

Radioactive and Hazardous Materials Committee

**December 1, 2023
New Mexico Legislature
Santa Fe, New Mexico**

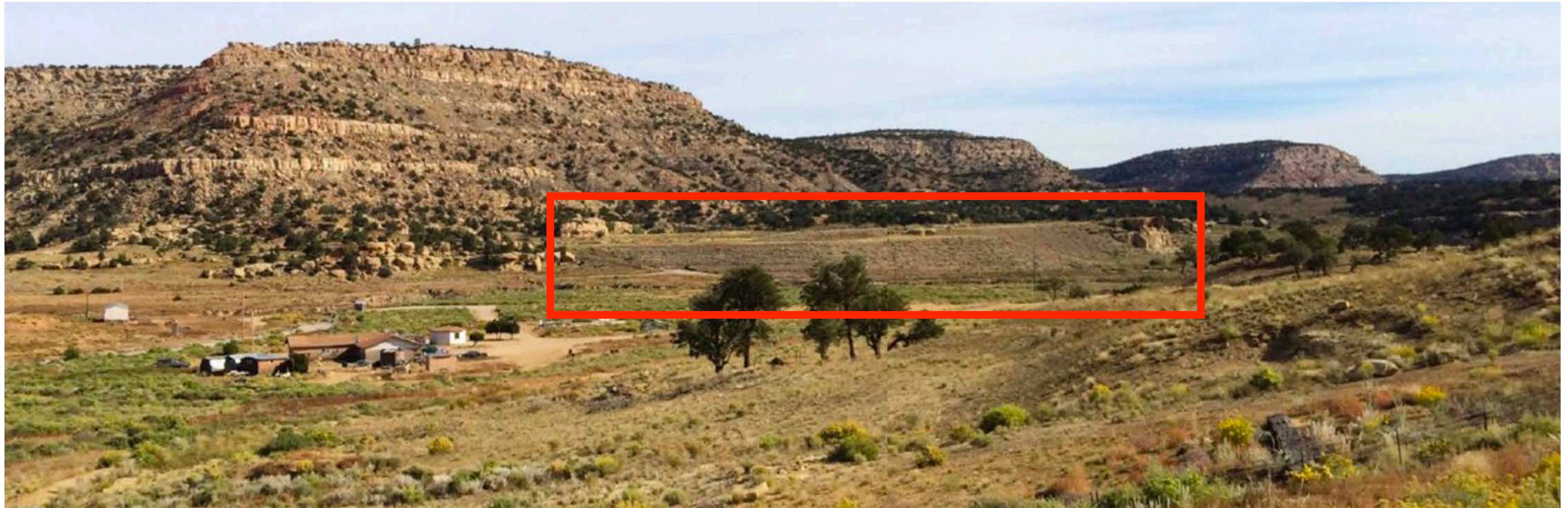
Susan Gordon, Multicultural Alliance for a Safe Environment

Teracita Keyanna, Red Water Pond Road Community Association

Goals of presentation

- Report on US Environmental Protection Agency proposals for Quivera Superfund cleanup at Red Water Pond Road Community on Navajo Nation
- What is an Engineering Evaluation and Cost Analysis
- Transportation Options
- Red Water Pond Road Perspective

**Slides were taken from the US EPA Presentation on August 6, 2023.



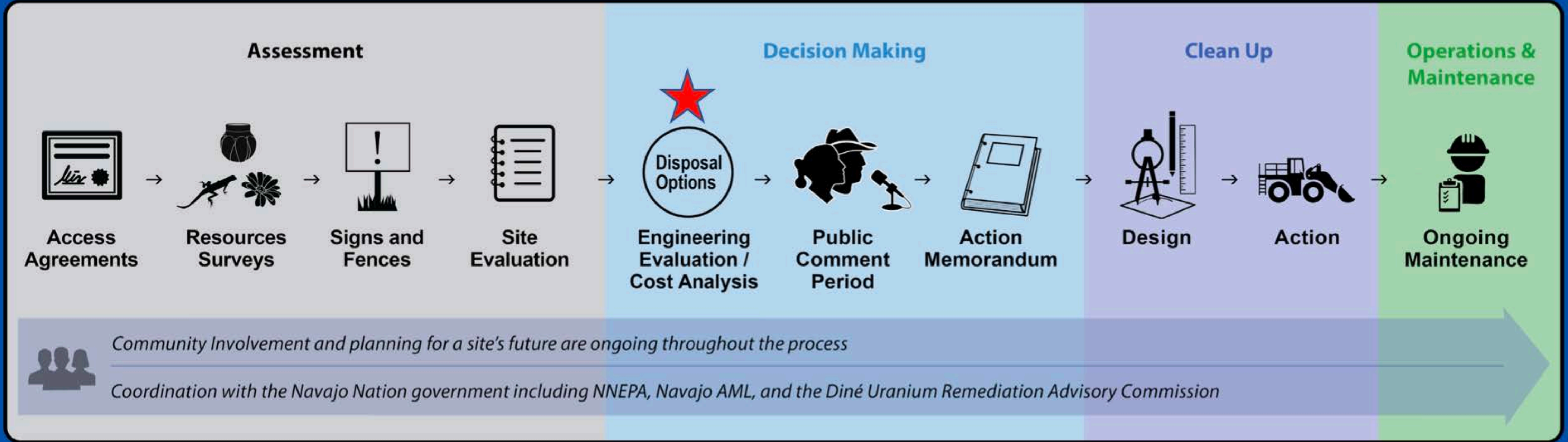
Quivera Mine Waste in Red Water Pond Road Community

