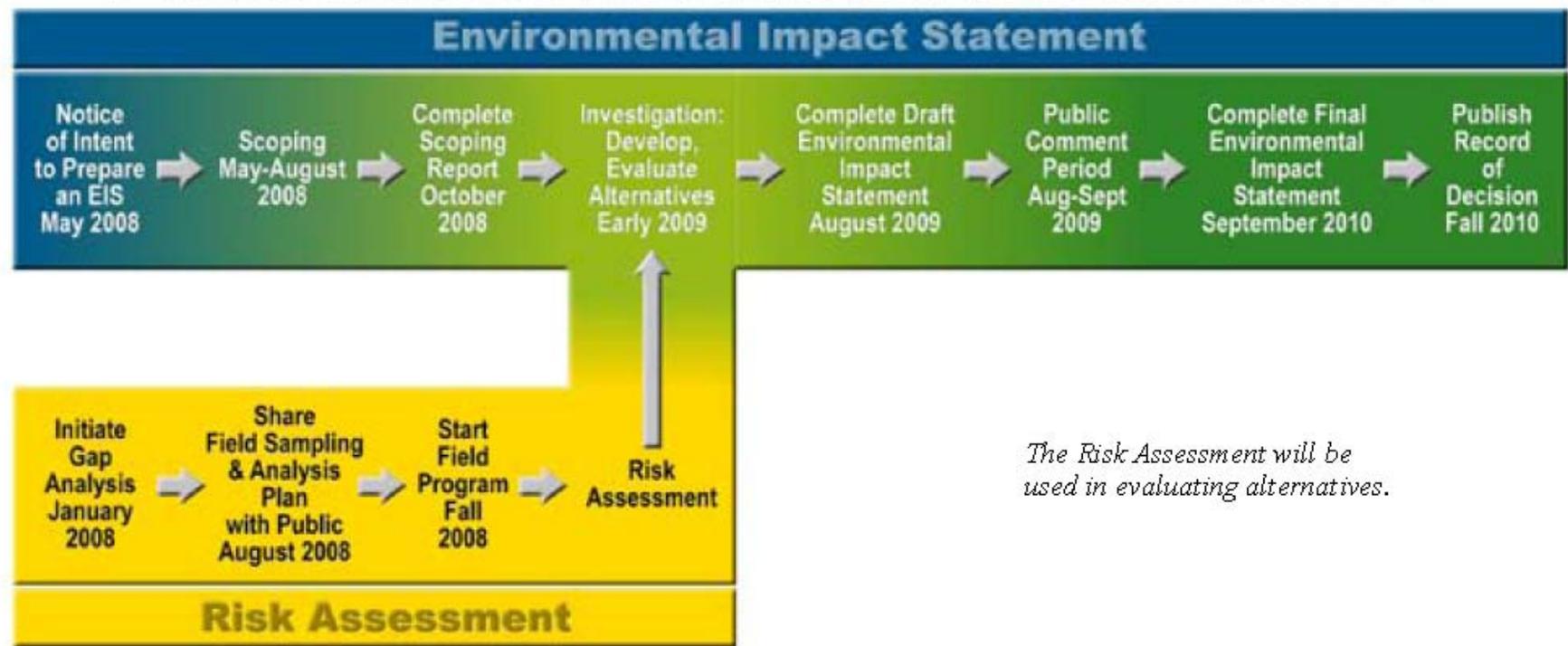


The Risk Assessment: How It Fits into the EIS



Area IV Santa Susana Field Laboratory

Environmental Impact Statement (Area IV SSFL EIS)

