

NMED

New
Mexico
Environment
Department



SUPERFUND PROGRAM SITES & TERERRO MINE - OBLIGATIONS IN NEW MEXICO

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What is a Superfund Site?

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- When hazardous waste is dumped without being properly managed, it can contaminate the land, air and water around it, causing serious harm to both humans and the environment. These sites include:
 - Dry cleaners
 - Landfills
 - Mining sites operations
 - Railyards
 - Petroleum Exemption from CERCLA (refineries, tank farms, oil production, etc.)

- In 1980, to protect human health, wildlife, and natural resources, Congress established the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) - commonly referred to as “Superfund”.



Superfund Site Cleanup Process

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- Once Superfund sites are identified and placed on the National Priorities List (NPL) cleanup can begin.

- The Environmental Protection Agency (EPA) oversees cleanup of contamination either by forcing the parties responsible for the contamination to :
 - Clean the mess up themselves
 - Reimburse the government for EPA-led remediation efforts

- When there is no viable responsible party, the site is classified as an “orphan site”.



Paying for Superfund Sites

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- Step 1 - EPA ranks an “orphan site” on the NPL and funds 100% of the Remedial Investigation/Feasibility Study, Record of Decision (remedy selection), and Remedial Design.
 - An NPL site may take 6 to 10 years to progress through these stages depending upon site complexity and funding availability.

- Step 2 - For Groundwater Remedial Action:
 - EPA pays 90 % of the first 10 years of Long Term Response Action
 - The State of New Mexico pays 10%

- Step 3 - After the 10 year period New Mexico is obligated for funding 100% of any continuing costs.



New Mexico's Financial Obligations

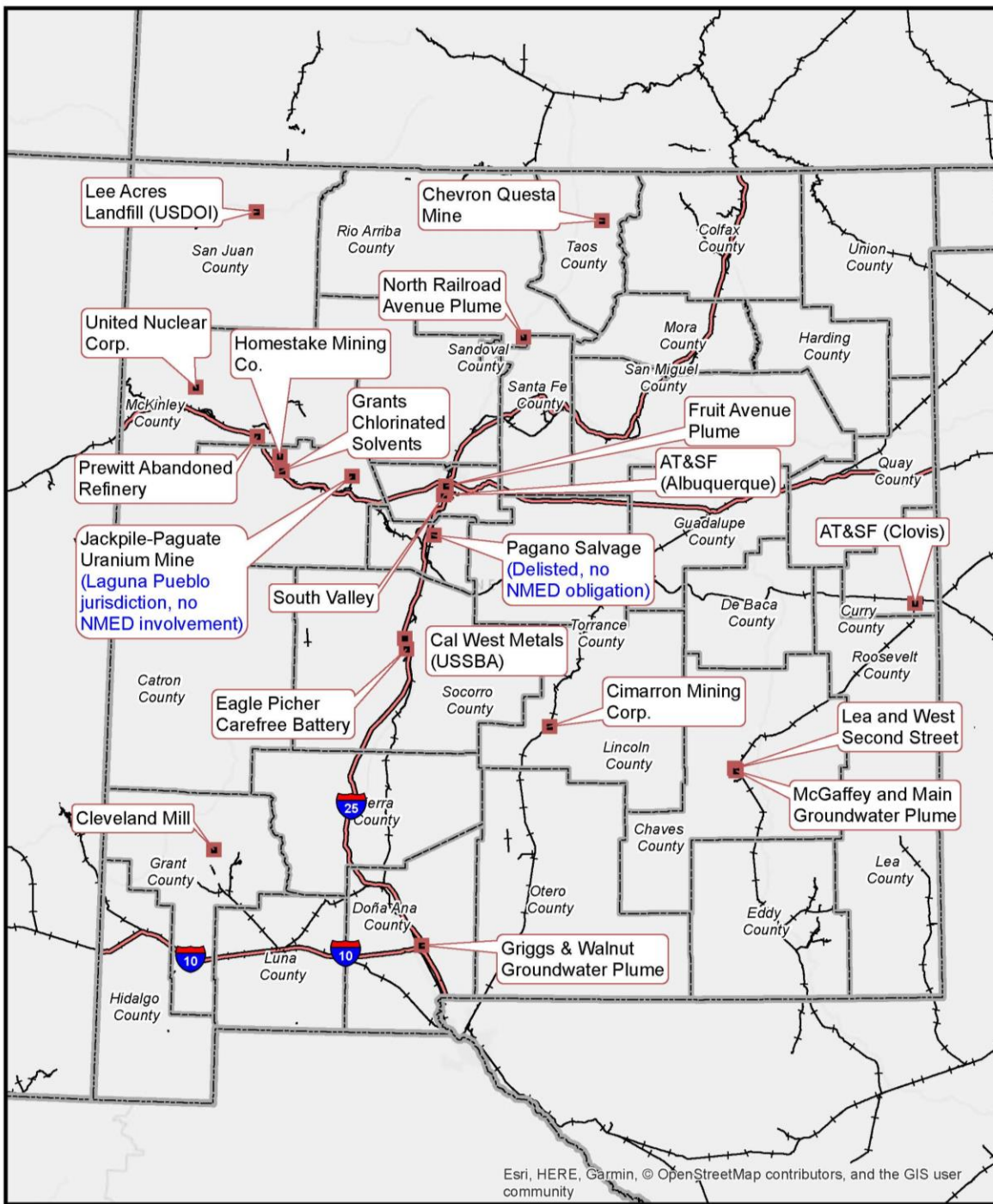
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- New Mexico is required to provide cost share for the cleanup.
 - 10% Cost share for 10 year cleanup and Long Term Response Action
 - 100% Operation and Maintenance after the 10 year Long Term Response Action is complete