Site Background

- Quivira was mined between 1972 – 1986 by Kerr-McGee
- Large underground mine - 1,500 to 1,800 below ground
- Wet Mine – Access to ore and mining required pumping out water ~57 billion gallons
- Produced approx. 4.6 million pounds of uranium ore (3rd largest mine on Navajo)



Superfund Process on the Navajo Nation

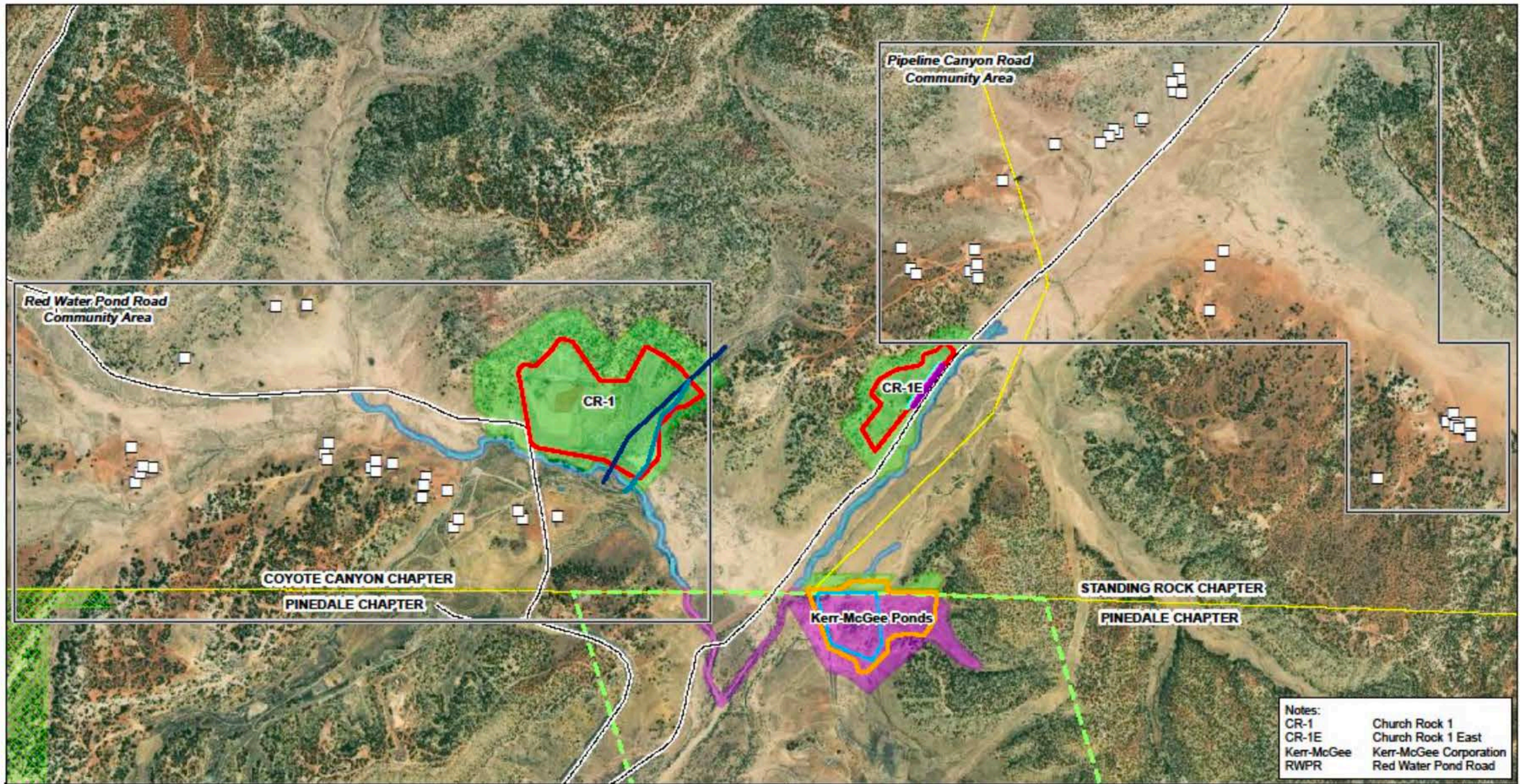


Engineering Evaluation/Cost Analysis

Clean Up Alternatives in EE/CA

- Alt 1: No Action
- Alt 2: Consolidate and Cap All Waste On Site Under ET Cover
 - Isolated Box Canyon within Mine Lease Area
 - Recontoured at CR-1
 - Isolated CR-2 Site On Top of Mesa
- Alt 3: Dispose of All Mine Waste Off Site at Red Rock Disposal Facility
- Alt 4: Dispose of All Mine Waste Off Site at a RCRA- or LLRW Licensed Facility¹

¹ Clean Harbors in Deer Trail, CO



Notes:
 CR-1 Church Rock 1
 CR-1E Church Rock 1 East
 Kerr-McGee Kerr-McGee Corporation
 RWPR Red Water Pond Road

Legend

□ Homesites	□ Community Area	Land Use
— Road	▨ Bureau of Land Management Property	▨ Navajo Residential
— Navajo Nation Chapter Boundary	— Existing Water Pipeline Easement	▨ Navajo Difficult Access Open Space
▭ Mine Boundary	— Proposed Water Pipeline Easement	▨ United Nuclear Corporation Outdoor Worker
▭ Kerr-McGee Pond Fenceline	— Communication Line	
▭ Kerr-McGee Ponds Investigation Boundary	— Natural Gas Line	
▭ United Nuclear Corporation Site Boundary (Private Property)	— Petroleum Line	

