ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 28, 2013

Mr. Pete Mizera
State Water Resources Control Board
1001 I Street, 16th Floor
Sacramento, CA 95814
(Sent via E-mail to: USTClosuresComments@waterboards.ca.gov)

Subject: **Comment Letter – Chevron #21-1285 Cal Gas Case Closure Summary**, Notice of Opportunity for Public Comment; Underground Storage Tank Cleanup Fund Case Closure Recommendation; Claim Number 12999 / 15058; Fuel Leak Case No. RO0000374 and GeoTracker Global ID T06000101374, Chevron #21-1285 / Cal Gas, 15595 Washington Avenue, San Lorenzo, CA 94580

Dear Mr. Mizera:

Alameda County Environmental Health (ACEH) staff has received the Underground Storage Tank Cleanup Fund's (USTCF's or Fund's) *Notice of Opportunity for Public Comment* dated June 27, 2013, for the subject site. The purpose of the Notice is to inform interested parties of 1) the USTCF's intent to recommend closure of the subject site to the California State Water Resources Control Board's (SWRCBs) Executive Director, and 2) the sixty day public comment period on the Fund's *UST Case Closure Review Summary Report* (Case Closure Summary), dated June 26, 2013. According to the Notice, written comments to the SWRCB on the Fund's Case Closure Summary must be received by 12:00 noon on September 3, 2013. This letter herein transmits ACEH's comments.

Requirements for Investigation and Cleanup of Unauthorized Releases from USTs

ACEH reviewed the USTCF's *UST Case Closure Review Summary Report*, dated June 27, 2013, prepared by Walter Bahm and signed by Lisa Babcock, including *Attachment 1: Compliance with State Water Board Policies and State Law* (i.e., the SWRCB's Low-Threat UST Case Closure Policy Paper Check List), and *Attachment 2: Summary of Basic Site Information (Conceptual Site Model)* in conjunction with the case files for the above-referenced site. A complete record of the case files (i.e., regulatory directives and correspondence, reports, data submitted in electronic deliverable format, etc.) can be obtained through review of both the SWRCB's Geotracker database, and the ACEH website at http://www.acgov.org/aceh/index.htm.

ACEH's review was guided by the requirements for investigation and cleanup of unauthorized releases from underground storage tanks (USTs) contained in the following resolutions, policies, codes, and regulations:

- SWRCB's Low-Threat Underground Storage Tank Case Closure Policy (LTCP), adopted on May 1, 2012; and effective August 17, 2012;
- California Code of Regulations (CCR) Title 23, Article 5 and Article 11, Underground Storage Tank Regulations, as amended and effective July 1, 2011;
- California Health & Safety Code (HS&C) Sections 25280-15299.8, Underground Storage of Hazardous Substances, as amended on January 1, 2011;
- SWRCB Resolution 1992-0049, Policies and Procedures for the Cleanup and Abatement of Discharges under California Water Code Section 13304, as amended on April 21, 1994 and October 2, 1996;

- San Francisco Bay Regional Water Quality Control Board's (RWQCB) San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).

Application of Case Review Tools

ACEH's case closure evaluation was also guided by the application of the principles and strategies presented in the *Leaking Underground Fuel Tank Guidance Manual* (CA LUFT Manual), dated September 2012, developed by the SWRCB "…[t]o provide guidance for implementing the requirements established by the Case Closure Policy" and associated reference documents including but not limited to:

- *Technical Justification for Vapor Intrusion Media-Specific Criteria*, SWRCB dated March 21, 2012;
- *Technical Justification for Groundwater Media-Specific Criteria*, SWRCB dated April 24, 2012;
- *Technical Justification for Soil Screening Levels for Direct Contact and Outdoor Air Exposure Pathways*, SWRCB dated March 15, 2012;
- *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Final* DTSC, dated October, 2011;
- *Active Soil Gas Investigations Advisory,* DTSC, dated April 2012.

ACEH also utilized other case review tools developed by the SWRCB to aid in determining compliance of the subject fuel leak site with LTCP criteria, including both the paper *Policy Checklist* (available at www.waterboards.ca.gov/ust/docs/checklist.pdf) and the electronic version of the *Policy Checklist* (available on the SWRCB's GeoTracker website at http://geotracker.waterboards.ca.gov). ACEH's evaluation of the subject site is presented below and in previously submitted documents posted to Geotracker and the ACEH ftp website.

Summary of ACEH's Review of the USTCF's UST Case Closure Summary

ACEH does not agree with the USTCF's Conceptual Site Model (CSM) nor the technical analysis presented in the *UST Case Closure Summary Report.* Specifically, ACEH remains concerned that the downgradient extent of the groundwater contaminant plume has not been defined, that an unevaluated secondary source may still exist at the site, that local water use may result in exposure to contamination and therefore local human health and safety may not be protected, and that nuisance factors as defined by Water Code section 13050 may exist at the site.

General Criteria a: The unauthorized release is located within the service area of a public water system.
The site meets this General Criteria.
General Criteria b: The unauthorized release consists only of petroleum.
The site meets this General Criteria.
General Criteria c: The unauthorized ("primary") release from the UST system has been stopped.
The site meets this General Criteria.
General Criteria d: Free product has been removed to the maximum extent practicable.
The site meets this General Criteria.
General Criteria e: A conceptual site model has been developed.
The site does not meet this General Criteria. The CSM does not support closure as a low risk site under the LTCP general criteria f, h, and Media-Specific-Criterias for Groundwater and Direct Contact and

Outdoor Air Exposure.

