

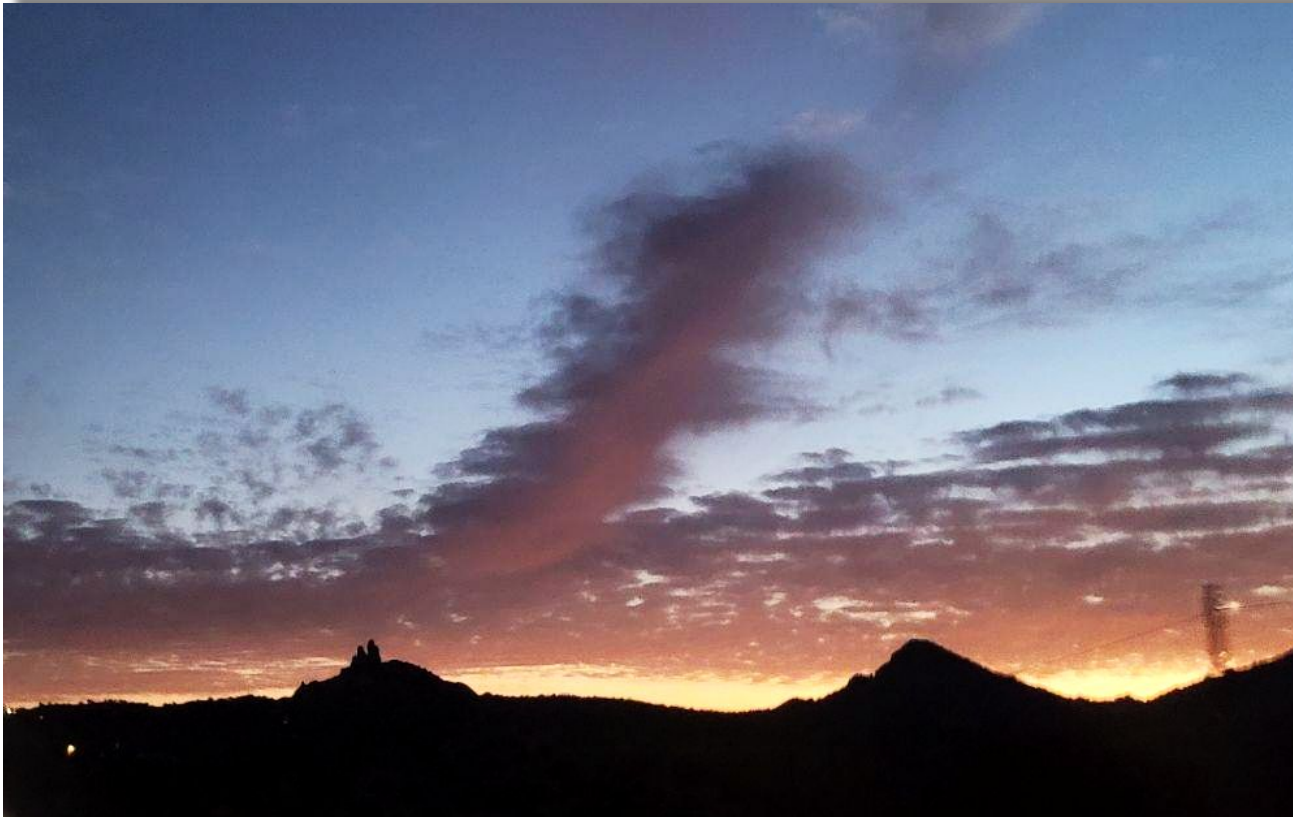
What Does Restorative Justice Mean for an Indigenous Community Living near Abandoned Uranium Mines in the US Southwest?



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Churchrock, New Mexico



"Dusk"

Photo by Teracita Keyanna



Churchrock Mill Tailings Spill

July 16, 1979



- ~ 94 million gallons of toxic uranium mill tailings wastewater spilled into the Puerco River.
- The spill traveled more than 75 miles downstream into Arizona, passing through numerous Navajo communities.



Hole in dam from inside the tailings impoundment
SRIC; unknown origin



Remembering the Disaster





Traditional Navajo Place Names for Churchrock, New Mexico



Kin Litsoh Sinilí

Refers to the Western housing built for working at Fort Wingate during WWII.

