Navajo Nation Abandoned Uranium Mines Cleanup Work
2008-2017 USEPA Work Accomplished

• $1.7 billion available to begin the cleanup process at 211 mines (about 40% of all mines)
• 49 structures remediated, all mines screened, nine mines and a transfer station were stabilized or had some cleanup work
• 3,013 families received access to safe drinking water, in partnership with IHS
• 11 potentially responsible parties held accountable to begin the mine cleanup process
• USEPA grants awarded to the Navajo Superfund Program each year, and $328K awarded this year to the Navajo AML Reclamation Program
Navajo Nation has direct access to funds to oversee the cleanup process at 182 mines (Freeport, Tronox, and Phase I and Phase II Trust settlements)
The Superfund Process

Investigate/Assessment
- Remedial Investigation & Risk Assessment
  - What is the problem? Where is contamination and what risks does it pose?

Evaluate Cleanup Options
- Feasibility Study/EE/CA
  - What are the cleanup options to address the problem?
  - How do they compare?

Select Cleanup Option
- Record of Decision/Action Memo
  - Obtain public input, then select a cleanup option

Conduct the Cleanup
- Remedial Design and Removal/Remedial Action

Time Critical Actions

Community and Tribal Government Involvement
Replacing Contaminated Structures

<table>
<thead>
<tr>
<th>USEPA and Navajo Superfund Program</th>
<th>Total</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structures Assessed</td>
<td>&gt;1,100</td>
<td>100</td>
</tr>
<tr>
<td>Structures Remediated</td>
<td>48</td>
<td>2</td>
</tr>
</tbody>
</table>
NECR Interim Removal Action
Constructing New Homes

Four new homes constructed for residents who chose to move away from the Northeast Church Rock mine to avoid disturbances during cleanup activities.
• On January 17 the U.S. and Navajo Nation entered into a settlement agreement with two subsidiaries of Freeport-McMoran
• This settlement provides funds to clean up almost 20% of the abandoned uranium mines on the Navajo Nation
• Estimated value is $600-$900M
• U.S. share, on behalf of DOE and DOI, is approximately 50%
Phase 1 Trust

Trustee I work is conducting detailed cleanup investigations at 16 priority mines.
Settlement between the Navajo Nation and U.S. Department of Justice for “orphan” mines provides funds to:

- Cleanup 16 priority mines in Phase 1 Trust
- Assess 30 more mines
- Conduct water studies at two mines to determine whether groundwater or surface waters have been affected
- Assess natural resource damages (up to $800,000 provided to the Navajo Nation)
Tronox Settlement Funds Cleanup for Over 50 Navajo Nation Abandoned Uranium Mines
Cove Watershed Sampling
Cove Irrigation and Farm Plot Study with Diné College Interns
Cove Transfer Station

Before

After
Jobs for Navajo Workers and Businesses
$85M Contract for Mine Assessment and Evaluation

• In September, USEPA issued a Request for Proposals for an $85M contract for mine assessment and evaluation
• Includes innovative use of incentives for training and hiring Navajo businesses and individuals
Navajo Employment and Training Contractor Evaluation Factors

Navajo Employment
- Plan to employ Navajo businesses and individuals
- Specific goals for number of Navajo employees and percentage of contract dollars expected to go to Navajo businesses

Navajo Training Program
- Plan to establish and maintain training program that will support capacity building of Navajo businesses
- Plan must demonstrate how it supports participation in future work related to this program in a wide variety of fields

5% profit bonus
- Allows a prime contractor to earn an additional 5% profit based on the value of each subcontract with an “Indian Organization” or “Indian-Owned Economic Enterprise”
First Tronox Construction Contract Awards

- We anticipate Navajo owned business receiving first multi-million Tronox construction contract to repair a bridge near the Quivira mine in the Church Rock area and perform an interim cleanup.

- USEPA is conducting market research to identify Navajo-owned companies that have the capability to perform access road repairs in support of clean-up activities in Cove Chapter.
$328,847 awarded to the Navajo Abandoned Mine Lands (AML) Reclamation Program.

AML will provide USEPA with:

- An understanding of all phases of reclamation at mine sites
- Logistical support
- Technical support
- Engineering expertise
$380,000 grant awarded to Diné College to help determine the impact of abandoned uranium mines on the Cove watershed. Diné College staff and interns will help USEPA scientists:

- Sample for contamination of streams, unregulated wells, and livestock water areas
- Use GIS to gain understanding of the mining impacts in Cove area
- Conduct community outreach and information sharing of research findings

HAZWOPER class for Diné College interns June 2016.
Supporting 118 Navajo Opportunities Over Past Four Years

59 Construction Jobs

10 Professional Services Jobs

29 Internships

20 Navajo Agency Jobs
Jobs for Navajo Businesses

**WORK PROVIDED TO NAVAJO OWNED BUSINESSES**

- Dinétahdóó Cultural Resources Management (DCRM)
  - Perform Cultural Resource surveys approximately 20 times

- Iina Ba Inc.
  - Performed land surveys for bridge design, and 4 new homes

- Bitsui-Chavez Construction Co, LLC (Bitsui-Chavez)
  - Installed 9 signs and 7 fences at El Paso Natural Gas abandoned uranium mines

- Community Housing & Infrastructure Development (CHID)
  - Replaced contaminated homes with $3.1 M EPA grant

- Various Navajo Interpreters
  - Navajo interpreters from various communities

- Navajo Engineering & Construction Authority
  - Constructs water infrastructure projects
2017 Upcoming Work

**Community Involvement:** Community Involvement Plans, Open Houses, Fairs, Chapter Meetings

**Structures:** Assess and conduct removal actions at contaminated structures and yards

**Mine Field Work:** Perform livestock, air, and groundwater studies; conduct cleanup investigations at up to 50 mines

Eastern AUM Open House
April 2017
Community Outreach Network

Cooperating Agencies of the Navajo Nation Five-Year Plan Community Outreach Network

Addressing the Impacts of Uranium Contamination on the Navajo Nation

Navajo Nation Window Rock and Shiprock Fair
September 2016

Shiprock Open House
March 2017