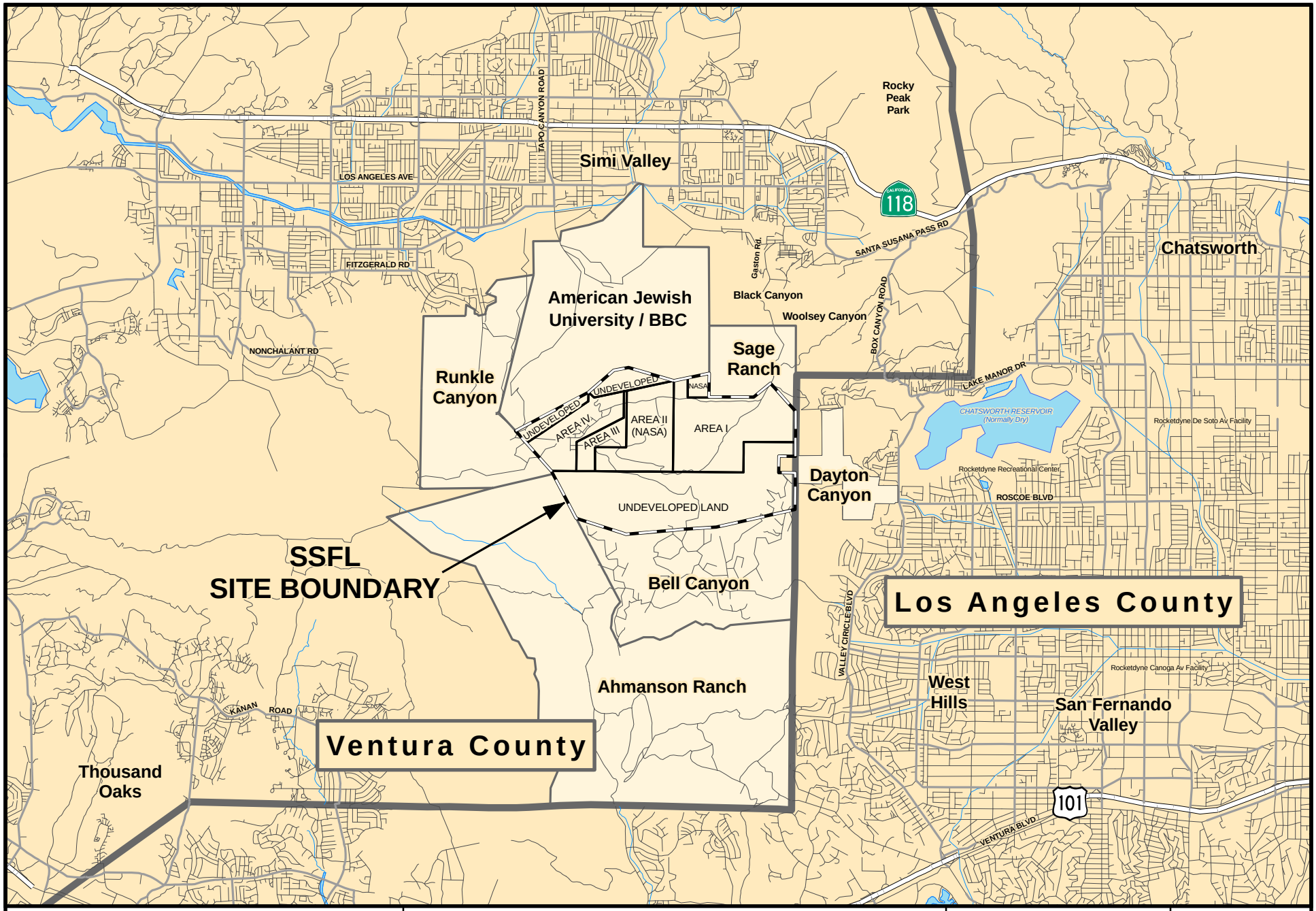
FIGURES



1 inch equals 1.5 miles

0 1.5 3 Miles

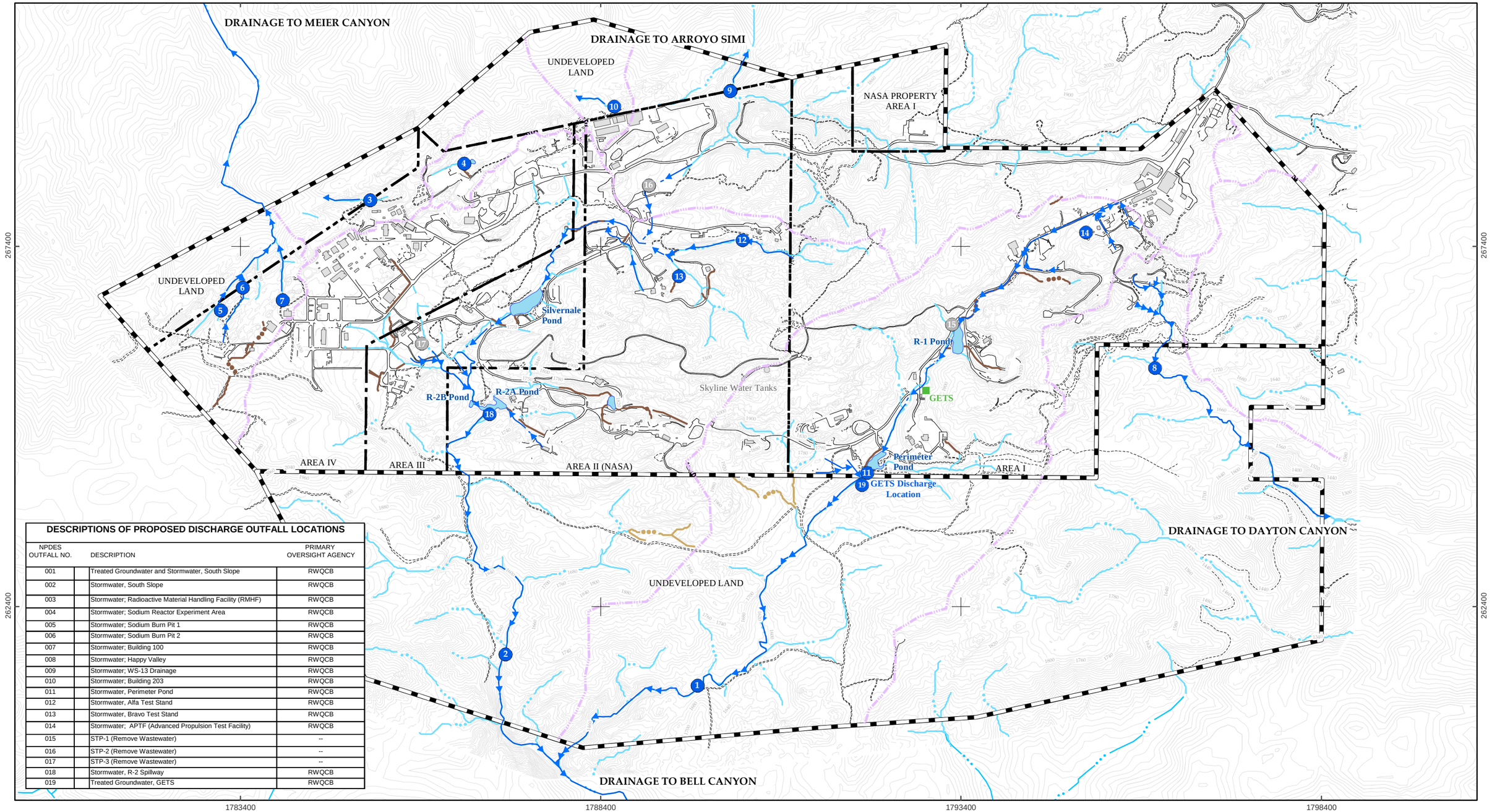
SANTA SUSANA FIELD LABORATORY

Document: Offsite-Report-Regional_Map.mxd

Date: Dec 10, 2007

Regional Map

FIGURE 1-1



DESCRIPTIONS OF PROPOSED DISCHARGE OUTFALL LOCATIONS

NPDES OUTFALL NO.	DESCRIPTION	PRIMARY OVERSIGHT AGENCY
001	Treated Groundwater and Stormwater, South Slope	RWQCB
002	Stormwater, South Slope	RWQCB
003	Stormwater; Radioactive Material Handling Facility (RMHF)	RWQCB
004	Stormwater; Sodium Reactor Experiment Area	RWQCB
005	Stormwater; Sodium Burn Pit 1	RWQCB
006	Stormwater; Sodium Burn Pit 2	RWQCB
007	Stormwater; Building 100	RWQCB
008	Stormwater; Happy Valley	RWQCB
009	Stormwater; WS-13 Drainage	RWQCB
010	Stormwater; Building 203	RWQCB
011	Stormwater, Perimeter Pond	RWQCB
012	Stormwater, Alfa Test Stand	RWQCB
013	Stormwater, Bravo Test Stand	RWQCB
014	Stormwater; APTF (Advanced Propulsion Test Facility)	RWQCB
015	STP-1 (Remove Wastewater)	--
016	STP-2 (Remove Wastewater)	--
017	STP-3 (Remove Wastewater)	--
018	Stormwater, R-2 Spillway	RWQCB
019	Treated Groundwater, GETS	RWQCB

0 500 1,000 2,000 Feet

MAP COORDINATES IN STATE PLANE, NAD 27, ZONE V

Legend

- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)
- Effluent Pathways
- Surface Water Drainage Divide
- Natural Drainage
- Concrete Lined Drainage
- Graded Drainage
- Surface Water Reclamation Ponds

Base Map Legend

- SSFL Property Boundary
- Administrative Area Boundary
- Ground Elevation Contours
- Drainage Pathways
- A/C Curbing
- Dirt Road
- Existing Building or Structure

