

Pennsylvania

The State of Pennsylvania contains portions of three historically important, navigable inland waterways. Pennsylvania encompasses the entire 272 navigable miles of the Allegheny River, the lower 91 miles of the Monongahela River and the first 40 miles of the Ohio River. These waterways have been vital to moving raw materials such as coal and aggregates and finished steel products to and from Pennsylvania.

In 2008, almost 42 million tons of commodities (primarily coal, iron/steel and aggregates) moved to, from, and within Pennsylvania. These commodities had a combined value of \$3.8 billion. Coal made up approximately 75% of this tonnage. Aggregates and iron/steel comprised 9.5 and 3.8% of the tonnage, respectively.

Pennsylvania 2008 Commodities Moved To, from and within the State (values in millions of dollars)					
Commodity	Shipped	Received	Within	Total	Value
Coal	10,412,929	12,581,322	8,723,014	31,717,265	\$1,223
Petroleum	480,679	706,338	134,524	1,321,541	\$301
Aggregates	**	1,783,831	2,263,899	4,047,730	\$87
Grain	**	10,398	0	10,398	\$4
Chemicals	52,767	711,399	0	764,166	\$418
Ores/Minerals	33,389	902,740	**	936,129	\$235
Iron/Steel	455,244	1,123,862	**	1,579,106	\$1,205
Others	364,554	708,283	388,268	1,461,105	\$385
Total	11,799,562	18,528,173	11,509,705	41,837,440	\$3,858
** Insufficient barge operators to release this tonnage – included in "Other Commodities"					
Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics					



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Waterways Council, Inc. is the national public policy organization advocating a modern and well-maintained national system of ports and inland waterways.

An analysis of the waterborne commerce data for the State of Pennsylvania shows that 11.8 million tons of commodities were shipped on the river system out of the state. Most of this tonnage (approximately 10.4 million tons) consisted of coal. Docks in the state received 18.5 million tons, with coal again being the largest commodity. More than 11.5 million tons moved within the state. In 2008, the 41.8 million tons shipped to, from and within Pennsylvania were worth \$3.8 billion.

Pennsylvania docks shipped commodities by barge to 15 states, and received commodities from 13 states. The leading state shipped to was West Virginia, with 4.4 million tons worth \$217 million. The leading state shipping by barge to Pennsylvania was also West Virginia, which shipped 11.7 million tons of goods. Louisiana shipments to Pennsylvania of high-value commodities were worth over \$951 million.

Pennsylvania - 2008 Commodities Shipped by Barge to and from Other States <i>(values in millions of dollars)</i>							
Shipments To	Commodity			Shipments From	Commodity		
	Tons	Value	Top		Tons	Value	Top
West Virginia	4,467,978	\$217	Coal	West Virginia	11,793,404	\$471	Coal
Ohio	4,178,388	\$176	Coal	Louisiana	2,363,495	\$951	Iron/Steel
Indiana	1,153,755	\$103	Coal	Ohio	2,305,378	\$140	Coal
Tennessee	873,325	\$84	Coal	Kentucky	841,764	\$101	Others
Kentucky	473,008	\$170	Coal	Texas	438,431	\$351	Chemicals

*Source: U.S. Army Corps of Engineers Waterborne Commerce Statistics
Shipments on Ohio River Basin Waterways Only*

There were 103 manufacturing facilities, terminals, and docks in western Pennsylvania that shipped and received tonnage in 2008 (see map). The Port of Pittsburgh was the second largest inland port in the country. The port shipped and received 41.8 million tons of commodities in 2008. The port definition includes all of the navigable Ohio River Basin waterways in Pennsylvania. There are five power plants along Pennsylvania's inland waterways that receive coal by barge. In 2008, these plants received a combined 11.8 million tons of coal. Barges moved 15.5 million tons of Pennsylvania coal to 21 power plants in the Ohio River Basin.

There are 17 navigation locks and dams in Pennsylvania (see map). There are three projects on the Ohio River: Emsworth, Dashields and Montgomery. The Allegheny River has eight locks and dams, which are numbered 2 through 9. On the Monongahela River, Pennsylvania's waters include Locks and Dams 2, 3 and 4 along with Maxwell, Grays Landing and Point Marion Locks and Dams.

