



U.S. DEPARTMENT OF
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**ENVIRONMENTAL
MANAGEMENT**



Individual Permit Enhanced Controls Update

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N3B/T2S



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- Program is operating under the administratively continued 2010 National Pollutant Discharge Elimination System Individual Permit requirements.
- Corrective Actions are evaluated during the Alternatives Analysis process after screening of storm water samples. Corrective Actions include:
 - **Enhanced Controls** manage sediment migration or erosion by altering site storm water run-on or runoff to reasonably meet applicable TALs.
 - **Total Retention** controls capture a volume of storm water from the Site to prevent runoff. Defined in the Draft IP as the volume of runoff from a 3-year, 24-hour statistical storm.
 - **No Exposure** controls prevent exposure of contaminants to storm water runoff.
- N3B Individual Permit website: <https://ext.em-la.doe.gov/ips/?Length=4>





- 2M – Twomile Canyon
- 3M – Threemile Canyon
- A – Ancho Canyon
- Acid – Acid Canyon
- AOC – Area of Concern
- ATAL – Average Target Action Level
- B – Bayo Canyon
- BV – Background Value (for soil)
- CDB – Cañada bel Buey
- CDV – Cañon de Valle
- CHQ – Chaqehui Canyon
- DP – DP Canyon
- IP – Individual Permit
- LA – Los Alamos Canyon
- M – Mortandad Canyon
- MTAL – Maximum Target Action Level
- NPDES – National Pollutant Discharge Elimination System
- P – Pueblo Canyon
- PJ – Pajarito Canyon
- PT – Potrillo Canyon
- R – Rendija Canyon
- S – Sandia Canyon
- SDPPP – Site Discharge Pollution Prevention Plan
- SMA – Site Monitoring Area
- STRM - Starmers Gulch
- SWMU – Solid Waste Management Unit
- T – Ten Site Canyon
- TAL – Target Action Level
- W – Water Canyon



