From:	Soo, Kit, Env. Health
To:	"Carolyn Fong"
Cc:	Peter Sims; Kris Larson; Roe, Dilan, Env. Health; Khatri, Paresh, Env. Health; Hoffmore, Roger@Waterboards
Subject:	RE: RO0382 - Bill Chun Service Station, 2301 Santa Clara, Alameda - September 2, 2016 Meeting Summary and Action Items - Response
Date:	Wednesday, January 04, 2017 1:44:00 PM
Attachments:	Re Claim 7147 RSR.msg

Dear Ms. Fong,

As per the response email, attached, that you had sent Roger Hoffmore of the State Water Resources Control Board (State Water Board), it is our understanding that your consultant Ninyo &Moore is currently preparing a proposal for work as requested in our October 31, 2016 Email Directive that was not anticipated in the current FY2016-2017 budget. I trust you will be submitting a budget change request to the State Water Board as soon as possible. In the meantime, I expect that the requested work is underway. Based on your request for extension below and supporting information from the State Water Board indicating reassurance of reimbursement, a slight extension of dues dates as indicated below is granted, but the requested work is required to be performed as soon as possible and without further delay to be protective of potential receptors onsite and in its vicinity.

- February 4, 2017 – Vapor Intrusion Assessment Work Plan
  File to be named: RO0382 WP_R_yyyy-mm-dd

- February 28, 2017 – Groundwater Monitoring, System Evaluation and Optimization Strategy Report
  File to be named: RO0382 GWM_R_yyy-mm-dd

Please refer to the October 31, 2016 Email Directive for further details to the content of the above deliverables.

If you have any questions, please let me know. Thank you.

Kit Soo, PG
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health (ACDEH)
1131 Harbor Bay Pkwy
Alameda, CA 94502
Direct - 510-567-6791
kit.soo@acgov.org

From: Carolyn Fong [mailto:carolynfong1@sbcglobal.net]
Sent: Wednesday, December 21, 2016 2:15 PM
To: Soo, Kit, Env. Health <Kit.Soo@acgov.org>; Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>
Cc: Peter Sims <psims@ninyoandmoore.com>; Kris Larson <klarson@ninyoandmoore.com>
Subject: Re: RO0382 - Bill Chun Service Station, 2301 Santa Clara, Alameda - September 2, 2016 Meeting Summary and Action Items

Hello Ms. Soo,
I am contacting you about the December due dates of the requested plans in the email below. The consultant is currently gathering data and preparing the 3rd quarter GWM report.
I do not have a budget in this FY/2016-2017 for the System Evaluation and Optimization Strategy Plan or for the Vapor Intrusion Assessment Work Plan.
The USTCF financial analysts have advised me that the consultant should not do work that has not been approved in the FY budget.
I am waiting for the consultant to give me a cost estimate for those two plans in order to submit a budget change request to increase FY16/17 budget to include the costs of gathering information for the two plan preparations and submissions. If I have the dollar amount estimated after the holidays, I will submit a BCR in January, 2017. Based on how long it takes for USTCF staff's BCR review (4-6 months), it is possible I will not know until May or June, 2017 if USTCF approves the budget for the two plans and the cost of work resulting from implementing those plans.

After reading the October 2016 SWRCB Review Summary Report and comparing it to the projected costs for fiscal years on the Project Execution Plan (PEP), I again express my concern to you and ACDEH about going over the site budget since completion/closure on the PEP is anticipated for January 2019. I realize the costs and dates are true only if the remediation goes as planned and scheduled in the PEP. The Trust cannot support costs of site work that exceeds what USTCF allows reimbursable..

What I am requesting of you is a recognition that I cannot meet the December 2016 due dates of the Vapor Intrusion Assessment Work Plan and the System Evaluation and Optimization Strategy Plan and cannot submit those plans to you until after USTCF has approved a BCR increase for the cost of preparation and submission of those plans by the consultant. An extension of due dates is also requested.

Thank you for your attention to my request.

Regards,
Carolyn Fong

Attachment: Case RO0000382 RSR and PEP Cover Page

From: "Soo, Kit, Env. Health" <Kit.Soo@acgov.org>
To: 'Carolyn Fong' <carolynfong1@sbcglobal.net>

Cc: 'Peter Sims' <psims@ninyoandmoore.com>; 'Kris Larson' <klarson@ninyoandmoore.com>; "Roe, Dilan, Env. Health" <Dilan.Roe@acgov.org>; "Khatri, Paresh, Env. Health" <paresh.khatri@acgov.org>
Sent: Monday, October 31, 2016 4:25 PM
Subject: RO0382 - Bill Chun Service Station, 2301 Santa Clara, Alameda - September 2, 2016 Meeting Summary and Action Items

Dear Ms. Fong (Trustee to the Lily A. Chun Trust),

Thank you for attending the meeting on September 2, 2016. Attendees of the meeting included Carolyn Fong (Trustee to the Lily A. Chun Trust), Wayne Chun (Brother of Trustee); Peter Sims (Ninyo & Moore Geotechnical and Environmental Sciences Consultants, Ninyo &Moore); Dilan Roe and Kit Soo (Alameda County Environmental Health, ACDEH). The purpose of the meeting was to discuss the remediation status, groundwater monitoring, and soil vapor and indoor air sampling of adjacent buildings.

