

### **New Mexico Environment Department**

Uranium Mine and Mill Cleanup Miori Harms, Uranium Mine Reclamation Coordinator August 1, 2024 Indian Affairs Committee



## **Former Uranium Mine Sites**



Federal: 66 State: 7 Private: 76 Tribal: 96 Mixed: 16

**Total: 261** 

150



## HB 164 (NMSA 9-7A-16)

### **NMED** Activities

- Strategic Plan
- Centralized Data Repository (Database & Dashboard)
- Consultation and Coordination
- DOE, EPA, NRC, BLM, USFS, Communities, NGO, Tribal
- Reclamation Activities on State Permit Sites
- Workforce Development
  - Economic Development Dept.
  - Dept. of Workforce Solutions
  - Industry
  - Intern hiring

### **EMNRD** Activities

- Strategic Plan
- Centralized Data Repository (Database & Dashboard)
- Consultation and Coordination
- DOE, EPA, NRC, BLM, USFS Communities, NGO, Tribal
- Reclamation Activities on State Permit Sites
- Abandoned Uranium Mine Field Site Visits
- Technical Data Review & Site Inventory and Assessments



### Formerly Operating Uranium Mine and Mill Sites Dashboard

#### A collaborative project with



#### For Dashboard Instructions: Click Here For Data Sources: Click Here

This map shows locations of former uranium mine and mill sites in NM.

- Detailed infomation is shown by clicking on a point on the map. The pop up menu will display data about map features.
- Zoom or pan the map to see number mines and mills in the extent view.
- Charts can be expanded for a better view; click on the circle in upper right of the chart rectangle. To minimize, click on the circle again.

More Information

- What is a DRUM Site? Click Here
- What is a Tronox Mine? Click Here
  What is a Superfund Site? Click
- Here
   What is the NPL? Click Here

No warranty or representation is made, expressed or implied, about the accuracy,

Number of features in extent shown.

Number of features in extent shown.



Table of Mines

Table of Mills

Mines by Surface Land Status

.

Map Legend



## HB 164 (NMSA 9-7A-16)

### Other Coordinating State Agencies

- Dept. of Cultural Affairs
- Dept. of Game and Fish
- Dept. of Health
- Dept. of Transportation
- Dept. of Workforce Solutions
- Dept. of Indian Affairs
- Economic Development Dept.
- Office of Natural Resources Trustee
- Office of the State Engineer
- State Land Office



#### Section 27 Temporary Repository



## HB 164 (NMSA 9-7A-17)

Uranium Mine Reclamation Revolving Fund

 To advance large scale cleanup, funding is required.

 No money has been appropriated for the Uranium Mine Reclamation Revolving Fund and the balance remains at zero dollars.

 In the future, funds received into the account may be used for site assessments, safeguarding, surface reclamation, groundwater remediation, and monitoring, where appropriate.



Erosion at J.J. No. 1 Mine



## **EMNRD Permitted Mine Sites**



St. Anthony Mine Pit 1

Mining & Minerals Division

- Mt. Taylor Mine
- St. Anthony Mine
- Section 27 Mine
- Section 12 Mine
- Old Stope Leach Mines
- □ J.J. No. 1 Mine



### Section 12 Mine





## **NMED Permitted Mine Sites**

- □ J.J. No. 1 Mine (Abatement)
- Mt. Taylor Mine (DP and Abatement)
- Rio Algom and associated Old Stope Leach Mines (DPs and Abatement)
- Section 27 Mine (Abatement)
- St. Anthony Mine (Abatement)



Section 2 Radon and Weather Station



### **Department of Energy DRUM (Defense Related Uranium Mine) Program**

#### La Paloma DRUM Site





- Verification & Validation (V&V) work on federal and tribal lands complete or near complete
- V&V Work to begin on state and private lands in summer of 2024 and 2025, respectively 10



## **EPA Region 6 Tronox Settlement**





## **EPA Region 9 Tronox Sites**



Red Rocks Repository Proposed Location (view looking south from landfill)

- Quivira Mine Waste
  - Church Rock 1
  - Church Rock 1 East
  - Church Rock 2
- Section 32/33 Mines
- EPA's preferred alternative for these sites in the Engineering Evaluation /Cost Analysis is disposal near the Red Rocks Landfill (Northwest NM Regional Solid Waste Authority property) ~5 miles outside of Thoreau, NM



### National Priority List (NPL) and Superfund Alternative Approach Sites



Jackpile-Paguate Site

- Homestake Mill: NPL, Non-Tribal Land
- Jackpile-Paguate: NPL, Laguna
   Pueblo
- UNC Church Rock Mill: NPL, Navajo Nation, Non-Tribal Land
- Central Study
   Area: Superfund
   Alternative
   Approach Site,
   Non-Tribal Land