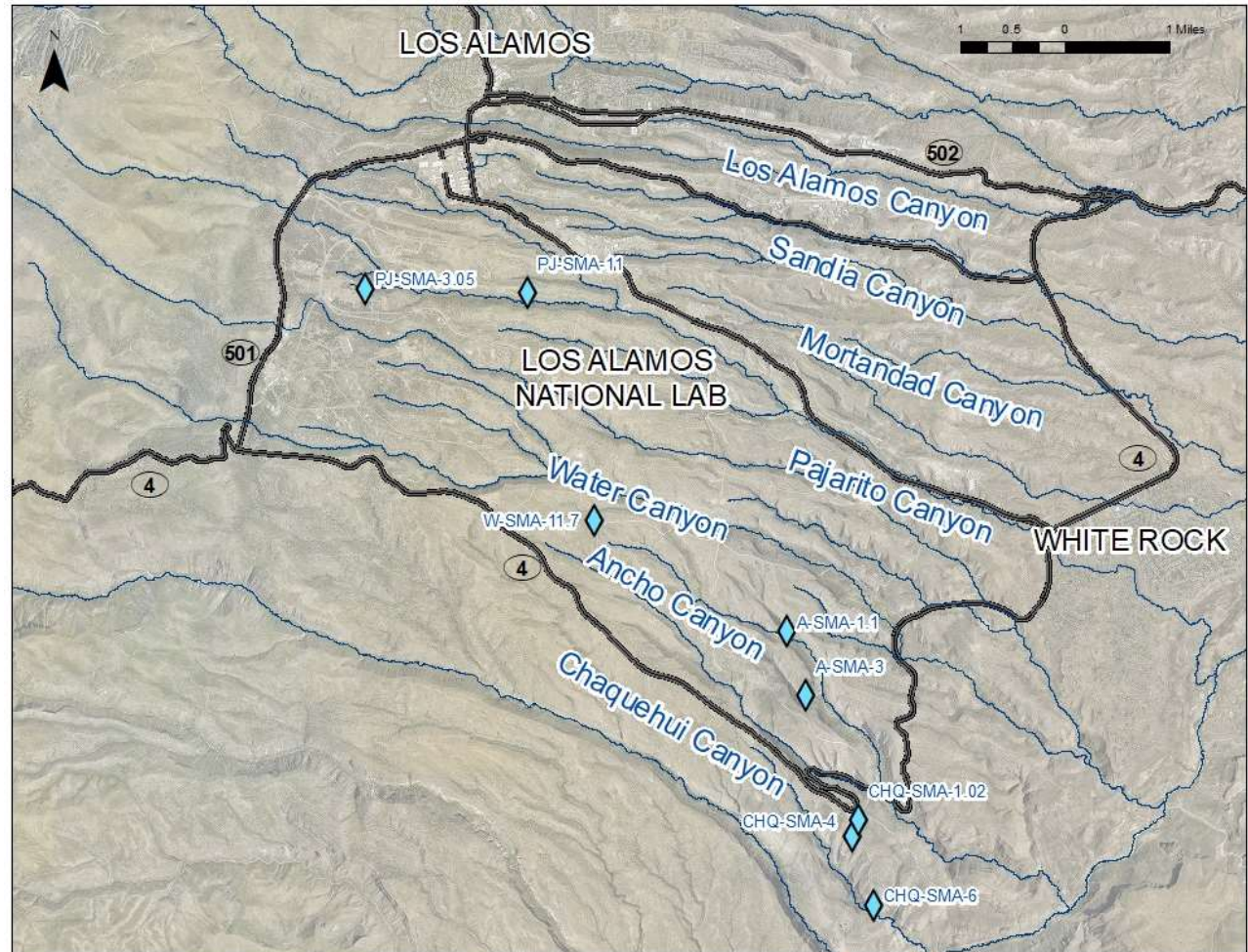


Construction Complete

- A-SMA-1.1
- A-SMA-3
- CHQ-SMA-4

Upcoming Alternatives Analysis

- CHQ-SMA-1.02
- CHQ-SMA-6
- PJ-SMA-3.05
- PJ-SMA-11
- W-SMA-11.7





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Construction Completed in Summer 2021



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Baseline storm water sample collected in August 2018

- Aluminum 1.1 x MTAL; exceeds tuff background
- Gross alpha 22 x ATAL; does not exceed tuff background
- Mercury 1.4 x ATAL; no background value
- Selenium 1.6 x ATAL; no background value

Soil data for SWMUs from 2009 Consent Order Investigation¹

- 39-004(a) – Firing Site, active (mercury detected above BV)
- 39-004(d) – Firing Site, active (mercury detected above BV)

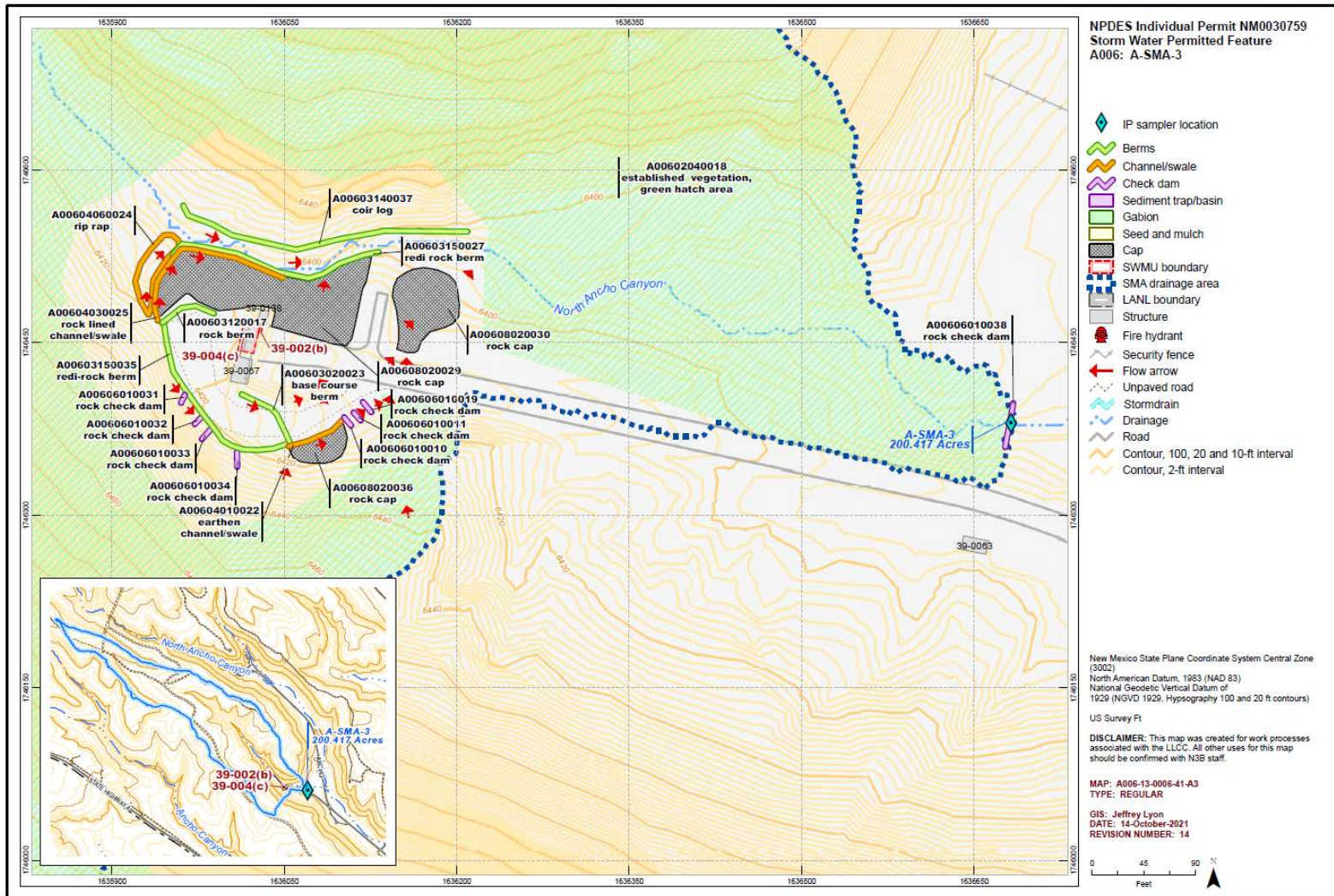
1. North Ancho Canyon Aggregate Area Investigation Report, Revision 1, January 2010





