NASA JPL – Operable Unit 2 (OU-2)

Summary Presentation

Proposed Plan

for Cleanup of Soils at the National Aeronautics and Space Administration (NASA) Jet Propulsion Laboratory (JPL), Pasadena, California

Public Meeting Participants

Peter Robles	NASA Management Office
Richard Zuromski	Naval Facilities Engineering Command
Mark Ripperda	U.S. Environmental Protection Agency
Richard Gebert	Department of Toxic Substances Control
David Young	Regional Water Quality Control Board

Summary of Presentation

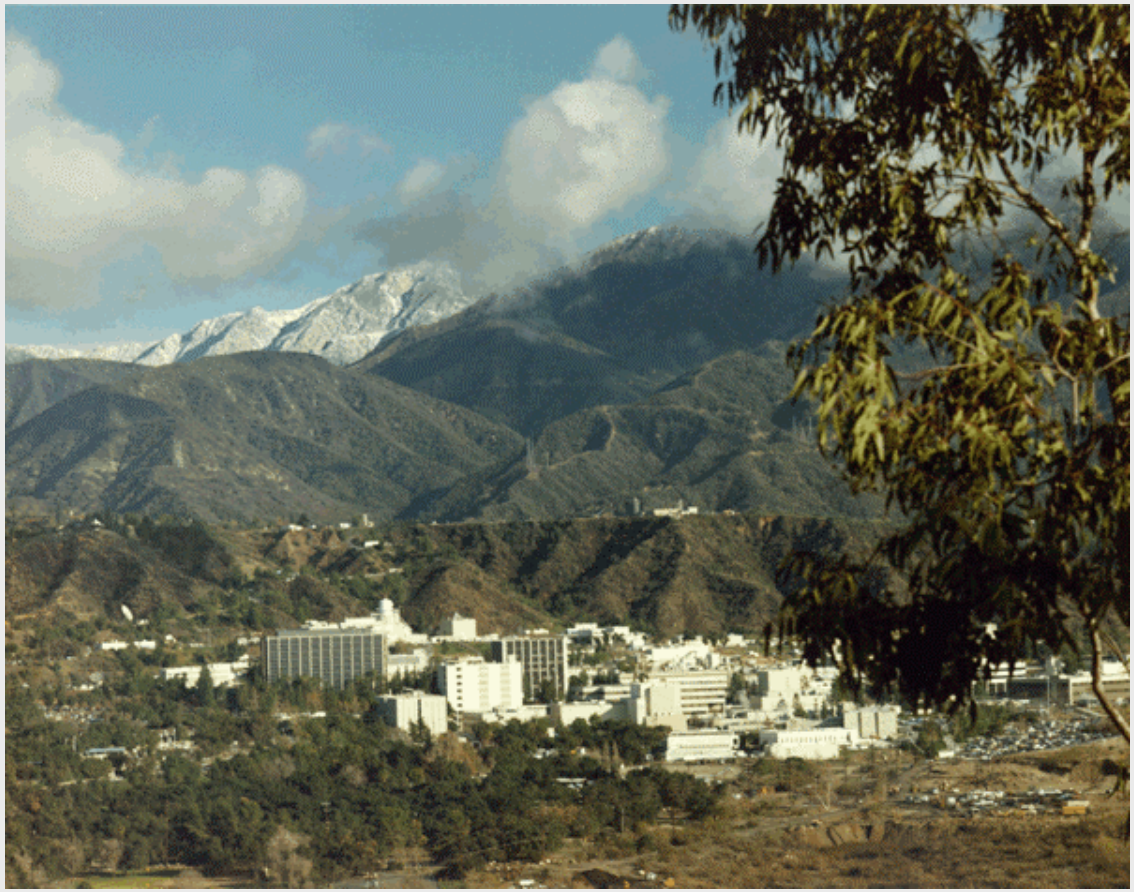
- Site Description
- Regulatory Framework
- Site Assessment and Investigation Activities
- Remedial Activities and the Proposed Remedial Alternative
- Questions and Comments

Site Description

- Site active since 1939
- 1940-50s: Seepage pits used for waste disposal
- Late 1950s to Early1960s: Sewer system replaces seepage pits
- 1992: Site added to U.S. EPA's National Priorities List (NPL)