Prepared for: U.S. EPA Region 9

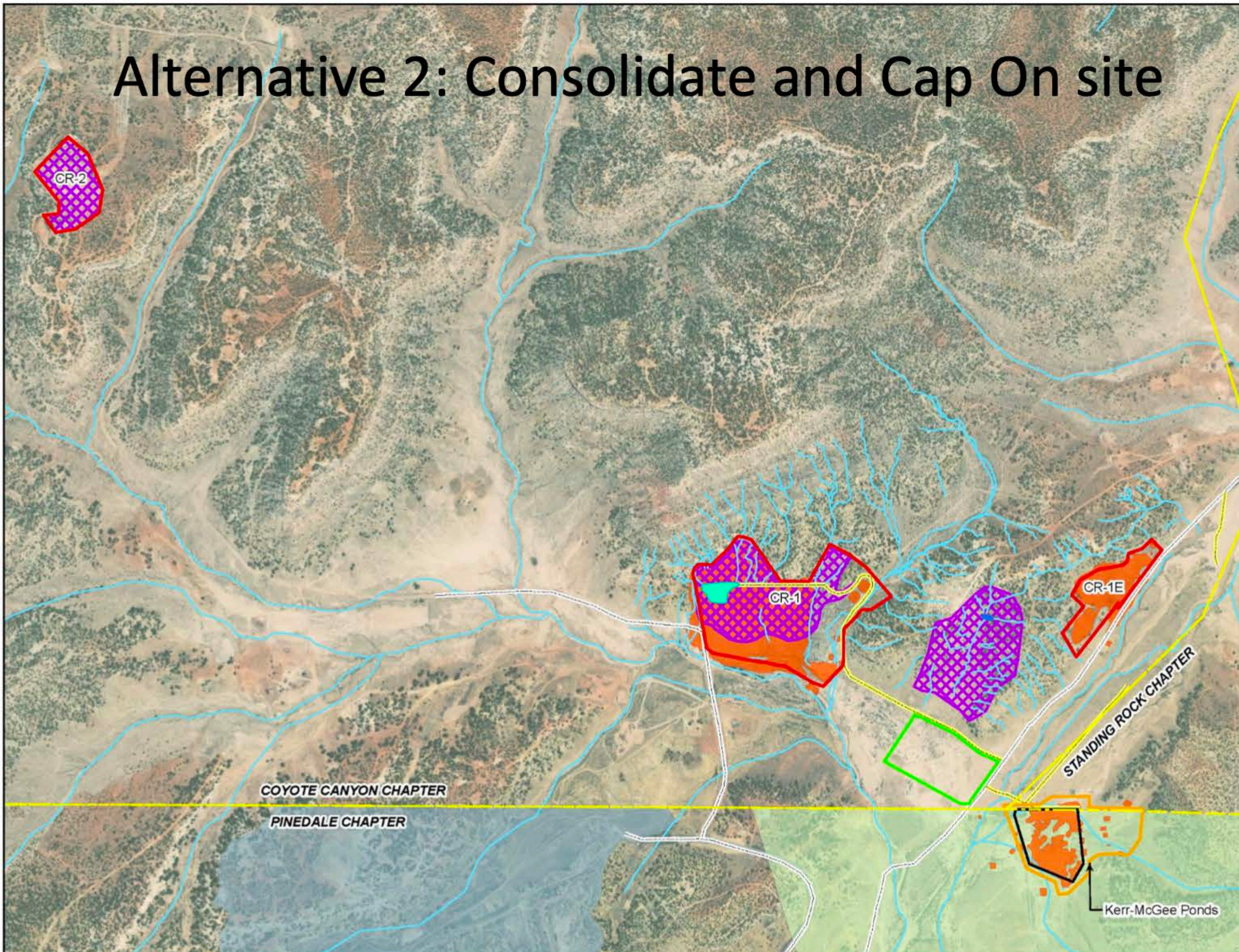


Prepared By:



LAND USE DESIGNATIONS			
Task Order No.: 0003	Contract No.: EP-S9-17-03	Figure No.: 8	
Location: QUVIRA MINES	Date: 5/30/2023		

Alternative 2: Consolidate and Cap On site



- Mine Lease Boundary
- Kerr-McGee Pond Lease Boundary
- Kerr-McGee Ponds Investigation Boundary
- United Nuclear Corporation Site Boundary (Private Property)
- Northeast Church Rock Mine
- Chapter Boundaries
- Removal Action Extent
- Potential On Site Disposal Areas
- Laydown Area
- Detention Pond
- Low Lying Ponding Area
- Proposed Access Road
- Existing Road
- Drainages

Notes:
 CR-1 Church Rock 1
 CR-1E Church Rock 1E
 CR-2 Church Rock 2
 Kerr-McGee Kerr-McGee Corporation

1 inch = 1,000 feet
 1:12,000

1,000 500 0 1,000 Feet

DRAINAGE PATHWAYS, REMOVAL AREAS, AND POTENTIAL ON SITE DISPOSAL AREAS

Prepared For: U.S. EPA Region 9



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Task Order No: 0003	Contract No: EP-S9-17-03
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Location: QUIVIRA MINES	Date: 4/19/2023
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Coordinate System: NAD 1983 State Plane New Mexico West FIPS 3003 Feet Transverse Mercator	Figure No: 1
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Alternative 3: Disposal at Red Rock Landfill