Three rock check dams with armored pools and a one rock check dam







Corrective action storm water sample collected in August 2018

- Copper 12 x TAL; exceeds tuff background
- Gross alpha 6.1 x TAL; does not exceed tuff background
- PCBs 5300 x TAL; exceeds tuff background value

Soil data for SWMUs from 2009 Consent Order Investigation¹

- 39-002(b) – Storage Area, former (no soil data available)
- 39-004(c) – Firing Site, active (copper and PCBs detected above BV)

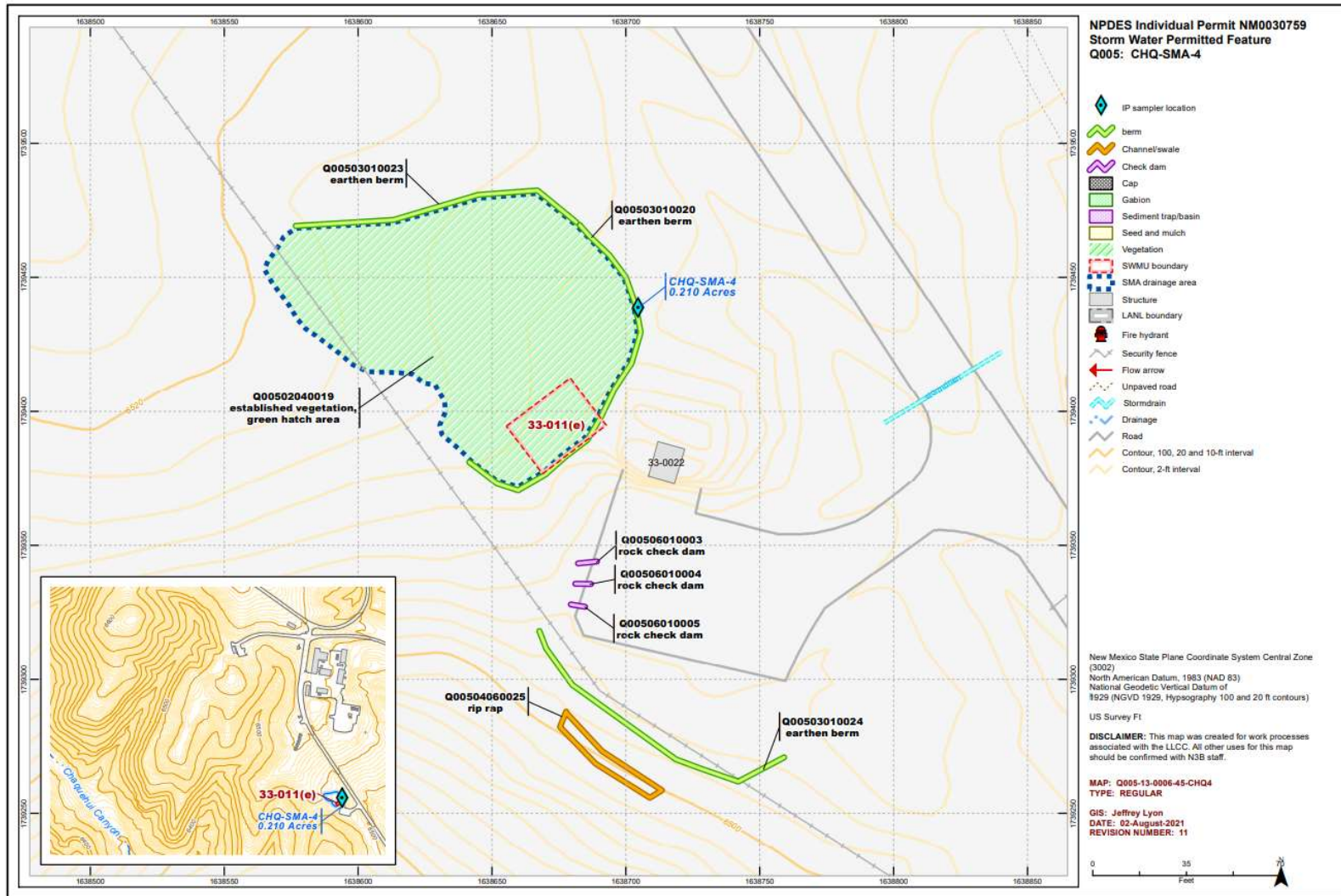
1. North Ancho Canyon Aggregate Area Investigation Report, Revision 1, January 2010





