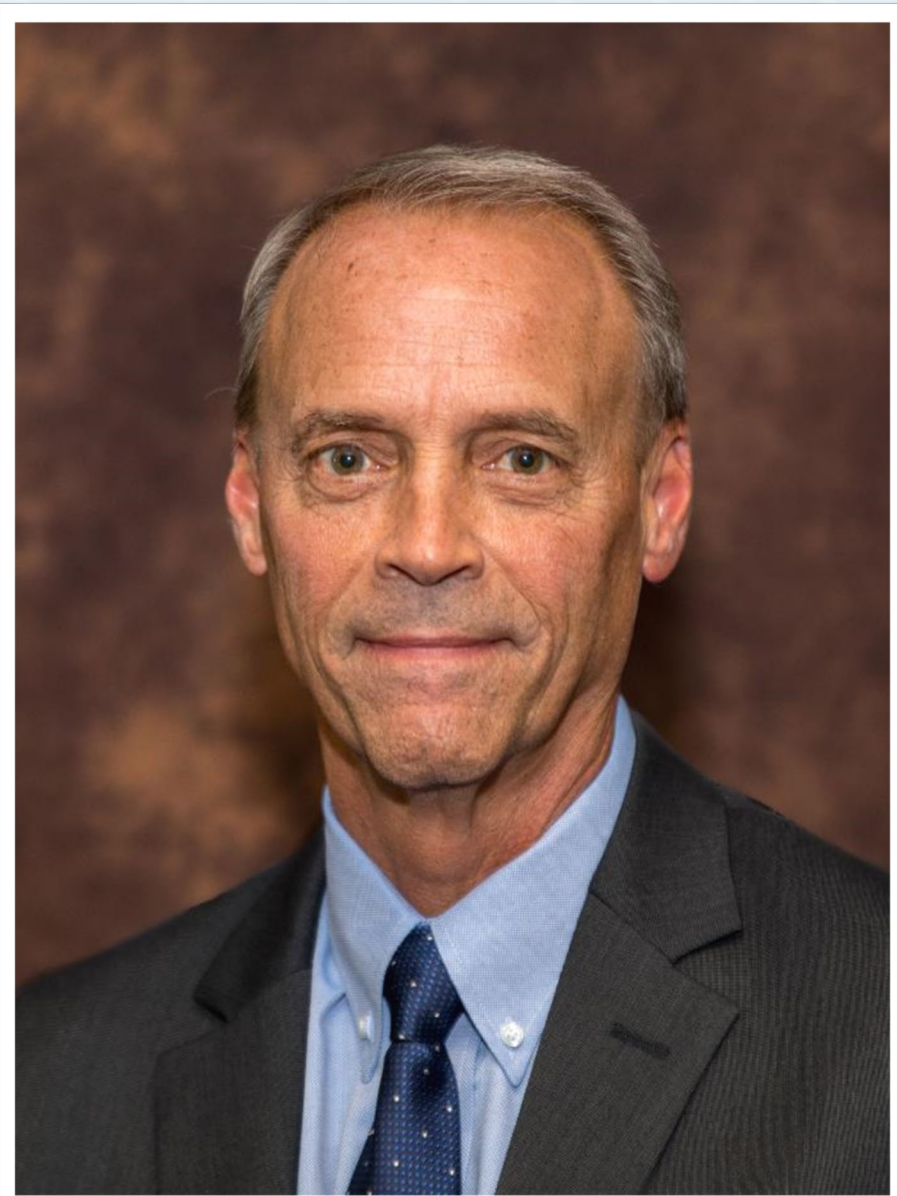




WASTE ISOLATION PILOT PLANT

Legislative Breakfast

January 24, 2023



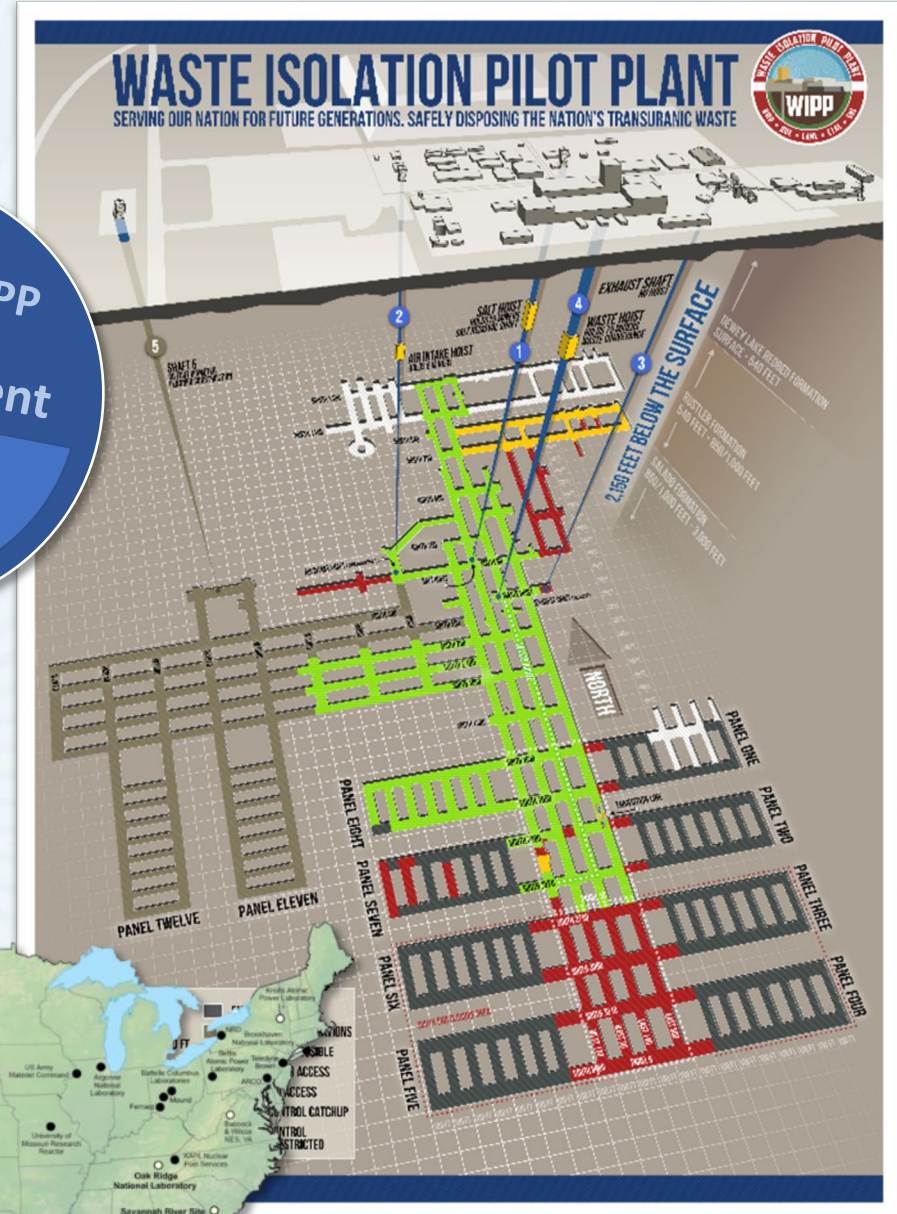
2022 WIPP YEAR IN REVIEW

Keith Stone
Chief of Staff

WIPP'S CRITICAL MISSION

- WIPP opened in **1999** and has now operated for more than 20 years
- Enabled clean up of **22** legacy TRU waste sites throughout the U.S.
- Remains a cornerstone of DOE's ongoing cleanup efforts
- Recapitalization and critical infrastructure upgrades are underway
- Total shipments received: **13,304**
- Total loaded miles traveled: **15,880,894**
- More than **2,561,196** cubic feet of waste disposed
 - Equivalent to six football fields full of 55-gallon drums (133 drums wide by 225 drums long)

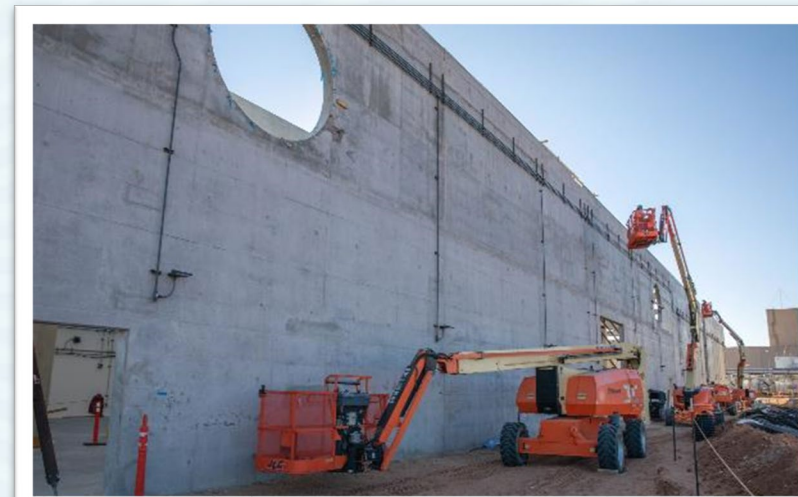
Current WIPP
Utilization
1999 – Present
41%



WASTE ISOLATION PILOT PLANT

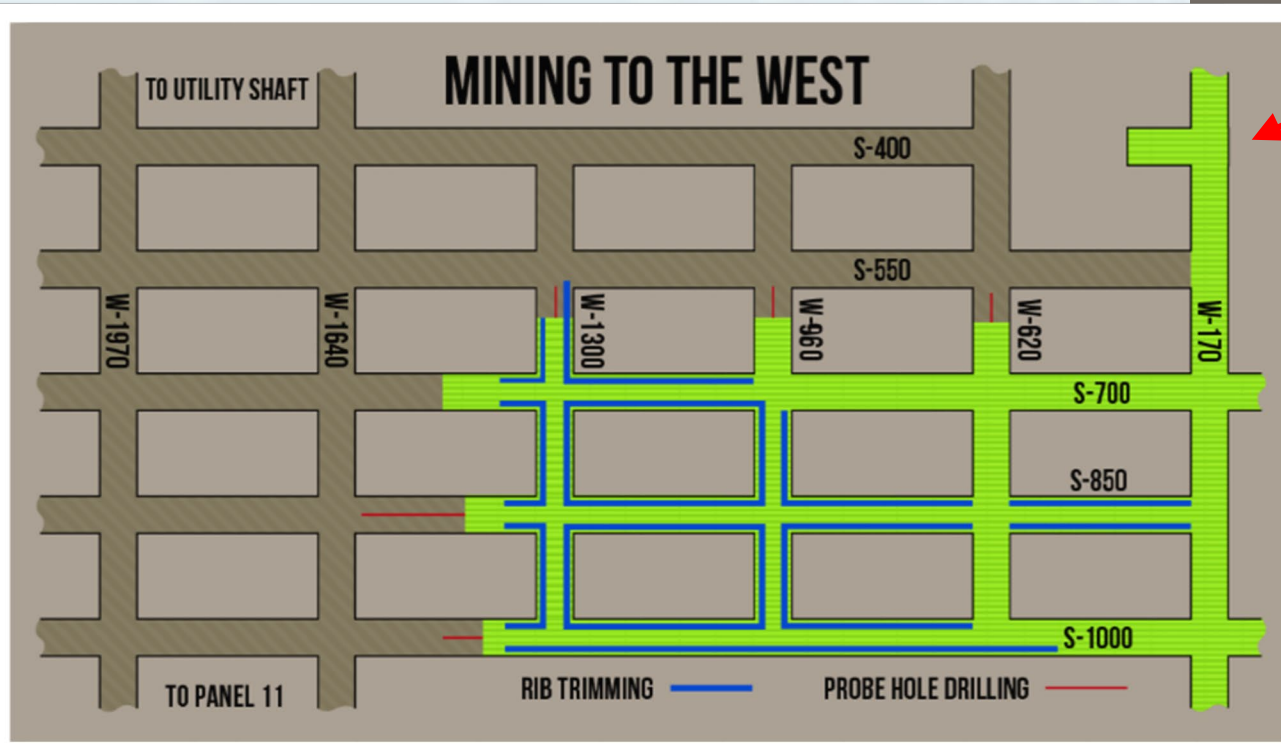
ACCOMPLISHMENTS

- Completed waste emplacement in **Panel 7** and began emplacing waste in **Panel 8**
- Shipments received in FY22: **235**
- Shipments from LANL in FY2022: **76** — FY2023: **29**
 - In the first four months of FY23 we have shipped nearly half of the amount shipped from LANL in FY 2022
- Safety Significant Confinement Ventilation System (SSCVS)**: 91,000 square foot nuclear grade facility that will increase HEPA filtered airflow up to **540,000 CFM**
 - New Filter Building**: 55,000 SQFT building - Emplaced final precast exterior panel to complete exterior structure
 - Salt Reduction Building**: 24,900 SQFT building – Completed structure in 2022. Currently completing major infrastructure work, installing demisters and deduster equipment
- Restarted excavation of the **Utility Shaft Project** - nearing 900 feet deep
- Received certification Nuclear Regulatory Commission for four new **Shielded Container Assemblies**