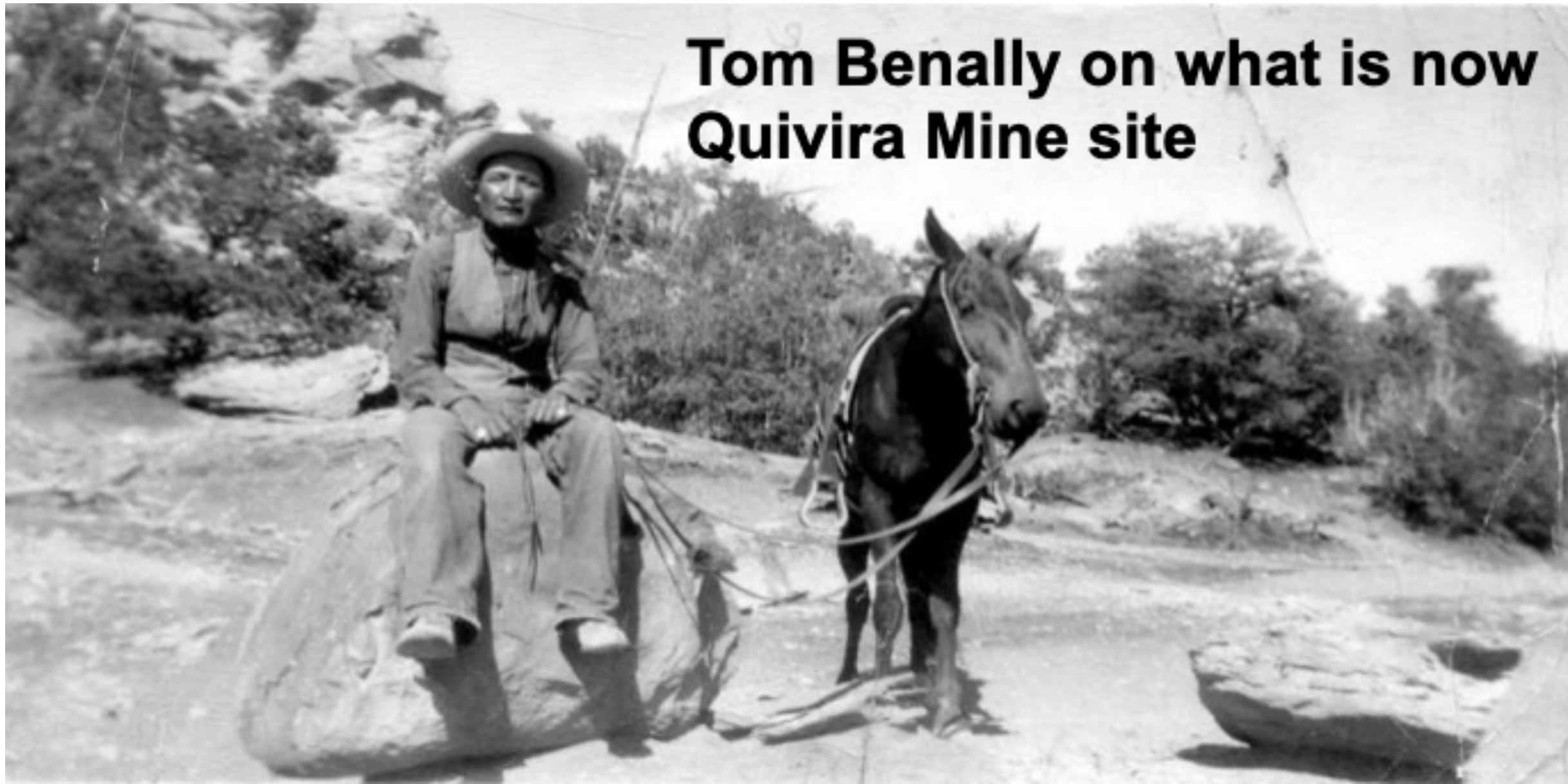
- Solid waste (Subtitle D) regional landfill in Thoreau, New Mexico (Cibola and McKinley Counties)
- Operated and owned by Northwest New Mexico Regional Solid Waste Authority (*7 politically appointed board members: Gallup (2), Grants (2), Thoreau, Cibola, and McKinley*)