ACEH notes that groundwater concentrations at the site have declined significantly with time at the site; however, based on an extensive series of groundwater gradient maps generated for the site and vicinity since the installation of wells STMW-6 to STMW-10 (April 2007) a groundwater low or valley appears to extend across the site towards the southwest and the intersection of Via Enrico and Lorenzo Avenue. The contaminant groundwater contour maps generated for the site suggest that wells STMW-6 to STMW-10 are monitoring the lateral extent of a groundwater plume, rather than the downgradient direction. ACEH thinks it prudent to investigate the flowpath depicted since 2007. To rapidly access this downgradient vicinity, ACEH requested a soil bore transect with soil and grab groundwater sample collection investigation, with the subsequent installation of several wells (if judged appropriate) to allow quick evaluation of groundwater contaminant concentrations of the mapped downgradient location.

The mapped downgradient location is in an area of San Lorenzo known to contain an above average number of residential water supply wells, and as such ACEH requested a door to door neighborhood canvas to preclude potential exposure to contaminants (MTBE) via these probable wells. From experience, wells in this area are both officially registered and unregistered. One registered well has been identified at 15600 Lorenzo Avenue, San Leandro, CA 94580. In May 2001, ACEH requested that the well owner not use the well until further notice due to the release of petroleum hydrocarbons from the subject service station (see Attachment 1 for a copy of the letter). Please note that this was a request only as ACEH does not have the right or ability to request the destruction of a private well. The attached Google images (Attachment 2) were recently captured, and more precisely place the well. The well appears to be approximately 290 feet from one of the sources at the site, rather than the previously identified 185 feet. The images also indicate that the well is both physically plumbed to what appears to be a pump house and is connected to street power. The exterior yard of the house does not appear to be watered; however, a fully plumbed and powered well strongly indicate that the right to local water use has not been given up. The hose spigot on the opposite side of the pump house from the well connection does not suggest use of groundwater has completely ceased. Based on previous information ACEH has understood the well to be unused; thus groundwater from the well has not been requested to be tested for contaminants of concern from the subject site. However, the recent Google images suggest the well is in use. Therefore, it appears to be appropriate to test the water from this well. (If requested, ACEH can separately forward a copy of the well log in order to maintain well confidentiality).

The well at 15600 Lorenzo Avenue is registered; however, there are other larger residential parcels in the local vicinity that likely represent older ranch homes that predate suburbanization of the vicinity, and may also contain older unaccounted irrigation wells. Additionally local groundwater flow appears to be to the southwest, directly toward Arroyo High School. While not yet known at this school, San Lorenzo schools are known to have made use of groundwater and have currently existing wells. Please see Attachment 3 for additional Google images of the site and vicinity.

Although site documents place the first generation USTs immediately “south” of the service station, two lines of evidence suggest this may not be correct. Additionally, because the first generation removal action predated environmental regulations, the extent of secondary source removal associated with these USTs has not been established. Soil and groundwater analytical data collected from well MW-3 located in the vicinity of the suspect first generation UST location have historically had low contaminant concentrations. Conversely soil analytical data from bore GP-4, located upgradient of all known sources, contains the highest documented concentrations of petroleum hydrocarbons in soil detected at the site. This suggests that the first generation of tanks may have been located upgradient of GP-4. This would be consistent with general practices of placing USTs at some distance from a building for fire and construction safety issues provided sufficient space exists on a site, as it does at this site. Groundwater downgradient from such a location has not been monitored at the site, appears to flow to the unmonitored groundwater low, and may eventually be tapped by the residential well at 15600 Lorenzo Avenue, and any other unlocated wells in the vicinity. ACEH requested the installation of soil bores with soil and grab groundwater collection in the vicinity of GP-4 to delineate hot spots and isolate a potential source location.

The SWRCB USTCF has identified the closest surface water body to be the San Lorenzo Creek, at a distance of 600 feet northwest of the defined plume boundary. The USTCF further notes that the creek is concrete lined which diminishes the likelihood of potential impact to the surface water body. ACEH notes that the abandoned historic creek channel of San Lorenzo Creek is known to lie at a distance of

approximately 260 feet to the northwest of a portion of the known groundwater plume, and that other buried "paleochannels" have a high probably of existing in the vicinity due to typical depositional style of a meandering stream. Please see Attachment 4 for a copy of the Oakland Museum of California, *Creek & Watershed Map of Hayward & San Leandro,* 1997 (Janet M. Sowers, William Lettis & Associates, Inc). This known historic trace of the creek was abandoned in the channelization process; it is not know what it is backfilled with.

General Criteria f: Secondary source removal has been addressed. The secondary source is the petroleum-impacted soil, free product, or groundwater that acts as a long-term source releasing contamination to the surrounding area. Unless site conditions prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable.

The site does not meet this General Criteria.

