

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



sent
03-15-06

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

March 15, 2006

Mr. Neal Fujita
East Bay Regional Park District
2950 Peralta Oaks Ct.
Oakland, CA 94605

Subject: Fuel Leak Case No. RO0000246, Redwood Regional Park, 7867 Redwood Road, Oakland, CA

Dear Mr. Fujita:

Alameda County Environmental Health (ACEH) has reviewed the case file for the above-referenced site and the document entitled "Bioventing System Installation and Startup Report," dated February 21, 2006. The report discusses the installation and startup of a bioventing system at the site. Due to high water levels and/or filter pack saturation, the bioventing system currently has limited effectiveness since air injection is minimally occurring only at VW-1. The report concludes that air injection rates and response at the vapor monitoring reports should improve when water levels fall. The report recommends continued monthly operation and maintenance of the bioventing system, and conducting an in-situ respiration (ISR) test. We request that you address the technical comments below, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

- 1. Monthly Operation and Maintenance of Bioventing System.** ACEH concurs with the conducting monthly operation and maintenance of the bioventing system, including air flow optimization when water level changes or air injection rates warrant. The results of the monthly operation and maintenance are to be presented in the quarterly and annual reports requested below.
- 2. Conducting an ISR Test.** An ISR test, including estimates of air permeability and radius of influence, is to be conducted when water levels drop sufficiently to evaluate the effectiveness of the system. Please present the results of the ISR test in the Quarterly Monitoring Report and Bioventing Status Report for the Second or Third Quarter requested below, depending upon when the ISR test is conducted.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Jerry Wickham), according to the following schedule:

- **May 15, 2006** – Quarterly Monitoring Report and Bioventing Status Report for First Quarter 2006
- **August 15, 2006** – Quarterly Monitoring Report and Bioventing Status Report for Second Quarter 2006
- **November 15, 2006** – Quarterly Monitoring Report and Bioventing Status Report for Third Quarter 2006
- **February 15, 2007** – Annual Summary Report

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.

ELECTRONIC SUBMITTAL OF REPORTS

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.

Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

In order to facilitate electronic correspondence, we request that you provide up to date electronic mail addresses for all responsible and interested parties. Please provide current electronic mail addresses and notify us of future changes to electronic mail addresses by sending an electronic mail message to me at jerry.wickham@acgov.org.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover

Mr. Neal Fujita
March 15, 2006
Page 3

letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) 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 registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

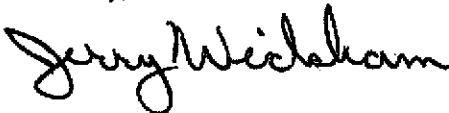
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional 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.

If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Bruce Rucker
Stellar Environmental Solutions, Inc.
2198 Sixth Street, Suite 201
Berkeley, CA 94710

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

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

June 24, 2005

Mr. Neil Fujita
East Bay Regional Park District
2950 Peralta Oaks Ct.
Oakland, CA 94605

Subject: Fuel Leak Case No. RO0000246, Redwood Regional Park, 7867 Redwood Road, Oakland, CA

Dear Mr. Fujita:

In correspondence dated May 25, 2005, Alameda County Environmental Health (ACEH) staff provided technical comments on the proposed full-scale bioventing design for the above referenced fuel leak site. Those technical comments requested an additional vent well and vapor monitoring point within the area of the former USTs and an additional vent well and vapor monitoring point north of well MW-4. Based on our discussions on June 17, 2005, it appears that implementation of the requested two additional vent wells and monitoring points would result in a delay to the project. In order to proceed with remediation, ACEH agrees that the proposed full-scale bioventing system design consisting of three bioventing wells and three vapor monitoring points (as outlined in the October 2004 "Bioventing Pilot Test Results Report") should be implemented as an interim remedial measure. The performance of the system is to be reviewed as data become available and the system is to be augmented in the future with additional vent wells and vapor monitoring points as necessary. The remaining comments and requirements provided in the ACEH May 25, 2005 correspondence still apply.

If you have any questions, please call me at (510) 567-6791.