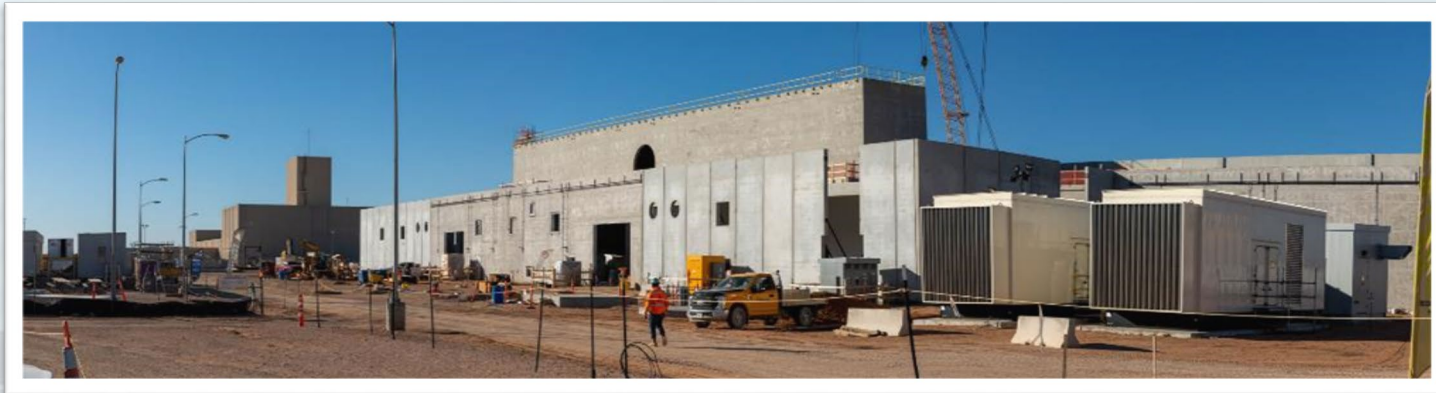
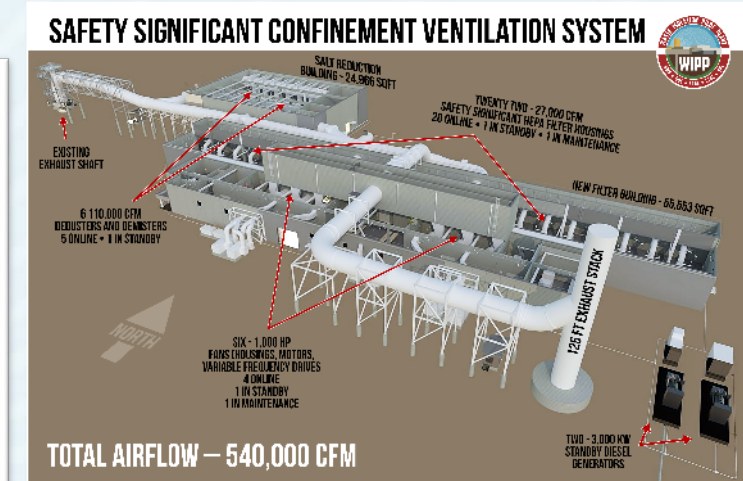
MINING UPDATE

- Rough cut mining is complete to W1300
- Rib trimming is nearing completion in the mined area
- 79,726 cumulative tons of salt mined

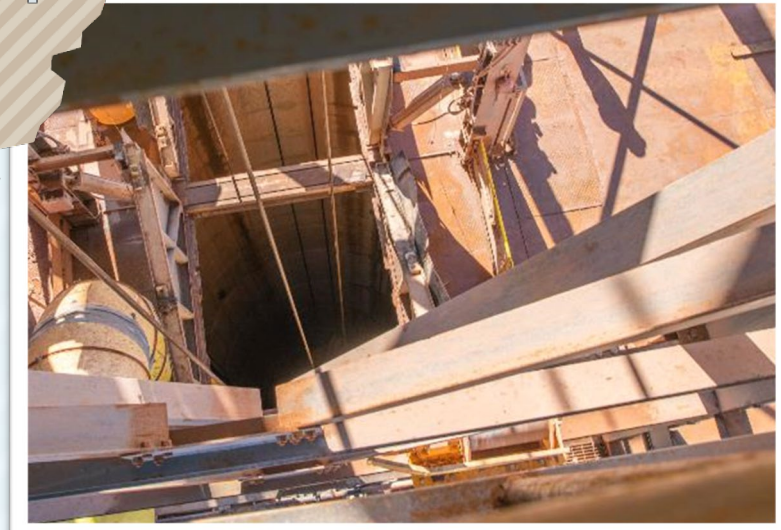
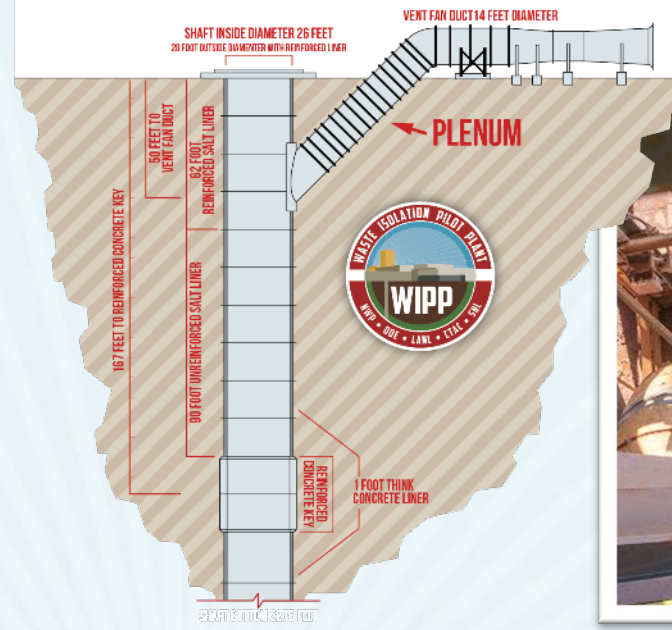