Site Map with Outfall Locations and Storm Water Drainage Systems

Date: Jan 28, 2008

File: T:\projects\rock\plots\arcmap\LOX\Draft\NPDES.mxd

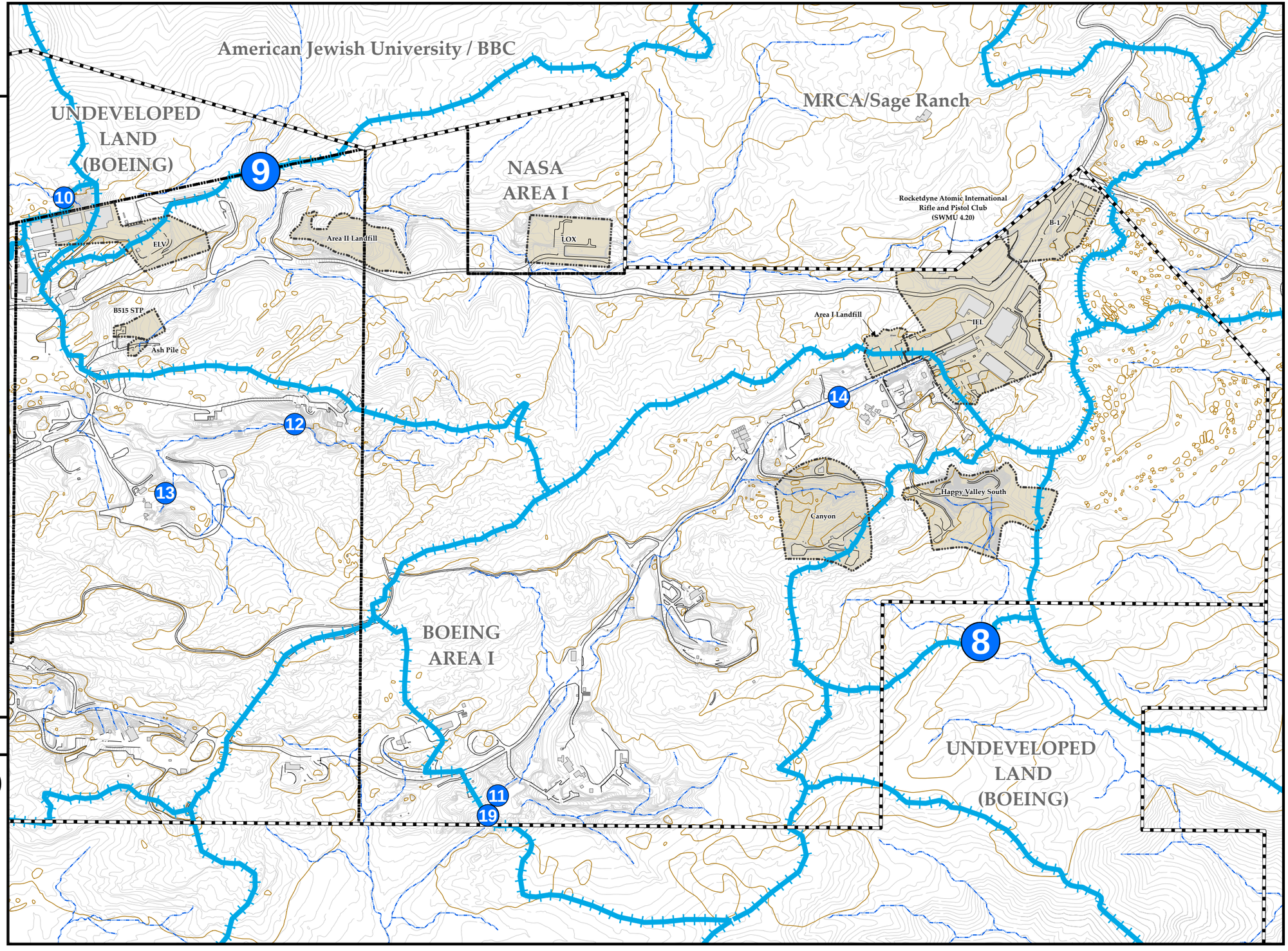
MWH

FIGURE 1-2

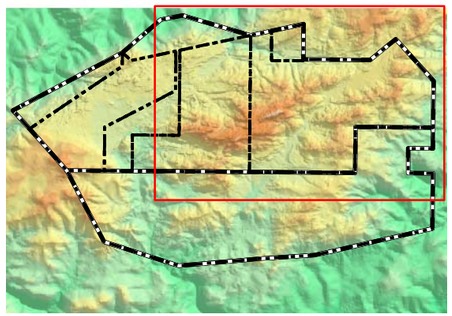
Outfalls 008 and 009 Location Map

Base Map Legend

- Administrative Area Boundary
- Historical Operations Areas (RFI Sites) Within Outfall 008 and 009
- Surface Water Drainage
- Surface Water Divide
- NPDES Outfall
- Existing Building or Structure
- Paved Road
- Elevation Contour
- Bedrock Outcrop



0 425 850 1,700 Feet



SANTA SUSANA FIELD LABORATORY

MWH FIGURE 1-3

Printing Date: February 13, 2009 File: \\uswck1netapp1\nrii\Industrial Projects\GIS\BoeingSantaSusana\MXD\Surface Water Driver Maps\ISRA-Feb2009\Figure 1-4.mxd

