

SPECIAL REPORT

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Johnstown, Pennsylvania

INSIDE TODAY

LOCAL

Getting bigger: The Greater Johnstown School Board, already coping with budget problems, learns the deficit for 1995-96 is more than expected. Page A3.

SPORTS



He's back: Michael Jordan (above) will be back in action today when the Bulls take on Indiana. Page B1.

BUSINESS

Information highway: The latest in modems for your computer can access information and send faxes at an amazing rate. Page D1.

HOME

Seller beware: An insurance plan offered by a local Realtor protects home sellers from being sued by a disgruntled buyer. Page C1.

STYLE

Slinky: The Blair County-made toy's popularity is still going strong 50 years after first greeting an apathetic public. Page F1.

TRAVEL

Company town: Woolrich is a short drive away, but long on merchandise available in the clothing-maker town. Page G1.

WEATHER

Today's forecast: It will be cloudy with a chance of a shower and a high of 50. Tonight will be cloudy with a low of 38. Page D6.



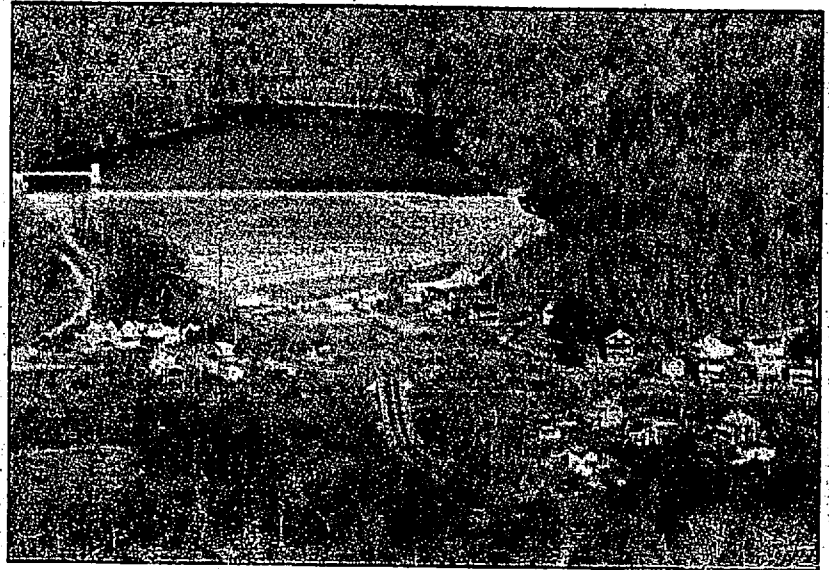
INDEX

Births	D6
Bridge	F2
Classified	C3
Dear Abby	F2
Dr. Donohue	F2
Editorial	A18
Horoscope	F2
Lottery	D6
Movies	G4
Obituaries	D5

Now you know: The average cost of a speeding ticket in Pennsylvania if the person who is apprehended is going 15 miles over the speed limit: \$100. (Source: Money magazine)

DANGER ZONE

Living in the shadow of hazardous dams



Residents of Mineral Point live in the shadow of Saltlick Dam.

- **Fair warning:** Nearly half of the 85 deaths in Johnstown's 1977 flood could have been prevented, according to documents never before published.
- **Justice denied:** The catastrophic rupture of the Laurel Run Dam sent grieving families on a 12-year pursuit of justice. Many say they didn't find it.
- **Lessons not learned:** Area dam owners disregard crucial safety requirements designed to protect people who live below dangerous dams.



Those who lived below the Laurel Run Dam before the 1977 flood never thought this could happen. The dam's collapse killed 39 people, including the parents of Robert Pilot, who took this photograph from a helicopter while working with the coroner's office to search for and identify flood victims.

Today ...

- **Forewarned, not forearmed:** A series of reports dating back to 1943 warned that the Laurel Run Dam could not hold back heavy floodwaters. Page A6.
- **How it happened:** The collapse of the Laurel Run Dam began with a trickle of water over the dam's crest. Page A7.
- **Justice served?** A sluggish legal system did not require anyone to admit responsibility for the Laurel Run Dam's failure. Page A8.
- **What's a life worth:** Those who lost loved ones in the collapse of the Laurel Run Dam and sued those responsible collected an average of \$95,000 from the dam's owners. Page A9.

Are we doomed to repeat history?

By ROBERT LONG and DEBRA S. MOFFITT
THE TRIBUNE-DEMOCRAT

When the Laurel Run Dam broke in 1977, it washed away 39 lives and the belief that history could not repeat itself.

Johnstown, the city that suffered the nation's deadliest dam break in 1889, was once again searching for bodies. Most of the deaths were in Tanneryville, the community below the Laurel Run Dam. Afterward, many would blame a relentless storm for the tragedy.

But the collapse of the Laurel Run Dam was not simply an act of God. A six-month investigation by The Tribune-Democrat found that an alarming number of people, including state and local government officials, knew the Laurel Run Dam could not hold back floodwaters.

Never-before published court documents, internal memos and engineering studies show who knew of the dam's deficiencies. But that information never became public because lawsuits filed by victims' families were settled out of court.

A judge's order allowed The Tribune-Democrat to unseal those records last fall. The \$4 million settlement shows that a life stolen by floodwaters was worth an average of \$95,344.

Dam-safety reforms grew out of the tragedy, which captured a national spotlight and tapped lawmakers' consciousness. Improvements have been made. But The Tribune-Democrat investigation also revealed that, less than 20 years after that deadly dam break, Cambria and Somerset dam owners are violating state laws designed to protect people who live below high-hazard dams.

One area dam has deteriorated for seven years without state-mandated inspections. Other hazardous dams need work.

The state Department of Environmental Resources requires dam owners to draft emergency plans for emergency workers to follow if a break is threatened. But dam owners have been slow to update these emergency plans, leaving emergency managers poorly equipped to orchestrate evacuations.

Many dam owners have also shirked a state law that requires them to inform citizens about nearby dams by posting public notices at municipal buildings, fire halls and other locations.

As much as 36 billion gallons of water hover over communities in Cambria and Somerset counties behind 26 dams. Some are almost a century old. For the most part they're hidden away. Few people realize the danger they pose to their homes and lives.

Tomorrow ...

- **Hidden danger:** State officials have been slow to enforce dam regulations, and area residents are kept in the dark about the risks. Page A1.
- **Shadow of doubt:** Those who live in the shadow of dams today give little thought to the possibility of a collapse. Page A6.
- **Worst-case scenario:** We'll show you what would happen if one of the dams that threaten Johnstown collapsed. Page A8.

COMING MONDAY: RETURN OF HOCKEY'S HANSON BROTHERS

DANGER ZONE

Forewarned, not forearmed

Nearly half of the 1977 flood deaths could have been prevented, reports show

By **ROBERT LONG**
and **DEBRA S. MOFFITT**
THE TRIBUNE-DEMOCRAT

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Nearly half of the 85 deaths in Johnstown's 1977 flood could have been prevented, according to court documents and engineering studies never before made public.

A series of reports dating back to 1943 warned the owners of the Laurel Run Dam that the World War I-era barrier could not hold back heavy floodwaters, a six-month investigation by The Tribune-Democrat has found.

At best, the warnings were misunderstood. At worst, they were ignored.

The dam break

The Laurel Run Dam collapsed on July 20, 1977, killing 39 people in the small working-class community of Tanneryville, west of Johnstown. The dam break came 34 years after engineers raised the first of at least four warning flags about the dam's condition.

The collapse occurred as torrential storms dumped 11.8 inches of rain on the Johnstown area in eight hours. The storm caused flooding that spread death and destruction across five counties. Below the Laurel Run Dam, the effects were catastrophic.

A wall of water reaching heights of 20 feet and speeds of 12 mph ripped down the narrow valley, crushing the community of Tanneryville, West Taylor Township. Some bodies were recovered 40 miles down the Conemaugh River. Four bodies were never found.

The residents, with names like Selders, Piskurich, Sowerbrower and Gibson, had no warning.

The keepers of the dam maintained that what happened in the pre-dawn hours of July 20, 1977, was an act of God — a freak occurrence triggered by a series of fierce storms no one could have predicted.

Leading dam and weather experts in the country disagreed. Had a series of wrongful-death lawsuits gone to trial, many of the experts were prepared to testify that the deaths below the dam could have been prevented.

In 1978, the victims' families sued the Greater Johnstown Water Authority, owner of the dam; Bethlehem Steel Corp., the previous owner; Pennsylvania's Department of Environmental Resources, the state's dam regulating agency; Gannett Fleming Corddry & Carpenter, the engineering firm hired by the water authority; and Laurel Management Co., the water authority's management company.

But the Laurel Run cases never went to trial. After more than 10 years of delays and legal maneuvering, the cases were settled out of court. The settlements, which were made final in 1990, were secret, leaving questions about the flood unanswered.

A judge's order allowed The Tribune-Democrat to unseal those settlements last fall. The settlements left victims' families embittered. Many still have questions about what happened on July 20, 1977.

Some of the answers were found in boxes of court documents, internal memos, expert studies and transcripts of closed-door testimony compiled for the trial that never happened. Many of the records kept by the dam's owners and state regulators were never made public. Their records reveal a pattern of disregard and a certain blind faith in the Laurel Run Dam.

Well-studied dam

The dam, built by Bethlehem Steel between 1915 and 1918, was one of the most-studied dams in the state when it collapsed, the court documents show. By the time the dam was 25 years old, Bethlehem had no further use for the water-supply dam, which stood as high as a four-story building, as wide as the length of two football fields and held back 101 million gallons of water in normal conditions.

In 1943, 1959 and 1963 Bethlehem entered into negotiations with the City of Johnstown over the sale of the Laurel Run Dam and other dams in Bethlehem's water system. The purchase negotiations led to three engineering studies to appraise the value of the system. Each of the three studies, plus a fourth study to enlarge the dam, raised concerns.

"That dam should have never burst. I'll go to my grave saying that," said Anthony Piskurich, who lost his parents in the flood.

"They should have had enough information available to them that the dam would not contain the rain that had fallen," said Robert Pilot, whose parents also died in the flood. "They had almost an eternity to warn the people below the dam."

The Laurel Run Dam failed because of an inadequate spillway, several dam experts said in interviews and court documents. That was pointed out to the



Charles Kunkle Jr., top stockholder in Laurel Management Co., acknowledges that he learned of the spillway deficiencies in the early 1960s, but didn't rush to act.

dam's owner by at least four engineering studies prior to the flood. A spillway is like the overflow drain on a bathtub. It is designed to prevent water from rising and spilling over the top of the dam.

A series of heavy electrical storms centered over the area at about 9 p.m. on July 19, 1977. Four hours and 20 minutes of heavy rain overtaxed the spillway, raising the water level to the top of the Laurel Run Dam. By 1:45 a.m. water cascaded over the breast of the dam, cutting into the earthen embankment. Just before 2:30 a.m., the dam gave way.

The flood wave drowned people, washed away homes and left survivors grief-stricken and angry. A Pittsburgh attorney who arrived in the gutted community two days after the flood found survivors willing to go to court.

"Everybody was mad. They were fuming," said William Weiler, who became one of the lead attorneys representing Tanneryville survivors.

The first Laurel Run Dam lawsuits were filed in Cambria County Court on April 7, 1978. Families sued on behalf of 36 of the Laurel Run dead.

As a decade of legal wrangling began, the first defendants blamed one another. But beyond the finger-pointing was a mound of documents that zeroed in on the unanswered questions: Who knew about problems with the dam? Who was responsible for pointing them out? Why didn't they act?

Familiar questions

Those were familiar questions for people who had not forgotten the images of devastation and carnage from the 1889 collapse of the South Fork Dam. The 19th-century disaster killed 2,209 people.

The Laurel Run Dam was one of a series of area dams built in the generation following the 1889 flood. It was built as a temporary structure that was to become the foothold of a dam more than twice the size. The expansion never occurred.

"When the system was put in... it was very adequate," said Charles Kunkle Jr., now 80 and retired. Kunkle remains the top stockholder in Laurel Management, which has been under contract to manage the water system and its dams since 1964.

Kunkle was involved with the Laurel Run Dam from 1936 until the time it broke. In 1955, he succeeded his father as general manager of the Bethlehem water system.

Kunkle acknowledges that he learned of the spillway deficiencies in the early 1960s, but didn't rush to act. He said he never discussed the deficiencies with the water authority because he didn't believe the problems were severe.

"You have to attack those problems little by little. You just can't change a water system overnight. It's not only costly, it's difficult," Kunkle said in a recent interview.

Kunkle said he judged the dam by its outward appearance and past performance. "We never had any trouble with the spillway other than the concrete deteriorating," he said. "We never had problems with it raining eight hours before."

The Greater Johnstown Chamber of Commerce dubbed Johnstown the "Flood Free City" in the 1940s after the U.S. Army Corps of Engineers completed a river-wall system designed to contain future storms. The effort came after 24 people were killed in the 1936 flood.

The West Taylor Township supervisors had so much faith in the "Flood Free" declarations that they refused Tanneryville residents' requests for flood insurance.

'I felt it was safe'

George Hunter, chairman of the water authority for 13 years before the flood, was so confident in the stability of the dam that he frequently camped beneath it.

In a 1979 closed-door court proceeding, Hunter testified that he wasn't sure of the dam's construction type, how much water it



Long

Moffitt

Six-month effort

Reporters Robert Long and Debra S. Moffitt spent six months delving into records never before made public, conducting scores of interviews and using computers to analyze current dam standards to put these stories together.

Long, 31, is The Tribune-Democrat's award-winning investigative reporter. He has been with the newspaper for six years, covering several beats and such notable cases as those of child abuser Rickie Gaddis and killer Ernie Simmons.

Moffitt, 27, has been with The Tribune-Democrat for 10 months, covering Greater Johnstown. She came from a newspaper in Florida, where she won an award for her education coverage.

held or at what rate it could pass flood water. Those details, as well as concerns over safety, were left to Laurel Management, Gannett Fleming and God, he said.

"I felt it was safe," testified Hunter, who died in 1983. The dam's risk to life "never entered my mind."

The evening before the dam collapsed, Hunter picnicked below the 43-foot-high dam.

But engineers who studied the dam weren't as confident.

Fair warning

One month after Laurel Run failed, an engineer who studied the dam a decade earlier wrote to the secretary of the state Department of Environmental Resources, urging dam-safety reform.

"Laurel Run is well known to me. We investigated this dam in the '60s. Its deficiencies were recognized and reports prepared for modification, but for various reasons, over a period of one-and-a-half decades, remedial steps or new construction was not undertaken," Elio D'Appolonia wrote in 1977. "If the dam had been upgraded in accordance with today's prudent engineering practice, the dam would have been able to store and/or pass the storm."

Engineers for Gannett Fleming pointed out the same problems in studies the firm did on the Johnstown system in 1959 and 1963.

By mentioning the spillway problems in the reports, Gannett Fleming was calling for improvements, Charles Pickering, a Gannett Fleming engineer, testified in a May 1980 deposition.

"We felt this was an indication that something should be done with the spillways, while at the same time considering the fact that all of them had been operating for a number of years and had been operating safely," Pickering testified.

In the 1963 study, Gannett Fleming warned about spillway problems with both Laurel Run and the nearby Millcreek Dam.

"Regardless of the fact that these and the other structures have operated successfully for years, it is pointed out that the watersheds they control have been spared an extreme runoff condition, which would overtax the capacity of the structures," the study said.

Yet, after the sale of the water system went through in 1964, Gannett Fleming never recommended enlarging the spillway as part of its consulting role with the water authority since 1964.



The flood ravaged some parts of the small working-class community of Tanneryville, west of Johnstown, while other areas in the community remained virtually untouched. Court documents show that the damage caused by the flood could have been prevented.

Dam warning sounded long ago

THE TRIBUNE-DEMOCRAT

For those responsible for the Laurel Run Dam, the first warning sounded before the dam was built. The Tribune-Democrat has uncovered court documents and dam records that disclose decades of revelations on the dam.

1915: The application of the Johnstown Water Co., then a subsidiary of Cambria Steel Co., described the Laurel Run Dam as a temporary structure that one day would be the foothold of a dam more than twice its size.

Temporary became permanent after Bethlehem Steel, Cambria Steel's successor, scrapped plans to enlarge the dam in 1961. The enlarged dam would have met modern standards, and withstood the 1977 flood, according to dam experts.

The original application also warned that the dam would be a potential threat to the community below and "unless ample warnings were given, it would be lost." A warning system was never discussed throughout the dam's history.

1920: The state conducted its first inspection of the dam after it was put into operation in 1918. The state, which had only two dam inspectors for about 3,000 dams, inspected Laurel Run Dam only 12 times over its lifetime.