ACDEH has reviewed the case file for the above referenced site including the three most recent groundwater monitoring reports: 4th Quarter 2015 Quarterly Groundwater Monitoring Report and System Evaluation Report; 1st Quarter 2016 Quarterly Groundwater Monitoring Report and System Evaluation Report; and 2nd Quarter 2016 Quarterly Groundwater Monitoring Report and System Evaluation Report, dated February 12, 2016, May 4, 2016 and October 7, 2016, respectively, which were prepared by Ninyo & Moore, on your behalf. The reports presents the following: 1) results from groundwater monitoring 2) information on operation of the groundwater remediation system; 3) recommendations regarding continued operation of the remediation system (groundwater recirculation and enhanced bioremediation), and continued evaluation of the oxygen injection rates and injection pressures of the remediation system with the goal of producing positive ORP values and increased DO concentrations in the wells; and 4) recommendations to modify the analyte list for performance monitoring and eliminate certain redundant bioattenuation indicators.

The site is a former gasoline service station. It is our understanding that the site is currently occupied by a small vacant kiosk, canopy and a garage. The site is located in a mostly commercial area with some residences in downtown Alameda, and is bordered by Oak Street to the northwest, a meeting hall and residences to the northeast and east, a retail store to the southeast, and Santa Clara Avenue is located on the southwest. A groundwater recirculation and enhanced remediation system was installed at the site in October/November 2014. The remedial system consists of a network of groundwater extraction wells, injection wells, horizontal injection piping, and the Dissolved Oxygen In-Situ Treatment (DO-IT) system manufactured by ETEC, The DO-IT system is an insitu bioremediation system that supplies dissolved oxygen and proprietary biological amendment nutrients to the groundwater plume to

remediation petroleum hydrocarbons including Total Petroleum Hydrocarbons as gasoline (TPH–gas), benzene, toluene, ethylbenzene and total xylenes (BTEX) and naphthalene. Groundwater is extracted from the within the outer edges of the constituents of concern (COC) impacted plume and injected within the plume source area on site to create a subsurface groundwater remediation cell to achieve a water balance (i.e., extraction rate equals injection rate). The extracted groundwater is supplemented monthly with biological amendments and is continuously supplemented with dissolved oxygen before it is re-injected into the subsurface. Extracted groundwater is treated using granular activated carbon (GAC) stored in vessels with a 500-pound capacity to remove dissolved phase COCs prior to the introduction of biological amendments. Biological amendments consists of biosurfactants and a nutrient mix, designed to maximize microbial growth and activity in the subsurface and enhance desorption of COCs, making them more amenable to biodegradation.

Based on our review of the above-mentioned reports and our discussions during the September 2, 2016 meeting, ACDEH request that you address the technical comments listed below.

TECHNICAL COMMENTS

Performance Monitoring Program

Post-system startup groundwater monitoring consists of groundwater level measurements, collection of groundwater samples for chemical analyses, and measuring groundwater field parameters including pH, temperature, electrical conductivity, oxidation-reduction potential
(ORP), dissolved oxygen (DO), and collection and chemical analyses of system samples. Operation of the recirculation system creates a radial groundwater flow pattern due to injection of surfactant and nutrient in the center of the site and extraction on the perimeter of the site to control plume migration. A network of groundwater monitoring wells surrounds the site to monitor the plume.

- **Modification to Analyte List**. Based on performance monitoring events to date, Ninyo & Moore has requested a modification of the analyte list to eliminate sulfate, manganese, potassium, and phosphate. ACDEH approves the modification to the analyte list based on the following qualifications:
    - o Continued addition of dissolved oxygen to the subsurface currently creates an aerobic environment in the subsurface.
    - o Sulfate and manganese are typically monitored to demonstrate that reducing conditions are significant contributors to bioattenuation in an anaerobic environment. As a result, these analyses are redundant given the aerobic environment that dominates at the site.
    - o Potassium and phosphate are general attenuation nutrients

typically monitored together with other constituents such as iron, nitrate, nitrite, ferric iron, and physical parameters such as ORP, DO, etc. that are being monitored to indicate whether the subsurface conditions are suitable for bioattenuation. Because the bioattenuation of the groundwater plume has already been demonstrated using other parameters, potassium and phosphate are redundant and not required at this time.

