



Co-Located Chemical Sampling Progress Update

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Meeting Topics

- Report on HSA 5C Sampling Results
- Interim Screening Level Development
- Phases 2 and 3 Sampling Planning
- Building Demolition Planning
- Soil Treatability Study Planning
- Noise and Traffic Study
- Action Item Review



Report on HSA 5C Chemical Results

- EPA's Historic Site Assessment findings have been very useful in identifying locations for chemical soil sampling
- Chemical results confirm and add to the soil contamination knowledge gained through the RCRA Facility Investigation sampling program
- 82 surface soil and 180 subsurface soil samples were analyzed for HSA 5C



Trends in HSA 5C Chemical Results

- Polychlorinated Biphenyls (PCBs) and Dioxins were the most commonly detected organic chemicals – particularly in surface soils
- Polycyclic aromatic hydrocarbons (PAHs) also frequently detected in surface soils
- Summary for two chemicals known to be of community interest:
 - Perchlorate detected in 11 surface and 15 subsurface samples
 - N-nitrosodimethylamine (NDMA) detected in 49 surface and subsurface samples, but at very low concentrations (parts per trillion)
- Future meetings will be planned with the community to review findings in more detail



Preview of HSA 5C Tech Memo

- Co-Located Chemical Sampling Results Technical Memorandum describes the sampling performed in Subarea HSA 5C
- Primarily a presentation of data results
- Appendices with
 - Data tables for all results by sample location
 - Original reports from laboratory
 - Validated results for all chemicals
- Currently in review, the Tech Memo will be distributed to all within next couple of weeks



Next Steps for Review of HSA Data

- The sampling results need to be compared with criteria to answer several questions—
 - What do the results mean in terms of soil contamination?
 - Are the data adequate to characterize the soil contamination? That is: What is the areal extent? How deep does it go?
 - Where are additional data needed to complete site characterization?
- To allow review of the data this fall, interim screening levels are being developed based on AOC concepts



Interim Screening Level Development

- The Administrative Order on Consent (AOC) requires a Soil Lookup Table that considers a background or method reporting limit approach – however, final background and reporting limits are not yet available
- To maintain forward momentum towards cleanup, interim screening levels (ISLs) are being developed using existing background and current laboratory reporting limits



Interim Screening Level (ISLs) Development

- The ISLs are expected to be introduced to the community in September
- They will be discussed with stakeholders and approved by DTSC before their use
- The ISLs will be used to evaluate site data until Lookup Table values are approved
- The Lookup Table values will then be used for continued data screening and cleanup planning as soon as they are finalized



Preview of Coming Attractions— Phase 2/3 planning

Planning for Chemical Sampling Phases 2 and 3

- The AOC identifies three phases of sampling
 - Phase 1 is the Co-Located sampling, ongoing
 - Phase 2 will include random sampling performed with EPA
 - Phase 3 will be chemical data gap sampling where more characterization data is needed
- Planning for Phase 2 is pending EPA's evaluation of random sampling needs for radionuclides
- It is expected that Phase 3 planning will start in September when the ISLs are available and results for HSA 5C, HSA 5B, and HSA 5A are validated and ready for review



Preview of Coming Attractions— Phases 2/3 planning

Phases 2/3 planning will have two major steps:

- Step 1 will be the screening of data as described in prior slides
 - It will involve incorporation of co-located and RFI soil sampling results into one database for screening
 - It will result in a Data Screening Technical Memorandum describing the screening results
- Step 2 will be the conduct of a data gap analysis, per the AOC
 - Step 2 will result in the development of a Data Gap Work Plan describing additional data needs and the Phase 2/3 sampling approach



Preview of Coming Attractions— Building Demolition Planning

- Three plans are needed prior to demolishing of DOE structures in Area IV
 - **Building Sampling Plan for radionuclide characterization**
 - Describes radiological characterization necessary to determine residual building contamination for planning of demolition and protection of workers and the public
 - **Standard Operating Procedures**
 - Describes master plan process for building demolition
 - Provides references for regulations and standard procedures for Area IV DD&D
 - Provides general approach for waste disposition, demolition, and documentation
 - **Detailed facility and building plans**
 - Describes all the actual work including waste disposition, process for demolition