SAFETY SIGNIFICANT CONFINEMENT VENTILATION SYSTEM (SSCVS)

- The SSCVS will increase high efficiency filtered air (HEPA) to the WIPP underground, increasing worker safety throughout the mine.
3 to 1 airflow increase
- **Salt Reduction Building:** Completed large ductwork, filter housings, roof, exterior wall panels. **90%** complete
- **New Filter Building:** Completed structural cast placements, precast columns, beams, spandrels and wall panels. **75%** complete



UTILITY SHAFT



Shaft 5 and Drifts

- Restarted excavation in Shaft 5 June 2022
- Shafts Depth is approaching **900** feet
 - 2,275** feet deep at completion: December 2023
- 28-foot diameter shaft (26-foot diameter after liner)
- Shaft 5 and Connecting Drifts complete target date December 2024



INFRASTRUCTURE PROJECTS



Numerous General Plant Projects (GPP) are underway to upgrade WIPP infrastructure and plant systems

- **Completed in 2022:**
 - Panel 8 Outfitting in support of Panel 8 Certification
 - Salt Pond 2 & 3 Salt Removal
 - Refurbishment of the Salt Hoist Headframe
 - Change Room Remodel
 - Underground Switch Station #1 Replacement
 - Site Network Upgrade – Upgrade the network infrastructure to a 10 gigabit per second (Gb/s) network.

NWP ECONOMIC BENEFITS

Subcontract dollars awarded to New Mexico Businesses

	Total Awarded FY22	Total FY13- FY22
NE New Mexico	\$904,992	\$3,859,596
NW New Mexico	\$6,946,113	\$81,090,090
SE New Mexico	\$25,735,167	\$233,418,903
SW New Mexico	\$49,500	\$1,920,623
	\$33,635,772	\$320,289,213

Small Business Support

During FY22, NWP awarded **\$121,502,476** to small businesses

For FY13 – FY22 NWP awarded **\$628,383,544** to small businesses



COMMUNITY INVOLVEMENT

- Over **\$500,000** in financial contributions
 - More than **\$3,500,000** over the last 10 years
- More than **2,500** volunteer hours
 - Over **7,500** hours over the last 10 years
- Events include
 - STEM days at area schools
 - Volunteering with area organizations including United Way, Carlsbad Public Library, Operation Hope, Carlsbad MainStreet and many more
 - 15 Scholarships for local high school students





Ken Harrawood
President and Program Manager

ABOUT US



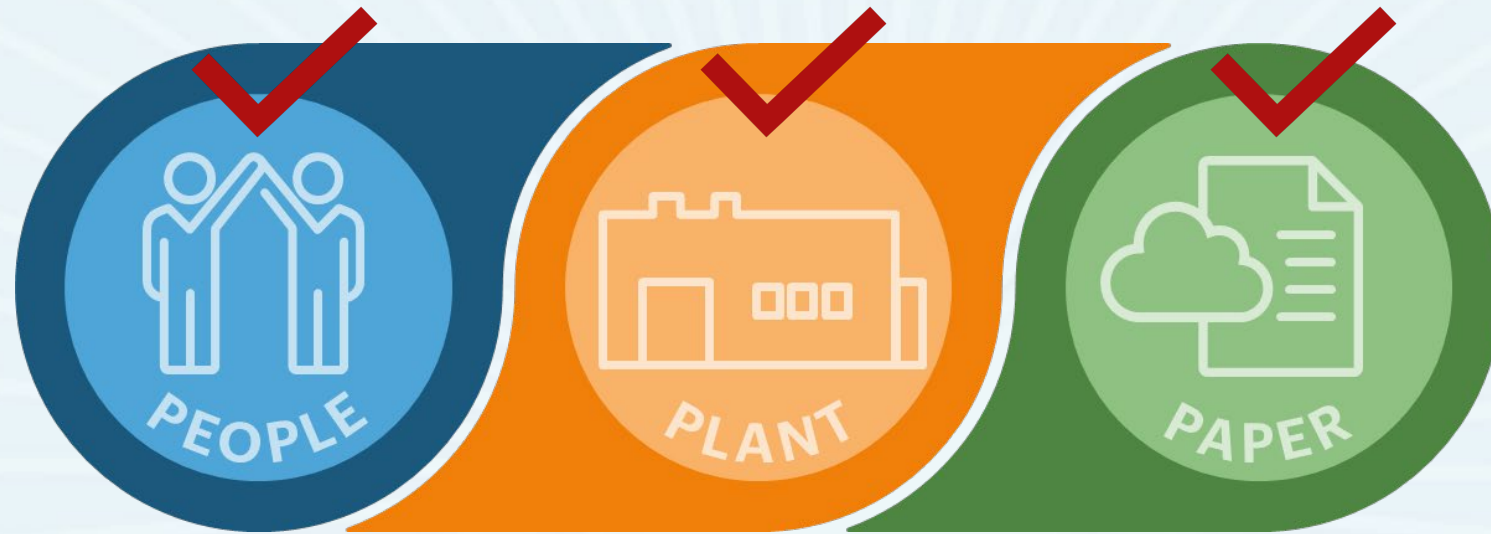
*Solely focused on WIPP operations
and supporting DOE's national cleanup mission*

- 125 years global experience
- Original WIPP design
- DOE laboratories, cleanup sites
- Mining, Oil & Gas
- Large-scale government infrastructure



- Albuquerque-based small business
- Sandia, Los Alamos laboratories
- DOE cleanup sites
- Instrumentation & controls, environmental, sampling & analysis, waste management

STATUS OF TRANSITION



Declaration of Readiness



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2023: A LOOK AHEAD

U.S. Department of Energy,
Carlsbad Field Office Manager
Reinhard Knerr

Budget FY21-FY23

	Base Operational \$	Capital Project \$	Total
Budget FY21 Enacted	\$320,0600,000	\$100,000,000	\$420,066,000
Budget FY22 Enacted	\$358,230,000	\$90,000,000	\$448,230,000
Budget FY23 Enacted	\$361,250,000	\$105,273,000	\$466,523,000

