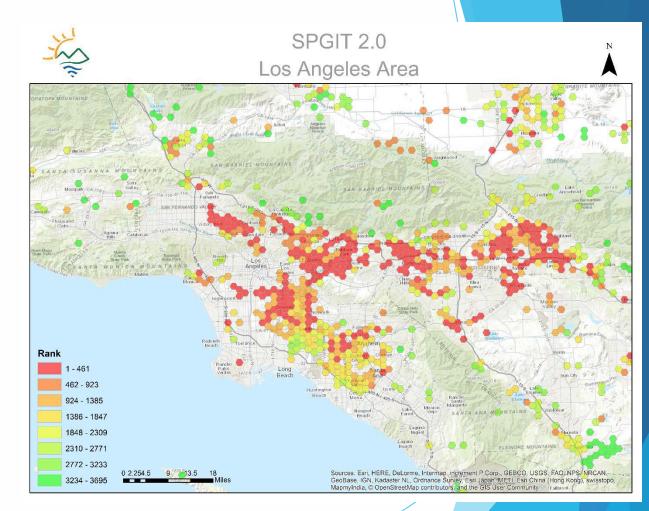
Please note: Formatting has been altered to meet accessibility standards for State documents (Section 11546.7 of the California Government Code). Content has not been modified.

SPGIT 2.0 July 27, 2017

Rick Fears, P.G. Senior Engineering Geologist

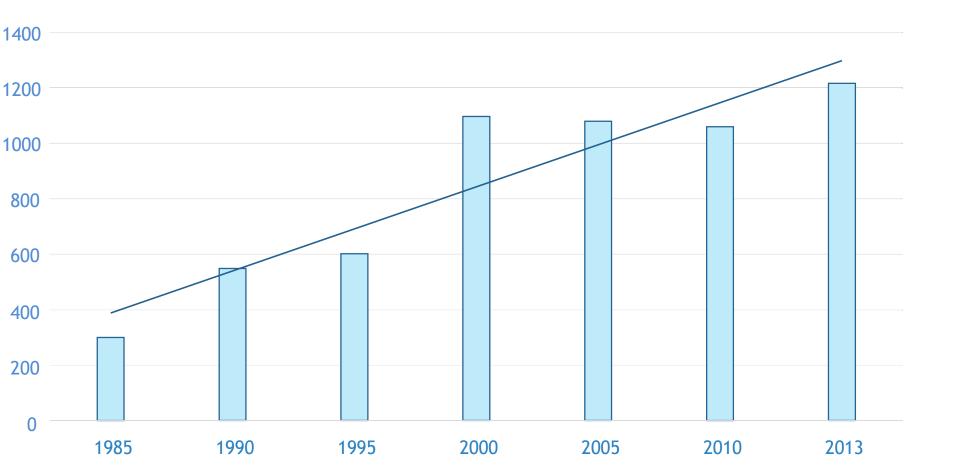
Department of Toxic Substances Control



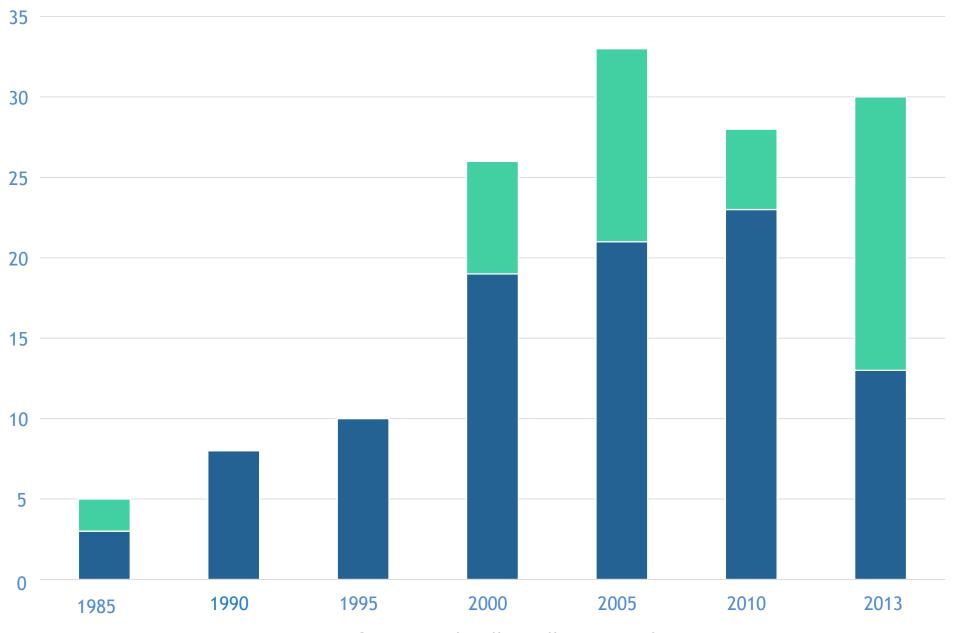
### **DRINKING WATER WELLS**

- APPROXIMATELY 21,000 PRODUCTION DRINKING WATER WELLS IN CALIFORNIA THAT ARE ADMINISTERED BY APPROXIMATELY 7,500 PUBLIC WATER SYSTEMS.
- SAN FERNANDO VALLEY HAS LOST APPROXIMATELY 80% OF DRINKING WATER WELLS BECAUSE OF GROUNDWATER CONTAMINATION. SAN GABRIEL VALLEY, APPROXIMATELY 40%.
- MANY CONTAMINATED WELLS HAVE BEEN PLACED ON STANDBY OR ABANDONED WITHOUT BEING PROPERLY DESTROYED