Outfall 008
Refined ISRA PEAs
and ISRA Areas

Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Existing Building or Structure
- Previously Excavated Area
- Preliminary ISRA Evaluation Area
- Surface Water Drainage
- Surface Water Divide
- Outfall Water Divide
- NPDES Outfall
- Dirt Road
- Paved Road
- Elevation Contour
- Bedrock Outcrop
- 2009 Data Gap Location, Sample(s) Not Analyzed
- Proposed Sample Location / Sample Results Pending

ISRA Constituents of Concern
Copper, Lead, Dioxins

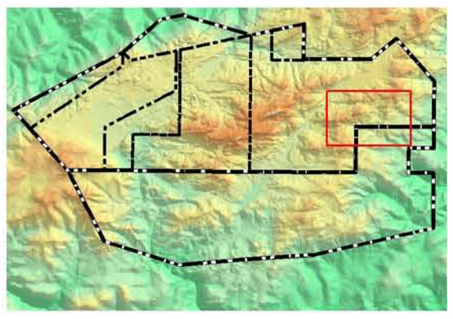
2005 Background Comparison Concentrations
Copper: 29 mg/kg
Lead: 34 mg/kg
Dioxins (TCDD TEQ): 0.87 pg/g

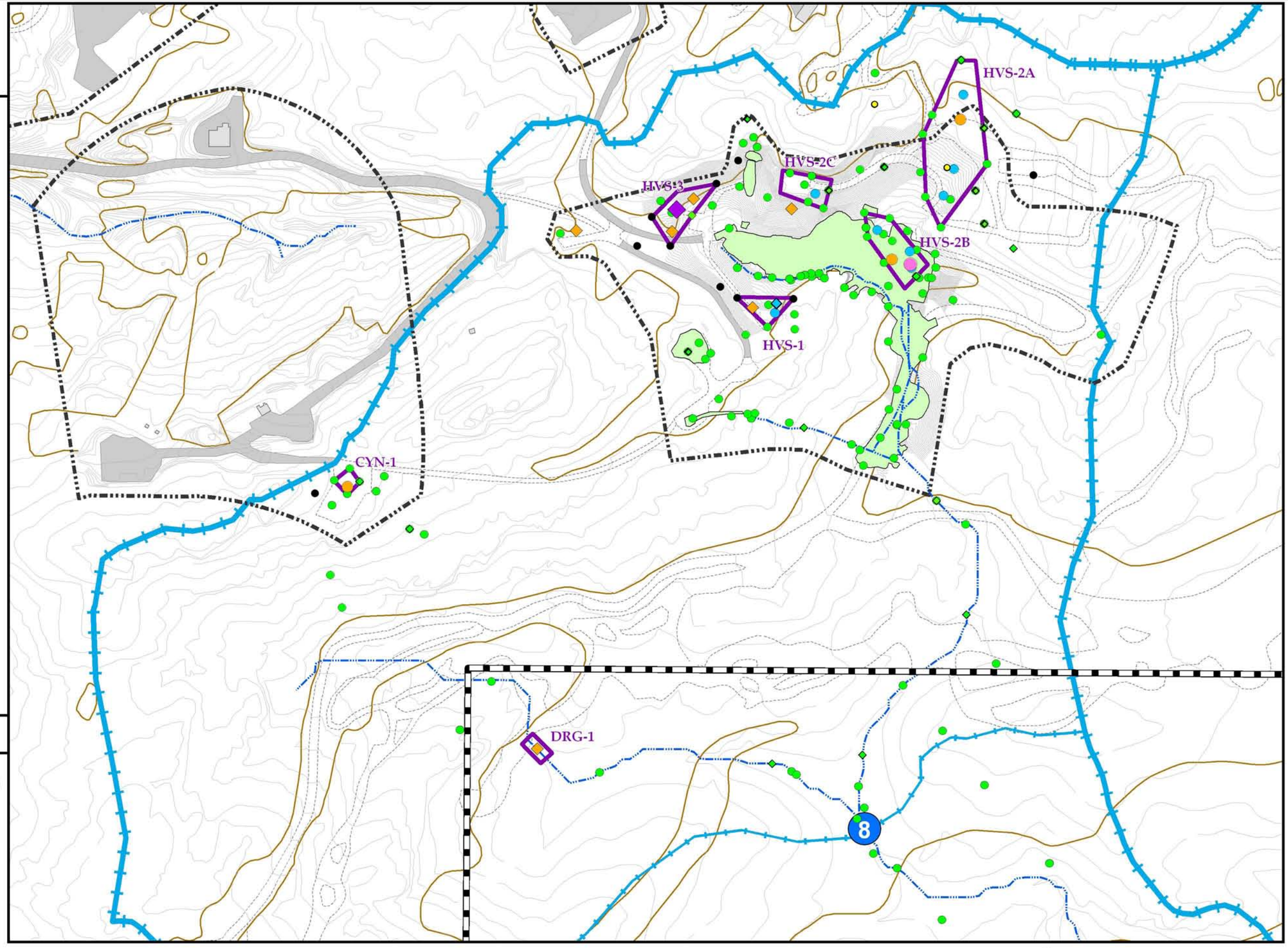
Copper and/or Lead Sample Location (<2 feet bgs)
- ≤ Background (BG)
- >BG and <2x BG
- ≥2x BG and <10x BG
- ≥10x BG and <100x BG

