



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

Lee Bishop, Director  
Office of Quality and Regulatory Compliance  
Environmental Management Los Alamos Field Office  
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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. North Ancho Canyon Aggregate Area Phase II Investigation 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. Phase II Threemile Canyon Aggregate Area 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







- 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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