Building Sampling Plan

Building Sampling Plan

- DOE has prepared a Building Sampling Plan to characterize remaining Area IV buildings for radionuclides
- The objectives of the plan are to provide data for
 - Building waste characterization for debris disposal
 - Assess the risk to workers involved in demolition
 - Disclose to the community the risk of transport of materials
- EPA and DTSC have reviewed the plan and provided comments
- Document will be ready for community review in September
- Implementation is expected to be in phases starting in November



Building Demolition Standard Operating Procedures

“Master Plan” document describing Area IV requirements for DD&D of remaining DOE facilities

- Detailed workplans will be prepared for each facility for DTSC approval prior to beginning DD&D
- Results of building surveys will be used to develop facility-specific workplans
- DD&D includes HWMF (B4133) , SETF (B4024), SPTF (B4462), RMHF complex, associated buildings, and other facilities



Preview of Coming Attractions— Soil Treatability Study

- EPA, DTSC, and DOE endorse considerations that contaminants be treated on-site and be taken to a landfill only if treatment is shown to be ineffective
- Use of soil treatment is consistent with the AOC if it can meet cleanup standards
- A soil treatability study is being developed to answer:
 - Will any “green” technologies work in Area IV?
 - What is the universe of technologies that might work?
 - What decision criteria should be used to select technologies?
 - How to best test and screen promising technologies?



Conceptual Steps for Treatability Study

- Conduct literature search to develop full list of potential treatment technologies
- Evaluate universe of technologies to determine which warrant further consideration
- Further investigate to determine which warrant bench testing
- Plan and conduct bench study to determine which warrant pilot study on-site
- Plan and conduct pilot study
- The Soil Remedial Action Implementation Plan will incorporate treatability study results



