



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**



# Los Alamos National Laboratory Legacy Environmental Cleanup Fiscal Year 2022 Accomplishments and Fiscal Year 2023 Milestones

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ENVIRONMENTAL MANAGEMENT  
SAFETY ♦ PERFORMANCE ♦ CLEANUP ♦ CLOSURE



## ➤ **Fiscal Year (FY) 2022 Accomplishments**

- ✓ 18 Appendix B Milestones completed in FY 2022
  - 16 submitted to NMED before due dates
  - 2 submitted to NMED on due dates
- ✓ 79 other Consent Order deliverables submitted to NMED in FY 2022
  - “Fiscal Year 2022 Consent Order Deliverable Accomplishments” delivered to NMED on 11/21/2022. Available in Los Alamos Legacy Waste Cleanup Electronic Public Reading Room: <https://ext.em-la.doe.gov/eprp/repo-file.aspx?oid=0902e3a680135e63&n=EMID-702441.pdf>

## ➤ **Appendix B FY 2023 Milestones under 2016 Compliance Order on Consent**

- ✓ 14 Appendix B Milestones agreed to between NMED and DOE for FY 2023





# Consent Order Campaigns & Status

Campaign	Status	Number of Solid Waste Management Units (SWMUs)/Areas of Concern (AOCs)
Chromium Interim Measures and Characterization Campaign	In Progress	0
Historical Properties Completion Campaign	In Progress	62
Royal Demolition Explosives (RDX) Characterization Campaign	In Progress	2
Supplemental Investigation Reports Campaign	In Progress	146
TA-21 D&D and Cleanup Campaign	In Progress	38
RDX Remedy Campaign	Not Started	2
Known Cleanup Sites (Above SSLs) Campaign	Completed	0
Material Disposal Areas A and T Remedy Campaign	In Progress	9
Chromium Final Remedy Campaign	Not Started	0
Southern External Boundary Campaign	In Progress	76
Material Disposal Area C Remedy Campaign	In Progress	1
Sandia Canyon Watershed Campaign	Not Started	64
Pajarito Watershed Campaign	In Progress	177
Upper Water Watershed Campaign	Not Started	266
Material Disposal Area AB Remedy Campaign	Not Started	7
Material Disposal Area H Remedy Campaign	Not Started	1
Material Disposal Areas G and L Remedy Campaign	In Progress	12
<b>Total SWMUs/AOCs</b>		<b>863</b>



# Consent Order SWMU & AOC Status

Number of SWMUs/AOCs	Status
0	Corrective Measures Evaluation in Progress
1	Corrective Measures Evaluation submitted to NMED
2	Corrective Measures Implementation Reports submitted to NMED
87	Certificate of Completion (COC) with Controls
288	Certificate of Completion without Controls
134	Deferred Sites
419	Pre-Investigation
213	Request for Certificate of Completion submitted to NMED
71	RCRA Facility Investigation in Progress
190	RCRA Facility Investigation Report Submitted to NMED
<b>1,405</b>	<b>Total Number of SWMUs/AOCs</b>





## Chromium Interim Measures and Characterization Campaign

- 7 FY 2022 Appendix B Milestones Completed:
  1. Chromium Interim Measures and Characterization Work Plan
  2. Annual Progress Report on Chromium Plume Control Interim Measure Performance July 2021 through March 2022
  3. Letter Report Documenting Completion of Well R-71 and Collection of First Samples
  4. Letter Report for Well R-72 Completion and Collection of First Groundwater Samples
  5. Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-73
  6. Drilling Work Plan for Groundwater Regional Aquifer Monitoring Well R-76 (Replacement of Groundwater Regional Aquifer Monitoring Well R-28)
  7. Drilling Work Plan for Chromium Groundwater Project Regional Aquifer Monitoring Well R-77
  
- Continued to characterize, control and treat hexavalent chromium plume in groundwater beneath Los Alamos National Laboratory, a key environmental remediation project



## Pajarito Watershed Campaign

- 3 FY 2022 Appendix B Milestones Completed
  1. Phase II Threemile Canyon Aggregate Area Progress Report
  2. Twomile Canyon Aggregate Area Progress Report
  3. Starmer/Upper Pajarito Canyon Aggregate Area Progress Report
  
- Investigations of SWMUs/AOCs potentially contaminated soil in Twomile Canyon, Starmer/Upper Pajarito Canyon and North Ancho Canyon Aggregate Areas
  
- Collected 758 soil samples at 242 locations
  
- COCs requested: 1
- COCs issued: 1
- Remaining COCs to be issued: 0





## Southern External Boundary Campaign

- 1 FY 2022 Appendix B Milestone Completed
  1. North Ancho Canyon Aggregate Area Phase II Investigation Progress Report
  
- COCs requested: 22
- COCs issued: 0
- Remaining COCs to be issued: 22







## Supplemental Investigation Reports Campaign

- 2 FY 2022 Appendix B Milestones Completed
  1. Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary, Revision 1
  2. Supplemental Investigation Report for Sites at Technical Area 49 Outside the Nuclear Environmental Site Boundary, Revision 1
  
- COCs requested: 168
- COCs issued: 20
- Remaining COCs to be issued: 148







## Royal Demolition Explosives (RDX) Characterization Campaign

- 2 FY 2022 Appendix B Milestones Completed
  1. Fate and Transport Modeling and Risk Assessment Report for RDX Contamination in Deep Groundwater, Revision 1
  2. Drilling Work Plan for RDX Groundwater Project Regional Aquifer Monitoring Well R-74