Tsé Dadilidí

Refers to the layer of rocks in the cliffs with stones that could be used for cooking.

Lightning at Church Rock, New Mexico.

Photograph by Tim Fitzharris

<https://www.saatchiart.com/art/Photography-Lightning-at-Church-Rock-New-Mexico/1237771/4974142/view>



Traditional Navajo Knowledge Systems



	Water Related Name	Tree Related Name	Rock Related Name	Non-Environmental Related Name	Total
Eastern Agency	15	5	7	4	31
Fort Defiance Agency	15	3	4	5	27
Western Agency	10	2	2	4	18
Northern Agency	9	3	6	2	20
Central Agency	9	0	4	1	14
TOTAL	58	13	23	16	110

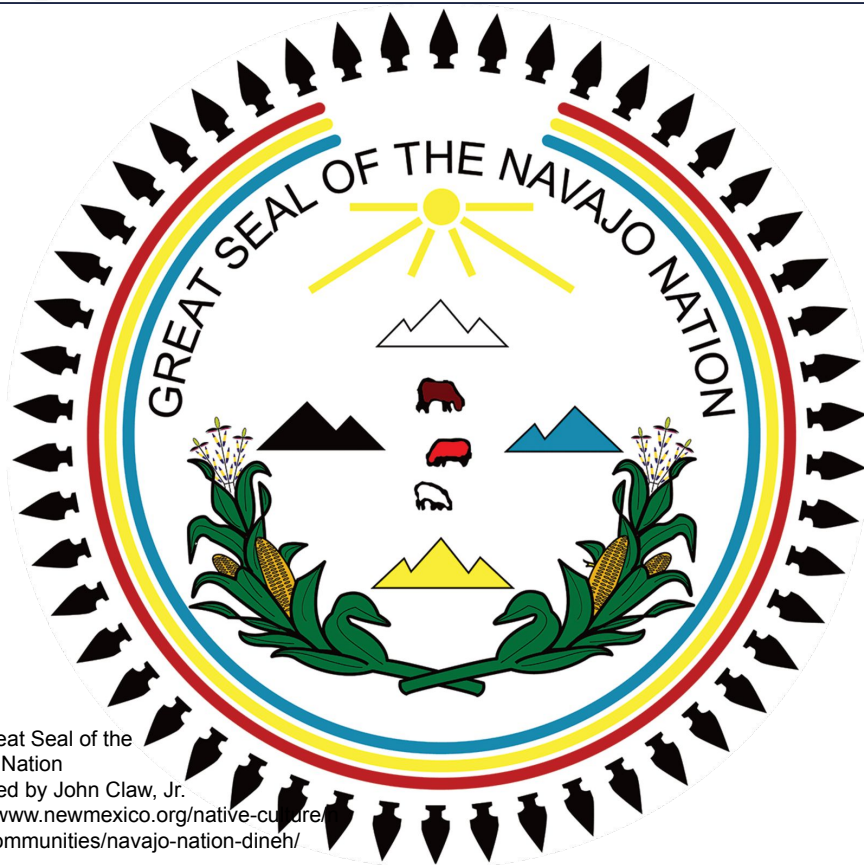
Naschitti Chapter

It is said a badger, *Nahashch'idi*, was digging near a wash and uncovered a spring of fresh water which people turned into a well. The water source is still used today.

Table 1: Assessment of Traditional Navajo Place Names; kinship to water sources, tree formations, rock formations, or non-environmental elements for all 110 Navajo Nation chapters



Traditional Navajo Worldview



The Great Seal of the Navajo Nation
 Designed by John Claw, Jr.
<https://www.newmexico.org/native-culture/native-communities/navajo-nation-dineh/>

