

APPENDIX C  
CAMPAIGNS

## Appendix C – Campaigns

SWMU/AOC numbers in Appendix C do not include sites that have already received Certificates of Completion or are deferred per Appendix A.

	<b>Campaign</b>	<b>Status</b>	<b>Number of SWMUs/AOCs</b>
<u>A.</u>	<u>Chromium Interim Measures and Characterization Campaign</u>	<u>In Progress</u>	<u>0</u>
<u>B.</u>	<u>Historical Properties Completion Campaign</u>	<u>In Progress</u>	<u>62</u>
<u>C.</u>	<u>Royal Demolition Explosives (RDX) Characterization Campaign</u>	<u>In Progress</u>	<u>2</u>
<u>D.</u>	<u>Supplemental Investigation Reports Campaign</u>	<u>In Progress</u>	<u>146</u>
<u>E.</u>	<u>TA-21 D&amp;D and Cleanup Campaign</u>	<u>In Progress</u>	<u>38</u>
<u>F.</u>	<u>RDX Remedy Campaign</u>	<u>Not Started</u>	<u>2</u>
<u>G.</u>	<u>Known Cleanup Sites (Above SSLs) Campaign</u>	<u>Completed</u>	<u>0</u>
<u>H.</u>	<u>Material Disposal Areas A and T Remedy Campaign (MDAs A &amp; T Remedy)</u>	<u>In Progress</u>	<u>9</u>
<u>I.</u>	<u>Chromium Final Remedy Campaign</u>	<u>Not Started</u>	<u>0</u>
<u>J.</u>	<u>Southern External Boundary Campaign</u>	<u>In Progress</u>	<u>76</u>
<u>K.</u>	<u>Material Disposal Area C Remedy Campaign (MDA C Remedy)</u>	<u>In Progress</u>	<u>1</u>
<u>L.</u>	<u>Sandia Canyon Watershed Campaign</u>	<u>Not Started</u>	<u>64</u>
<u>M.</u>	<u>Pajarito Watershed Campaign</u>	<u>In Progress</u>	<u>177</u>
<u>N.</u>	<u>Upper Water Watershed Campaign</u>	<u>Not Started</u>	<u>266</u>
<u>O.</u>	<u>Material Disposal Area AB Remedy Campaign (MDA AB Remedy)</u>	<u>Not Started</u>	<u>7</u>
<u>P.</u>	<u>Material Disposal Area H Remedy Campaign (MDA H Remedy)</u>	<u>Not Started</u>	<u>1</u>
<u>Q.</u>	<u>Material Disposal Areas G and L Remedy Campaign (MDAs G &amp; L Remedy)</u>	<u>In Progress</u>	<u>12</u>
<b>Total SWMUs/AOCs</b>			<b>863</b>

The following sections list and describe the campaigns expected to be performed at LANL. The campaigns listed below will complete the work scope under the Consent Order.

A. Chromium Interim Measures and Characterization Campaign – In Progress

This campaign includes installation and operation of wells and associated equipment necessary to meet three primary objectives: 1) provide interim measures to prevent migration of the plume beyond the Laboratory boundary; 2) perform scientific studies and aquifer testing to obtain data necessary to conduct a Corrective Measures Evaluation; and 3) conduct a Corrective Measures Evaluation. (SWMUs/AOCs: 0)

B. Historical Properties Completion Campaign – In Progress

This campaign includes additional investigation and remediation (as necessary) for sites in the historical location of the Laboratory that are in the Aggregate Areas listed below. Some of these sites are on, or require access through, property that is not owned by DOE. (SWMUs/AOCs: 62)

- Guaje/Barrancas/Rendija Canyons Aggregate Area<sup>1</sup> (SWMUs/AOCs: 0)
- Pueblo Canyon Aggregate Area (SWMUs/AOCs: 7)
- Upper Los Alamos Canyon Aggregate Area (SWMUs/AOCs: 13)
- Middle Los Alamos Canyon Aggregate Area (SWMUs/AOCs: 42)

C. Royal Demolition Explosives (RDX) Characterization Campaign – In Progress

This campaign includes: 1) potential interim measures or surface activities to prevent further migration of RDX; and 2) characterization of the intermediate/regional groundwater, through well installation, tracer studies, and other evaluations necessary to complete the investigation of nature and extent and determine the need for a Corrective Measures Evaluation. (SWMUs/AOCs: 2)

D. Supplemental Investigation Reports Campaign – In Progress

This campaign includes preparation and submission of ten supplemental investigation reports and, where appropriate, submission of requests for Certificates of Completion. Previous investigations were conducted for ten Aggregate Areas and the results were reported in Investigation Reports (IR). Following submittal of these IRs, NMED updated its position on defining nature and extent of contamination. Therefore, the data for aggregate areas, where IRs have already been submitted, were reassessed to determine if that data documents the nature and extent of contamination for SWMUs and AOCs in each of the ten Aggregate Areas and whether each SWMU or AOC poses an unacceptable risk to human health and the environment. A total of 44 SWMUs/AOCs were moved to their appropriate campaigns and, as applicable, will be investigated further under their respective Aggregate Areas (15 SWMUs/AOCs to Sandia Canyon Watershed Campaign, 11 SWMUs/AOCs to Southern External Boundary Campaign, 11 SWMUs/AOCs to Upper Water Watershed Campaign and 7 SWMUs/AOCs to Material