- Covers approximately 640 acres, but only half is Subtitle D
- Approximately 65 employees (mostly Navajo)
- Estimated to have capacity for up to 57 years





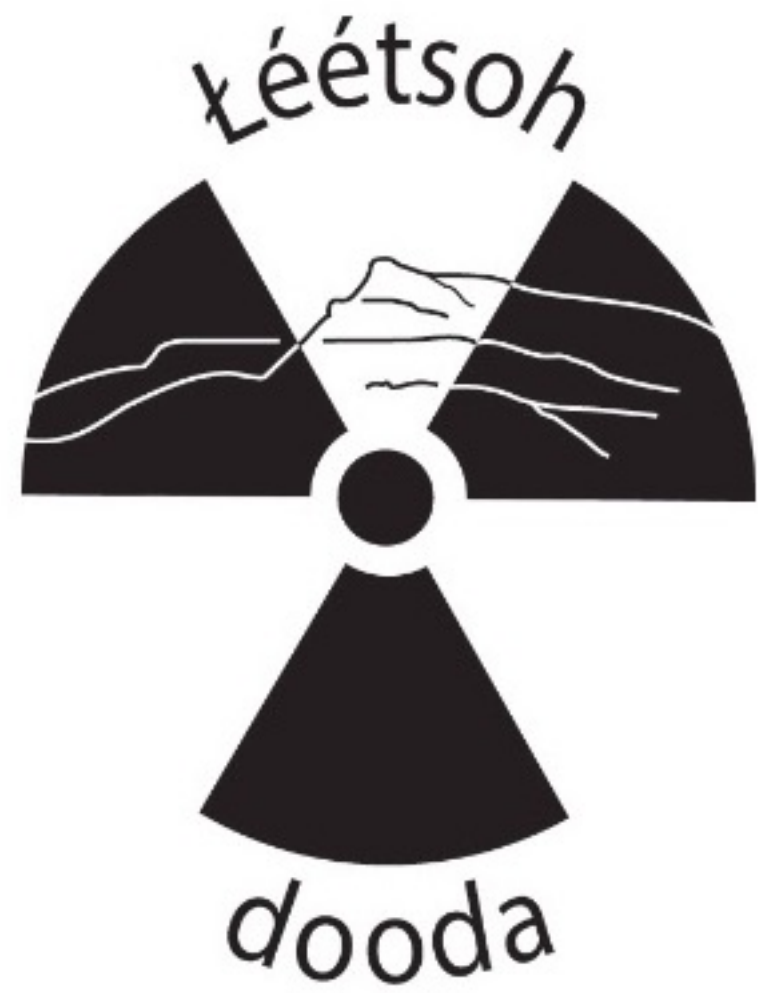
Alternative 3:
Possible Haul
Route to Red
Rock Facility

