

Investigation Update

Santa Susana Field Laboratory

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Corrective Action Branch
Department of Toxic Substances Control***

Purpose of today's talk

- Overview of investigation and cleanup work at SSFL;
- Update on what we have found; and
- What lies ahead

Building Public Partnerships

- Many concerns were raised at August 31, 2006 meeting
- We heard your concerns and followed up on your questions
- We are here tonight to provide you information and listen to your comments
- Since the August meeting, DTSC representatives met with community leaders and representatives of state legislators

Building Public Partnerships

- Meetings held to establish a more effective and productive relationship between DTSC and the community which yielded several ideas:
 - ✓ Changes to DTSC's oversight team
 - ✓ Development of Community Advisory Group
 - ✓ Open access to documents and information
 - ✓ Enforcement concepts
 - ✓ Improved communication
 - ✓ Open process for making decisions related to investigation and cleanup

Building Public Partnerships

- DTSC currently is discussing ideas internally and with community leaders to enhance access to information and build a partnership with the community
- Many concepts, such as website, are underway and can be completed in relatively short time

Building Public Partnership

- In the interim, documents and information will continue to be posted on our website and made available
- DTSC is working closely with Rocketdynewatch to ensure they have access to all documents in electronic format for posting on their website
- Decisions will be made in an open public process after careful consideration of public comment

Big Picture

- There are several DTSC regulatory programs at SSFL
 - **Corrective Action** – investigation and cleanup of chemical contamination across the site
 - **RCRA Closure** – there are two hazardous waste units that will undergo closure for chemical contamination
 - Radioactive Materials Handling Facility/out for public comment next several months (Department of Energy (DOE) will address radiological cleanup)
 - Building 133 and Building 29/closure will commence soon
 - **RCRA Post-Closure Permits** - govern nine closed ponds

Objectives of Corrective Action at SSFL

- Determine fully the nature and extent of any **CHEMICAL** release of hazardous constituents at SSFL – we do this through ***Resource Conservation and Recovery Act (RCRA) Facility Investigation – RFI REPORTS***
- **Interim Measures (IM)** – these are early cleanup measures to eliminate potential migration or potential exposure to sensitive receptors/several done to date

Objectives of Corrective Action at SSFL

- DTSC evaluates human health and ecologic risks (ALL CHEMICALS - ALL PATHWAYS - ALL MEDIA) through ***Risk Assessments***
- DTSC uses **USEPA Risk Assessment Guidance** for chemicals
 - Note: Radiological cleanup at SSFL is under the authority of the Department of Energy (DOE)

Objectives of Corrective Action at SSFL

Once the investigation is complete:+

- *Perform a **Corrective Measures Study (CMS)** to evaluate cleanup options that are protective of human health and the environment*
- *Conduct an **Environmental Impact Report (EIR)** and **Remedy Selection** of the proposed selected remedy with **Public Involvement, Review and Comment***
- *Propose **Remedy Selection** with **Public Involvement, Review, and Comment.***

Objectives of Corrective Action at SSFL

Once the remedy is selected:

- Conduct cleanup (referred to as **Corrective Measures Implementation (CMI)**)
- Commitment to greater transparency and public involvement throughout the process

Team Approach to the Investigation and regulatory oversight

- Investigation involves a team of a hydrogeologist, geologists, engineers, toxicologists, chemists, specialists (public participation and CEQA), and attorneys
- We coordinate with other agencies
 - Regional Water Quality Control Board
 - Department of Health Services
 - Local Agencies
- Coordination with local and elected Officials
- Coordination with the Attorney General