The state never recommended expanding Laurel Run's spillway, even though the dam had fallen behind the state's own guidelines. Spillways serve as safety valves, enabling a dam to pass floodwaters. By 1959, the spillway was 56 percent deficient, according to state standards.

1943: The dam was among four that the City of Johnstown was negotiating to buy from Bethlehem Steel. As part of the negotiations, Bethlehem commissioned a study to determine the condition of the company's dams and waterworks. The study found the dams in good shape, but recommended that the spillways be upgraded to meet modern standards. Bethlehem executives dismissed the idea. The sale collapsed.

1959: Looking to increase its water supply, Bethlehem finally decided to finish the Laurel Run Dam as it was originally conceived. An engineer hired to design a state-of-the-art, 137-foot-high dam, determined that the old dam was too unstable to be

used as a base for the new structure.

The engineer also pointed out that Laurel Run's spillway was less than half the size recommended by state regulators, limiting its ability to withstand a heavy storm. But the dam was never enlarged and the spillway concerns never addressed.

1963: The newly formed Greater Johnstown Water Authority negotiated with Bethlehem Steel to purchase five reservoirs, including Laurel Run. An engineer studying the sale again pointed out the deficiencies in Laurel Run Dam's spillway. The sale went through. The water authority would later claim it wasn't aware the spillway needed work.

1964: The Greater Johnstown Water Authority entered into long-term contracts with Laurel Management, an outgrowth of Johnstown Water Co., to manage day-to-day operations of its five dams. The authority also hired the Harrisburg engineering firm of Gannett Fleming Corddry & Carpenter as its consulting engineer responsible for recommending improvements to the dams. Gannett Fleming is the same engineering firm Bethlehem Steel hired in 1959 and 1963 to assess the condition of Laurel Run and other Johnstown dams.

While serving for the authority between 1964 and 1977, Laurel and Gannett officials knew of the dam's flaws but failed to recommend improvements.

1970: A new inventory of dams published by the state identified Laurel Run as a high-hazard dam that had the potential of "causing both life and property losses" if it failed.

Water authority members would later testify that they never discussed the safety of the dam nor contemplated setting up a system to alert residents if the dam was in jeopardy.

1972: A national debate on dam safety began after a West Virginia dam disaster killed 125 people. At least three other deadly dam failures followed over the next five years.

1974: The U.S. Army Corps of Engineers recommended new safety guidelines to dam owners, engineers and regulators that included emergency planning, warning systems and increasing the size of spillways to accommodate rainfalls twice the size of the 1977 deluge.

1977: Laurel Run Dam breaks.

The engineering firm didn't feel compelled to press the issue because no one else was.

"The engineer couldn't very well come forward and say 'enlarge the spillway' when the Commonwealth of Pennsylvania, who is sovereign in these matters, was not saying so," James Romano, a former Gannett president, testified. "Gannett Fleming would be put in an untenable position."

1943 warning

Hunter and other authority members said the spillway deficiencies weren't made clear. But the problems were made clear 20 years earlier, when Bethlehem Steel owned Laurel Run Dam.

In 1943, a Philadelphia engineer named Charles Haydock told Bethlehem Steel that spillways on Laurel Run and three other dams had fallen behind acceptable safety standards. Haydock studied four Johnstown-area dams as part of the City of Johnstown's effort to purchase a water supply system from Bethlehem.

In a June 1, 1943, letter, Haydock concluded that the dams were in good condition. However, he suggested that \$200,000 be set aside at the time of the sale to enlarge the dams' spillways so they would meet "modern standards."

In a July 2, 1943, report, a Bethlehem executive rejected Haydock's suggestion.

"Had there been difficulties at any time, the necessary changes would have been made," a Bethlehem vice president wrote in an inter-office memo.

The Haydock report and the engineer's recommendations remained in the files of the Johnstown Water Co. In the 1964 sale to the

town Water Authority, the report was transferred to Laurel Management files.

Kunkle, who ran the system for both Bethlehem and the Water Authority, testified that he didn't even know the Haydock report existed until he found it accidentally after the lawsuits were filed.

The Greater Johnstown Water Authority and Gannett Fleming said they had never heard of the Haydock report before the lawsuits were filed.

That would become part of the authority's defense strategy. "Bethlehem sold the water authority a pig in a poke; that was a theory that was being put forth, that if there was anything wrong with the Laurel Run dam it preexisted the purchase and was not revealed to us," said attorney Samuel DiFrancesco, who represented the water authority in the case.

Bethlehem argued that all of the studies were provided to the water authority at the time of the 1964 sale.

"Everyone knew what the spillway capacity was... It was a complete disclosure," said Pittsburgh attorney William Mallin, who represented Bethlehem in the lawsuits.

Complete disclosure

A study done in 1959 looked closely at the dam and found more problems. A 10-volume study examined the stability of the existing dam and included plans for a new, 137-foot-high dam on the site.

D'Appolonia, a Pittsburgh engineer, considered one of the best in his field, concluded that the existing dam was not stable enough to be used as the base of the new dam. Instead, the proposed dam would be

The D'Appolonia study, which would later become a key weapon of the plaintiffs in the Laurel Run lawsuits, pointed out that the spillway on the existing dam could pass runoff water at a rate of 2,100 cubic feet per second. Current state requirements were for a rate of 6,200 cubic feet for a reservoir that size.

The study also took the first look inside the dam through eight test borings on the earthen structure. Soil samples removed from the center of the dam revealed weaknesses in the structure.

"The water contents, particularly in the center core, are high... this situation is undesirable from a strength point of view inasmuch as it indicates the presence of many weak layers throughout the dam," the report said.

In 1961, Bethlehem abandoned its \$3.5 million construction plans. The company opted for a cheaper way of increasing its water supply — an almost \$1 million project to raise and enlarge the spillway at Quemahoning Dam in Somerset County.

Bethlehem and former Johnstown Water Co. officials would later argue that the D'Appolonia study said nothing about the safety of the existing Laurel Run Dam. The author disagreed.

"There was some reservation about the existing dam, because it was an old dam, and some other problems," D'Appolonia said.

The state was provided a copy of the study, but focused on the plans for a new dam rather than the assessment of the existing dam, according to a July 1979 deposition by the state's leading dam official, Joseph Ellam. Had he known of all of the deficiencies raised by

WARNING

Continued from A6

D'Appolonia, Ellam would have requested a study, including a stability analysis of that embankment, he said in the deposition.

Such an effort could have led to safety improvements at the dam.

Empowered to inspect

The state of Pennsylvania was empowered by the state Legislature in 1913 to inspect and ensure the safety of dams. If owners could not or would not comply with safety requirements, the state had the authority to breach the dam or make the necessary improvements.

But the regulating agency the 1913 law created was grossly underfunded. The agency had only two inspectors for almost 3,000 Pennsylvania dams. Nearly one-third of those dams posed risk to lives.

State dam officials knew grave problems existed.

When Ellam was a state dam inspector, his boss always told him to put Cambria County at the top of the list for dam inspections, because of Johnstown's unique risks, Ellam testified in a deposition.

"For 19 years, I've been trying to tell people they had time bombs up every one of these hollows. They didn't believe me," Ellam, then a dam inspector, told a Los Angeles Times reporter in 1977 as they flew over the Laurel Run disaster.



Ellam

Pennsylvania's shortcomings made it one of the prime targets in the Laurel Run litigation.

"The first line of defense for the state and the four other targets of the lawsuit was that the dam break was an act of God. No one could have predicted a rainfall like the one Johnstown experienced in July 1977," the defendants' attorneys argued.

"Pennsylvania law defines 'Act of God' as 'an unusual, extraordinary, sudden and unexpected manifestation of those forces of nature which cannot be prevented by human care, skill or foresight.'" The state Supreme Court has ruled that the defense must prove that events exceeded what could be expected using current meteorological data and that there were no means to control the situation once it arrived.

On both counts, the Laurel Run plaintiffs felt the "Act of God" defense would fall short.

The 1977 storm produced less than half of the probable maximum precipitation for the Johnstown area, which was projected at 25.09 inches in six hours, according to National Weather Service data.

"We hear of storms of that magnitude happening. Just because it had never happened there before doesn't excuse anyone for not being prepared," Bruce Tschantz, a leading dam expert, said in an interview. Tschantz, an engineering professor at the University of Tennessee, helped the Carter administration draft dam-safety reform in the late 1970s.

Pennsylvania dam regulators didn't require existing dams to comply with the newest meteorological standards in 1977, but federal regulators wanted reforms.

In 1974, the U.S. Army Corps of Engineers developed new safety guidelines for dams in response to a deadly dam break in West Virginia. The guidelines urged states and dam owners to upgrade dams so spillways could handle the probable maximum rainfall. For Laurel Run, the federal guidelines called for a spillway more than four times the size of the existing one.

"Clearly, a red flag should have gone up somewhere among the owners of the dam, the regulators, or other concerns," Tschantz wrote in a Laurel Run study.

The dam's construction also was a factor in the collapse.

Earthen dams with inadequate spillways are more prone to failure. If water spills over the breast of an earthen dam it quickly erodes.

Had the dam held, houses would have been flooded but not swept away, Tschantz concluded in his analysis. At one Tanneryville home, it meant the difference between 6.4 feet of water that destroyed the house and killed its occupants and 1.6 feet of water that would have caused only property damage, Tschantz computed.

In addition to arguing that the dam should have been upgraded, plaintiff attorneys said warning procedures could have prevented loss of life.

Tschantz said electronic warning devices, warning sirens and evacuation plans were in use on some dams in 1977, although they weren't required. Even before the dam was built, the importance of a warning system was recognized.

"A sudden failure of the dam ... would undoubtedly cause large property damage and probably loss of life," an engineer wrote in a 1915 application to build the Laurel Run Dam. "Unless ample warning were given, lives would be lost."

The February 1972 failure of the Buffalo Creek Dam in West Virginia killed 125 people and started a national debate on dam safety. A push, mostly from private engineers and overwhelmed state regulators, was made for federal guidance.

In Johnstown, the debate led the Greater Johnstown Water Authority to study its insurance coverage. In 1976, the authority lost a \$3 million liability policy because insuring dams had become too risky.

Safety measures weren't taken until after the flood.

The night of the storm

With no safety plan to consult on July 19, 1977, dam tender Timothy Lentz went to bed instead of keeping watch on a rising reservoir.

Lentz, who lived within walking distance of the Laurel Run Dam, had no knowledge of those complex engineering studies, nor had anyone told him what to do in an emergency. The 35-year-old high school graduate was responsible for chasing away trespassers, reading gauges and a few other laborer duties.

On July 19, Lentz was on vacation, but was still staying at the company home at the dam. Another Laurel laborer went to the dam twice that day to take readings.

Lentz and his family had guests on the night of the storm, which began at 9 p.m. When the guests left at 10 p.m., Lentz checked a rain gauge. In the first hour of the storm, the gauge measured 1 1/2 inches of rain, he said in a deposition.

It never occurred to him to check the dam, he testified.

Lightning had knocked out three lights in his home, so he shut off the electricity and went to bed. He set an alarm for 3 a.m. so that he could turn the power back on. He didn't want his freezer to thaw.

"We went to bed and it was still lightning and thundering. We slept, not soundly or anything," Lentz testified. When Lentz woke up at 3 a.m. he tried to make it to the dam, but the water was "rushing so fast my boots weren't deep enough to go through it so I could not get to the dam. I went back to the house."

In Johnstown, flood alerts began three hours before the 2:30 a.m. dam break. By 1 a.m., the mayor had set up a command center. Communications were knocked out at about 1 a.m. No word ever made it to the residents of Tanneryville.

Officials testified

Nineteen days before Laurel Run Dam failed, one of the state's leading dam officials testified before a U.S. congressional subcommittee on dam safety.

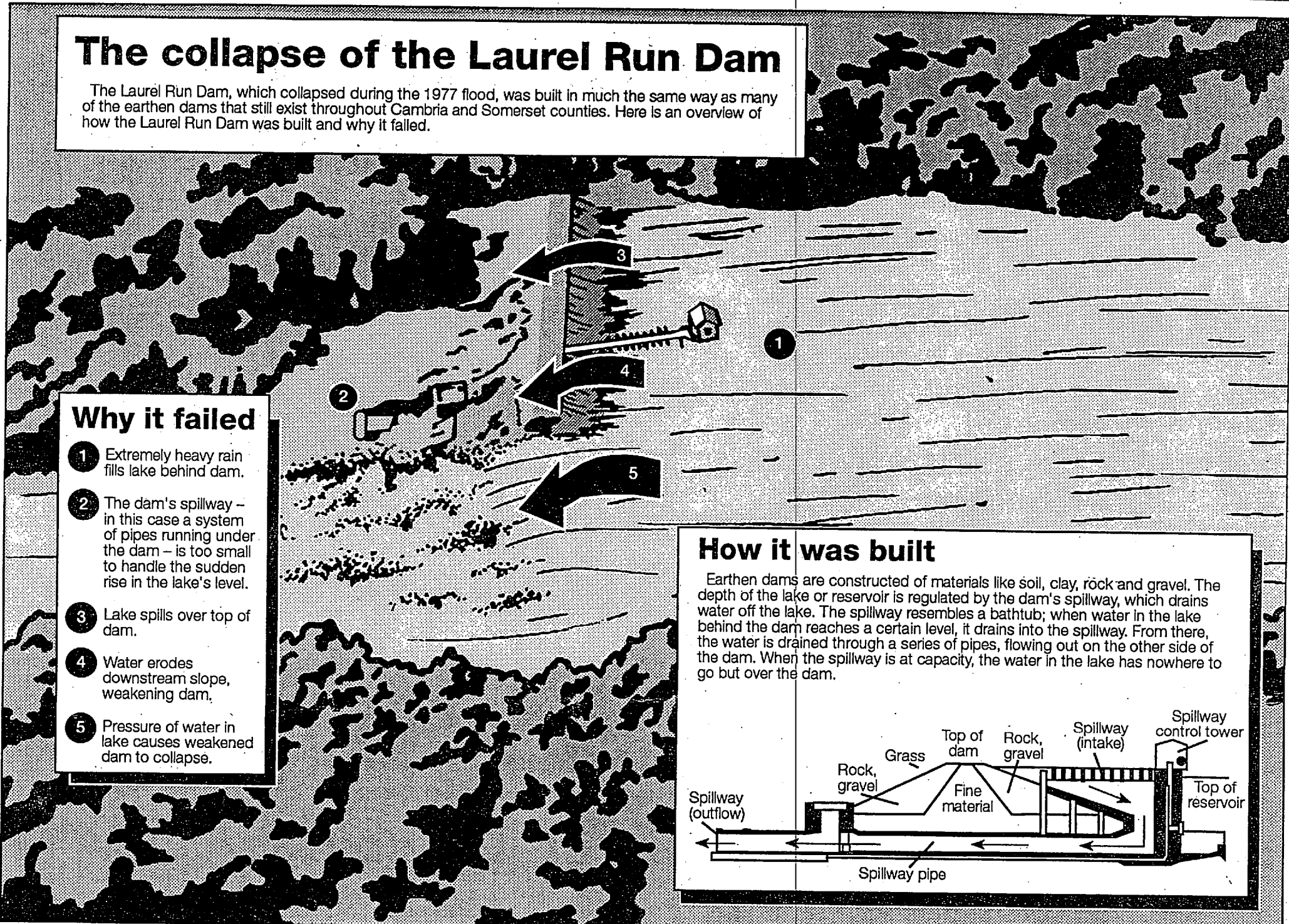
"Every time there is a disaster, we get a lot more credibility ... but then the interest slowly dies away six months after the disaster," Ellam testified. In 1977, the state budgeted \$150,000 a year for dam safety, which is not "satisfactory by any way of looking at it," he said.

Ellam added to his testimony a week after the flood:

"Following my ordeal of the last week, I cannot urge too strongly that action be taken to implement a strong national dam safety program," he wrote to the subcommittee. "You might say that my own worst forecasts on dam safety as it exists have been realized."

The collapse of the Laurel Run Dam

The Laurel Run Dam, which collapsed during the 1977 flood, was built in much the same way as many of the earthen dams that still exist throughout Cambria and Somerset counties. Here is an overview of how the Laurel Run Dam was built and why it failed.