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<sup>1</sup> For purposes of Appendix C, “Aggregate Area” means an area within a single watershed or canyon made up of one or more SWMUs or AOCs and the media affected or potentially affected by releases from those SWMUs or AOCs, and for which investigation or remediation, in part or in entirety, is conducted for the area as a whole to address area-wide contamination, ecological risk assessment, and other factors.

Disposal Area AB Remedy Campaign). Of the remaining 146 SWMUs/AOCs in this campaign, NMED has issued Certificates of Completion for 0 SWMUs/AOCs. This campaign will be complete after NMED issues Certificates of Completion for the 146 SWMUs/AOCs that DOE has requested. (SWMUs/AOCs: 146)

- S-Site Aggregate Area (SWMUs/AOCs: 41)
- Potrillo/Fence Canyons Aggregate Area (SWMUs/AOCs: 7)
- Threemile Canyon Aggregate Area (SWMUs/AOCs: 0)
- TA-49 Inside the Nuclear Environmental Site Boundary (SWMUs/AOCs: 3)
- TA-49 Outside the Nuclear Environmental Site Boundary (SWMUs/AOCs: 1)
- Cañon de Valle Aggregate Area, Technical Area 14 (SWMUs/AOCs: 17)
- North Ancho Canyon Aggregate Area (SWMUs/AOCs: 0)
- Lower Sandia Canyon Aggregate Area (SWMUs/AOCs: 13)
- Upper Cañada del Buey Aggregate Area (SWMUs/AOCs: 39)
- Upper Mortandad Canyon Aggregate Area (SWMUs/AOCs: 25)

E. TA-21 D&D and Cleanup Campaign – In Progress

This campaign includes the removal and remediation of buried waste lines and contaminated soils as part of the Delta Prime (DP) Site Aggregate Area investigation. Demolition of facilities and slabs are not part of the Consent Order and will be executed under DOE requirements; the facilities to be demolished include the DP West slabs and the Radiological Liquid Waste Treatment Facility, Building TA-21-257, enabling access to the SWMUs and AOCs. This campaign also includes the investigation of SWMUs and AOCs located outside the Nuclear Environmental Site (NES) boundary at Material Disposal Area (MDA) T. (Delta Prime Site Aggregate Area SWMUs/AOCs: 38)

F. RDX Remedy Campaign – Not Started

Building on the RDX Characterization Campaign, if a Corrective Measures Evaluation is required and submitted under the RDX Characterization Campaign, a remedy will be implemented following NMED's selection of a remedy and approval of the Corrective Measures Implementation Plan. This campaign is to complete installation of the remediation infrastructure and implement the remedy. (SWMUs/AOCs: 2)

G. Known Cleanup Sites (Above SSLs) Campaign – Completed

This campaign included soil removal from six SWMUs that previous investigations identified had hazardous contaminants at concentrations that exceeded the target risk levels of  $10^{-5}$  lifetime excess cancer risk for carcinogenic contaminants and a hazard index (HI) of 1 for non-carcinogenic contaminants. This campaign is complete. (SWMUs/AOCs: 0)

H. Material Disposal Areas A and T Remedy Campaign (MDAs A & T Remedy) – In Progress

This campaign includes completion of additional characterization activities at MDAs A and T and installation of a moisture monitoring network at MDA T. These Corrective Measures Evaluations will result in NMED's selection of remedies. Following NMED's

selection of remedies, this campaign also includes development of a Corrective Measures Implementation Plan, implementation of the remedies, and development of the Corrective Measures Implementation Reports. (SWMUs/AOCs: 9)

I. Chromium Final Remedy Campaign – Not Started

Building on the Chromium IM and Characterization Campaign, following NMED's selection of a remedy, this campaign includes preparation, submittal, and approval of the Corrective Measures Implementation Plan. This campaign is to install infrastructure and implement the remedy. (SWMUs/AOCs: 0)

J. Southern External Boundary Campaign – In Progress

This campaign includes (as appropriate) investigations, remediation for media above soil screening levels, and risk assessments for five Aggregate Areas. Aggregate Areas have generally been investigated from north to south across the Laboratory. These Aggregate Areas are located in the border area between the Laboratory, Bandelier, and White Rock. Eleven (11) SWMUs/AOCs moved into this campaign from the Supplemental Investigation Reports Campaign, increasing the total of SWMUs/AOCs from 65 to 76. (SWMUs/AOCs: 76)