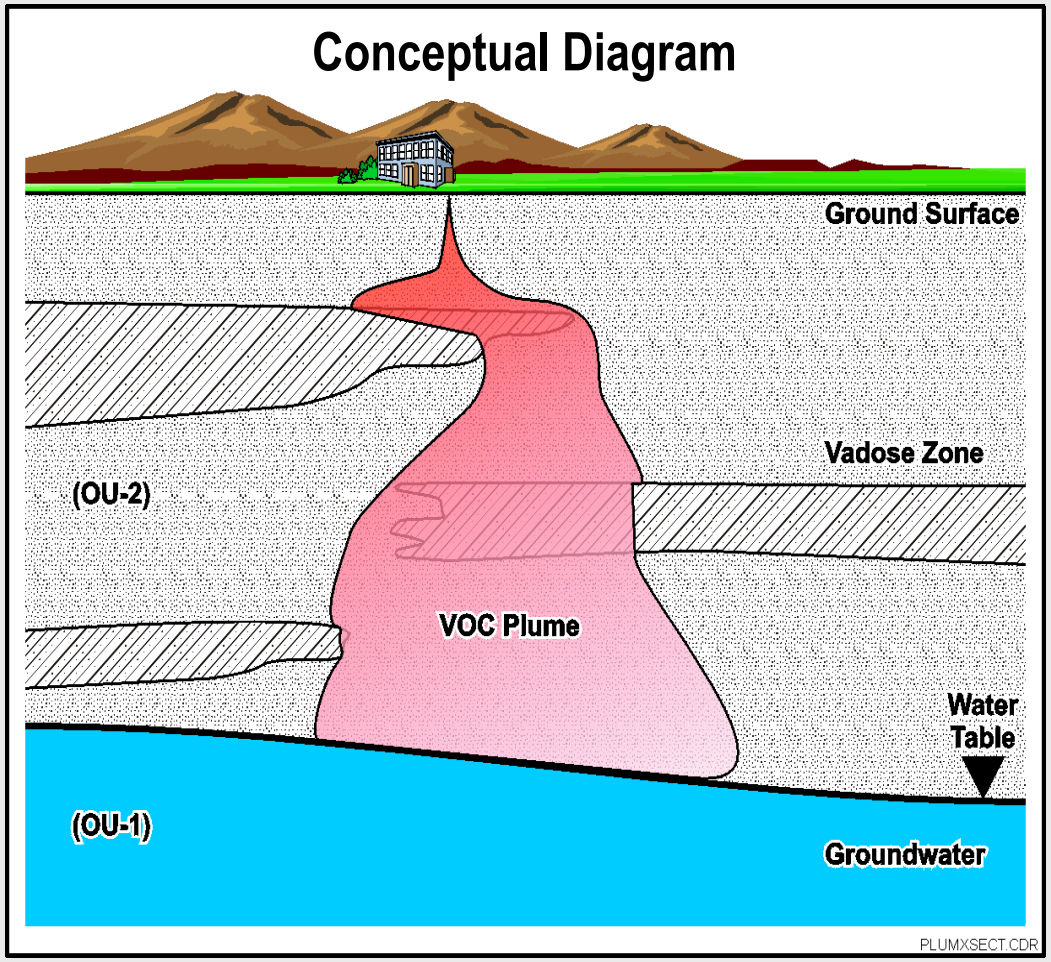
Current Activities

- Current lab activities meet all applicable federal, state, and local regulations.

