

Raystown Dam, managed by the U.S. Army Corps of Engineers (Corps), is located on the Raystown Branch of the Juniata River, about 5.5 miles upstream from its confluence with the Juniata River and 92 miles above the confluence of the Juniata River with the Susquehanna River. Raystown Dam and Raystown Lake are located in south central Pennsylvania in Huntingdon County, near the borough of Huntingdon. Construction of the dam began in October 1968 and was completed in October 1973. Raystown Dam, which is 225 feet high, consists of a rolled earth and rockfill embankment with a gated spillway in the right abutment, the top 3.5 feet of ungated spillway being a fuse plug of erodible backfill material. The gated spillway is controlled by two 45-foot square tainter gates and is equipped with a warm water outlet system with a 4.75-foot by 6.75-foot slide gate served by inlet ports at three levels. There is a low-level outlet tunnel with two 5.5-foot by 10-foot gates.

The Allegheny Electric Cooperative (AEC) operates the 21 megawatt (rated capacity) Raystown Hydroelectric Project (William F. Matson Generating Station) at Raystown Lake. The hydroelectric station, completed in 1988, is located at the base of Raystown Dam and is operated in close cooperation with the Corps. The Corps gives all flow and temperature regulating instructions to AEC. Constant flow discharges are adjusted on a daily basis to minimize fluctuations downstream.

The hydroelectric station control facilities are separate from those of the Corps facilities. The hydroelectric station intake tower has the capability of withdrawing water from different levels of the lake for downstream temperature control. Intake trash rack clear spacing is 3 inches. Flow velocities at the intake are maintained at less than or equal to 3 feet per second. The concrete tunnel stretching from the intake tower to the powerhouse is 12 feet in diameter, steel-lined, and 930 feet long. The steel penstock is 12 feet in diameter and 550 feet long. There are two power-generating units in the powerhouse. Unit 1 has a flow range of 200 to 600 cubic feet per second (cfs) and a rated output of 7 megawatts. Unit 2 has a flow range of 500 to 1100 cfs and a rated output of 14 megawatts. 22 adjustable wicket gates control flow through each unit. Flow is also regulated by the closure of two turbine shut-off valves located upstream of the generating units. Flow through the tunnel, penstock, and powerhouse can be regulated by the closure of a 12-foot square wheel gate located in the intake structure.