

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

COLLEEN CHAWLA, Director



DEPARTMENT OF ENVIRONMENTAL HEALTH
LOCAL OVERSIGHT PROGRAM (LOP)
For Hazardous Materials Releases
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CA 94502
(510) 567-6700
FAX (510) 337-9335

September 18, 2018

Ms. Shelby Lathrop
Chevron Environmental Management Company
6001 Bollinger Canyon Road, C2092
San Ramon, CA 94583
(Sent via electronic mail to: SLathrop@chevron.com)

FWS Highlands LLC
99 S. Hill Drive
Brisbane, CA 94005

Subject: Third Party Review of Ecologic Risk Assessment & Feasibility Study / Corrective Action Plan Request; Fuel Leak Case No. RO0000284 and Geotracker Global ID T0600100328, Chevron #9-0121; 3026 Lakeshore Avenue, Oakland, CA 94610

Dear Ms. Lathrop:

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case file including the *First Quarter 2018 Groundwater Monitoring and Sampling Report*, dated May 30, 2018, and the *Ecological Risk Assessment Report*, dated July 25, 2018. The reports were submitted on your behalf by Arcadis. Thank you for submitting them.

The referenced ecologic risk assessment conducted an analysis of site and vicinity data generated to date and found no potential risk to ecologic receptors in Lake Merritt, concluded that groundwater does not appear to flow along the onsite storm drain on the south side of the site, and that no further evaluation of ecological risk is required for the site.

ACDEH notes that there is inconsistent data in regards to the likelihood of groundwater flow along the storm drain, including seasonal variations as documented by multiple groundwater monitoring potentiometric maps, which indicate flow towards the storm drain, as well as grab groundwater analytical data that also suggests migration is viable. Conversely, based on data collected downgradient of the site, including potential contribution by an offsite former service station, the data suggests that ecological receptors are adequately protected from residual site contamination that may migrate offsite.

Recent actions at the site and vicinity have focused on the installation of a Vapor Mitigation System (VMS) at 3014 Lakeshore Avenue, and currently requested future work includes associated remedial progress reporting for 3014 Lakeshore Avenue, and indoor air verification sampling for 3014 Lakeshore Avenue, and crawl space and / or indoor air confirmation sampling at 3008 Lakeshore Avenue. Other previously requested work has been delayed to allow a focus on this recent work. The intent of this letter is also to revisit delayed work and provide revised submittal dates. These dates may be further modified in the planned portfolio review meetings planned for the near future.

ACDEH has evaluated the data and recommendations presented in case files to determine if the site is eligible for closure as a low risk site under the LTCP. Based on ACDEH staff review, we have determined that the site fails to meet the LTCP Media-Specific Criteria for Vapor Intrusion to Indoor Air.

Based on ACDEH staff review of the case file we request that you address the following technical comments and send us the reports described below. Some of these comments have previously been provided in other directive letters; however, it appeared reasonable to update them and incorporate them in the current letter.

TECHNICAL COMMENTS

- 1. Request for Third Party Review of Ecologic Risk Assessment** – Thank you for the submittal of the Ecologic Risk Assessment. ACDEH's staff does not include a toxicologist. Therefore, ACDEH requests the submittal of the ecologic risk assessment to a third party reviewer for preparation of a Technical Review to confirm the risk

assessment is adequately comprehensive to clarify the existence of a threat to aquatic biota and aquatic habitat. A list of toxicologists that have been vetted by ACDEH will be supplied for your use under separate cover. Please submit the review findings by the date requested below.

- 2. LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air** – The LTCP describes conditions, including bioattenuation zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

The subject site is vacant and because there currently is no interior space on the subject site, under the LTCP there onsite risk of vapor intrusion. However, review of existing indoor air, subslab, and crawl space data collected at the adjacent site (3014 Lakeshore Avenue), the potential for vapor intrusion of naphthalene vapors is present. Naphthalene vapor concentrations, detected by TO-17 methodology, in all indoor air vapor samples were above, up to nearly twice as high, as outdoor air concentrations. ACDEH notes that the detection limit for naphthalene vapor analysis by TO-15 were higher than indoor air Environmental Screening Levels (ESLs), promulgated by the San Francisco Bay Regional Water Quality Control Board (RWQCB), or were not conducted for crawl space vapor sample locations.

Review of existing onsite analytical soil data indicates sufficient residual soil contamination is located in proximity to the downgradient property line with the adjacent site owned by the Diocese of Oakland. Onsite analytical concentrations up to 1,300 milligrams per kilogram (mg/kg) Total Petroleum Hydrocarbons as gasoline (TPHg) and 920 mg/kg TPH as diesel (TPHd; using Silica Gel Cleanup or SGC analysis) were documented at soil bore B-3 in the 0 to 5 foot depth interval on site. Offsite soil bores installed at 3014 Lakeshore Avenue by Bureau Veritas in August 2009, indicate concentrations of TPHg up to 190 mg/kg and TPHd up to 241 mg/kg at a depth of 4.5 to 5 feet bgs beneath the building.