Rock check dam with apron







Baseline storm water sample collected in July 2018

- Gross alpha 65 x ATAL; does not exceed tuff background
- PCBs 990 X TAL; exceeds tuff background
- Selenium 3.2 x TAL; no background value

Soil data for SWMUs from 2019-2020 Consent Order Investigation¹

- 33-011(e) – Former drum storage area (Selenium was detected above BV; PCBs were not detected above BV)

1. Chaquehui Canyon Aggregate Area Investigation Report, September 2020





Diversion berm, modified retention berm,
and new retention berm with rock apron





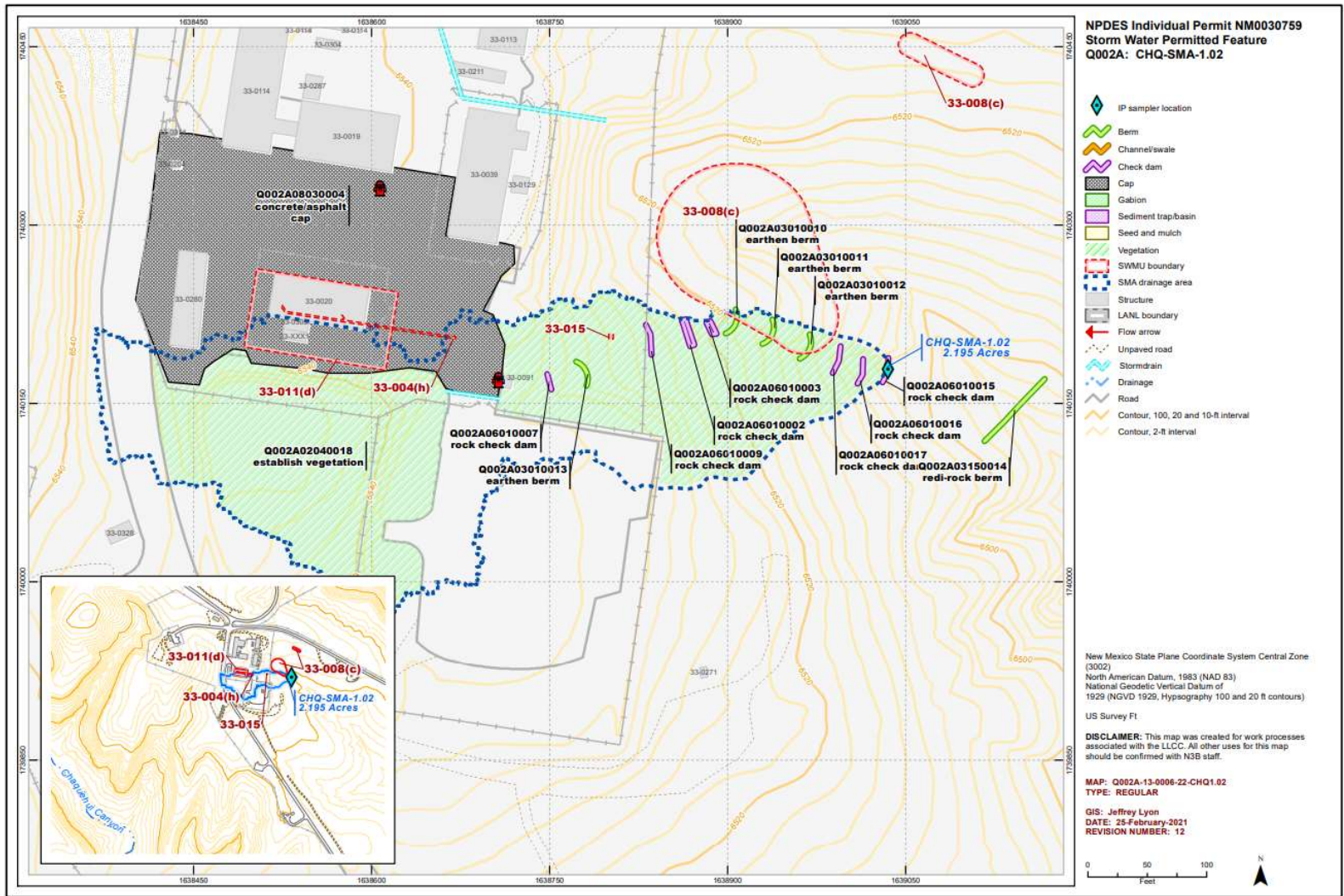
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Alternatives Analysis Based on 2021 Samples