## **Other Uranium Work in the State**

- Bureau of Land Management (BLM) Completed Cleanups (with NM Abandoned Mine Land Program)
  - Spencer and Barbara J 1, 2, and 3 Mines
- Forest Service (USFS) Completed Cleanups
  - Old La Jara, Taffy, Vallejo, and Zia Mines
  - ▶ San Mateo Mine Responsible Party led under USFS oversight
- Other EPA sites in progress
  - Johnny M Mine Removal Action
  - Haystack Navajo Nation Removal Action
  - Mac No. 1 and 2, Black Jack No. 1 and 2, Ruby 1, 2, 3, 4 Navajo Removal Action, Navajo Nation
  - Homestake Mines Mary #1, Dysart #1, #2, Section 13, Section 15, Section 23, Section 25, and Section 32; Removal Action
  - United Nuclear Corporation AnnLee, John Bully, and Sandstone



## **Uranium Mill Regulation**

- Ambrosia Lake Mill (Phillips)
  - DOE long-term stewardship
- Ambrosia Lake West Mill
  - Responsible Party: Rio Algom Mining LLC
  - NRC Regulation, NMED (Discharge Permit and Abatement)
- Bluewater Mill
  - DOE long-term stewardship
- Bokum Mill
  - Decommissioned, never operated
- Church Rock Mill
  - Responsible Party: United Nuclear Corp.
  - NRC Regulation, EPA (NPL Superfund)
- Homestake Mill
  - Responsible Party: Homestake Mining Company of California
  - NRC Regulation, EPA (NPL Superfund), NMED (DP and Abatement)
- L-Bar Mill
  - DOE Long-term stewardship
- Shiprock (Navajo) Mill
  - DOE long-term stewardship

#### Homestake Mill





## **Engaging Beyond New Mexico**

#### NM & AZ Joint Letter

On April 8, 2024, the New Mexico and Arizona Governors sent a joint letter to the Council on Environm ental Quality (CEQ) calling for coordination of federal agencies to address the April 9, 2024 largest roadblocks holding Brenda Mallory Chair back uranium cleanup.



Cnair Council on Environmental Quality 730 Jackson Place, NW Washington, D.C. 20503

#### Dear Chair Mallory,

As the Governors of Arizona and New Mexico, we write to request that the Council on As the Governors of Arizona and New Mexico, we write to request that the Council on Environmental Quality (CEQ) take a leadership role to earsure federal focus on, and investment is, remediation of long-standing transmu contamination on at lead and Tablal Lands. Hundreds of abandoned transmu mines have nooed significant and mexico. investment up remensions or ange-tenning to another tenning interaction of the second second and the second s lance. Huncerests of abandoned uranium nunes have posed agruncant and ongo environmental risk to our residents for far too long. To address longstanding le environmental risk to our residents for far too long. To address longstanding leg uranium mining impacts and pollution, we must bring appropriate national afte the issue and undertake a full and complete cleanup and restoration of our land Most uranium mining started in the 1950s prior to the environ Most transmin mining started in the 1950s prior to the environmentally protective federal and state statutes promulgated in the 1970s. As a result, many uranium mining sites that were explored or minind were not reclaimed or remediated in accordance with nuclearity and many wave last alwadened with no clasters during the state of the state o

that were explored or numeo were not resonance to explored an extension of explored and extension of the effect of the eigenations, and many were per automotioned with the teening actions to the analog and remediation of former unminum mines that are permitted by fielded Accumances and remechance or former around mines that are permitted by locari regulatory programs may be performed using responsible party funds and financial namos, purgamus unay oe periorineu usang responsione party ranas and imancal aranoe, but no such program exists for abandosed uranium mines, as there was no ance, our no such program exasts ror avandomen urannan money, en arement for financial assurance when these mines were in operation. sandoned uranium mines contain radioactive material wastes, whether they are

Aut assessment utaniani immes consisti tantoettive instituta masses, vinetine usiy arv fonud on privitati, federal, state, or Tribal lands throughout our region. Cleaning up other and sense and sense with sense of distance of distance of any other sense of the sens nouna ou pervas, reueras, soare, or i nou sanas turougnout our region. Usaning up abandoned uranium mines will require billions of dollars of investment over the co anononces transmi muses will require ounces or dours or investment over the coming decides. However, these investments create jobs while improving public health and the oncases, incomver, insee investments create joos while improving puttic hearth and the environment. Coursent federal funding svaliable under hard rock abandoned mine lands warmane is investigated for the easy and another state of the strend puttic hearth and the lands warmane is investigated for the easy and another state of the strend puttic hearth and the lands and another strend puttic strend puttic strend puttic hearth and the strend puttic hearth and the lands warmane is investigated for the easy of the strend puttic hearth and thearth and the strend puttic hearth and the strend environment. Current federal funding available under hard rock abandoned mine lands programs is insufficient for the scale and complexity of the abandoned unanium mines challenge, which requires unique protective measures during cleanap to ensure containment, licensed specialized waste repositories, and long-term maintenance.

### **CEQ** Responded

On July 17, 2024, NM Secretary of Environment **Department** (James Kenney) and AZ Secretary of Department of Environmental Quality (Karen Peters) met with CEQ to discuss a path forward.

**Future conversations** may discuss the potential for a federal working group.



# Thank you for your time.