Sincerely,

Jerry Wickham, P.G.
Hazardous Materials Specialist

cc: Mr. Bruce Rucker
Stellar Environmental Solutions, Inc.
2198 Sixth Street, Suite 201
Berkeley, CA 94710

Mr. Carl Wilcox
California Department of Fish and Game
P.O. Box 47
Yountville, CA 94500

Donna Drogos
Jerry Wickham
File

- **September 30, 2005** - Quarterly Report for the Third Quarter 2005
- **December 30, 2005** - Quarterly Report for the Fourth Quarter 2005

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.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) 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 registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

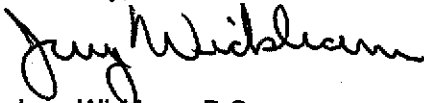
AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional 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.

Ms. Farah Naz
June 24, 2005
Page 3

If you have any questions, please call me at (510) 567-6791.

Sincerely,

A handwritten signature in black ink that reads "Jerry Wickham". The signature is written in a cursive style with a large, prominent "J" and "W".

Jerry Wickham, P.G.
Hazardous Materials Specialist

cc: James Ho
Clearwater Group
229 Tewksbury Avenue
Point Richmond, CA 94801

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SCUT
5-26-05

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

May 25, 2005

Mr. Neil Fujita
East Bay Regional Park District
2950 Peralta Oaks Ct.
Oakland, CA 94605

Subject: Fuel Leak Case No. RO0000246, Redwood Regional Park, 7867 Redwood Road, Oakland, CA

Dear Mr. Fujita:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the subject site and the report entitled, "Bioventing Pilot Test Results Report," dated October, 2004, prepared for the East Bay Regional Park District by Stellar Environmental Solutions, Inc. The report presented the results of a bioventing pilot test conducted in September and October 2004. The bioventing pilot test included the installation of one vent well and three vapor monitoring points, laboratory analysis of soil and vapor samples, an oxygen influence/soil permeability test, and a respiration test. The report recommended the installation and operation of a full-scale bioventing system and presented plans for the installation of the full-scale bioventing system. ACEH concurs with the installation and operation of a full-scale bioventing system but requests that the system be expanded to address residual contamination throughout the site.

ACEH concurs with implementation of the full-scale bioventing system to reduce the mass of residual petroleum hydrocarbons in the area of the former underground storage tanks (UST) and the zone of water table fluctuation in the area downgradient from the former USTs. However, the semi-confined conditions encountered at the site may limit the potential to provide air flow to some zones of residual contamination. Therefore, the implementation of an additional technology may be necessary if bioventing is not effective in reducing TPH concentrations in groundwater within the central portion of the plume.

Based on ACEH staff review of the documents referenced above, we request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please submit a revised Figure 9 (Propose Full-scale Bioventing System Design) for approval prior to initiating installation of the full-scale system. Please provide 72-hour advance notification to ACEH prior to initiating field activities.

TECHNICAL COMMENTS

1. **Additional Vent Well within Area of Former USTs.** The report currently proposes one additional vent well (VW-2) on the east site of Redwood Road and one additional vent well (VW-3) at the edge of the creek bank. No vent wells are proposed within the area of the former UST excavation. The design radius of influence does not cover the inferred area of residual soil contamination. More significantly, the inferred area of residual contamination shown on Figure 9 likely underestimates the extent of soil contamination in the area of the

former USTs. The former USTs were located within the northern portion of the excavated area. A confirmation soil sample (E3-16) collected from the bottom of the excavation detected 12,000 mg/kg of TPH as gasoline in soil. Although soil samples collected beneath the diesel UST contained concentrations of less than 4 mg/kg of TPH as diesel, up to 270,000 micrograms per liter ($\mu\text{g/L}$) of TPH as diesel has been detected in a groundwater sample collected near Redwood Creek (HP-02). Based on this evidence of a significant release of TPH as diesel, it is highly likely that significant residual TPH remains in the soil beneath the former diesel UST. Therefore, the bioventing system needs to be expanded to treat the soil beneath the former UST excavation backfill. Therefore, ACEH requests that an additional vent well (VW-5) be located within area of the former UST excavation to address residual soil contamination beneath the area of the former gasoline and diesel UST. We recommend that the vent well be located north of proposed VMP-4. The vent well should be screened to provide air flow to soil between the base of the former excavation and the lower extent of groundwater fluctuation. An additional vapor monitoring point (VMP-5) is to be installed north of additional vapor well VW-5 to monitor the effects of VW-5. Please present results from the system installation and start-up in the report requested below.