As noted above site documents place the first generation USTs immediately "south" of the service station; however, two lines of evidence suggest this is not correct. Soil and groundwater analytical data collected well MW-3 located in the vicinity of the suspect first generation UST location have historically had low contaminant concentrations. Conversely soil analytical data from bore GP-4, located upgradient of all known sources, contains the highest documented concentrations of petroleum hydrocarbons detected at the site. This indicates that the first generation of tanks may have been located upgradient of GP-4. This would be consistent with past practices that of placing USTs at some distance from a building for fire and construction safety issues provided sufficient space exists on a site, as it does at this site. Groundwater downgradient from such a location has not been monitored at the site, appears to flow to the unmonitored groundwater low, and may eventually be tapped by the residential well at 15600 Lorenzo Avenue. In total, ACEH remains concerned that uninvestigated secondary sources may remain at the site.

General Criteria g: Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15.

Soil and groundwater has been tested for MTBE. The site meets this General Criteria.

General Criteria h: Nuisance as defined by Water Code section 13050 does not exist at the site.

The site may meet each of the three criteria of this General Criteria; thus a nuisance condition may be present.

As noted above, one and likely multiple, water supply wells are documented or suspected to exist in the vicinity of subject site due to a local knowledge base. Because the wells have not been located or tested, each of the three criteria of this General Criteria appear to be met.

Media-Specific Criteria 1. Groundwater: If groundwater with a designated beneficial use is affected by an unauthorized release, to satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal (sic) extent, and meet all of the additional characteristics of one of the five classes of sites listed in the Policy. A plume that is "stable or decreasing" is a contaminant mass that has expanded to its maximum extent: the distance from the release where attenuation exceeds migration.

The *Case Closure Review Summary Report* indicates that the USTCF has determined the site meets Category 5 of the Groundwater Media-Specific Criteria. This category is a finding by the regulatory agency (the SWRCB USTCF) that based on an analysis of site specific conditions, the site under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time period.

As noted above, the apparent downgradient groundwater low that has been a consistent feature of groundwater contour maps for an extended period of time has not been delineated, tested, or monitored, and appears directed toward a known residential water supply well that has not been sampled. Therefore

ACEH remains concerned that human health and safety remain at risk due to Water Quality Objectives that have not been delineated or met at the distal end of the plume.

ACEH also notes that local knowledge of the general region indicates that additional registered and unregistered residual water supply wells are likely to be found and that no effort to identify or to assess the need to sample these wells has been expended.

Media-Specific Criteria 2. Petroleum Vapor Intrusion to Indoor Air: The low-threat vapor-intrusion criteria in the Policy apply to release sites and impacted or potentially impacted adjacent parcels when: (1) existing buildings are occupied or may be reasonably expected to be occupied in the future, or (2) buildings for human occupancy are reasonably expected to be constructed in the near future.

The site meets this Media-Specific Criteria. ACEH notes that the site is an operational service station and meets the active commercial service station exclusion.

Media-Specific Criteria 3. Direct Contact and Outdoor Air Exposure. Release sites where human exposure may occur satisfy the media-specific criteria for direct contact and outdoor air exposure and shall be considered low-threat if they meet any of the following:

a. Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs). The concentration limits for 0 to 5 feet bgs protect from ingestion of soil, dermal contact with soil, inhalation of volatile soil emissions and inhalation of particulate emissions, and the 5 to 10 feet bgs concentration limits protect from inhalation of volatile soil emissions. Both the 0 to 5 feet bgs concentration limits and the 5 to 10 feet bgs concentration limits for the appropriate site classification (Residential or Commercial/Industrial) shall be satisfied. In addition, if exposure to construction workers or utility trench workers are reasonably anticipated, the concentration limits for Utility Worker shall also be satisfied; or

b. Maximum concentrations of petroleum constituents in soil are less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health; or

c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, the regulatory agency determines that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health.

The *Case Closure Review Summary Report* indicates that a the site meets Class 3a of the Direct Contact and Outdoor Air Exposure Media-Specific Criteria and states that maximum concentrations in soil are less than those in Table 1 for Commercial / Industrial and Utility Worker exposures.

ACEH does not agree that the site meets this Media-Specific Criteria. As more fully discussed above in General Criteria f, the removal of the secondary source associated with the first generation USTs is not documented; thus there is incomplete knowledge and data in which to evaluate this site within this Criterion.

Low-Threat Case Closure: If a case has been determined by the regulatory agency to meet the criteria in this policy, the regulatory agency shall notify responsible parties that they are eligible for case closure and that the following items, if applicable, shall be completed prior to the issuance of a uniform closure letter specified in Health and Safety Code section 25296.10:

a. **Notification Requirements:** Municipal and county water districts, water replenishment districts, special acts districts with groundwater management authority, agencies with authority to issue building permits for land affected by the petroleum release, and the owners and occupants of all parcels adjacent to the impacted property shall be notified of the proposed case closure and provided a 60 day period to comment.

Because of ACEHs remaining concern in regards to offsite residential irrigation well(s) in the vicinity, ACEH requested a list of parties included by the SWRCB in the notification of the potential closure of the case. To date ACEH has not received a copy of the notification list. It appears prudent to notify vicinity water users of the potential closure of this case.

Conclusions

ACEH is not in agreement that the site can currently be closed under the LTCP. The site appears to fail General Criterias e, f, and h, the Media-Specific Criteria for Groundwater, and potentially for Direct Contact and Outdoor Air Exposure. To address these issues ACEH has previously recommended a limited scope of investigation and grab groundwater sampling to investigate the downgradient extent of the groundwater plume and residual sources of soil contamination in a source area. The presence of an apparently completely functional water supply well in the immediate downgradient vicinity of the site indicates that these measures are not only appropriate but warranted to protect human health and safety.

