

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

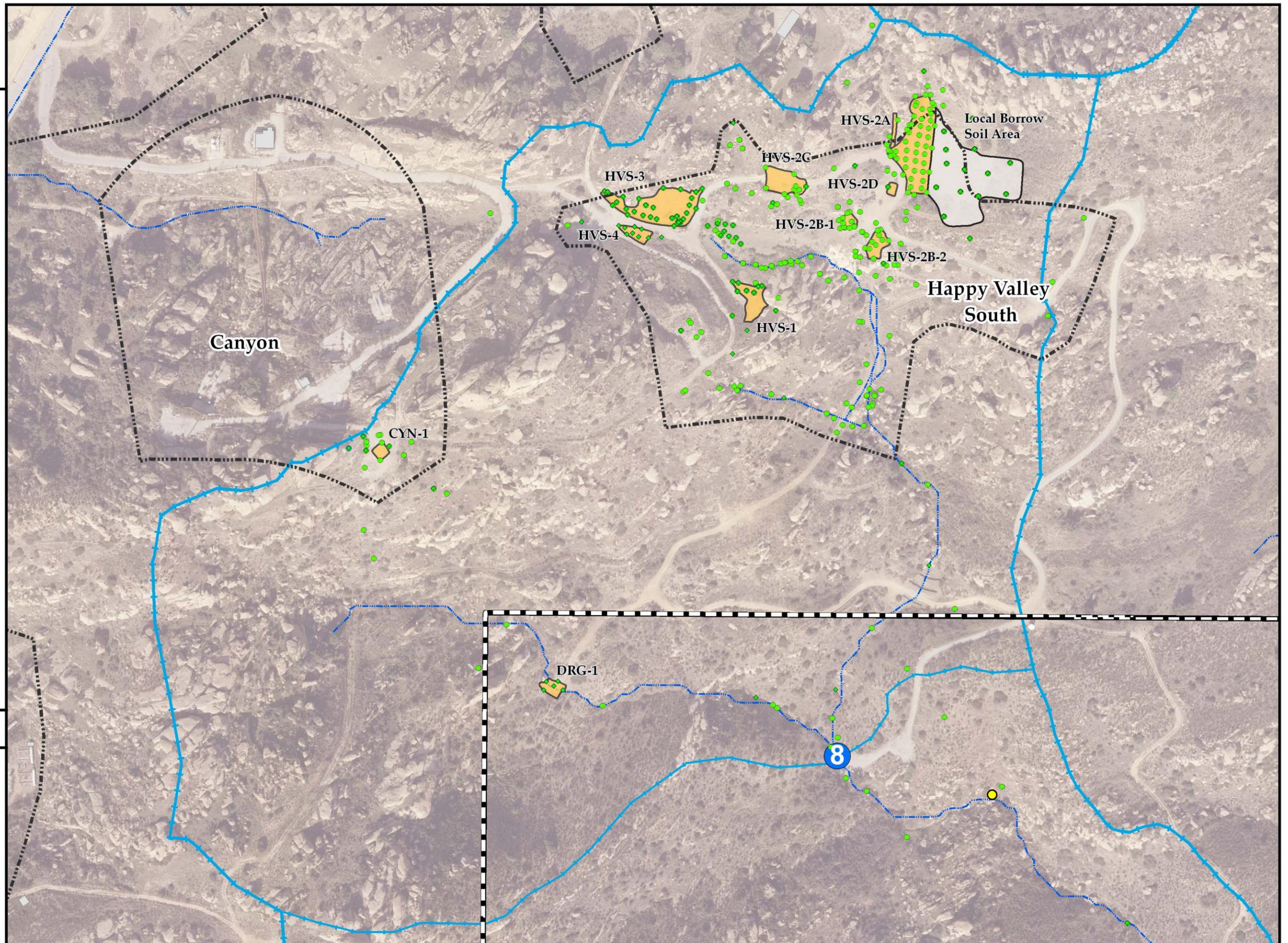
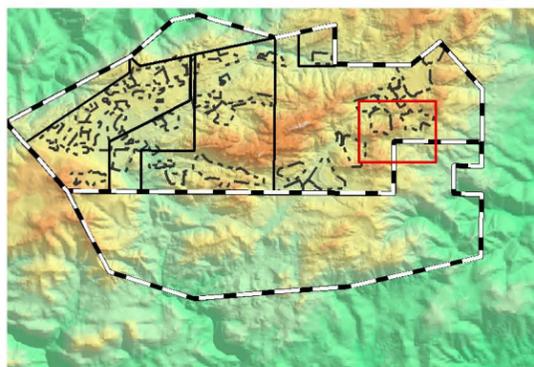
-  ≤ SRG
-  > SRG and ≤ 1.2x SRG
-  > 1.2x SRG