- **Plume Migration to the Southeast/East**. Since startup of the remediation system, the concentration of dissolved petroleum hydrocarbons including TPH-gas and BTEX have increased in groundwater collected in perimeter monitoring wells (MW-4R, MW-5R, MW-14 and MW-11R) as a result of the injection of surfactant in the center of the plume. Additionally, although the monitoring wells located further southeast/east (MW-13, MW-15 and MW-16) contain non-detected concentrations, a review of the screened interval indicates that these well are not screened in the same interval as MW-14 and MW-11R, as well as most of the other wells located at the site. The majority of monitoring wells are generally screened from 5 and 20 feet below ground surface (bgs) while MW-13, MW-15 and MW-16 are screened across a deeper interval. Additionally, due to the radial groundwater flow from the site as a result of the injection activities, the plume downgradient of MW-4R and MW-5R is not defined. As a result, the evaluation of the potential expansion of the plume and the adequacy of the perimeter monitoring network (i.e. screened interval, location with respect to extraction and injection wells, etc.) is required.

  Include this evaluation and findings in the next quarterly groundwater monitoring, system evaluation and optimization strategy report mentioned below.

<u>System Evaluation and Optimization Strategy</u>

Due to the expanding plume as discussed above, an evaluation of the remediation is required. The evaluation should include at a minimum, an assessment of the extent of the plume before and after remediation began, evaluation of whether there are enough extraction wells for plume control, assessment of system run and injection rates, and an assessment as to why EW-20 is biofouling. The evaluation should consider discrete sampling at extraction wells to assess effectiveness of system objectives, etc. and make recommendations for system optimization. Include the results and findings of the above evaluations in the next quarterly groundwater monitoring, system evaluation and optimization strategy report mentioned below.

Continue to run the system until the system evaluation and optimization strategy are performed, presented, submitted to and approved by ACDEH. In the meantime, do not increase the regular dosage of surfactant and nutrients that are added to the remediation system on a biweekly basis. It is our

understanding that the current dosage is 5 gallons of biosurfactant and 50 pounds of nutrient mix are added to the mixing tank of the system on a biweekly basis.

Vapor Intrusion Assessment

Due to the expanding plume and increasing concentration of TPH – gas and BTEX in perimeter wells, a vapor intrusion to indoor air assessment must be conducted to verify that occupants in adjacent buildings are not at risk. The assessment must include a survey of foundation types (i.e. basements, crawlspaces, slabs, etc.), other subsurface features such as elevator shafts and underground parking structures, and subsurface utilities within and in the vicinity of the plume boundary which may act as preferential pathways for vapor migration. Please review historical soil vapor sampling data to assess and determine locations for soil vapor, crawlspace and/or sub-slab vapor sampling at 1510 Oak Street (Meeting Hall and Basement), and the property boundary of 2309 Santa Clara Avenue. If warranted, indoor air sampling shall be recommended as well.

Include the findings and rationale for sampling in the Work Plan mentioned below.

Sensitive Survey Receptor

Due to the expanding plume boundary and high concentrations of BTEX in perimeter wells, please review historic sensitive receptor survey data, including wells, surface water bodies, and other sensitive receptors (i.e. schools, daycares, senior facilities, etc.) to assess the adequacy of the data files. As discussed in the meeting, please include the details of the well located at the high school. Incorporate the findings as appropriate, into the Vapor Intrusion Assessment Work Plan and the next groundwater monitoring, system evaluation and optimization strategy report mentioned below (3Q2016).

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACDEH ftp site (Attention: Kit Soo), and to the State Water Resources Control Boards' GeoTracker website according to the following schedule and file-naming convention:

- December 6, 2016 - Vapor Intrusion Assessment Work Plan
  File to be named: WP_R_yyyy-mm-dd RO0382

- December 13, 2016 – Groundwater Monitoring, System Evaluation and Optimization Strategy Report
  File to be named: GWM_R_yyyy-mm-dd RO0382

If you have any questions, please call me at (510) 567-6791 or send me an e-mail at kit.soo@acgov.org. Online case files are available for review at the

following website: http://www.acgov.org.aceh/index/htm.

Kit Soo, PG
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health (ACDEH)
1131 Harbor Bay Pkwy
Alameda, CA 94502
Direct - 510-567-6791
kit.soo@acgov.org

From:	Carolyn Fong
To:	Hoffmore, Roger@Waterboards
Cc:	Soo, Kit, Env. Health
Subject:	Re: Claim 7147 RSR
Date:	Thursday, December 29, 2016 10:17:42 AM

Hello Mr. Hoffmore,
Thank you for the communication and for discussing the project with the case manager. Your response is very helpful and reassuring to me that the remediation is moving ahead with the agencies in agreement.
To follow USTCF guidelines, I will submit a BCR. I have forwarded your email to the project geologist at Ninyo & Moore so he will have a better idea of what to estimate as an additional cost.
With great appreciation and best regards,
Carolyn C. Fong, TTEE
Site: 2301 Santa Clara Ave, Alameda, CA

