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Subject: FW: Uranium Story

Hidden Destruction

Uranium & the Navajo Nation

By Keith Lane

Far from view, buried beneath countless headlines, and lost from US history books is a tragedy about which few Americans know. Why this particular catastrophe remains relatively unknown rests on facts and opinions as numerous as the canyons of western New Mexico.

~

STATE HIGHWAY 566
POND

A small collection of houses make up the Red Water Pond community.

A former United Nuclear Corporation employee parking lot turned remediation site for contaminated material.

Outside Gallup, near the end of Highway 566 on the Navajo Nation, is an enclave of houses snaking through dusty hills. The community, Red Water Pond, lies between the old Northeast Church Rock and Quivira uranium mines. The once booming uranium mining operation is gone. Houses stand in small clusters, often with miles separating neighbors. Barbed wire cuts across the vast landscape, dividing parcels of land. In the past, a steady stream of trucks would run up and down the highway 24/7, transporting raw uranium for processing. But once the mines closed in the early eighties, little to no cleanup occurred.

The pursuit of uranium has left massive amounts of contaminated material in its wake, scattered across the reservation.

In the Air

The trouble with uranium contamination, unlike an oil spill, is that it's tasteless, odourless and invisible. But it's there, stalking the landscape. It floats on the air, covering livestock, sinking into wells and seeping into fields.

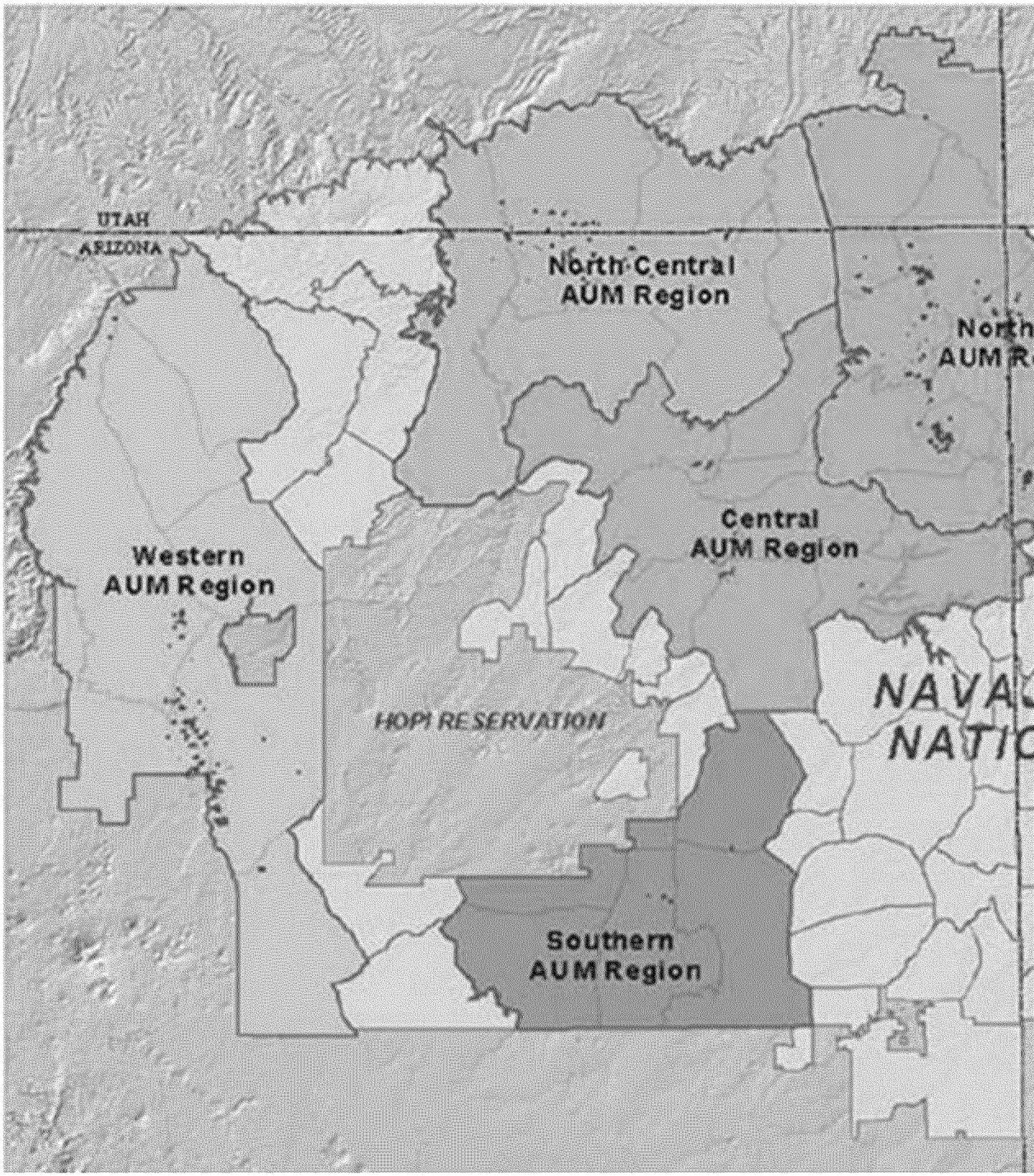
The Navajo are no strangers to the pursuit of uranium, nor are they strangers to the lingering impacts years after the mines were abandoned. Uranium mining on the Navajo Nation took place during the Cold War for atomic weapons and ran into the 1970s and early 1980s for energy consumption.

