

Once Upon Two Mines: A Diné Community Perspective

The History of the Red Water Pond Road Community Association
and its Experience with Uranium Wastes



Presentation to Albuquerque Center for Peace and Justice
December 1, 2016

Edith Hood and Bertha Nez, Red Water Pond Road Community Association
with Chris Shuey, Southwest Research and Information Center

Location Map for Red Water Pond Community Area Coyote Canyon Chapter, Navajo Nation

Church Rock I Mine,
(Kerr-McGee/Quivira Mining) →

Residential Area

Northeast Church
Rock Mine
(UNC/GE)



Red Water Pond Rd

Pond Rd

Google earth

1997

35°39'47.05" N 108°30'36.01" W elev 2152 m

Eye alt 3.95 km

Communities neighboring Red Water Pond Road Community

Standing Black Tree Mesa
(*Tsin Łizhin Ei'adah*)
traditional use area



Current (2012) Red
Water Pond Community
area



Pipeline Road
Community area



© 2012 Google
566

Google earth

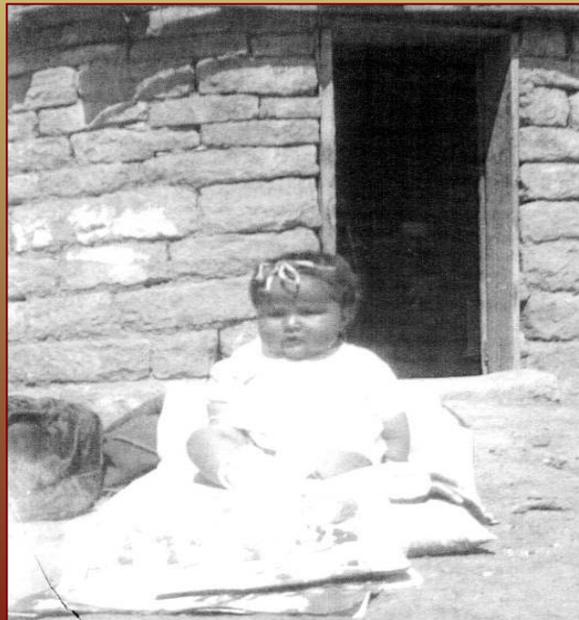
Family's presence dates back to 1920s; these photos from 1930s-1940s



Tom Benally on what is now Quivira Mine site



Toddler Becky and Bennie Duncan with flock on Standing Black Tree Mesa



1950s-1960s → 2007

Edith: Only 4-year-old with a blanket *and* a car!



Bertha and Art Hood and Rebecca Duncan



Edith, front now in middle, testified before Rep. Henry Waxman (middle, back row) and House Oversight Committee, 2007

1970-80s



**Art Hood and nieces, late-80s;
KM Mine waste in background**



**Jack Hood, late 1970s; KM Mine waste
in background**



**Late 70s: Hood children play in shadow of
Kerr-McGee/Quivira Church Rock I Mine**



We are part of this land, and it is a part of us

Annual Picnic on *Tsin Łizhin Ei'aah*



"Treat the earth well: it was not given to you by your parents, it was loaned to you by your children. We do not inherit the Earth from our Ancestors, we borrow it from our Children."

Standing Black Tree Mesa (*Tsin łizhin Ei'aah*) — Traditional family land 2 miles north of Red Water Pond Community