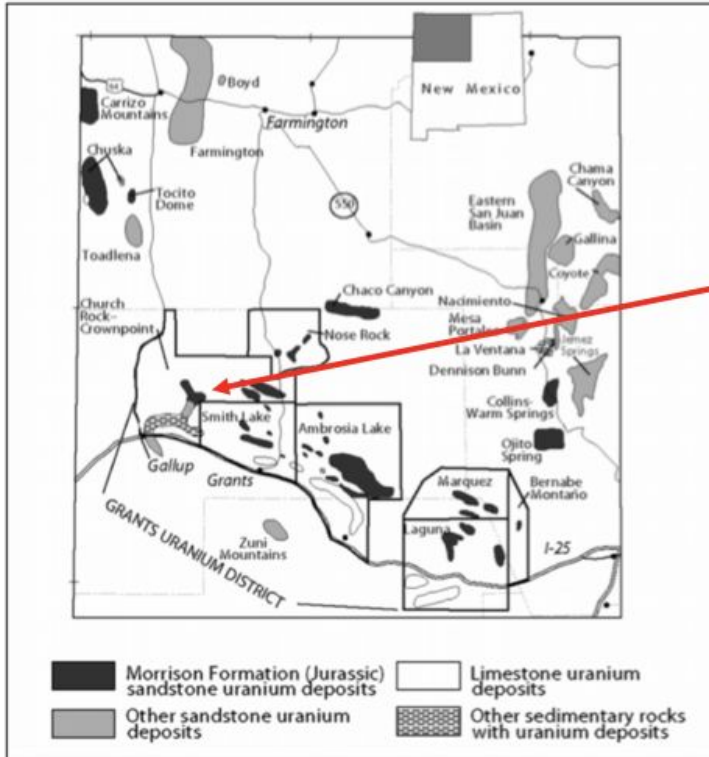


Storytelling Environmental Injustices Through Traditional Navajo Cultural Art





Historical and Geographical Background



Source: McLemore, Virginia T. The Grants Uranium District, New Mexico: Update on Source, Deposition, and Exploration. *The Mountain Geologist* 48 (2010): 23-44

44th Uranium Tailings Spill Commemoration

Saturday, July 15, 2023 from 7 am to 4 pm

12 miles North of Red Rocks State Park on HWY 566, near Churchrock, NM



- 7 am - Opening Prayers
- 7:30 am - Walk to Spill Site
- 9 am - Return to Arbor
- 10 am - Sharing
- 12 pm - Lunch
- 4 pm - Closing Prayers
- All Day - Silent Auction & Educational booths

This historic event is open to all ages and will share the struggles uranium harmed people face in their daily lives, and the healing yet to come for our communities and Mother Earth. Traditional dress is encouraged, but not required.



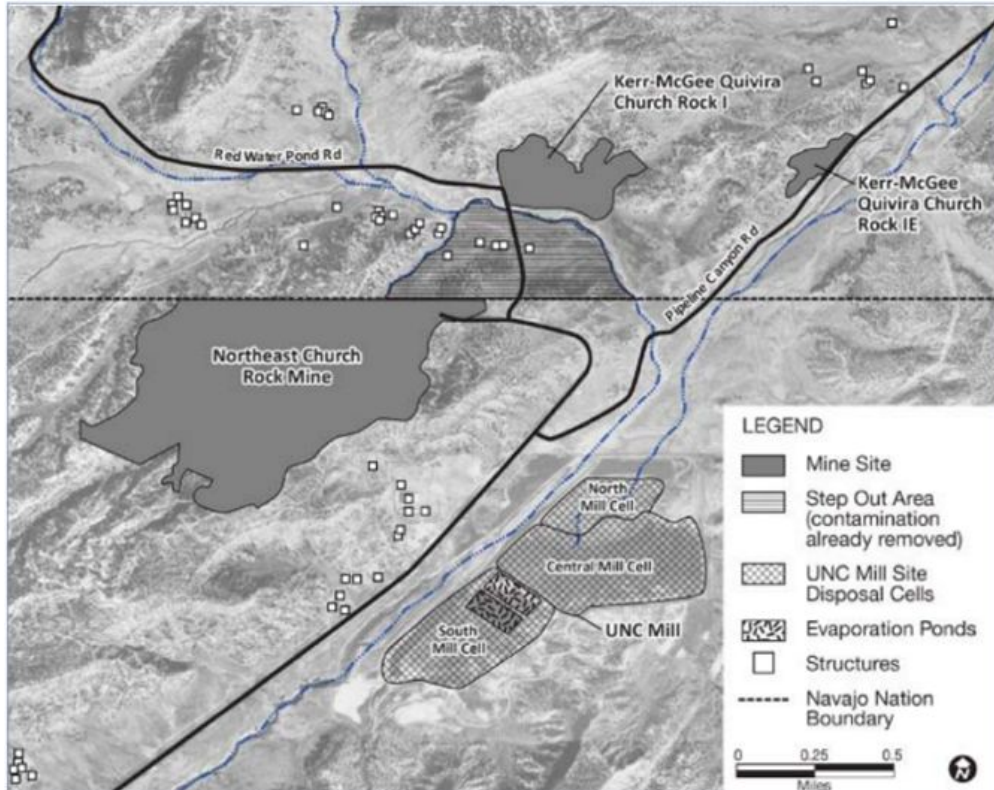
**Red Water Pond Road Community Association,
Eastern Navajo Diné Against Uranium Mining,
Pipeline Road Community**
for more information 505-979-0552