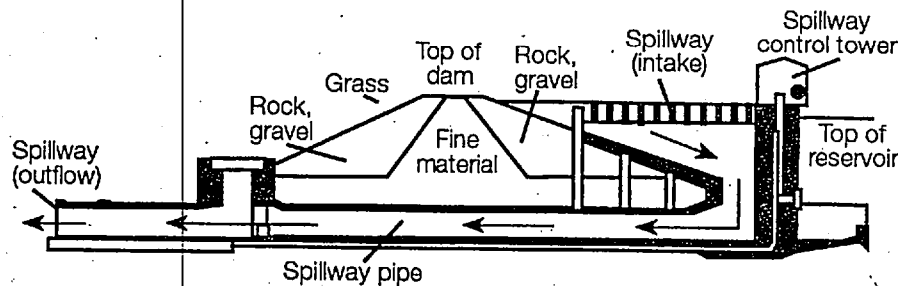


Why it failed

- 1 Extremely heavy rain fills lake behind dam.
- 2 The dam's spillway - in this case a system of pipes running under the dam - is too small to handle the sudden rise in the lake's level.
- 3 Lake spills over top of dam.
- 4 Water erodes downstream slope, weakening dam.
- 5 Pressure of water in lake causes weakened dam to collapse.

How it was built

Earthen dams are constructed of materials like soil, clay, rock and gravel. The depth of the lake or reservoir is regulated by the dam's spillway, which drains water off the lake. The spillway resembles a bathtub; when water in the lake behind the dam reaches a certain level, it drains into the spillway. From there, the water is drained through a series of pipes, flowing out on the other side of the dam. When the spillway is at capacity, the water in the lake has nowhere to go but over the dam.



MICHAEL CLAY/THE TRIBUNE-DEMOCRAT

Destruction came without warning

By ROBERT LONG
THE TRIBUNE-DEMOCRAT

It came without warning and showed little mercy.

Shortly after 9 p.m. on July 19, 1977, a series of 21 individual electrical storms began pounding Johnstown. The storms radiated outward through eight counties. Water began rising in the streets of Johnstown before midnight as the Little Conemaugh and Stonycreek rivers and small streams topped their banks.

The storms quickly knocked out communications and power, leaving little time to get warnings to residents of the valley.

Over the next several hours, heavy runoff from the mountains sent waves of destruction through dozens of communities. Hundreds of homes were washed away, roads, bridges and dams collapsed; scores of people were killed or missing. It was weeks before the full tally would be known:

- 85 dead or missing.
- 2,696 injured.
- \$250 million in damage.
- 50,000 people displaced.
- 600 homes destroyed.
- 5,256 homes severely damaged.
- 405 businesses destroyed or severely damaged.

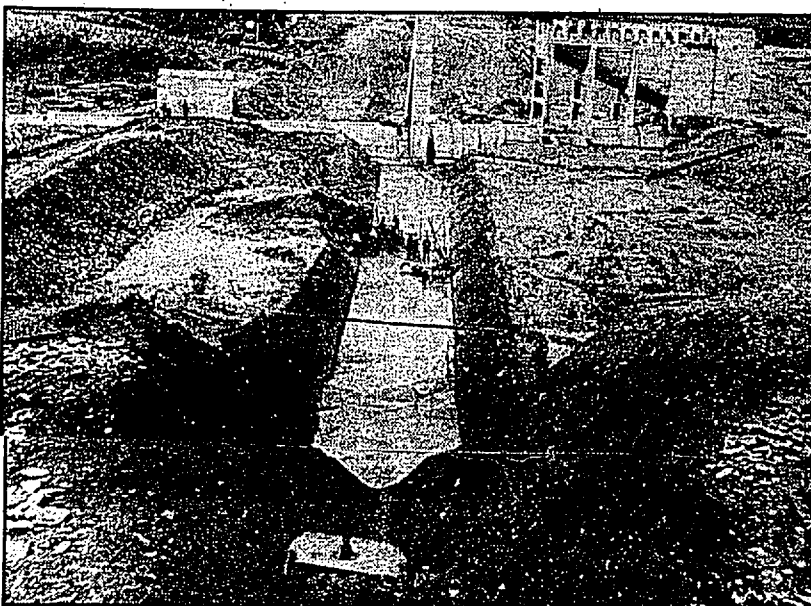
The flood was most brutal west of the City of Johnstown. With the collapse of the Laurel Run Dam, more lives were lost in Tanneryville than any other community. Further down the Conemaugh River, flooding washed away several communities, including a Seward trailer park where seven people were killed as the water tore apart their homes. Damage spread west as far as Homer City, Clymer and Vintondale in Indiana County.

In downtown Johnstown, water wiped out small businesses, extensively damaged big industries, such as Bethlehem Steel, and left its muddy footprints on the Cambria County War Memorial Arena. In the southeast corner of Johnstown, several lives were lost as a ravaging Solomon Run ripped apart the Johnstown Expressway, broke off a section of one of the apartment buildings in the Solomon Run Homes and swept through Dale Borough.

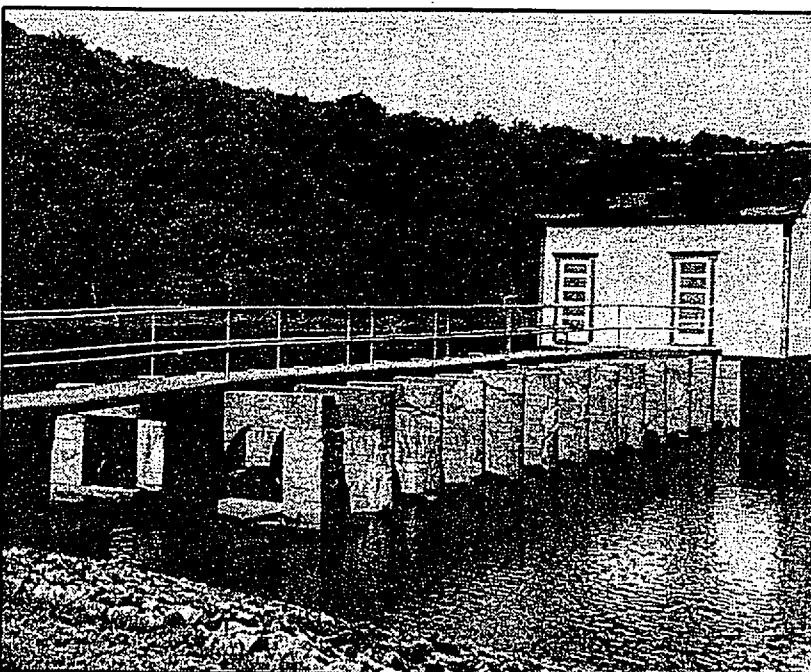
Ten people were killed in Dale, three in Walnut Grove and four in Hornerstown. Further southeast, in Windber and Scalp Level boroughs, the floodwaters led to more death and heavy damage. Two people were killed in Windber and two more in Scalp Level. Northeast of Johnstown, the floodwaters left dozens of people homeless in the communities of East Conemaugh, Franklin, South Fork, Sidman and St. Michael.

A monumental recovery effort aided Johnstown and other flood-ravaged communities. Within one month after the flood, more than \$16 million in state and federal aid came into the area. Two thousand mobile homes were set up to provide temporary housing. But some things government aid couldn't save. The downtown Penn Traffic Department Store called it quits.

And the flood proved to be the beginning of the end for the region's largest employer, Bethlehem Steel. The steel giant steadily downsized after the flood, eventually calling it quits in 1992. Part of its operation has been or will be reopened by new owners. But the mills will employ 9,000 fewer workers than they did before the flood.



As the Laurel Run Dam was under construction in 1916, the concrete spillway was already complete. The spillway consists of an intake area, at right, and a system of pipes that run under the dam.



Before the 1977 flood, the Laurel Run Dam's spillway fell behind state standards. Although the inadequacy was reported, it was never corrected.

Area bears scars, triumphs from flood history

By ROBERT LONG
THE TRIBUNE-DEMOCRAT

Johnstown came into the 20th century still bearing scars from what remains today as the most deadly dam disaster in U.S. history.

But the wounds from the 1889 flood healed and the company town returned to what it did best - making steel.

In 1898, the Cambria Steel Co., looking to expand, considered moving the plant to the Great Lakes or the eastern seaboard. There, the steel giant would have an unlimited supply of water to cool the molten steel forged in its mills.

The decision was made to stay, expand and build its own Great Lakes. Between 1898 and 1916, six dams were built in the hills above Johnstown, creating reservoirs totaling more than 15 billion gallons of water.

By the time Laurel Run Dam was proposed above the rural community of Tanneryville, Cambria Steel was the third-largest steel producer in the United States. The advent of foreign trade was leading to tremendous growth.

In August 1915, the Johnstown Water Co., which at the time was half-owned by the steel

giant, applied to the Water Supply Commission of Pennsylvania to build Laurel Run Dam.

Engineer G.S. Beal wrote in a Sept. 10, 1915, letter to the state that the dam would be a temporary structure as high as a four-story building and as wide as the length of two football fields.

It would be situated in a steep, narrow valley. It would choke off Laurel Run 5.5 miles from its origin and three miles above where it empties into the Conemaugh River, downstream of Johnstown.

The Laurel Run Dam would create a reservoir of 101 million gallons of drinking water. Eventually, the water company hoped to build a 110-foot-high dam, forming a 1.2 billion-gallon reservoir.

The construction took more than two years. Dozens of workers used horse-drawn wagons to haul more than 90,000 cubic feet of material to the site.

The skeleton of the structure was made of timber and concrete, which at places was up to two feet thick. A network of pipes was laid to allow the bathtub spillway to discharge runoff water and control the water level of the lake behind the dam.

Workers used high-pressure hoses to peel

layers of rock and earth from the hillsides. A wood and tin channel carried the material down to the dam site.

"It is probably the cheapest method of construction," Beal wrote in his letter to the state. Cambria Steel had recently used the same method to build the Saltlick and Quema-honing dams. The method was commonly used in the west. Cambria Steel became the first to use that type of construction east of the Mississippi River, according to the Feb. 15, 1913, edition of the Engineering Record.

It's a construction method that would later be abandoned because of safety concerns. It was a contributing factor to the dam's collapse, according to dam experts.

The application for the dam also said the outside embankment of the dam would be protected with layers of rock and gravel to help prevent the dam from washing out if floodwaters overtopped the structure. All reports of the dam after the construction listed only a grass-covered embankment.

The dam, while temporary, met all state and engineering standards when it was completed in 1918. But the standards evolved and after 25 years the dam had fallen behind standards.

JUSTICE

Continued from A8

and Baths Inc. The flood killed his parents, destroyed the business and left him homeless. He lived in a trailer over that summer and had to go to a church to get donated clothes.

By the time settlement talks were underway, Selders had been laid off from the steel mill and his brother-in-law had been laid off from his railroad job.

"It was like we better take this and run... We could all use the money," Selders said recently.

During the settlement negotiations, Keiper said he had a face-to-face meeting with Cambria County Judge Caram Abood, the last of three judges to preside over the cases. Abood told him his 53-year-old father didn't have a long life expectancy because of health problems, Keiper said.

"How could he put a number on the years somebody would have lived?" Keiper said.

The value of a life

Lawyers and economists did precisely that for all the victims. The formula considered possessions, age, income and health woes. Pamela Thomas was 11 when she died — a fifth grader in good health and expected to live 67.5 more years, according to her "statement of economic loss." The statement, which figured into the settlement given her three stepsisters, estimated her lifetime income based on statistics and trends.

However flawed, the calculation is all the legal world has to estimate damages in such lawsuits, DiFrancesco said. Such computations are often used in wrongful death cases.

"It's a frustrating part of the law... We don't have perfect justice," DiFrancesco said. "If Barbra Streisand is killed, her life is worth more than if a steelworker is killed."

Unfortunately for the plaintiffs, working-class incomes meant modest settlements.

Just amassing the facts and figures needed to estimate lifetime incomes for the 36 victims took many months, DiFrancesco said. And that was only a fraction of the legal legwork that had to be done. Weeks would be spent taking depositions of key witnesses, with a half-dozen attorneys asking questions and sparring with one another. The attorneys interviewed about 100 witnesses in preparation for trial.

The mountain of paperwork forced DiFrancesco to seek help from a library science professor who developed a type of Dewey decimal system to catalog the documents. And as part of discovery in the cases, attorneys picked through decades of documents at the offices of Bethlehem Steel, Gannett Fleming, Laurel Management and DER's dam safety division.

"It was horribly unwieldy," said Minahan, who estimated that the state spent hundreds of thousands of dollars to defend the cases.

More than a dozen expert reports added to the expense. Each attorney hired dam experts to conduct a postmortem of the dam collapse and weather experts to explain the July 19-20 storm.

Even with the extensive gathering of evidence, one of the two plaintiff attorneys, Weiler, said the cases were ready to go to trial after about three years. The settlements took 12 years to finalize.

The victims' families believe the cases stalled and began falling apart in October 1982, four years after the cases began, when their lead attorney, John Evans, died.

Driving force

Evans, an Ebensburg-born attorney practicing in Pittsburgh, was the driving force behind the plaintiffs' cases. He represented all but four of the death cases. Weiler represented the remaining cases and most of the property cases. Johnstown attorneys brought the flood cases to the silver-haired Evans because of his experience handling complex cases. The Harvard-educated attorney was the grandson of a former Cambria County judge and the nephew of a state Supreme Court justice.

"John Evans had a real sense of the victims. He had a passion for the case," Piskurich said.

"He was really fighting for us," Keiper said.

The death of the 76-year-old attorney was not the only transition that delayed the cases. Evans' successor died and the state went through two attorneys.

The cases also were thrown into a game of musical judges. The first judge presiding over the cases, H. Clifton McWilliams, retired.

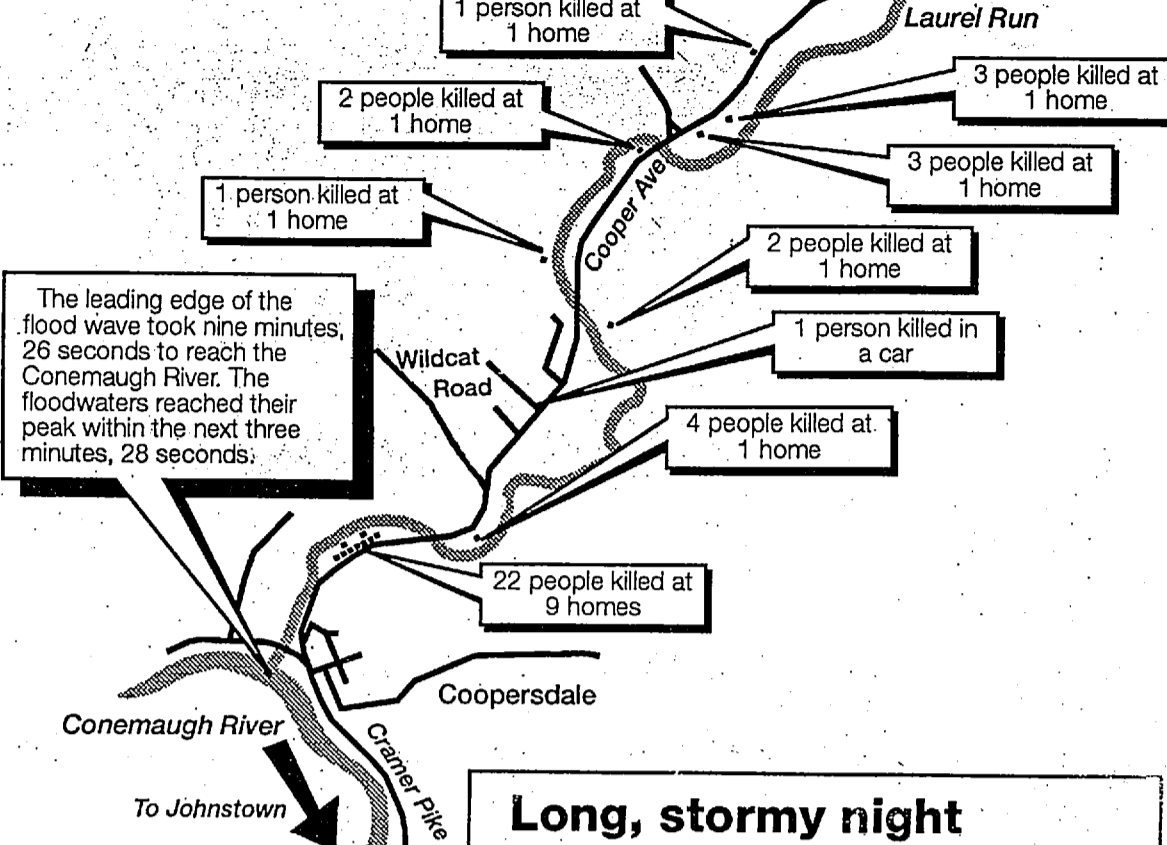
The attorneys in the cases said McWilliams, who died last year, was too indecisive and lacked the organizational skills needed to handle the cases.

The second judge, Joseph O'Kicki, left the bench amid corruption charges unrelated to the flood cases. The third judge, Caram Abood, completed the settlements just before he retired.