Hooghan remnants



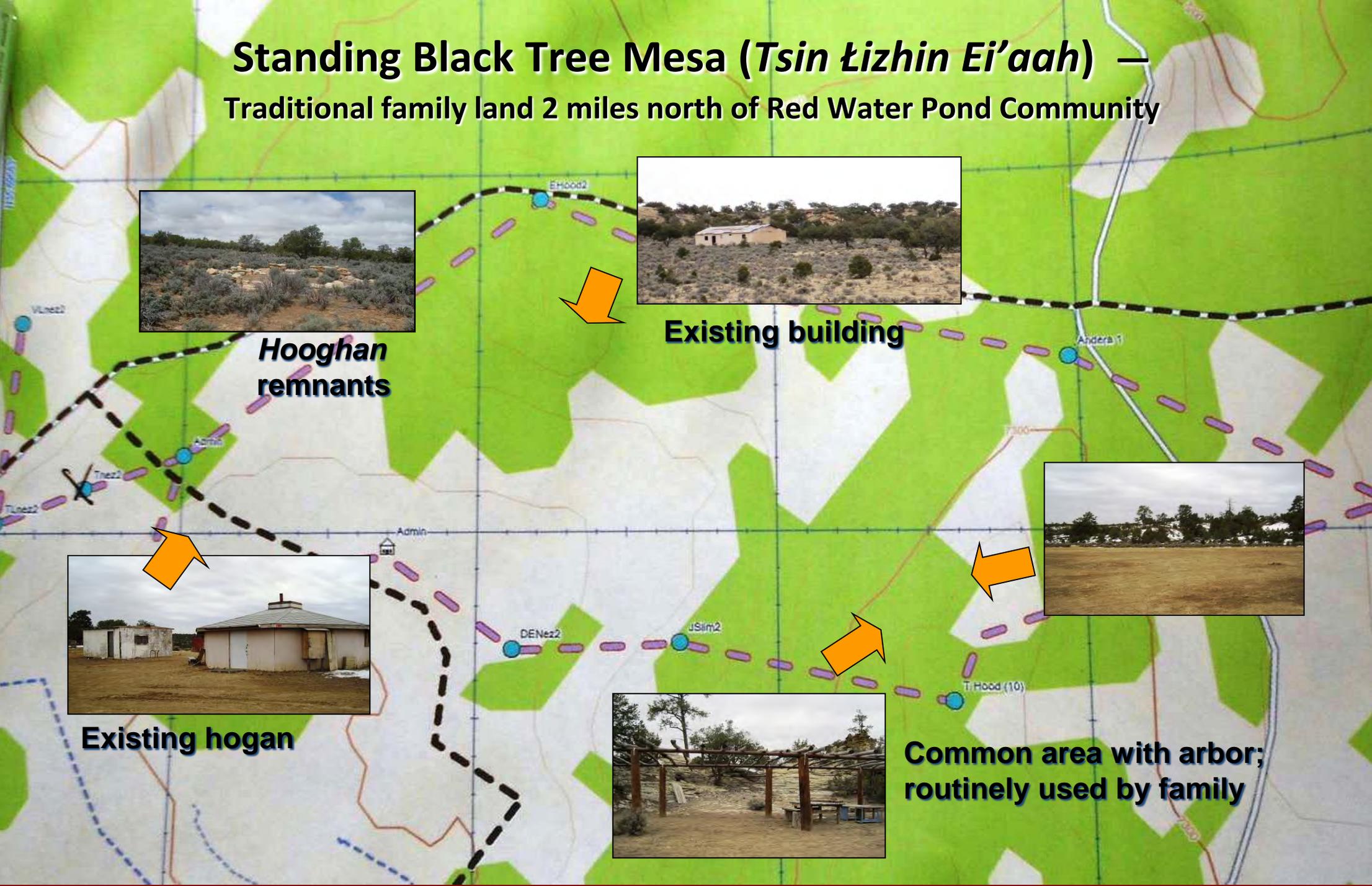
Existing building



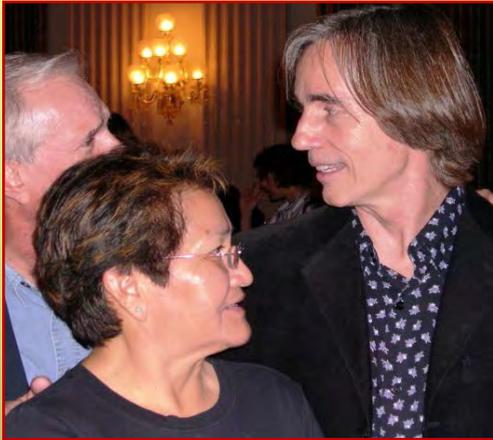
**Common area with arbor;
routinely used by family**