**Remembering, Restoring, Re-story-ing in the
Remedial Project Management of Abandoned
Uranium Mine Lands**



USEPA Region 9 Map of Northeast Church Rock Mine, Kerr-McGee Quivira and UNC Mill Superfund Sites



A map from a USEPA Fact Sheet (March 2017) illustrates such environmental injustice as the risks and exposures from the mine wastes surrounding these local communities are downplayed by representing “Structures,” but not communities where people live (Fig. 3).*

Red Water Pond Road Community is indicated by white squares scattered along Red Water Pond Road. The community is situated between two large-scale abandoned uranium mines and a massive uranium mill tailings impoundment that rests on the site of the Church Rock mill spill; all within about a mile of each other.

*It is important to note that in their recently updated map, EPA specifies that the white boxes represent the residential locations of Diné communities.



Cultivating Collaborative Communities: From MASE to METALS



MASE Vision

The Multicultural Alliance for a Safe Environment envisions respectful, peaceful communities cherishing a healthy environment.



MASE Mission

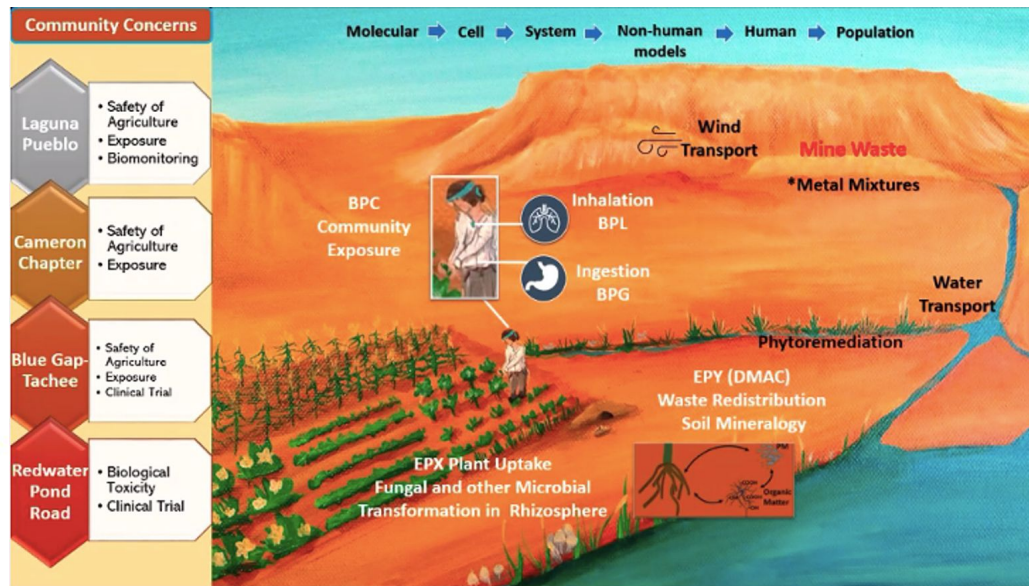
MASE is rooted in the experiences of uranium-impacted communities of the southwestern U.S. We are communities working to restore and protect the natural and cultural environment through respectfully promoting intercultural engagement among communities and institutions for the benefit of all life and future generations.