2. **Additional Vent Well Northeast of Well MW-4.** ACEH requests that an additional vent well (VW-6) be placed northeast of well MW-4 and that an additional vapor monitoring point (VMP-6) be added north of additional vent well VW-6. The purpose of the additional vent well is to address residual contamination north of well MW-4. TPH as diesel and TPH as gasoline were detected in groundwater grab samples collected in April 1999 in the area north of well MW-4. The extent of groundwater concentrations exceeding 10,000 $\mu\text{g/L}$ of TPH in the 1999 groundwater samples extended beyond the area that was treated with ORC injections in 2002. Therefore, residual soil contamination extends beyond the area of inferred residual soil contamination shown on Figure 9.
3. **Monitoring Well MW-4.** ACEH requests that a monitoring well be installed to replace well MW-4. Based on the response of well MW-4 to purging, the ability of groundwater to enter the well has deteriorated over time. The monitoring well currently dewateres during purging and is slow to recover. After the well was installed in 1995, the water level in well MW-4 drew down approximately 2 feet after purging of 24 gallons. During the most recent sampling event in March 2005, well MW-4 drew down approximately 12 feet and dewatered after purging of 10 gallons. The concentrations of TPH in groundwater detected in samples from monitoring well MW-4 have been used to infer that the extent of the plume does not extend north beyond well MW-4. Installation of a new well is requested to confirm that groundwater concentrations have decreased in this portion of the plume and to monitor groundwater concentrations during quarterly sampling events in the future. The bottom of the monitoring well shall be placed at the top of bedrock and the screen zone shall be no longer than 15 feet.

We request that soil and depth-discrete groundwater samples be collected prior to or during well installation. Soil samples should be collected from any zone where stained soil or elevated photoionization detector readings are observed. If stained soil or elevated photoionization detector readings are not observed, a minimum of two soil samples are to be collected within the expected zone of water table fluctuation. Groundwater samples shall be collected at a minimum at the depth where groundwater is first encountered and at the top of bedrock. Groundwater samples are also to be collected from any saturated zone where stained soil or odor is observed. The groundwater grab samples are to be collected using a

groundwater sampling device capable of collecting a depth discrete groundwater sample from a screened interval of no more than 2 feet. Soil and groundwater samples are to be analyzed for TPH as gasoline, TPH as diesel, methyl tert-butyl ether, benzene, toluene, ethylbenzene, and xylenes. Please present the results from the soil and groundwater sampling in the System and Installation Start-up Report requested below.

4. **Proposed Location of Vent Well VW-3.** We generally concur with the proposed location of vent well VW-3 within the central portion of the plume but request that the well be moved to a location approximately 7 feet southeast of well MW-7 to minimize potential air flow interference caused by well MW-7.
5. **Groundwater and Surface Water Monitoring.** Quarterly groundwater and surface water monitoring is to be continued. Please present the results from the quarterly groundwater monitoring in the reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Jerry Wickham), according to the following schedule:

- **July 15, 2005** – Quarterly Report for the Second Quarter 2005
- **October 17, 2005** - Quarterly Report for the Third Quarter 2005
- **October 28, 2005** – System Installation and Start-Up Report (to include results from soil and groundwater sampling for well MW-4)
- **January 17, 2006** - Quarterly Report for the Fourth Quarter 2005 (to include system measurements and summary of system operations and maintenance)

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.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

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UNDERGROUND STORAGE TANK CLEANUP FUND

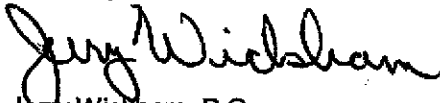
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AGENCY OVERSIGHT

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If you have any questions, please call me at (510) 567-6791.