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Corrective action storm water samples collected in May and August 2021

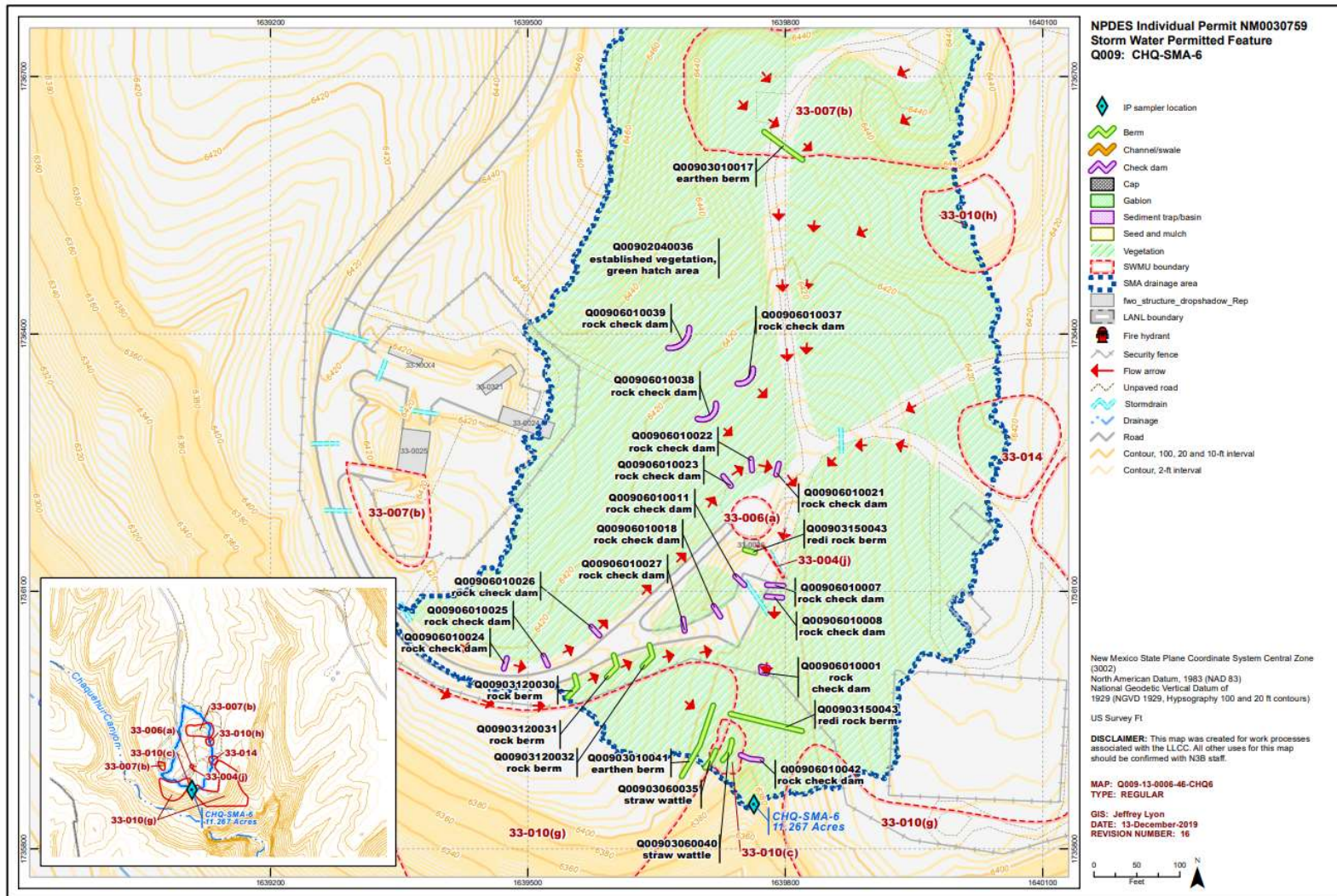
- Copper 2 x MTAL; exceed tuffs background
- Gross alpha 2.4 x ATAL; does not exceed tuff background
- PCBs 26 X TAL; exceeds tuff background

Soil data for SWMUs from 2019-2020 Consent Order Investigation¹

- 33-004(h) – Inactive outfall (Copper was detected above BV; PCBs were not detected above BV)
- 33-011(d) – Former storage area (Copper and PCBs were not detected above BV)
- 33-015– Former incinerator (Copper was detected above BV; PCBs were not detected above BV)
- 33-008(c) – Former surface disposal area (Copper was detected above BV; PCBs were not detected above BV).