<https://swuraniumimpacts.org/>

“Core Group of Alliances”

1. Bluewater Valley Downstream Alliance (BVDA)
2. Eastern Navajo Diné Against Uranium Mining (ENDAUM)
3. Laguna-Acoma Coalition for a Safe Environment (LACSE)
4. Post-71 Uranium Workers Committee (Post '71)
5. Red Water Pond Road Community Association (RWPRCA)



Draft conceptual framework for METALS renewal by Mallery Quetawki



From NIEHS Superfund Research to EPA Superfund Regulation: Ethnographically Inflected GIS-MCDA



Pilot Project Presentation: GIS Base Multi-Criteria Decision Analysis (GIS-MCD)

Tue 11/28/2023 2:00 PM - 3:00 PM No conflicts Email organizer

Microsoft Teams Meeting:
Teams meeting

Villa, [Angie](mailto:Villa.angie@epa.gov) <Villa.angie@epa.gov> invited you
Didn't respond 17

[Join](#)

ABSTRACT

The purpose of this pilot study is to render a model for sociocultural, ecological, and hydrogeological site suitability analysis to support policy discussions about the removal, relocation, and long-term management of toxic waste from abandoned uranium mines (AUMs) in the former Grants Uranium Mining District of Northwestern New Mexico, U.S. Southwest. The proposed model for site suitability analysis takes a geospatial approach, utilizing a geographic information system (GIS) based multi-criteria decision analysis (GIS-MCDA). Each criterion is populated by a series of “constraints” and “factors” that will be identified through long-term engagement with many different stakeholders—from impacted local communities to regional experts in environmental health sciences and policy, government agencies, as well as independent and private firms—followed by cross-analysis and cross-evaluation of the data. Criteria will be weighted for importance (relative influence of each criterion factor on the model) through an ethnographic interview process. This process will be based on the Analytic Hierarchy Process (AHP), in which stakeholders are asked to rank criterion factors against one another in structured pairwise comparisons. The aim of the project is to co-design continuous and categorical GIS layers, weight the factors, assign and rank values of highest priority and lowest priority, and map the criteria. Every stage of research is punctuated by multi-stakeholder engagement: from problem formulation to data collection and analysis, to discussions and conclusions.



Restorative Justice for Churchrock



- Our language is our culture and our culture is our language. We need both.
- To bring back our language, we also need to bring back our culture. They are a whole.
- Bring back communication systems to the community.



Red Water Pond Road Community Association
Eastern Navajo Dine' Against Uranium
Pipeline Road Community

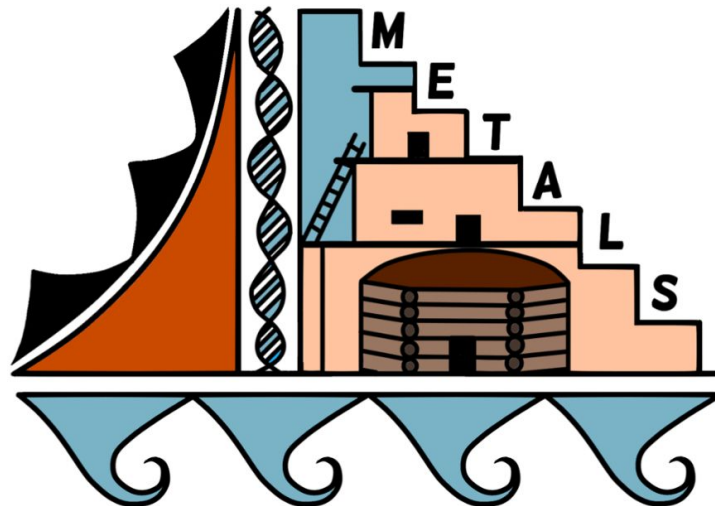


COLLEGE OF PHARMACY

METAL EXPOSURE AND TOXICITY ASSESSMENT
ON TRIBAL LANDS IN THE SOUTHWEST



National Institute of
Environmental Health Sciences
Superfund Research Program



NIH/NIEHS P42ES025589
IRACDA Award NIGMS K12 GM088021

**TOXICITY REVIEW OF METALS EMISSIONS FROM COAL-FIRED
POWER PLANTS**



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Cover Art: top photograph, FCPP 2013, Carlan Tapp (<https://www.sanjuancitizens.org/updated-fcpp>; accessed September 29, 2021).