On July 16th, 1979 a dam break at the Northeast Church Rock mine released 94 million gallons of radioactive mine tailings and 1,000 tons of solid radioactive mill waste into the Puerco wash. The contaminated materials and water were then swept into the Puerco River, and eventually, out to the Little and Big Colorado rivers, making the spill the largest of it's kind in US history.

Few Americans know about the accident because of where it took place: far from any major US city; who was affected: a small and marginalized population of people; and how it was handled: contrary to the Navajo Nation's government request, New Mexico's governor refused to deem the site a federal disaster area, thereby limiting federal aid.

The disaster in 1979 likely aided in the closing of the mines. Coupled with market prices leveling out and less demand for uranium, operations slowly wound down.

Few Signs Remain



Today, the US EPA estimates that there are a total of 500 Abandoned Uranium Mines

(AUMs) scattered across the vast Navajo Nation, a landmass about the size of West Virginia.

The eastern side of the reservation, where the Church Rock dam break took place, is known as checkerboard land — a crosshatching of mixed-use ownership. Issues surrounding access to mining and grazing long have been points of contention for both internal and external interests. Today, what is left of the Church Rock mine, originally owned and operated by United Nuclear Corporation (UNC), can be found some seventeen miles outside of Gallup, New Mexico. Set on private land, the mine was straddled on either side by Navajo Nation Tribal Land. Up near the former UNC cell ponds, which were part of the refining process plant, all that remains from the 1979 dam break are piles of gravel, flat planes filled with brush, and some access roads. The entire Church Rock operation is now a superfund site.

Today, the only signs (few and far between) on the site's fencing warn of private property. There are almost no signs, however, that warn of exposure to radiation for those who live or travel near this site.

Members of the Red Water Pond Association meet to discuss the future of their community.

Since 2007, there have been three separate environmental remediations of Red Water Pond. Remediation, a sterile word, is used to describe the removal of residents from their homes, having to instead live out of hotel rooms in nearby Gallup. With another move looming, conversations at community meetings are abuzz wit uncertainty. Where will they live during the cleanup? How many houses will they be given if they decide to move back? Will it be truly safe to return to their homes?

Despite a long period of inactivity of these sites, the remediation of the mines has been slow. Those who live near former mine sites are continually exposed to contaminated material. Even people far removed from a mine can be effected, as loose contaminated dirt is easily carried on strong winds.

"We're in danger right now. Spiritually, we are definitely in danger." Navajo healer Phil Bluehouse talks about the destruction of sacred sites due to uranium contamination.

Adding to this is the contamination and desecration of religious sites. Some Navajo people argue that former mining sites were built on land that holds cultural and historical relevance for them. The remediation process, then, is not only one of logistics but also of long-term health and cultural impacts.

There are roughly 871,000 cubic yards of contaminated mine waste that still need to be addressed in the Northeast Church Rock area. If left up to residents in Red Water Pond, irradiated material would be transported to a facility in Utah. The cost for that would run approximately $293 million. The alternative, and most likely solution, is to transport the mine waste down to road to the current Northeast Church Rock facility — a decision based on economics. There are, however, serious concerns over the conditions of the local superfund site. There is little control over contaminated water and air particles, and there are almost no visible warning signs alerting residents or passersby of the possible dangers of the location. When reached by email to discuss these matters, United Nuclear Corporation Vice President Larry Bush declined to comment.

Lasting Legacy

“I have a beautiful well that’s been used since before the white man came. Nowadays I can’t use it because of the Gulf Mine, four miles east of here,” says Bronco Martinez as he sits in a traditional Navajo hogan just down the road from the former mine. Owned and operated by Chevron, the mine ran for only a few years at the end of the 1970s. Despite a short life, its legacy continues on today. “It contaminated that well. I cannot drink it, wash with it, or wash dishes with it. It’s full now, but I can’t use it. I’m blocked from that well,” he says. Almost 30 percent of Navajo people living on the reservation lack direct access to water. Martinez now hauls water from Gallup, over an hour away, on a regular basis not only for himself but for his six appaloosa horses.

There is a bitter irony behind Martinez’s words.

