



# New Mexico Environment Department

## Overview of Groundwater Discharge Permitting Process

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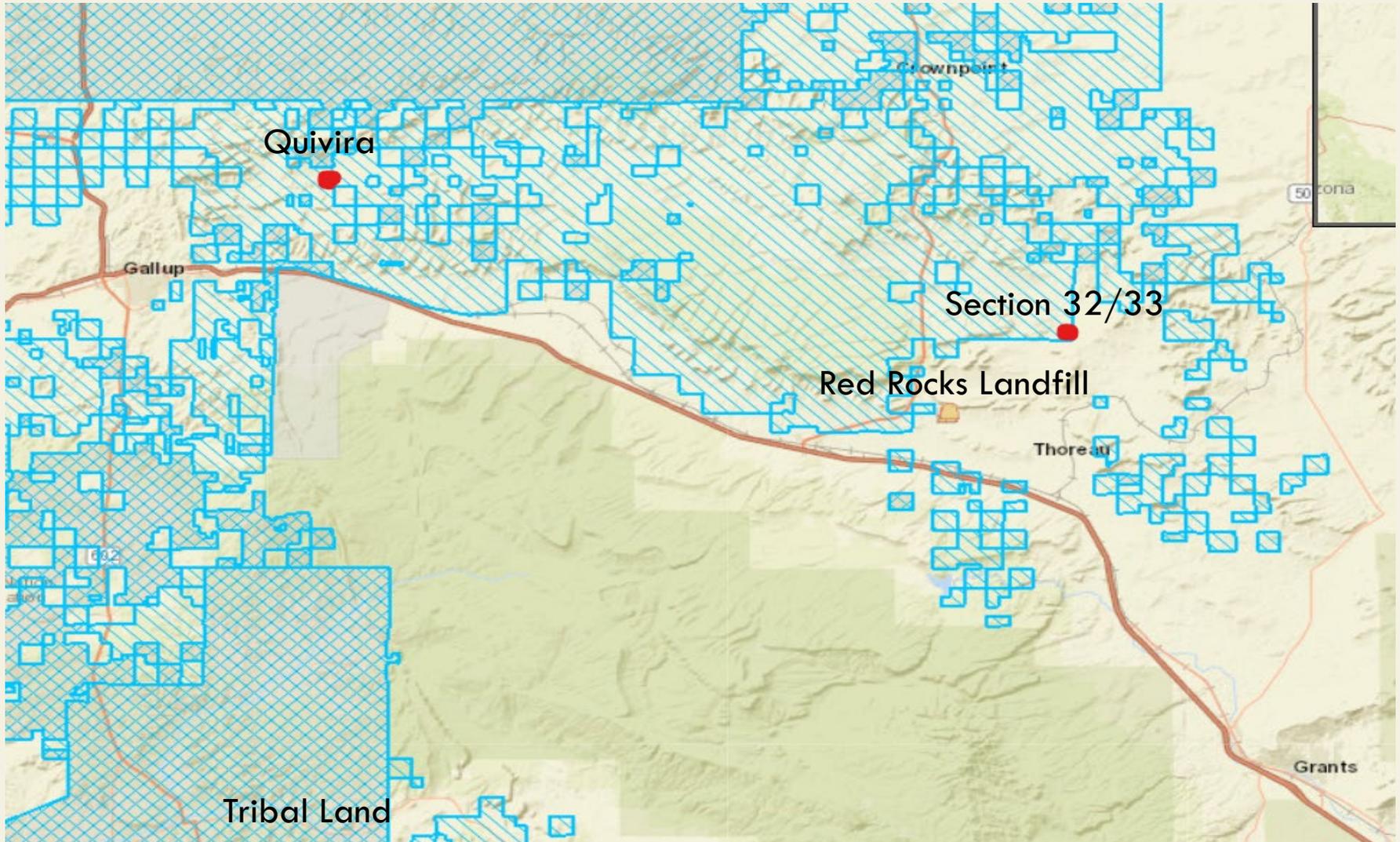
March 23, 2024

# Overview

- New Mexico has long history of uranium mining and milling
- Mine closure typically results in mine waste being moved and/or consolidated in place and reclaimed
- EPA 9 is selecting a remedy that would move the Quivira and Section 32/33 uranium mine waste to a new engineered repository adjacent to the Red Rocks Landfill – separate permitted facility from municipal landfill