Sent from Yahoo Mail for iPhone

On Wednesday, December 28, 2016, 11:55 AM, Hoffmore, Roger@Waterboards <Roger.Hoffmore@waterboards.ca.gov> wrote:

> Hi Carolyn,
> I have discussed this case with the lead agency (Alameda County) caseworker, Kit Soo. The lead agency and the Fund are on the same page about the planned work at the site. The only additional work requested since the last Budget Change Request approval was the request for: 1) an evaluation of the remedial system effectiveness and operation, and 2) a work plan for soil vapor sampling. So in regards to item #1 and #2:
>
> 1) Both the lead agency and Fund staff expect that the evaluation can be done as part of the ongoing "System Evaluation" work that is reported on a quarterly basis. The evaluation and reporting will take perhaps several person-days to accomplish thoroughly and correctly, but such work would be included in the next quarterly "Groundwater Monitoring and System Evaluation Report". Current reporting is routine and is most likely reimbursed at a lowered rate that takes that into account. The reimbursement for this more thorough evaluation would be at a rate more consistent with evaluation of a new system. No separate document is necessary and no additional budget will be set-aside.
> 2) Both the lead agency and Fund staff expect that the work plan for soil vapor sampling will be a simple matter – maybe 3 pages of text long. Reasonable labor to produce such a work plan will be reimbursed. Please understand that, as a matter of policy, reimbursement requests (RRs) are reviewed by Fund staff to evaluate whether costs were reasonable and necessary, regardless of whether a budget change request (BCR) is in place or not. Normally it is strongly recommended that a BCR be produced prior to work performance to aid in communication and to increase the chance that sufficient budget will be set aside in the current fiscal year (speeding reimbursement – sometimes very significantly). But in this case we've already had the communication between myself and the case worker regarding the agreed scopes of work and the speed of reimbursement will not be affected this fiscal year due to our overall funding situation. By all means you may prepare a BCR and we would endeavor to process it in an expedited manner, but it is not generally something that allows necessary work directed by the lead agency to be delayed.

I concur, by the way, with Ben that the PEP is preliminary – and that the lead agency can provide further guidance, as necessary (especially since they and the Fund staff are in agreement).
I hope this email is helpful. Please feel free to email or call me with any questions.
Thanks,
Roger

Roger Hoffmore, PG
Senior Engineering Geologist
State Water Resources Control Board, DFA
916-341-5766
Roger.Hoffmore@waterboards.ca.gov

NOTE: For general status questions about reimbursement requests, budgets or budget change requests, or general program information, please refer to the Fund's website at: www.waterboards.ca.gov/water_issues/programs/ustcf If you cannot find the information you are seeking, please email your detailed question to: ustcleanupfund@waterboards.ca.gov

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From: Heningburg, Benjamin@Waterboards
Sent: Thursday, December 22, 2016 1:14 PM
To: carolynfong1@sbcglobal.net
Cc: Lookingbill, Scott@Waterboards; Khatri, Paresh, Env. Health; dilan.roe@acgov.org; Cullen, Pat@Waterboards
Subject: RE: Claim 7147 RSR

Hi Carolyn,
The work plan request dated 10/31/16 and linked below appears to be consistent with the attached RSR. The project execution plan (PEP) submitted by your consultant has not been vetted jointly by you, lead agency, State Board staff, and consultant. Therefore, the scopes of work proposed in the draft PEP are considered "preliminary".

Please contact your lead agency for further guidance.

https://geotracker.waterboards.ca.gov/regulators/deliverable_documents/9563261270/RO0382DIR_L_2016-10-31.pdf

Ben I. Heningburg, PG
Chief, Technical Section I
State Water Resources Control Board, Division of Financial Assistance
http://www.waterboards.ca.gov/water_issues/programs/ustcf/howtocontactus.shtml
801 K Street, 8th floor
Sacramento, CA 95814
Office 916-449-5605
Cell 916-539-1985

From: Carolyn Fong [mailto:carolynfong1@sbcglobal.net]
Sent: Thursday, December 22, 2016 11:38 AM
To: Lookingbill, Scott@Waterboards

Subject: Claim 7147 RSR

Hello Mr. Lookingbill,
Thank you for taking my call on Dec. 21st about my concern regarding claim 7147 being close to maximum budget and ACDEH directives to prepare two plans which are not in the PEP: Vapor Intrusion Assessment Plan and System Evaluation and Optimization Plan.
I will take your guidance and first communicate with the case manager, K. Soo about the RSR
and with the consultant to determine how much the site project budget will increase due to the plans and the work involved from ACDEH's latest directive.
Regards,
Carolyn Fong, Trustee
Claim 7147