

Church Rock, America's Forgotten Nuclear Disaster, Is Still Poisoning Navajo Lands 40 Years Later

Residents say they've been ignored even as they struggle with contaminated water and worry about having children.

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Early in the summer of 1979, Larry King, an underground surveyor at the United Nuclear Corporation's Church Rock Uranium mine in New Mexico, began noticing something unusual when looking at the south side of the tailings dam. That massive earthen wall was responsible for holding back thousands of tons of toxic water and waste produced by the mine and the nearby mill that extracted uranium from raw ore. And as King saw, there were "fist-sized cracks" developing in that wall. He measured them, reported them to his supervisors, and didn't think anything more of it.

A few weeks later, at 5:30 a.m. on July 16, 1979, the dam failed, releasing 1,100 tons of uranium waste and 94 million gallons of radioactive water into the Rio Puerco and through Navajo lands, a toxic flood that had devastating consequences on the surrounding area.

"The water, filled with acids from the milling process, twisted a metal culvert in the Puerco," according to Judy Pasternak's book *Yellow Dirt: A Poisoned Land and the Betrayal of the Navajos*. "Sheep keeled over and died, and crops curdled along the banks. The surge of radiation was detected as far away as Sanders, Arizona, fifty miles downstream." [According to a Nuclear Regulatory Commission](#) report, radioactivity levels in the Puerco near the breached dam were 7,000 times that of what is allowed in drinking water.

The [heavily contaminated](#) water flowed over the river banks, creating radioactive pools. "There were children up and down the river playing in those stagnant pools, and they were deadly poisonous," Jorge Winterer, a doctor with Indian Health Service in Gallup, New Mexico, [said after the spill](#).

Earlier this year, standing in his yard next to an old Chevy, King pointed in the direction of the now dry Rio Puerco. "It came right through there," said King. The unleashed river of waste had flowed through his family's land just a half-mile from his house. "I remember the terrible odor and the yellowish color of the water." He recalls seeing an elderly woman who had burned her feet crossing the Puerco while watering her sheep that day.

King still lives on the family land, two miles downstream of the rebuilt dam in the Church Rock chapter of the Navajo Nation. His home is surrounded by a beautiful, unforgiving landscape of red rock cliffs, a scattering of Navajo residences and, if you look closely, fencelines with KEEP OUT signs marking the numerous abandoned uranium sites.

Forty years later, the Church Rock spill remains the largest [single largest accidental release of radioactivity](#) in U.S. history, [worse in terms of total radiation than that of the partial meltdown](#) at Three Mile Island and second in world history only to the 1986 [Chernobyl catastrophe](#), both of which have loomed much larger in the cultural imagination. The effects of the spill have [lingered for an entire generation](#): In 2007, the Church Rock Uranium Mining Project found widespread contamination of drinking water sources in the Church Rock area.

Navajo residents say they have not been given the attention given to other victims of nuclear accidents, even as they remain under the catastrophe's long shadow, dealing with poisoned livestock and ongoing health problems amid other aftereffects. "We have never been a priority," said King. "Forty years after the spill and nothing has been done."

"Our generation is afraid of having children," said Faith Baldwin, who grew up on the Navajo nation surrounded by abandoned uranium mines. "Cancer runs in our family but it shouldn't. Cancer, diabetes were nonexistent in Navajo rez."



LARRY KING STANDS ON HIS PROPERTY NEXT TO HIS TRUCK

During the Cold War, Navajo lands provided much of the raw material for the burgeoning nuclear industry. From 1944 to 1986 some [30 million tons of uranium](#) ore were extracted from mines, but as demand for uranium decreased the mines closed, leaving over a thousand contaminated sites, few of which have been cleaned up.

The Church Rock Chapter has some 20 such contaminated uranium sites, including the mine where King worked. Navajo workers at these places were often [poorly paid, underprotected, and uninformed](#) about the danger of radiation exposure. And even before the spill, King said, UNC would routinely [pump uranium-contaminated](#) water from the mine into the Puerco, turning the seasonal wash into a toxic "man-made stream." According to a 1994 [report](#) by the U.S. Geological Survey on levels of radioactive elements in the Rio Puerco and Little Colorado River basins, "at least 300 times more uranium and 6 times more total gross alpha activity were released by day-to-day pumping from the underground mines than was released by the spill."

As a child King remembers playing in the dry Puerco wash, its banks often coated with a "yellowish slime." And ranchers used the Puerco to water their livestock.



A ROAD TO A SUPERFUND SITE IN NEW MEXICO BLOCKED BY A 'KEEP OUT' SIGN.

