F.J. Sayers Dam Managing Flood Risk

U.S. Army Corps of Engineers

Sayers Dam 'gets the job done' during recent tropical storms

By Becca Nappi

U.S. Army photos by John Sokolowski, taken at Sayers Dam, Sept. 17, 2018.

Following intense rainfall from Tropical Depression Gordon and with Tropical Depression Florence on its way, Baltimore District personnel answered the call to reduce impending flood risk downstream of Foster Joseph Sayers Dam in Centre County, Pennsylvania.

"We all know we're here for the same purpose — to help prevent flooding," said F.J. Sayers Dam Head Operator Craig Eisenhower. "And we got that job done."

When remnants of Tropical Depression Gordon brought 6 inches of rain to central Pennsylvania in September 2018, Sayers Dam prevented major flooding to downstream communities.

With the dam gates closed to stop large amounts of water from flowing downstream, the excess rainfall caused water levels to rise to 60 percent of the dam's peak flood storage capacity.

Then, Tropical Depression Florence began to work its way up the East Coast in late September, forecasting a surplus of rain.

Committed to ensuring the public's safety, Baltimore District employees from various disciplines jumped in to provide emergency support.

"We activated the Sayers Dam Emergency Action Plan," said Baltimore District Emergency Management Chief Dorie Murphy. "Our Emergency Operations Center coordinated for additional personnel at the dam as well as communicated with downstream emergency management agencies regarding water levels and monitoring activities."

Dam operators and engineers provided 24/7 monitoring to measure water level, water pressure against the dam, and outflows.

"Throughout Tropical Depressions Gordon and Florence, operations and engineering staff conducted regular inspections and monitoring to ensure the greatest care and safety for the community," said Dam Safety Program Manager Brian Glock.

Before Tropical Depression Florence's arrival, dam operators and tenders were able to perform controlled water releases through the dam's gates, allowing the lake level to come down 4.5 feet from its highest point during Gordon to make room for Florence's rains and further prevent downstream flooding.

Dam operators also worked to pump water from a ponding area near the Howard Levee System into Sayers to make room for additional stormwater capacity and prevent stormwater runoff from flooding the nearby neighborhood.

Sayers stood around 15 feet above normal summer pool before Hurricane Florence's arrival, which is the fourth highest elevation since its construction in 1969. Other large rain events occurred in 1993, 1994 and 1972 during Hurricane Agnes, in which the dam also successfully stored water to prevent major flooding downstream.

"We want the community to understand that this project is here for the purpose of managing flood risk below the dam," Eisenhower said. "This has been an extremely wet season, and the Corps of Engineers team has done a great job maintaining the project and keeping flood levels below the dam to a minimum."

Sayers is a part of the comprehensive flood control plan for communities in the West Branch of the Susquehanna River Basin. The dam is designed to store more than 32 billion gallons of water — the quantity of more than 48,000 Olympic-sized swimming pools.

"While we provided additional support during this high-water event, our operators at Sayers work incredibly hard every day to provide flood damage reduction and water quality to the area," said Glock.

Civil Engineers Yusuf Sharif, at left, and Brian Glock

Ponding near Howard Levee System

F.J. Sayers Dam Fast Facts

- *Authorized as Blanchard Dam and Reservoir by the Flood Control Act of 1954.*
- *Recreational features at Bald Eagle State Park include two campgrounds, boating, fishing, swimming, Nature Inn and diverse wildlife habitats.*
- *Operates as system to reduce flood risk along West Branch of Susquehanna River with Curwensville and Alvin R. Bush dams (and George B. Stevenson Dam constructed by Pennsylvania).*
- *Operational in 1969.*
- *Total land area acquired was 7,991 acres, including 417 acres for flowage easement associated with the dam spillway.*

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