Text



Subject: **Task Order: DE-AT30-08CC60021/ET17**
Draft Gap Analysis Report

Deliverable Number: 02

Submitting to: Dave Hincks, DCO

Submitted by: John Wondolleck

Submittal Date: June 1, 2008

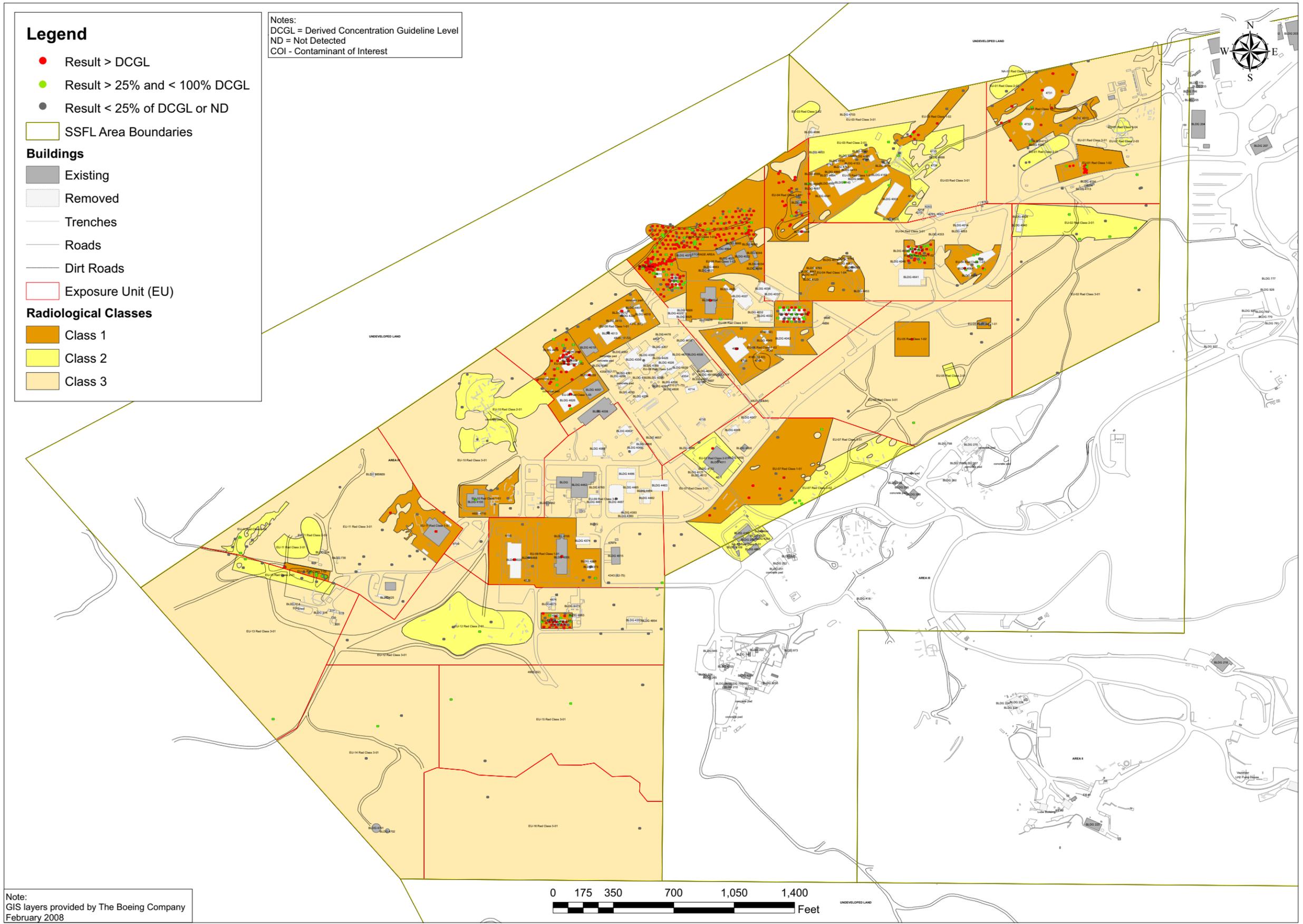
Prepared by: John Wondolleck

Distributed to: David Hincks, DCO

Stephanie G. Jennings, DCOR



Office Of Environmental Management
safety ♦ performance ♦ cleanup ♦ closure



Legend

- Result > DCGL
- Result > 25% and < 100% DCGL
- Result < 25% of DCGL or ND
- SSFL Area Boundaries

Buildings

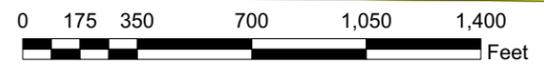
- Existing
- Removed
- Trenches
- Roads
- Dirt Roads
- Exposure Unit (EU)

Radiological Classes

- Class 1
- Class 2
- Class 3

Notes:
 DCGL = Derived Concentration Guideline Level
 ND = Not Detected
 COI - Contaminant of Interest