**Tom Benally on what is now
Quivira Mine site**



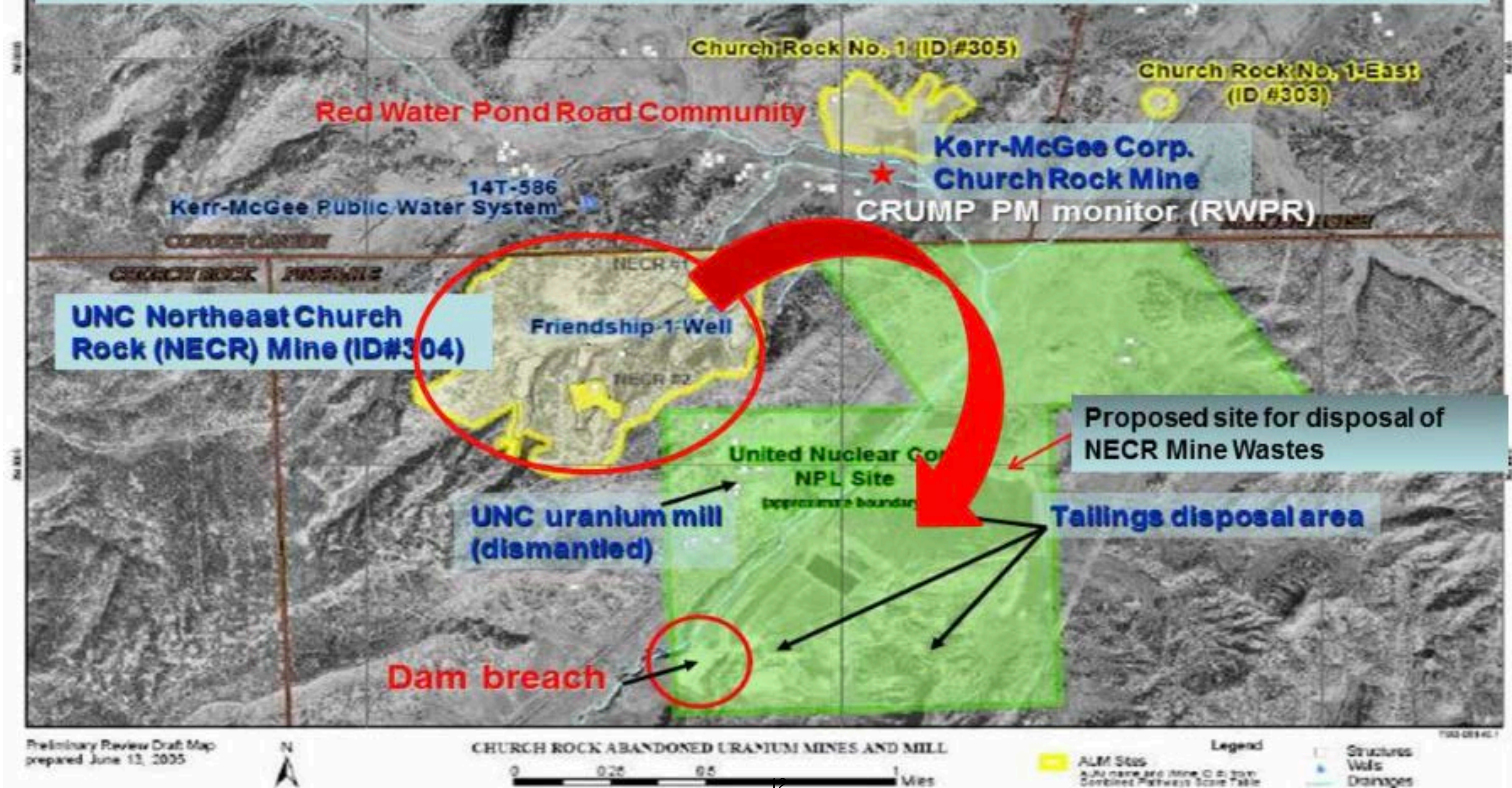
Red Water Pond Road Community

July 16, 1979 The largest radioactive
accident in US.history



