

Petition for No Further Action

SWMUs 105, 104, 97
Cannon AFB, NM
15 June 2006

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Purpose

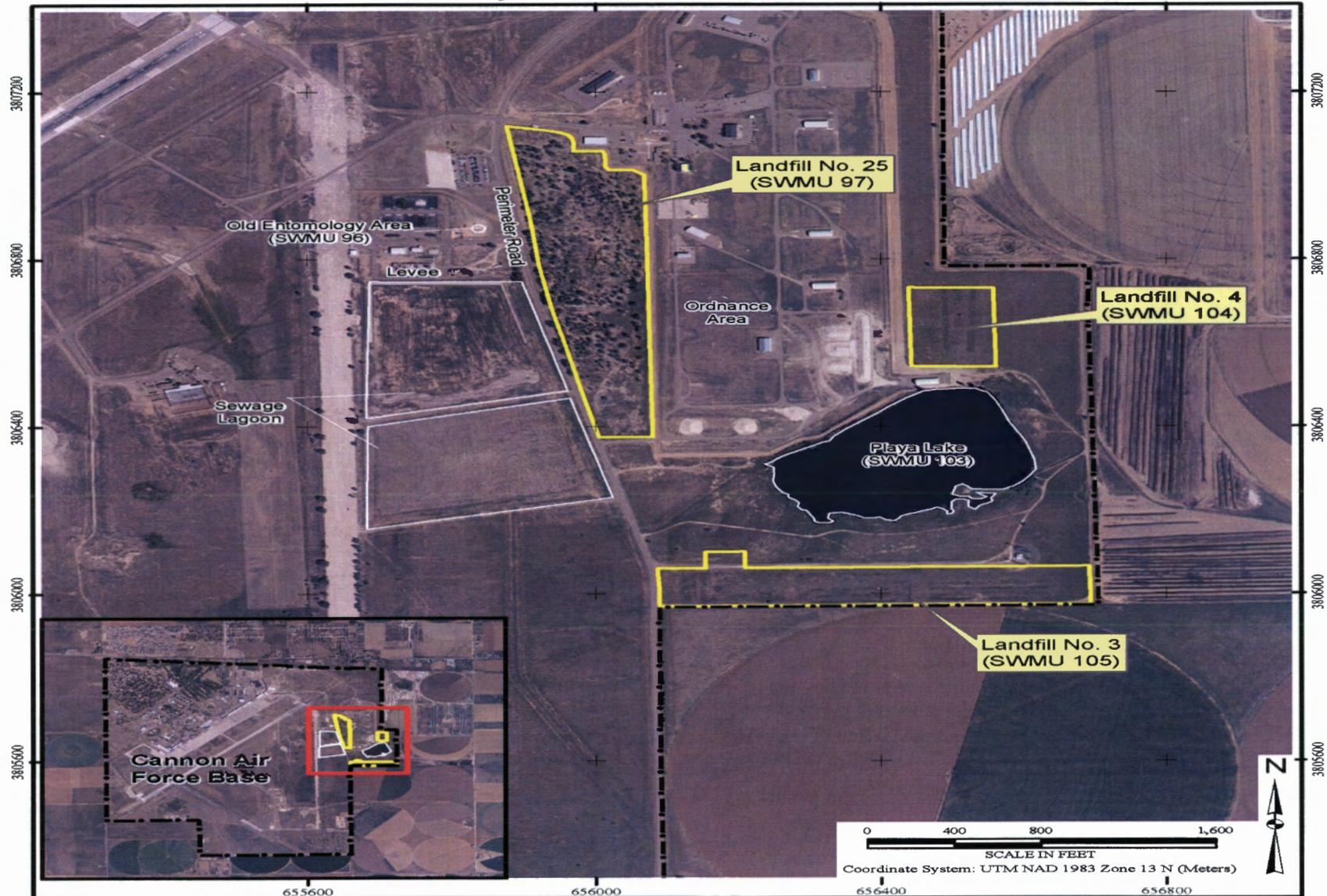
- Meet to present NFA request
 - Sum-up the report
 - Report summarizes all data collected at the sites
 - Confirm documentation to support NFA under NMED Criterion 5 is sufficient
 - Establish next steps and schedule



Three Sites

- SWMU 105 - Landfill No. 3 (LF-03)
- SWMU 104 – Landfill No. 4 (LF-04)
- SWMU 97 - Concrete Rubble Pile (LF-25)





Filename: X:\AFC002\Cannon_AFB
 Maps\NFA\Landfills_3_4_25_Locs.mxd
 Project: AFC002-037-05-02-01
 Revised: 02/27/06 TB
 Map Source:



Legend

- Property Boundary
- ▭ Solid Waste Management Unit (SWMU)