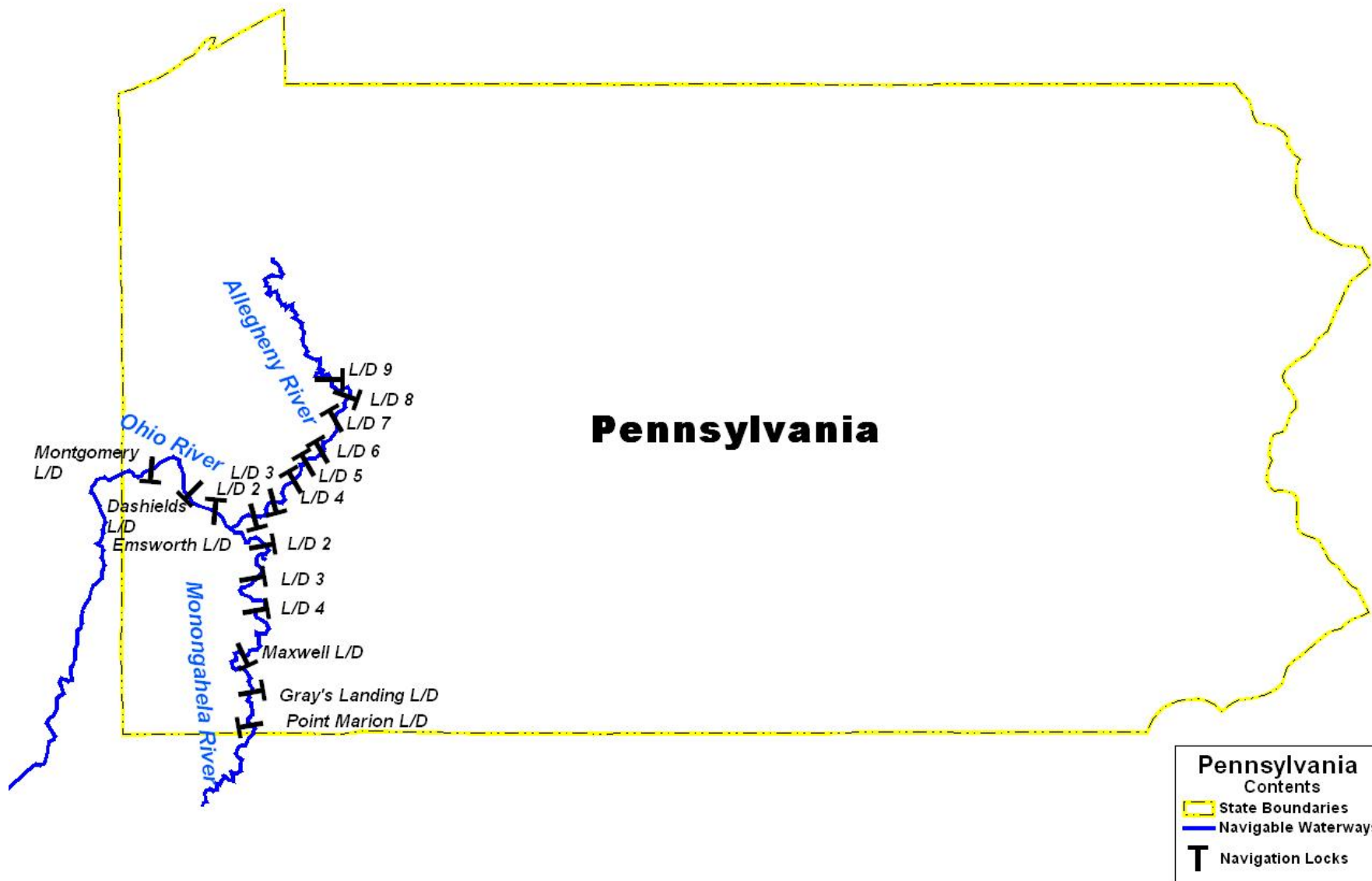
Point Marion and Gray's Landing are the newest locks on the Monongahela River. Each has an 84' x 720' chamber that opened in the last five years. The modernization plan for the lower Monongahela River includes replacement of the fixed crest dam at Lock and Dam 2 with a gated dam (to be called Braddock Dam). The locks at Locks and Dam 4 would be

replaced with new twin 84' x 720' chambers, and this project will be renamed Charleroi Locks and Dam. Locks and Dam 3 will be removed.