Dioxin Sample Location (<2 feet bgs)
- ≤ Background (BG)
- >BG and <2x BG
- ≥2x BG and <10x BG
- ≥10x BG and <100x BG
- ≥100x BG

Note: Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD TEQ

0 100 200 400 Feet

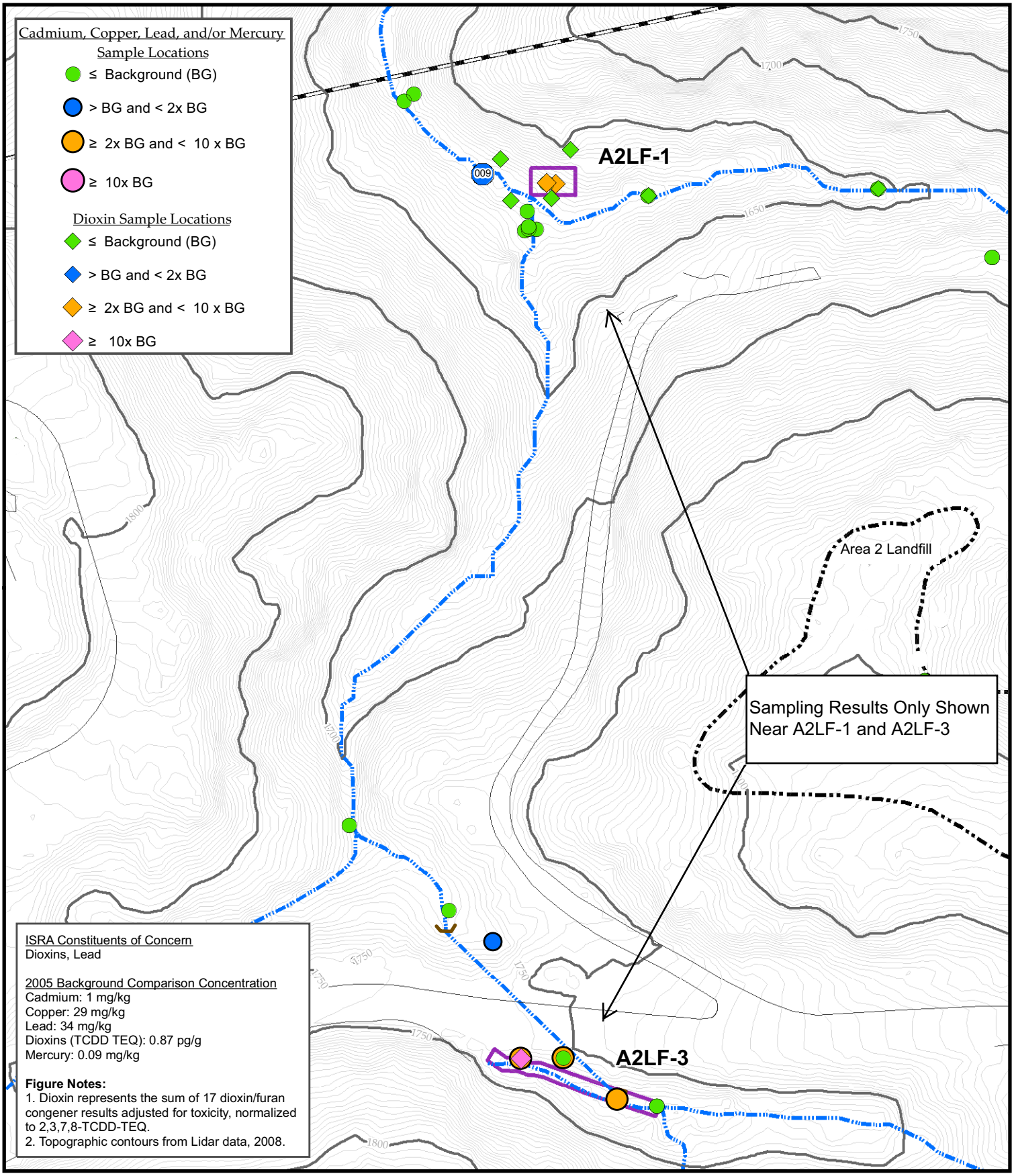




SANTA SUSANA FIELD LABORATORY

MWH FIGURE 1-4

Printing Date: April 30, 2009 File: \\uswck1netapp1\nrii\Industrial Projects\GIS\BoeingSantaSusana\MXD\Surface Water Driver Maps\ISRA-Apr2009\Final\Figure 3-2.mxd



Outfall 009 Refined ISRA Areas A2LF-1 and A2LF-3

MWH FIGURE 1-5

Document: ISRA_Plots_NASA_Refined_Areas.mxd

Date: Mar 25, 2010

Outfall 008, Post Excavation In-Place Sample Results

Base Map Legend

- Administrative Area Boundary
- RFI Site Boundary
- Existing Building or Structure
- Final 2009 ISRA Excavation Extent
- Local Borrow Source Area
- Surface Water Divide
- Outfall Water Divide
- Surface Water Drainage
- NPDES Outfall

ISRA Constituents of Concern
Copper, Lead, Dioxins

Soil Remediation Goals (SRGs)
Copper: 29 mg/kg
Lead: 34 mg/kg
Dioxins (TCDD TEQ): 3.0 pg/g