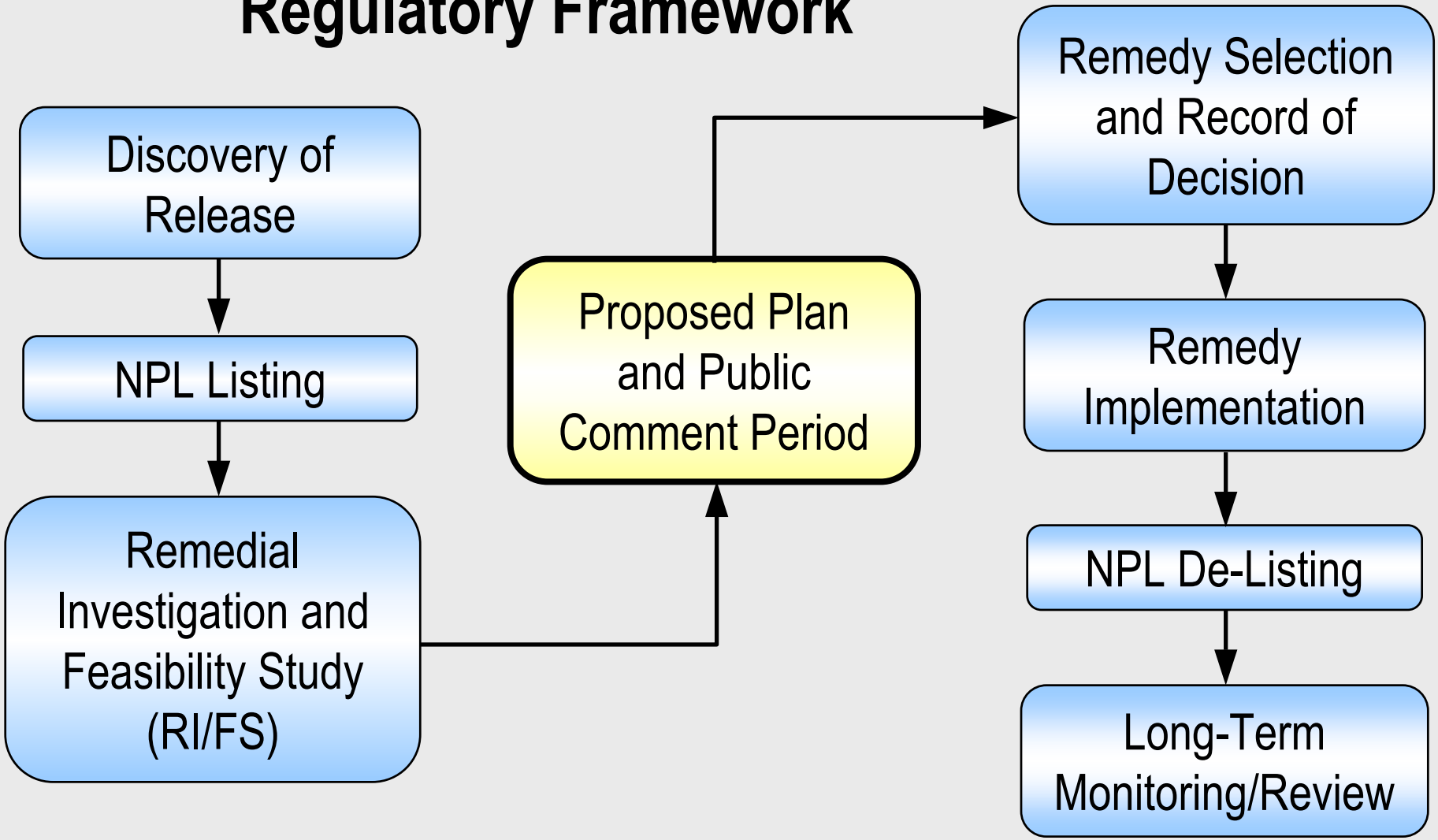


Site Description

- OU-2 consists of vadose zone soil containing chlorinated solvents and other chemicals.
- Vadose Zone - Soil zone located between the ground surface and water table.
- NASA intends to address groundwater issues separately.



