

EPA's Radiological Studies

Santa Susana Field Laboratory

Presented by: EPA Region 9

Presented For: SSFL Interagency Workgroup

February 2, 2011



Tonight's Presentation

- Summary of EPA field work to date
 - Radiological Background Study
 - Radiological Study of Area IV and Northern Buffer Zone
- Key Project Schedule Dates



Radiological Background Study Project Purpose & Schedule

Activity	Planned Date
Laboratory Analysis Completion	December 2010
Data Technical Memorandum	February 2011
All Data Validation Completion	March 2011
Stakeholder Meetings	March 2011

- ❑ The purpose of the Background Study is to determine the level of “ambient or background” radioactivity found in soil.
- ❑ The results of the Background Study will be compared to radiological data collected at the SSFL to determine the extent of radiological contamination.



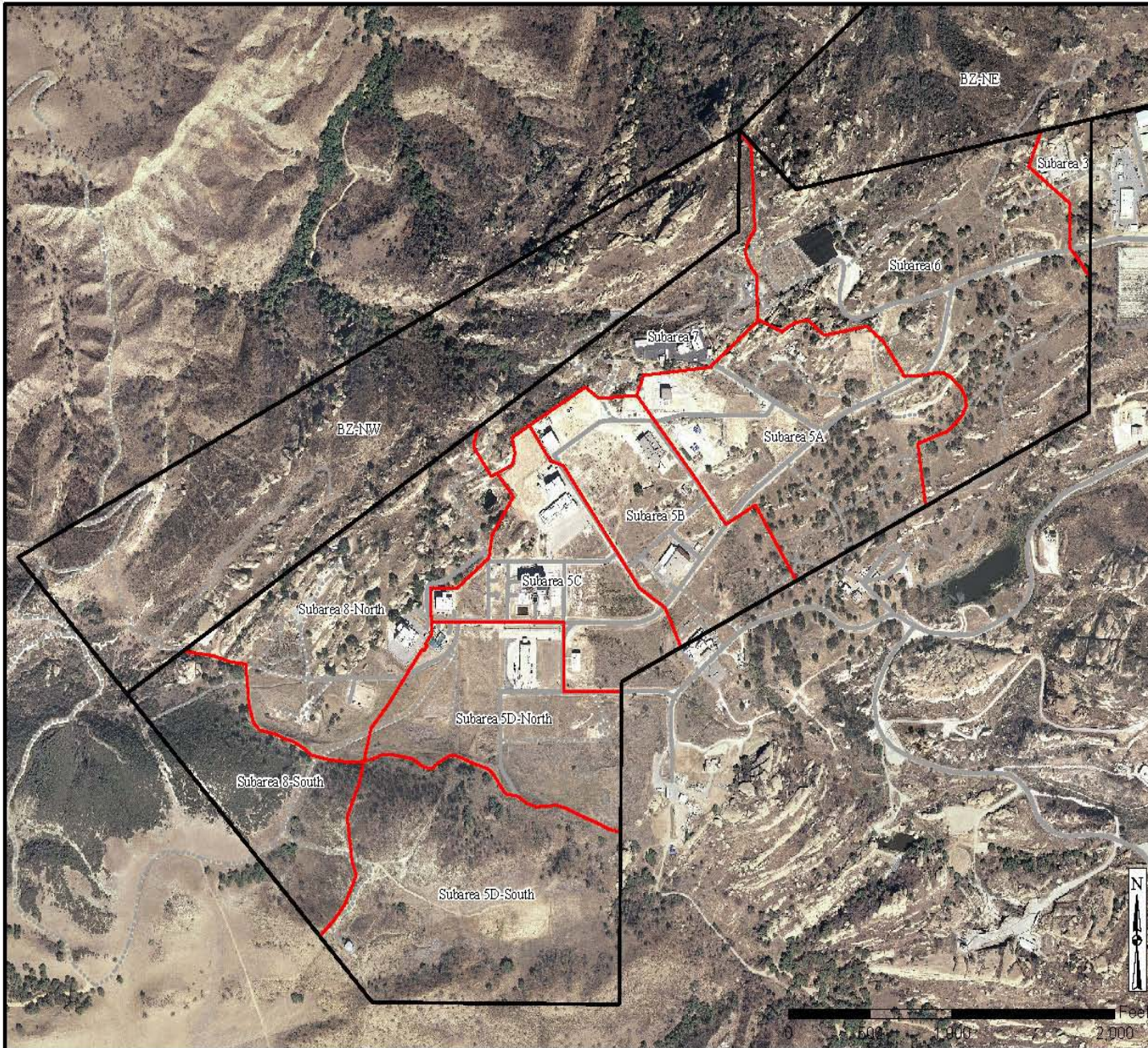
Subarea Designation Santa Susana Field Laboratory

U.S. EPA Region 9



Legend

-  Sub area
-  Area IV & Northern Buffer Zones
- Centerline Roads
 -  Primary
 -  Secondary
 -  Tertiary