In conclusion, existing analytical data indicates that the site does not meet the requisite characteristics of one of the four LTCP scenarios, and this resulted in the installation of a VMS at the adjacent site (3014 Lakeshore Avenue). While a VMS has been installed at the adjacent site, remediation of the source has not been undertaken. ACDEH has previously requested the submittal of a Feasibility Study / Corrective Action Plan (FS/CAP), but had temporarily delayed the implementation to focus on the installation of the VMS thereby allowing a property transaction at the adjacent site to proceed in a timely fashion.

- 3. Feasibility Study / Corrective Action Plan (FS/CAP)** – An FS/CAP prepared in accordance with Title 23, California Code of Regulations, Section 2725, appears warranted to remediate soil and groundwater that does not meet the LTCP Vapor Intrusion Criteria and caused the installation of the VMS. The FS/CAP must include a concise background of soil and groundwater investigations and remedial actions performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The FS/CAP should also include, but is not limited to, a detailed description of site lithology, including soil permeability, and most importantly, contamination cleanup levels and cleanup goals, in accordance with LTCP goals, appropriate ESL guidance, or the RWQCB Basin Plan, for all COCs and for the appropriate groundwater designation. Please specify appropriate cleanup levels and cleanup goals in accordance with the LTCP, ESLs, or 23 CCR Section 2725, 2726, and 2727 in the FS/CAP.

As a part of the FS/CAP, please include any Data Gap Investigation Work Plan (see following Technical Comment), for the collection of all necessary additional data which may be required for the FS/CAP. The FS/CAP must evaluate at least three viable alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release(s) besides the 'no action' and 'monitored natural attenuation' remedial alternatives. Each alternative shall be evaluated not only for cost-effectiveness but also its timeframe to reach cleanup levels and cleanup goals, and ultimately the Responsible Party must propose the most cost-effective corrective action. Please submit the FS/CAP by the date identified below, or as further modified in the portfolio meeting currently planned for the near future.

- 4. Data Gap Investigation Work Plan and Focused Site Conceptual Model** – As a part of the FS/CAP, please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support

the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria. For example please clarify which scenario within each Media-Specific Criteria a sampling strategy is intended to apply to.

In order to expedite review, ACDEH requests the focused SCM be presented in a tabular format that highlights the major SCM elements and associated data gaps, which need to be addressed to progress the site to case closure under the LTCP. Please see Attachment A "Site Conceptual Model Requisite Elements". Please sequence activities in the proposed revised data gap investigation scope of work to enable efficient data collection in the fewest mobilizations possible.

5. **Data Support Request: Cross-Sections, Soil Contours, and Tables** - As requested previously, in order to help illuminate site and vicinity conditions, such as the depth of utilities relative to first water in the site vicinity, ACDEH requests inclusion of a minimum of two cross-sections across the site, both parallel and approximately perpendicular to the predominate groundwater flow direction that illustrate residual contamination and source areas. In order to expedite review of the site, please additionally submit tables documenting remaining residual soil contamination and contamination which is documented to have been removed (strikeout but legible, grayed out, or other). In order to document the known extent of soil contamination at the site and vicinity, please include figures illustrating the extent of soil contamination. In order to document the construction and installation elevation of the groundwater monitoring wells, please include a table in future groundwater monitoring reports of the construction details for each well. Please submit the data gap work plan by the date identified below, or as further modified in the portfolio meeting currently planned for the near future.
6. **Groundwater Monitoring Interval** – Please place the subject site on a semi-annual groundwater monitoring interval using the months of March and September of a given year, and consistent with recent past sampling dates. Please continue to include the full set of tabulated analytical results, including full scan volatile organic compounds (VOC) and semi-volatile organic compounds (SVOC) in all future groundwater monitoring reports. Additional analysis for these compounds does not appear warranted. Please submit groundwater monitoring and sampling reports by the dates identified below.

TECHNICAL REPORT REQUEST

Please submit the following technical reports and deliverables to the State Water Board's Geotracker website and notify your case worker by electronic mail (mark.detterman@acgov.org), in accordance with the following specified file naming convention and schedule, as provided below, and in the Responsible Party(ies) Legal Requirements/Obligations which is included as Attachment 1. Please note ACDEH no longer accepts reports on the ftp site.

