



Ohio River Basin Facts

Drainage Area:

- ◆ Total: 203,940 square miles in 15 states (528,360 square kilometers)
- ◆ In Pennsylvania: 15,614 square miles (40,440 square kilometers)

Length of River:

- ◆ Ohio River: 981 miles
- ◆ Allegheny River: 325 miles
- ◆ Monongahela River: 129 miles

Watershed Address from Headwaters to Mouth:

- ◆ The Ohio begins at the confluence of the Allegheny and Monongahela Rivers in Pittsburgh, Pennsylvania, and ends in Cairo, Illinois, where it flows into the Mississippi River.
- ◆ The Allegheny begins in north-central Pennsylvania near Coudersport and Colesburg in Potter County, flows north into New York, then bends to the south and flows to Pittsburgh.
- ◆ The Monongahela begins just above Fairmont, West Virginia, at the confluence of the West Fork and Tygart Valley rivers, and flows northward to Pittsburgh.

Major Tributaries in Pennsylvania:

- ◆ Allegheny, Beaver, Monongahela, Youghiogheny, Clarion, and Conemaugh Rivers; French Creek

Population:

- ◆ Total: 25 million people
- ◆ In Pennsylvania: 3,451,633 people

Major Cities in Pennsylvania: (over 10,000 people)

- ◆ Aliquippa, Butler, Greensburg, Indiana, Johnstown, Meadville, New Castle, Oil City, Pittsburgh, Sharon, Somerset, St. Mary's, Uniontown, Warren, Washington

Who Is Responsible for the Overall Management of the Water Basin?

- ◆ Ohio River Basin Commission
- ◆ Ohio Valley Water Sanitation Commission (ORSANCO)
- ◆ Ohio River Basin Water Management Council
- ◆ Ohio River Basin Consortium for Research and Education



Economic Importance and Uses:

- ◆ An estimated \$43 billion in commodities are transported along the 2,582 miles of navigable waterways within the basin annually.
- ◆ Barge transportation has increased 50% over the last decade and carries 35% of the nation's waterborne commerce.
- ◆ Approximately 121 companies are located directly on the waterfront and are dependent upon southwestern Pennsylvania's rivers for their business in one way or another. The majority of businesses are located along the Monongahela and Ohio Rivers. These companies include utilities, chemical plants, petroleum companies, terminal and storage service, barge and tow companies, marine repair and services, and various manufacturing companies.
- ◆ The Port of Pittsburgh covers 200 miles of waterways in southwestern Pennsylvania and is the busiest inland waterway port and the 14th busiest port in the U.S.
- ◆ Festivals and special events generate \$100 million annually in communities along the Ohio River.
- ◆ Recreational boating, whitewater rafting, and fishing are important uses of the Allegheny and Youghiogeny Rivers.

Industrial Uses:

- ◆ Electric utilities using the Ohio River constitute over 5% of the nation's power generating capacity.
- ◆ Major industries include coal mining, manufacturing, oil and gas production, construction, transportation projects, forestry, agriculture, and recreation.
- ◆ The Monongahela carries the greatest amount of industrial traffic in the Pittsburgh District. It ranks with the Ruhr in Germany and the Thames in Great Britain as one of the great industrial waterways of the world.

Public Water Supply:

- ◆ Total daily withdrawals approach 50 billion gallons with over 2 billion gallons being consumed. The rivers are a source of freshwater for agriculture, industry, and the 25 million people that live in basin.

Agricultural Uses:

- ◆ Land use data from a 1970 survey indicated that 30% of the land in the Allegheny and Monongahela watersheds is agricultural. Similar data has agricultural land use for the combined Allegheny and Ohio watersheds at 12%.



Historical Uses:

Ohio River Basin

- ◆ In the 18th century, the basin was the site of much warfare over rights to the Ohio River. Territorial claims and events in the region were largely responsible for the French and Indian War in the mid-1700's. Later, the river became a key transportation route leading to the establishment of such cities as Pittsburgh, Cincinnati, and Louisville.
- ◆ The first federally built lock and dam was completed at Davis Island about five miles south of Pittsburgh in 1885. It was called a "wicket" dam and was made of wooden bulkheads that could be raised or lowered.

Allegheny River

- ◆ The Kinzua Dam formed northern Pennsylvania's longest impoundment in 1967. The reservoir was designed for recreation and flood reduction, and effectively provided both. However, it flooded a Seneca Indian Reservation that was given to Chief Cornplanter through the oldest treaty in the Congressional archives signed by George Washington. The 1794 agreement stated that the Seneca Nation would hold the lands "so long as the Allegheny flows and the sun and moon shine." The village sites of Jennesadaga and Kinzua are now deep under watery brown silt.
- ◆ When the French first explored the area, they considered the Allegheny to be an extension of the Ohio River. It served as an important transportation link to their colonies in Canada.
- ◆ The first important commercial use was for the lumber industry. It served as an outlet to markets as far south as New Orleans.
- ◆ The first successful oil well was drilled in Titusville, Pennsylvania, by Edwin Drake in 1859. By 1861, oil production reached over 2 million barrels a year. Horses and mules were used to haul oil to small streams; then boats carried the oil downstream to the river where steamboats delivered it to Pittsburgh.
- ◆ The first lock and dam was completed on the river in 1903.