Existing hogan



Testimonials by RWPRCA Members



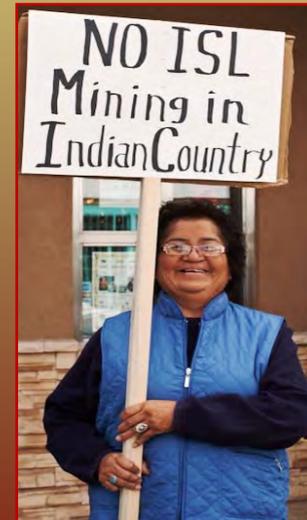
“[A]s I pray in the early morning, there is a manmade mesa of radioactive and hazardous waste about a quarter of a mile northeast of my residence. In the other direction is another mound of uranium mining waste... . This waste seems to be piled everywhere... This stuff is spread by wind and water. We breathe it and live with it every day”

– Edith Hood, testimony before U.S. House Committee on Oversight, October 23, 2007



“How much more trauma can we take?”

– Tony Hood at USEPA hearing on Northeast Church Rock Mine clean-up plan, October 2009



“Nobody warned us we would be living all this time with this risk”

– Bertha Nez as quoted in the *New York Times*, 2014

Uranium Mining Era, 1969-1986

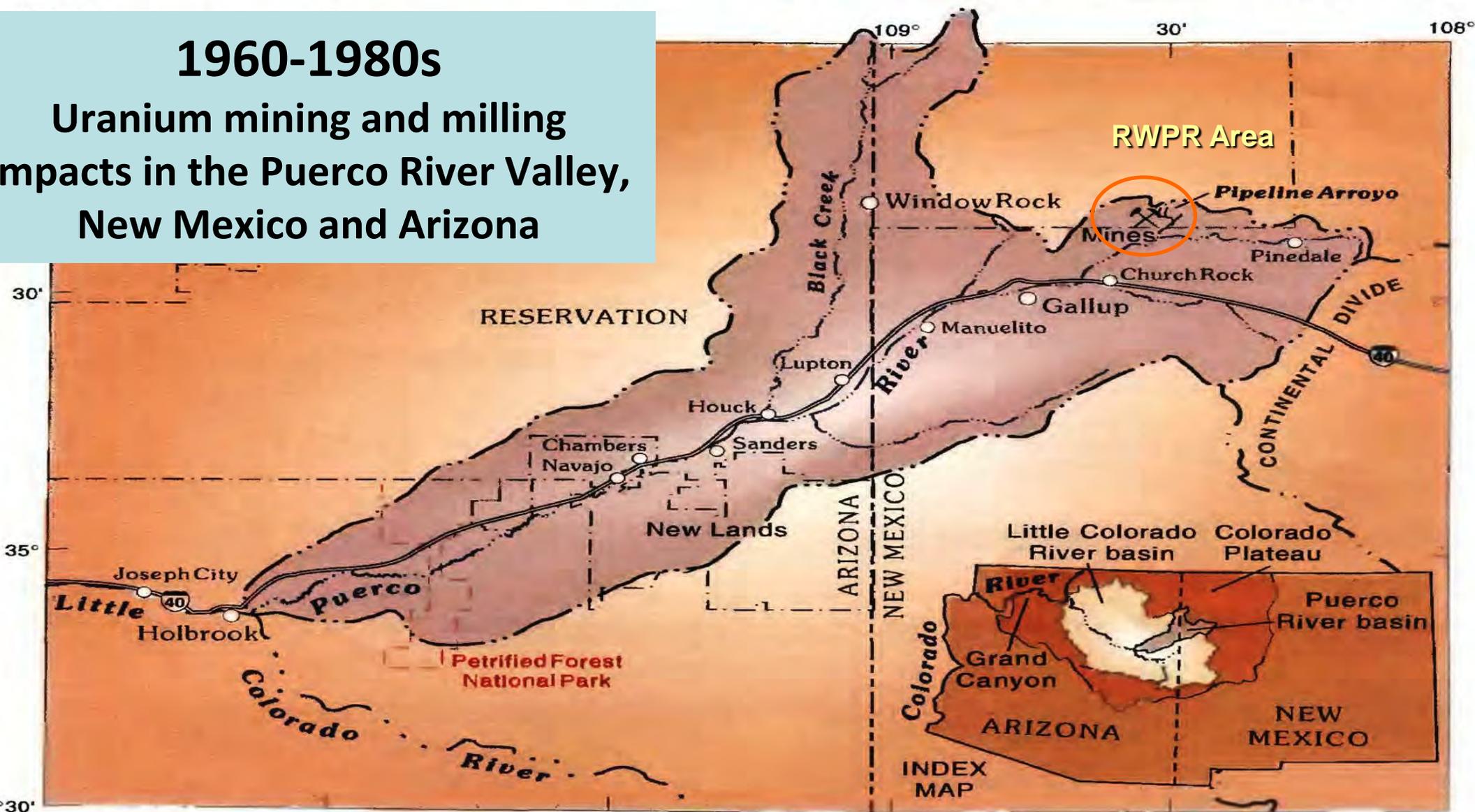


Top: United Nuclear Corp. Northeast Church Rock Mine (1972) and 1978 aerial view of NECR Mine water ponds with discharges to north. Bottom: Kerr-McGee Mine under development (left), construction crew (middle), Red Water Pond Road to KM Mine (1972-1973).
An estimated 1.8 million cubic yards of mine wastes are present at these sites.