Sincerely,



Jerry Wickham, P.G.
Hazardous Materials Specialist

cc: Mr. Bruce Rucker
Stellar Environmental Solutions, Inc.
2198 Sixth Street, Suite 201
Berkeley, CA 94710

Mr. Carl Wilcox
California Department of Fish and Game
P.O. Box 47
Yountville, CA 94500

Donna Drogos
File

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

April 22, 2004

RO 246

Mr. Neal Fujita
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

RE: Redwood Regional Park, 7867 Redwood Road, Oakland – Bioventing Feasibility Study
and Pilot Test

Dear Mr. Fujita:

We are in receipt and have completed review of the February 6, 2004 Stellar Environmental Solutions (Stellar) bioventing (BV) feasibility study and proposal for conducting a BV pilot test at the subject facility. The pilot test proposal was later augmented with a map showing the locations of a test well and vapor monitoring points submitted as an attachment to an e-mail from Stellar's Michael Phelps following our April 13th meeting.

The proposed Stellar BV pilot test, with addendum, has been accepted as submitted.

Please call me at (510) 567-6783 should you have any questions and to inform me when fieldwork will begin.

Sincerely,

Scott O. Seery, R.G., CHMM
Hazardous Materials Specialist

c: Roger Brewer, RWQCB
Dave Charter, SWRCB UST Fund
Leroy Griffin, Oakland Fire Department
Bruce Rucker, Stellar Environmental Solutions, 2198 6th St., Berkeley, CA 94710
D.Drogos

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



01-09-01
R0246

January 8, 2001

STID 4145

Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

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

RE: Redwood Regional Park, 7867 Redwood Road, Oakland – Site Feasibility Study

Dear Mr. Burger:

We are in receipt and have completed review of the October 2000 Stellar Environmental Solutions (Stellar) document entitled “*Site Feasibility Study Report*” that presents Stellar’s evaluation of various corrective action alternatives based on technical feasibility, cost-benefit, and remediation goals, among other criteria considered. Based on Stellar’s feasibility study (FS), the use of in-situ oxygen-releasing compounds, or ORC™, is proposed as the most cost-effective and viable alternative considered to achieve project objectives.

The use of in-situ ORC™ injection, as specified in the cited Stellar FS report, has been accepted with concurrence from Mr. Roger Brewer, Regional Water Quality Control Board (RWQCB), with the following clarifications and stipulations:

- 1) ORC™ injection points shall completely penetrate the saturated zone to underlying bedrock
- 2) Reports shall also reference the applicable surface water screening levels (e.g., TPH) derived from the recently published California Toxics Rule (CTR, May 2000 Federal Register), as well as USEPA Ecotox criteria, when evaluating appropriate target clean-up standards. (Note: These data have been conveniently tabulated in the Interim-Final August 2000 RWQCB Risk-Based Screening Levels document.)

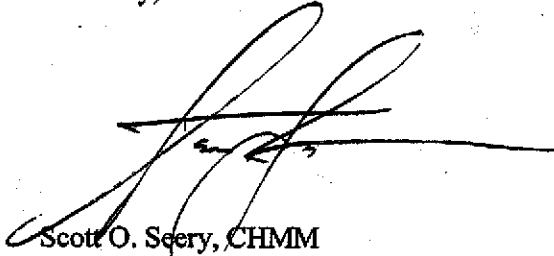
In addition, reference is made to the August 22, 2000 correspondence from this office in which you were requested to reinstate a quarterly schedule of well sampling, monitoring, and reporting. We understand that this request has not been strictly honored. Please be advised that Section 2652(d), Title 23, California Code of Regulations, among other relevant provisions, requires that technical reports of the sort we have requested are to be submitted *every 3 months or more frequently as specified by the agency.*

You are respectfully directed to immediately reinstate the requested schedule of quarterly sampling, monitoring, and reporting. This schedule shall continue until further notice.

Mr. Burger
Re: Redwood Regional Park, 7867 Redwood Rd., Oakland
January 8, 2001
Page 2 of 2

Please call me at (510) 567-6783 should you have any questions and to inform me when field work will begin.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott O. Seery', with a long horizontal flourish extending to the right.

Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Ariu Levi, Chief, Environmental Protection, ACDEH
Tom Peacock, ACDEH
Leroy Griffin, Oakland Fire Dept.
Roger Brewer, RWQCB
Mike Rugg, CA Dept. of Fish and Game, P.O. Box 47, Yountville, CA 94599
Bruce Rucker, Stellar Environmental Solutions, 2110 Sixth St., Berkeley, CA 94710

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



11-3-00

20246

November 1, 2000

STID 4145

Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

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

RE: Redwood Regional Park, 7867 Redwood Road, Oakland – Workplan for Installation of Additional Monitoring Wells

Dear Mr. Burger:

We are in receipt and have completed review of the October 19, 2000 Stellar Environmental Solutions (Stellar) workplan for the installation of two additional monitoring wells at the subject site. The Stellar plan was submitted in response to the August 22, 2000 correspondence from this office that requested a well installation workplan. The locations of the wells proposed by Stellar essentially reflect the conceptual locations we discussed during our August 9, 2000 meeting.

The cited Stellar workplan has been accepted as submitted.

Please call me at (510) 567-6783 should you have any questions and to inform me when field work will begin.

Sincerely,



Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Ariu Levi, Chief, Environmental Protection, ACDEH

Tom Peacock, ACDEH

Leroy Griffin, Oakland Fire Dept.

Roger Brewer, RWQCB

Mike Rugg, CA Dept. of Fish and Game, P.O. Box 47, Yountville, CA 94599

Bruce Rucker, Stellar Environmental Solutions, 2110 Sixth St., Berkeley, CA 94710

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SENT 8-23-2000

RO# 246

August 22, 2000

STID 4145

Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

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

RE: Redwood Regional Park, 7867 Redwood Road, Oakland – Request for Corrective Action Plan Feasibility Study and completion of other related tasks

Dear Mr. Burger:

This letter is sent in the wake of the August 9, 2000 meeting during which we discussed, among other closely related topics, potential elements of a future Corrective Action Plan (CAP) for this project. Attending this meeting with us were Mike Rugg, California Department of Fish and Game (DFG), Roger Brewer, California Regional Water Quality Control Board (RWQCB), Dee Rosario, Redwood Park Supervisor, Renee Crowley, Park Unit Manager, and Bruce Rucker, Stellar Environmental Solutions (Stellar), the park district's environmental consultant on this project.

The salient issues and tasks that arose from our meeting include:

- Reevaluate potential impacts to aquatic organisms during periods of low creek flow from discharge of petroleum-impacted groundwater
- Perform a CAP Feasibility Study, pursuant to Title 23, California Code of Regulations (CCR) Sec. 2725(f), to evaluate various corrective action alternatives for remediating or mitigating the actual or potential adverse effects of the release
- Install additional groundwater monitoring wells
- Evaluate eligibility in the State Underground Storage Tank (UST) Cleanup Fund

As you know, field observations indicate the hydrocarbon plume is currently discharging to the creek via groundwater seeps along a front that appears to be up to ~150 feet long. Concentrations of petroleum-related chemicals in groundwater collected from sample points immediately upgradient of Redwood Creek exceed potential RWQCB screening levels for the protection of aquatic organisms (e.g., TPH-gas: 249 - 3700 ug/l, TPH-diesel: 640 ug/l). The highest reported groundwater concentrations (270,000 ug/l TPH-diesel) suggest immiscible phase product is present within 20 feet of the creek bank.

Mr. Burger

Re: Redwood Regional Park, 7867 Redwood Rd., Oakland

August 22, 2000

Page 2 of 2

The recent assessment of Redwood Creek by DFG's Aquatic Bioassessment Laboratory (ABL) would suggest that there are no adverse impacts to the considered riffle macroinvertebrate communities from this hydrocarbon discharge. Concern was raised, however, over potential long-term impacts to aquatic organisms during periods of low stream flow when, during drier months, it appears the creek is fed in large part by groundwater seeps. The ABL study did not conduct its evaluation during such low flow periods. This issue will figure prominently when evaluating the necessity, feasibility and cost-effectiveness of various corrective action alternatives for this project.

The RWQCB also requested the installation of two (2) additional monitoring wells: one located in the perceived "hot" zone of the plume (near HP-02), and another midway between that (pending) well and the former UST pit. Both wells will aid in evaluating long-term impacts to Redwood Creek and the effectiveness of any corrective action employed.

Finally, many of the past and future corrective action costs may be reimbursable through the State UST Cleanup Fund. As funding for this project is a significant concern, the park district is encouraged to explore this funding mechanism. You may contact the State Water Resources Control Board UST Cleanup Fund by calling (916) 227-4307 for more information.