Note:
 GIS layers provided by The Boeing Company
 February 2008

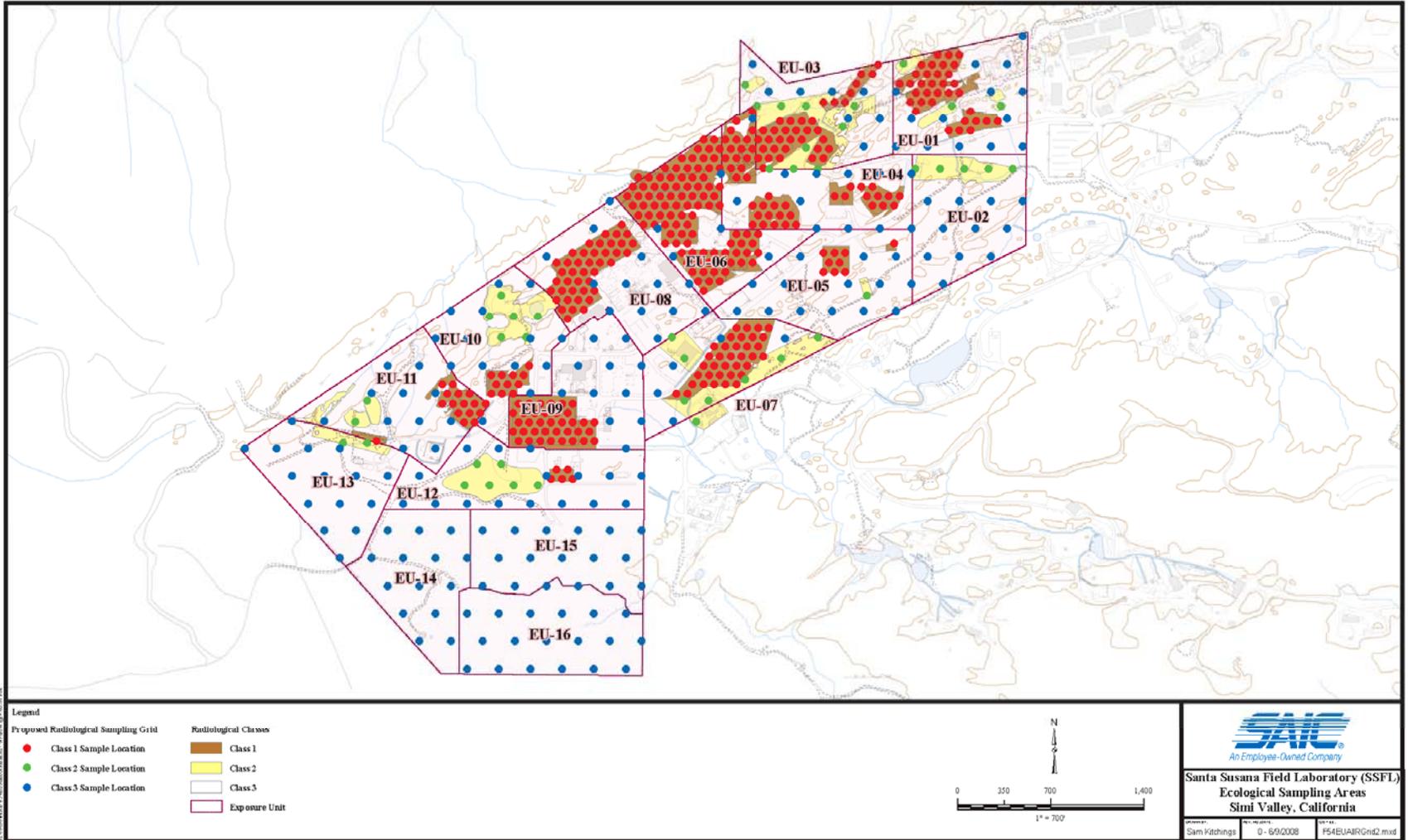


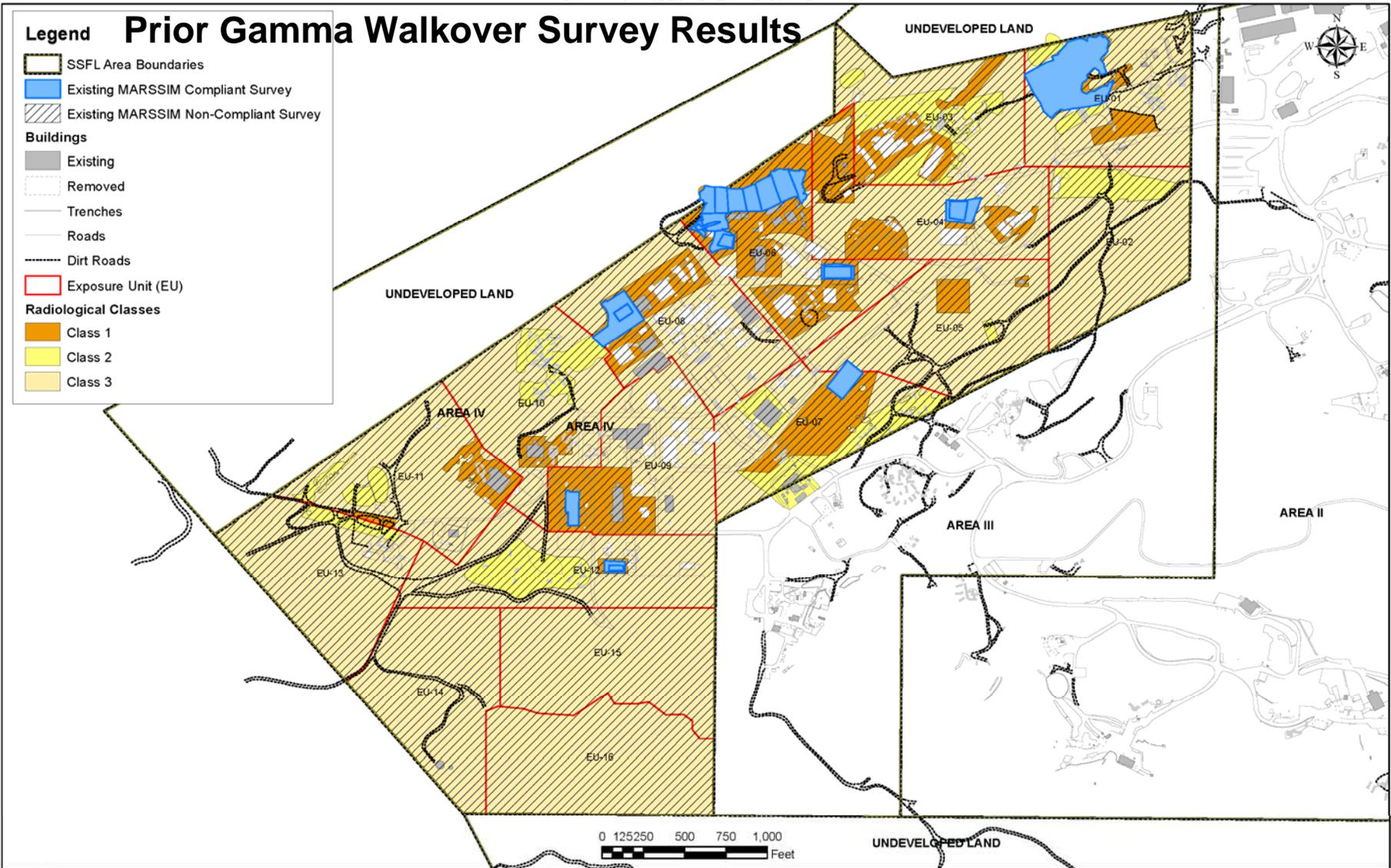
Santa Susana Field Laboratory Area IV
 Ventura County, California