**Figure 2.2
 Site Location Map
 Cannon AFB**

SWMU 105 (LF-03) History

- 9 acre site operated as burn and dispose trenching operation from 1957 to 1967
 - Received domestic solid waste, some waste fluids
 - Exploratory trenching during the RFI showed burnt and unburned soda/beer bottles, plastic sheeting and bags, clothing, synthetic rubber machinery belt, metal scrap, Styrofoam



SWMU 105 (LF-03) Investigation History

- IRP Phase I (1983)
 - Records search
- IRP Phase II (1984-1986)
 - 27 soil samples from 9 borings to 20 feet bgs
 - Caliche 5 to 55 feet bgs *was end at ~ 60 ft*
 - Landfill trenches maximum depth 20 feet bgs
 - All samples analyzed for PP metals, oil and grease, TPH
 - * Nothing exceeds current NMED Residential SSLs
- RFA (1987)
 - Identified as a SWMU on 1989 RCRA permit
- Initial RFI Activities (1990-1991)
 - Based on IRP data, NFA was recommended
 - USEPA requested soil data to fill data gaps



SWMU 105 (LF-03) Investigation History

- RFI Field Event (1992)

- 144 soil samples obtained from 12 borings advanced to 61 feet → *below colchic*

- All 144 samples analyzed for VOCs, SVOCs, TPH, pesticides, PCBs, TAL metals
 - 41 samples analyzed for gasoline, diesel, jet fuel, kerosene, herbicides

* Nothing exceeds current NMED residential SSLs





Air Force Center for Environmental Excellence

HGL—Petition for No Further Action—Cannon AFB, Clovis, NM

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 Map Source:



Legend

- Waste Disposal Area (LF-03/SWMU 105)
- Property Boundary
- Soil Boring, February 1985
- Soil Boring, July 1992
- ⊕ Monitoring Well

Figure 3.1
Landfill No. 3
(LF-03/SWMU 105)
Cannon AFB

SWMU 105 (LF-03) Investigation History

- RFI Report (1992-1994)
 - BRA and ERA showed no unacceptable risk
 - NFA recommended
 - NMED concurred
 - EPA conditional NFA granted, required monitoring well installation and a groundwater sample
- Phase II RFI (1994-1995)
 - Well installed and sampled
 - No constituents above current EPA MCLs/
NMGWQS



SWMU 105 (LF-03) Investigation History

- LTM (1996 -2005)
 - 14 events over 10 years, annual since 1998
 - Initial analysis for full suite (Appendix IX) of analytes
 - Modified in 1998
 - With exception of chloride in some rounds, no constituents have exceeded MCLs or NMGWQS



SWMU-105 Summary & Conclusion

- Inactive nearly 40 years
- 177 soil samples from 21 borings
- BRA/ERA showed no unacceptable risk
- No constituents above current NMED Residential SSLs
- 10 years of groundwater data – nothing above standards with exception of chloride
- NFA Under NMED Criterion 5 justified



SWMU 104 (LF-04) History

- 7 acre site operated as burn and dispose trenching operation for one year from 1967 to 1968
 - Received domestic solid waste, some waste fluids
 - Plastic bags, wood, glass, paper, metal scrap, and food cartons were observed during RFI intrusive activities

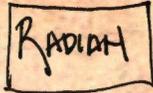


SWMU 104 (LF-04) Investigation History

- IRP Phase I (1983)
 - Records search
- IRP Phase II (1984-1986)
 - 22 soil samples from 7 borings to 15 feet bgs
 - Caliche 4.5 to 60 feet bgs
 - Landfill trenches maximum depth 20 feet bgs
 - All samples analyzed for PP metals, oil and grease, TPH
 - ✱ Nothing exceeds current NMED Residential SSLs
- RFA (1987)
 - Identified as a SWMU on 1989 RCRA permit
- Initial RFI Activities (1990-1991)
 - Based on IRP data, NFA was recommended
 - USEPA requested soil data to fill data gaps



SWMU 104 (LF-04) Investigation History

- RFI Field Event (1992) 
 - 120 soil samples obtained from 10 borings advanced to 60 feet
 - All 120 samples analyzed for VOCs, SVOCs, TPH, pesticides, PCBs, TAL metals
 - 30 samples analyzed for gasoline, diesel, jet fuel, kerosene, herbicides
 - Nothing exceeds current NMED residential SSLs



SWMU 104 (LF-04) Investigation History

- RFI Report (1992-1994)
 - BRA and ERA showed no unacceptable risk
 - NFA recommended
 - NMED concurred
 - EPA conditional NFA granted, required monitoring well installation and a groundwater sample
- Phase II RFI (1994-1995)
 - Well installed and sampled
 - No constituents above current EPA MCLs/
NMGWQS