At this time, please submit, within 60 days, a Feasibility Study that embraces the issues raised during the August 9th meeting, as briefly summarized in this letter. This Feasibility Study should also include a workplan for the installation of additional monitoring wells.

In addition, you are also requested to reinstate well sampling, monitoring, and reporting on a quarterly basis. This requirement is pursuant to 23 CCR Sec. 26529(d). Please initiate this work during the current (3rd) quarter of this year and continue until advised otherwise.

Please call me at (510) 567-6783 should you have any questions.

Sincerely,



Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Ariu/Levi, Chief, Environmental Protection, ACDEH

Tom Peacock, ACDEH

Leroy Griffin, Oakland Fire Dept.

Roger Brewer, RWQCB

Mike Rugg, CA Dept. of Fish and Game, P.O. Box 47, Yountville, CA 94599

Bruce Rucker, Stellar Environmental Solutions, 2110 Sixth St., Berkeley, CA 94710

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SENT including CO'S
10-29-99

P0246

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

October 29, 1999

STID 4145

Mr. Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

RE: Redwood Regional Park, 7867 Redwood Road, Oakland

Dear Mr. Burger:

Thank you for our receipt of the June 1999 Stellar Environmental Solutions (Stellar) report entitled "*Residual Contamination Investigation and Remedial Action Assessment Report*". The Stellar report documents recent environmental assessment work conducted at the subject site. This report also incorporates a May 1999 biological and physical/habitat assessment of sections of Redwood Creek performed by the California Department of Fish and Game (DFG), Office of Spill Prevention and Response (OSPR), Water Pollution Control Laboratory (WPCL).

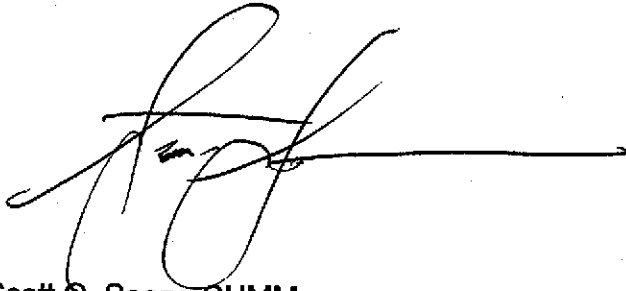
The WPCL recommends that a follow-up assessment of Redwood Creek be performed once stream flow begins again with the onset of the rainy season. I understand that this work is anticipated to occur in November or the first part of December. Stellar informs that WPCL's follow-up assessment report, in addition to the quarterly surface water and monitoring well sampling data, will be bundled together in a subsequent report that they anticipate will be completed in December 1999.

I request that, once Stellar distributes the much-anticipated report, all parties meet in early January 2000 to discuss the results of this comprehensive assessment effort, and to determine and scope an appropriate corrective action plan for this case.

October 29, 1999

Please also call me at (510) 567-6783 should you have any questions or if I may be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott O. Seery', with a long horizontal line extending to the right.

Scott O. Seery, CHMM
Hazardous Materials Specialist

Cc: Ariu Levi, Chief, Environmental Protection
Chuck Headlee, RWQCB

Michael Rugg, Department of Fish and Game
P.O. Box 47, Yountville, CA 94599

Leroy Griffin, Oakland Fire Department

Bruce Rucker, Stellar Environmental Solutions
2198 Sixth Street, Berkeley, CA 94710

SENT including CDs
10-29-99

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

20246

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

October 29, 1999

STID 4145

Mr. Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

RE: Redwood Regional Park, 7867 Redwood Road, Oakland

Dear Mr. Burger:

Thank you for our receipt of the June 1999 Stellar Environmental Solutions (Stellar) report entitled "*Residual Contamination Investigation and Remedial Action Assessment Report*". The Stellar report documents recent environmental assessment work conducted at the subject site. This report also incorporates a May 1999 biological and physical/habitat assessment of sections of Redwood Creek performed by the California Department of Fish and Game (DFG), Office of Spill Prevention and Response (OSPR), Water Pollution Control Laboratory (WPCL).

