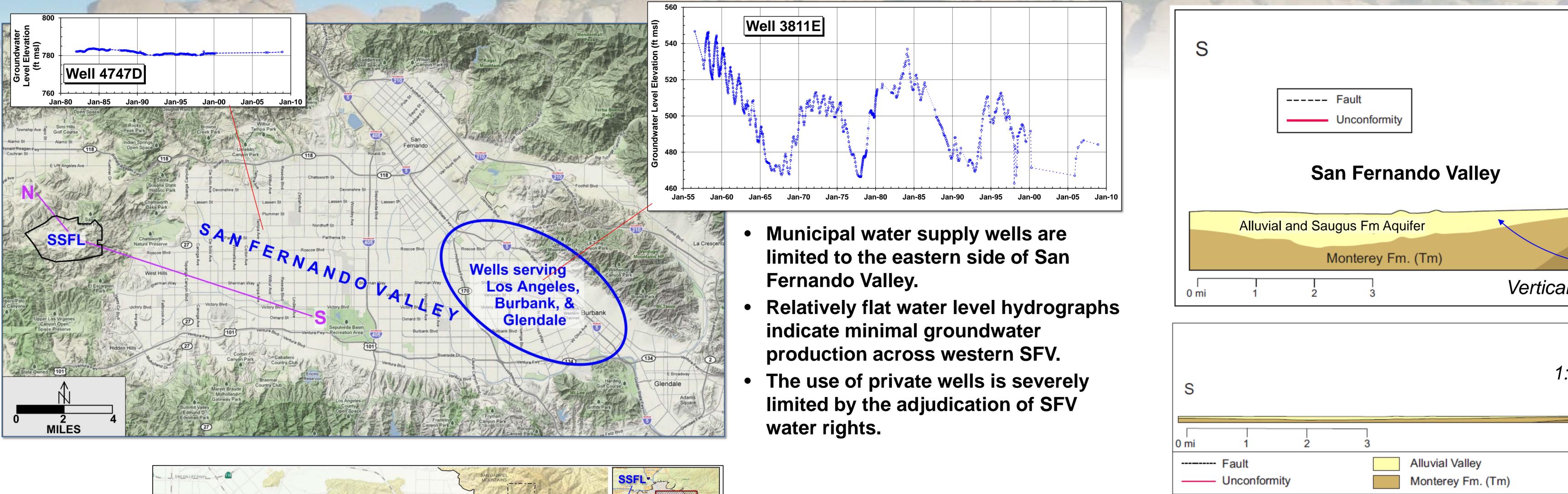
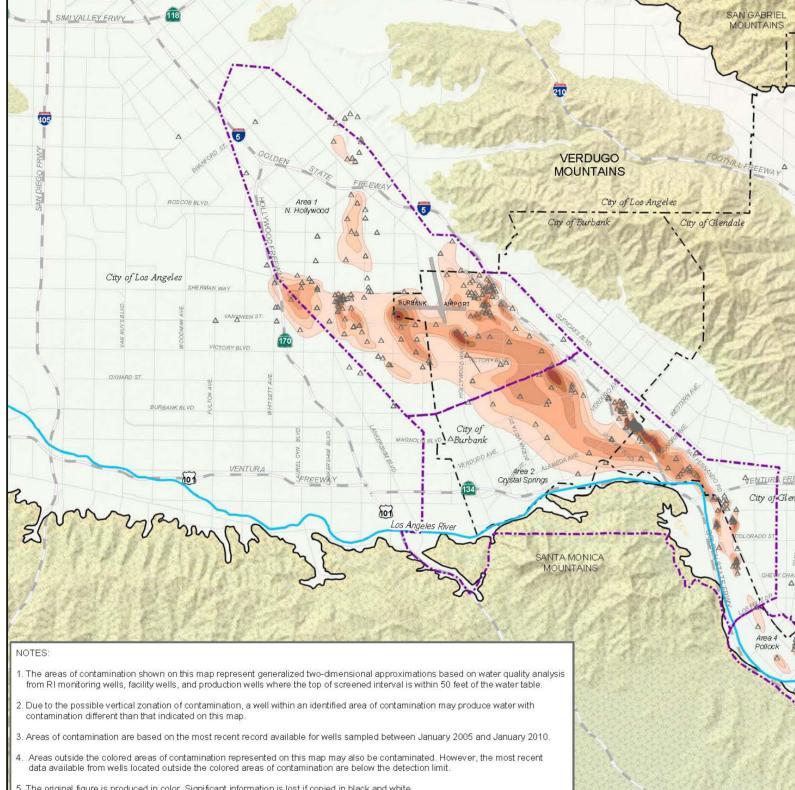
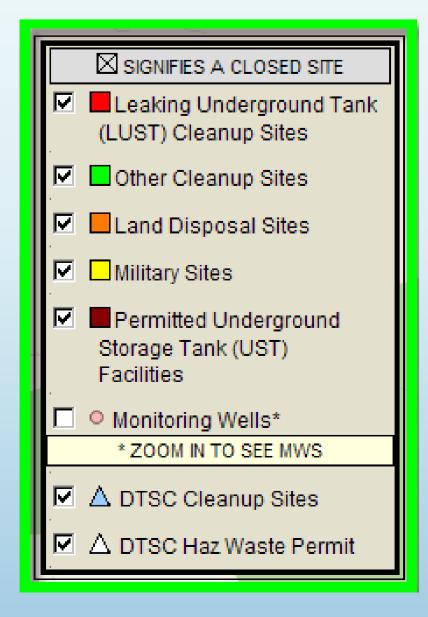
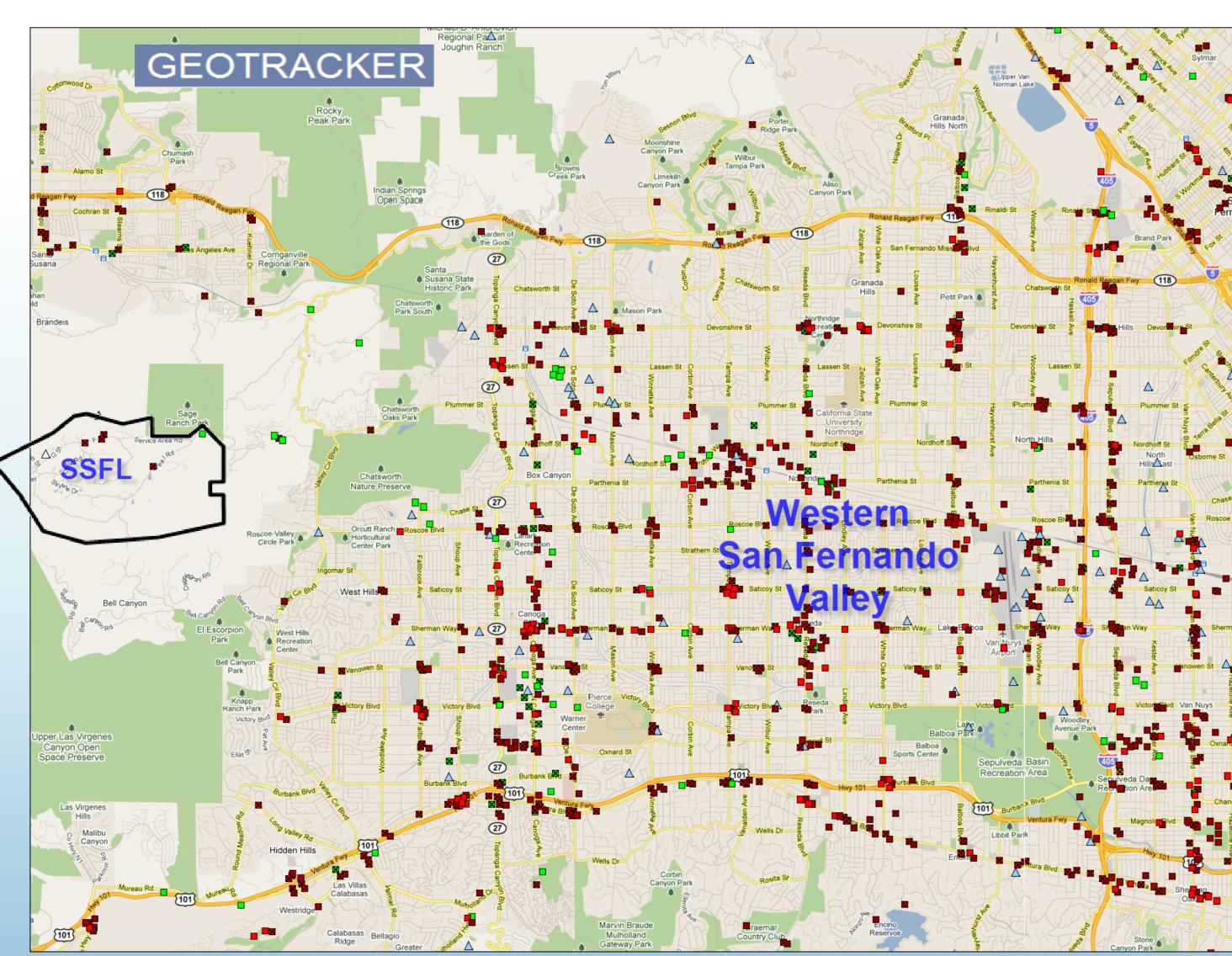
# San Fernando Valley Water Supply and Groundwater Basin The valley-fill aquifer underlying the ~200-square-mile SFV is >1,000 feet thick toward the eastern end of the basin, where it serves as an important regional water