#### WELLS EXCEEDING MAXIMUM CONTAMINANT LEVEL (MCL)

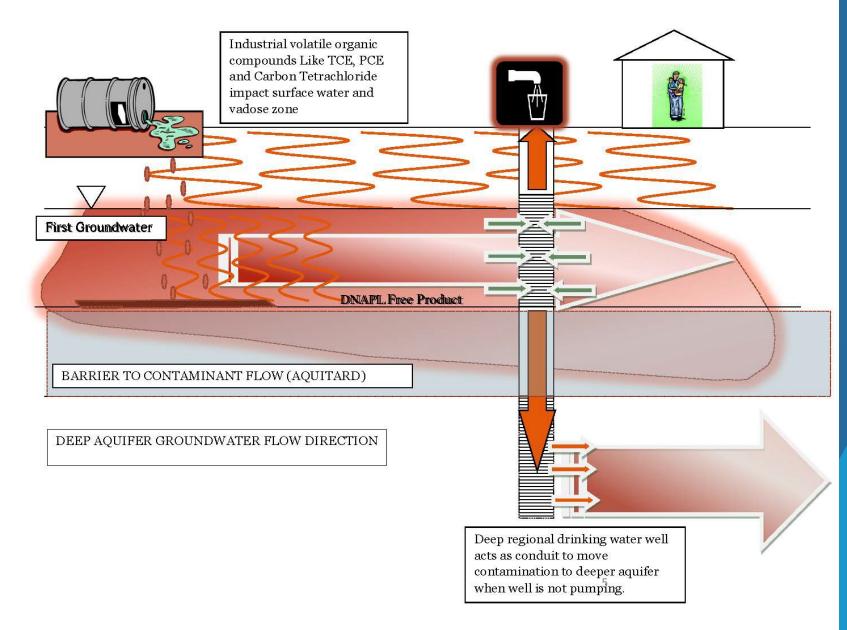


#### MCL IMPACTED WELLS AND DESTROYED WELLS



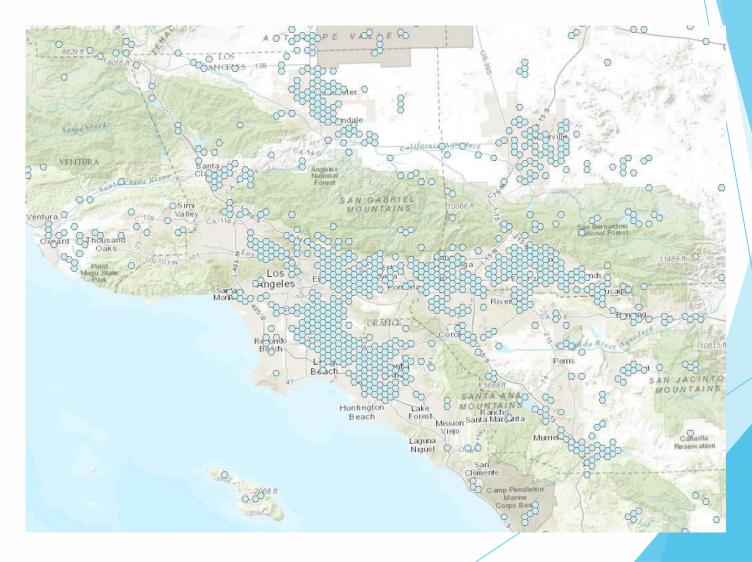
MCL Impacted Wells Wells Destroyed

#### 710 CORRIDOR GROUNDWATER CONCEPTUAL SITE MODEL



## **Areas of Interest**

# FOUR KILOMETER HEXAGONS REPRESENTING GEOGRAPHIC AREA WHERE WELLS ARE LOCATED



### **Prioritization Factors** Targeting Impacted Well Clusters

Factor	Weight
A. HEALTH RISK -	
CONTAMINATED DRINKING WATER NORMALIZED WELL DENSITY	8
CUMULATIVE SUM	
B. POTENTIAL RISK -	•
TOTAL HWTS HALOGENATED AND TRI CHEMICAL DENSITY:	3
C. CAL ENVIROSCREEN:	0
RANKS CUMMULATIVE HEALTH RISK AND ENVIRONMENTAL JUSTICE	2
D. FACILITIES:	
1/X OF CLEANUP AND PERMITTED SITE DENSITY	1