Regulatory Framework



Regulatory Framework

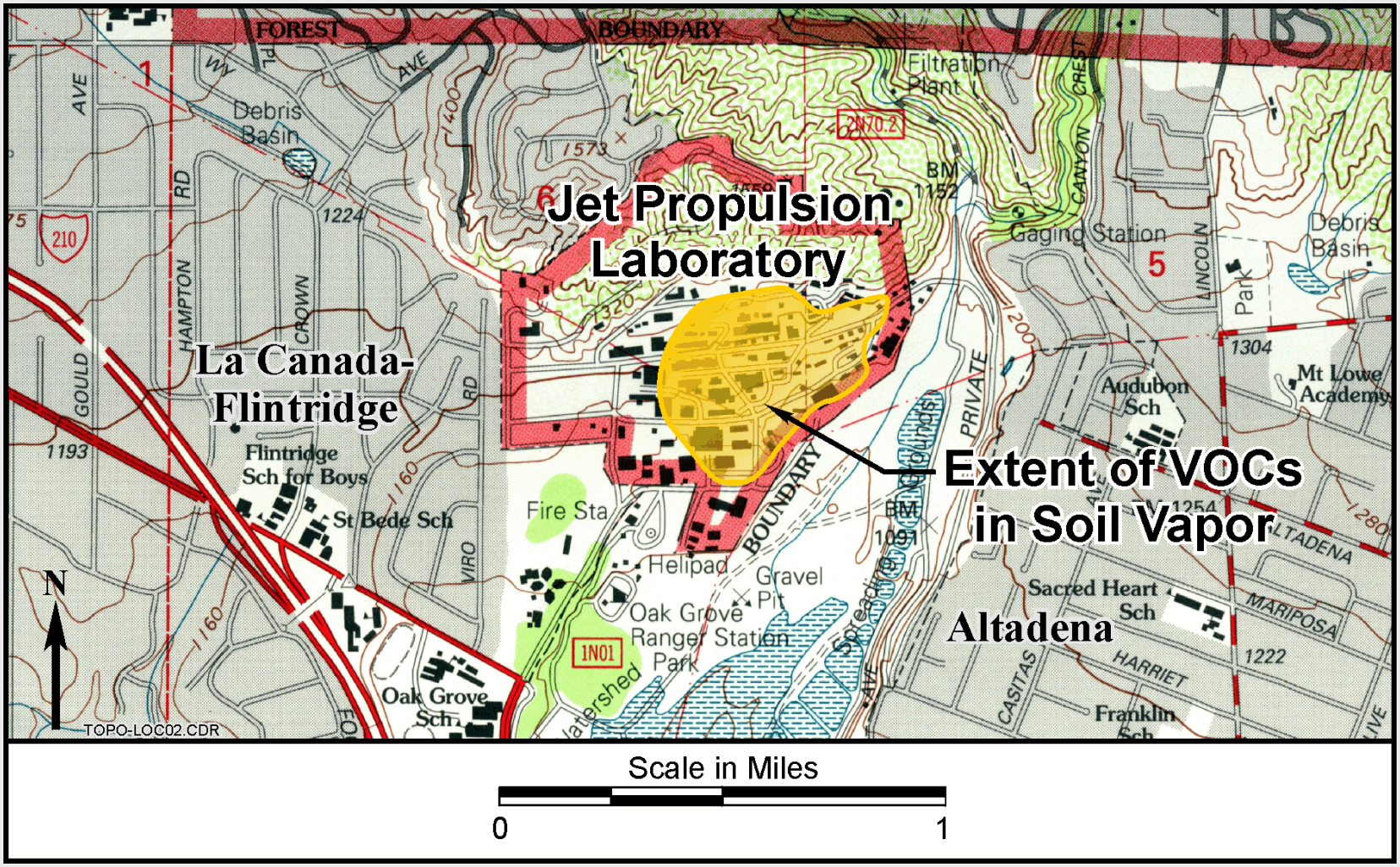
The public comment period provides an opportunity for YOU to get involved!

- Stay informed of ongoing site investigation activities.
- Understand the proposed course of action for site cleanup.
- Provide questions, comments, and/or concerns.

Site Assessment and Investigation Activities

- Remedial Investigation
  - Identified the extent of volatile organic compounds (VOCs) in soil and distribution in soil vapor.
- Risk Assessment
  - Determined that the risks associated with direct exposure to surface soils and soil vapor are within accepted regulatory thresholds.
  - Determined that VOCs are present at levels that may migrate to groundwater.