# Red Rocks Landfill



# Ground Water Discharge Permit

- Groundwater is protected in New Mexico
- Any new uranium mine waste repository will require a DP with NMED
- North West Regional Landfill Authority would be permittee



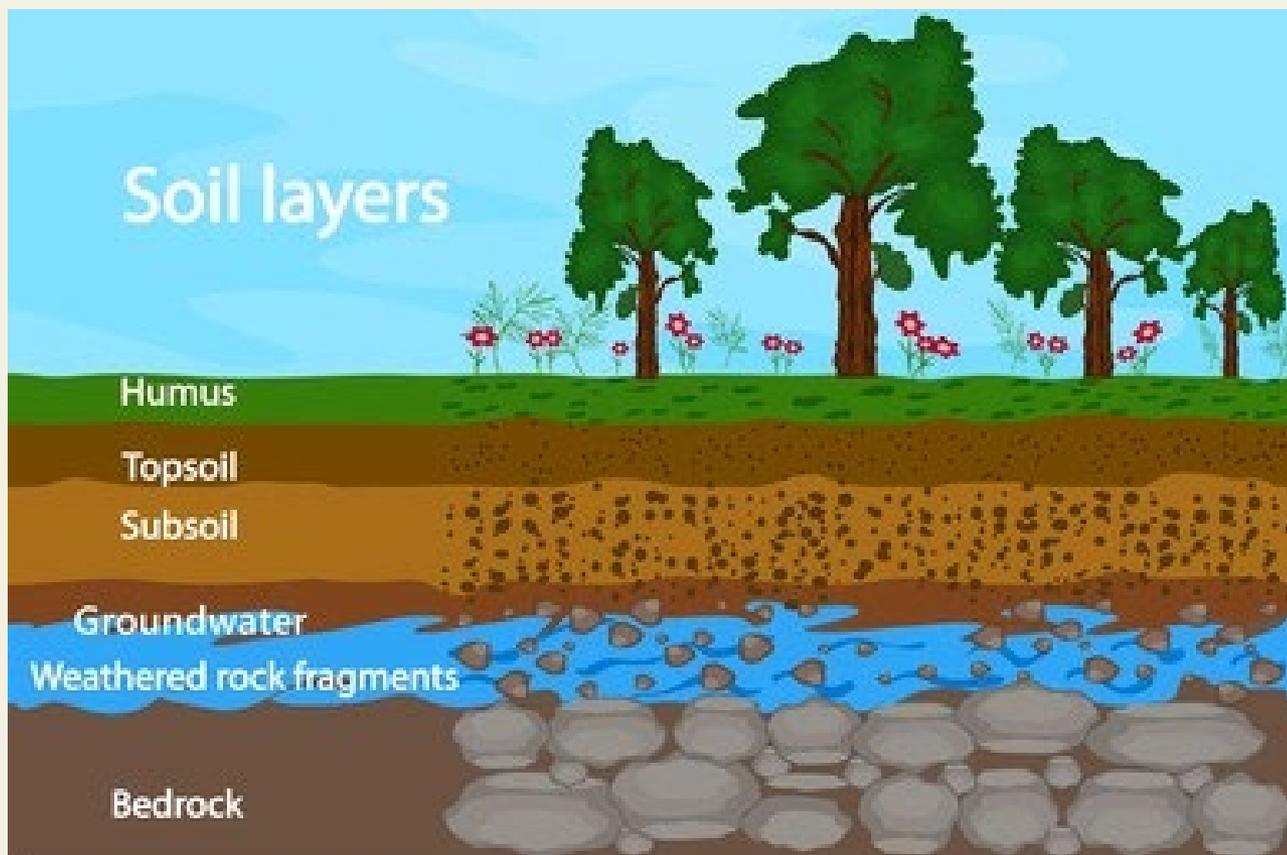
# Application and Permit

- Application needs to include:
  - ▣ Groundwater quality
  - ▣ Geology
  - ▣ Hydrology
  - ▣ Material characterization
  - ▣ Design of repository
  - ▣ Operation and maintenance plan
  - ▣ Groundwater monitoring plan
  - ▣ Closure Plan