Residents couldn't have known that the Church Rock dam was at risk of rupturing, but there's evidence that the United Nuclear Corporation did. King wasn't the first to notice cracks in the dam: An Army Corps of Engineers [report](#) would later find that UNC was aware of the cracks as early as 1977, two years before the breach. That report concluded that UNC failed to properly reinforce the tailings dam, ignored advice from its own engineering consultant that might have prevented the coming disaster, and did not report the cracks to regulators.

"The company was remiss in not heading the problem off," said Chris Shuey, director of the Uranium Impact Assessment Program at the Southwest Research and Information Center, an organization providing information to the public about the impacts of energy development and

resource extraction. Shuey said that UNC [failed to repair cracks](#) in the dam while simultaneously overfilling the uranium mill's toxic tailing ponds that were being held back by that cracking wall.

The cleanup process after the spill was also lacking. Only 1 percent of solid radioactive waste was removed, according to Paul Robinson, the research director at the Southwest Research and Information Center, and no compensation for the nearby residents was provided. In contrast, those affected by the Three Mile Island disaster were paid thanks to the company that operated that plant and its insurers.

"Governments took meaningful measures to deal with the Three Mile Island accident," said Eric Jantz, a lawyer from the New Mexico Environmental Law Center, "while neither the federal nor New Mexico governments have taken any steps to remediate the Church Rock spill even after 40 years."

As time went on, the impacts of uranium exposure became more evident to residents. King watched as his former mine coworkers died early deaths. Community members complained of health problems that prior to the entrance of the uranium industry were foreign: kidney disease, bone cancer, and lung cancer afflicting non-smokers.

According to King, the only warnings about radioactivity were a few signs telling residents not to water their livestock in the wash. UNC's cleanup efforts consisted of hiring some temporary workers to shovel waste from the wash into five-gallon buckets and haul it away, according to Colleen Keane, who made a documentary about the aftermath of the spill called *The River That Harms*.

In the early 90s, King joined the Eastern Navajo Diné Against Uranium Mining ([ENDAUM](#)), a grassroots organization fighting against new uranium projects and trying to mitigate the negative impacts of mining operations. Through that work, King began hearing troubling stories from nearby Red Water Pond Road, a small community sandwiched between three uranium sites where residents "unwittingly used water from contaminated wells to drink, bathe, and hydrate their livestock," [according to a 2017 Reveal article](#).

"Their sheep were born hairless... like baby rats," said King. There were also the stories of butchered animals whose insides had turned a sickly yellow. A few years back, one of King's neighbors killed a sheep. Instead of white, the stomach fat was yellow, "more yellow than those happy faces," said King, pointing to a stuffed smiley face pinned above his couch. "They got concerned and decided to butcher another one. Pretty soon there was a pile of carcasses, all the same... They burned the whole thing."



A ROCK FACE NEAR CHURCH ROCK

The health impacts of the spill on residents remain poorly understood, with only a [few authoritative health studies](#) having been conducted.

One of the few government studies that came out after the spill did limited testing on both residents (six in total) and livestock. The resulting [1983 report](#) from the New Mexico government, based on Centers for Disease Control (CDC) tests, concluded that Rio Puerco water "may be hazardous if used over several years as the primary source of drinking water, livestock water or irrigation water." The report goes on to state that "the severity of these hazards is not well known at the time."

But since then, it's become more obvious that the spill has had long-lasting and serious effects. In 2015, Tommy Rock, a doctoral student of earth science, [uncovered uranium contamination](#) in Rio Puerco water in Sanders, a town in eastern Arizona, by looking at tests stretching back to 2003. "The Church rock spill was the single most likely cause," he said. "For decades people were unknowingly drinking poisoned tap water." The water company did not report the contamination to residents, and after Rock's findings a new company took over operations and is drawing on a different well.

For many residents, the spill has come to embody the broader toxic legacy of the uranium industry on the indigenous lands of the West. [According to the EPA](#), there are over 500 abandoned uranium mines, mill sites, and waste piles on Navajo Nation land that continue to [contaminate water, soil, livestock and housing](#).

"The Church Rock spill symbolizes the governmental and societal indifference to the impacts of uranium development on Indigenous lands," said Jantz. "The Church Rock spill is the third largest nuclear accident after Fukushima and Chernobyl, and the largest in the US in terms of radiation released, but nobody knows about it."

"Three Mile Island had more coverage and people were compensated right away," said King. "I always say we don't get the same attention because we live in impoverished native community... We live in a sacrifice zone."

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