The changes behind the bench had an impact, Abood said. "That was part of the delay, certainly. You had to become familiar with it," he said.

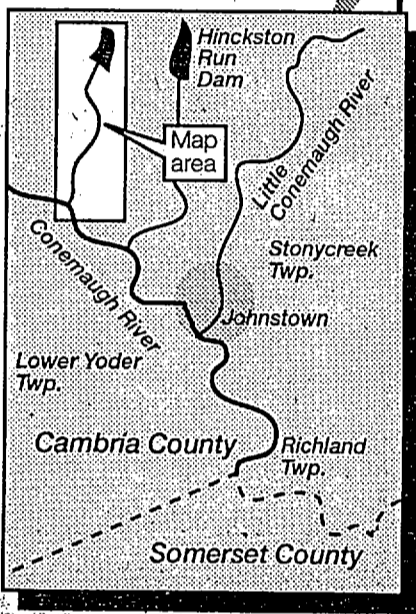
Flood Wave

The collapse of the Laurel Run Dam during the 1977 flood killed 39 people in Tanneryville — almost half the total number of people who died in the flood. All but one of them died in or near their homes; one died in a car.



The leading edge of the flood wave took nine minutes, 26 seconds to reach the Conemaugh River. The floodwaters reached their peak within the next three minutes, 28 seconds.

The Laurel Run Reservoir normally held about 101 million gallons of water. When it collapsed, it contained 146 million gallons of water.



Long, stormy night

After the Laurel Run Dam burst at 2:15 a.m. on July 20, it took just over nine minutes for the leading edge of the flood wave to thunder through Tanneryville and reach the Conemaugh River. Within the next four minutes, the worst of the flood had passed. Here is a time-line of events leading up to the collapse of the dam:

9 p.m. - 1 a.m.: The level of the Laurel Run Reservoir rose at the rate of 1.4 feet per hour.

1:20 a.m.: The reservoir level reaches the crest of the dam and begins overtopping.

1:45 - 1:50 a.m.: The reservoir reaches its maximum level; a section of the left side of the dam begins to weaken and form a breach.

2:15 - 2:25 a.m.: By this time, the breach has formed a trapezoid-shaped hole more than 40 feet deep, 15 feet wide at the bottom and 225 feet wide at the top.

Settlements

After the Laurel Run Dam broke in 1977, killing 39 people, survivors sued on behalf of 36 victims. The Greater Johnstown Water Authority, Laurel Management, the Pennsylvania Department of Environmental Resources and the engineering firm Gannett, Fleming, Corddry and Carpenter shared the cost of the settlement. The following is how much families received for each victim.

Victims	Death	Property	Total
Shirley Bailey	\$45,564	\$0	\$45,564
Allen Blough	\$154,660	\$1,995	\$156,655
Jennifer Blough	\$38,890	\$1,995	\$40,885
Desiree Blough	\$47,250	\$0	\$47,250
Melvin Boring	\$10,000	\$0	\$10,000
Elvie Bowser	\$23,700	\$0	\$23,700
John Cale	\$40,000	\$0	\$40,000
Theresa Gibson	\$35,530	\$872	\$36,402
Ernest Gibson	\$89,050	\$0	\$89,050
Tamela Gibson	\$52,250	\$0	\$52,250
Cynthia Gibson	\$52,250	\$0	\$52,250
Donald Keiper	\$30,000	\$0	\$30,000
Melissa Mitchell	\$75,626	\$0	\$75,626
Carol Pavlosky	\$70,000	\$0	\$70,000
Helen Pilot	\$36,250	\$3,290	\$39,540
Stanley Pilot	\$36,250	\$3,290	\$39,540
George Piskurich	\$46,971	\$5,160	\$52,131
Olga Piskurich	\$46,971	\$5,160	\$52,131
Kathy Rishell	\$106,466	\$4,133	\$110,599
Thomas Rishell	\$106,466	\$4,133	\$110,599
Katherine Rishell	\$39,588	\$3,110	\$42,698
Theodore Rummel	\$8,200	\$3,469	\$11,669
Barbara Selders	\$288,722	\$237,008	\$525,730
Robert Selders	\$288,722	\$237,008	\$525,730
Donna Sowerbrower	\$270,669	\$0	\$270,669
Mark Sowerbrower	\$270,669	\$0	\$270,669
Charles Stoner	\$44,352	\$57,961	\$102,313
Louella Stoner	\$44,352	\$57,961	\$102,313
Sheldon Stoner	\$320,622	\$4,916	\$325,538
Sharen Stoner	\$141,995	\$4,916	\$146,911
Allen Thomas	\$237,264	\$5,224	\$242,488
Patricia Thomas	\$84,840	\$5,224	\$90,064
Sandra Thomas	\$106,275	\$0	\$106,275
Pamela Thomas	\$106,275	\$0	\$106,275
Edith Fern Weaver	\$15,675	\$3,120	\$18,795
Kenneth Weaver	\$20,005	\$0	\$20,005
Total	\$3,432,369	\$649,945	\$4,082,314
Averages	\$95,344	\$18,054	\$113,398



"If Barbra Streisand is killed, her life is worth more than if a steelworker is killed."

Samuel DiFrancesco, Johnstown attorney

Abood is credited with forcing the cases to a conclusion.

The cases provided a lesson on how to handle complex lawsuits, like a series of industrial asbestos cases currently winding through the Cambria County system.

The complicated cases involve steelworkers who claim exposure to asbestos caused health problems.

"I think the county learned something from the (flood) cases," Abood said.

The victims' families said they learned lessons, too — painful ones.

They learned that the legal system didn't offer much comfort or compensation for the loss of parents, children and siblings. They learned the defendants could privately make settlements without admitting any fault.

"My biggest regret is not taking it to court so everybody would have known what transpired that night and it would have been public," Pilot said.

The lawsuits' quiet end also nags at Selders.

"They never admitted guilt. That still bothers me today," he said.

The water authority members did a lot of soul searching in the years following the dam break, said James Greco, the current water authority chairman.

"Although they knew in their hearts they weren't responsible, there was nothing they could have done to stop it — a lot of people died," Greco said.

"And a lot of the authority members who were on at that time — I'm not going to say they felt guilty — it hurt them, it bothered them. Could they have done something, should they have done something?"



Stanley and Helen Pilot were survived by three sons and a daughter.



Elvie Bowser (right) was survived by two sons.



Robert and Barbara Selders were survived by three daughters and a son.



Tammy (left), Ernest and Cindy Gibson (above right) were presumed to have drowned. Their mother, Theresa, also died. The children were survived by their father and Theresa's husband, Donald Gibson.

Who were Tanneryville flood victims?

39 people were presumed drowned

THE TRIBUNE-DEMOCRAT

Death below the Laurel Run Dam struck 14 women, 13 men and 12 children in 1977. The 39 victims came from 18 households. Thirty-four of the victims lived on Cooper Avenue in Tanneryville. Five others were in the area visiting or seeking refuge from rising waters. The specifics of many of the deaths are not known. The victims were presumed drowned.

They were:

Bailey: Shirley Bailey, 41, and her granddaughter, 10-year-old Melissa Mitchell, Coopersdale Homes. They were in the Cooper Avenue trailer of Theodore Rummel when the flood hit.

Blough: Allen and Jennifer Blough and their 2½-year-old daughter, Desiree, 673 Cooper Ave. Allen, 29, was a steelworker for Bethlehem Steel Corp. Jennifer was 28.

Boring: Melvin Boring, 36, of 671 Cooper Ave. Boring was a Tanneryville native who relocated to Connecticut, where he was a factory worker. He returned home in 1973 to care for his terminally ill father.

Bowser: Elvie Bowser, 68, of 879 Cooper Ave. Bowser was a homemaker. She was survived by two sons.

Cale: John Cale, 67, of 789 Cooper Ave. Cale, a widower, was a retired locomotive engineer for Bethlehem's Conemaugh and Black Lick Railroad. During retirement he operated a part-time cake-baking business. He was survived by two sons and three daughters.

Daroczy: Eliza Ann Daroczy, 61, of 244 Iron St., Johnstown. A housewife, Daroczy and her husband were driving when their car became stranded in Tanneryville. She was trapped in the car as it was swept away by floodwaters. Her husband, Joseph, survived.

Gibson: Theresa Gibson and her three children: Ernest, 12; Tamela, 10; and Cynthia, 9, 679 Cooper Ave. Theresa, 46, was married to Donald Gibson, who survived the flood. They had five children. She had worked as a part-time waitress.

Keiper: Donald Keiper, 59, of 667 Cooper Ave. A retired security guard, Keiper was partially paralyzed and lived alone. He was survived by two sons.

Pavlosky: Carol Pavlosky and her children Mark Mavrich, 13, and Debra Ann Mavrich, 15, 866 Cooper Ave. Carol Pavlosky, 34, was survived by her husband, Stephen.

Pilot: Stanley and Helen Pilot, 675 Cooper Ave. Stanley, 64, was a retired milkman for Sani-Dairy. After retirement he did part-time work for Ward Trucking Corp. His wife, 59, was a homemaker. They were survived by three sons and a daughter.



George and Olga Piskurich

Piskurich: George and Olga Piskurich, 681 Cooper Ave. George, 64, was a retired steelworker. Olga, 60, was a homemaker who had worked as a telephone operator in Pittsburgh before marriage. They were survived by two sons.

Rishell: Thomas Rishell, 31, and his daughter Kathy, 5, and mother Katherine, 55, 872 Cooper Ave. Thomas was an unemployed laborer. He had worked as a monument setter for Van Scoyoc Memorials. Thomas and Kathy were survived by Thomas' wife, Carol. Katherine Rishell was survived by a daughter.

Rummel: Theodore "Dutch" Rummel, 64, of 669 Cooper Ave. A retired steelworker, Rummel lived in a mobile home and was survived by three sons and a daughter.

Selders: Robert and Barbara Selders, 784 Cooper Ave. Robert, 42, owned Selders Custom Kitchens and Baths. Barbara, 40, was a partner in the family business. They were survived by three daughters and a son.

Sowerbrower: Donna Sowerbrower, 16, and her 3-month-old son Mark Jr., Richland Trailer Court. Donna, the daughter of Patricia Thomas, was visiting her mother in Tanneryville with her son on the night of the flood. They were survived by Donna's husband, Mark Sr.

Stoner: Charles and Louella Stoner, 702 Cooper Ave. Charles, 60, was a retired steelworker who owned and operated Stoner Pool Co. Louella, 57, worked as a bookkeeper and secretary for the family business. They were survived by a daughter.

Stoner: Sheldon and Sharen Stoner, 702 Cooper Ave. Sheldon, 23, worked as a heavy equipment operator and pool installer for his father's business, Stoner Pool Co. Sharen, 24, worked as a sales clerk.

Thomas: Allen and Patricia Thomas and their daughters, Sandra Lee, 12; and Pamela, 11, 677 Cooper Ave. Allen Thomas, 41, was a laborer at the Bethlehem Car Shop and co-owner of a garbage collection business. His wife, 37-year-old Patricia, was a bookkeeper and salesperson for Stoner Pools. They were survived by three daughters.

Weaver: Kenneth and Fern Weaver, 847 Cooper Ave. Kenneth, 73, was a retired steelworker. Fern, 55, was a homemaker.

DANGER ZONE

The pursuit of justice

Victims' families believe they were slighted by a sluggish legal system

By **ROBERT LONG**
and **DEBRA S. MOFFITT**
THE TRIBUNE-DEMOCRAT

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The catastrophic rupture of the Laurel Run Dam killed 39 people in 1977 and sent grieving families on a 12-year pursuit of justice.

Many say they didn't find it.

A sluggish legal system resolved the lawsuits with out-of-court settlements that did not require anyone to admit guilt. The survivors grudgingly accepted them.

Until last fall, the settlement agreements remained sealed in a Cambria County Courthouse safe. A judge's order allowed The Tribune-Democrat to cut open 12 sealed envelopes containing details of the settlements.

The death settlements paid victims' families between \$8,200 and \$320,000 for lives lost on July 20, 1977.

The destruction

Eighty-five people died during the intense storms that caused the 1977 flood. Almost half of the victims perished when the Laurel Run Dam collapsed just west of Johnstown. More than 146 million gallons of water rushed through Tanneryville, drowning residents of the working-class community.

Families sued in 1978 on behalf of 36 of the Laurel Run victims.

Robert Pilot of Ferndale, who lost his parents, Stanley and Helen, called the settlement amount "paltry."

"The bottom line was everyone was tired. It had gone on so long," Pilot said.

Pilot received an \$18,000 settlement. His sister and two brothers received the same.

"The plaintiffs just took their losses... it was like an open wound all those years," said Anthony Piskurich of Richland, who lost his parents, George and Olga.

Piskurich and his brother split the \$104,262 settlement, which they will receive over 20 years.

The Laurel Run lawsuits named the dam's owner, the Greater Johnstown Water Authority, the dam's previous owner, Bethlehem Steel Corp., the Pennsylvania agency in charge of dam safety, the Department of Environmental Resources, the water authority's engineering firm, Gannett Fleming Corddry & Carpenter, and the water authority's management firm, Laurel Management Co.

The legal proceedings unearthed evidence that the owners, their engineers and state officials could have done something to prevent the disaster. The defendants denied responsibility, but resolved the suits out of court.

The final settlements

The final settlements came in 1990 after more than a decade of hearings, research and wrangling. The settlement agreement totaled more than \$4 million for wrongful death and property losses and more than \$1 million for the plaintiffs' attorneys.

The settlements didn't make anyone a millionaire. Fifty-two family members and heirs shared \$4.082 million — \$3.43 million as compensation for wrongful deaths and \$649,945 for property losses. Survivors of almost half the victims agreed to receive the money over 20 to 30 years, meaning some will not get the final installment until 2019. Annual payments range from less than \$2,000 paid to a woman who lost her mother to more than \$26,000 to a woman who lost both parents and a sister.

The settlement amounts varied greatly. They depended upon a person's worldly goods and income potential. The cash payouts averaged \$95,344 for each person killed.

Although 85 people died in the 1977 flood, no other death suits were filed. In dozens of other suits, out-of-court settlements for property damage totaled less than \$1.5 million.

Settlements appear low

Several attorneys and legal experts contacted by The Tribune-Democrat said the Laurel Run death settlements appear low.

Low settlements can result when victims have trouble proving their cases, when defendants don't have a lot of money to keep a case going or when the victims just give up, experts said.

The \$4 million settlement "sounds low and it sounds like it took a long time," said Gerald Stern, who won a \$13.5 million settlement for the survivors of a dam break in Buffalo Creek, W. Va., in 1972. In that disaster, a coal company's refuse-pile dam collapsed during a rainstorm, killing 125 people.

A full \$8 million of the Buffalo Creek settlement paid survivors for pain and suffering. The Laurel Run settlements did not include any payments for pain and suffering.

How much is a life worth?

To financially compensate the families of victims of the 1977 Laurel Run Dam collapse, a formula was used to calculate the "economic loss" associated with the loss of life. The formula took into account estimated future earnings and retirement benefits for the victims, minus estimated daily living costs. It was assumed children would complete an average education and earn an average income and that all victims would have lived to an average age.



3-month-old boy

Wages:	\$1,392,840
Retirement income:	+ \$59,290
Lifetime income:	\$1,452,130
Cost of living:	- \$509,020
Total economic loss:	\$943,110

2-year-old girl

Wages:	\$808,890
Retirement income:	+ \$112,590
Lifetime income:	\$921,480
Cost of living:	- \$404,890
Total economic loss:	\$516,590

37-year-old woman

Wages:	\$388,852
Retirement income:	+ \$83,700
Lifetime income:	\$472,552
Cost of living:	- \$257,659
Total economic loss:	\$214,893



41-year-old man

Wages:	\$556,685
Retirement income:	+ \$216,535
Lifetime income:	\$773,220
Cost of living:	- \$250,032
Total economic loss:	\$523,188



57-year-old woman

Wages:	\$87,478
Retirement income:	+ \$75,285
Lifetime income:	\$162,763
Cost of living:	- \$111,913
Total economic loss:	\$50,850

60-year-old man

Wages:	\$40,600
Retirement income:	+ \$212,117
Lifetime income:	\$252,717
Cost of living:	- \$104,787
Total economic loss:	\$147,930

MICHAEL CLAY/THE TRIBUNE-DEMOCRAT

An attorney involved in the Laurel Run cases thought the defendants would have paid seven or eight times what they did.

"They made out like bandits, I think," said Johnstown lawyer John Ayres.

Ayres represented Robert and Mary Blough, who lost their son, daughter-in-law and granddaughter. The defendants paid a \$245,000 settlement for the loss of the young family.