1. Chaquehui Canyon Aggregate Area Investigation Report, September 2020







Corrective action storm water samples collected in May and July 2021

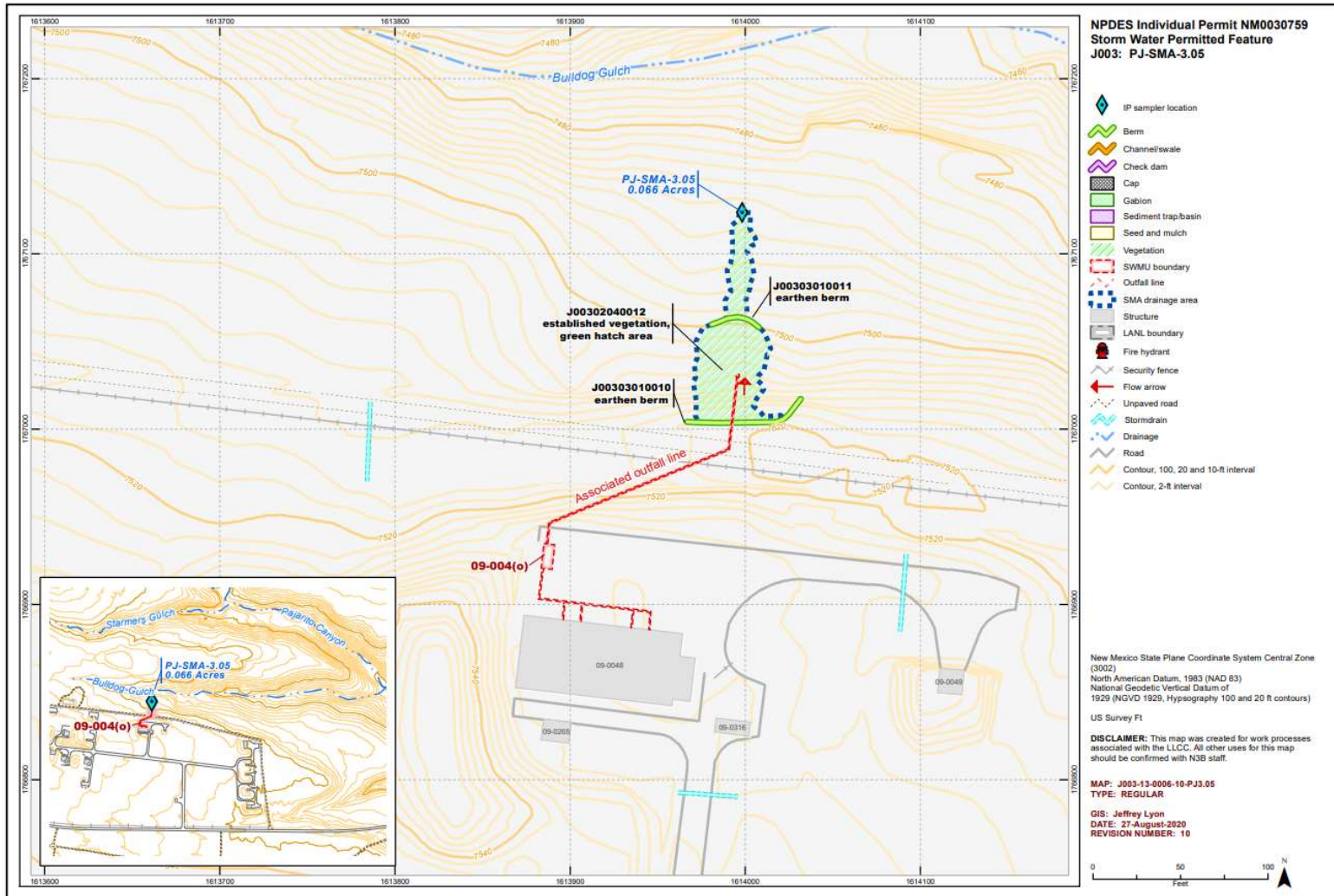
- Copper 9.2 and 9.0 x MTAL; exceed tuffs background
- Gross alpha 1.5 x ATAL; does not exceed tuff background

Soil data for SWMUs from 2019-2020 Consent Order Investigation¹

- 33-004(j) – Inactive drainline and outfall (Copper was detected above BV)
- 33-006(a) – Firing site (Copper was detected above BV)
- 33-007(b)– Former gun firing site (Copper was detected above BV)
- 33-010(c) – Former surface disposal area (Copper was detected above BV)
- 33-010(g) – Former surface disposal area (Copper was detected above BV)
- 33-010(h) – Inactive surface disposal area (Copper was detected above BV)
- 33-014 – Former open burn area (Copper was detected above BV)