**Documented sources of** potential groundwater contamination occur across western San Fernando Valley (geotracker.swrcb.ca.gov).





Wells Sampled For TCE

Boundary of Initial Investigation for the San Fernando Valley Superfund Site

> Detection Limit - 5 µg/L (MCL)

7,000 14,000

FIGURE 3 TCE Contamination (µg/L)

(Most Recent Concentratio

Through January 2010)

Contaminants of Concern in Eastern

in the Shallow Zone

n Fernando Vallev

--- Municipal Boundary

TCE Contamination

5 - 50 µg/L

50 - 100 µg/L

5 100 - 500 µg/L

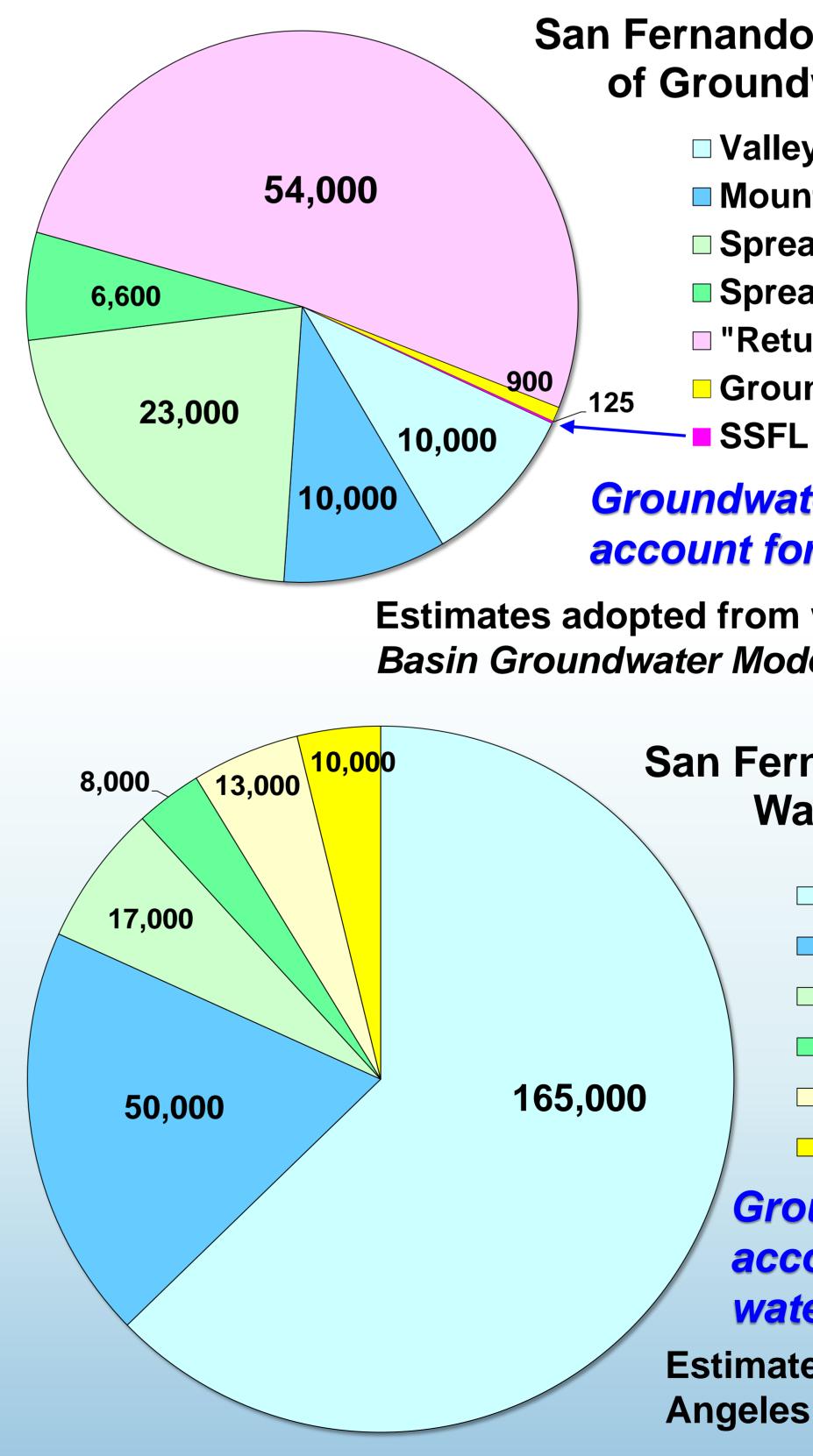
500 - 1,000 μg/L

5,000 μg/L Above 5,000 µg/L

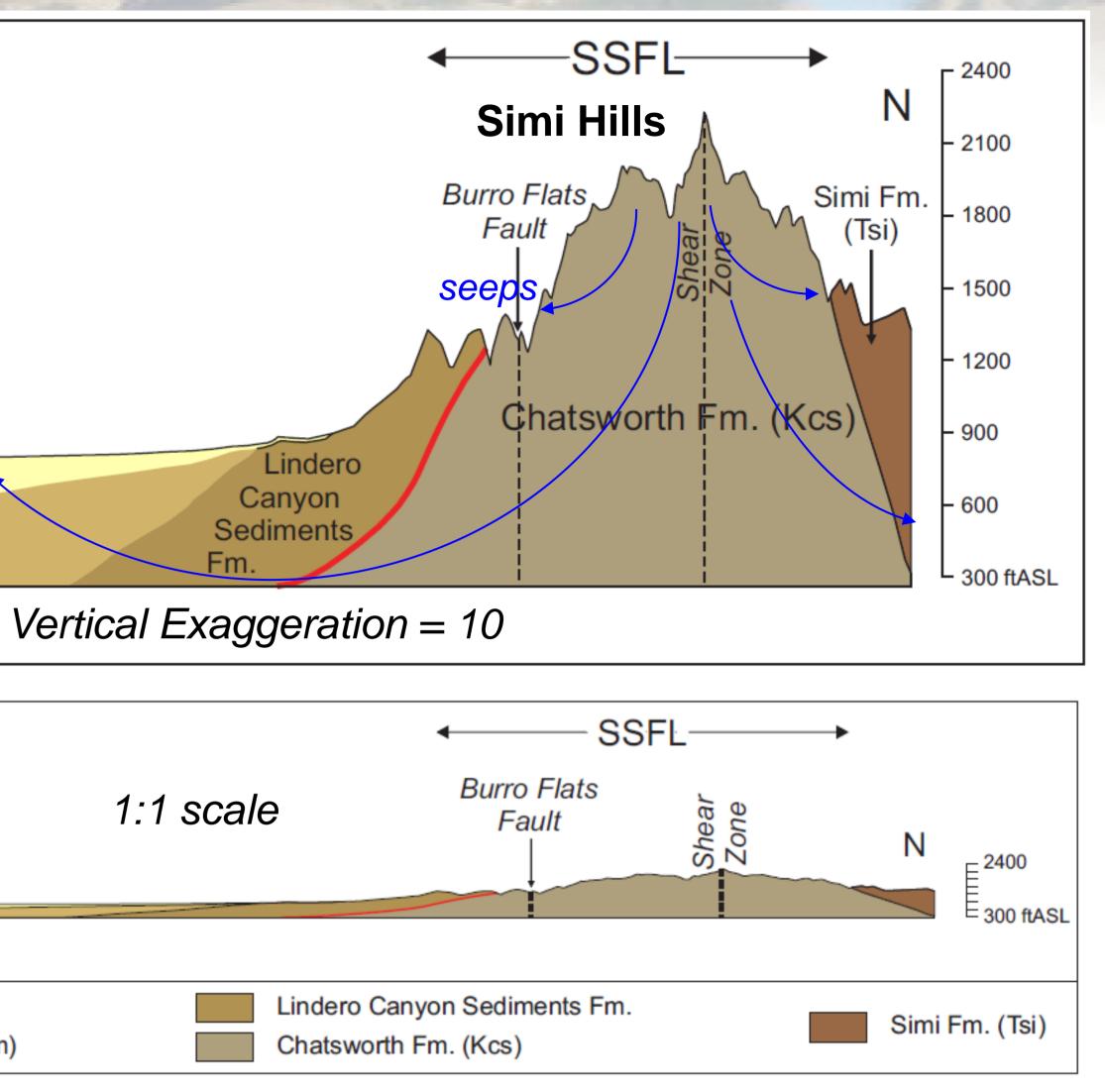
supply, despite contamination from local industry. The aquifer beneath the western two-thirds of the basin is relatively unproductive and little used.