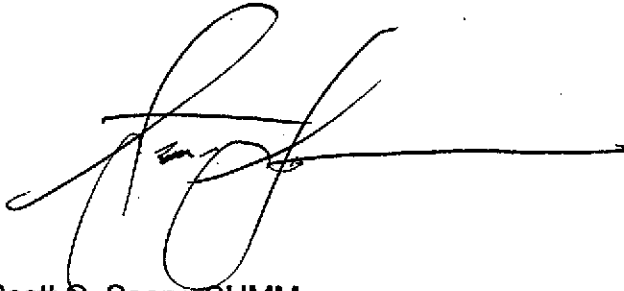
The WPCL recommends that a follow-up assessment of Redwood Creek be performed once stream flow begins again with the onset of the rainy season. I understand that this work is anticipated to occur in November or the first part of December. Stellar informs that WPCL's follow-up assessment report, in addition to the quarterly surface water and monitoring well sampling data, will be bundled together in a subsequent report that they anticipate will be completed in December 1999.

I request that, once Stellar distributes the much-anticipated report, all parties meet in early January 2000 to discuss the results of this comprehensive assessment effort, and to determine and scope an appropriate corrective action plan for this case.

October 29, 1999

Please also call me at (510) 567-6783 should you have any questions or if I may be of any assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott O. Seery', with a long horizontal line extending to the right.

Scott O. Seery, CHMM
Hazardous Materials Specialist

✓ Cc: Ariu Levi, Chief, Environmental Protection
Chuck Headlee, RWQCB

Michael Rugg, Department of Fish and Game
P.O. Box 47, Yountville, CA 94599

Leroy Griffin, Oakland Fire Department

Bruce Rucker, Stellar Environmental Solutions
2198 Sixth Street, Berkeley, CA 94710

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RO# 246

February 26, 1999

STID 4145

Mr. Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

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

RE: Redwood Regional Park, 7867 Redwood Road, Oakland

Dear Mr. Burger:

Thank you for our receipt of the following Stellar Environmental Solutions ("Stellar") documents:

- December 1998 – *Site Investigation and Site Closure Assessment Report*
- October 1998 – *Workplan for Continued Site Investigation and Site Closure Assessment*

Recommendations incorporated into Section 6.0 of Stellar's December 1998 report present a road map for the continued assessment of the subject site in order to determine what, if any, impact there may be to Redwood Creek and associated biota. Of these recommendations, a determination of plume geometry and concentration gradient, both perpendicular to and along the plume axis, is recommended to contemplate fully the magnitude and timing of potential impacts to Redwood Creek. Stellar also recognizes that, in such cases, the California Department of Fish and Game (DFG) requires an in-stream bioassessment be performed in conformance with DFG's established bioassessment procedure. I understand that the initial in-stream bioassessment is planned for Spring 1999, and that a follow-up assessment is scheduled for Fall 1999.

This office concurs in full with Stellar's recommendations.

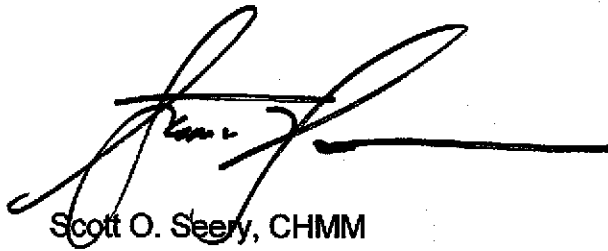
Please have your consultant submit a brief work plan for the pending phase of the plume definition investigation. This brief work plan need only present a map showing proposed hydropunch locations and Stellar's standard operating procedures (SOP) for such assessments. I have already discussed the scope of this pending investigation with Stellar's Mr. Bruce Rucker.

This brief work plan is due within 30 days of the date of this letter.

February 26, 1999

Please call me at (510) 567-6783 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott O. Seery", with a long horizontal line extending to the right.