Ayres found the case personally upsetting. Allen, Jennifer and Desiree Blough lived in a nice, small home in Tanneryville.

"It was devastating to me. All of a sudden, they are gone," the attorney said.

The settlements failed to punish those responsible, said Piskurich, who was 24 and living at home when his parents died.

"The water authority and some of the others got off easy... I think they won. I really don't think the families of the victims won," he said.

Not a victory

The water authority used its \$500,000 worth of insurance coverage and paid an additional \$133,450 to settle the lawsuits. Pennsylvania paid \$1.2 million for its Department of Environmental Resources, the agency charged with dam safety.

Gannett Fleming and Laurel Management refused to say how much they contributed to the settlement pot. Laurel officials did say they paid more than their insurance coverage, which court documents show at \$500,000.

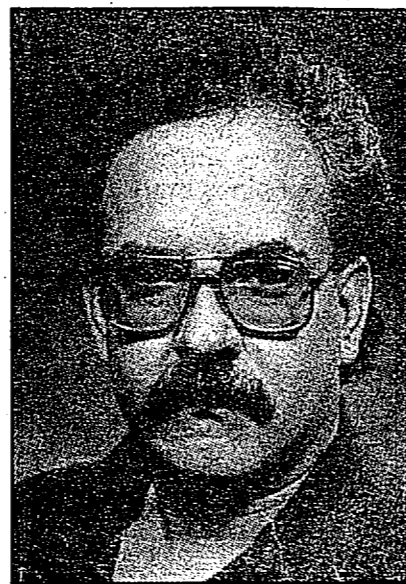
Bethlehem Steel paid nothing toward the death settlements. The Tribune-Democrat has learned. The company could not be held liable for a dam it had not owned for 13 years, its lawyer argued.

The remaining defendants pooled their money, paying some settlements in lump sums and others in 20- or 30-year installments. CNA Insurance, a Pittsburgh company that insured the engineering firm Gannett Fleming, handled the disbursement of the settlements.

Spillway too small

Gannett Fleming, which continues to work for the water authority, declined to comment about the cases. Court testimony shows its engineer knew the Laurel Run Dam's spillway was too small to dispense floodwaters. The dam overtopped and breached because of its small spillway.

Laurel Management, a company born out of Bethlehem Steel to han-



Anthony Piskurich... Loss was "an open wound"

dle day-to-day operations for the water system, still works for the authority today. Company officials said they knew of some, but not all, of the dam's problems, according to court documents and recent interviews.

Donald Minahan, former Pennsylvania assistant attorney general, represented the Department of Environmental Resources, which failed to regularly inspect the Laurel Run Dam. The Laurel Run catastrophe came at a time when the state had only two dam inspectors for 3,000 dams.

The state's \$1.2 million share of the settlements was a bargain, Minahan said. The state, which did not order improvements that could have prevented the dam's collapse, could have been liable for more than \$500 million, Minahan said.

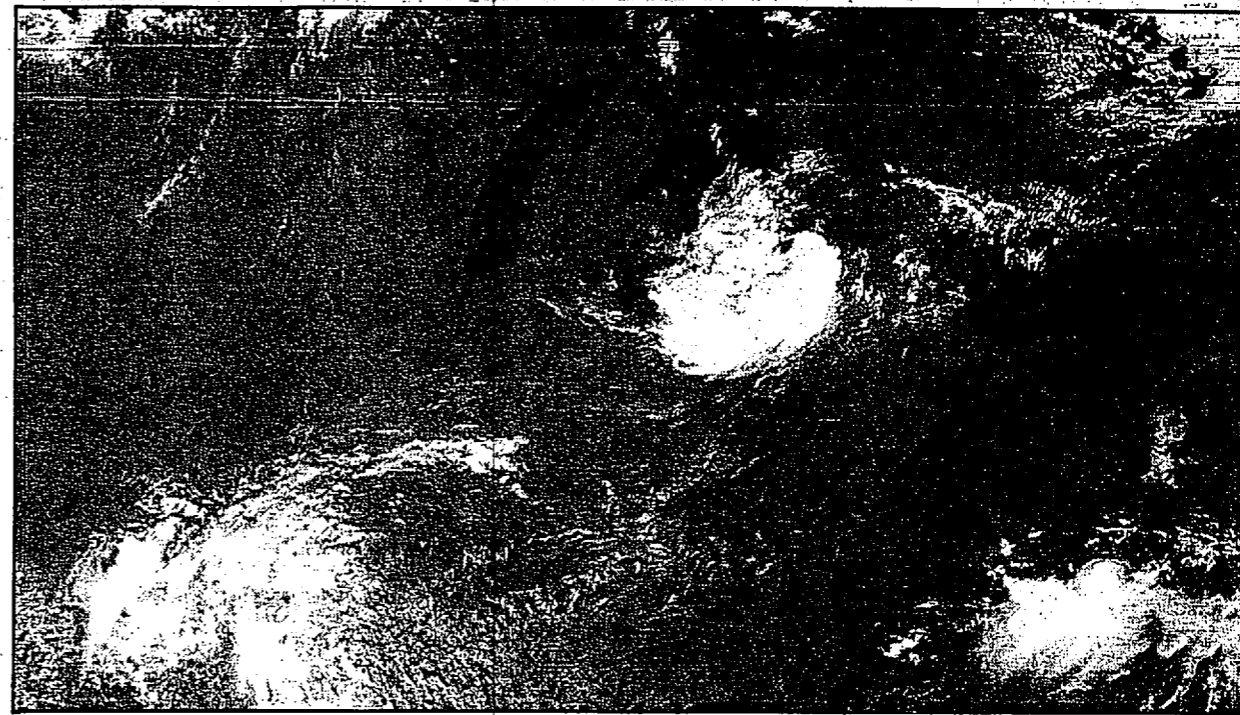
"It was expeditious to settle at the numbers we were talking about," he said. "I'm very happy with the settlement in terms of our contribution juxtaposed with our exposure... Nobody argued with me, including the governor."

As part of the state's defense strategy, it filed a countersuit seeking credit for the \$55 million in state aid provided after the 1977 flood. Minahan called the counterclaim, which could have decreased a jury award, the "linchpin of settlement."

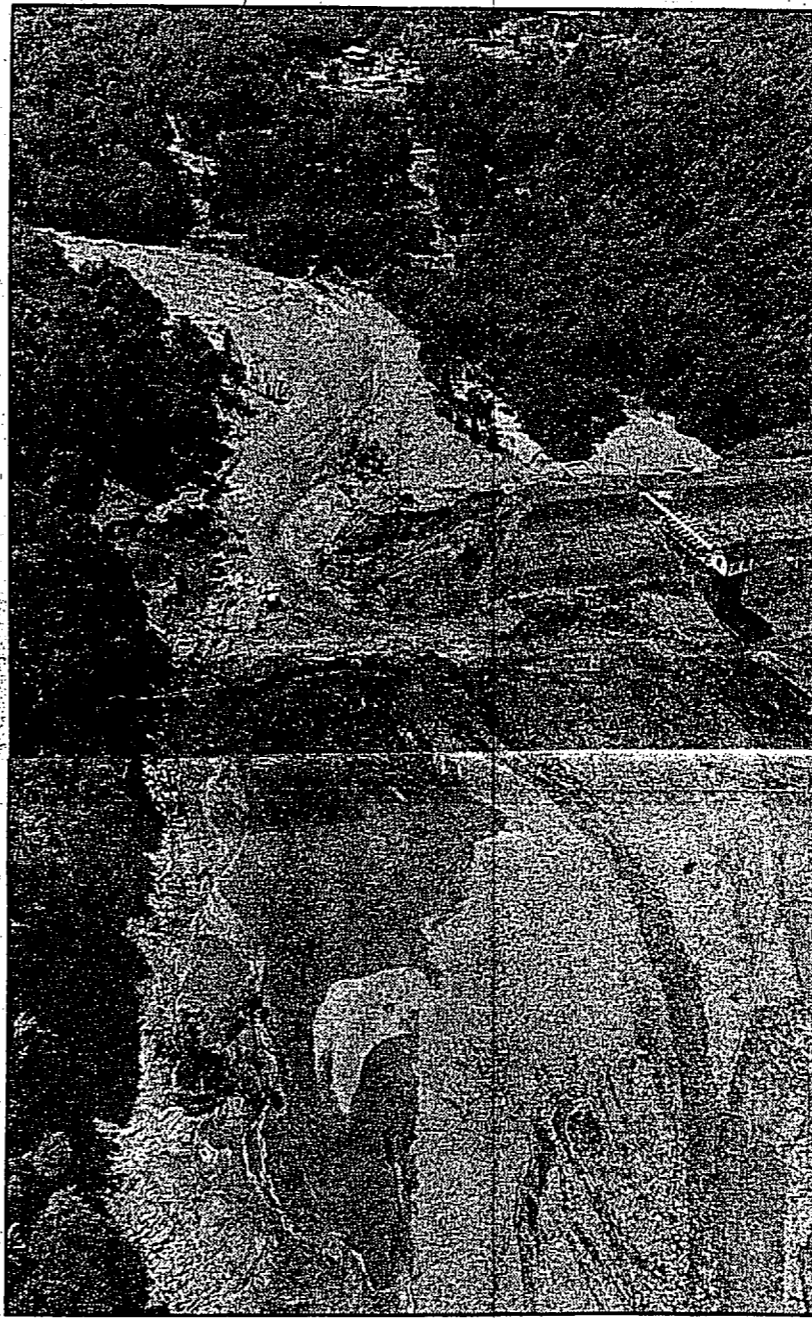
Dramatic testimony

The water authority chose the certainty of settling out of court over the risks of a jury trial.

"You never know what could happen... The jury could go crazy," said Johnstown attorney Samuel DiFrancesco, who represented the water authority. "There was gut-



A satellite picture shows the series of heavy electrical storms that centered over the area at about 9 p.m. on July 19, 1977. Four hours and 20 minutes of heavy rain overtaxed the Laurel Run Dam's spillway, causing the dam to give way. Those responsible for the dam said its collapse was an act of God; victims' attorneys argued otherwise.



When the Laurel Run Dam broke, it was holding back 146 million gallons of water, 45 million gallons more than its normal capacity. The flood killed 39 people in Tanneryville.

wrenching testimony to be heard."

The attorneys previewed that testimony in a series of pretrial interviews done behind closed doors. Copies of that testimony, which were among the documents obtained by The Tribune-Democrat, show:

■ The wave swept away one victim as he knelt with his grandson in a second-story bedroom, fearing for their lives and saying "The Lord's Prayer."

■ Retired milkman Stanley Pilot grabbed his grandson, 19-year-old Tom Marsonok, and told him they were going to die. In the court interviews, Marsonok recalled what happened when the dam's water smashed into the house.

"Me and my grandpap, as I recall, we jumped up on the bed... The bed floated up to the ceiling. At that time, the whole house split up. I managed to jump on the roof... and my grandfather stayed on the bed and my grandpap yelled for me three times and I heard other people yelling and screaming," Marsonok said in a 1981 court deposition.

Marsonok rode the roof downstream, injured and struggling to breathe. He managed to crawl up a river wall to safety. Marsonok now lives near Greensburg. His grandfather's body has never been found.

■ Eighteen-year-old Dallen Selders left his house during the storm to check on his dogs, which were in a workshop behind his family's home. A swift current of debris-filled water prevented him from returning to the house, although he was near enough to see it, he told attorneys in 1980.

"That is when I heard my mother yell my name and it sounded like a mother calling in a worried voice. You know, calling for her child lost in the woods or something like that. That's what it sounded like to me,

anyway. She called my name, and I answered back, and that's the last time I ever heard her voice," Selders said in his deposition.

He spent the night in a neighbor's pickup truck, listening to the water break apart his house. They found his mother's body seven miles downriver in Charles, a small community along Haws Pike in Indiana County. His father's body was found even farther away, in New Florence, Westmoreland County.

■ George and Olga "Daisy" Piskurich, a couple in their 60s, lived near Clifford Thomas, who lost 10 family members during the 1977 flood. Mrs. Piskurich called the Thomas house late that night.

"She called my wife and said George, her husband, was crying. The water was starting to come in the cellar and it was coming in the backyard, that the creek was getting awfully high and they were scared. They were old people on a pension, and she said, what could they do? (Thomas' wife) said 'Come over.' And we never heard no more from them," Thomas said in a 1980 deposition.

The bodies of George and Olga were found several days after the flood.

Testimony weighs heavily

Dramatic testimony about pain and suffering weighs heavily on jurors' minds, according to law professor Michael Streib.

"Whenever you go to the jury it's a roll of the dice," said Streib, an expert in tort law at Duquesne Law School in Pittsburgh. That's why attorneys in most wrongful-death cases are eager to settle.

The cost of a Laurel Run trial, which attorneys said could have lasted from six to 12 months, also influenced the decision to settle, defense attorneys said.

Even without going to trial, the bill for defending the water authority topped \$500,000. It was paid by the authority's insurance carrier.

"It's a question many times of economics... cutting your losses," said Johnstown attorney DiFrancesco. "There's a value in ending it, getting it over with."

"Plus, there's a consideration of getting these people some compensation," he said.

Several families believe the defendants' attorneys stalled the cases to wear them down. Piskurich's son, Anthony, believes that succeeded in getting lower settlements. The \$2,348 he receives annually doesn't come close to compensating him for the loss of his mother and father, he said.

A larger settlement "is not going to bring anyone back," but it could have taken care of the grandson they never knew, Piskurich said.

The lawyers for the water authority and other defendants vigorously deny they employed a strategy of delay. But legal experts say stalling always helps the defense.

"Certainly it's to the defendants' advantage to keep the money as long as possible and earn interest on it," Streib said. "At the same time, in our system in Pennsylvania, the plaintiff also has control over when the cases get tried. A case cannot go on for 10 years without the cooperation of both parties."

Why the plaintiff attorneys didn't drive the cases to trial is unknown. The lead attorney, John Evans of Pittsburgh, died before the cases were settled. A successor, Tom Shearer of Pittsburgh, did not return repeated phone calls. And a third key plaintiff attorney, William Weiler, agreed to an initial interview but refused to return phone calls for follow-up questions.

The complexity of the cases, the number of witnesses and the inexperience of the Cambria County court system in dealing with such massive cases caused the delay, attorneys involved in the cases agreed.

Two trips to the state Supreme Court also lengthened it. A Philadelphia law firm made an unsuccessful attempt to seize control of the plaintiffs' cases and turn them into one class-action lawsuit. And Pennsylvania tried unsuccessfully to get sovereign immunity, which would have prevented the state from being sued.

Waning days

In the waning days of the litigation, some of the victims' families felt pushed into taking the settlement offer, they recalled in recent interviews. Robert Keiper, whose family received \$30,000 for the death of his father, Donald, still harbors some bitterness about the process. The attorneys exerted pressure by saying everyone had to accept the final offer, or no one would get it, Keiper said.

"I didn't want to get rich... The way they treated us was unjust," Keiper said.

Forcing an all-or-nothing settlement is an uncommon strategy, said Streib, the Duquesne law professor.

"It's certainly a permissible tactic, but it's a hardball tactic," Streib said. "I would certainly resist that approach because I wouldn't want the various plaintiffs pitted against each other."

Facing the pressure

Many of the victims' families faced another kind of pressure — their own economic difficulties. In 1977, Dallen Selders had just graduated high school and planned to work for his father, Robert, who owned Selders Custom Kitchens

SPECIAL REPORT

The Tribune-Democrat

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Johnstown, Pennsylvania

INSIDE TODAY

LOCAL

Going it alone: Lilly Borough says it can provide sewage services for itself more cheaply than through a proposed Mainline regional effort. Page A3.

Police plan: Officials in Carrolltown Borough and West Carroll Township plan a public meeting to discuss joining a regional police force. Page A3.

SPORTS



Back for a day: The Penguins' Mario Lemieux (above) returns to the Civic Arena ice, but only for a celebrity charity game Sunday in Pittsburgh. Page B1.

Early exit: Second-seeded Penn State is ousted from the NCAA women's basketball tournament by North Carolina State. Page B1.

STYLE

Toddler troubles: Small kids in day care are more likely to get earaches and pneumonia than those at home. Page C1.

Planting family seeds: Spring gardening can nurture family activities by bringing children and parents closer together. Page C1.

WEATHER

Today's forecast: A chance of scattered showers and a high of 61. Tonight, showers continuing; the low will be 39. Page C6.