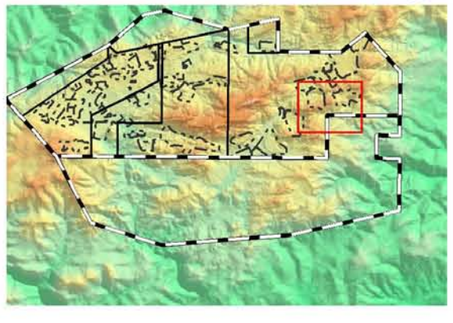
Copper and/or Lead Sample Location
- ≤ SRG
- > SRG and ≤ 1.2x SRG
- > 1.2x SRG

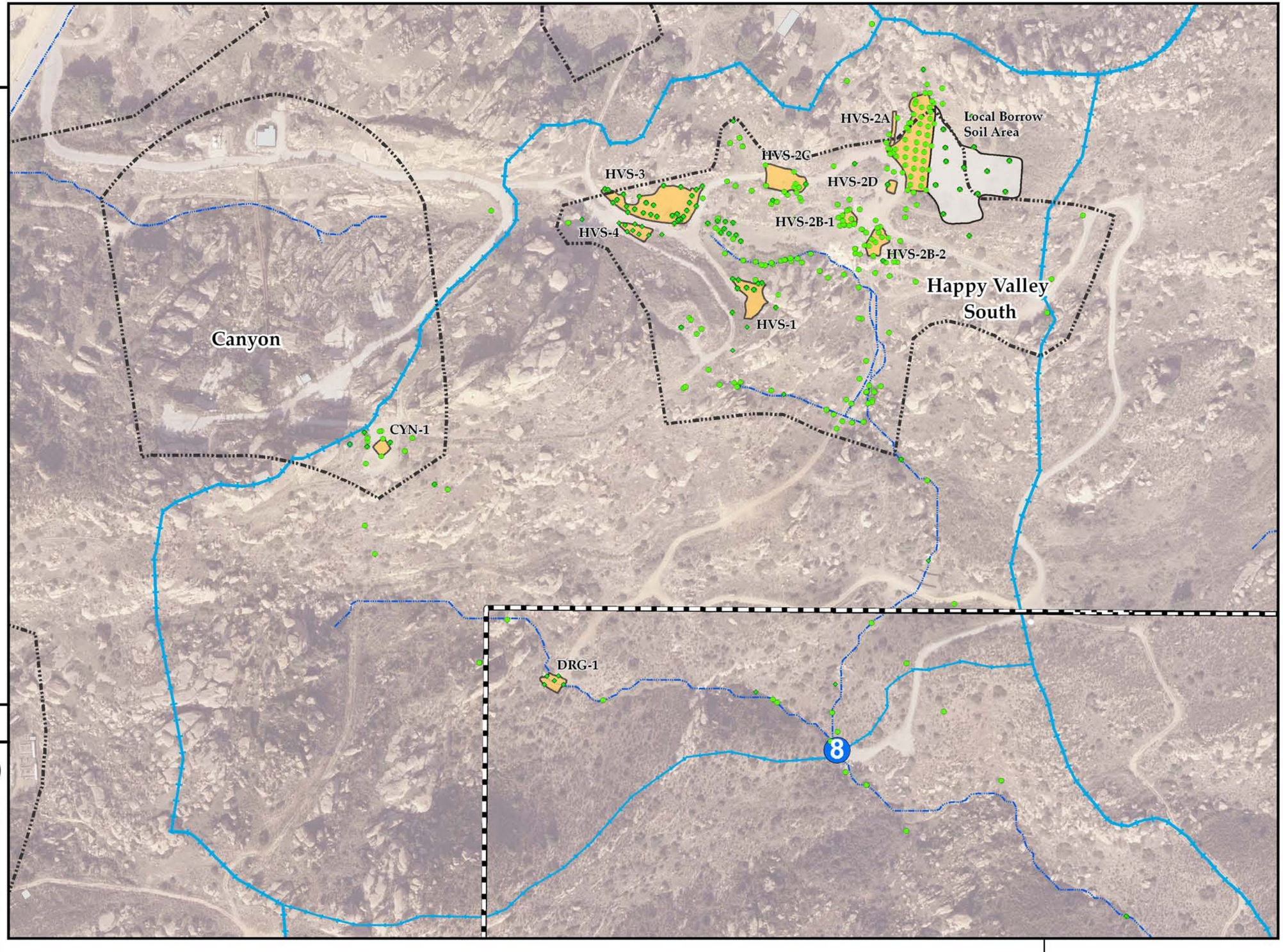
Dioxin Sample Location
- ≤ SRG
- > SRG and ≤ 1.2x SRG
- > 1.2x SRG

Note:
1. Samples excavated at depths less than two feet and up to 10 feet where necessary.
2. Copper and Lead SRG is equal to the 2005 background comparison concentration, and the dioxin SRG is approximately 3 times the 2005 background comparison concentration.
3. Aerial imagery from Sage, November 2009.