CONTRACTORS at WIPP

- Outgoing M&O – Nuclear Waste Partnership LLC
 - April 2012 – February 2023
 - \$2.8 Billion
- Incoming M&O – Salado Isolation Mining Contractors (SIMCO)
 - February 2023 – November 2026 (with 6 one-year options)
 - \$3 Billion
- WIPP TRANSPORTATION – CAST Specialty Transp. Inc.
 - June 2022 – May 2027
 - \$112 million
- CTAC – Navarro Research & Engineering Inc.
 - April 2022 – March 2025 (with 1 two-year option)
 - \$100 million
- DOE TRANSCOM Tech Support Services– Aleut Aerospace Engineering, LLC
 - July 2019 – July 2024
 - \$9 million



SHORT TERM OPERATIONAL GOALS

- Ramp up shipments to 17 per week in CY23
- Continuing to prioritize LANL shipments to WIPP
- Continue emplacement of TRU waste in Panel 8
- Complete mining West Mains to Panel 11



FY23 SHIPMENT PROJECTIONS



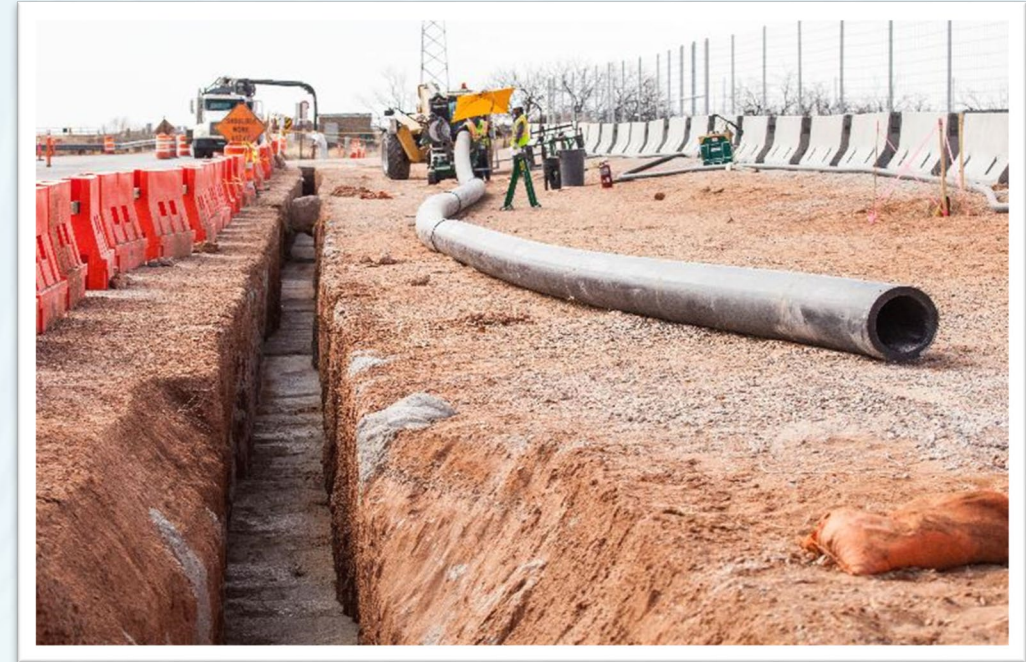
Site	Actual Shipments in FY 2022	Actual Shipments in FY 2023 as of 1/10/23	Projected Shipments in FY 2023
LANL (EM and NNSA)	76	29	80
INL	130	65	394
OREM	12	5	35
SRS (EM and NNSA)	15 (EM only)	5	29
SQS (SNL, LLNL, ANL)	2	3	9
WCS	--	--	--
Total	235	107	400

* FY23 projections are based on availability of certified TRU waste for shipment

INFRASTRUCTURE INVESTMENTS

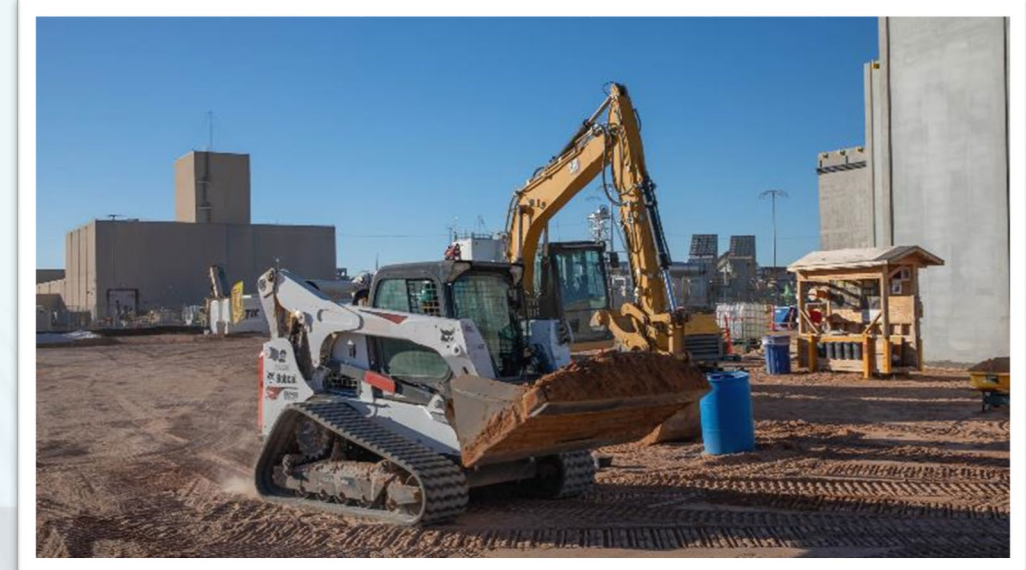
Infrastructure improvement projects targeted for completion in 2023 include:

- Underground Salt Loading Pocket Refurbishment
 - Work expected to start July FY23
- Replacing electrical Substation #3 with an updated electrical substation
- Constructing an Above Ground Fuel Tank Fueling Facility
- New Fire Water Pump House
- Main Building Ties-ins to new fire loop
- Replacement of Fire Alarm System strobes, pull stations, cabinets in buildings