## Material Disposal Areas G and L Remedy Campaign

- 2 FY 2022 Appendix B Milestones Completed
  1. Interim Measures Final Report for Soil-Vapor Extraction of Volatile Organic Compounds from Material Disposal Area L, Technical Area 54, Revision 1
  2. Periodic Monitoring Report for 2021 Vapor-Sampling Activities at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54





## Other Campaigns

- 1 FY 2022 Appendix B Milestone Completed
  1. Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for the 2023 Monitoring Year, October 2022–September 2023
- IFGMP is an annual update to integrated groundwater monitoring program with adjustments to sampling, monitoring groups, analytes and frequencies based on previous results
- IFGMP involves multiple campaigns: Chromium Interim Measures and Characterization Campaign, Royal Demolition Explosives (RDX) Characterization Campaign, and Material Disposal Area campaigns







## Other Highlights

- Requested Certificates of Completion from New Mexico Environment Department for 72 SWMUs/AOCs investigated for soil contamination and remediated, as necessary



- Continued investigating and remediating contaminated debris at Los Alamos County-owned land along [Middle DP Road](#)





# FY 2023 Appendix B Milestones

Campaign	Milestone #		Due Date	Submittal Date
Chromium Interim Measures and Characterization Campaign	1	Interim Facility-Wide Groundwater Monitoring Plan (IFGMP) for MY 2024 (October 2023-September 2024)	6/30/2023	
Royal Demolition Explosives (RDX) Characterization Campaign				
Material Disposal Areas A and T Remedy Campaign				
Material Disposal Area C Remedy Campaign				
Material Disposal Area H Remedy Campaign				
Material Disposal Areas G and L Remedy Campaign				





# FY 2023 Appendix B Milestones

Campaign	Milestone #		Due Date	Submittal Date
Chromium Interim Measures and Characterization Campaign	2	Annual Progress Report on Chromium Plume Control Interim Measure Performance	6/30/2023	
	3	Letter Report Documenting Start of the Drilling of Regional Aquifer Monitoring Well R-76	9/21/2023 <sup>a</sup>	
	4	Drilling Work Plan for Regional Aquifer Monitoring Well R-80	12/1/2022	11/29/2022
	5	Drilling Work Plan for Regional Aquifer Monitoring Well R-79	6/30/2023	
Material Disposal Areas A and T Remedy Campaign	6	Final Investigation Work Plan for Material Disposal Area A, at Technical Area 21	6/15/2023	
	7	Final Investigation Work Plan for Material Disposal Area T, at Technical Area 21	6/15/2023	







# FY 2023 Appendix B Milestones

Campaign	Milestone #	Consent Order Milestone	Due Date	Submittal Date
Southern External Boundary Campaign	8	Phase II Investigation Report for North Ancho Canyon Aggregate Area	8/30/2023	
	9	Progress Report for Phase II Investigation Report for Potrillo and Fence Canyons Aggregate Area	9/29/2023	
Pajarito Watershed Campaign	10	Twomile Canyon Aggregate Area Progress Report	9/29/2023	
	11	Phase II Investigation Report for Threemile Canyon Aggregate Area	8/30/2023	
	12	Starmer/Upper Pajarito Canyon Aggregate Area Progress Report	9/29/2023	
Material Disposal Area H Remedy Campaign	13	Corrective Measures Evaluation ("CME") Report for Material Disposal Area H, Solid Waste Management Unit 54-004, at Technical Area 54, Revision 1	9/30/2023	
Material Disposal Areas G and L Remedy Campaign	14	Periodic Monitoring Report for 2022 Vapor-Sampling and Soil-Vapor Extraction (SVE) at Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 54	5/30/2023	

<sup>a</sup>Date is based on the New Mexico Office of the State Engineer (OSE) issuing the drilling permit within 60 calendar days after DOE submits drilling permit application.

Note: Milestones and Target Dates in this Appendix B are contingent on:

- (1) New Mexico Environment Department completing its review pursuant to Section XXIII.D and Appendix D of the 2016 Compliance Order on Consent; and
- (2) DOE's ability to obtain on a timely basis, necessary authorizations, approvals, permits, or licenses of any governmental agency or authority.





Stakeholder and Community Engagement

EM-LA Strategic Vision



Pueblo Engagement

Regulator Relationships

Northern New Mexico Citizens' Advisory Board





# Stakeholder Engagement

- New Mexico Environment Department
- NM Congressional/Subcommittee Staffers
- NM State Representatives
- NM Radioactive and Hazardous Materials Committee
- Defense Nuclear Facilities Safety Board
- Tribal Governments, Pueblos in Northern New Mexico
- Natural Resource Damage Assessment Trustee Council
- Accord Pueblos Executive Leadership Meeting
- Accords Technical Exchange Meetings
- Santa Fe Indian School
- UNM-Taos HIVE
- Local Community Organizations
- Non-governmental Organizations
- Buckman Direct Diversion Board
- Los Alamos County
- Santa Fe County
- City of Espanola
- Northern New Mexico Citizens' Advisory Board
- Environmental Management Cleanup Forums
- LANL Technical Working Group







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## EM-LA welcomes feedback on the LANL Legacy Cleanup Project

Email us at: [LegacyCleanupFeedback@em-la.doe.gov](mailto:LegacyCleanupFeedback@em-la.doe.gov)

Or

Submit feedback at: <https://n3b-la.com/>



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