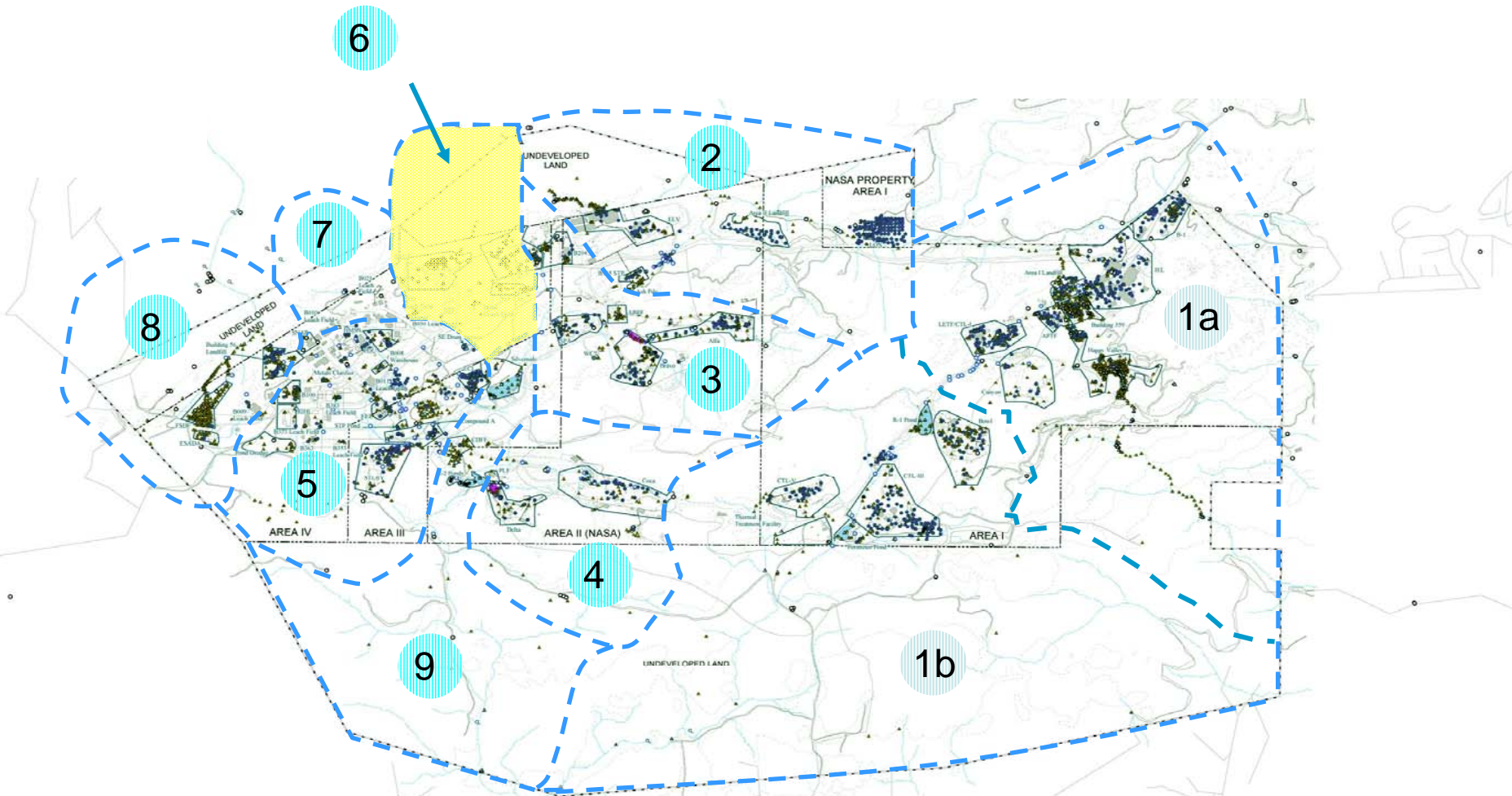
Public Concerns re: Management of Radiological Materials

- DTSC is responsible for the investigation and cleanup of CHEMICAL contamination. We have no authority over radiological cleanup or investigation.
- However, where radiological issues exist, we rely on the Dept. of Health Services to evaluate how to identify, manage, and dispose of radiological wastes

Organization of Corrective Action Work at SSFL

- SSFL has Four Administrative Areas
 - Boeing responsible for Area I and III
 - NASA responsible for Area II
 - DOE and Boeing responsible for Area IV
- Soil, surface water, sediments, soil vapor, & groundwater chemical contamination investigations grouped into 10 reports