Filepath: Y:\Santa_Susana\EP0038\Subarea_Survey\Sections\Overall
Subarea_Designation_20101221.mxd
Project: EP0038
Edited By: PL 20101221
Source: CIGGIS 2007, HGL 2010

Gamma Radiation Scanning Status Update



Gamma Scanning Status & Update



Geophysical Surveys



Geophysical Surveys

- EPA is using three different technologies to find potential buried material
- 108 acres have been targeted based old aerial photos indicating disturbed areas in the past
- About 60% done; 60 acres surveyed to date



Soil Testing

- EPA is testing both surface and subsurface soil
- EPA is collected soil samples for DTSC for testing for chemical contamination
- 550 soil samples have been collected to date
- EPA's data results to start arriving this summer



Subsurface soil sampling drill rig



Groundwater, Surface Water, Sediment Testing



Sampling Rig Travels Well to Well.



Water Level Monitoring.



Groundwater Testing

- ▣ EPA is testing groundwater in two phases

- ▣ Phase 1
 - 66 onsite wells tested in September 2010
 - Data results due in March 2011

- ▣ Phase 2
 - Approximately 14 Off-Site wells and 66+ onsite wells will be tested in late March 2011
 - Data coming in late Summer 2011



Figure 6
Proposed Off-Site Well
Sampling Locations

U.S. EPA Region 9

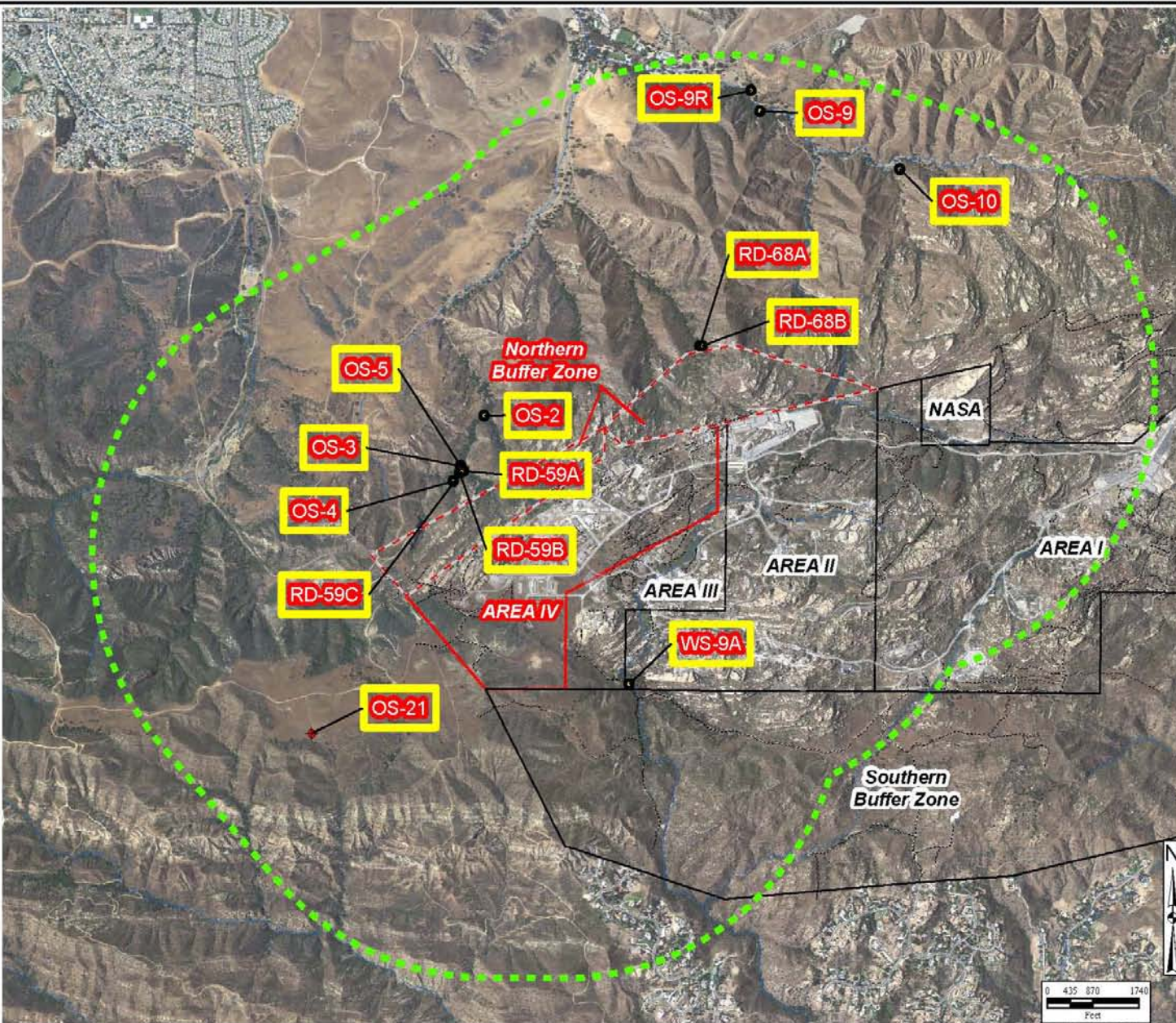


Legend

- Well used in SSFL Monitoring Network
- ◆ Active Well
- OS-9** Proposed Off-Site Well Sampling Location
- ▭ Santa Susana Field Laboratory Area IV Boundary
- ▭ Santa Susana Field Laboratory Site Boundary
- - - Northern Buffer Zone Boundary
- ⋯ 1 Mile Survey Radius
- ~ Intermittent Stream
- ~ Perennial Stream