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

ISRA Areas Eastern Outfall 009 Watershed

- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Soil Borrow Area
 - NPDES Outfall
 - Surface Water Divide
 - Drainage
 - Non Jurisdictional Surface Water Pathway
 - Previous Excavation Area
 - A/C Paving
 - Dirt Road
 - Elevation Contour

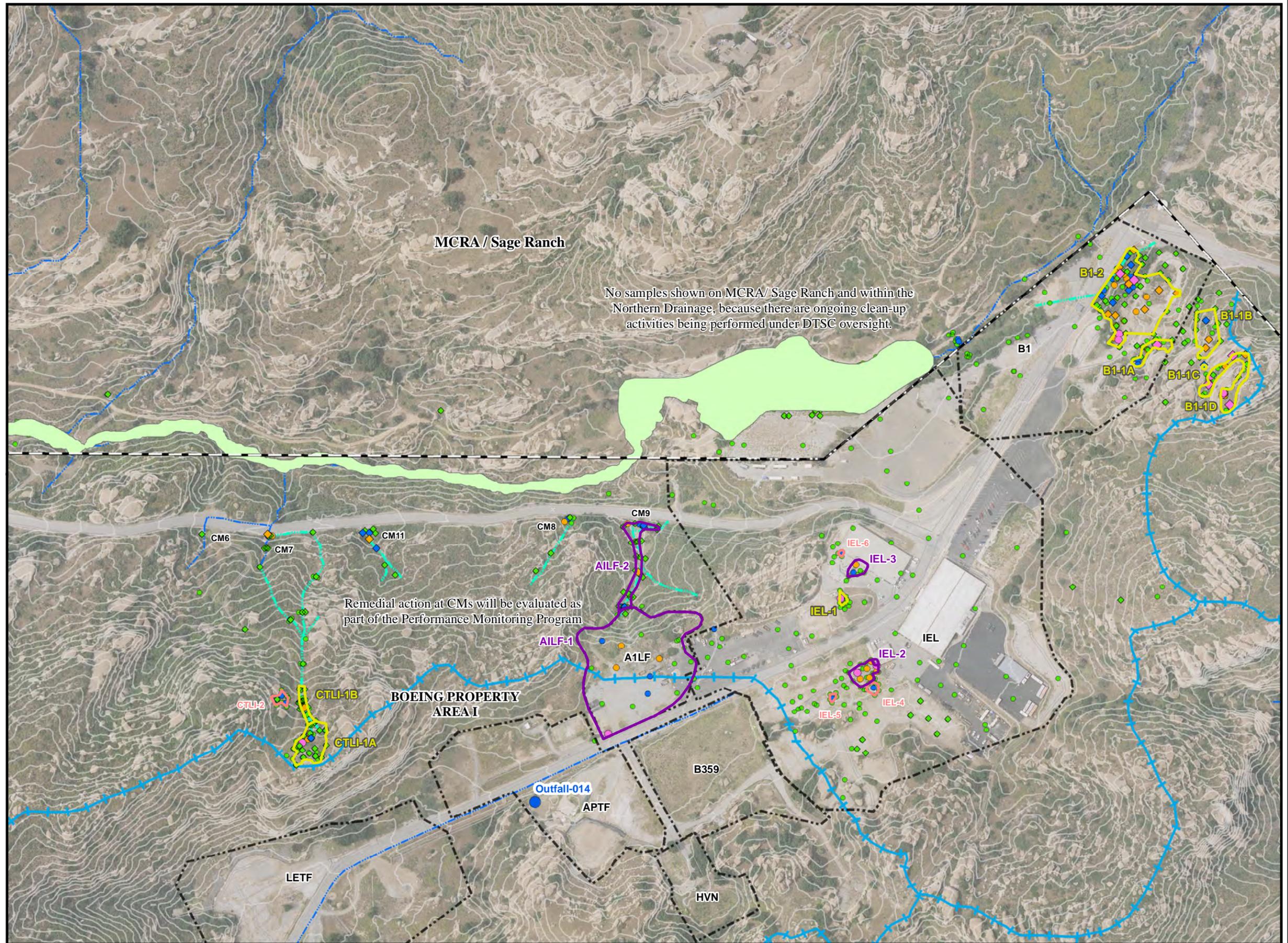
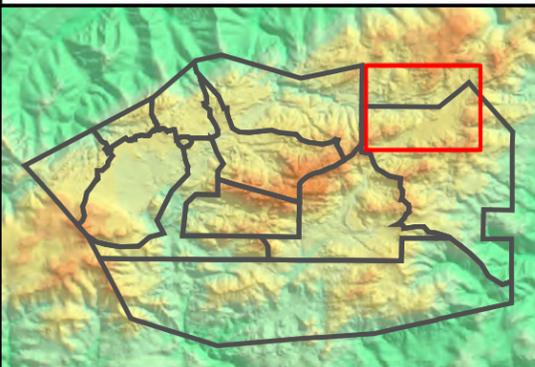
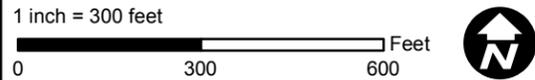
- Figure Legend**
- Actual excavation boundaries
 - ISRA Areas completed in 2009
 - Planned excavation boundaries
 - ISRA Areas completed in 2010
 - ISRA Areas planned for future remediation
 - ISRA PEAs not planned for future remediation

