# RESPONSE TO COMMENTS FROM SANTA CLARA COUNTY FOR THE PROPOSED UST CASE CLOSURE OF SPARTAN GAS 444 EAST TAYLOR STREET, SAN JOSE

**Issue 1a**
The Tier 2 Risk-Based Corrective Action (RBCA) evaluation was completed before the downgradient residential property was developed and a soil and groundwater investigation conducted along the downgradient property line was completed. This indicates that it is very likely that significant levels of contamination underlie the neighboring residential property.
RESPONSE:
The intent of the 2008 RBCA evaluation was to show that the current and planned uses of the 444 E. Taylor Site, and the downgradient 680 North Ninth Street property, are compatible with the risks associated with residual petroleum hydrocarbons remaining in soil and groundwater beneath these sites. The 444 E. Taylor Street Site was expected to continue to be used as a petroleum fuel dispensing station and convenience store for the foreseeable future. The 680 North Ninth Street property was planned for development of medium density residential use with engineering and institutional controls in place to mitigate risk to future residents from exposure to contaminants. The results of the 2008 RBCA evaluation indicate that current contaminant of concern (COC) levels in soil and groundwater beneath and in the vicinity of the Site are below Tier 2 RBCA Site Specific Target Levels (SSTLs); therefore, the risk to receptors posed by COCs are insignificant. Additionally, based on the results of the Tier 2 RBCA evaluation, this fuel leak case should be closed. (Allterra, Tier 2 Risk Based Corrective Action Closure Evaluation Report, July 15, 2008)

An evaluation was completed after the downgradient residential property was developed concluding that the residual petroleum constituents that may remain beneath the adjacent residential property located immediately southwest of Site presents no significant risk to human health associated with inhalation of chemical vapors both indoors and outdoors. The conclusion was based on the following:

- Benzene and MTBE concentrations detected in groundwater and vapor samples collected from off-Site wells located on the adjacent property were generally low to nondetect, even prior to remedial implementation activities.
- Benzene and MTBE concentrations detected in on-Site and off-Site groundwater samples were all below RWQCB Environmental Screening Levels (ESLs) for groundwater for the evaluation of potential vapor intrusion concerns on residential land.
- The operation of the dual-phase extraction remedial system in 2005 and 2006 using wells located on the adjacent property dramatically reduced contaminant levels in on-Site and off-Site soil vapor and groundwater.
- Vapor intrusion barrier and venting systems beneath each new home and deed restrictions on property use are currently in place on the adjacent property and serve to further protect current and future occupants against potential risks associated with inhalation of chemical vapors.

(Allterra, Documentation Regarding Lack of Off-Site Vapor Intrusion Concerns for Fuel Leak Case No. 14-480, SCVWDID# 07S1E05F03f, Spartan Gas Station, 444 East Taylor Street, San Jose, California, February 3, 2012)

**Issue 1b**
Groundwater samples collected in the northwest portion of the Site contained up to 4,200,000 parts per billion (ppb) total petroleum hydrocarbons (TPH) as diesel, 41,000 ppb TPH-gasoline, and 970 ppb benzene. The Department of Environmental Health (DEH) notes that State Board Attachments 1 and 2 do not include the recently collected groundwater samples from the

northwest portion of the Site. These data clearly demonstrate that significant contamination remains and additional assessment is required to define the extent of the plume. Copies of the soil and groundwater results from the 2011 Report are attached to this letter.
RESPONSE:
State Water Board staff included the above mentioned grab groundwater data during review of this UST case. Site conditions including the northwest portion of the Site demonstrate that the residual petroleum constituents in soil and groundwater are protective of human health.

**Issue 2**
DEH believes that the high levels of contamination along the downgradient property line warrant additional site assessment. The results of this work will allow the downgradient neighboring property owner to understand the potential risk associated with the conditions underlying the property. In addition, until the Site is completely assessed the DEH believes it is premature to conclude remediation should not be considered.
RESPONSE:
See the above response to Issue 1a and Issue 1b.

**Issue 3**
DEH is concerned that the groundwater plume along the downgradient side of the Site is not defined. As stated above, the groundwater samples collected in 2011 indicate that significant contamination underlies the downgradient side of the Site and it has likely migrated onto the downgradient residential property.
RESPONSE:
See the above response to Issue 1a and Issue 1b.

The petroleum release is limited to the shallow soil and groundwater. The nearest public supply well regulated by the California Department of Public Health is located approximately 2,900 feet southwest (generally downgradient) of the Site. Water is provided to water users near the Site by the San Jose Water Company. The affected groundwater is not currently being used as a source of drinking water or for any other designated beneficial use, and it is highly unlikely that the affected groundwater will be used as a source of drinking water or for any other beneficial use in the foreseeable future. Public supply wells are usually constructed with competent sanitary seals and intake screens that are in deeper more protected aquifers. Remaining petroleum constituents are limited, stable and declining. Remedial actions have been implemented and further remediation would be ineffective and expensive. Additional assessment/monitoring will not likely change the conceptual model. Any remaining petroleum constituents do not pose significant risk to human health, safety or the environment.

**Issue 4**
In a letter to the State Board (DEH Comment Letter, Western States Oil Case Closure Summary Petition, July 8, 2013) the DEH provided comments on the State's determination that in soil, the concentration of naphthalene can be determined by the concentration of benzene. As of the date of this letter, the DEH has not received a response from the State Board.
RESPONSE:
The Policy does not require the analysis of naphthalene at UST release sites. For those UST sites where naphthalene analysis has been performed, the Policy provides very conservative

soil screening levels for different exposure scenarios and receptors in Table 1. These soil screening levels assume that exposure pathways for these chemicals occur simultaneously.

The Geotracker record for statewide naphthalene analysis at UST sites indicates that regulatory agencies have rarely identified naphthalene as a contaminant of concern and therefore have not required the analysis of naphthalene as part of a standardized sampling program. At this Site, DEH has not required naphthalene analysis to be performed during the 14 years that the case has been open.

When there are limited or no soil sample results in the case record for naphthalene, State Water Board staff estimate the concentration of naphthalene in soil by using the published relative concentrations of naphthalene and benzene in gasoline. Taken from Potter and Simmons (1998), gasoline mixtures contain approximately 2% benzene and 0.25% naphthalene. Therefore, benzene concentrations can be directly substituted for naphthalene concentrations with a safety factor of eight.