INDEX

Births	C6
Bridge	C4
Classified	B5
Comics	C3
Dear Abby	C2
Dr. Donohue	C2
Editorial	A10
Horoscope	C4
Lottery	C6
Movies	C2
Obituaries	C5
Readers' forum	A10
Television	C4

Now you know: Penn State wrestling coach John Fritz was interim coach at Indiana University of Pennsylvania in 1976-77; a 9-6 season made him a finalist as NCAA Rookie Coach of the Year. (Source: Penn State)



DANGER ZONE

Living in the shadow of hazardous dams



Mineral Point residents live, work and play in the shadow of the Saltlick Dam. Bryan Plechnik, 13, plays hockey on a playground with the dam looming behind him. Edith Wilson (top) has lived below the dam all of her adult life, but the dam causes her no concern.

- **In case of emergency:** Seven major dams threaten residents of Johnstown, but the city has received emergency plans for only three of them.
- **Outdated plans:** Nine emergency plans on file in Somerset County were written a decade ago. Plans for five dams include 14-year-old maps that do not identify evacuation routes.
- **Inadequate spillways:** Fifteen years ago, federal inspections determined that 21 area dams had inadequate spillways. Five of those dams still have spillways that do not meet government standards.
- **Safer than ever:** Engineers have always refused to label any dam "safe," but they agree the safety factor has improved tremendously in the last 15 years.

Today ...

- **Worst-case scenario:** What would happen if one of the major dams draining into Johnstown were to give way? Official maps show where there would be casualties and severe property damage if the North Fork Dam broke. Page A8.
- **Shadow of doubt:** Those who live in the shadow of dams today give little thought to the danger those dams pose. Page A6.
- **Be prepared:** Flooding and dam breaks are far from hypothetical occurrences in the Johnstown area, so residents should know how to protect themselves and their families. Page A7.

Dam owners ignore safety measures

By ROBERT LONG and DEBRA S. MOFFITT
THE TRIBUNE-DEMOCRAT

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Dam owners in Cambria and Somerset counties have disregarded crucial dam safety laws, possibly dooming Johnstown to another deadly flood, a Tribune-Democrat investigation has found.

State officials have been slow to enforce the dam regulations, and area residents are kept in the dark about the risks. These shortcomings could jeopardize an area that suffered deadly dam breaks in 1889 and 1977.

Incomplete and outdated emergency plans top the list of deficiencies.

A 1978 Pennsylvania law required dam owners to create emergency action plans for local and county governments that would orchestrate evacuations if a dam break seemed imminent. But what emergency managers have at their fingertips today are often incomplete and outdated plans:

- Phone numbers listed lead to disconnected lines or the wrong people.
- Many plans lack evacuation routes.

Other plans don't clearly show who should be evacuated.

In some cases, there are no plans.

No explanation

Cambria County Emergency Management officials don't have owners' emergency plans for three of the 12 "high-hazard" dams in the county: Howell's Run Dam in Cambria Township, Ebensburg Storage Dam in Ebensburg Borough and Sandy Run Dam in Reade Township. High-hazard dams would cause significant loss of life if they collapse, according to guidelines enforced by the state Department of Environmental Resources.

Officials in Ebensburg Borough, which owns Howell's Run and Ebensburg Storage dams, couldn't explain why they hadn't provided their plans to Cambria County Emergency Management, as state law requires. The two dams together hold back 461 million gallons of water about one mile from the emergency management office.

Cambria officials have developed their

Please see SAFETY, A6

Dam inventory

■ **Your neighbors:** Today, as much as 36 billion gallons of water hover over communities in our region behind 26 dams, some of which are almost a century old. Here's everything you need to know about where the dams are in Cambria and Somerset counties, who's responsible for them, and how safe they are. Page A7.

COMING TUESDAY: THE IRS IS TAKING A CLOSER LOOK AT YOU

Hidden Dangers

Local dam owners fail to file emergency plans, post required warnings

SAFETY

Continued from A1

own emergency operations plan that includes a brief list of dam-break procedures. But the manual omits three major dams, including one of the largest dams in the state, the Quemahoning. Its collapse would threaten much of Johnstown, including Lee Hospital, Greater Johnstown High School and the Cambria County War Memorial.

Dan Penatzer, Cambria County emergency services director, said those dams are not included because they are in Somerset County, not Cambria County. However, he conceded that Cambria County would suffer the brunt of the damage if any of the three collapsed.

"It's really Somerset's job to chase after those," Penatzer said. Somerset County has only a disorganized file of mostly outdated plans.

'We're satisfied'

Nine emergency plans on file in Somerset County were written a decade ago. The old plans list disconnected phone numbers for dam owners and state Department of Environmental Resources, the state agency in charge of dam safety. Plans for five dams — one that holds more than a billion gallons of water — include 14-year-old maps that do not identify evacuation routes. The state's guidelines for emergency plans say dam owners must review and revise their plans every two years.

Rick Lohr, Somerset County director of emergency services, said he hasn't looked at the plans since he was appointed in March 1994.

"If the DER is satisfied, more or less, we're going to be satisfied," Lohr said. Only one of the 14 dams in Somerset County — Bigan Dam in Paint Township — has a current, DER-approved plan.

'A lot could happen'

While people doubt a catastrophic dam failure could happen, the aging condition of dams makes it more likely, said Elio D'Appolonia of Pittsburgh, a leading expert who has studied Johnstown-area dams.

"Basically (dam) lives are on the order of 50 to 100 years at the most and after that you have to do something with them. It's especially true with earthen dams. A lot of things could happen," D'Appolonia said.

Fourteen dams in Cambria and Somerset counties are more than 50 years old. Most are earthen dams.

The increasing age of dams makes emergency plans all the more vital, D'Appolonia said.

"The trouble is, nobody has really taken the bull by the horns and implemented these systems. And maybe people don't believe this will happen, but there is a probability that it will occur. The likelihood of it occurring increases if you have a dam that's in need of repair or is old," D'Appolonia said.

Not helping

Dam owners haven't helped the City of Johnstown prepare for that possibility.

Seven major dams drain into Johnstown, but the city has received emergency plans for only three of them. The Greater Johnstown Water Authority has supplied the city with plans written in 1980 and last revised in 1991. Other dam owners have failed to give their plans to Johnstown, a city that suffered the nation's most deadly dam break in 1889. More than 2,200 died when South Fork Dam collapsed, sending a wave of water into Johnstown. The Laurel Run Dam broke in 1977, killing 39.

"Should Johnstown be a model? It should be," said the director of Johnstown's Emergency Management Office, John Deardorff.

Like Cambria County, the city has filled in some of the gaps by creating its own disaster procedures. But state law clearly places the responsibility for emergency plans on dam owners. Most of the region's dam owners, which include large water authorities, the state, municipalities, small corporations and private individuals, have submitted new plans to the state for approval. However, DER's Bureau of Dams, Waterways and Wetlands has not received new emergency plans for five area dams.

In September 1993, the state

asked the Greater Johnstown Water Authority for updated plans for its three dams, North Fork, Saltlick and Dalton Run. While the authority's engineers have been working on the plans, none has been submitted to the state. Authority Chairman James Greco said the engineers are expected to submit the final plan at the authority's April 13 meeting.

"From my understanding with the emergency action plans, we have never been late with anything of significance," Greco said. Greco blamed the delay on DER, which he said didn't provide clear guidelines for the plan.

Twenty-one Cambria and Somerset dam owners have submitted new emergency plans to the state since February 1992. The plan for Bigan Dam is the only one that has been approved. Out of the 581 plans the state has requested, officials have signed off on only 12 statewide.

"It's going to take time, that's all," said Joseph Ellam, former director of the Bureau of Dams, Waterways and Wetlands. Ellam, who had worked for the agency since 1959, retired Dec. 30. His successor has not been named, and he continues to work for the bureau as a consultant.

Pennsylvania law provides for civil and criminal penalties for dam owners who fail to develop or implement emergency plans, but the state has never filed charges against anyone, Ellam said. The state lacks the staff to quickly review the complex plans, which should include computer-generated maps of inundation areas — communities whose residents and property are at risk. The state focuses on the emergency plans only during the winter months, Ellam said.

In a recent snafu, DER discovered it never received updated emergency plans for dams at state parks, including Kooser Run and Laurel Hill Creek dams in Somerset County. After The Tribune-Democrat asked about them, DER officials found a box of plans at the Bureau of State Parks.

Work doesn't end

In the event of a dam break, emergency plans will save lives, said Brad Jarossi, Maryland Dam Division chief. Jarossi also is the legislative chairman for the national Association of State Dam Safety Officials.

Emergency plans were not required in Pennsylvania in 1977, when the Laurel Run Dam broke without even a warning to the Taneyville residents below. Today, Pennsylvania requires emergency plans that delegate responsibilities, list phone numbers of key people, identify evacuation areas and map safe evacuation routes. Owners are supposed to give the plans to county and municipal emergency management offices.

But the work doesn't end after the first plan is written, said William Bivins, chairman of the federal Interagency Committee on Dam Safety. The task requires coordination and periodic updates.

"All this has to work together. The plan has to be tested. Someone has to make sure the phone numbers are right," Bivins said.

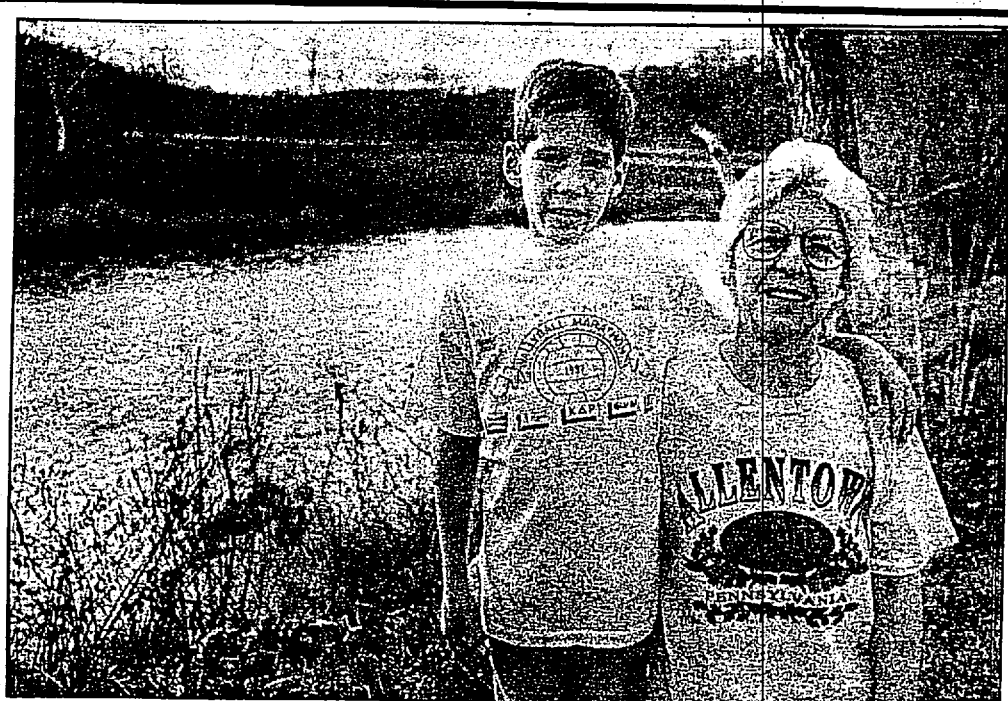
A survey of Cambria and Somerset county emergency management files shows that's not always the case. And neither county has ever held a drill to see how the plans would work in real life. Laurel Management Co., which works for the Greater Johnstown Water Authority, holds in-house drills. But that's not enough, said Bruce Tschantz, a dam expert and University of Tennessee civil engineering professor.

"It's paramount to get emergency workers in these drills. They are the heart of it. One of the main reasons these things don't take place is the owners don't want to alert people that these types of things can happen because the public may overreact. But the fact is that drills and tests save lives," Tschantz said.

Trouble at Bigby Dam

Pennsylvania's dam division holds structural safety as its primary mission and has spent the last 17 years trying to remove or upgrade unsafe dams. Department engineers have been whittling away at a list of 209 dams branded unsafe in the late 1970s and early 1980s. Only nine remain on the list, including Lake Altoona Dam in Blair County.

A national dam inspection program, funded after the 1977 flood, dispatched inspectors to evaluate every dam in the nation. Most of the dams in Cambria and Somerset counties responded to safety recommendations made by the U.S. Army Corps of Engineers.



Cybil Wagner, 59, and her grandson, 9-year-old Tyler Ribblett, stand next to the river in front of Wagner's home. The Mineral Point resident says she is more worried about the river flooding than the dam breaking.

'I never give it a thought'

Those who live near dams have little fear

By ROBERT LONG
THE TRIBUNE-DEMOCRAT

All of her adult life, 79-year-old Edith Wilson has lived in the shadow of Saltlick Dam. The sound of splashing water from the spillway fills her backyard, but the dam causes her no concern.

"I never give it a thought," Wilson said, standing behind her red frame house a few hundred feet from the base of the dam. "I raised my kids here. This is my home. The dam has never caused us any problems."

The dam, which stands as tall as a 10-story building and wider than two football fields, towers above 57 homes in the quiet village of Mineral Point. The valley community just north of Johnstown was wiped out by the 1889 collapse of the South Fork Dam and damaged by the flood-swollen Little Conemaugh River in 1977.

But today, Wilson and the 150 other Mineral Point residents don't worry about the dam.

"I'm not ignorant of the fact that it's there. It just doesn't frighten me," said 59-year-old Cybil Wagner. "We just have a nice quiet community and we're more worried about the river in front of our houses than the dam behind them."

A four-room elementary school once stood directly beneath the dam. Today a small park is in its place. And the dam's spillway, which resembles a waterfall, is often used as the backdrop for wedding pictures.

Communities like Mineral Point worry Joseph Ellam, former director of the Department of Environmental Resources' Bureau of Dams, Waterways and Wetlands. Ellam, who has worked for the agency since 1959, retired on Dec. 30. His successor has not been named.

"It's the damnest thing



"It's the damnest thing you've ever seen. People continue to move into flood plains. A lot of people want to get close so they can hear that babbling brook going by."

Joseph Ellam, Retired state dam director

you've ever seen. People continue to move into flood plains," Ellam said. He thinks better land-use studies are needed to prevent people from living directly beneath dams.

"A lot of people want to get close so they can hear that babbling brook going by," Ellam said, shaking his head.

One year after the 1977 flood, the U.S. Army Corps of Engineers found problems with Saltlick Dam, which holds back almost 1 billion gallons of drinking water. An engineering study found that the dam's spillway — its outlet for floodwaters — was "seriously inadequate." DER classified the 1912 earthen dam as unsafe and forced its owner, Greater Johnstown Water Authority, to make \$7 million in improvements.

Less than five years after the corrections were completed, the water authority now plans to mothball the dam at the end of 1995 because its reservoir no longer meets federal drinking water requirements. It will be kept as a reserve for industrial water supply, said James Greco, chairman of the water authority.

The water authority has not been without concern for the safety of residents below the dam. In 1985, the authority petitioned the state Department of Transportation to raise a bridge below the

dam to prevent flooding. Flood water from the dam spills into Saltlick Run, which flows beneath the bridge. In a heavy storm, the dam can discharge floodwaters three times faster than the bridge can withstand and the authority is worried that homes could be flooded. Runoff from a heavy storm could dam up the bridge and flood homes, said William Barbin, authority solicitor.

But PennDOT engineers said it's the authority's responsibility to fix the bridge because improvements on its dam led to the problem. On its own, the bridge can withstand more than a hundred-year flood, far exceeding state requirements, according to bridge engineer Bob Kunselman.

The potential flooding problem was among the reasons the authority offered to buy several homes below the dam a few years ago. There were no takers, Barbin said.

For 63-year-old Mineral Point native Gary Reighard, the dam is as much a part of the fabric of the community as its history of floods. Dubbed the community's flood historian, Reighard can tell generations of stories about the dam and the village's clashes with disaster.

"It's part of us," Reighard said with a smile. "People wonder how we can sleep at night. No problem."

Congress intervenes

The annual inspections became a requirement in 1978 after the Laurel Run Dam failure prompted the state legislature to adopt stricter safety guidelines. Two more fatal dam breaks occurred in other states in 1976 and 1977. The disasters persuaded Congress to fund a federal dam inspection program.

Federal officials analyzed the nation's dams in the late 1970s and early 1980s. Those federal inspections emphasized spillways, the part of a dam that carries away floodwaters and prevents dams from overtopping. Earthen dams with small spillways cause concern because they erode and break when water pours over their crests. Analysts blamed undersized spillways for both the Laurel Run Dam failure and the historic collapse of South Fork Dam.

Federal inspectors found that 21 area dams had inadequate spillways, meaning they couldn't withstand the maximum rainfall ex-

pected for the area — 31 inches over 12 hours.