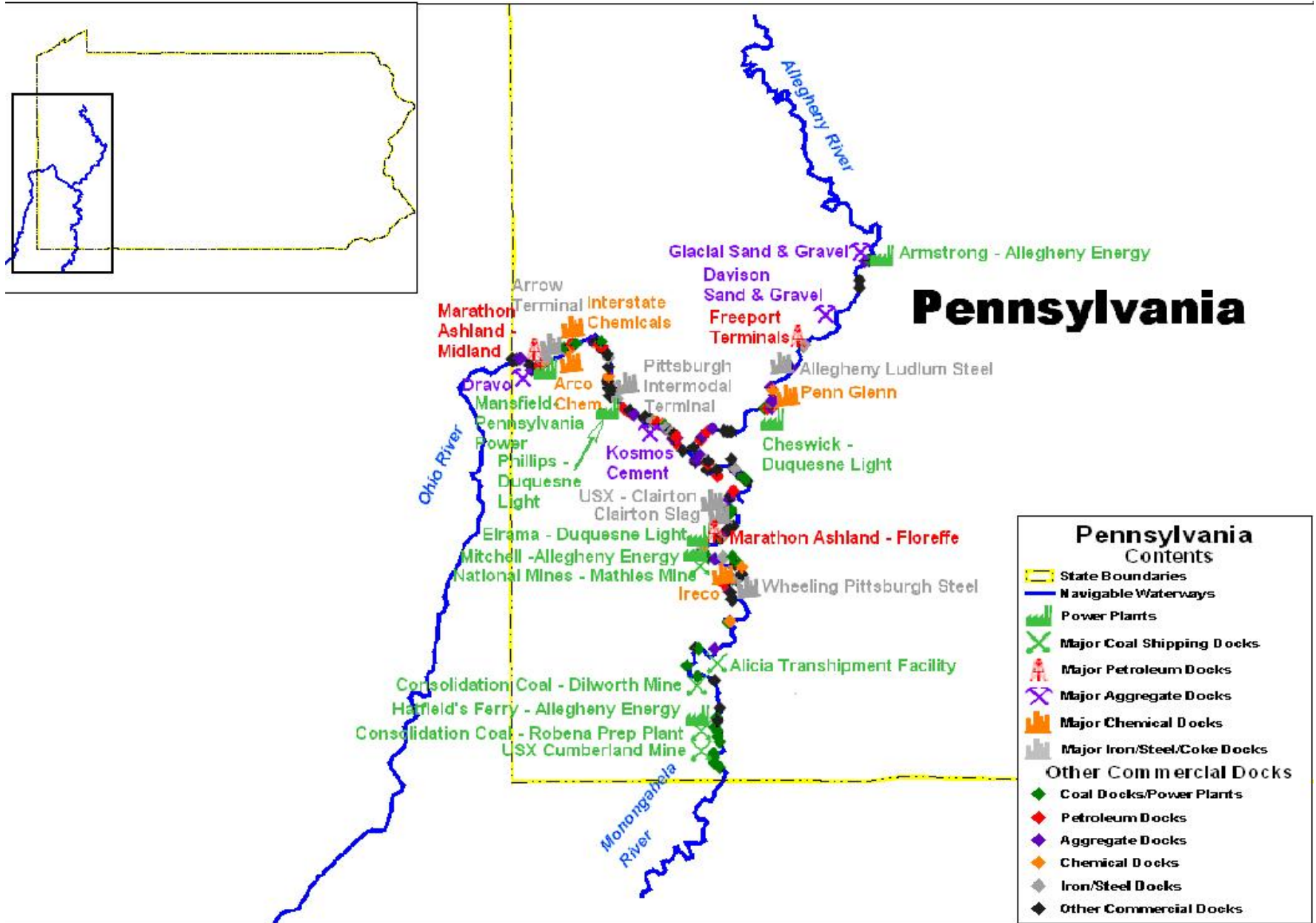
Emsworth, Dashields and Montgomery Locks are the only remaining navigation projects on the Ohio River that do not have a 110' x 1200' lock chamber. The costs associated with major rehabilitation and major maintenance over a 50-year economic design life may exceed the cost of replacement with new larger facilities. Any closures of the main chambers for repairs force greater future reliance on the very small auxiliary chambers. As part of the Ohio River Main Stem Study of navigation modernization, replacement plans involving two or three projects are being evaluated.

Pennsylvania - 2008 Lock Tonnage			
<i>(in thousands of tons)</i>			
LOCK	UPBOUND	DOWNBOUND	TOTAL
Emsworth	12,441	8,145	20,586
Dashields	13,366	7,661	21,027
Montgomery	11,145	9,805	20,950
Monongahela L/D 2	9,898	9,476	19,374
Monongahela L/D 3	4,080	10,279	14,359
Monongahela L/D 4	3,329	10,580	13,909
Maxwell	5,324	7,345	12,669
Grays Landing	2,544	2,424	4,968
Point Marion	2,096	2,041	4,137
Allegheny L/D 2	1,341	168	1,509
Allegheny L/D 3	1,341	163	1,504
Allegheny L/D 4	146	541	687
Allegheny L/D 5	27	44	71
Allegheny L/D 6	20	0	20
Allegheny L/D 7	20	0	20
Allegheny L/D 8	0	517	517
Allegheny L/D 9	0	0	0
Source: U.S. Army Corps of Engineers Lock Performance Monitoring System			

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