Paguate-Jackpile Uranium Mine Superfund Site: Partnerships and Community Engagement

Pueblo of Laguna Environmental Program
Tribal Lands Environmental Forum
August 16, 2018
Scope of discussion:

• Introductions
• Background
  • Pueblo of Laguna
  • Environmental Program
  • Paguate-Jackpile Mine
  • NPL process
• Partners – and what they do
• Challenges
• Teachable moments
• Questions, comments, suggestions
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Natural Resources Program

Tribal Historic Preservation Office

Rangeland Management Program

Reality Program

- NALEMP Specialist – Sabin Chavez
Pueblo of Laguna:

- Encompasses ~500,000 acres
- ~10 miles west of Albuquerque, ~33 miles east-west, ~53 miles north-south
- Ecoregions: Semiarid tablelands, conifer woodlands and savannas, and montane conifer forests
- Average 9-10 inches of precipitation per year
- Estimated 143 miles of surface water
- Just over 8,800 enrolled Tribal members with approximately 4,100 living on Pueblo Lands
- There are six Villages: Encinal, Laguna, Mesita, Paguate, Paraje, and Seama
Background
Environmental Program:

- General Assistance Program
- CWA §106 – Surface Water Pollution Control Program
- CAA § 103 – Air Pollution Prevention and Control Program
- Native American Lands Environmental Mitigation Program (NALEMP)
- Superfund Program – National Priorities List (NPL) for Comprehensive Environmental Response, and Liability Act (CERCLA) cleanup
Background
Paguate-Jackpile Uranium Mine:

- Largest open pit Uranium mine in the world at the time of operation
- In operation from 1953 to 1982
- Former mine encompassed ~7,868 acres, ~2,656 acres of mined area:
  - 3 open pits – 200-300 feet deep
  - 32 waste dumps
  - 23 protore stockpiles
  - 4 topsoil stockpiles
  - 66 acres of buildings and roads
- ~400 million tons of rocks were moved within the mine area
- ~25 million tons of uranium ore were produced
Background
Paguate-Jackpile Uranium Mine:

1953-1982
Exploration & Mining

- Anaconda Minerals Company leased land from Pueblo of Laguna
- On average, employed 650
- Decision to close due to difficult economic realities, April 1980

1980-1986
Reclamation Plan Development

- DOI requested Anaconda to develop a reclamation plan
- Negotiations...
- Record of Decision was finalized in 1986

1987-1995
Reclamation Activity

- Anaconda negotiates “buy-out” of responsibility
- Engineering firm hired to complete project design
- Laguna Construction Company created to complete reclamation

1996-2008
Reassessment

- 10 years of monitoring
- 2007 – ROD assessment reveals non-compliance
- Pueblo declares moratorium on uranium mining

2009 - Present
NPL Process

- 2009 consultation with EPA
- 2010 site investigation / added to CERCLA
- 2013 NPL
- 2018 RI/FS begins
National Priority List Process:

- Government to government consultation with EPA to discuss Superfund consideration (10/2009)
- EPA completed Site Investigation for NPL listing and a MOU between POL and EPA was signed (6/2010)
- Not listed until 12/2013
Partners:

• Pueblo of Laguna Community
• POL ENRD
• Pueblo of Laguna Government
• EPA
• University of New Mexico
  • UNM METALS
  • UNM SW Research & Information Center
  • UNM Careers Program
  • NM EPSCoR / NM Tech
• Atlantic Richfield Company (ARCO)
• Agency for Toxic Substances and Disease Registry (ATSDR)
Partners: Pueblo of Laguna
Partners: U.S. Environmental Protection Agency

- A CERCLA Administrative Order of Consent (AOC) was issued 7/2017 where ARCO agreed to perform a Remedial Investigation/Feasibility Study (RI/FS) under EPA’s technical oversight.

**Remedial Investigation / Feasibility Study**

- Atlantic Richfield Company hired TREC Inc. to serve as their environmental contractor.
- Future remedy will be proposed.
- EPA hired Tetra Tech, Inc. to provide technical review and oversight support.
- Public input.
- The selected remedy will be confirmed by the EPA in a Record of Decision (ROD).

**RECORD OF DECISION**
Partners: University of New Mexico, NM Tech

- **UNM METALS SRP**
  Metal Exposure Toxicity Assessment on Tribal Lands in the Southwest, Superfund Research Program

- **UNM SRIC**
  Southwest Research & Information Center

- **NM EPSCoR**
  Established Program to Stimulate Research

- **URANIUM**
  Understanding Risks to American Natives from Impacts of Uranium Mining

- **UNM College of Pharmacy**

Funding sources: NSF, NIH, NIEHS, SRP
Challenges:

• Effective communication is always the biggest challenge
  • Making complex scientific research outcomes more accessible to the general public
  • Communicating with Elders or other Tribal member who are ESL

• Increase youth participation

• Increase community participation

• Decrease confusion

• Increase data sharing

• Balancing community mistrust of government agencies
Teachable Moments:

• Never present preliminary undergraduate research to the public

• Detection does not mean death

• The Pueblo requested that the ATSDR provide information to the community about potential affects by contaminants from the mine