1960-1980s

Uranium mining and milling impacts in the Puerco River Valley, New Mexico and Arizona



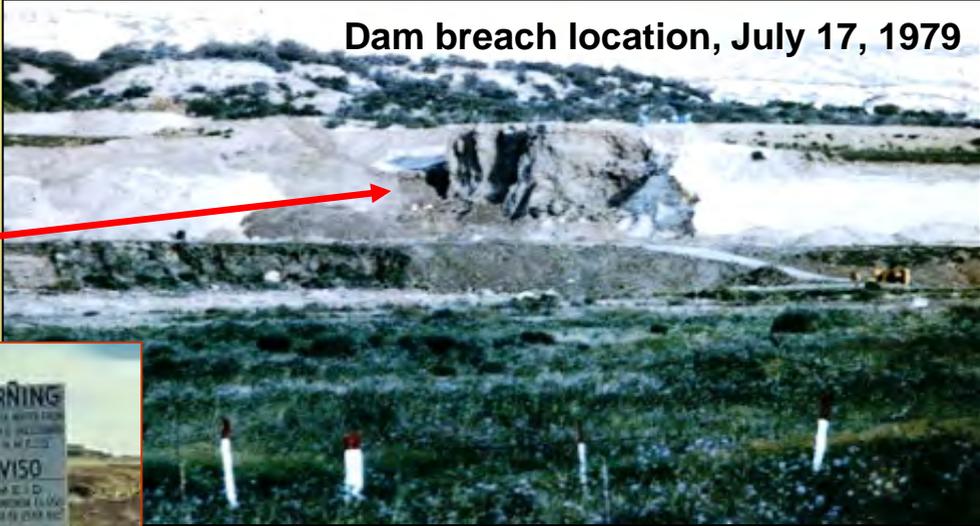
Base from U.S. Geological Survey
1:24,000 and 1:62,500 quadrangles



The Puerco River is a major tributary of the Little Colorado River. Recent population growth and changing lifestyles have created an increased demand for water in the basin.

Church Rock Uranium Mill Tailings Spill July 16, 1979*

(*remains the largest release of radioactive wastes, by volume, in US history)



Community leaders Larry J. King (L) and Robinson Kelly addressed long-term impacts of spill in 2009.

RWPRCA participated in DiNEH Project blood and urine collection at end of first soil removal action, June 2007



RWPR members were consented to participate in DiNEH Project blood and urine collections (photo, top left) that were done in a local family's home in June 2007 (photo, bottom left). Results, in the chart below, showed 22 RWPRCA residents had *significantly higher median uranium-urine levels* than the average America adult (NHANES), without concurrent drinking water exposure, and higher than New Mexican adults (NMDOH).