# **Calculating Results**

> USING ARCGIS, RESULTS WERE CALCULATED AS DESCRIBED BELOW:

> HEALTH RISK:

FOR EACH POLYGON NORMALIZED MCL CONCENTRATIONS ARE CALCULATED BY DIVIDING INDIVIDUAL CONTAMINANT RESULTS BY MCL CONCENTRATIONS THAT ARE THEN SUMMED. THE FREQUENCY OF MCL EXCEEDANCES IN THE POLYGON ARE THEN MULTIPLIED BY THE SUM OF NORMALIZED MCL CONCENTRATIONS. THE RESULT ARE THEN RANKED ON A SCALE OF 1-100 AND THEN MULTIPLIED BY A FACTOR OF 8

#### > POTENTIAL RISK:

TONNAGE FROM HALOGENATED GENERATORS (HWTS) ARE SUMMED WITH THE TONNAGE FROM THE (TRI) FACILITIES FOR EACH AREA. TONNAGE ARE THEN RANKED ON ASCALE OF 1-100 THEN MULTIPLIED BY A FACTOR OF 3

## **Calculating Results Continued**

> USING ARCGIS, RESULTS WERE CALCULATED AS DESCRIBED BELOW:

> ENVIROSCREEN: THE MAXIMUM ENVIROSCREEN SCORE ASSOCIATED WITH EACH AREA IS JOINED. THE RESULT ARE THEN RANKED ON A SCALE OF 1-100 AND THEN MULTIPLIED BY 2

➢ FACILITIES: THE COUNT OF FACILITIES FROM GEOTRACKER, DTSC PERMITTED AND CLEANUP/INVESTIGATION, AND THE EPA IS SUMMED FOR EACH AREA. THE 1/X RESULT ARE THEN RANKED ON A SCALE OF 1-100 AND THEN MULTIPLIED BY 1

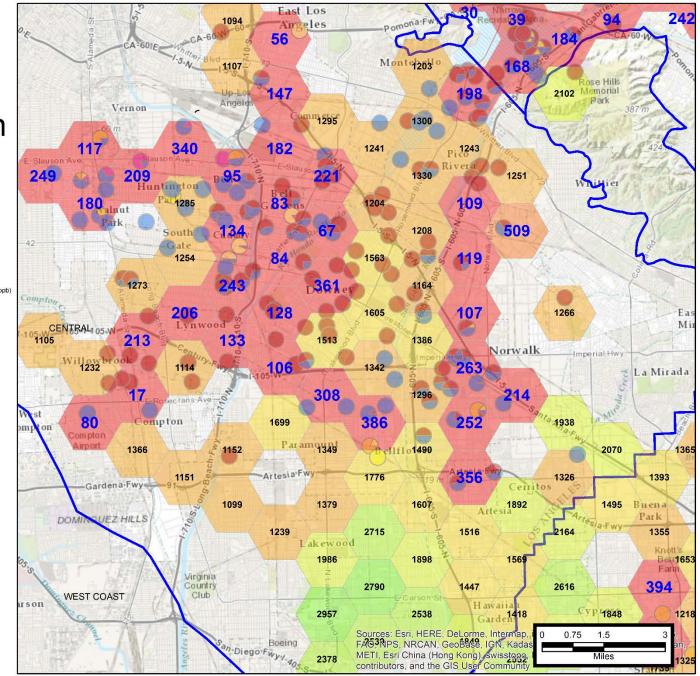
> ALL SCORES ARE THEN SUMMED AND THE POLYGON AREAS ARE THEN RANKED FOR THE ENTIRE STATE

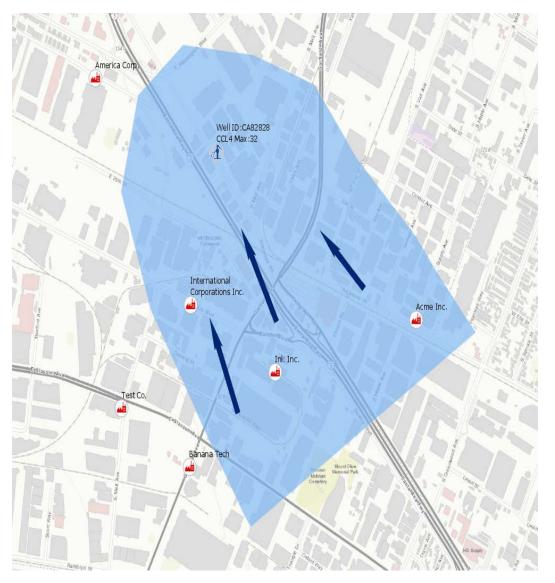
### SPGIT Central Basin











# **Analyzing Sites**

- Evaluate drinking water wells and contaminants present
- Analyze capture zones for wells and locate facilities using the same chemicals