Thank you for providing ACEH with the opportunity to comment on the subject site. Should you have any questions regarding the responses above, please contact Mark Detterman at (510) 567-6876 or send him an electronic mail message at mark.detterman@acgov.org.

Sincerely,

Digitally signed by Dilan Roe
DN: cn=Dilan Roe, o=Environmental Health, ou=LOP, email=dilan.roe@acgov.org, c=US
Date: 2013.08.28 13:02:25 -07'00'

Dilan Roe, P.E.
LOP Program Manager

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou, email=mark.detterman@acgov.org, c=US
Date: 2013.08.28 10:26:43 -07'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Attachment1: Residential Well Notification Letter; May 22, 2001; 2 pgs
Attachment 2: Google Earth Images; Residential Well; 2 pgs
Attachment 3: Google Earth mages; Site and Neighborhood Vicinity; 3 pgs
Attachment 4: *Creek & Watershed Map of Hayward & San Leandro,* Oakland Museum of California, 1997, (Janet M. Sowers, William Lettis & Associates, Inc); 1 pg

cc: Mehdi and Fereshteh Mohammadian, Cal Gas, 15595 Washington Ave, San Lorenzo, CA 94580

Mr. Ian Robb, Chevron Corporation, 6111 Bollinger Canyon Rd, San Ramon, CA 94583-2324; (Sent via electronic mail to: IanRobb@chevron.com)

Ms Agnes Calleri, 10901 Cliffland Dr, Oakland, CA 94605

Ms. Marjorie Kayner, Burt Kubo Trust, 20321 Via Espana, Salinas, CA 93908

Frank Hamedi-Fard, Enviro Soil Tech Consultants, 131 Tully Road, San Jose, CA 95111 (Sent by electronic mail to info@envirosoiltech.com)

Lisa Babcock, State Water Resources Control Board, Division of Financial Assistance, 1001 I Street, Sacramento, CA 95814; (Sent via E-mail to: LBabcock@waterboards.ca.gov)

Robert Trommer, State Water Resources Control Board, Division of Financial Assistance, 1001 I Street, Sacramento, CA 95814; (Sent via E-mail to: RTrommer@waterboards.ca.gov)

Walter Bahm, State Water Resources Control Board, Division of Financial Assistance, 1001 I Street, Sacramento, CA 95814; (Sent via E-mail to: Walter.Bahm@waterboards.ca.gov)

Mary Rose Cassa, San Francisco Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612 (Sent via electronic mail to MCassa@waterboards.ca.gov)
Dilan Roe (Sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman (Sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

ATTACHMENT 1

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 22, 2001

Mr. Jack Ottovich
15600 Lorenzo Avenue
San Lorenzo, CA 94580

State Well No. 3S / 3W 12 J4

RE: Investigation of gasoline release at 15595 Washington Avenue, San Lorenzo

Dear Mr. Ottovich:

The Alameda County Department of Environmental Health (ACDEH) is directing the investigation of a gasoline release associated with the underground storage tank (UST) system at a retail service station located at 15595 Washington Avenue. This service station, located on the corner of Washington and Via Enrico, is very close to your home.

This office is aware of the irrigation well located on your property. Irrigation and other pumping wells that are in proximity to UST release sites can often affect the way contaminants move through the aquifer, and pose a potential risk to both the well user and deeper water- bearing zones.

For your information, samples collected from a series of monitoring wells located on the service station property have identified the presence of high concentrations of gasoline components in shallow groundwater beneath the site. Most noteworthy of these is the compound *methyl-tert butyl ether*, or MtBE. You may have heard recently of the issues surrounding MtBE and its use in gasoline sold in California.

The extent of this release is currently unknown, as the occurrence of MtBE in groundwater has only recently been determined. Consequently, the investigation will be expanding in scope. Although progress is somewhat stalled at this time due to ancillary issues, we anticipate that the investigation will extend into the coming year and beyond before all is known, and that your irrigation well will become the focus of future sampling efforts.

Until such time as we have a better understanding of the nature and extent of this release, and the physical and geological factors which control the movement of the underlying ground water and associated gasoline plume, we request that you not use your well for any purpose until advised otherwise.

This agency would like to thank you in advance for your cooperation with this important request. Please feel free to contact me at (510) 567-6783 should you have any questions about this case.