The spillways on five of those dams were "seriously inadequate," meaning they could handle less than half the probable maximum rainfall. Owners breached Millcreek Dam in Conemaugh Township, and the state ordered repairs on dams considered most unsafe.

Five dams — Lake Somerset, Glendale, Dalton Run, North Fork and Bigby Run — still have spillways that do not meet state or federal standards. Bigby Dam is the most deficient, able to dispense only 50 percent of that ultimate storm before overtopping.

No upgrades are planned for any of the dams.

The state's top dam official hasn't required those improvements. The probable maximum rainfall amount, although based on statistical data and past experience, is so extreme it could be a once-in-500-year storm, Ellam said.

"The decision-maker can conclude that risk is something that can be lived with," he said. But an official with the U.S. Army Corps of Engineers, which handled the dam inspections, said inadequate spillways should not be ignored.

"They should be analyzed further and as time or money permits, they should be fixed," said Phillip Brown of the Corps' Washington, D.C., office.

Phase two

The state says it's beginning to look at some of the deficient spillways.

"It's kind of like our phase two," Batchelor said. Those additional dam upgrades will cost millions. And dam owners already have spent an estimated \$150 million on improvements since the 1978 safety push, Batchelor said. The state is about halfway through evaluating the 284 dams that have inadequate spillways, he said.

Some owners think the state has already gone overboard with its dam safety regulations. Christian Camps of Pittsburgh had to spend \$500,000 to upgrade Lake Gloria Dam. Rev. James Welch said. The organization nearly rebuilt the dam, which now has a large spillway, he said.

"It looks like Hoover Dam for a 40-acre lake. ... It cost us more to rebuild the dam than to buy the entire property," Welch said.

Just the emergency plans, which average \$5,000, can tax a small owner without financial resources.

"It's not cheap to own dams. They are a hazard to the public," said Bivins, whose federal dam safety committee brings together national and state dam officials.

Local dam owners poured millions into improving dams on the unsafe list. Saltlick Dam in East Taylor Township received \$7 million worth of upgrades to its breast and spillways. The Highland Sewer & Water Authority spent \$287,000 to improve the spillways on the two Bear Rock dams in Washington Township.

Safer than ever

Engineers still refuse to label any dam "safe," but they agree the safety factor has improved tremendously in the last 15 years. A state inspector now must review each high-hazard dam once a year and owners must have an engineer do an in-depth annual inspection.

"There are more eyes out there looking. We're looking at these dams more often," Ellam said.

Also guarding against disaster are more sophisticated weather monitoring and the ability to broadcast emergency announcements over every cable television station. Learning a lesson from the 1977 Johnstown flood, emergency managers have improved communications systems.

A state order forced the Greater Johnstown Water Authority to install a sophisticated warning system on its dams. Electric sensors can detect high water levels and send warnings via telephone lines to a control center. Other owners have more rudimentary warning systems, including having the dam tender check a rain gauge or drop a measuring stick into the spillway to check the depth of water.

Fear of the collapse of Indian Lake and Lake Stonycreek dams, which piggyback each other in Somerset County, compelled Hooversville residents to develop a siren system to warn residents of dam breaks. In the event of a dam failure, fire department sirens will sound for eight minutes — a signal that means residents should evacuate to higher ground, said Lohr, the county's top emergency official and a Hooversville resident.

The system hasn't been tested for some time, said Lohr, who was a volunteer fire department secretary when the signal system was developed about 15 years ago. The

DANGER ZONE

Inventory of dams

26 dams hold back more than 36 billion gallons of water

THE TRIBUNE-DEMOCRAT

Twenty-six dams in Cambria and Somerset counties hold back more than 36 billion gallons of water. Some of them are nearly a century old.

Here's a rundown on the dams — who owns them, how much water they contain, when they were built and the status of their emergency plans.

Bear Rock Dams, I and II

Owner: Highland Sewer & Water Authority
Location: Washington Township, Cambria County, on Bear Rock Run stream
Built: 1904
Emergency plan: Submitted in 1993, but has not received state approval.
Capacity: Bear Rocks I: 8 million gallons; Bear Rocks II: 30 million gallons

Beaverdam Run Dam

Owner: Highland Sewer & Water Authority
Location: Summerhill Township, Cambria County, on Beaverdam Run stream
Built: 1975
Emergency plan: Submitted in 1993, but has not received state approval.
Capacity: 2.5 billion gallons

Bigan Dam

Owner: Leroy Rummel
Location: Paint Township, Somerset County, on Sandy Run stream
Built: 1898
Emergency plan: State approved its plan in 1994.
Capacity: 18 million gallons

Bigby Run Dam

Owner: Garrett Borough
Location: Summit Township, Somerset County, on Sandy Run stream
Built: 1931
Emergency plan: Last one written in 1982; no new plan submitted.
Capacity: 8 million gallons

Dalton Run Dam

Owner: Greater Johnstown Water Authority
Location: Conemaugh Township, Somerset County, on Dalton Run stream
Built: 1902
Emergency plan: Dam-break analysis has received state approval, but a new plan has not been submitted for review.
Capacity: 130 million gallons

Ebensburg Storage Dam

Owner: Ebensburg Borough
Location: Ebensburg Borough, Cambria County, on Howell's Run stream
Built: 1923
Emergency plan: New plan submitted in 1994, but has not received state approval.
Capacity: 30 million gallons

Glendale Dam

Owner: Pa. Bureau of Parks
Location: White Township, Cambria County, on Beaverdam Run stream
Built: 1960
Emergency plan: Draft submitted in 1993, but not approved.
Capacity: 8.2 billion gallons

Highpoint Lake Dam

Owner: Pa. Fish Commission
Location: Elk Lick Township, Somerset County, on Negro Glade Run stream
Built: 1965
Emergency plan: New plan submitted in 1993, but has not received state approval.
Capacity: 1.2 billion gallons

Hinckston Run Dam

Owner: Manufacturer's Water Co.
Location: East Taylor Township, Cambria County, on Hinckston Run stream
Built: 1916
Emergency plan: New plan submitted in 1994, but has not received state approval.
Capacity: 1.1 billion gallons

Howell's Run Dam

Owner: Ebensburg Borough
Location: Cambria Township, Cambria County, on Howell's Run stream
Built: 1964
Emergency plan: Draft submitted in 1994, but not approved.
Capacity: 431 million gallons

Indian Lake Dam

Owner: Indian Lake Borough
Location: Indian Lake Borough, Somerset County, on Calendar Run stream
Built: 1963
Emergency plan: Draft submitted in 1994, but has not received state approval.
Capacity: 6.3 billion gallons

Kooser Run Dam

Owner: Pa. Bureau of Parks
Location: Jefferson Township, Somerset County, on Kooser Run stream
Built: 1959
Emergency plan: Draft submitted in 1992, but has not received state approval.
Capacity: 10 million gallons

Lake Somerset Dam

Owner: Pa. Fish Commission
Location: Somerset Township, Somerset County, east branch of Coxes Creek
Built: 1956
Emergency plan: Draft submitted in 1993, but has not received state approval.
Capacity: 326 million gallons

Lake Stonycreek Dam

Owner: Lake Stonycreek Development Corp.
Location: Stonycreek Township, Somerset County, on Rhoads Creek
Built: 1960
Emergency plan: Draft submitted in 1994, but has not received state approval.
Capacity: 652 million gallons

Lake Gloria Dam

Owner: Christian Camps of Pittsburgh
Location: Jenner Township, Somerset County, on Beaverdam Run stream
Built: 1958
Emergency plan: Last written in 1982.
Capacity: 108 million gallons

Laurel Hill Creek Dam

Owner: Somerset Borough Municipal Authority
Location: Jefferson Township, Somerset County, on Laurel Hill Creek
Built: 1956
Emergency plan: Draft submitted in 1993, but has not received state approval.
Capacity: 81 million gallons

Laurel Hill Lake Dam

Owner: Pa. Bureau of Parks
Location: Middlecreek Township, Somerset County, on Laurel Hill Creek
Built: 1938
Emergency plan: Draft submitted in 1993, but has not received state approval.
Capacity: 129 million gallons

Lloydell Dam

Owner: Highland Sewer & Water Authority
Location: Adams Township, Cambria County, on south fork of the Conemaugh River
Built: 1906
Emergency plan: Draft plan was submitted in 1993, but has not received state approval.
Capacity: 207 million gallons

Martindale Dam

Owner: Portage Water Authority
Location: Portage Township, Cambria County, on Trout Run stream
Built: 1909
Emergency plan: Draft submitted in 1993, but has not received state approval.
Capacity: 37 million gallons

Mountain Lake Dam

Owner: Edward Troll
Location: Somerset Township, Somerset County, on the west branch of Coxes Creek
Built: 1956
Emergency plan: Draft submitted in 1993, but has not received approval.
Capacity: 43 million gallons

North Fork Dam

Owner: Greater Johnstown Water Authority
Location: Conemaugh Township, Somerset County, on the north fork of Bens Creek
Built: 1930
Emergency plan: Dam-break analysis has received state approval, but a new plan has not been submitted.
Capacity: 1.1 billion gallons

Quemahoning Dam

Owner: Manufacturer's Water Co.
Location: Quemahoning Township, Somerset County, on Quemahoning Creek
Built: 1912
Emergency plan: Draft submitted in 1995, but not approved.
Capacity: 12.1 billion gallons

Saltlick Dam

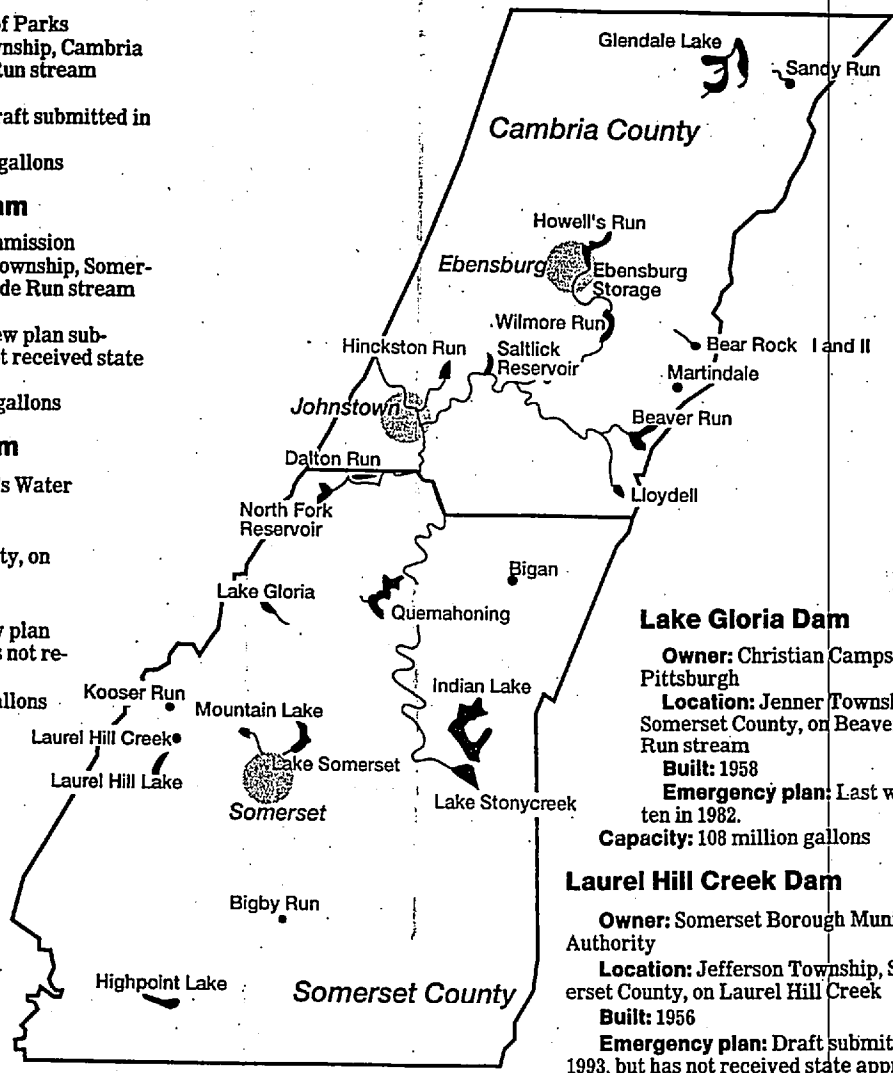
Owner: Greater Johnstown Water Authority
Location: East Taylor Township, Cambria County, on Saltlick Run stream
Built: 1912
Emergency plan: Dam-break analysis has received state approval, but a new plan has not been submitted for review.
Capacity: 857 million gallons

Sandy Run Dam

Owner: Pa. Bureau of Parks
Location: Reade Township, Cambria County, on Sandy Run stream
Built: 1964
Emergency plan: Draft submitted in 1993, but not approved.
Capacity: 19 million gallons

Wilmore Dam

Owner: Manufacturer's Water Co.
Location: Summerhill Township, Cambria County, on the north branch of the Little Conemaugh River
Built: 1908
Emergency plan: Draft submitted in 1995, but not approved.
Capacity: 1 billion gallons



SAFETY

Continued from A6

siren warning system was put in place before Indian Lake Borough corrected a problem with water seeping through the dam, a serious warning sign. Neither Indian Lake nor Stonycreek dams has a flawless inspection record today.

After the most recent site visit, state inspectors told Indian Lake Borough to remove the trees and brush from the dam. Tree roots can undermine the stability of an earthen dam and brush can hide seepage and other warning signs, according to state dam officials. The borough has responded to all the recommendations, said Indian Lake Borough Manager Craig Matthews.

"I feel our dam is safe at this point," he said.

At Lake Stonycreek Dam, a gate used to release water from the reservoir is rusty and probably inoperable, according to a September 1994 state inspection report. Weed growth was a problem and previous recommendations hadn't been followed regarding concrete repairs.

The Lake Stonycreek Development Corp., which owns the 30-foot-high dam, questions some of the state's criticisms. "They're finicky. ... They think one-foot-high grass is dangerous," corporation board member Terry St. Clair said.

Uninformed public

The state has let owners slide on another aspect of the dam safety law: public notices.

Dam owners have failed to inform the public by ignoring a state law that requires them to post notices about high-hazard dams at municipal buildings, police departments, tax collectors' offices and fire halls. The notices are required for any municipality that could be flooded by a dam break.

While the law mandates more than 323 public notices for dams in Cambria and Somerset counties, The Tribune-Democrat found only 12 when it checked the sites. Johnstown City Hall should have public

notices for seven dams on its bulletin board. It has none.

Richland Township's municipal building should have notices on three dams. It also has none.

East Conemaugh Borough didn't have any of the four notices required for nearby Wilmore Dam. "We used to have one," Borough Secretary/Treasurer Kay Novitsky said. "I don't know what happened to it. We remodeled."

The public ought to be aware of the dams and whether their community has emergency procedures, said Brown, the eastern section chief for the U.S. Army Corps of Engineers. Public notices and other awareness programs can accomplish that, he said.

Highland Sewer & Water Authority should have 65 notices posted for its four dams. It has only two, one at the Croyle Township municipal building and another at the Croyle police station.

Ed Englehart, Highland's manager, said the authority put up the required notices when the law went into effect, but hasn't followed up since.

"Certainly, it's the law and there's no way around it. You tend to forget about it," he said.

Seven dam owners in Cambria and Somerset counties have posted no notices. Seven others have only a fraction of the number required by law.

Pennsylvania's law intended the public notices to inform residents where they can review the dams' emergency plans. Those emergency plans are critical, experts said.

Awareness needed

The public should not be left in the dark about dam safety, said dam expert Tschantz.

"There needs to be a level of awareness and public education," said Tschantz, a civil engineering professor at the University of Tennessee.

While state records say the notices are in place, the chief of dam safety acknowledged that few owners follow the law. State inspectors don't enforce the posting rule.

"I'd only be surprised if you found

Be prepared for the worst

By DEBRA S. MOFFITT

THE TRIBUNE-DEMOCRAT

Flooding and dam breaks are far from hypothetical occurrences in the Johnstown region.

Residents here should know how to protect themselves and their families, said Johnstown's emergency management director, John Deardorff.

There are only a few simple rules:

■ Heed police and fire officials when they order an evacuation. Do not waste time packing belongings. Move quickly.

■ Get to high ground and steer clear of routes over rivers and streams. Pre-plan alternate routes.

■ Do not return home until police and fire officials allow it. Gas lines and power lines could create additional dangers.

Plan ahead

Households should consider what they would do if ordered to leave because of flooding or other public safety hazards, Deardorff said. That pre-planning should consider elderly or handicapped neighbors, who could need assistance.