# Application Elements

## Groundwater, Geology, Surface Topography

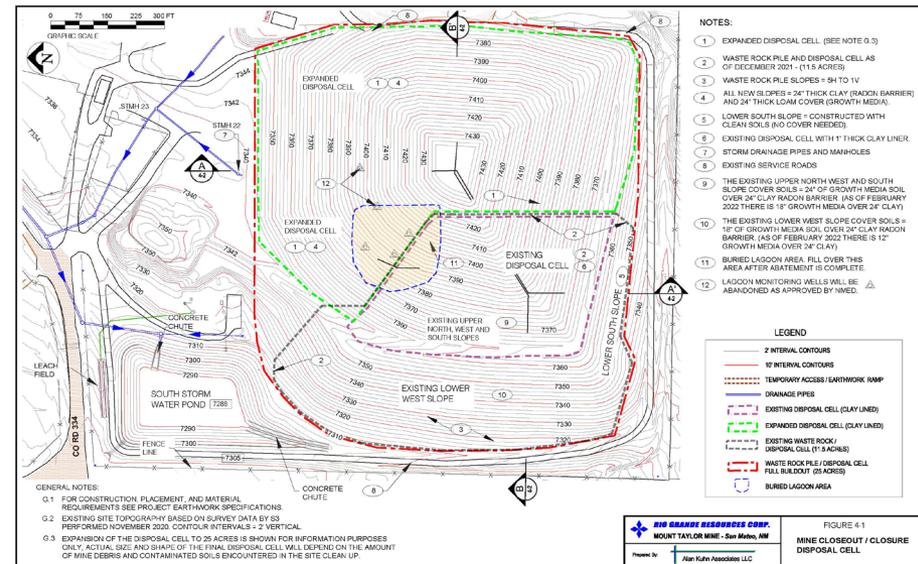
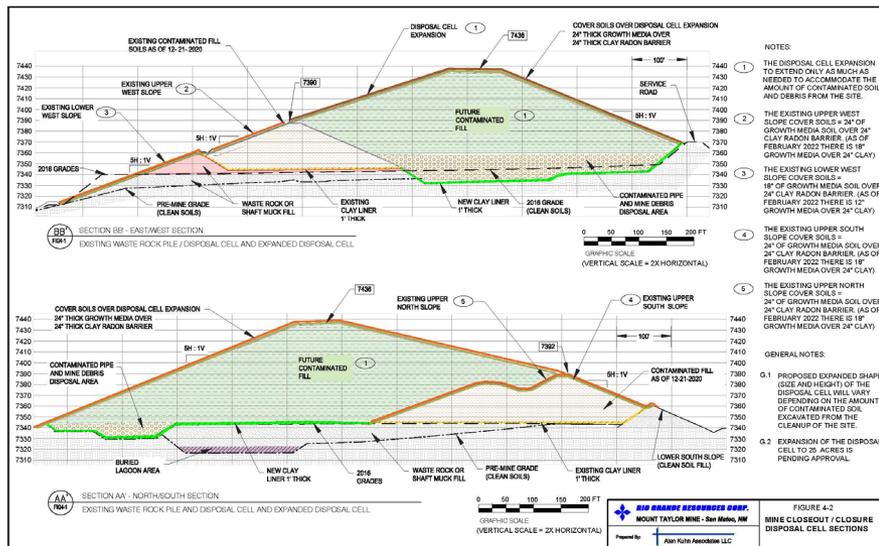


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# Example Design

## Examples of Design Details





# Examples of Uranium Mine Waste Repositories

Mt. Taylor Mine –  
partial  
reclamation



2017



2018





# Examples of Uranium Mine Waste Repositories

Mt. Taylor Mine - partial reclamation

San Mateo Mine - USFS



2019



2023



San Mateo Mine - USFS - 2018



# Application and Permit

- Applicant has to address all potential exposure pathways that may directly or indirectly impact groundwater
- Closure Plan – to address final configuration of the facility and long-term maintenance and monitoring in perpetuity
- Financial Assurance for long-term maintenance and monitoring for 100 years
- Other waste streams or sources would not be permitted for this facility



# Public Participation

- **Two Tribal and Public Notice Periods**
  - ▣ 1. Application Received
  - ▣ 2. Draft Permit
    - Public Comment
    - Public Meeting
    - Public Hearing



# Timing

- **1-3 years**
- **Facility cannot be constructed without a GW DP and Mining Act Permit**