- Chaquehui Canyon Aggregate Area (SWMUs/AOCs: 43)
- South Ancho Canyon Aggregate Area (SWMUs/AOCs: 11)
- Lower Water/Indio Canyons Aggregate Area (SWMUs/AOCs: 6)
- North Ancho Canyon Aggregate Area (SWMUs/AOCs: 5)
- Potrillo/Fence Canyons Aggregate Area (SWMUs/AOCs: 9)
- Technical Area 49 Outside the Nuclear Environmental Site Boundary (SWMUs/AOCs: 2)

K. Material Disposal Area C Remedy Campaign (MDA C Remedy) – In Progress

This campaign includes implementation of a remedy resulting from NMED's selection of a remedy derived from a Corrective Measures Evaluation previously submitted. This campaign will include development of a Corrective Measures Implementation Plan, implementation of the remedy, and development of the Corrective Measures Implementation Report. (SWMUs/AOCs: 1)

L. Sandia Canyon Watershed Campaign – Not Started

This campaign includes completion of investigations of certain Aggregate Areas in the central portion of the Laboratory. This campaign also includes remediation (as appropriate) for media above soil screening levels. Fifteen (15) SWMUs/AOCs moved into this campaign from the Supplemental Investigation Reports Campaign, increasing the total of SWMUs/AOCs from 49 to 64. (SWMUs/AOCs: 64)

- Upper Sandia Canyon Aggregate Area (SWMUs/AOCs: 42)
- Lower Sandia Canyon Aggregate Area (SWMUs/AOCs: 4)
- Upper Mortandad Canyon Aggregate Area (SWMUs/AOCs: 7)
- Upper Cañada del Buey Aggregate Area (SWMUs/AOCs: 10)
- Middle Mortandad/Ten Site Canyons Aggregate Area (SWMUs/AOCs: 1)

M. Pajarito Watershed Campaign – In Progress

This campaign includes completion of investigations of certain Aggregate Areas in the central portion of the Laboratory. Some of the Aggregate Areas have yet to be investigated. This campaign also includes remediation (as appropriate) for media above soil screening levels. (SWMUs/AOCs: 177)

- Starmer/Upper Pajarito Canyon Aggregate Area (SWMUs/AOCs: 74)
- Twomile Canyon Aggregate Area (SWMUs/AOCs: 63)
- Threemile Canyon Aggregate Area (SWMUs/AOCs: 5)
- Lower Pajarito Canyon Aggregate Area (SWMUs/AOCs: 35)

N. Upper Water Watershed Campaign – Not Started

This campaign includes completion of investigations for certain Aggregate Areas in the central portion of the Laboratory. Some of the Aggregate Areas have yet to be investigated. This campaign also includes remediation (as appropriate) for media above soil screening levels. Eleven (11) SWMUs/AOCs moved into this campaign from the Supplemental Investigation Reports Campaign, increasing the total of SWMUs/AOCs from 255 to 266. (SWMUs/AOCs: 266)

- Cañon de Valle Aggregate Area (SWMUs/AOCs: 124)
- Upper Water Canyon Aggregate Area (SWMUs/AOCs: 129)
- S-Site Aggregate Area (SWMUs/AOCs: 13)

O. Material Disposal Area AB Remedy Campaign (MDA AB Remedy) – Not Started

This campaign includes additional characterization of the shaft areas inside and outside of the NES boundary and completion of a Corrective Measures Evaluation. Following NMED's selection of a remedy, this campaign includes development of a Corrective Measures Implementation Plan, implementation of the remedy, and development of the Corrective Measures Implementation Report. Seven (7) SWMUs/AOCs moved into this campaign from the Supplemental Investigation Reports Campaign, increasing the total of SWMUs/AOCs from 0 to 7. (SWMUs/AOCs: 7)

P. Material Disposal Area H Remedy Campaign (MDA H Remedy) – Not Started

This campaign includes completion of a Corrective Measures Evaluation. Following NMED's selection of a remedy, this campaign also includes development of a Corrective Measures Implementation Plan, implementation of the remedy, and development of the Corrective Measures Implementation Report. (SWMUs/AOCs: 1)

Q. Material Disposal Areas G and L Remedy Campaign (MDAs G & L Remedy) – In Progress

- Material Disposal Area G

This campaign includes completion and submittal of a Corrective Measures Evaluation Report. Following NMED's selection of remedy, this campaign also

includes development of a Corrective Measures Implementation Plan, implementation of remedy, and development of a Corrective Measures Implementation Report. (SWMUs/AOCs: 11)

- Material Disposal Area L

This campaign includes completion and submittal of a Corrective Measures Evaluation Report. Following NMED's selection of remedy, this campaign also includes development of a Corrective Measures Implementation Plan, implementation of remedy, and development of a Corrective Measures Implementation Report. This campaign will also include soil-vapor extraction (SVE) of volatile organic compounds as an interim measure while an asphalt cover still exists above MDA L. (SWMUs/AOCs: 1)