Well defined plumes of groundwater contamination occur in eastern San Fernando Valley >18 miles from SSFL. **Contaminant sources and** responsible parties have been identified by the Los Angeles **Regional Water Quality Control** Board and U.S. EPA (San Fernando Valley Superfund Site Groundwater Monitoring Program 2010 Report, USEPA).

Simulations using a 3-D groundwater flow model indicate that groundwater recharged at SSFL is split roughly equally between discharge to hillside seeps and deep flow into the surrounding valleys (Appendix 6-A of the SSFL Groundwater RI Report).







#### San Fernando Valley Estimated Average Sources of Groundwater Recharge (acre-feet/year)

Valley floor recharge of local rainfall and runoff Mountain front recharge of local rainfall and runoff Spreading basin recharge of local runoff Spreading basin recharge of imported water Return flows" (20% of delivered water) Groundwater inflow from adjoining basins SSFL recharge that flows into basin

#### Groundwater flow from SSFL is estimated to account for roughly 1/10 of 1% of SFV recharge.

Estimates adopted from water balance presented in San Fernando **Basin Groundwater Model Documentation (USEPA, 1994).** 

#### San Fernando Valley Estimated Average Water Supply (acre-feet/year)

- **LADWP** imported water
- LADWP locally pumped groundwater
- Glendale PSD imported water
- Glendale PSD locally pumped groundwater
- Burbank PSD imported water
- Burbank PSD locally pumped groundwater

#### Groundwater flow from SSFL is estimated to account for roughly 1/20 of 1% of the SFV water supply.

Estimates adopted from data provided in Upper Los Angeles River Area Watermaster annual reports.