Figure 3-6
 Location of Existing Radiological Samples



Proposed Distribution of Samples - Radionuclides

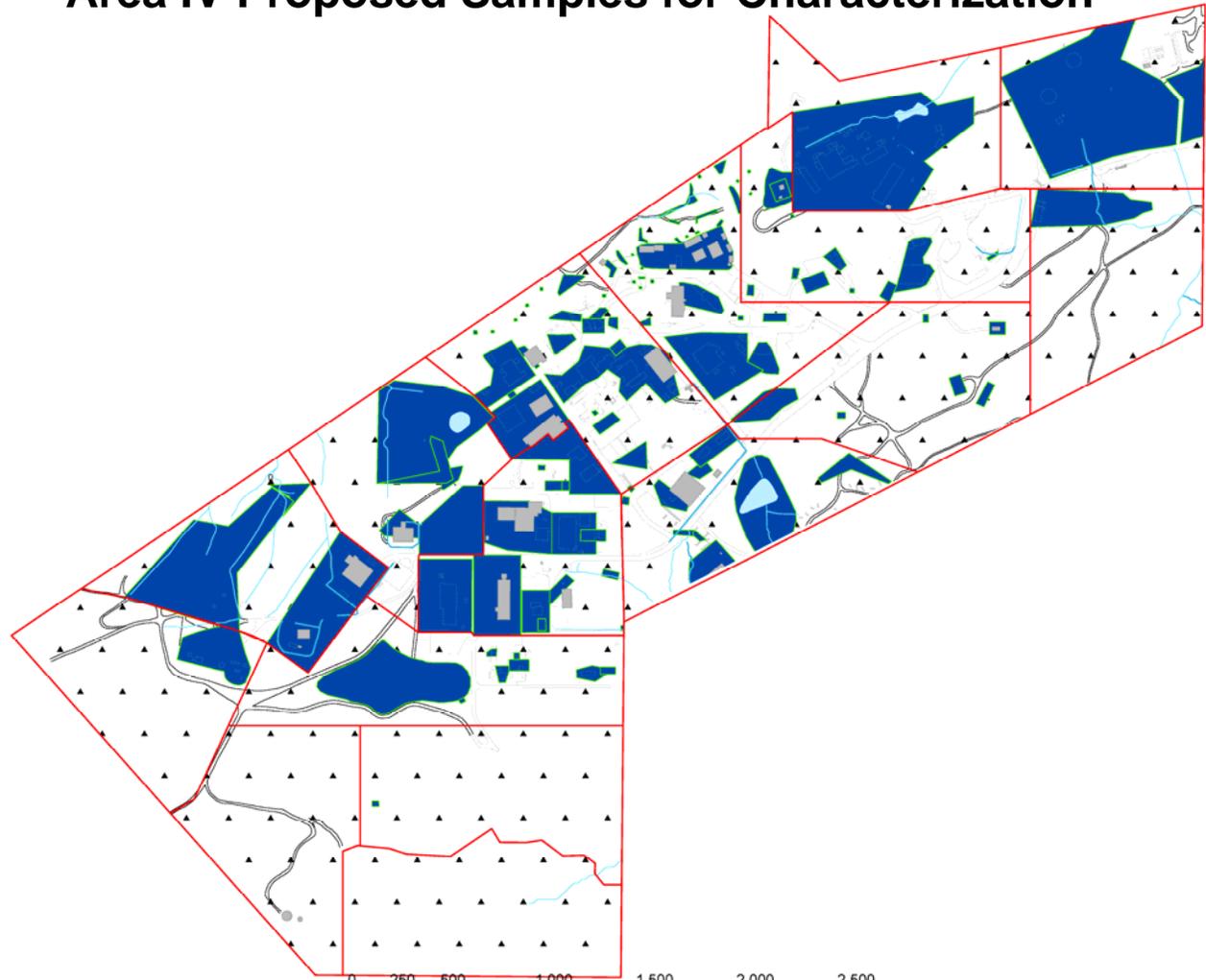




Santa Susana Field Laboratory Area IV
Ventura County, California

Figure 4-1
Locations of Existing Gamma Walkover Surveys

Area IV Proposed Samples for Characterization



Note:
GIS layers provided by The Boeing Company
February 2008

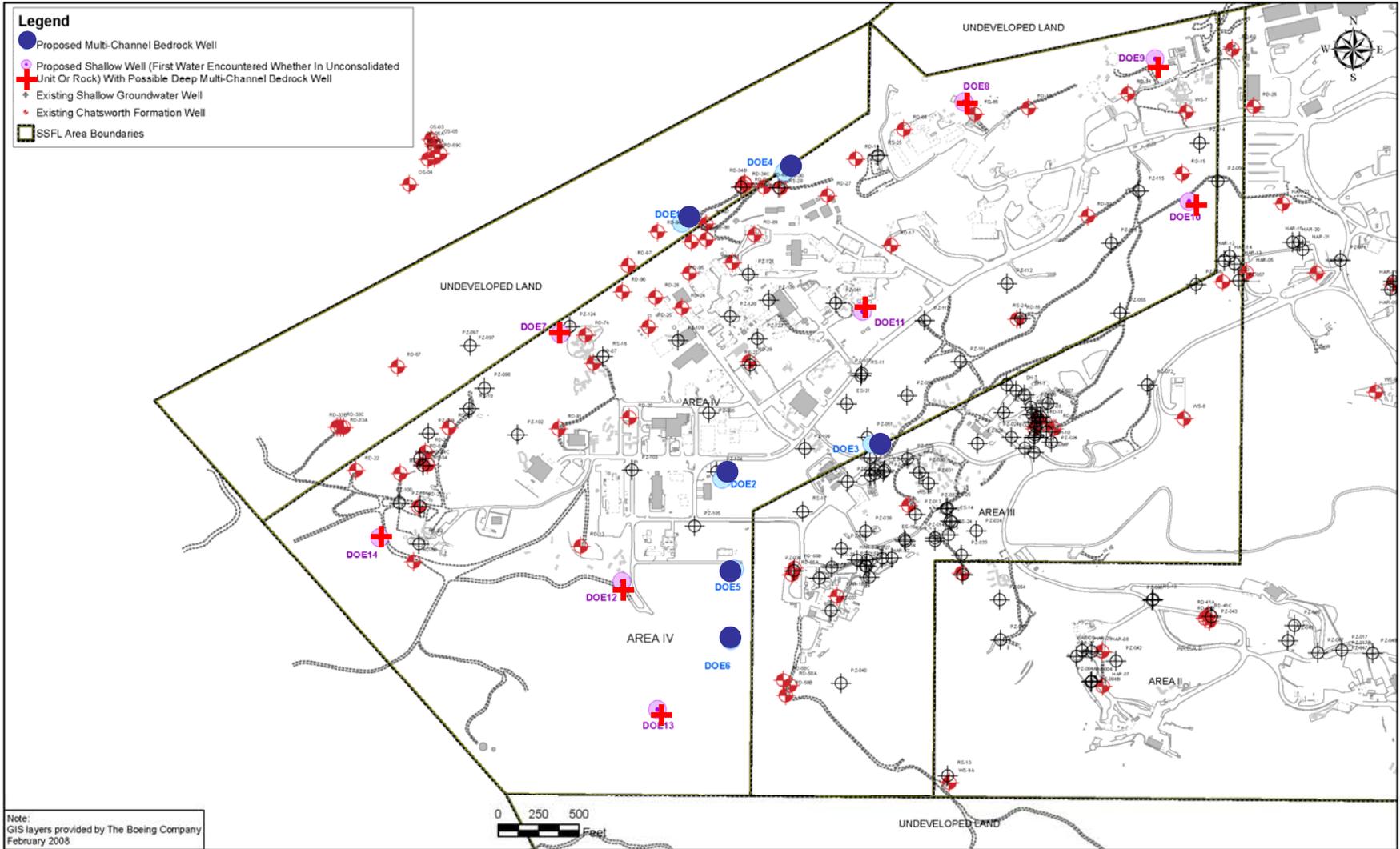


Santa Susana Field Laboratory Area IV
Ventura County, California

Overview

Proposed Groundwater Monitoring Well Locations

DRAFT - FOR PUBLIC REVIEW AND COMMENT



Santa Susana Field Laboratory Area IV
Ventura County, California

Figure 4-14
Proposed Monitoring Well Locations



- Graphics Break

Risk Definition

For Cesium-137, the 10^{-6} Preliminary Remediation Goal soil concentration is 0.00112 pCi/gram

If a population of one million individuals lived in an area with soil levels at 0.00112 pCi/gram, and