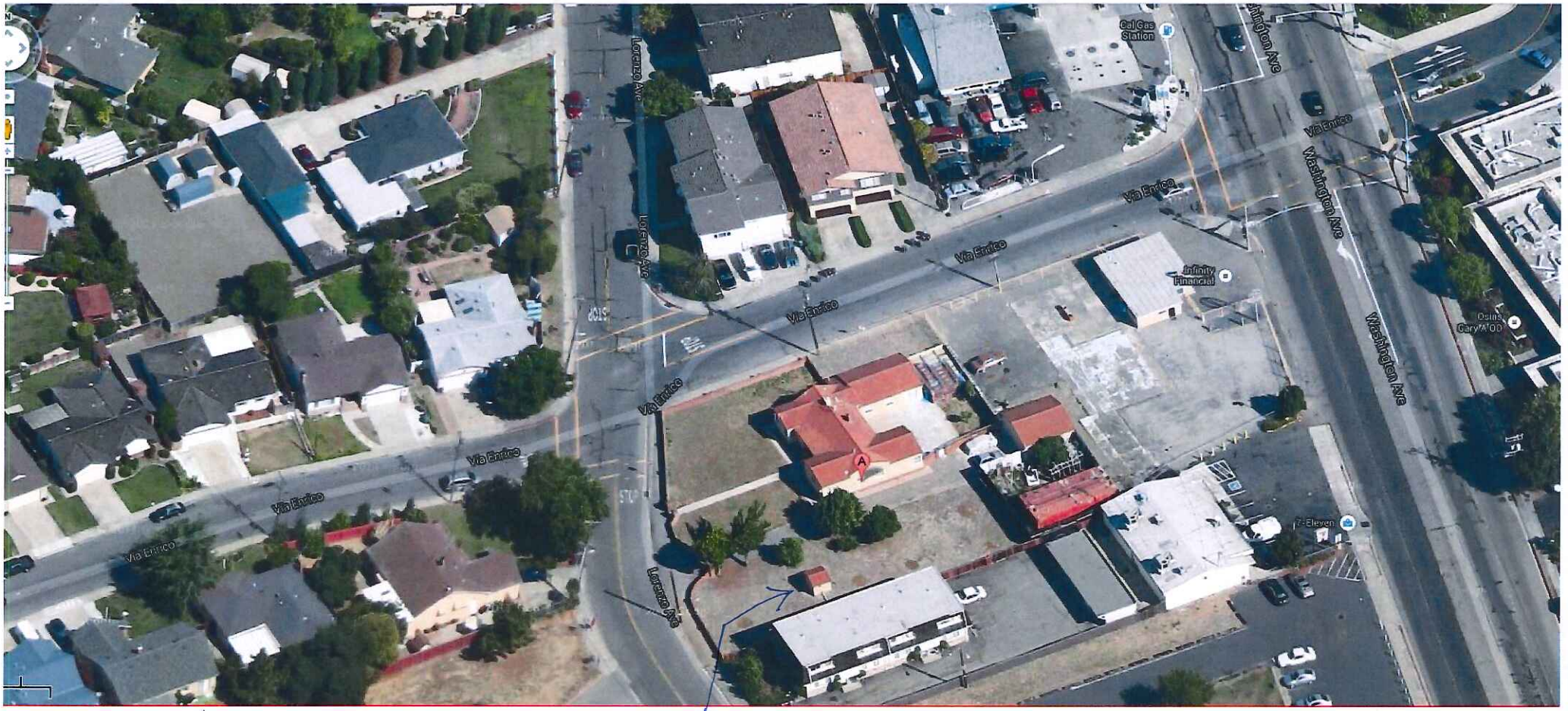
Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

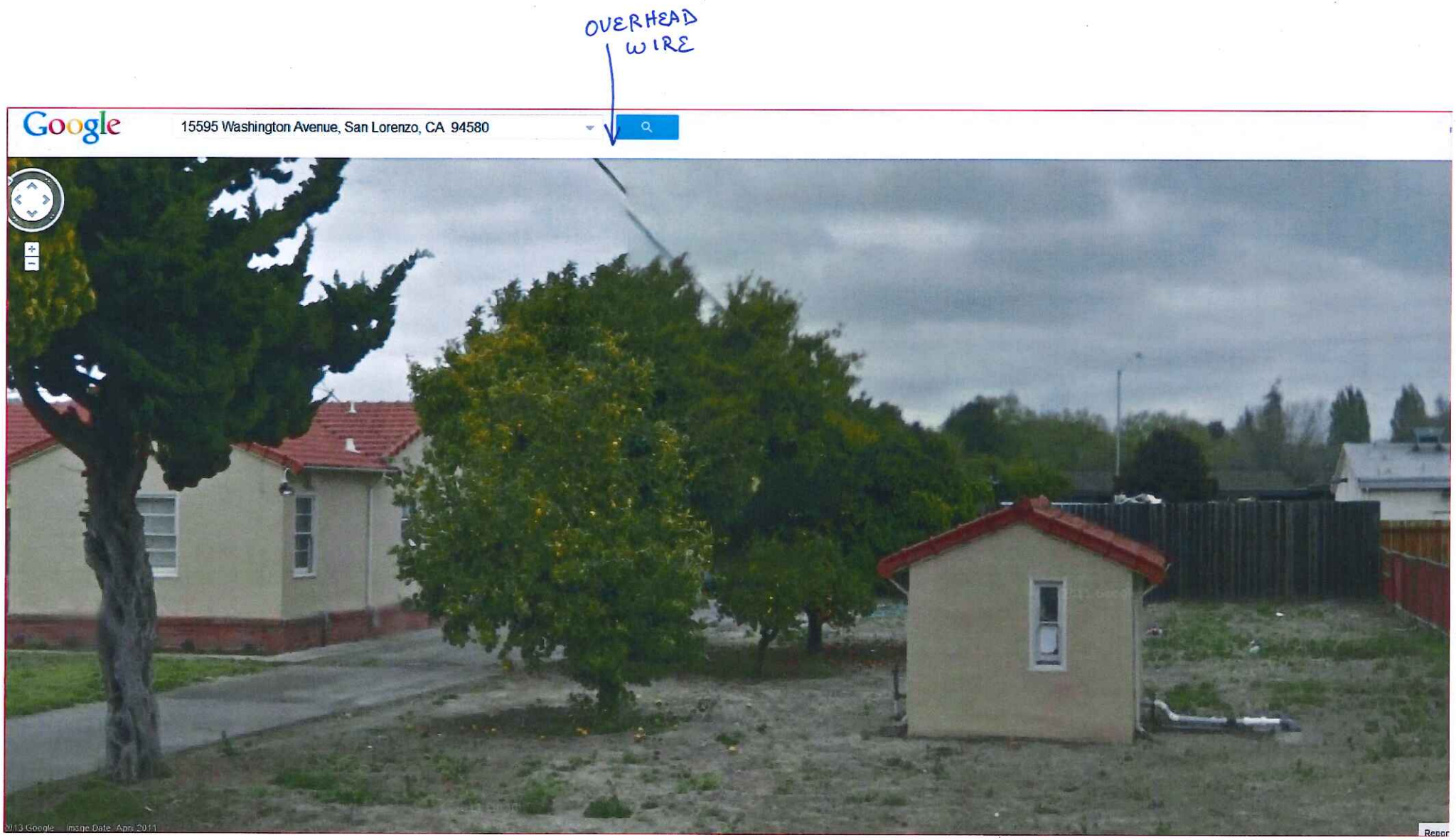
cc: Chuck Headlee, RWQCB
Lori Casias, SWRCB
Emmanual Da Costa, Alameda Co. Public Works Agency
951 Turner Ct., Ste. 300, Hayward, CA 94545-2651
Mehdi Mohammadian, 15595 Washington Ave., San Lorenzo, CA 94580