Soil Treatability Study

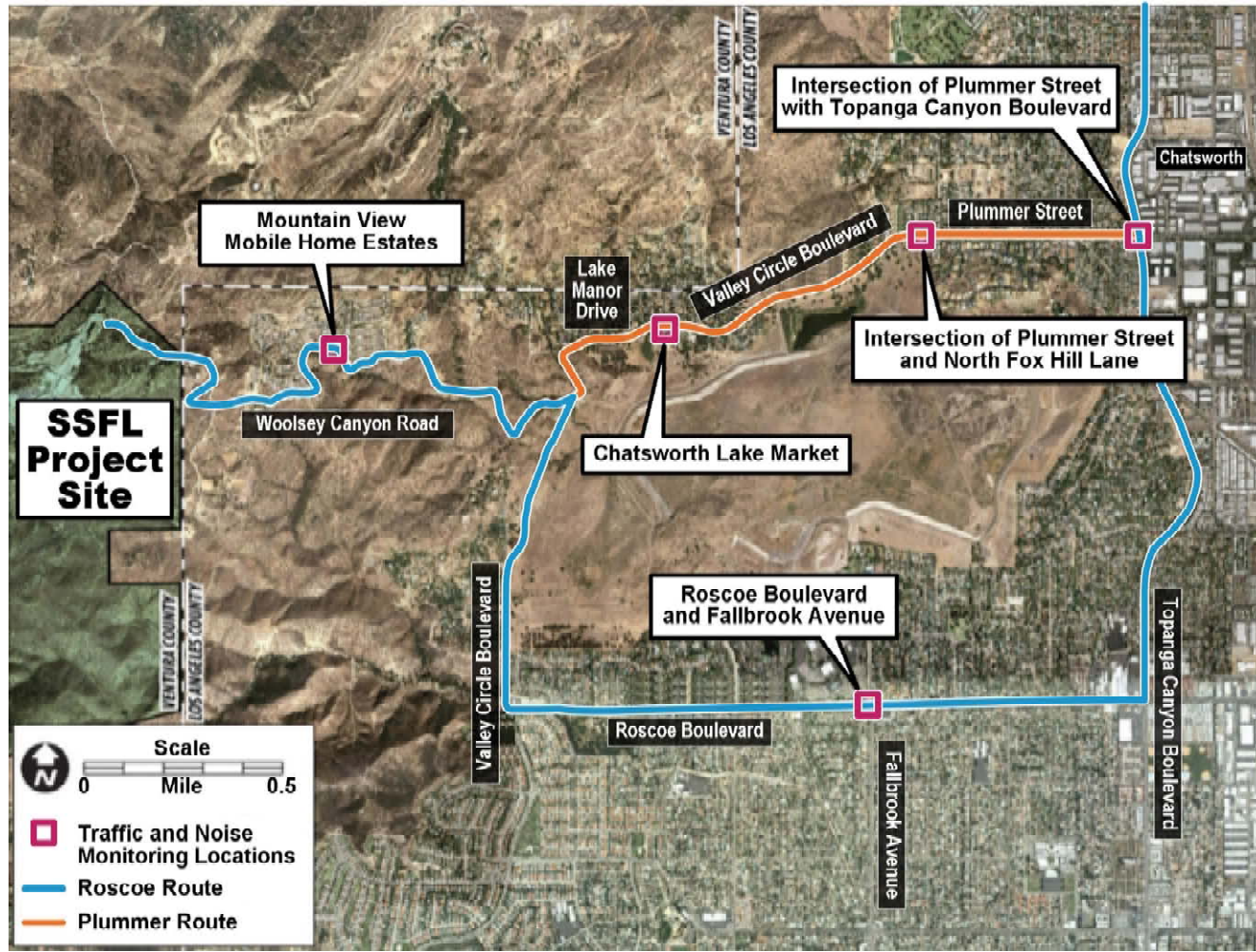
- Planning of all steps is currently in progress
- Meeting schedule for community and stakeholder involvement is being developed
- *Stay Tuned for Progress Updates*



Preview of Coming Attractions - Noise and Traffic Study

- As remediation begins, there will be increased traffic on Woolsey Canyon and through nearby residential neighborhoods
- This study is designed to provide baseline traffic and noise levels
- This study is just another step in DOE's on-going efforts to investigate, characterize, and move to cleanup
- Safety of trucks during transportation, safety and impacts to our neighbors, and haul routes will all be part of the detailed environmental review that will be conducted by DOE and shared interactively with stakeholders.

Proposed monitoring locations





Action Item Status from July 13

Action Item	Status
Provide NDMA results	Reported in Tech Memo - NDMA detected at low concentrations
Tetralin (1,2,3,4-tetrahydronaphthalene) -Include as an analyte -Provide prior results -Provide toxicity & fate data to DTSC	Tetralin -Included in analytical suite for co-located program -Previously detected in 1 RFI sample -Information received and being reviewed by DTSC
Discretionary sampling for VOCs	-A focused approach is being applied for where soil samples are collected -Future sampling will also be done for soil vapor
Discretionary sampling for Dioxins	-Data review ongoing – no change in sampling approach for Phase 1 -Review findings for Phase 1 will be used to plan future work



Action Item Status from July 13

Action Item	Status
Provide map for radioactivity monitoring stations at SSFL	-Radioactivity monitoring data are provided in annual Site Environmental Report – web link below -Figure 5-1 shows the current monitoring locations (handout available)
Provide map of wildfires that have historically occurred at SSFL	-Map obtained from Ventura County shows wild fires at SSFL (handout available)

(see http://www.etec.energy.gov/Health-and-Safety/Documents/ASERS/ASER_2009.pdf for the 2009 Site Environmental Report)

- Handouts also available for update of complete DOE co-located sampling action item list



Questions and Action Items

- Questions
- Review of Action Items from Today's meeting