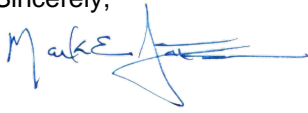
- **October 29, 2018** – Indoor Air and Soil Vapor Monitoring Work Plan
File to be named: RO284_O&M_PLAN_yyyy-mm-dd
- **November 30, 2018** – Feasibility Study / Corrective Action Plan (and Data Gap Work Plan if required)
File to be named: RO284_SWI_R_yyyy-mm-dd
- **November 30, 2018** – Third Quarter 2018 Semi-Annual Groundwater Monitoring Report
File to be named: RO284_GWM_R_yyyy-mm-dd
- **December 14, 2018** – Third Party Technical Review of Ecologic Risk Assessment
File to be named: RO284_CORRES_L_yyyy-mm-dd
- **May 24, 2019** – First Quarter 2018 Semi-Annual Groundwater Monitoring Report
File to be named: RO284_GWM_R_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Ms. Lathrop and FWS Highlands LLC
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If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark E. Detterman", with a stylized flourish at the end.

Mark E. Detterman, PG 4799, CEG 1788
Senior Geologist
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations
Electronic Report Upload (ftp) Instructions

cc: Katherine Szymanowski, ARCADIS, Inc, 2300 Clayton Road, Suite 400, Concord, CA 94520; (Sent via electronic mail to: Katherine.Szymanowski@arcadis.com)

Dilan Roe, ACDEH, (Sent via electronic mail to: dilan.roe@acgov.org)

Paresh Khatri, ACDEH; (Sent via electronic mail to: paresh.khatri@acgov.org)

Mark Detterman, ACDEH, (Sent via electronic mail to: mark.detterman@acgov.org)
Electronic File; GeoTracker

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: December 14, 2017
	ISSUE DATE: July 25, 2012
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

REPORT & DELIVERABLE REQUESTS

Alameda County Department of Environmental Health (ACDEH) Cleanup Oversight Programs, Local Oversight Program (LOP) and Site Cleanup Program (SCP) require submission of all reports in electronic form to the State Water Board's (SWB) GeoTracker website in accordance with California Code of Regulations, Chapter 30, Division 3, Title 23 and Division 3, Title 27.

Leaking Underground Fuel Tank (LUFT) Cases

Reports and deliverable requests are pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party (RP) in conjunction with an unauthorized release from a petroleum underground storage tank (UST) system.

Site Cleanup Program (SCP) Cases

For non-petroleum UST cases, reports and deliverables requests are pursuant to California Health and Safety Code Section 101480.

ELECTRONIC SUBMITTAL OF REPORTS

A complete report submittal includes the PDF report and all associated electronic data files, including but not limited to GEO_MAP, GEO_XY, GEO_Z, GEO_BORE, GEO_WELL, and laboratory analytical data in Electronic Deliverable Format™ (EDF). Additional information on these requirements is available on the State Water Board's website (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

- Do not upload draft reports to GeoTracker
- Rotate each page in the PDF document in the direction that will make it easiest to read on a computer monitor.

GEOTRACKER UPLOAD CERTIFICATION

Each report submittal is to include a GeoTracker Upload Summary Table with GeoTracker valid values¹ as illustrated in the example below to facilitate ACDEH review and verify compliance with GeoTracker requirements.

GeoTracker Upload Table Example

Report Title	Sample Period	PDF Report	GEO_MAPS	Sample ID	Matrix	GEO_Z	GEO_XY	GEO_BORE	GEO_WELL	EDF
2016 Subsurface Investigation Report	2016 S1	✓	✓	Effluent	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
2012 Site Assessment Work Plan	2012	✓	✓			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2010 GW Investigation Report	2008 Q4	✓	✓	SB-10	W	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				SB-10-6	SO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓
				MW-1	WG	✓	✓	✓	✓	✓
				SW-1	W	✓	✓	✓	✓	✓

¹ GeoTracker Survey XYZ, Well Data, and Site Map Guidelines & Restrictions, CA State Water Resources Control Board, April 2005

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: NA
	ISSUE DATE: December 14, 2017
	PREVIOUS REVISIONS: September 17, 2013, May 15, 2014, December 12, 2016
SECTION: ACDEH Procedures	SUBJECT: Responsible Party(ies) Legal Requirements / Obligations

ACKNOWLEDGEMENT STATEMENT

All work plans, technical reports, or technical documents submitted to ACDEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to the State Water Board's GeoTracker website." This letter must be signed by the Responsible Party, or legally authorized representative of the Responsible Party.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6731, 6735, and 7835) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately licensed or certified professional and include the professional registration stamp, signature, and statement of professional certification. Additional information is available on the Board of Professional Engineers, Land Surveyors, and Geologists website at: <http://www.bpelsg.ca.gov/laws/index.shtml>.

UNDERGROUND STORAGE TANK CLEANUP FUND

For LUFT cases, RP's non-compliance with these regulations may result in ineligibility to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse the cost of cleanup. Additional information is available on the internet at: https://www.waterboards.ca.gov/water_issues/programs/ustcf/

AGENCY OVERSIGHT

Significant delays in conducting site assessment/cleanup or report submittals may result in referral of the case to the Regional Water Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.