1. Chaquehui Canyon Aggregate Area Investigation Report, September 2020







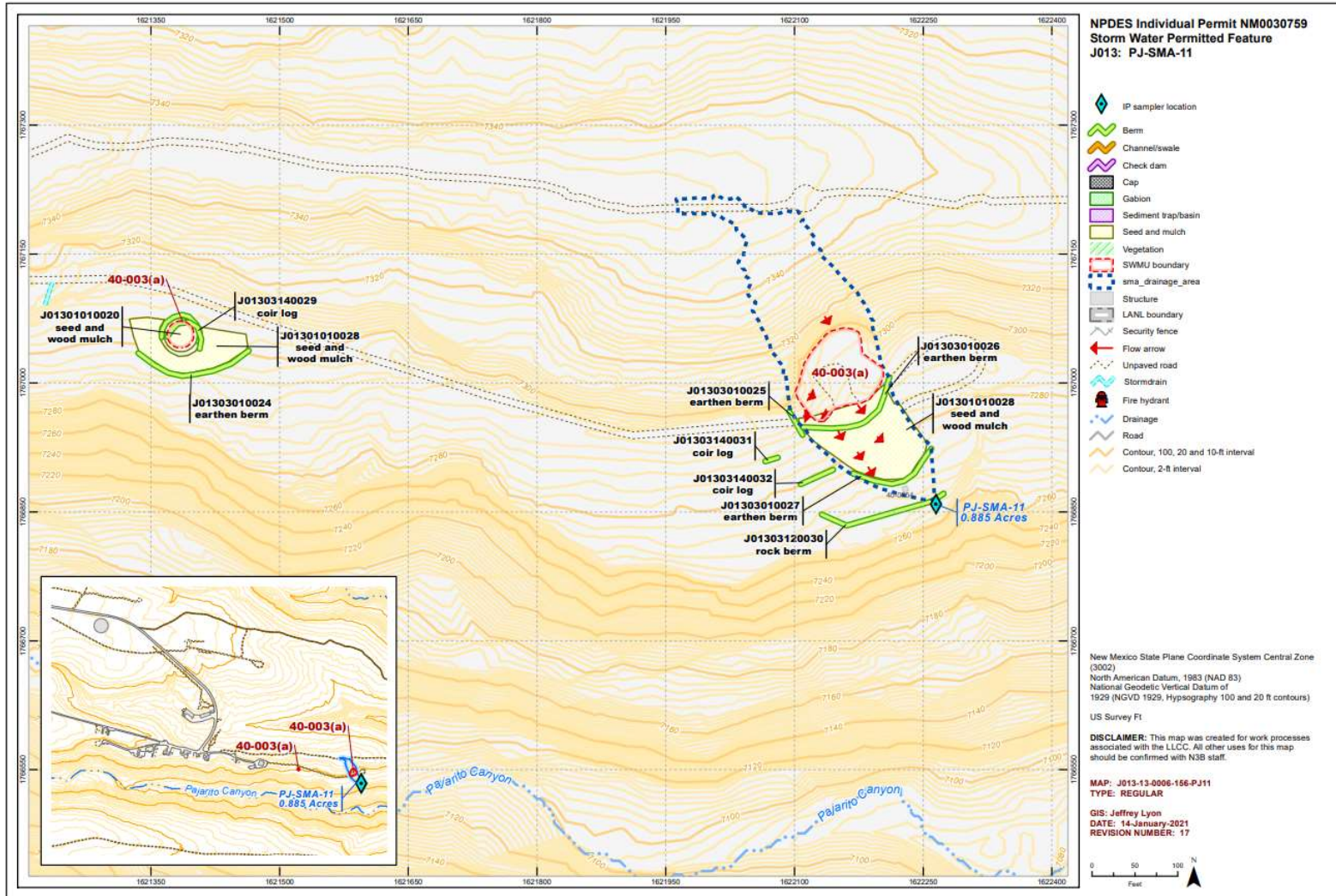
Corrective action storm water samples collected in July and September 2021

- Copper 1.1 x MTAL; exceed tuffs background
- Gross alpha 2.2 x ATAL; does not exceed tuff background

Soil data for SWMU

- 09-004(o) – Settling tank (Not available; will be investigated per Starmers/Upper Pajarito Canyon Aggregate Area Investigation)