Gardened in the soil,

Consumed fruits and vegetables grown on the soil,

Consumed beef, pork, and poultry raised on the soil,

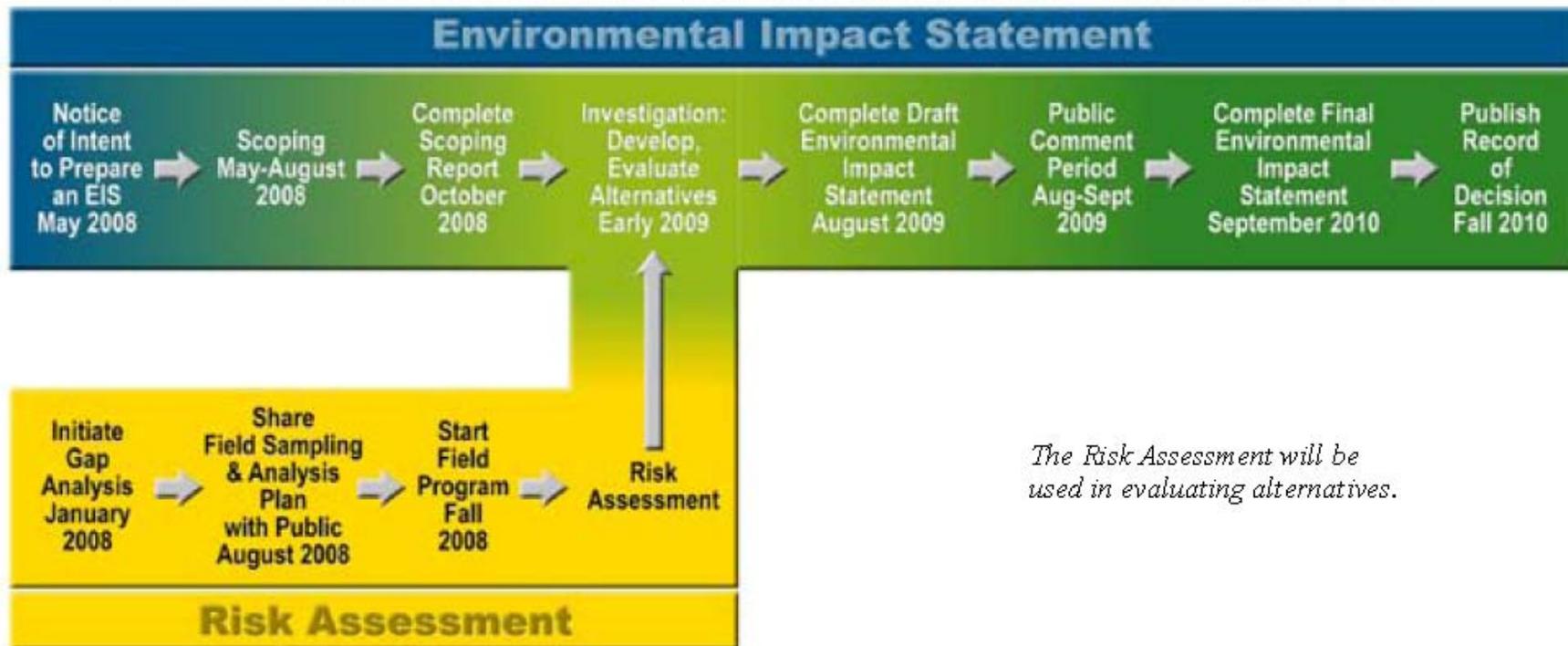
Consumed eggs from poultry raised on the soil,

Drank milk from cows raised on the soil, and

Consumed fish raised on sediment with that level,

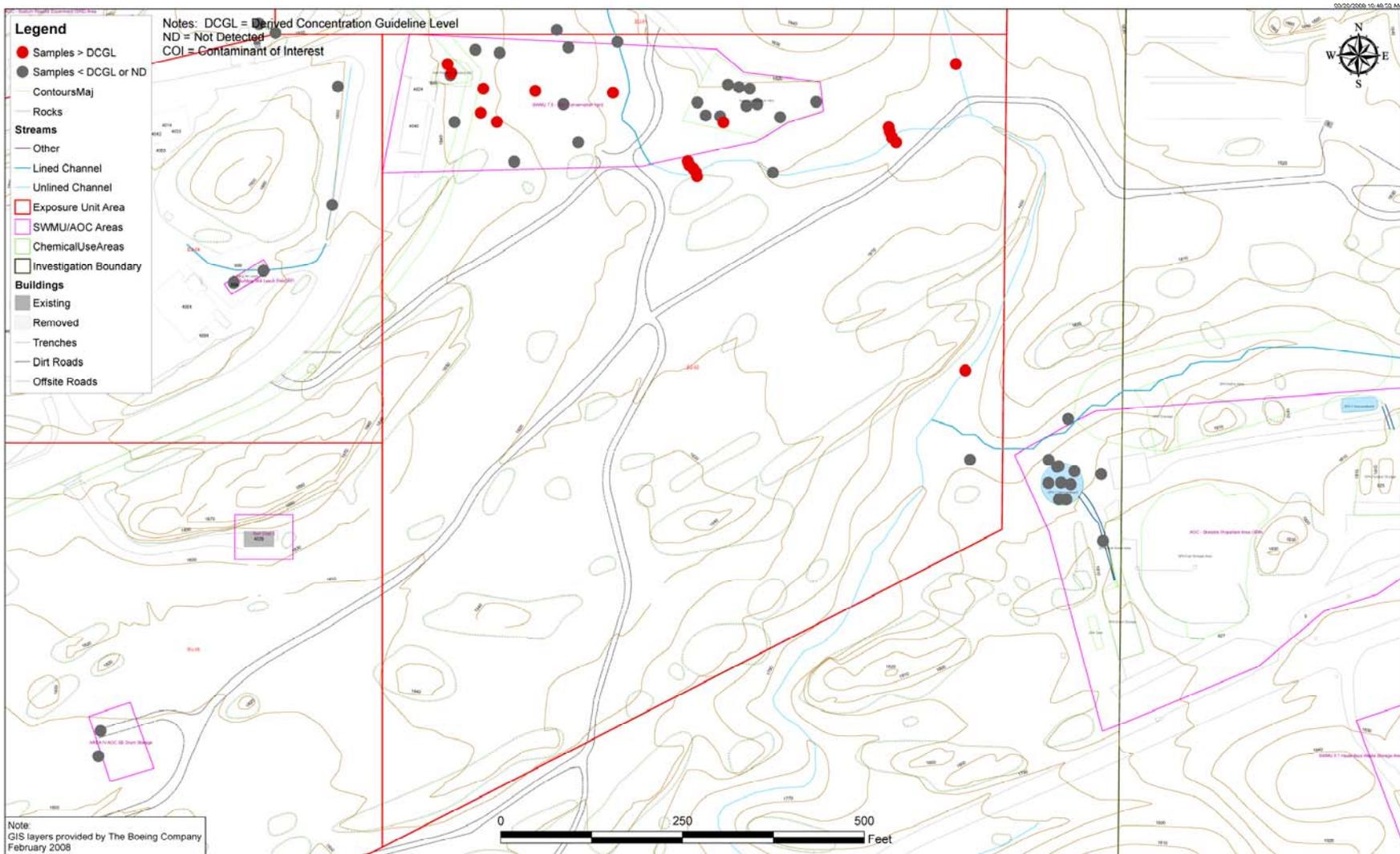
The risk prediction is one additional cancer among the population of one million resulting from this type of exposure.

