

Indian Rock Dam: 'It did a job'

By MICHAEL J. WHALEN

"Indian Rock Dam?" The aged farmer, right arm dropped across three gallon water jugs on the seat of his battered pickup, leaned out his window to spit. "Lotta good it did," he said.

That was Saturday, June 24, on a debris-covered stretch of Indian Rock Dam Road, with the skysputtering the last .08 inch of a total 16.32-inch, five-day rain bequeathed York County by dying Hurricane Agnes.

Three days earlier, at 5 p.m., Wednesday, Bill Kirkpatrick, head operator at the U.S. Army Corps of Engineers' Indian Rock Dam across the main branch of the Codorus Creek, three miles southwest of York City, found 9.06 inch of rain in his gauges.

Even added to Tuesday's .03 inch, it wasn't an unusual amount for June. Kirkpatrick settled down for a routine evening.

He had no way of knowing, then, that within 72 hours, Indian Rock Dam would be holding some 9,000,845,000 gallons of water back

from York City, enough to have added an estimated 56 inches to downtown flooding.

The first signs of trouble came with increasing rainfall. When Kirkpatrick tried to check with the Corps' district headquarters in Baltimore — where computers and hydrology engineers absorb his data on precipitation and water levels to feed back operating instructions for the dam — he discovered his phone was dead.

Kirkpatrick and the Indian Rock Dam were guarding the Codorus Creek because of Congressional action following the 1933 flood, when six inches of rain fell in three days, swelling the creek until it flowed into the streets of York to take one life and cause over \$4 million in damages.

The plan looked simple enough. The main branch of the Codorus was channeled through a 15-foot wide, gated tunnel just before it was joined by the south branch. Under flood conditions, the gates would close, allowing the water to

pile up against an 83-foot high earth and rock embankment, forming a reservoir that could be released later.

Then the five miles of the channel along which the combined branches flowed through the city were widened and strengthened to handle possible flooding from the east branch.

The project cost over \$5 million, with construction running from 1940 until 1947, when the channel was operationally complete.

Experts figured a flood such as the one in 1933 might come along every 200 years, but they were taking no chances, and the Indian Rock project was built to control 33 per cent greater flooding than 1933's six inches.

Creeks and rivers flood when too much rain has soaked the earth with moisture, and continuing rain runs off the ground into streambeds, overflowing them. Engineers calculated in the 1950's the dam could handle a 10-inch rain, actually 40 per cent greater than that of 1933.

City residents no longer noticed rainfalls that would have reached flood levels before the dam project. In 1952, a reporter for The Gazette and Daily, predecessor of The Record, wrote:

"Unless there is a rainfall similar to the Biblical 40 days and 40 nights, there is little chance we will witness such a scene (as the 1933 flood) again."

So Kirkpatrick might have been sitting on top of the world that Wednesday night. Above his office desk, neatly piled with green, government log books in the concrete gate structure building, tall, slitted windows overlooked the embankment where Indian Rock Dam Road ran for 1,000 feet atop 274,000 cubic yards of earth and 220,000 cubic yards of rock.

Directly below the gate structure building at the southeast end of the embankment were three, vertical lift gates, each six by 13 feet and together capable of closing off the 432-foot long tunnel that releases the main branch of the Codorus into the city.

When those gates are shut, waters can rise 60 of the 83 feet to the top of the embankment before they slop over a 461-foot concrete wall built perpendicular to the embankment.

On the other side of that wall is a

spillway, or extra channel, to accept overflow from the reservoir and release it into the south branch.

Before the waters spill into the safety channel, they will have flooded about 1,500 acres behind the dam. This land, under control of the state Game Commission, serves as a refuge for cottontail rabbits and ring-necked pheasants.

Most houses have been removed from the area, although six roads still cross it and at least three homes and two barns along its edge on Wolf's Church Road are owned by residents who realize what would happen should the Codorus reach flood levels.

Farmers raise string beans and sweet corn on 250 acres of the reservoir land under an agreement with the state. They also plant cover for the game.

In the midst of all this, Kirkpatrick had what seemed an enviable life. Across the road and up the hill from the gate structure stood the government-owned residence, where he and his wife had lived since his assignment here in November 1970.

He had an eight-channel, two-way radio for emergencies, even a gasoline-powered generator to

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See 9.1 billion

Parley on Medusa promised

State Rep. Stanford I. Lehr said Tuesday he would invite top and local officials of the Medusa Corp.

the Carlisle conference that the time was past for talk, that the time has come for action.

Erickson and Ronald Stanton, air pollution engineers for the state.

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Mon, Dec 6, 2021