Urine-uranium concentrations (in ug-U/g-creatinine) in three cohorts



Study →	DiNEH Kidney Study (2007)	NMDOH (2003-2008)	NHANES (2001-2002)
Participants →	22 residents* near U mines	NM statewide N=817	Nationwide N=2,689
Median	0.0441	0.026	0.007
3 rd Quartile	0.0818	0.058	.014
95 th percentile	0.3562	0.354	.040

*No current exposure to uranium in water sources

DiNEH Project found *significantly increased risks* of hypertension, autoimmune disease and one or more chronic diseases during “environmental legacy” period and of kidney disease during “active mining” era*



Health risks predicted from from two sources of data:

- 1) Proximity of each resident's home* to all of the abandoned uranium mine and mill waste features in the study area (N=100)
- 2) Reported activities that may result in exposure to uranium mine and mill wastes, as shown in these photos

A: Used materials from abandoned uranium mine or mill (17%)

B: Herded livestock next to uranium mine, mill or waste dump (13%)

C: Drunk or contacted uranium mine waste water (13%)

D: Played on a uranium tailings pile or waste dump (13%)

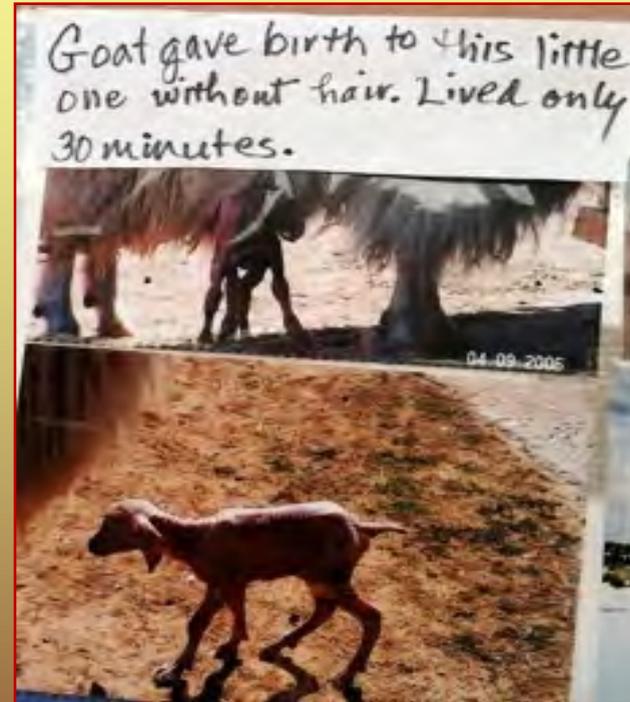
E: Played outdoors near a uranium mine, mill, or waste dump (12%)

F: Sheltered livestock in an abandoned uranium mine (2%)

*Note: Median length of residence in current homes was 33 years

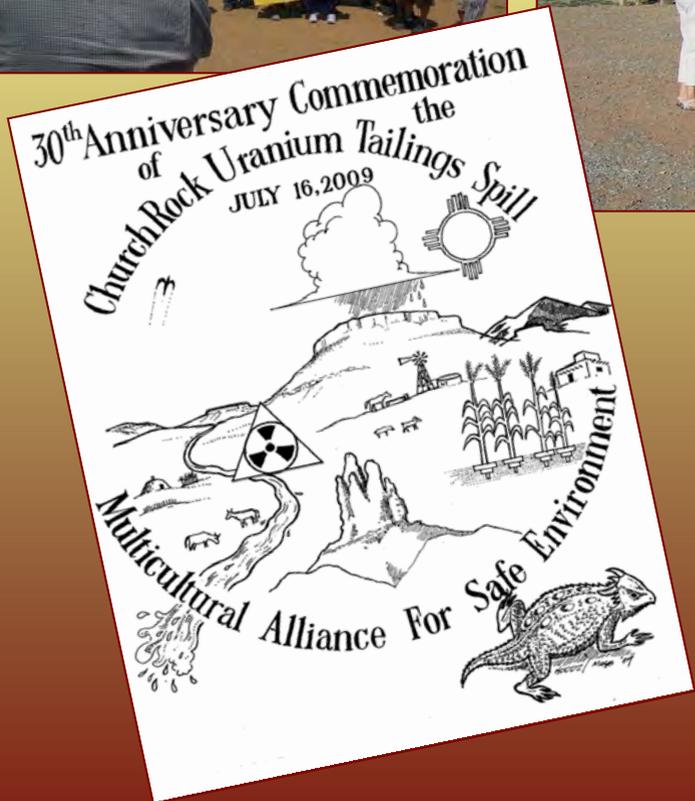


RWPRCA documented problems with livestock, 2006-2007



These photos above show discoloration of sheep meat (left) and goat born without hair (right). The goat lived for less than an hour. These sheep were raised in Red Water Pond Road area. Photo montages made by Bertha Nez.