Monongahela River

- ◆ The "Mon" was an important avenue for western-bound settlers.
- ◆ Shipyards were very active from the earliest period of settlement. In 1777, carpenters were sent by the Continental Congress to McKeesport, Pennsylvania, to build boats for the defense of the Ohio River.
- ◆ In 1782, Jacob Yoder made the first recorded cargo voyage to New Orleans from western Pennsylvania. The trip took four to six months. Once arrived, the traveler had to walk back 2,000 miles!
- ◆ In 1837, the Monongahela Navigation Company was chartered by the Commonwealth to improve the river.



- ◆ Growth of heavy industry and the discovery of coal deposits made the river a critical link to the economy of the region.
- ◆ The Monongahela Navigation Company completed the first lock and dam on the river in 1841.

Recreational Uses:

- ◆ Fishing, boating, water skiing, whitewater rafting, hiking, biking, camping, bird watching, and swimming are popular activities in the basin.

Pennsylvania State Parks in the Ohio River Basin:

- ◆ 27 state parks are located in the basin:

Allegheny Island, Bendigo, Chapman, Clear Creek, Cook Forest, Elk, Hillman, Jennings, Keystone, Kinzua Bridge, Kooser, Laurel Hill, Laurel Mountain, Laurel Ridge, Laurel Summit, Linn Run, Maurice K. Goddard, McConnell's Mill, Moraine, Ohio Pyle, Oil Creek, Point, Pymatuning, Raccoon Creek, Ryerson Station, Yellow Creek

Geological Information:

- ◆ The entire Pennsylvania portion of the Ohio River Basin lies in the Appalachian Plateau Physiographic Province, which is a rugged hilly area, mountainous in part, characterized by broad, rounded uplands that are highly dissected by numerous valleys. The land surface is underlain by sedimentary rocks (sandstone, shale, coal, and limestone).

Unique Features:

Ohio River Basin:

- ◆ The French translated the names of the rivers from American Indian dialects: Mississippi (great river), Ohio (beautiful river), Allegheny (fair waters), and Monongahela (high, crumbling banks).
- ◆ The Ohio discharges 180 billion gallons of water each day into the Mississippi River.
- ◆ The Ohio is the only basin in Pennsylvania that drains into the Gulf of Mexico, which results in a distinct difference in the aquatic life that is present.
- ◆ Of the 65 species of freshwater mussels found in Pennsylvania, 49 are Ohio River basin species, which do not inhabit the Susquehanna, Delaware, or Potomac Rivers.
- ◆ The Ohio has the greatest diversity of naturally occurring freshwater mussel species in the state.
- ◆ The Ohio has a higher diversity of fish species than the Susquehanna and Delaware.
- ◆ There are 18 species of darters (small perch family fish) found in the Ohio. Fewer are found in other drainages: Delaware (3), Susquehanna (6), and Potomac (3).



Allegheny River:

- ◆ The entire path of the river from Pennsylvania to New Orleans could be called the Allegheny. It is larger than the Monongahela where they join to form the Ohio, and the Ohio carries twice the volume of the Mississippi where they meet at Cairo. If one were to begin in the Gulf of Mexico and journey northward by always following the larger fork, one would eventually reach Coudersport in Potter County.
- ◆ The upper Allegheny represents some of the most scenic areas in Pennsylvania and New York. In 1992, over 86 miles were included in the National Wild and Scenic Rivers System.
- ◆ The Clarion River suffered serious contamination from acid mine drainage, but efforts to improve water quality have been fairly successful. In October 1996, over 51 miles were added to the National Wild and Scenic Rivers System.
- ◆ The Kiskiminetas River and its tributaries are some of the most polluted waterways in the state. As recently as 1980, the Kiski was considered biologically dead. Since then, improvements in water quality have been dramatic, enabling aquatic life, including sport fish, to return to the river.

Ohio River

- ◆ In the early 20th century, lack of industrial and municipal sewage treatment led to poor water quality and epidemics of water-borne diseases.
- ◆ Nearly 100 species (other sources say 120) of fish live in the Ohio River. Historically, the river supported 160 fish species. Fish are returning to their previous ranges due to improved water quality.
- ◆ The river is home to variety of wildlife, including deer, opossum, raccoon, mink, muskrat, skunk, beaver, shorebirds, and migratory waterfowl. Several endangered and threatened species reside in the basin, such as the bald eagle, osprey, least weasel, green salamander, and bowfin fish.
- ◆ More than 70 species of mussels are found in the Ohio River. Dredging, water quality, over-harvesting, and competition from introduced species are having serious impacts on the mussel population.
- ◆ A refuge established in 1990, The Ohio River Islands, encompasses 38 islands from Shippingport, Pennsylvania, to Manchester, Ohio, and comprises 3,500 acres of prime habitat.