Date: December 4, 2009

0 100 200 400 Feet

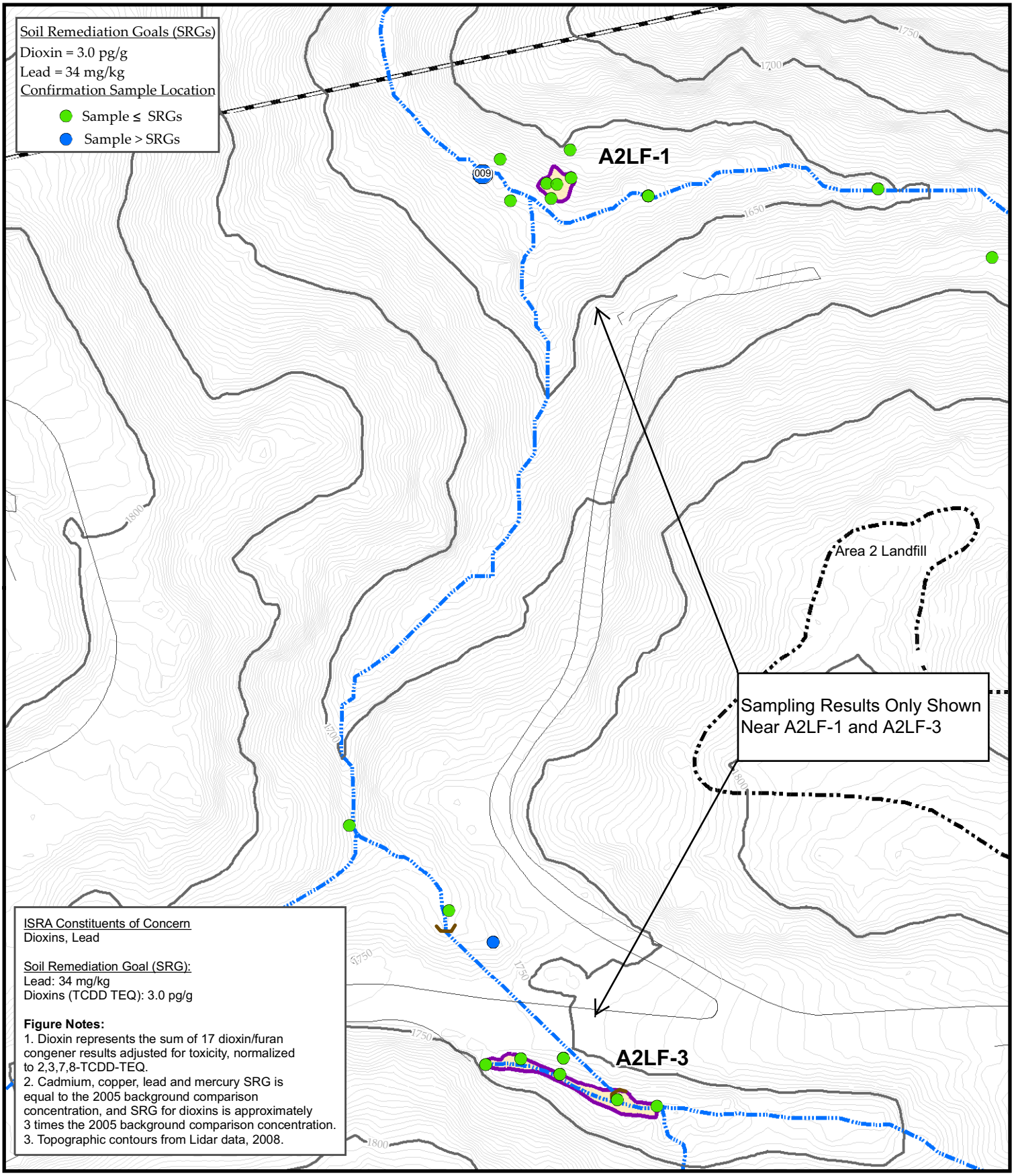


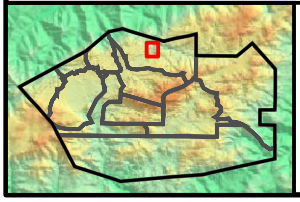


S A N T A S U S A N A F I E L D L A B O R A T O R Y

MWH FIGURE 3-1

Printing Date: March 29, 2010 File: \\uspas1netapp1\DEI\rocketdyne gis\MasterGISFiles\ISRA_Projects\ISRA_MXD\Outfall 008\008 ISRA\Final\OF8PostExcavInPlaceResults.mxd





Administrative Area Boundary
RFI Site Boundary
Actual Excavation
A/C Paving
NPDES Outfall
Drainage
Surface Water Divide
Elevation Contour

N

0 50 100 Feet

Outfall 009 Post Excavation In-Place Sample Results A2LF-1 and A2LF-3

MWH

FIGURE 3-2

Document: ISRA_Plots_NASA_Residual_Results.mxd

Date: Mar 23, 2010

Outfall 008, Natural BMP Installation Locations

Base Map Legend

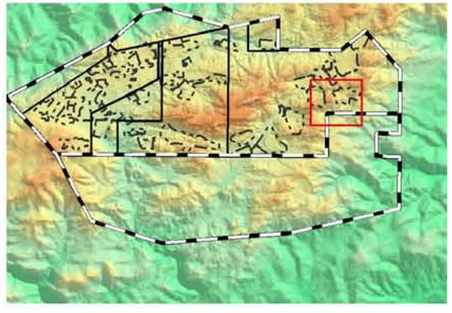
- Administrative Area Boundary
- RFI Site Boundary
- Existing Building or Structure
- 2009 ISRA Excavation Extent
- Surface Water Divide
- Outfall Water Divide
- Elevation Contour
- Surface Water Drainage
- NPDES Outfall
- Mulefat Wattles
- Planting Area