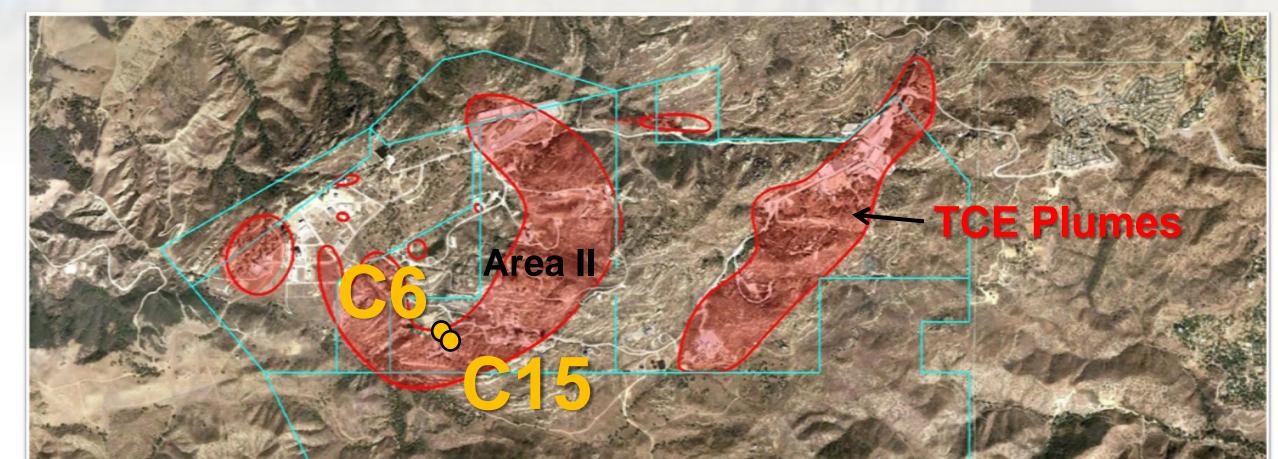


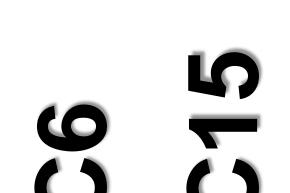
CHANGING LIVE

IMPROVING LI

# TCE Depth Profile to 1400 Feet from Coreholes C6 and C15

#### **Location of Coreholes**





Open

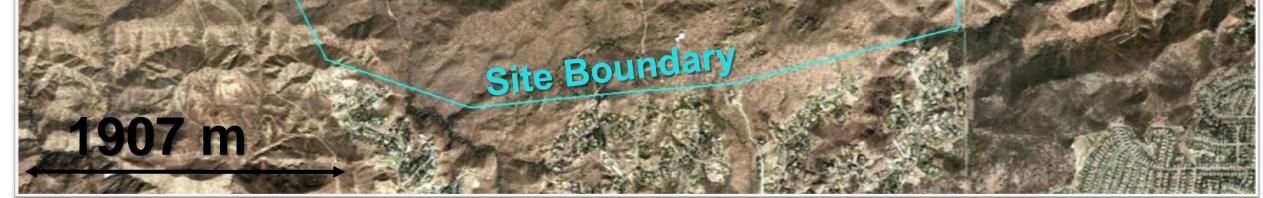
# ratigraphy

Depth

# Lithology &

atural Gamr

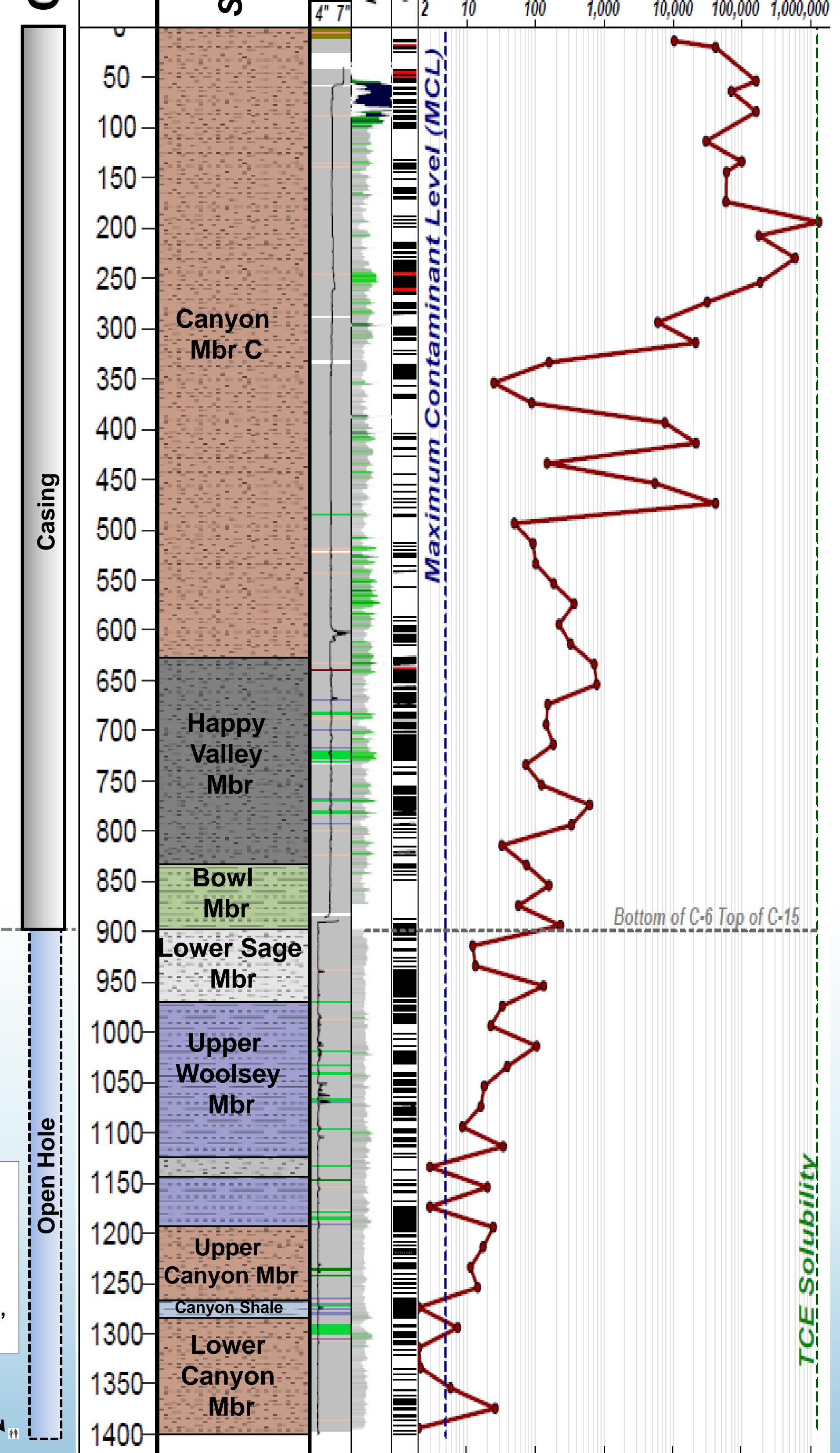
Total Equivalent TCE (µg/L Porewater)



Coreholes are located 50 feet apart in Area II near Delta test stand. C6 was initially drilled 2001 and deepened in 2003, C15 was completed during a follow up study in 2009. The casing of C15 extends from ground surface to the depth at the bottom of C6 (~ 890m).

### **Drilling Coreholes**







Field view of C6 and C15 coreholes and drill rig on site.

### **Core Collection and Inspection**



Retrieval of core in 5 fool lengths is followed by photographing, visual inspection and recording of hydrogeologic properties including; fractures, lithology, mineralogy etc.

## **Sampling and Analysis**

Core is subsampled, crushed and preserved in methanol for shipping and laboratory analysis of VOC's.





890 ft

Male: 5'10" Female: 5'4"

Prepared by Jonathan Kennel and Kristina Small, G360, June 24<sup>th</sup> 2011