RCRA Facility Investigation (RFI) Report Areas



Group 6 (DOE/Boeing) – October 2006

Group 4 (NASA) – April 2007

Group 1A (Boeing) – July 2007

Group 8 (Boeing/DOE) – Sept 2007

Group 2 (NASA) – October 2007

Group 3 (NASA/Boeing) – January 2008

Group 1B (Boeing) – April 2008

Group 5 (Boeing/DOE) – July 2008

Group 9 (Boeing/NASA) – October 2008

Group 7 (DOE) - January 2009

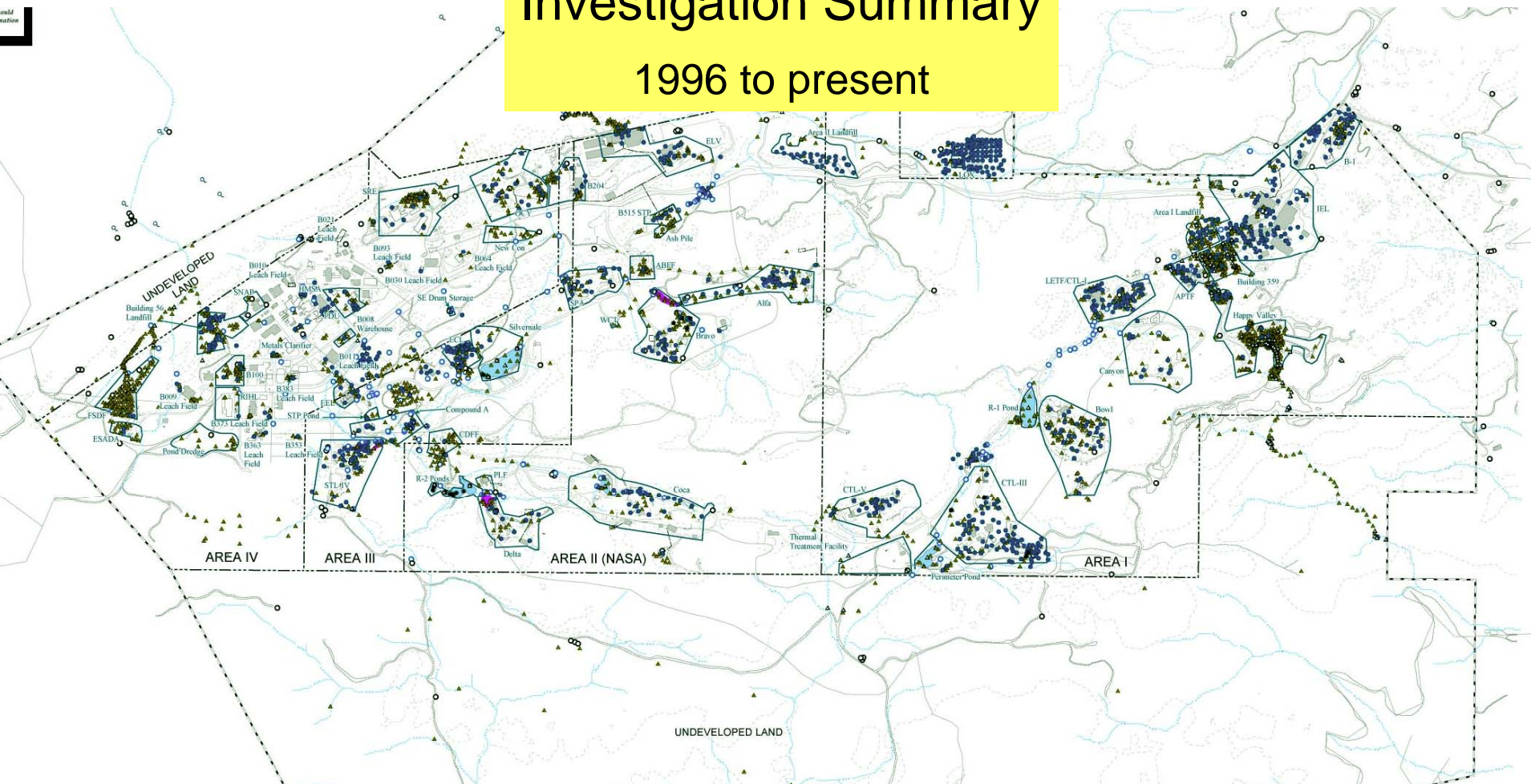
Sitewide Groundwater RFI Report – July 2009

Organization of Corrective Action Work at SSFL

- There will also be a comprehensive sitewide groundwater report
- The first report, Group 6, is on the DTSC website