CAPITAL ASSET PROJECTS

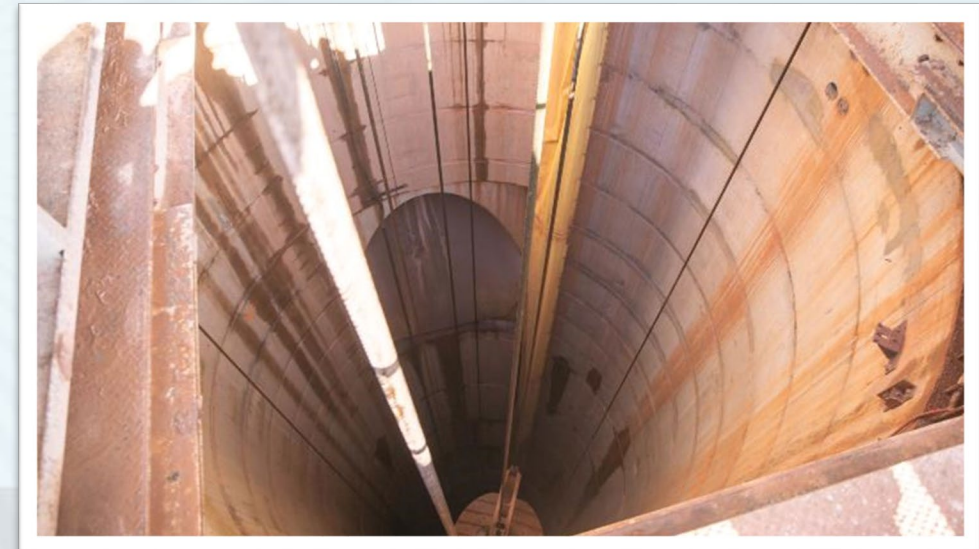
- The SSCVS project is essential to the future of the WIPP site. By the end of CY23 we should have major construction and equipment installation completed including:
 - Complete construction of the **New Filter Building (NFB)**, the weather tight roofing system and installation of all NFB building doors.
 - Complete the installation of the six, **1000hp Exhaust Fans**
 - Complete the installation of the **22 HEPA Filter Units**
 - Complete the installation of the **NFB ductwork**.
 - Complete the installation of the external ductwork and installation of the **125 foot Exhaust Stack**.
 - **Commission the SRB** including the Water Treatment System, the Salt Reduction Units and the Air Compressor system.
 - Complete the **site infrastructure components** including the roads, permanent Property Protection Area (PPA) fencing, sidewalks, curbs and lightning protection system.



CAPITAL ASSET PROJECTS (continued)

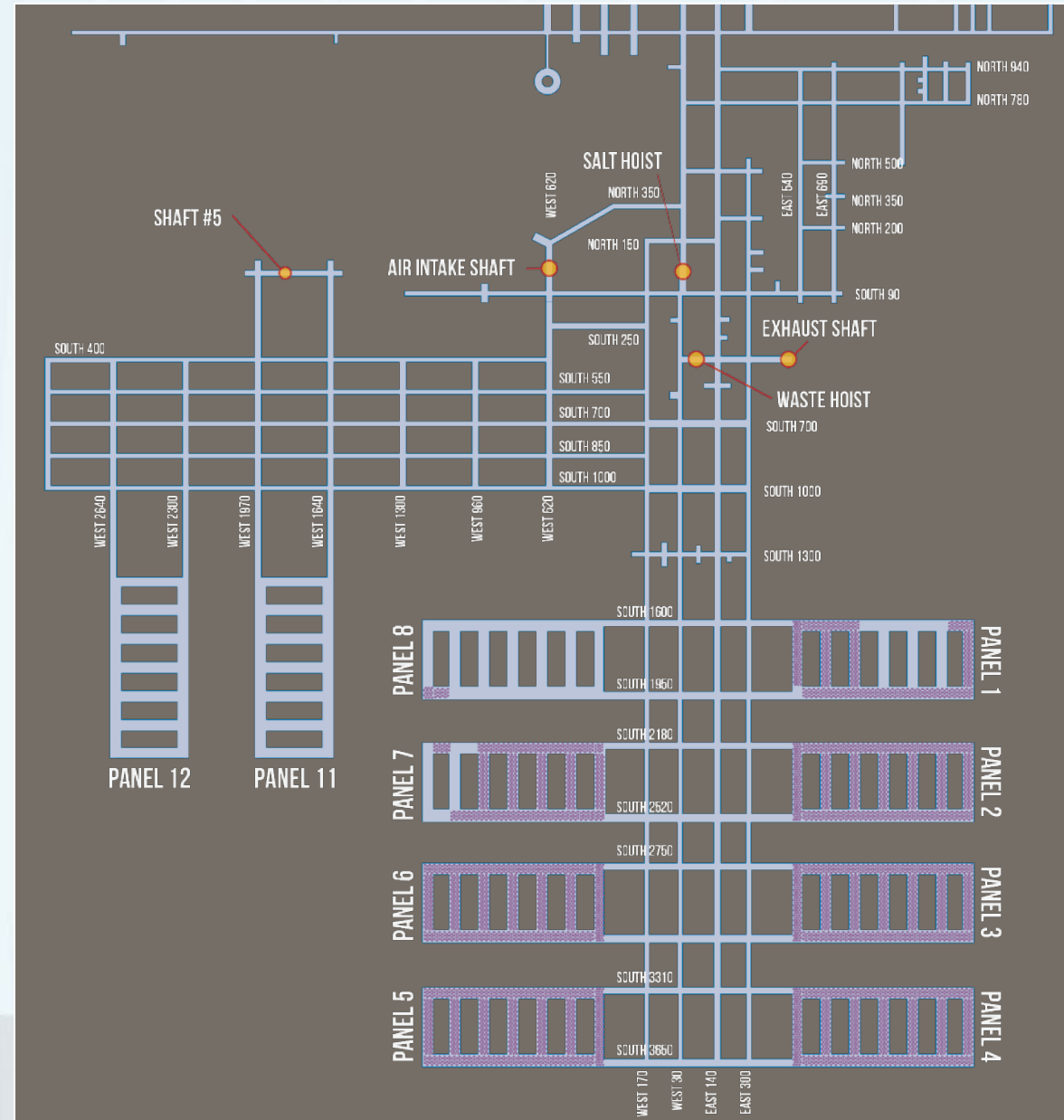
The Utility Shaft (US) project is essential to the future of the WIPP site. Project Objectives for 2023 include:

- Completion of shaft mining to **2275** feet.
- Receive the 2-**500,000 cfm** Air Handling Fans
- Receive the electrical underground components.
- Complete the above ground **13 foot diameter** ductwork installation.