ATTACHMENT 2

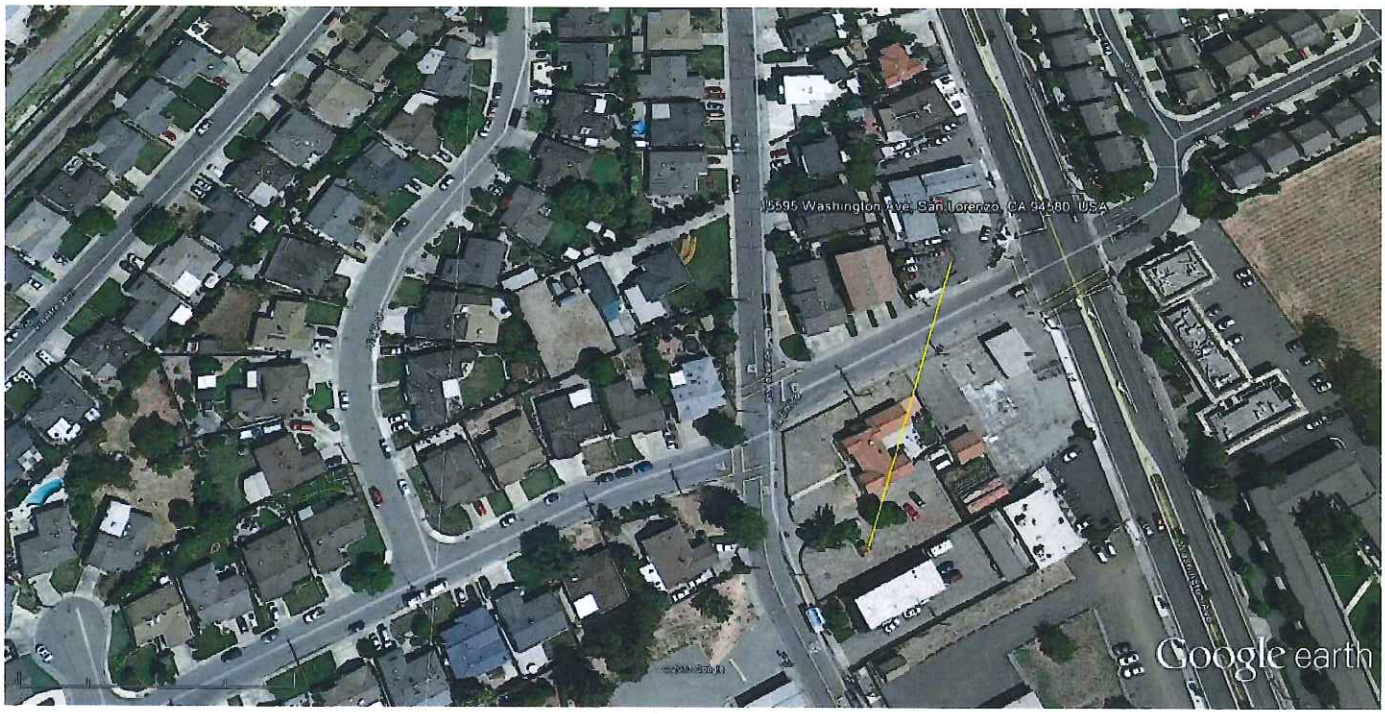
SITE



WELL HOUSE

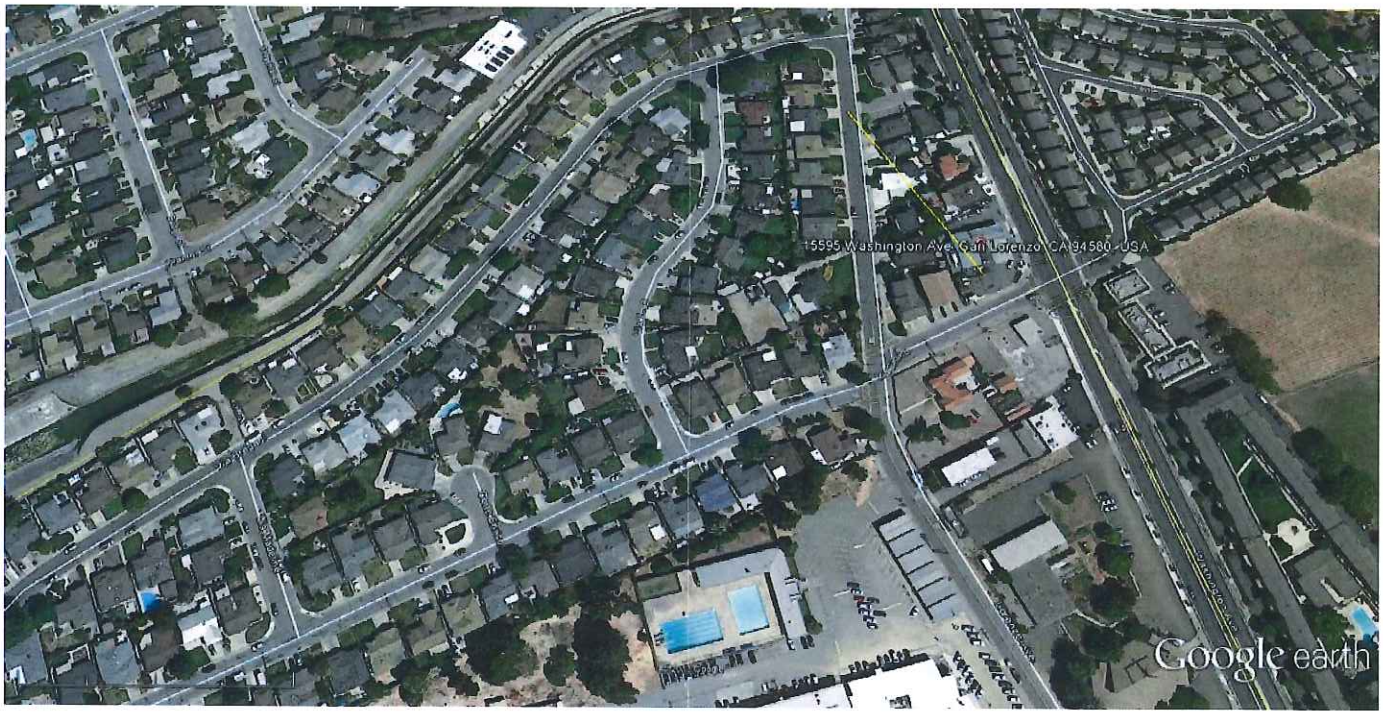

OVERHEAD
WIRE
Google
15595 Washington Avenue, San Lorenzo, CA 94580
2013 Google Image Date April 2011