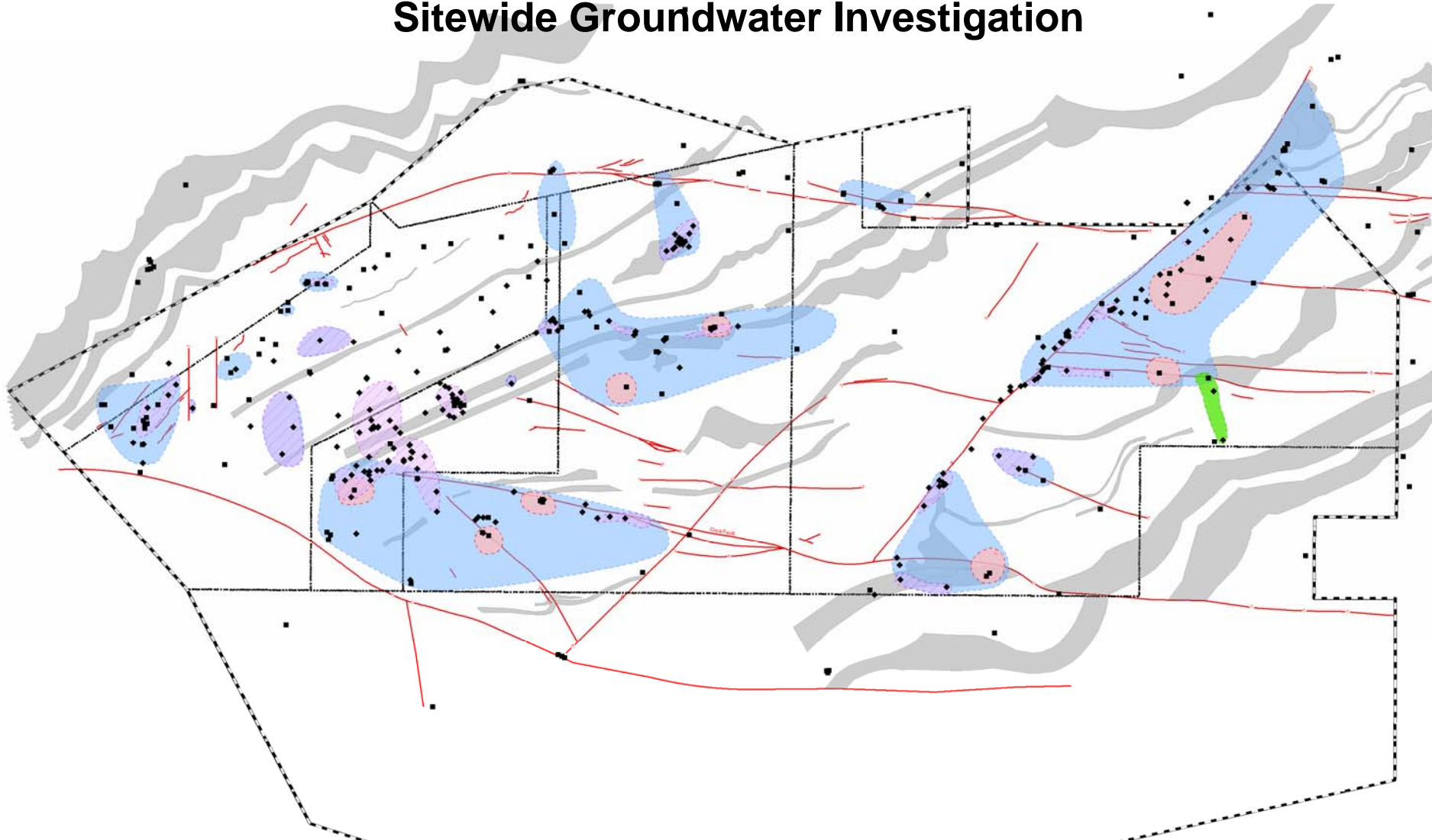
Investigation Summary

1996 to present

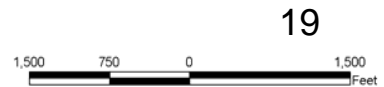


- ~8,400 soil matrix, bedrock, and surface water samples collected
- ~2,100 soil vapor and surface flux samples collected
- > 9,000 groundwater quality samples (477 wells and springs)
- > 42,000 analyses

Sitewide Groundwater Investigation



SSFL Property Boundary	Monitoring Wells	TCE Concentration Greater than 5 µg/L
Administrative Boundary	Chatsworth formation Well	Chatsworth formation Groundwater
Shale Units	Near-Surface Groundwater Well	TCE Concentration Greater than 5 µg/L
Geologic Faults		TCE Concentration Greater than 1000 µg/L
<p>This map is an interpretation of the lateral extent of TCE and perchlorate detected in groundwater monitoring wells. It is not a comprehensive depiction of all chemicals at the SSFL.</p>		Perchlorate Concentration Greater than 6 µg/L



Tentative Schedule

- RFI Soils – 10 Reports
 - Now through January 2009
- RFI Sitewide Groundwater
 - Complete July 2009
- Corrective Measures Study (CMS) – remedy alternatives
 - Due September 2010
- Environmental Impact Report (EIR)
 - Notice of Preparation (April 2010)
 - Public Scoping Meetings (April 2010 through July 2010)
 - Draft EIR (May 2011)
 - EIR Approval (May 2012)
- Corrective Measures Implementation – implement cleanup
 - October 2012

Update

- Update on the status of the soil contamination investigation
 - Laura Rainey
- Update on the status of the groundwater contamination investigation
 - Tom Seckington
- Risk Assessment
 - Dr. TR Hathaway
- Other updates
 - Area I Burn Pit