The Risk Assessment: How It Fits into the EIS



- End of Graphics

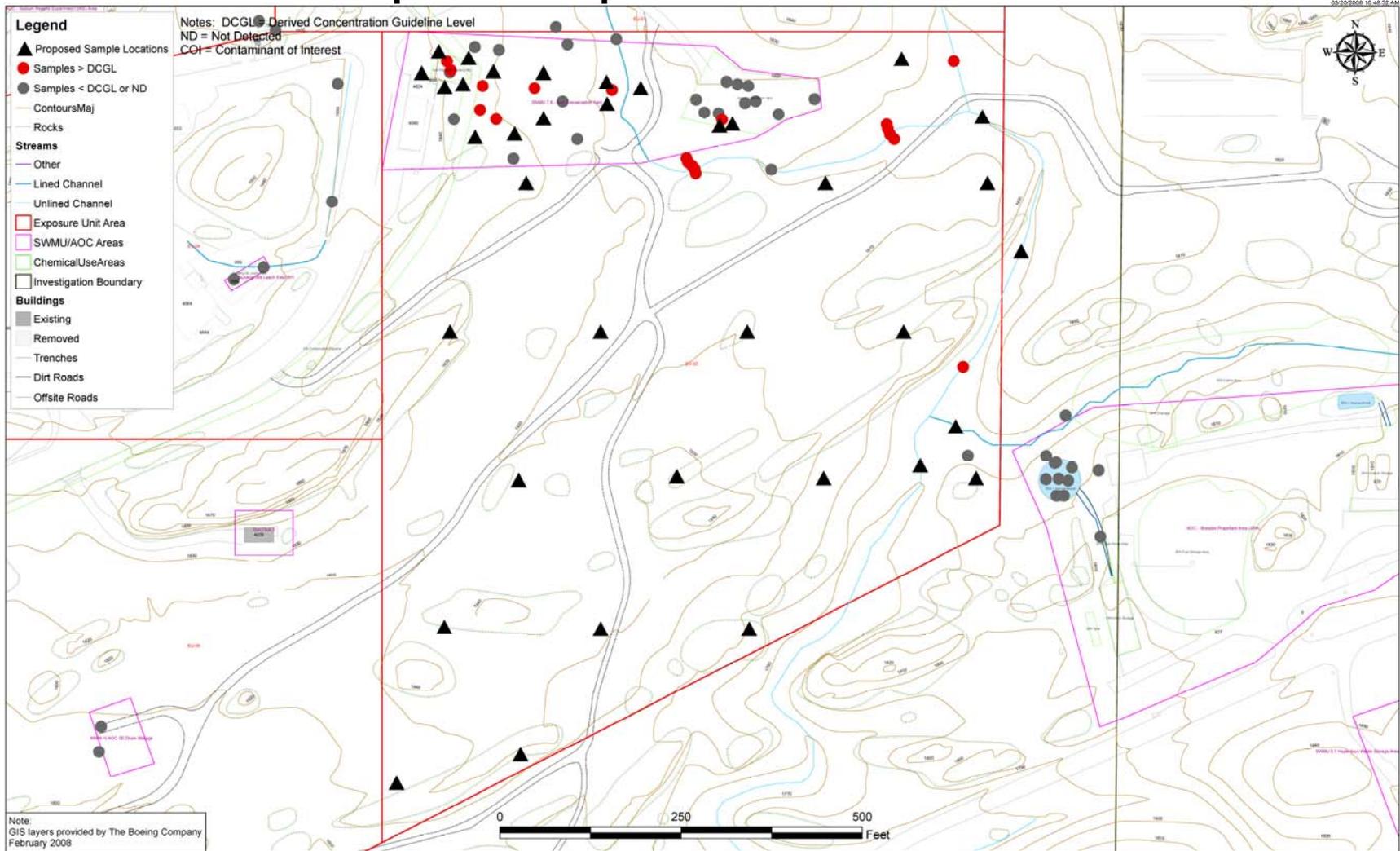
EU-02 Existing Data Distribution



Santa Susana Field Laboratory Area IV
Ventura County, California

Chemicals Exceeding DCGL in Soils - EU-02
(0-2 ft bgs)