The City of Johnstown has done its part by drafting emergency procedures and having a command center at the ready, Deardorff said. The public's small effort would smooth evacuations in a tense, emergency situation, he said.

Public awareness is a necessity, said William Bivins, who heads the Interagency Committee on Dam Safety created by the Federal Emergency Management Agency.

any," Ellam said, questioning the usefulness of public notices. Posters don't make dams any safer, he said.

Although Pennsylvania has nine unsafe dams, a backlog of emergency plans and some unresponsive owners, its dam safety program gets high marks nationally. Only California spends more money and has more employees working on dams. "(Pennsylvania) is certainly in the top end," said Iarossi of the Association of State Dam Safety Officials.

The commonwealth has spent \$1.35 million on dam safety this fiscal year and Gov. Tom Ridge proposes to keep the funding steady

in his 1995-96 budget.

The nation still has 1,800 unsafe dams and many states have overburdened dam safety departments, Iarossi said.

"The number of unsafe dams, to me, is frightening," he said.

And only one-third of the nation's 10,398 high-hazard dams have emergency action plans, according to the association. State and federal governments fail to see dams as a vital part of the infrastructure, like roads and bridges, Iarossi said. Dams are aging, deteriorating and giving way.

"There are failures every year," said Lori Spragens, executive di-

"We have to realize what happened in '77. Don't look out and see a big river wall and think you're safe."



John Deardorff, Emergency management director

"If one lives near a river, hopefully there's some thought process about what happens in a flood ... If you live downstream from a dam, and, God forbid, something happens, you're not going to have much time," he said.

Tanneryville residents learned that reality in 1977, when the Laurel Run Dam collapsed and killed 39. Pennsylvania didn't require emergency plans and the nearby residents knew little about the 101-million-gallon reservoir in their neighborhood. No warnings came, no one ordered an evacuation.

"We have to realize what happened in '77. Don't look out and see a big river wall and think you're safe," Deardorff said. "We have to be aware of those things and all we have to do is have a simple plan. ... Responsible people should not be caught short without a plan."

rector of the Association of State Dam Safety Officials.

The association recorded more than 200 failures last year, many during floods in Georgia in the summer. No deaths were attributed to those dam breaks, she said. But several years ago in North Carolina, a dam break inundated a roadway bridge and caught a family who was driving across it. One child died.

No disasters, no dollars

The Laurel Run Dam was among the trio of dam disasters that sparked state and federal dam safety legislation in 1978. First, the mammoth Teton Dam in Idaho col-

lapsed, killing 11 people in 1976. Then, the Laurel Run Dam breached in July 1977. Four months later, another dam break killed 39 people in then-President Jimmy Carter's home state. Bible college students and staff died when Toccoa Falls Dam broke in Kelly Barnes, Ga.

"(The Laurel Run Dam break) and Teton and Kelly Barnes were the kick in the pants everybody needed," said Marty McCann, director of Stanford University's National Dam Performance Program.

Congress had passed dam safety legislation calling for inspections in 1972, following a dam break in Buffalo Creek, W.Va., that killed 125 people. But the 1972 legislation never received funding. Echoing what happened in 1972, Congress passed additional dam safety legislation nine years ago, but it has not received full funding. Only \$500,000 per year has been authorized to keep an inventory of the nation's 75,000 dams.

The rest of the National Dam Safety Program would provide \$13 million a year in matching grants for states to improve their dam safety departments; \$500,000 to start a national dam inspector training program; and \$2 million for dam safety research of which there is little, said Iarossi, who testified for the legislation last summer on behalf of the national Association of State Dam Safety Officials.

The association hopes to present its case to the new Republican Congress this year. U.S. Rep. Bud Shuster, R-Everett, chairs the Committee on Transportation and Infrastructure, which is essential to the legislation's passage.

One of Shuster's aides said funding is unlikely at a time when Republicans are focused on cutting the federal budget.

Seventeen years have passed without a headline-grabbing dam disaster. The absence of tragedy has pushed dam safety off national and state agendas.

"The clock is ticking. We're going to get some more failures," Iarossi said. "We don't want to wait until we have one."

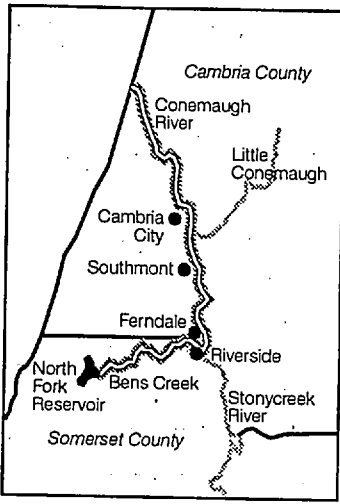
DANGER ZONE

WORST-CASE SCENARIO

North Fork Dam in Conemaugh Township is representative of many of the dams in Cambria and Somerset counties. Its earthen construction and age make it vulnerable to the problems that caused the South Fork Dam disaster in 1889 and the Laurel Run Dam collapse in 1977.

North Fork, built in 1930, holds 1.1 billion gallons of water and is owned by the Greater Johnstown Water Authority.

State regulators require dam owners to create maps showing danger zones — areas where there could be numerous deaths and injuries and severe property damage in the event of a dam break. The inundation map for North Fork shows six municipalities would be affected if the dam failed.



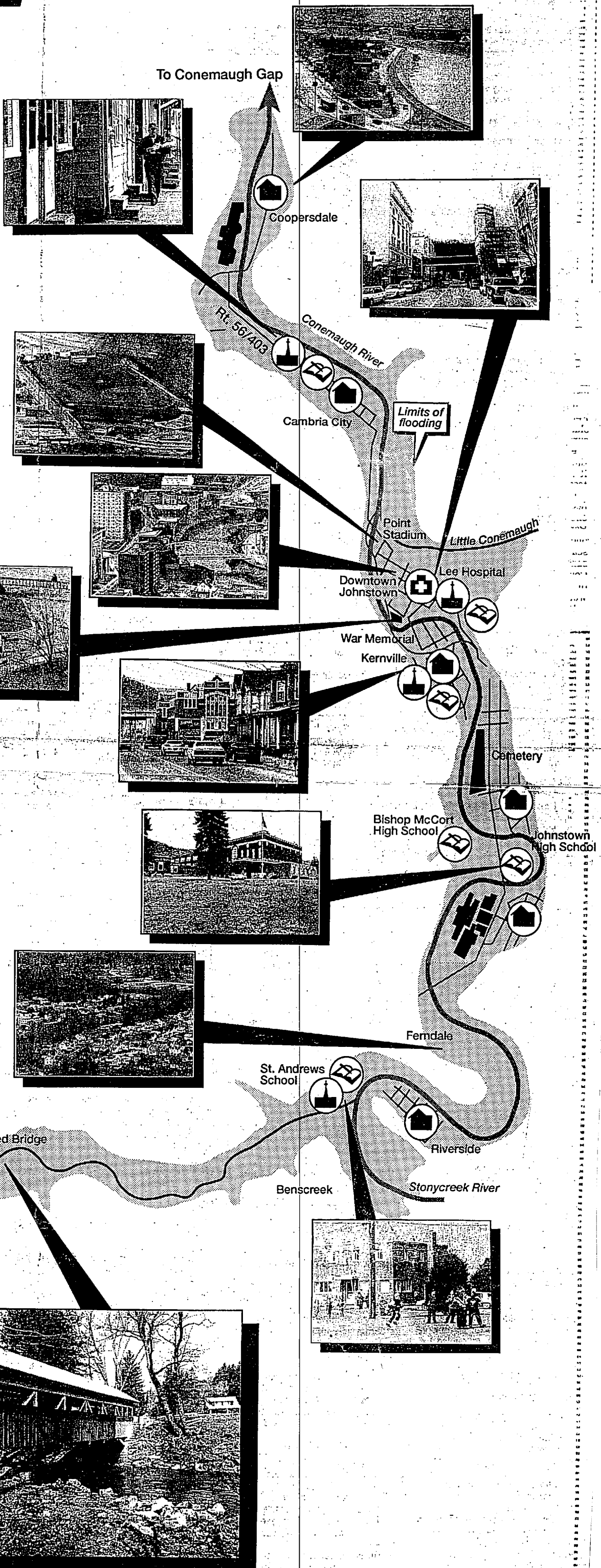
Recent state inspection reports found North Fork Dam in good shape, noting only that some concrete should be patched. However, the dam's spillway — the part of a dam that carries away flood waters — cannot handle the maximum rainfall expected for the region.

A federal inspection in 1978 found the spillway could handle 73 percent of the "probable maximum flood." Inadequate spillways imperil earthen dams because excessive rain can fill up a reservoir and spill over the crest of the dam. Overtopping is one of the main reasons earthen dams collapse.

Here is a look at where there could be deaths and property damage if the North Fork Dam were to collapse.

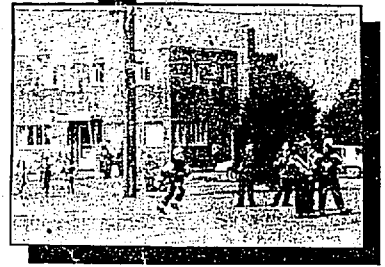
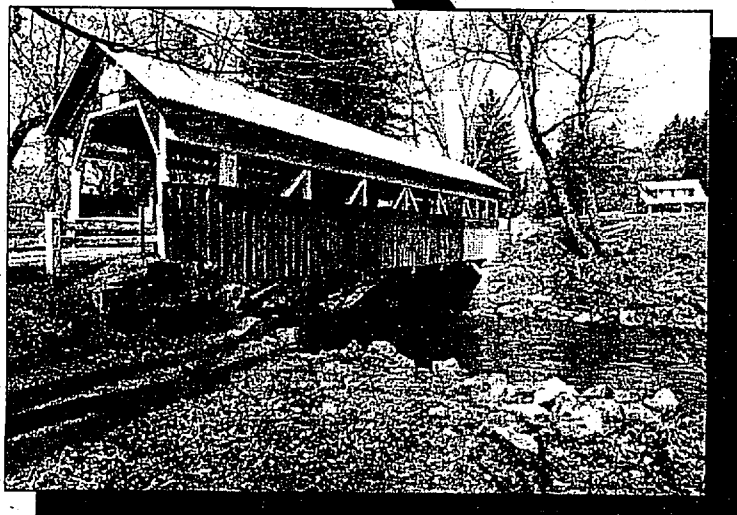
KEY

- Residential Areas
- Hospital
- One or more churches in neighborhood
- One or more schools in neighborhood



the North Fork Reservoir
 GREATER JOHNSTOWN WATER AUTH.
 CAPACITY WITH BA CULE GATES 1206 MILLION GAL.
 DEPTH 100 FEET

North Fork Dam
 Owner: Greater Johnstown Water Authority
 Built: 1930
 Capacity: 1.1 billion gallons



Demand, implement dam evacuation plans

Two words best describe official and public reaction to dam safety precautions: apathy and negligence.

Since 1978 — the year after the Laurel Run Dam broke during a violent summer rainstorm and snuffed out the lives of 39 people — the law has required up-to-date emergency plans for every dam in the state. Very few such plans exist, and even fewer have been tested.

Records show that the 39 Tanneryville residents need not have perished. There were numerous inspection reports indicating how unsafe that dam really was, but they were ignored. The state knew it, the dam's owner knew it, dam-safety engineers knew it — and yet an abnormally heavy rainfall caused the dam to overflow and breach, without any corrective action having been taken.

An act of God? Only that more people did not perish. The escape of some Tanneryville residents that night in July 1977 was nothing short of miraculous.

Thirty-nine lives. What a tragedy, but one could say some good may have come from it if people learned a lesson and made sure that the remaining dams are safely built and safely maintained. It has not happened. One could say some good may have come from it if those who live in the shadow of dams would realize their danger and demand emergency plans that would give them some grasp on survival if the dam above them let go. It has not happened, either.

Are we too stupid to learn? Are we too calloused to a hazard we have lived with to be concerned?

"I've lived here all my life and the dam has been here all that time without hurting anything," is a common reaction.

People fail to realize there is a ticking time bomb in their laps. They fail to realize that the fact that the dam has been there "all those years" is reason for additional concern. Most dams have a given life expectancy — some say 50 to 100 years — and many of our area dams already are existing on borrowed time.

What about the emergency plans required by state law? There are few or none that will do any good, few or none that are in the hands of the emergency personnel who would have to implement them, precious few of those plans that were prepared that have been approved by the state.

Emergency plans for 11 dams in Cambria and Somerset counties were submitted to the state in 1993 and one in 1992, and still are awaiting review and approval. By the time that happens, they will be outdated. Personnel, addresses, telephone numbers and demographic conditions will

have changed.

State law singled out dam owners to prepare and submit the emergency plans. That is a mistake. It should be done by somebody with emergency management experience, and no personal interest except saving lives and property. And because the inundation area — the flood plain threatened if a dam gives way — sometimes affects two counties, it should have regional supervision.

If the Quemahoning Dam with its 12.1 billion gallons of water were to burst, it would have dire effects not only on

Somerset County communities such as Hollsopple, Seanor, Krings and Benscreek, but on Riverside, Ferndale and the City of Johnstown as well. The same threat holds for the North Fork and Dalton Run dams, both also in Somerset County. Emergency plans must not be structured or limited by county lines.

Those who have to put the plans into operation must know what they are to do and where they must be — police, fire companies, ambulance services and other emergency services. Evacuation routes must be determined and tested in advance, and the affected public must know those routes, as well as other procedures that could save lives in a catastrophe. Shelters must be identified.

Emergency plans should be tested and practiced. A mock disaster drill was scheduled today to practice response to a severe storm. This is great. When has a dam-break disaster drill been held? Never. Yet the odds on a life-threatening dam rupture here are more likely than on a life-threatening tornado.

A dual monitoring system must be established for every dam, along with a workable warning and alarm system. Automatic warning devices should be used, to sound a signal when the water reaches a potentially dangerous level. In addition, human monitors who are not employed by the dam owners should do on-site inspections during and after any heavy downpour.

In the 1977 flood, who went to the dams? Nobody.

Who said, "This is a hard rain and I'd better check the dams?" Nobody.

And 39 people died needlessly. We must change our thinking about the dams.

Whatever is established, it must supercede dam ownership. Owners should not make the decision on when, who and how to evacuate. We can't depend on water authorities or private owners to make the decisions.

Two things save lives in times of disasters: Proper planning and dumb luck. Which do you want to depend upon if and when your life is on the line?

Proper planning and dumb luck can save lives. Which would you want to depend on if and when your life is on the line?



READERS' FORUM

Don't deprive elderly of what they've earned

I find very upsetting the Republican proposals to cut programs for the needy. Now they have the nerve to try and cut Medicare and Social Security.

These congressmen "work" a few years in office, then get cushy pensions and benefits. Let them work 30-40 years in the mills, mines, etc., and then they would earn a pension.

It's a disgrace to try and cheat the elderly out of money they worked all their lives to earn. These are the people who fought wars and depression eras to make this country great.

Instead of closing bases in the U.S., they should close ones overseas where we aren't needed nor wanted. Let us keep the jobs here where they can help our economy, not in Germany, Turkey, etc. We're going to give North Korea billions of dollars. Excuse me, but aren't they the ones who killed thousands of American soldiers?

We pay \$16 million a month for Cubans who entered the country as visitors, then stayed to seek asylum. Some \$2 billion and lives lost in Somalia in two years, then we pull out, embarrassed we couldn't solve their problems.

I say it's time Congress wakes up and helps the people in our country. We are the ones who elected them. Our needy and elderly are more important than foreigners.

I am a registered Republican, but I vote for the best candidates.

Why doesn't Congress pass a bill that allows its members to get Social Security only after age 65, like the rest of America?

James T. Enaley
Johnstown

Novenas to Joseph totally unscriptural

I am grateful to Carol Lee for her letter concerning the published prayers ("We don't have to pay to have prayers heard," March 12). We came back to Johnstown six years ago and I've been waiting all this time for someone to do this.

It reminded me of something else that needs to be addressed: the novenas, prayers to Joseph, the Infant of Prague, etc. As a born-again Christian, I know this isn't right and I am disturbed that the Roman Catholic Church is instructing masses of people to go to Joseph and others when this is totally unscriptural.

Orthodox Christianity teaches that Jesus Christ was God in the flesh. When Jesus speaks, His word is law. He will not kowtow to any man or religious organization. The buck stops with Him.

B.L. Sheeder
Johnstown R.D. 6

NAACP will continue to fight for all of us

I was appalled at the news of an increase in the number of hate crimes. It is hard to believe that a person today still has to face the wrath of someone's

INQUIRING PHOTOGRAPHER

How do you feel about the state Game Commission's proposal to raise hunting fees, including that of a resident adult

Tues/3/21/95