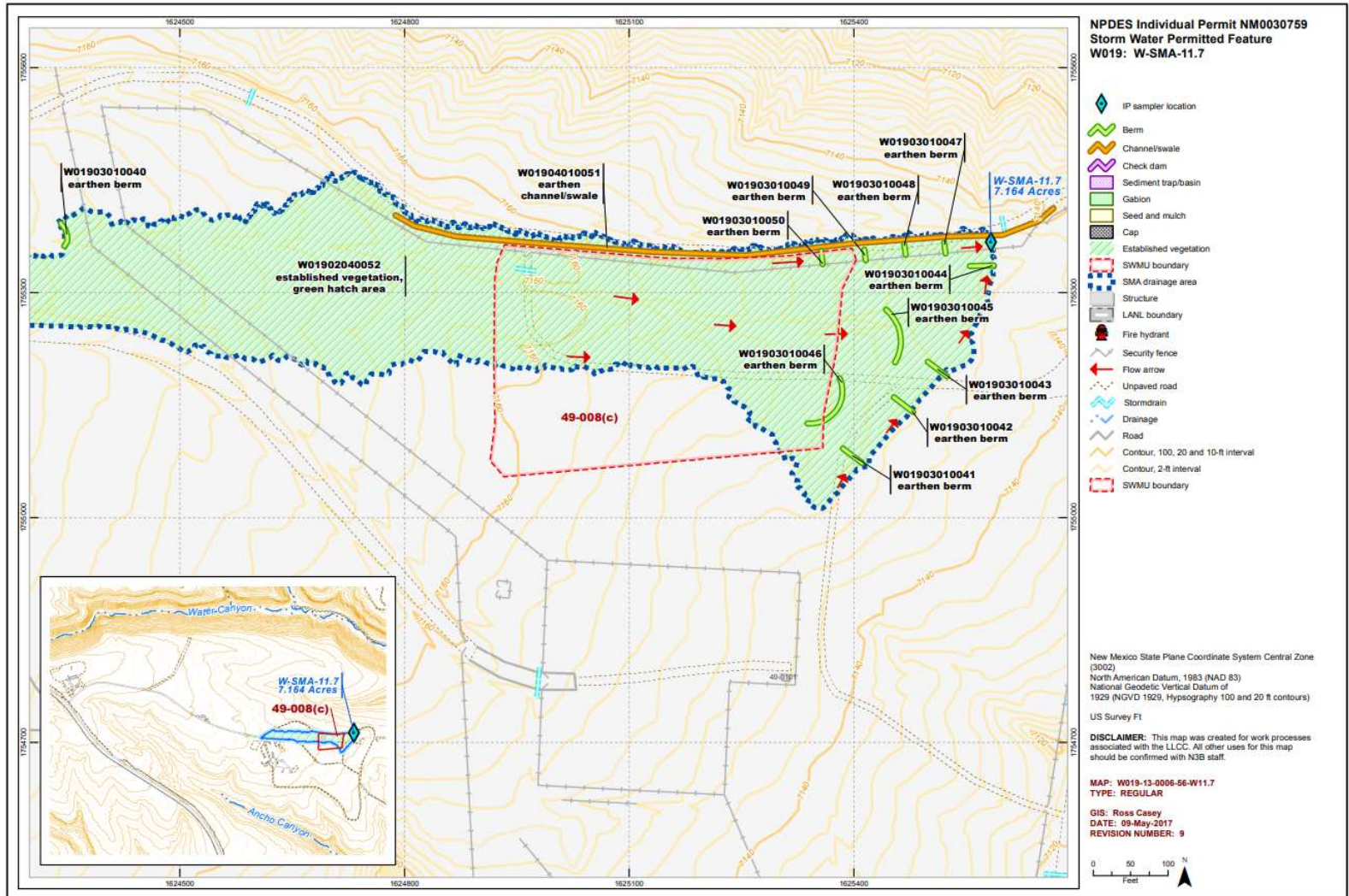
Corrective action storm water samples collected in June and August 2021

- Copper 8.2 and 10 x MTAL; exceed tuffs background
- Gross alpha 3.6 x ATAL; does not exceed tuff background

Soil data for SWMU

- 40-003(a) – Scrap burn site / open detonation (Not available; will be investigated per Starmers/Upper Pajarito Canyon Aggregate Area Investigation)







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W-SMA-11.7

Corrective action storm water samples collected in June and August 2021

- Aluminum 6.3 x MTAL; exceed tuffs background
- Gross alpha 3 x ATAL; does not exceed tuff background

Soil data for AOC from 2009-2010 Supplemental Investigation¹

- 49-008(c) – Soil contamination area (Aluminum was not detected above BV)

1. Supplemental Investigation Report for Sites at Technical Area 49 Inside the Nuclear Environmental Site Boundary,
August 2016



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Questions?



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Produced by Los Alamos Legacy Cleanup Contractor, N3B Los Alamos
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