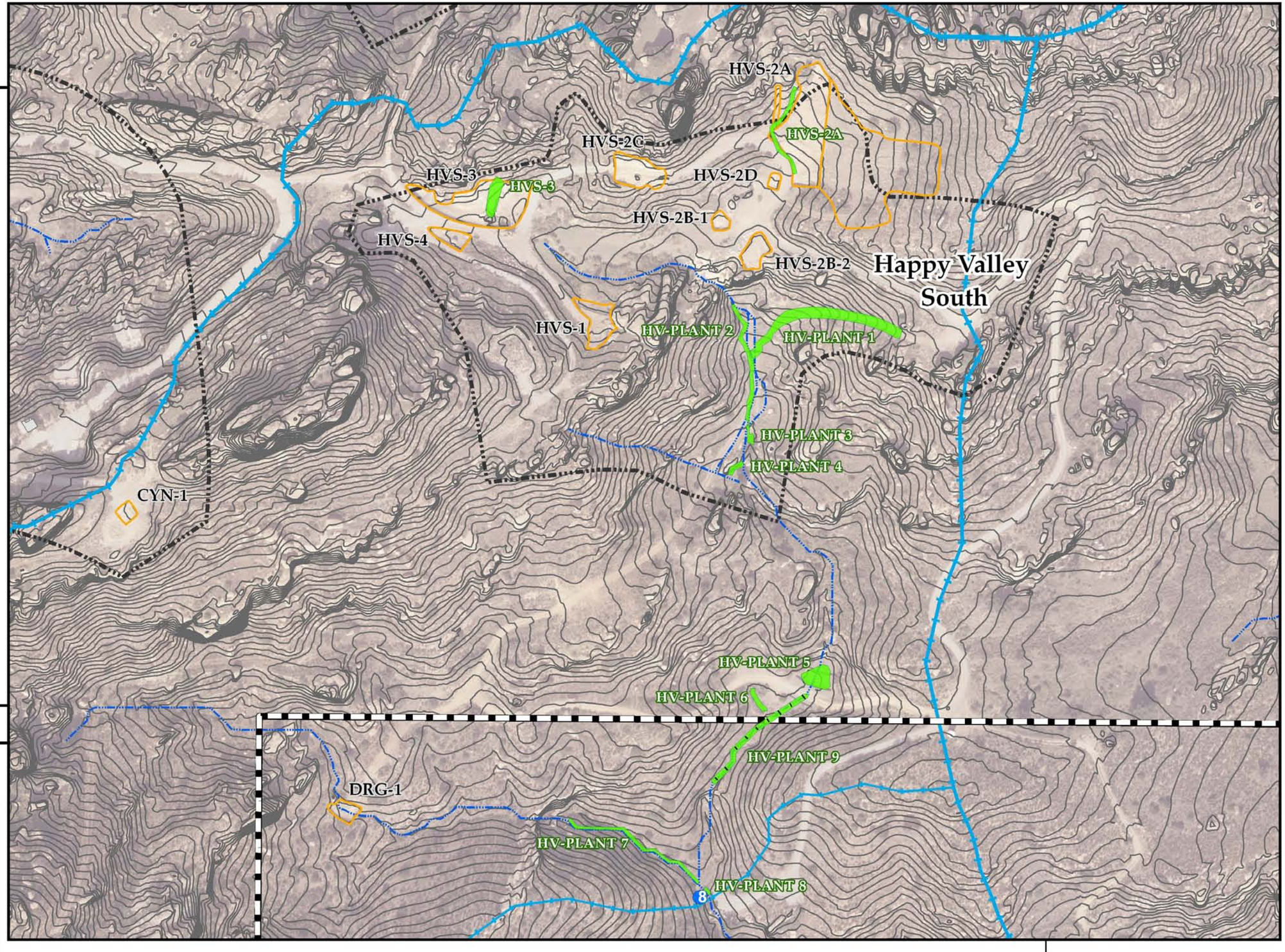
Note:

1. Modified after Figure 1 - Happy Valley Containerized Planting Areas, by WRA Environmental Consultants, contained in M. Josselyn, Technical Report, Revegetation in the Outfall 008 Watershed, 2009.
2. Aerial imagery from Google Earth, 2009.
5. Topographic contours from Sage, July 2009.

Date: December 4, 2009

Feet
0 87.5 175





S A N T A S U S A N A F I E L D L A B O R A T O R Y

MWH FIGURE 3-3

Printing Date: March 29, 2010 File: \\uspas1netapp1\DEI\rocketdyne gis\MasterGISFiles\ISRA_Projects\ISRA_MXD\Outfall 008\008 ISRA\Final\008NaturalBMPLocations.mxd