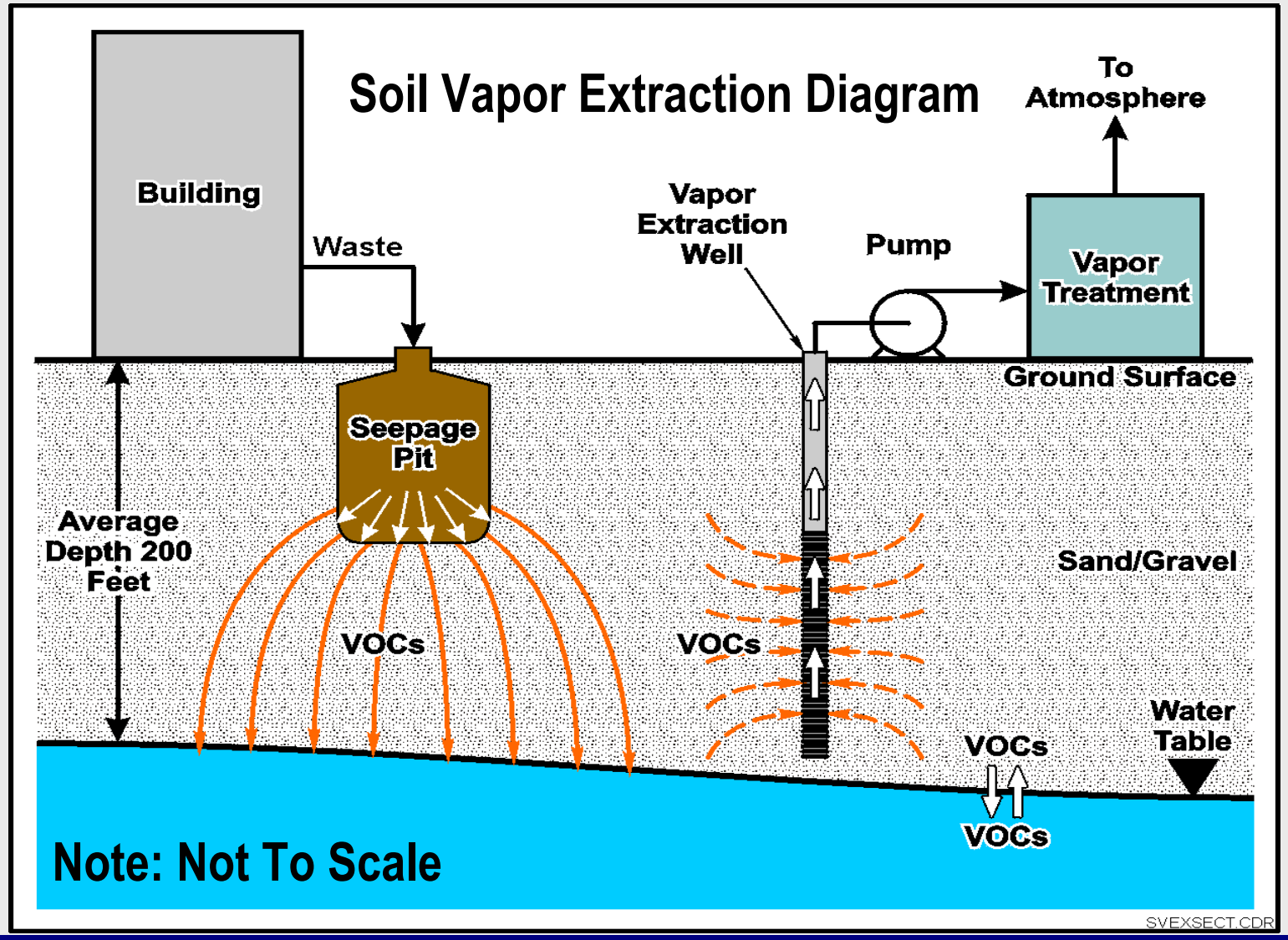
NASA JPL – Operable Unit 2



Remedial Activities and the Proposed Remedial Alternative

- Remedial Objective: Prevent VOC migration to groundwater
- Remediation technology evaluation
  - Alternative 1: No Further Action (NFA) with Continued Monitoring
  - Alternative 2: Soil Vapor Extraction (SVE) with Continued Monitoring
- Conducted pilot study for soil vapor extraction. Over 200 lb of VOCs have been removed during 14 months of operation.

NASA JPL – Operable Unit 2



Proposed Alternative (Alternative 2): Soil Vapor Extraction

Advantages:

- Reduces the volume and mobility of VOCs.
- Groundwater is protected from VOC vapor migration.
- Technology is well-established with demonstrated effectiveness (U.S. EPA Presumptive Remedy).

Limitations:

- Estimated cost at $3,816,000 is greater than Alternative 1, but not prohibitive.

Questions and Comments

- Tell us what you think about the proposed remedy:

  Alternative 2: Soil Vapor Extraction

- Please direct questions/comments to the moderator or contact Peter Robles, Jr. at:

NASA Management Office, Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91101
Phone: (818) 393-2920
Fax: (818) 393-2607
E-mail: probles@nmo.jpl.nasa.gov