Cleaning up legacy contamination from uranium mining and milling is a priority requiring sustained efforts and resources.

Active mining and milling across hundreds of sites in NM and on Tribal lands from the mid-1950s through the 1980s.

Environmental and public health risks include exposure to radioactivity and health-related effects from ingestion of contaminants in groundwater (e.g., selenium, nitrate, uranium).

NMED has responsibilities related to protecting and restoring groundwater quality at former mines and mill sites.
Complex Regulatory Regime

- **State of New Mexico**
  - *New Mexico Water Quality Act* (NMED Ground Water Quality Bureau)
  - *New Mexico Mining Act* (EMNRD Mining and Minerals Division)

- **Federal Government**
  - U.S. Environmental Protection Agency (EPA)
    - *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*, aka the Superfund law
      - Tronox Mines
      - Listed Superfund Sites
      - Other CERCLA actions
  - U.S. Nuclear Regulatory Commission (NRC)
    - *Licenses* for Uranium Mill Sites
  - Bureau of Land Management (BLM) and U.S. Forest Service (USFS) Actions

- **Tribes, Nations, Pueblos**
  - Sites on Navajo Nation
  - Jackpile-Paguate Superfund Site, Laguna Pueblo
Regional Overview of Grants Mineral Belt
Three Case Studies

1. St. Anthony Mine – State Oversight
2. San Mateo Creek Basin – EPA Oversight
3. Church Rock Area – EPA and NRC Oversight
State of New Mexico Oversight

- NMED
  - Abatement of Water Pollution
    - NMED called United Nuclear Corporation (UNC) in for abatement of water pollution in 2002
    - Stage 1 Abatement Plan (approved November 2002)
    - Stage 2 Abatement Plan (approved May 2015)
  - Preferred Abatement Alternative
    - Partial Pit Backfill
    - Groundwater Alternative Abatement Standards (adopted September 2017)

- EMNRD Mining and Minerals Division - Mining Act Reclamation Permit
  - Surface Reclamation
    - Waste Rock Stockpiles
    - Open Pits
    - Ancillary Mine Units

- UNC Drafting Engineering Design for Agency Approval
  - ~ $98 Million Joint Financial Assurance
St. Anthony Mine

Figure 1.2
Site Plan
St. Anthony Mine,
Stage 2 Plan
San Mateo Creek Basin

EPA Region 6 Lead; Three Study Areas

- **Central Study Area**
  - Administrative Order on Consent (AOC) (Nov. 2019)
    - Impacted private wells
    - Threat to downstream water supplies
    - Groundwater Investigation - Homestake Mining Company (HMC), UNC, Rio Algom Mining, LLC (RAML)
    - NMED review and comment on work plans

- **West Study Area**
  - Initiating negotiations on establishing surface investigation AOC
    - Responsible Parties - HMC, UNC, RAML
    - Tronox Mines
    - Windblown RAML Mill impacts (NRC Lead Agency for RAML Mill)
  - NMED review and comment on work plans

- **East Study Area**
  - Negotiations not yet underway
    - Responsible Parties - UNC, HMC, Hecla Limited
San Mateo Creek Basin Study Areas
West Study Area, Tronox Surface Investigation
Church Rock Area

- **Northeast Church Rock Mine (operated 1967-1982)**
  - Responsible Party – United Nuclear Corp. (UNC)
  - Superfund Site: Lead is EPA Region 9 (San Francisco) in consultation with EPA Region 6 (Dallas)
  - NMED and Navajo Nation review and comment

- **UNC Church Rock Uranium Mill**
  - Superfund Site: Nuclear Regulatory Commission (NRC) and EPA Region 6 Lead
  - NRC License
  - NMED and Navajo Nation review and comment
  - NEPA process for proposed NRC license amendment is underway

- **Quivira Mine Waste**
  - Lead for cleanup is EPA Region 9 in consultation with EPA Region 6
  - NMED and Navajo Nation review and comment
  - Tronox Settlement funding
  - EPA report due end of 2021 to inform future decisions to select disposal alternative
Church Rock Area Mines and Mill
Current Regulatory Activity (Church Rock)

- Draft Environmental Impact Statement (DEIS) for NRC license amendment published October 2020
- Comment period initially closed May 27, 2021, and NRC reopened it on June 17, 2021; new comment deadline is October 31, 2021
- NRC project website is [https://www.nrc.gov/info-finder/decommissioning/uranium/united-nuclear-corporation.html](https://www.nrc.gov/info-finder/decommissioning/uranium/united-nuclear-corporation.html)
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