The Hudson River Basin encompasses about 13,300 mi² (square miles) in eastern New York and parts of Vermont, New Jersey, Massachusetts, and Connecticut. About 62.3 percent of the Hudson River Basin is forested, 24.9 percent is agricultural land (including row crops, pasture, vineyards, and orchards), 7.8 percent is urban (including commercial and industrial land) and residential land, 2.6 percent is open water, and 2.4 percent is classified as “other.” Agricultural land is predominant in the Mohawk and Wallkill River subbasins and in some areas east of the Hudson River. Nearly all of the major urban and industrial centers in the basin are concentrated within a few miles of the Hudson and Mohawk Rivers.

The headwaters of the Hudson River are in the central Adirondack Mountains. The largest tributary to the Hudson is the Mohawk River, which nearly doubles the flow of the Hudson where they meet at Cohoes, N.Y.

Major aquifers in the basin consist mainly of sand and gravel and occupy many of the lowland areas adjacent to streams and rivers. Many domestic wells rely on ground water from fractures in bedrock, but no bedrock formations in the basin are considered major aquifers.

More than 80 percent of the people in the Hudson River Basin are served by public drinking-water supplies that are obtained largely from surface-water sources. Domestic supplies, which serve the remaining population, are almost entirely dependent on ground-water sources. The single largest water withdrawal in the basin is for power generation.