REGULATORY OUTLOOK

- 10-year Permit Renewal Application/Combined with Class 3 PMR, Construction and Use of Hazardous Waste Disposal Units 11 and 12
 - NMED issued draft Permit on December 20, 2022 for 60 day comment period
 - Comments are due to the NMED on the Draft Permit on February 18, 2023
- May 2022 - The CRA-2019 Re-certification was granted by the EPA and the decision was published in the Federal Register



STAKEHOLDER ENGAGEMENT

- Community Forum Meetings
- Editorial Board Meetings
- Speakers Bureau
- Social Media
- WIPP Roadshows
- Continued emphasis on NM Stakeholders





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Los Alamos National Laboratory Legacy Environmental Cleanup

Michael Mikolanis, Manager
Environmental Management Los Alamos Field Office
January 24, 2023



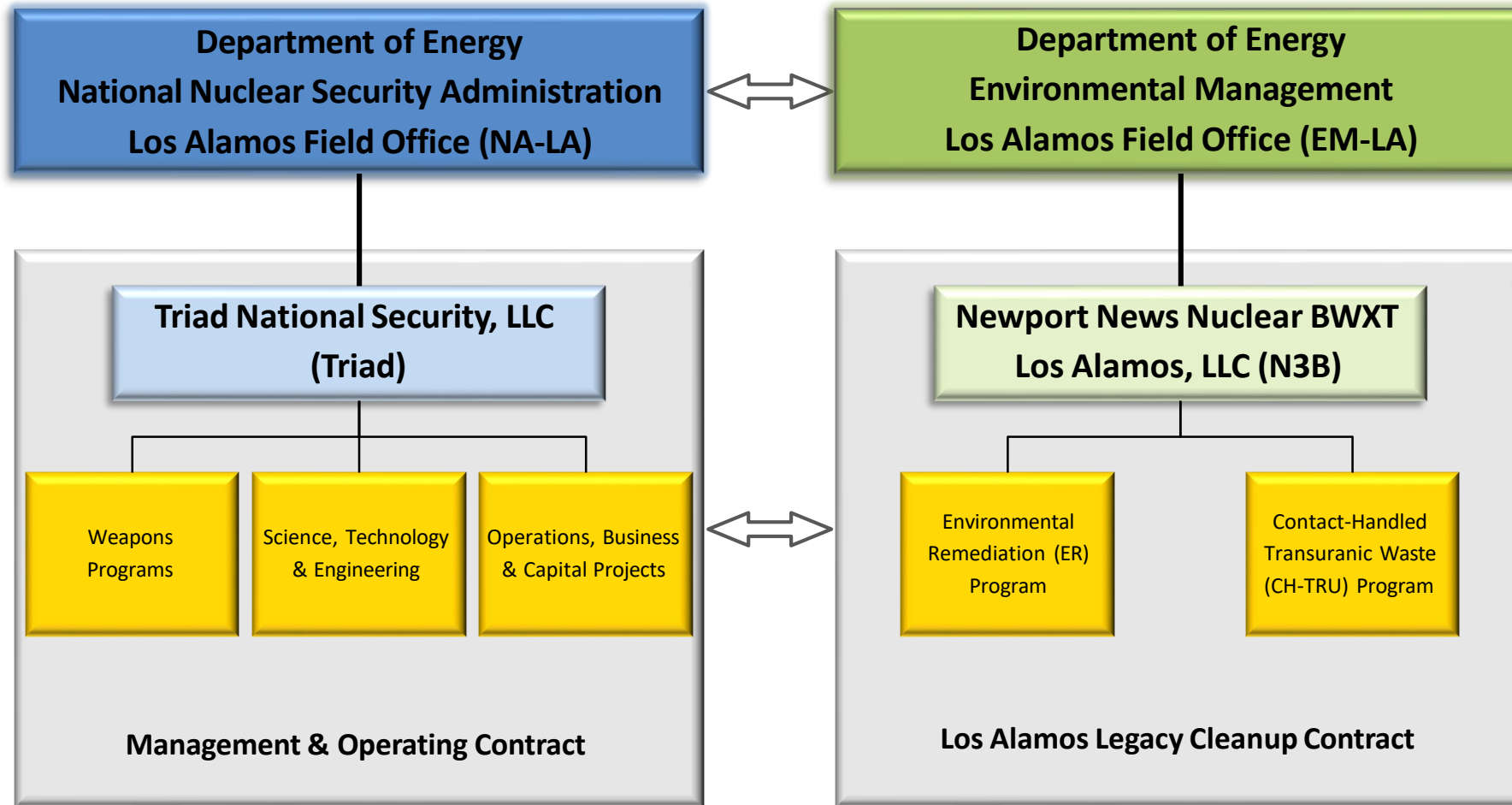
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Organizational Structure



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EM-LA's Mission

EM-LA's Legacy Cleanup Mission

To safely, efficiently and with full transparency
complete the cleanup of legacy (pre-1999)
contamination and waste resulting from nuclear
weapons development and government-
sponsored nuclear research at LANL



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- Fiscal Year 2021
 - \$226M
- Fiscal Year 2022
 - \$292M
- Fiscal Year 2023
 - \$331.835M

Additional FY22/FY23 Work Scope:

- New wells to help complete delineation of nature and extent of hexavalent chromium plume
- Critical well repair and maintenance
- Aggregate Area investigation and remediation
- Middle DP Road Site additional waste volumes
- Deactivation & Decommissioning facility project
- Characterization of Building 257 and industrial waste lines at Technical Area 21





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Top Priorities for FY23

- Continued shipments of LANL legacy waste to WIPP
- Environmental Remediation
 - Hexavalent chromium plume control and characterization
 - Completion of Middle DP Road Site cleanup
 - Site investigation and cleanup of Aggregate Areas
- Justice40 Initiative implementation
- Stakeholder, pueblo and community engagement
- EM-LA Strategic Vision development



