,000
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	+91,800
Twelvepole-Big Sandy-Little Sandy-Scioto	-45,800
Little Miami-Licking-Mill Creek-Great Miami	+18,900
Kentucky-Salt-Green-Wabash	+170,300
Cumberland	+690,500
TOTAL	+974,700

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