- Chemical Data Legend**
- Dioxin Sample Locations (< 2 feet bgs)**
- ≤ SRG
 - > SRG and < 2x SRG
 - ≥ 2x SRG and < 10 x SRG
 - ≥ 10x SRG
- Metal Sample Locations (< 2 feet bgs)**
- ≤ SRG
 - > SRG and < 2x SRG
 - ≥ 2x SRG and < 10 x SRG
 - ≥ 10x SRG

ISRA COCs/SRGs
 Cadmium: 1 mg/kg
 Copper: 29 mg/kg
 Lead: 34 mg/kg
 Mercury: 0.09 mg/kg
 Dioxin: 3.0 pg/g

- Figure Notes:**
- Implementation at 2009 ISRA areas was described in the ISRA Phase I Implementation Report (MWH, 2009).
 - PEA-CTLI-2, PEA-IEL-4, PEA-IEL-5, and PEA-IEL-6 underwent a contaminant migration potential evaluation based on chemical and physical characteristics in the 2010 Work Plan Addendum (MWH, 2010), with a resulting low rank, and therefore were not considered ISRA areas and were not carried forward for the remedial alternatives evaluation.
 - Aerial imagery and topographic contours were collected June 2, 2010 by Sage Consultants, Inc., and represent pre-excavation conditions.

Path: T:\projects\rock3\ISRA\Figures\Outfall-009\Dotmap_East_Pre_11x17.mxd Date: 4/29/2011



ISRA Areas Western Outfall 009 Watershed

- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Soil Borrow Area
 - NPDES Outfall
 - Surface Water Divide
 - Drainage
 - Non Jurisdictional Surface Water Pathway
 - Previous Excavation Area
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 - ≥ 2x SRG and < 10 x SRG
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- Metal Sample Locations (< 2 feet bgs)**
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1 inch = 400 feet
 0 400 800 Feet