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Superfund Sites in New Mexico



Superfund Sites in NM

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- The Superfund Program is managed by the NMED Ground Water Quality Bureau
<https://env.nm.gov/gwqb/sos/>
- Ground water contamination is the primary issue / driving factor at all of the New Mexico Superfund Sites.
- Currently, there are 16 Superfund NPL Sites in New Mexico that are in various stages of investigation, remedial planning, and/or active clean-up. Of these, 8 are orphan sites:
 - 1 site is de-listed
 - 7 sites are active
 - New Mexico is required to contribute funds for the clean-up and long-term maintenance of these 8 orphan sites.
- Additionally there are 3 de-listed sites that have waste repositories, meaning they must undergo operations and maintenance in perpetuity.
- Note: Remedial System Construction Timeframes are very difficult to predict as EPA must prioritize construction based on site risk and funding availability.



Immediate Financial Needs

□ Known costs 2020 through 2023

Sites	NM Annual Obligations	Duration	4 Year Total
10% Cost Share for 2 Active NPL sites 1. McGaffey and Main – Roswell 2. Grants Chlorinated Solvents – Grants	\$77,000	4 years	\$308,000
100% Operations and Maintenance responsibilities at 3 Active NPL sites 1. North Railroad Avenue – Espanola 2. Fruit Avenue Plume – Albuquerque 3. Cimarron Mining – Carrizozo	\$238,000	4 years	\$951,000
Total Immediate Needs	\$315,000		\$1,259,000

□ There are additional, unknown costs 2020 through 2023 that will be determined as the 16 current projects progress.



Long-Term Financial Needs

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- Superfund financial needs are projected over the next 30+ years.
- NM funding obligations are expected to generally increase beginning in 2024, as more orphan sites are added to the NPL as site cleanup systems are implemented at existing sites, and as existing sites move into the Operations and Maintenance Phase.
- Note: Timeframes are very difficult to predict as EPA prioritizes construction based on site risk and funding availability.



Fruit Avenue Plume

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Air Stripper Blower Motor and Air Stripper Trays



Confined Space Entry for Injection Well Maintenance

Orphan TCE plume in downtown Albuquerque. Pump and treat reduced contamination in groundwater enough to transition the remedy to Monitored Natural Attenuation



10 13 2017



10 13 2017



Grants Chlorinated Solvents Superfund Site

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Extremely high concentrations of tetrachloroethene (PCE) were boiled out of shallow groundwater and collected. This strategy significantly reduced the concentrations in groundwater.



Community and Economic Benefits of Superfund Cleanup

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- Groundwater / Drinking Water Supply Cleanup – cleaning up contaminated ground water before it impacts drinking water supplies
- Superfund redevelopment has helped communities reclaim and reuse thousands of acres of formerly contaminated land.
- In addition to protecting public health and restoring the environment, Superfund cleanups support positive economic and social outcomes in communities.
- Many sites – often vacant and underused areas – can be reused and become valuable local assets.
- The cleanups also deter blight, vandalism, and trespassing. Consideration of a site's future use helps to identify long-term site stewards.
- It also engages vulnerable communities in productive dialogue and ensures that site remedies will remain protective over the long term.



Tererro Mine

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- The Pecos Mine and El Molino Mill were operable from 1926 – 1939 and processed about 1.3M tons of ore and about \$40M of minerals:
 - 440,000,000 lbs. zinc
 - 138,000,000 lbs. lead
 - 19,000,000 lbs. of copper
 - 312,000 lbs. of silver
 - 11,000 lbs. of gold

- At the time, the mine and mill were the largest employer in New Mexico.

- Department of Transportation (DOT) and Department of Game and Fish (NMDGF) used mine waste at nearby campgrounds and roads.

- In December, 1992 the Administrative Order on Consent (AOC) was signed NMED, on behalf of the State, administers the AOC
 - Freeport McMoran pays 80%, while NMED (on behalf of DOT and NMDGF) pays 20%.

- Outstanding Balance: \$194,000
- Estimated future costs: \$80,000/year for calendar years 2019-2022



Tererro Mine - Willow Creek

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Before



After



Tererro Mine - Waste Rock Pile

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Before



After



Questions?

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