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.

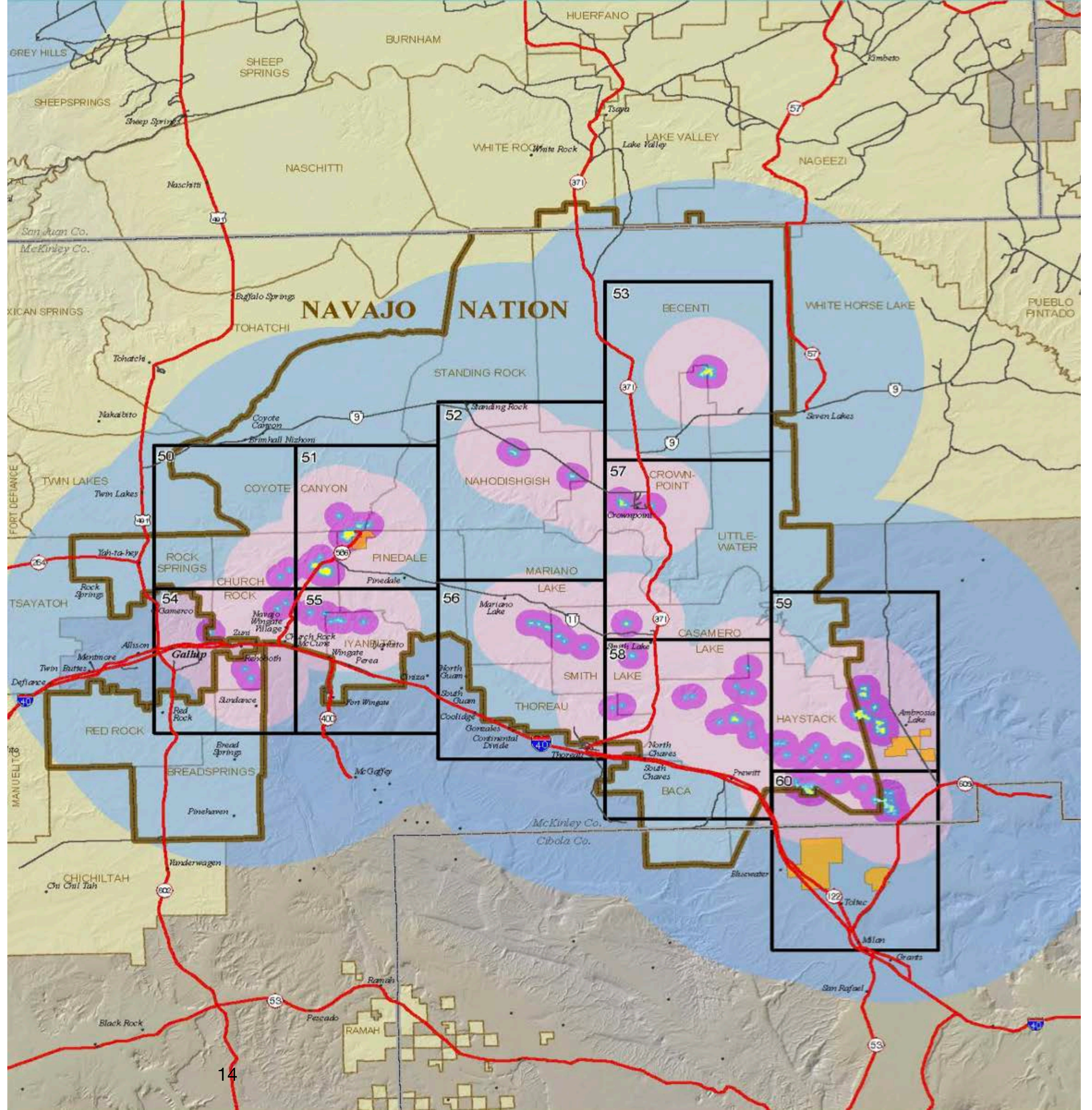




Edith, front now in middle, testified before Rep. Henry Waxman (middle, back row) and House Oversight Committee, 2007



