

	<p>WATER MANAGEMENT MONTHLY REPORT</p> <p><u>Information Exchange Bulletin</u></p> <p>Vol. No. <u>03 – 09</u></p> <p>Date: <u>01 October 2003</u></p> <p>Prepared by: U.S. Army Engineer Division, Great Lakes and Ohio River, PO Box 1159, Cincinnati, OH 45201-1159</p>
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RESERVOIR OPERATION AND SYSTEM STATUS FOR SEPTEMBER 2003

HIGHLIGHTS – Cairo stage began the month at 14.0 feet and ended at 22.4 feet and was nearly steady, well above the average stage of 16 feet for September. Cairo crested near 31 feet on September 8th. Flood stage there is 40.0 feet. Excessive rainfall during the month including Hurricane Isabel rainfall brought plenty of moisture into the basin.

WEATHER –The weather during September was cold and wet in the Ohio River basin. Temperatures averaged 1 to 4 degrees below normal as strong upper air jets shifted south. Rainfall was much above normal over most of the basin. Areas of Indiana observed 3 and 4 times their expected normal precipitation for the month. Close to half the basin had double the normal precipitation with only a small area of Alabama, eastern Tennessee and North Carolina below normal during September.

TEMPERATURE AND PRECIPITATION – SEPTEMBER 2003

STATION	TEMPERATURE		PRECIPITATION	
	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	63.1	-0.9	3.47	+0.26
Charleston, WV	65.1	-1.1	4.77	+1.32
Columbus, OH	64.4	-2.1	6.86	+3.94
Cincinnati, OH	64.8	-2.6	5.07	+2.25
Louisville, KY	66.3	-3.8	6.63	+3.58
Indianapolis, IN	64.6	-1.7	10.37	+7.49
Evansville, IN	66.8	-2.3	3.17	+0.18
Nashville, TN	70.2	-1.1	8.70	+5.11

STREAMFLOW -- Ohio River monthly average flows for September ranged from a low of 382 percent of normal at Pittsburgh, PA to a high of 483 percent of normal at Louisville, KY. Daily flows ranged from a low of 123 percent of normal at Pittsburgh, PA to a high of 982 percent of normal at Louisville, KY.

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

FLOW DATA – SEPTEMBER 2003

STATION	AVERAGE MONTHLY FLOW	PERCENT LONG-TERM NORMAL		
		MONTHLY	DAILY	
	CUBIC FEET/SECOND			HIGH
Pittsburgh, PA	38,600	382	904	123
Huntington, WV	97,400	427	911	149
Cincinnati, OH	118,000	412	846	140
Louisville, KY	142,000	484	982	136
Evansville, IN	156,000	443	842	128
Paducah, KY	276,000	319	525	152

RESERVOIRS -- September started with 1.4% utilization of the total system flood control storage and ended the month at 2.8%. System-wide augmentation storage started at 97.5% at the beginning of the month and was at 98.1% by the end of the month. Significant flood storage utilization in excess of 50% did not occur at any project, projects storing in excess of 25 % were Kirwan, Berlin, Atwood, Senecaville, West Fork Mill Creek and Harden.

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

CHANGE IN STORAGE TRIBUTARY-RESERVOIR SUBSYSTEM	(ACRE-FEET)
Allegheny-Monongahela-Beaver	-44,600
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	+14,000
Twelvepole-Big Sandy-Little Sandy-Scioto	+4,500
Little Miami-Licking-Mill Creek-Great Miami	-4,200

Kentucky-Salt-Green-Wabash	+31,500
Cumberland	-98,600
TOTAL	-97,400

LYN C. RICHARDSON, P.E.
Chief, Technical Engineering & Construction Div.