

Lake Scranton Dam Rehabilitation

Roaring Brook Township, Pennsylvania



HISTORY

In Lackawanna County, Pennsylvania, in the town of Roaring Brook Township, sits Lake Scranton, owned by the Pennsylvania American Water Company. The lake was formed in 1898, when a dam was built by William Walker Scranton. Considered to be a reservoir, Lake Scranton holds approximately 2.5 billion gallons of water and provides drinking water to approximately 160,000 customers in the 14 communities served by the Pennsylvania American Water Company's Scranton Area Water Treatment Plant.

PROBLEM

The aging dam needed to be brought to compliance with the Pennsylvania Department of Environmental Protection's dam requirements. With those requirements in mind, the Pennsylvania American Water Company began a \$10.5 million construction

and rehabilitation project that includes increasing the spillway capacity and improving the stability of the masonry dam.

SOLUTION

The contract for the rehabilitation project was awarded to KC Construction Company, who subcontracted Brayman Construction Company to provide the PT Anchor installation. Brayman reached out to Nucor Skyline and their geotechnical engineers to help stabilize the current dam structure. Nucor Skyline supplied 16-strand class I dam tiedowns and 19-strand anchor heads for the project. The post-tensioned permanent strand anchors with hot-melt extruded PE sheathing and 19 strand cast anchors were inserted into pre-installed 5" HDPE corrugated sheathing and then grouted. This installation met the requirements of the PDEP and has increased the stability of the existing masonry dam.

PROJECT PARTNERS

Owner

Pennsylvania American Water Company – Hershey, PA

General Contractor

KC Construction Company – Ivyland, PA

PT Anchor Installation Contractor

Brayman Construction Corporation – Saxonburg, PA

Engineers

Gannett Fleming – Camp Hill, PA

PRODUCTS

Geostructural:

23 each 16-strand class I dam tiedowns and 19-strand anchor heads

PROJECT TIME FRAME

June 2018 to October 2019