ATTACHMENT 3



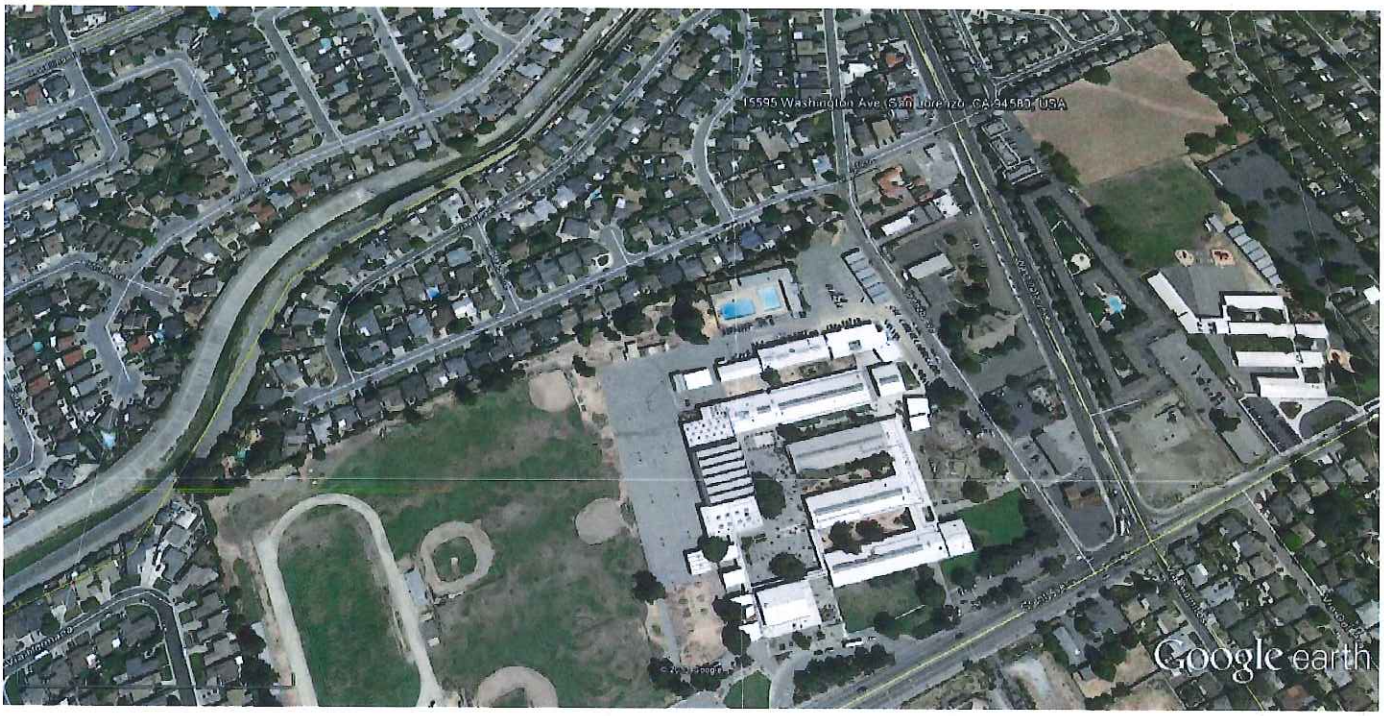
Google earth

feet 600
meters 100



Google earth

feet 900
meters 200

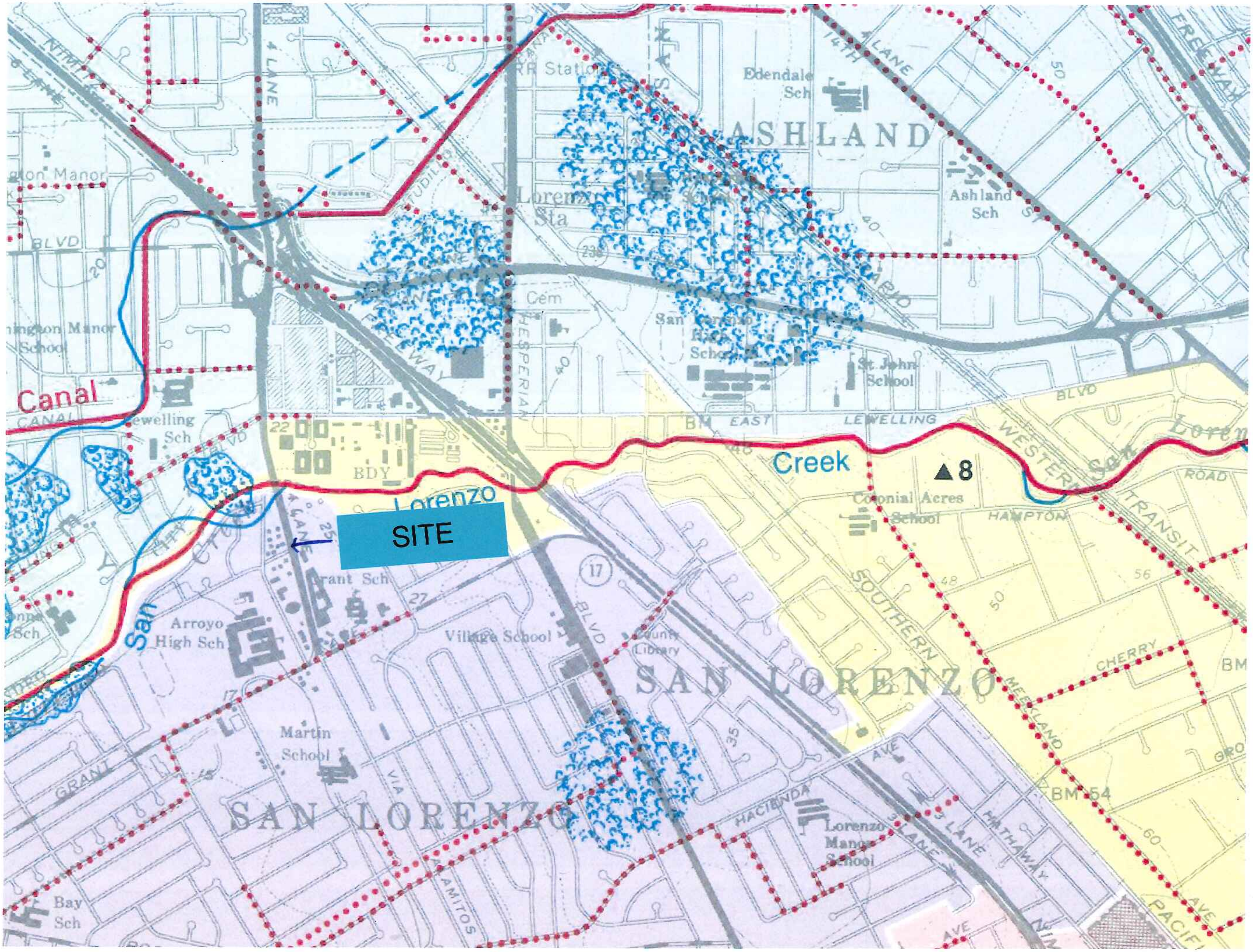


Google earth

feet 1000

meters 400

ATTACHMENT 4



SITE
ASHLAND
SAN LORENZO
SAN LORENZO
Canal
San Lorenzo Creek
▲8
Edendale Sch
Ashland Sch
St John School
San Lorenzo High School
Colonial Acres School
Grant Sch
Arroyo High Sch
Village School
County Library
Martin School
Lorenzo Manor School
Bay Sch
Lewelling Sch
Lorenzo Sta
RR Station
Cem
HESPERIAN
LEWELLING
HAMPTON
WESTERN
SOUTHERN
MEEKLAND
HATHAWAY
HACIENDA
CHERRY
GRANT
BM 54