

Hudson River Geography

The Hudson River was called “Muhheakantuck”, or a ‘river that flows both ways’ by the Native Americans who lived along its shorelines. Many Native American groups used the Hudson, including the Iroquios and the Lenape, but the Hudson was named for Henry Hudson, an Englishman who was looking for a passage to Asia in 1609.

The Hudson River officially starts at Lake Tear of the Clouds in the High Peaks area of the Adirondacks, although many sources dispute the ‘source’ and name Henderson Lake, which is even further north. Wherever the actual start, the river flows south for 315 miles to the Atlantic Ocean at New York City. The huge watershed of the Hudson covers about 13,350 square miles, which includes most of eastern New York and small parts of Vermont, New Jersey, and Massachusetts. A watershed is an area of land where all the water drains to a specific place (a stream, river, bay, estuary, etc). No matter where you are, you’re in a watershed.

Since the northern part of the Hudson is surrounded by forest and ancient metamorphic rocks, the river is clear and cold and is a favorite of fishermen and white-water rafters. As the river nears the Mohawk lowlands, it changes to a pastoral, lowland river surrounded by farms and forests, with underlying sedimentary rocks. Through erosion, the sedimentary rock makes the river water richer in calcium and other minerals, and thus less acidic than the water in the Adirondacks. In this area of the Hudson, fourteen dams were built, and industrial activities significantly impacted the health of the river (including PCBs). When the Hudson passes over the Troy dam, it becomes an estuary, which means that it is a mixing place for fresh and salt water. From here to the mouth of the river, the Hudson is large, tidal, and nearly flat. Tides affect the entire part of the lower Hudson River, causing changes in its flow and its chemical composition (for more information, read “Tides”).

The river bottom of the Hudson is primarily sand north of Kingston to Troy, and mud south of Kingston to New York City. There are parts of the river bottom, however, that are covered by bedrock, cobbles, mussel shells, old oyster reefs, and debris dumped by people. Scientists are in the process of mapping the river bottom, and you can view some of the bathymetric maps online (go to <http://www.dec.ny.gov/ismsmaps/benthic/webpages/benthicdata.html>).

Although evidence of human activity along the Hudson dates back at least 8000 years, the Native Americans who lived along the Hudson had little impact on the river itself. Current human impacts include changing the shape of the river by dredging and filling, bringing in alien species, polluting the water, clearing much of the watershed for agriculture and forestry, and harvesting large numbers of fish and shellfish. In the last decades, a lot of work has been done to restore the watershed and clean up the river, but the influences of human activities are still pervasive.