2009-2016: RWPRCA Sponsored Uranium Legacy Remembrance and Action Day



NN President Russell Begaye addresses crowd, July 2015

Environmental Trauma

RWPR Community, NECR Mine, Temporary “Relocation”



Above: Community members working with SRIC helped document radiation levels around homes next to the NECR Mine, leading to a USEPA-mandated study in 2005-2006.

Below: USEPA ordered GE to remove radium- and uranium-contaminated soils from around homes in 2007, 2009-10, and 2012. Residents lived in hotels in Gallup for 3 to 7 months each time.



Before and During 2009-2010 Interim Soil Removal Action

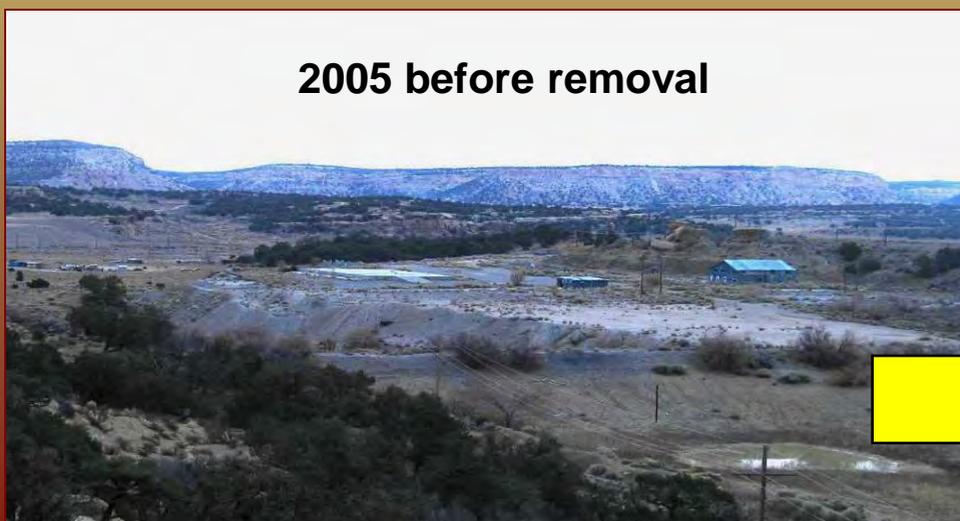
2003 North face of mine waste dump
at NN boundary