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Legacy Waste Operations

- Exceeded FY22 goal for contact-handled transuranic (CH-TRU) waste shipments to Waste Isolation Pilot Plant (WIPP) by 70 percent
- Completed 27 TRU waste shipments in FY23
- Corrugated metal pipe retrievals at Technical Area 54 (TA-54), Area G
- Started up Drill and Drain operations at TA-54, Area G for treatment of TRU waste drums not compliant for WIPP

After retrieving corrugated metal pipes (CMPs), a hydraulic shear will be used to cut CMPs into sections for characterization



Crews use a mobile-loading unit to place containers of LANL's legacy transuranic waste into casks for transport to WIPP



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Prioritizing Legacy Waste

- Los Alamos is the only site included as a DOE EM priority goal for transuranic waste shipments
- Use of TRIAD RANT facility for increased EM-LA shipments
- More efficient use of transportation resources, minimization of trucks on the road
- EM-LA is the only site with an “at ready agreement” with WIPP, meaning when we have a shipment ready, WIPP will accept it right away



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Hexavalent Chromium Plume Control & Characterization

➤ Primary Objectives of Interim Measures:

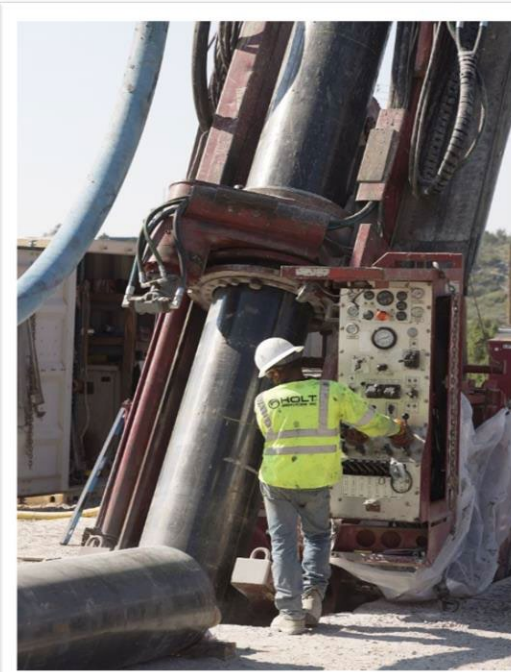
1. Prevent migration of
plume beyond LANL
boundary

While simultaneously:

2. Obtain data necessary
to propose final remedy

3. Submit proposed final
remedy to regulator,
NMED

Ion Exchange Unit treats groundwater
contaminated with hexavalent chromium



Drilling Well R-71

Hexavalent Chromium central treatment area



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EM-LA Stakeholder Priorities

Stakeholder and Community
Engagement

EM-LA Strategic Vision

Justice40 Initiative



Pueblo
Engagement

Northern New Mexico Citizens'
Advisory Board

Regulator Relationships



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Stakeholder Engagement

- New Mexico Environment Department
- NM Radioactive & Hazardous Materials Committee
- Defense Nuclear Facilities Safety Board
- Natural Resource Damage Assessment Trustee Council
- Tribal Governments, Pueblos in Northern New Mexico
- Accord Pueblos Executive Leadership Meeting
- Accords Technical Exchange Meetings
- Santa Fe Indian School
- DOE, EPA and State Dialogue Meetings
- LANL Technical Working Group
- National Governors Association/Federal Facility Task Force
- Los Alamos County
- Santa Fe County
- Northern New Mexico Citizens' Advisory Board
- UNM-Taos HIVE
- Environmental Management Cleanup Forums
- Site Tours



Northern New Mexico Citizens'
Advisory Board site tour



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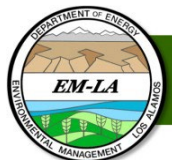
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Accord Pueblo and Santa Fe Indian School Engagement

- Annual Accord Executive Meeting was held for first time in March 2022
- Monthly/quarterly meetings with Accord Pueblo leadership
- Consultation with Pueblo de San Ildefonso on Chromium Interim Measures
- Built capacity for Los Alamos Pueblos' Project agreement to include support for more soil and water sampling by the pueblos' environmental departments
- Presentations on legacy cleanup for Accords Technical Exchange Meetings
- Ongoing collaboration with Santa Fe Indian School
 - School visits to better understand needs of Community Based Education Program
 - Tailored site tours for different student groups
 - Participation in EM-LA Strategic Vision



Santa Fe Indian School tour at
Overlook of Rio Grande in White Rock



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Regulatory & Oversight Focus

➤ NMED

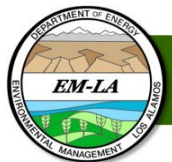
- Priority effort to reset relationship based on transparency and open conversations
- Conduct regular meetings with senior leadership and technical teams

➤ 2016 Compliance Order on Consent

- Achieved 18 of 18 FY22 Appendix B Milestones early or on time
- In final negotiations for FY23 Appendix B Milestones with NMED

➤ Defense Nuclear Facilities Safety Board

- Conduct regular communications with resident inspectors at LANL
- Participated on the LANL Area G Transuranic Waste Management Facility panel at DNFSB public hearing in November 2022



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Justice40 Initiative

- The Justice40 Initiative is a whole-of-government effort to deliver at least 40% of the overall benefits from certain Federal investments in climate and clean energy to disadvantaged communities
- EM-LA was selected as one of five DOE Justice40 Initiative Pilot Programs, and the only Justice40 pilot program in EM
- LANL legacy cleanup fits under the Federal Covered Program of “remediation and reduction of legacy pollution”
- Strengthening relationships with stakeholders, pueblos and the public through meaningful and ongoing engagement and listening
- Leveraging “Thought Partners” to collaborate on best practices
- In parallel with Justice40 Initiative efforts, EM-LA is developing a long-term Strategic Vision to prioritize work scope for future cleanup campaigns



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EM-LA Strategic Vision

- In 2022, EM-LA launched its long-term Strategic Vision development
- Enhance engagement and participation in legacy cleanup decisions
- Conduct sessions to obtain feedback and values to aide in prioritizing work scope for the remaining legacy cleanup campaigns
- Consider existing regulatory commitments, and determine how best to use available funding and resources
- EM-LA Strategic Vision will be integrated with DOE's broader goals for cleanup completion
- Initial participation from diverse group of stakeholders and all four Accord Pueblos
- To participate, contact EMLA_STRATEGICVISION@EM.DOE.GOV



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Questions?