Note:
Offsite well locations and the study area boundary were obtained from the following source:
Technical Memorandum Off-Site Well Inventory.
Santa Susana Field Laboratory; Ventura County, CA
DRAFT, April 4, 2007. Prepared for The Boeing Company,
Santa Susana Field Laboratory. Prepared by MWH.

Y:\Santa_Susana\EP9038\Data\Inventory\
(6) OffSite_Well_Locations_20110126.mxd
Project: EP9038
1/26/2011 phillcock
Source: Boeing, 2009



Sediment Testing

- ▣ Sediment is the soil found in the bottoms of lakes, ponds, rivers, creeks and drainages
- ▣ EPA is sampling sediment in two phases
- ▣ Phase 1:
 - 40 samples collected inside Area IV and Northern Buffer Zone in December 2010
 - Data coming in this summer
- ▣ Phase 2:
 - Ponds in Area III
 - Off-site sediment testing pending Phase 1 test results



Surface Water and Seep Testing

- ▣ Surface water is water in a river, pond, lake, etc.
- ▣ A “Seep” is groundwater that flows up and onto the ground surface.
- ▣ EPA’s surface water sampling is pending final procurement of Laboratories.
- ▣ If sufficient rainfall creates flowing seep or surface water, EPA will sample it.



Analytical Laboratory Contracting

- EPA's Prime Consultant has undertaken an extensive process to acquire best quality analytical labs to analyze soil and water samples
- EPA staff has provided oversight of all phases of the laboratory procurement process
- Contracts with the labs are anticipated to be in place in late February 2011
- Shipment of EPA soil, sediment, and water samples will commence in March
- Data will start coming in this summer



Project Schedule

Task	Estimated/Actual Start Date	Estimated/Actual Completion Date
Gamma Scanning	July 2010	December 2011
Ground Water Sampling	August 2010	March 2011
Surface Water and Sediment Sampling	December 2010	September 2011
Soil Sampling	October 2010	March 2012 (???)
Laboratory Analyses	March 2011	June 2012



EPA Radiological Characterization Study Area IV and Northern Undeveloped Land Action Status - January 24, 2010

Major Action	% Complete	Present Status
Environmental Compliance	95%	All compliance planning activities and associated approvals are complete. EPA implementing all compliance monitoring and reporting requirements until project completion.
Historic Site Assessment	60%	Completed Tech Memos on Subareas 5C, 5B and 5A have been issued to Stakeholders. A total of 8 HSA Tech Memos are planned.
Former Worker Interviews	85%	All original Joint EPA/DOE, EPA-only and DOE-only interviews completed. Referral interviews on going and to be completed by end of February. Reports by both Agencies due by 4/1/2011.
Geophysical Survey	50%	Areas targeted for geophysical survey within Subareas 5C, 5B and 5A are complete. A total of 52 acres has been surveyed out of 108 acres area targeted.
Gamma Scanning	30%	Completed area all roads and subareas 5C, 5B, 5A. Currently working in subareas 6, 8 and 5D. Approximately 112 acres total surveyed to date. Winter Rains have slowed progress.
Vegetation Trimming	40%	Approximately 154 acres (out of 372 vegetated acres) have been managed to date. Currently, all vegetation has been cut in Subareas 5C, 5B, 5A, 5D. Vegetation management in Subareas 8 and 6 are currently on-going.
Groundwater, Surface water and Sediment Sampling	55%	First round (of two rounds) groundwater sampling completed; lab results anticipated in January. Lab procured for first round groundwater only. First round sediment testing is complete. Surface water testing to occur during winter rains.
Lab Procurement	85%	EPA Contractor has completed bid review process and recommended labs for EPA consent. EPA to brief Stakeholder on Feb 2. Contract award delayed to February 2011.
Soil Sampling	15%	First round sampling in Subarea 5C is complete and 90% complete in Subarea 5B. 413 rad samples have been collected to date and collection of soil samples for DOE/DTSC chemical testing, continues. Stakeholder meeting on Subarea 5A set for February 2.
Data Packages and Lab Results	0%	First round groundwater sampling currently being analyzed at the laboratory. Soil and sediment samples collected to date are being stored in the EPA Field Office and will be sent to selected labs in January 2011.

Questions?

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