“My grandfather was Patty Martinez. They say he was a Navajo legend that is supposed to have discovered uranium by Mount Taylor called Haystack Mountain.” The uranium mining that took place in and around Haystack Mountain was one of the largest open-pit mines of its kind. In its heyday, the mine produced 300 tons of ore a day. Now, the once-massive pit is covered up with dirt and weeds.

Mariano Lake resident Irene Dehiya lives just behind the former Gulf uranium mine. Dehiya's home is considered irradiated due to long-term exposure from mining activities.

The impetus for cleaning up the uranium mines on the Navajo Nation began in earnest with the October 2007 hearing on the *Health and Environmental Impacts of Uranium Contamination in the Navajo Nation*. It was during this hearing that Chairman Henry Waxman said, "For decades the Navajo Nation [lived] with the deadly consequences of radioactive pollution from uranium mining and milling. The primary responsibility for this tragedy rests with the Federal Government, which holds the Navajo lands in trust for the tribes."

Personal testimony and scientific evidence from the hearing point directly to the negative health impacts uranium mining and related toxic minerals exposed during mining operations have had on and near reservation land.

Between 2004 and 2010, the Diné Network for Environmental Health Project worked with nearly 1,000 Navajo participants to determine the impact of non-occupational uranium exposure. The independent study gathered information from self-reporting participants. "People living in areas with greatest number of non-occupational uranium exposure. The independent study gathered information from self-reporting participants. "People living in areas with greatest number of mine features can have twice the risk of hypertension when all other significant factors—kidney disease, diabetes, family history of disease, BMI, age and gender—are accounted for as the baseline," the report found. The report was reviewed and approved by several bodies including the National Institute of Environmental Health and Science. The Navajo Birth Cohort Study is extending this research by looking into whether exposure to uranium waste affects birth outcomes and childhood development on the Navajo Nation. The results from this study have yet to be published.

Another Five Years

"When I came into office I was pretty neutral." Churchrock Chapter president Johnnie Henry Jr. talks about why it's almost impossible to stop any new uranium mining from occurring near reservation land.

From 2008-2012, the US EPA—in coordination with the Navajo Nation EPA and other government agencies—began assessing the scale and impact of uranium mining on the people of the Navajo Nation. Investigation and litigation of responsible parties ensued. Five hundred abandoned mine sites were located and marked for remediation.

"When I came into office I was pretty neutral." Churchrock Chapter president Johnnie Henry Jr. talks about why it's almost impossible to stop any new uranium mining from occurring near reservation land.

Known as the Five-Year Plan, eight locations were given high priority. Of those, just one, the Skyline Mine in the north-central part of the reservation, has been cleaned up. The budget for that cleanup was $8 million dollars. The other seven, like Church Rock, are still undergoing different stages of research and remediation. As of 2014 a new Five-Year plan has been created to continue research and cleanup of targeted locations.

Who's Responsible

At Haystack One, an hour-and-a-half drive east of Gallup, faded signs warn that the land beyond the fence is contaminated with uranium. Randy Nattis, a Federal On-Scene Coordinator for the US EPA, stands just outside the fence line. Set back from the former open-pit mine, now covered in brush, are several trailer homes. "To the naked eye, you'd think that this is just a healthy pasture. If I had my ludlum meter, otherwise known as a Geiger counter, we would be in an elevated area right now," says Nattis. "If it's over a certain threshold, sometimes twice background or three times, then you're at an investigation level. Here we are probably twice background. Inside the fence line and we would be fifty times background in no time." As he speaks, large gusts of wind swirl contaminated soil around him.

Determining who is responsible for the cleanup of a site involves research to track down the companies who once mined in the area—assuming they still exist. If they do, then either by choice or by court order the companies start to figure out a cleanup plan. If the US EPA can't determine a responsible party, they are left handling the clean up themselves. Not all abandoned mine sites are flagged as high priority. The conditions for immediate action are based on direct threat level to residents and other determinants. Speaking about the site at Haystack and the importance of having responsible parties involved in the remediation, Nattis continues: "A mine like this, if we had to remove all the contamination from this property, and move it somewhere else to

an offsite repository or disposal off the reservation, could cost up to $20 or $30 million dollars. We're talking about $60 or $80 million dollars to do the other two or three other sites [here] if [we] just acted on our own."

Long Road Ahead

Coordination between the US and Navajo EPA takes copious amounts of time, planning and money. Arguments over what clean-up looks like all depends on who you talk to; residents, tribal leaders, corporations and US government officials all have different ideas, wants and needs.

Many generations will pass before the initial contaminated sites are fully dealt with — let alone any new contamination that might happen if uranium mining is allowed to occur near Navajo land again. Meanwhile, in between the litigation, scientific research, headlines, and government reports are people living with the lasting effects of an industry they cannot ignore.