2009 North face of mine waste dump after
grading



2005 before removal

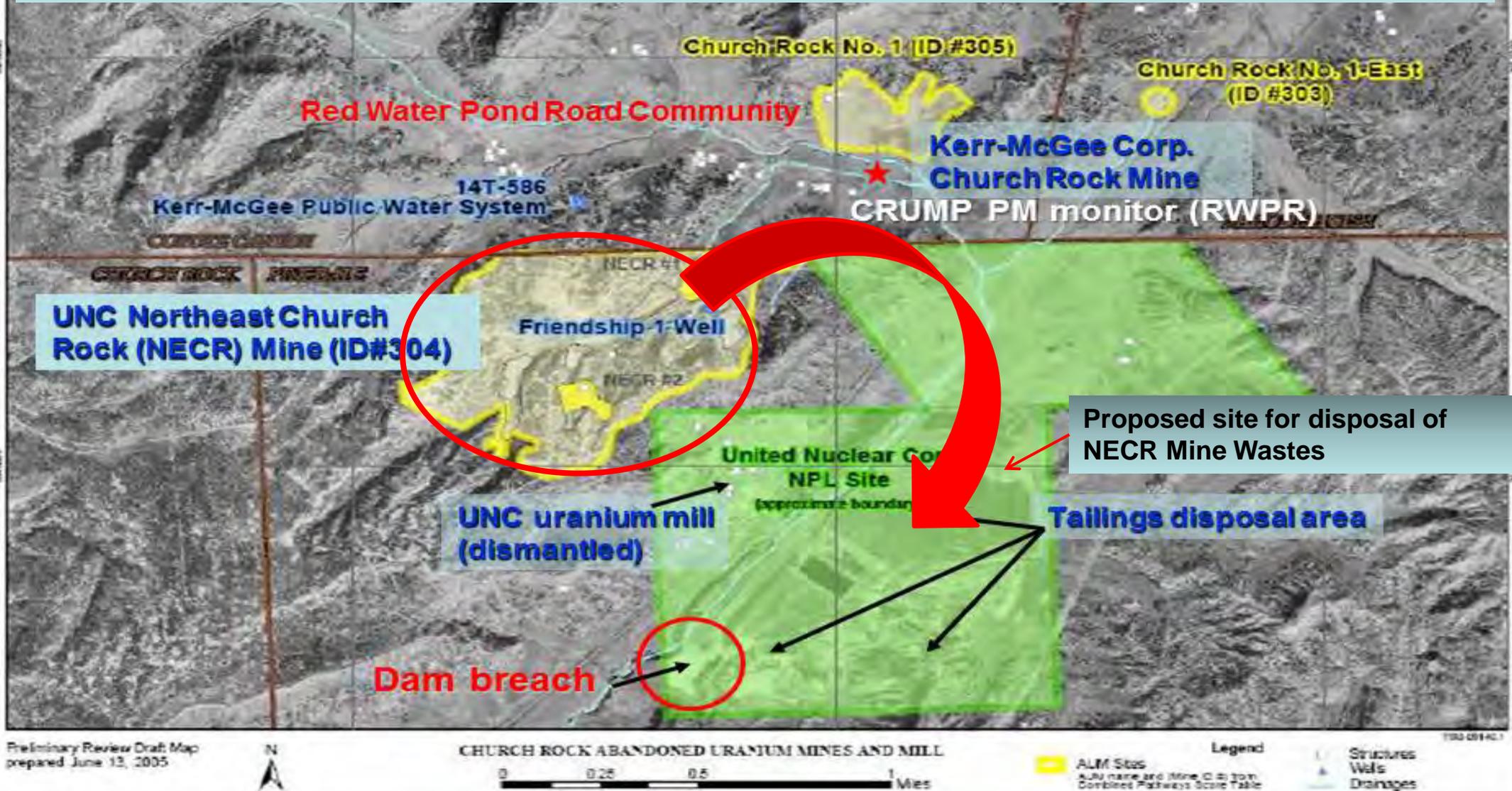


2009 during removal



EPA's Clean-up Plan:

Approved in 2011 and 2013, the plan would move the NECR mine wastes to the UNC uranium mill tailings disposal facility, a process that could take 7 years. The plan awaits approval by the Nuclear Regulatory Commission. No plans have been proposed for the Church Rock 1 (Kerr-McGee) mine wastes.



Q: Who pays for the \$44.3 million needed to clean up the NECR Mine?

USEPA Sept. 2011 Action Memo

August 2011 U.S. District Court Partial Consent Decree

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI AND REGION IX

MEMORANDUM

SUBJECT: Action Memorandum: Request for a Non-Time-Critical Removal Action at the Northeast Church Rock Mine Site, McKinley County, New Mexico, Pineblake Chapter of the Navajo Nation

DATE: September 29, 2011

FROM: Sara Jacobs, Remedial Project Manager, Arizona & Navajo Site Section (SFD-6-2), U.S. EPA Region 9
Cynthia Wetmore, Environmental Engineer, Technical Support Section (SFD-6-4), U.S. EPA Region 9
Kathie Higgins-Collins, Remedial Project Manager, Louisiana/New Mexico/Oklahoma Section (SFD-6-2), U.S. EPA Region 6

THROUGH: Chris Trombadori, Section Chief, Arizona & Navajo Site Section (SFD-6-2), U.S. EPA Region 9
Donald Williams, Deputy Remedial Director, U.S. EPA Region 9

IB. Estimated Costs

The total cost for the removal action is estimated to be \$44,300,000 based on the estimate provided in the 2009 EE/CA and U.S. EPA expects UNC to conduct this removal and disposal of contaminated mine waste and soils under a settlement or a unilateral order. In addition, U.S. anticipates the following extramural costs, which will be eligible for cost recovery:

Cost of the Removal Action paid by the Responsible Party:	\$44,300,000
U.S. EPA Extramural Cost:	\$2,960,000

U.S. EPA plans to use special account funding, if available, and other extramural funding sources to fund voluntary housing and oversight work prior to pursuing cost recovery.