EU-02 Proposed Samples for Characterization and Extent

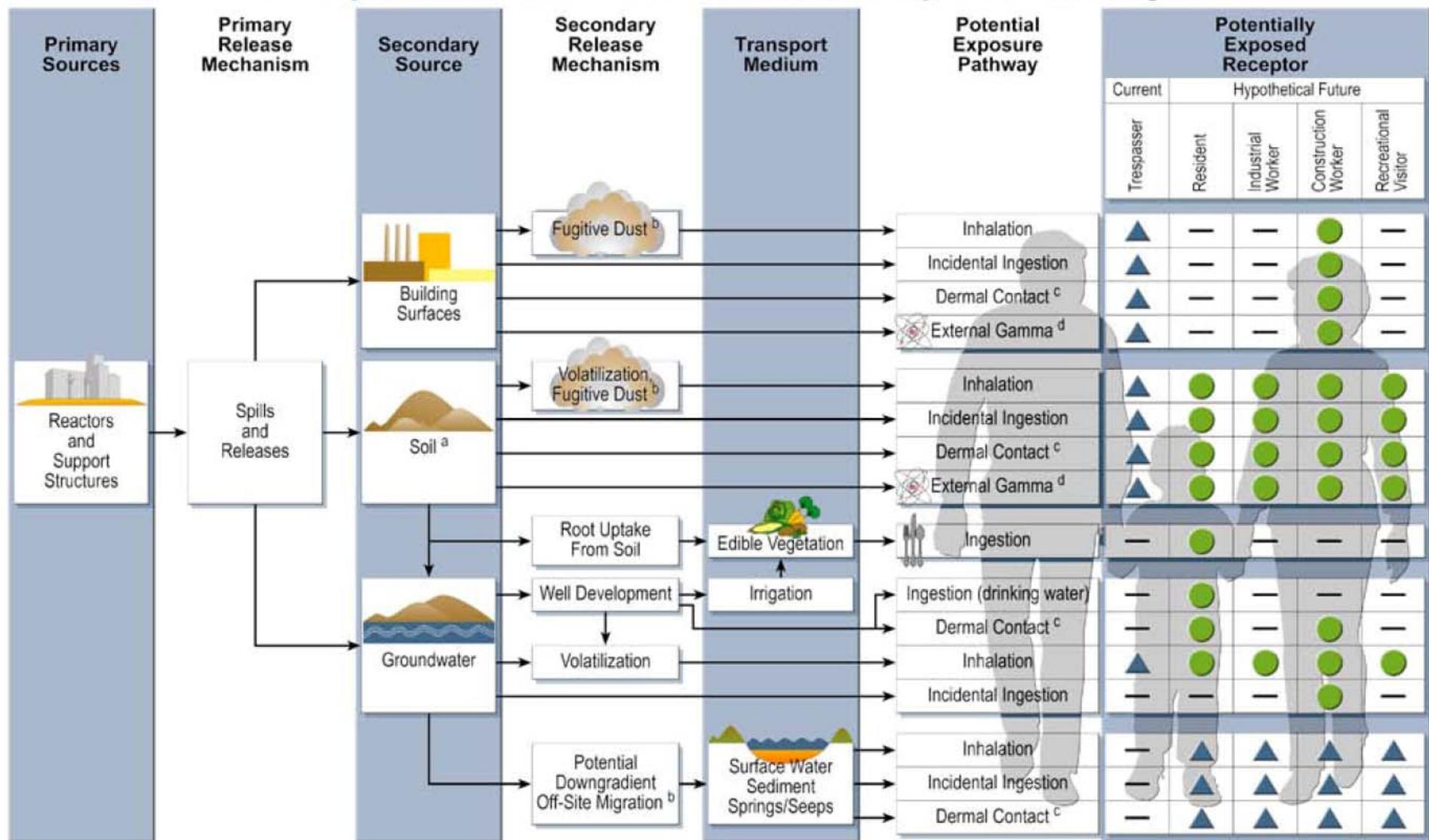


Santa Susana Field Laboratory Area IV
 Ventura County, California

Chemicals Exceeding DCGL in Soils - EU-02
 With Proposed Sample Locations



Conceptual Site Model for Human Health Exposure Pathways



Potential Exposure Pathway	Potentially Exposed Receptor					
	Current	Hypothetical Future				
	Trespasser	Resident	Industrial Worker	Construction Worker	Recreational Visitor	
Fugitive Dust ^b (from Building Surfaces)	Inhalation	▲	—	—	●	—
	Incidental Ingestion	▲	—	—	●	—
	Dermal Contact ^c	▲	—	—	●	—
Fugitive Dust ^b (from Soil)	Inhalation	▲	●	●	●	●
	Incidental Ingestion	▲	●	●	●	●
	Dermal Contact ^c	▲	●	●	●	●
External Gamma ^d (from Soil)	External Gamma ^d	▲	●	●	●	●
	Inhalation	▲	●	●	●	●
	Incidental Ingestion	▲	●	●	●	●
Edible Vegetation	Ingestion	—	●	—	—	—
	Ingestion (drinking water)	—	●	—	—	—
Irrigation	Dermal Contact ^c	—	●	—	●	—
	Inhalation	▲	●	●	●	●
	Incidental Ingestion	—	—	—	●	—
Surface Water Sediment Springs/Seeps	Inhalation	—	▲	▲	▲	▲
	Incidental Ingestion	—	▲	▲	▲	▲
	Dermal Contact ^c	—	▲	▲	▲	▲

^a Soil media include ash, bedrock, and sediment. Soil will be evaluated by depth
^b The potential for offsite migration of site-related contaminants will be qualitatively evaluated
^c Dermal Contact is evaluated for chemicals only
^d External Gamma is evaluated for radionuclides only

● Quantitatively Evaluated Exposure Pathway
 ▲ Qualitatively Evaluated Exposure Pathway
 — Incomplete Pathway

Data Quality Objectives:

A Multi-step Process for Obtaining Needed Data

