

4.A. Ohio River Action Plan

4.A.15. McAlpine Lock and Dam High/Low Water Operations

CRITICAL AREA DESCRIPTION	TRIGGER READING	TREND	DESCRIPTION	PHASE	ACTION
MCALPINE LOCK & DAM OHIO RIVER MM: 606.8 FLOOD STAGE READING: 23' UG OTHER USEFUL DATA: MAX OPENING 113' GATES ALL OUT 28'-30' LG CEASE LOCKING 66' LG 31.5 UG TABLE USES A COMBINATION OF DAM OPENING AND LOWER GAUGE READING. THE POTENTIAL FOR VESSEL ALLISIONS WITH MCALPINE L&D TENDS TO INCREASE AS WATER RISES AND CURRENTS INCREASE. VESSELS EXPERIENCE OUTDRAFT WHILE ENTERING SOUTHBOUND PORTLAND CANAL. MARINERS ARE ADVISED TO EXERCISE EXTREME CAUTION, ENTER CHAMBERS AT SLOWEST SAFE SPEED, AND PREPARE FOR POTENTIAL OUTDRAFTS. CAUTIONARY NOTE 1: THE VANE DYKE AT THE ENTRANCE TO THE LOUISVILLE AND PORTLAND CANAL AT OHR MM 604.3 EXPERIENCES STRONG OUTDRAFTS ON THE UP STREAM END DURING HIGH FLOWS. CAUTIONARY NOTE 2: SEDIMENT SHOALING FROM MM 606 TO 609 RESTRICTS VESSEL TRAFFIC AT 10' ON THE LOWER GAUGE; VESSELS SHOULD USE CAUTION WHEN TRANSITING THIS AREA. CAUTIONARY NOTE 3: CONSIDER SOUTH BOUND DAYLIGHT ONLY TRAFFIC AT MCALPINE UPPER GAUGE >18'. USACE GAUGE READINGS REPORT	<60' DAM OPENING	Rising	Normal Operations/ Flow Conditions	n/a	Locking operations normal.
	60'+ DAM OPENING	Rising & projected to continue rising rapidly	High Water/ High Flow Conditions	Watch	Sector Ohio Valley Command Center initiates a SMIB
	ALL OUT DAM OPENING and 15' UG	Rising	Extreme High Water/ Extreme High Flow Conditions	Action	COTP Ohio Valley and/or CORMIG will initiate a phone conference between CG, USACE and CORMIG. Factors to evaluate include rate of rise, amount of drift, and presence of ice and weather conditions. Consider: providing local Pilot knowledge of river characteristics and/or daylight only transit of south bound vessels. Note: Safety Zone (See Enclosure) is initiated when the McAlpine L&D reaches 13.0' UG (VTS Louisville activated). CG turns on AIS Geographical notice.
	100' - DAM OPENING or < 13' UG	Falling	High Water/Increased Flow Conditions	Watch	Continue conference calls, monitor conditions, and adjust restrictions as appropriate. Consider Safety Advisory, (See Enclosure) and cancel Safety Zone (See Enclosure) once river levels fall below 13' UG. CG turns off AIS Geographical notice.
	60' - DAM OPENING	Falling	Normal Operations/ Normal Flow Conditions	Recovery	Continue monitoring river conditions and cancel SMIB. Locking operations normal.
	9.0' LG >20' DAM OPENING	Falling	Normal Operations/ Normal Flow Conditions	Watch	Locking operations normal.
	8.9' – 8.5' LG	Falling	Low Water / Low Flow Conditions	Watch	COTP Ohio Valley issues SMIB.
	8.5' - LG	Falling	Extreme low Water/ Extreme low Flow Conditions	Action	Continue conference calls, monitor conditions, and adjust restrictions as appropriate. Consider Safety Zone (See Enclosure) versus SMIB. Mile markers 637-677 may warrant one-way traffic during low water conditions.
	8.5' + LG	Rising	Low Water/ Low Flow Conditions	Recovery	Continue monitoring river conditions and cancel SMIB.

OHIO RIVER - McALPINE LOCK & DAM

HIGH WATER Enclosure 1 (example)

Broadcast Notice to Mariners

THE VESSEL TRAFFIC SYSTEM LOUISVILLE, KY WAS ACTIVATED ON **DD MMM YY**. THIS SYSTEM IS FROM MI 593.0 TO 606.8 AND WILL REMAIN IN EFFECT WHILE MCALPINE L/D UPPER GAUGE READS 13.0 FT AND ABOVE. OPERATING PROCEDURES AND INSTRUCTIONS TO MARINERS ARE DESCRIBED IN 33 CFR 161.

LOW WATER Enclosure 2 (example)

Broadcast Notice to Mariners

THE U.S. COAST GUARD CAPTAIN OF THE PORT HAS ESTABLISHED A SAFETY ZONE FROM MILE MARKER _____ TO _____ OHIO RIVER. ALL MARINERS ARE TO PROCEED WITH CAUTION AND REMAIN IN THE NAVIGABLE CHANNEL DUE TO DECREASING WATER LEVELS. ALL VESSELS MUST MONITOR CHANNEL DEPTHS AND ENSURE THAT ADEQUATE WATER EXISTS FOR THEIR VESSEL DRAFTS. VESSEL DRAFTS SHALL NOT EXCEED _____ FT. REPORT ALL GROUNDINGS TO THE U.S. COAST GUARD.