ABANDONED URANIUM MINES EASTERN AUM REGION COMBINED PATHWAYS MAP

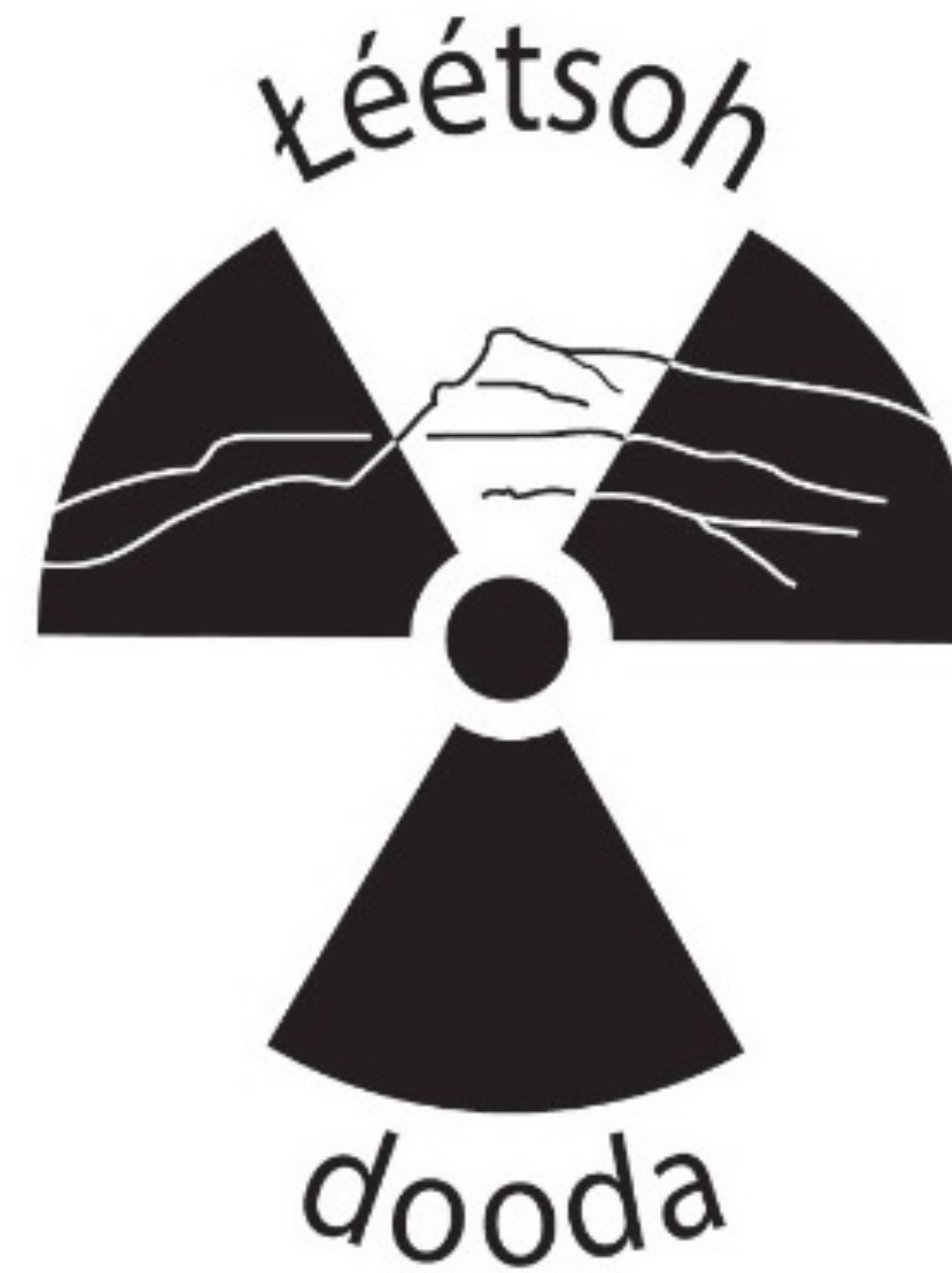




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