



### Site Background

- Former dry cleaning plant, Located in Orange County, California, operated from 1969 through mid 1980s
- California Regional Water Quality Control Board (Santa Ana Region) lead agency
- Site Investigations initiated in 2006
  - > Shallow groundwater at 13 to 20 feet bgs
  - > High concentrations of PCE and TCE in soil, soil gas, and groundwater identified during site investigation activities.
  - > Air sparging coupled with soil vapor extraction conducted at the site between February 2008 and February 2009.
- No further action determination for soil was issued in May 2009.
- Shallow groundwater with PCE concentration of 11,300 µg/L near the source area and 4,610 µg/L in the off-Site downgradient areas.
- In April 2010 the responsible parties informed Regional Board that it could no longer afford to continue with groundwater assessment and remediation activities.
- The groundwater remediation system and all equipment and associated piping were removed from the Site without Regional Board concurrence.
- Between April 2010 and December 2013, numerous efforts were made to obtain voluntary cooperation from the responsible parties and the property owner.
- In December 2013, a cleanup and abatement order (CAO) was issued to both parties.



Figure 1 – Site Map with Groundwater Monitoring Well Locations

## **Cleanup and Abatement Order**

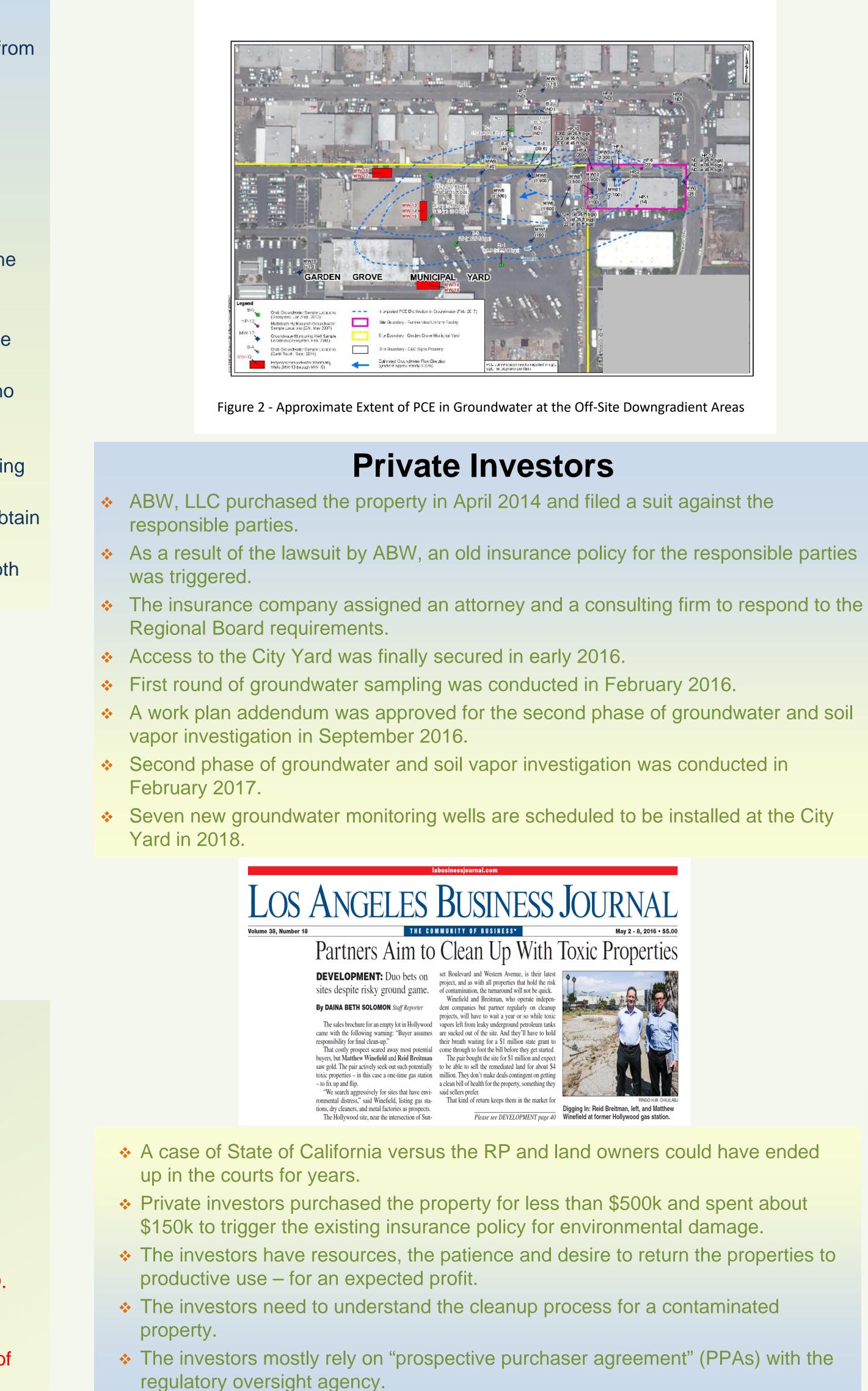
- Resume groundwater monitoring program within 45 days and report **\*** quarterly.
- Submit work plan for additional groundwater investigation
- Submit work plan for human health risk assessment. ٠.
- Submit an FS and RAP based on the investigation results.
- Implement remediation and submit monthly progress reports. \*

## **Notice of Violation**

- The responsible parties did not respond to the work required by the CAO.
- The first notice of violation (NOV) was issued in June 2014.
- The second NOV was issued in September 2015.
- The responsible parties did not meet the deadline for the second phase of field work. The third NOV was issued in January 2017.

# **TURNING POLLUTED SITES INTO PROFIT – A REGULATOR**

## A. Nick Amini, Ph.D., P.E. Santa Ana Regional Water Quality Control Board **Riverside, California**







### The Interview

"We're glad that they pushed this forward," said Nick Amini, the Santa Ana Regional Water Quality Control Board's project manager for the Garden Grove site. "Otherwise, it would be difficult to clean-up. If we issued a cleanup and abatement order, we'd go to court. That would take years. This makes it much more efficient. It's almost a partnership between investors and the regulators."

> Excerpts from February 25, 2016 article in Your Money section of New York Times by Wealth Matters columnist Paul Sullivan

### Lessons Learned

- Not all contaminated properties are created equal.
- Environmental damage insurance policies are key.
- Litigation is most likely necessary to trigger the insurance policy.
- Do not expect quick turn around on your investment:
- Cleanups involving the insurance companies are slow and cumbersome. - Environmental cleanups are inherently unpredictable.
- Regulatory oversight is thorough and systematic.
- State/federal grants (e.g., CA SCAP funding) may be fallback options.

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