SWMU 104 (LF-04) Investigation History

- LTM (1996 -2005)
 - 14 events over 10 years, annual since 1998
 - Initial analysis for full suite (Appendix IX) of analytes
 - Modified in 1998 →
 - No constituents have ever exceeded MCLs or NMGWQS



SWMU-104 Summary & Conclusion

- Active for 1 year, inactive nearly 40 years
- 142 soil samples from 17 borings
- ^{at 20 ft} ^{10 ft} ^{5500 m} BRA/ERA showed no unacceptable risk
- No constituents above current NMED Residential SSLs
- 10 years of groundwater data – nothing above standards
- NFA Under NMED Criterion 5 justified



SWMU 97 (LF-25) History

- 32 acre site consisting of remains of demolished buildings and runways
 - Likely associated with re-alignment of 1959-1961
 - Surface rubble observed in 1991 included construction debris, concrete blocks, tiles, concrete culverts, asphalt roofing shingles, asphalt and concrete pavement (runway debris)
 - Waste observed in 1991 in burn trenches included ash, glass, and metal



SWMU 97 (LF-25) Investigation History

- Was not identified as a site until the 1987 RFA
- 1988 IRP Phase IV Assessment of Site 17 included 2 borings and one well within confines of SWMU 97
 - Borings completed to 100 feet bgs
 - MW-K completed to 356 feet bgs
 - All samples analyzed for herbicides and pesticides; none above current NMED Residential SSLs



SWMU 97 (LF-25) Investigation History

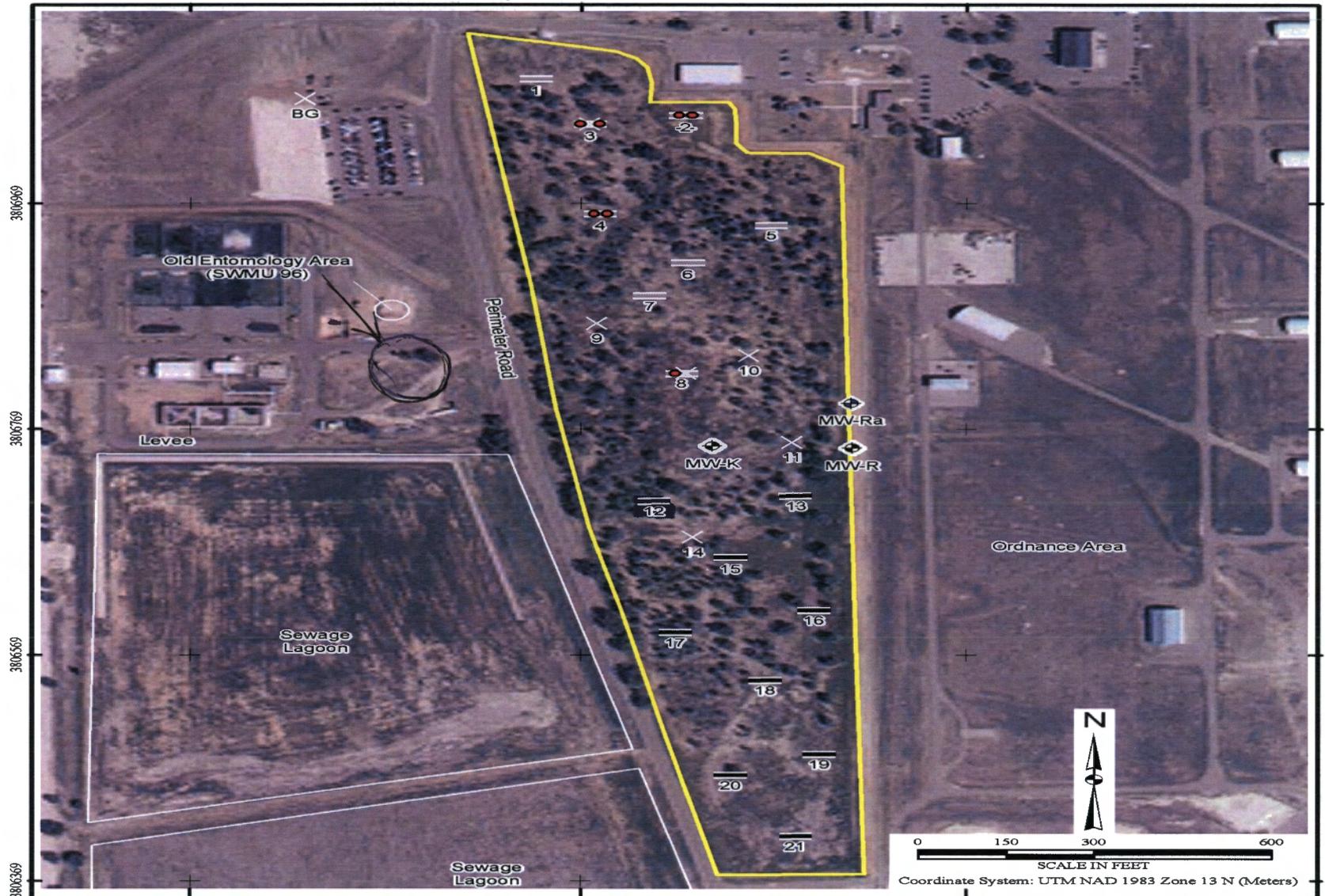
- Environmental Assessment (1990)
 - Eight trenches targeting rubble and soils underlying the rubble
 - Majority of material was aircraft pavement and subgrade material
 - Building demolition rubble in individual piles in southeastern portion
 - Two burn trenches encountered *non-friable*
 - Rubble analyzed for asbestos and PCBs, TCLP
 - * ~~One cadmium TCLP result above standard~~
 - 20 soil samples analyzed for VOCs, SVOCs, metals, pesticides, PCBs
 - * ~~All results below current NMED Residential SSLs with exception of one benzidine result~~

