



WATERWAYS COUNCIL, INC.

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Marmet Locks & Dam

Marmet Locks and Dam is located at mile 67.7 of the Kanawha River. The locks were opened in 1933 and the dam was completed in 1934. The two lock chambers measure 360' x 56'. Located about nine miles upstream of Charleston West Virginia, the project is approximately 27 miles from the head of navigation.



Marmet Locks and Dam, built in 1934, are currently the busiest locks in the Ohio River System in terms of commercial lockage cuts. Small twin 360'x 56' chambers can process only one modern jumbo (195'- 200' x 35') barge at a time. An improvement to Marmet Locks was authorized in 1996. The proposed project is a new 110' x 800' lock chamber to go with the existing pair of 54' x 360' chambers. Property acquisition and development of plans and specifications are underway. This project contains a number of innovative features which have

greatly reduced expected construction costs. These features include long-span prefabricated beams for the upper approach wall; sill face intakes for the filling and emptying (F&E) system (which eliminates mass concrete upper approach walls), a central culvert F&E system (which permits smaller chamber monoliths), and a minimal cofferdam footprint. Construction began in 2002 and the project is approximately 40 percent fiscally complete. The new lock chamber is expected to be operational in 2008 with all construction completed by 2009.

London Locks and Dam have been in operation since September 1933. The landward lock chamber is 360' x 56'. The riverward lock chamber was extended 47 feet in 2003 and is now 407' x 56'. The upstream guard wall was also replaced in 2003. The new upstream guard wall is 525' long and consists of 5 precast, pre-stressed concrete beams, 105' long each, founded on concrete filled sheet pile cells. This new wall provides a major improvement in the downbound approach to the lock. A new dike was constructed downstream of the dam to control out-draft currents from the hydropower plant. The dike was constructed of rubble from the demolition of the old upstream guard wall. Lengthening the riverward lock chamber has reduced downbound movements of a full upper Kanawha River tow from 5 cuts to 3 cuts. Construction of the major rehabilitation project at London began in 1999 and concluded in 2003.

Marmet Locks & Dam				
2003 Commodity Distribution				
<i>(values in millions of dollars)</i>				
Commodity	Tonnage	Percent	Value	Percent
Coal	13,951,687	94%	\$530	79%
Petroleum	**	**	**	**
Aggregates	347,738	2%	\$9	1%
Chemicals	178,944	1%	\$86	13%
Ores/Minerals	**	**	**	**
Iron/Steel	**	**	**	**
Other	376,748	3%	\$43	6%
Total	14,855,117	100%	\$668	100%
** Insufficient barge operators to release this tonnage – included in “Other Commodities”				
Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics				

According to the Corps of Engineers Waterborne Commerce Statistics for 2003, almost 15 million tons of commodities were shipped through Marmet Locks. These shipments had a combined value of \$668 million. The leading commodity shipped through Marmet Locks was coal, which made up 94% of the total tonnage.

The state that shipped the most tonnage through Marmet Locks was West Virginia, transporting more than 14.8 million tons. Over 13.9 million tons of this amount was coal.

Marmet Locks and Dam			
2003 Barge Tonnage Shipped by States			
<i>(values in millions of dollars)</i>			
Shipments By	Tons	Value	Top Commodity
West Virginia	14,161,882	\$ 556	Coal
Louisiana	224,497	\$ 52	Chemicals
Indiana	141,369	\$ 4	Aggregates
Kentucky	136,961	\$ 5	Aggregates
Pennsylvania	109,092	\$ 14	Petroleum
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>			

Ohio received 4.5 million tons worth \$274 million through Marmet Locks. Coal made up almost this entire amount. West Virginia was second in receipts of Marmet Locks traffic, receiving 4.0 million tons of goods. See map for a graphical representation of state tonnage movements through Marmet Locks.

Marmet Locks and Dam			
2003 Barge Tonnage Shipped to States			
<i>(values in millions of dollars)</i>			
Receipts By	Tons	Value	Top Commodity
West Virginia	4,572,912	\$ 274	Coal
Ohio	4,003,650	\$ 154	Coal
Kentucky	2,180,183	\$ 83	Coal
Pennsylvania	2,162,382	\$ 83	Coal
Louisiana	1,139,885	\$ 43	Coal
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>			

West Virginia's 2nd Congressional District was the leading shipper of commodities through Marmet Locks. This district shipped 13.8 million tons of coal, aggregates and other commodities worth \$525 million. West Virginia District 3 was next, moving over 333 thousand tons through the locks. See map for the top ten Congressional Districts shipping tonnage through Marmet Locks.

The leading Congressional District in receipts of Marmet Locks' commodities was also West Virginia District 2, which received over 4 million tons. This tonnage was mostly coal and aggregates, and had a combined value of over \$258 million. See map for the top ten Congressional Districts receiving tonnage through Marmet Locks.

Marmet Locks 2003 Barge Tonnage				
Shipped by Congressional Districts				
<i>(values in millions of dollars)</i>				
Shipments By	District	Tons	Value	Top Commodity
West Virginia	2	13,828,483	\$ 525	Coal
West Virginia	3	333,399	\$ 31	Coal
Louisiana	3	204,083	\$ 42	Chemicals
Indiana	9	141,369	\$ 4	Aggregates
Kentucky	4	109,092	\$ 4	Aggregates
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>				

Winfield Locks and Dam, located at Kanawha River mile 31.1, opened a new 110' x 800' lock chamber in 1998. Virtually all the tonnage that transited Marmet Locks in 2003, also used Winfield.

Marmet Locks 2003 Barge Tonnage Shipped to Congressional Districts (values in millions of dollars)				
Shipments By	District	Tons	Value	Top Commodity
West Virginia	2	4,129,082	\$ 258	Coal
Ohio	6	2,752,568	\$ 107	Coal
Kentucky	4	2,158,075	\$ 82	Coal
Louisiana	3	1,135,054	\$ 43	Coal
Pennsylvania	14	995,465	\$ 37	Coal
<i>Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics</i>				