U.S. EPA has incurred extramural costs from the past removal actions described in section II.B. U.S. EPA also anticipates future time-critical removal action. Based on the information provided, U.S. EPA has decided to add this non-time-critical removal action.

PARTIAL CONSENT DECREE AND JUDICIAL ORDER

This Consent Decree ("Agreement") is made, as of the Effective Date, between Plaintiff, THE UNITED STATES OF AMERICA, INDIAN AFFAIRS, UNITED STATES DEPARTMENT OF THE INTERIOR, UNITED STATES BUREAU OF LAND MANAGEMENT, UNITED STATES DEPARTMENT OF ENERGY, and UNITED STATES NUCLEAR REGULATORY COMMISSION, and Defendant, THE GENERAL ELECTRIC COMPANY and UNITED NUCLEAR CORPORATION.

6. The Parties agree to join in and support, to may be appropriate, such proceedings as may be necessary to secure the Court's approval and entry of this Agreement.

9. **Payment for Past Response Costs.** Within a reasonable time after the Effective Date of this Agreement, the United States shall pay GE, on behalf of GE and UNC, the sum of \$2,523,124.00. Payment shall be made by electronic funds transfer to the account designated by GE. If such payment is not made in full within 60 days after the Effective Date of this Agreement, then the United States shall pay...

180 days following the United States' receipt of the Demand, Plaintiff(s) may apply to the Court for such relief as the Court may deem appropriate, subject to Paragraph 11 of this Agreement.

e. For purposes of this Paragraph, the United States' allocated share shall be 33 percent, except that if any department, agency, or instrumentality of the United States is responsible for long-term operation and maintenance of the Response Action, then the United States' allocated share shall be 33 percent.

A: GE will pay 67% and the US (i.e., taxpayers) will pay 33%. GE will save about \$15 million by suing the U.S. and the U.S. agreeing to settle.

RWPRCA need funds and volunteer labor to finish our community's ceremonial *hooghan*

- Dozens of meetings held on clean up of mines, but no place to meet in community
- Began building 32-ft diameter hogan in Fall 2014 (top photo)
- Will be used for ceremonies, meetings
- Raffling quilt (bottom photo) to raise funds for travel, finishing hogan



RWPRCA Needs

- New blood and urine sampling to update 2007 findings
 - Has uranium in our urine increased?
- Studies of other health problems affecting our community
 - Cancers
 - PTSD
 - Effects on our children, grandchildren
 - Livestock impacts
- Help moving to Standing Black Tree Mesa when NECR Mine wastes are moved to UNC tailings pile in 2018-2025
- \$25 million from Navajo Nation's Trust Fund Settlement (lower right)
- Finish cleanup of NECR and Church Rock I & IE mines as soon as possible



RWPRCA Executive Committee, from left, Annie Benally, Grace Henio (seated), Jacquelyn Bell Jefferson, Peterson Bell, Edith Hood



To heal ourselves, we need to heal the land



Contaminated soils removed, 2007



Hundreds of pinon and juniper removed, 2009



Community hogan under construction, 2016

“We have waited far longer than other communities in the U.S. for this poison to be cleaned up. When is it our turn to feel safe? How many more generations have to wait?”

— Edith Hood, Red Water Pond Road Community, testifying at hearing of Inter-American Commission on Human Rights on the “Right to Water”, October 23, 2015

Acknowledgements

- Anna Rondon, Navajo Nation DOH
- McKinley Place Matters
- Multicultural Alliance for a Safe Environment
- Navajo Nation EPA
- Skeo Solutions-USEPA T.A.S.C.
- Southwest Research and Information Center
- UNM Center for Native Environmental Health Equity Research (“Native EH Equity”)
- UNM Community Environmental Health Program
- USEPA Region 9
- Our many visitors from Japan, Mongolia, Russia and other places on Mother Earth



Above: Participants in 2013 Russian-Mongolian Cultural Exchange at Red Water Pond Road Community.

Below: Teracita Keyanna addresses Native EH Equity group, October 2016.



Ahéhee'!

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Summer storm over the pink Entrada Sandstone cliffs at *Tse Si Ani* (Lupton) Chapter, Navajo Nation. Photo by L. Blalock.