SWMU 97 (LF-25) Investigation History

- RFI (1992-1993)
 - 14 soil borings and 9 trenches
 - 8 borings drilled in former 1990 trenches to depth of 60 feet to confirm presence/absence of contamination
 - 6 borings drilled to 10 feet bgs
 - Trenches advanced in previously uninvestigated southern portion of unit
 - 139 soil samples analyzed for VOCs, SVOCs, metals, TRPH, pesticides, PCBs, pH; 35 samples analyzed for TPH and herbicides – all results below current NMED SSLs with the following exceptions:
 - TRPH detected in six surface soil samples above TRPH screening guideline of 800 mg/kg for unknown oil
 - * One benzo(a)pyrene result above NMED Residential SSL of 621 ug/kg (970 ug/kg)
 - One arsenic result (9 mg/kg) exceeded residential SSL, but within analytical variability of background level (8.7 mg/kg)

1997?





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 Maps\NFA\Landfill_25.mxd
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Legend

- Waste Disposal Area (LF-25/SWMU 97)
- RFI Trench Location
- Environmental Assessment Trench Location
- 60' Soil Boring
- 10' Soil Boring
- Monitoring Well
- Abandoned Monitoring Well

Figure 5.1
Landfill No. 25
(LF-25/SWMU 97)
Cannon AFB

SWMU 97 (LF-25) Investigation History

- RFI Report (1993-1994)
 - BRA and ERA showed no unacceptable risk
 - NFA/Class III Permit Mod recommended
 - NMED concurred
 - EPA - Cannon agreed to sample MW-K in conjunction with LF-03/LF-04 sampling in correspondence to EPA
- Phase II RFI (1994-1995)
 - MW-K re-developed and sampled for VOCs, SVOCs, TAL metals, TRPH, pesticides, herbicides, PCBs,
 - No constituents above current EPA MCLs/ NMGWQS (WACC)
 - Confirmation sampling required for carbon disulfide detection



SWMU 97 (LF-25) Investigation History

- LTM (1997 -2005)
 - MW-K abandoned due to declining water levels; MW-R installed downgradient
 - 20 events in nearly 10 years, semi-annual since 1998
 - Initial analysis for full suite (Appendix IX) of analytes, subsequently modified
 - Initial analyses showed elevated metals; stainless-steel well screen MW-R replaced with PVC well MW-Ra, with no subsequent exceedances
 - No other constituents have exceeded MCLs or NMGWQS with exception of thallium and arsenic in Dec 2003 round

MW-Ra



SWMU 97 (LF-25) Remediation

- Site remediation performed 2000-2001
 - 56 cu yds ACM removed and disposed offsite
 - 16,000 cu yds of concrete removed/crushed
 - 77,000 lbs of re-bar removed/recycled
 - Final grading, re-vegetation, and berm (constructed around the southern and eastern site edges) to manage stormwater and control runoff
 - Site fenced



SWMU 97 Summary & Conclusion

- CDD disposal area, likely inactive 45 years
- Nearly 200 soil samples
- BRA/ERA showed no unacceptable risk
- No constituents above current NMED Residential SSLs, except for 6 TPH and one BAP result (pre-remediation)
en 20 *trace*
- 20 events in nearly 10 years of groundwater LTM show no evidence of a release
- Site remediation complete
- NFA Under NMED Criterion 5 justified



Questions?