Scott O. Seery, CHMM

Hazardous Materials Specialist

Cc: Chuck Headlee, RWQCB

Michael Rugg, Department of Fish and Game

P.O. Box 47, Yountville, CA 94599

Leroy Griffin, Oakland Fire Department

Bruce Rucker, Stellar Environmental Solutions

2110 Sixth St., Berkeley, CA 94710

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



R0#246

July 1, 1998

ENVIRONMENTAL HEALTH SERVICES

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

STID 4145

Mr. Kenneth Burger
East Bay Regional Park District
P.O. Box 5381
Oakland, CA 94605-0381

RE: Redwood Regional Park, 7867 Redwood Road, Oakland

Dear Mr. Burger:

Thank you for meeting today with me and Mr. Michael Rugg of the California Department of Fish and Game to discuss and evaluate the unique issues associated with the underground storage tank (UST) release investigation at the subject site. Preventing plume discharge into Redwood Creek appears to be the primary goal for this site. The use of oxygen releasing compounds (ORC) in a screen of wells arranged across the axis of the plume was presented as one means to prevent this discharge. Other methods may be possible, as well. In addition, various approaches to and frequencies for monitoring groundwater and creek impact were discussed.

We agreed that you would further discuss these issues with Mr. Rugg. This information would in turn be relayed to your consultant, and a work plan produced. The work plan is to present: 1) a plan for the protection of Redwood Creek which is acceptable to both EBRPD and the Department of Fish and Game; 2) a proposal for an additional monitoring well or wells nearer the toe of the plume, if deemed prudent by your two agencies; and, 3) a proposal for sampling schedule revisions if such appear reasonable.

Please submit this work plan within 60 days. Please also call me at (510) 567-6783 should you have any questions or if I may be of any assistance.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

Cc: Mee Ling Tung, Director, Environmental Health
Chuck Headlee, RWQCB

Michael Rugg, Department of Fish and Game
P.O. Box 47, Yountville, CA 94599
Leroy Griffin, Oakland Fire Department

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RO# 246

16 September, 1997

STID 4145

re: 7867 Redwood Ave., Oakland, CA 94619

Ken Berger
East Bay Regional Park District
2950 Peralta Oaks Ct.
Oakland, CA 94605

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

Dear Ken Berger:

This office has received and reviewed Quarterly progress Reports dated 6 Jun 96, 24 Sep 96, 31 Jan 97, April 97, and 30 Jun 97, all by Parsons Engineering Science, Inc. for the above site. The following comments concern these reports:

1. There are no conclusions or recommendations in these reports, only analytical data.
2. It seems that the greatest concentration of contaminants are around MW-4, which has Redwood Creek downgradient from it and between it and MW-6. Contamination has only occasional been found in the creek. Have you thought of using ORC (oxygen releasing compound) in the wells MW-2 and MW-4?
3. It is not necessary to purge wells prior to sampling. Several studies have found no benefit in this practice and significant cost.
4. It seems that the highest levels of contamination always occur during February, the month with the highest rainfall.

This case will be transferred to Pam Evans of this office. You may contact her at (510) 567-6700 if you have any questions regarding this letter.

16 September, 1997
East Bay Regional Park District
STID 4145
Page 2 of 2

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas Peacock". The signature is written in dark ink and is positioned above the printed name.

Thomas Peacock, Manager

c: Bruce Rucker, Parsons Engineering Science, Inc., 2101
Webster St., Suite 700, Oakland, CA 94612
Gordon Coleman - Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RO#246

ARNOLD PERKINS, DIRECTOR
RAFAT A. SHAHID, DEPUTY DIRECTOR

January 9, 1996

Mr. Ken Burger
Regional Parks
2950 Peralta oaks Court
P.O Box 5381
Oakland, CA -94605


Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX (510)337-9335

Ref: Redwood Regional Park Service Yard, Oakland, CA

Dear Mr. Burger:

I am in receipt of the quarterly monitoring reports for the past 4 quarters, and your letter dated December 19, 1995 for the above referenced address. This Department concurs with your proposal to discontinue groundwater sampling for monitoring wells, MW-1, MW-2 and MW-6 and continue the ground water monitoring at a quarterly intervals for the remaining wells on site. At the present time, surface sampling of the creek should be conducted atleast every 6 months at a minimum. As this is a sensitive environment, sampling should be continued until we have sufficient data that proves that this is not required. If you have any questions, you can reach me at (510) 567-6764.

Sincerely,


Madhulla Logan
Hazardous Material Specialist

CC: Bruce Rucker, Parsons Engineering, 1301 Marina Village
Parkway, Suite 200, Alameda, CA - 94501.

BR

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO# 246

RAFAT A. SHAHID, Assistant Agency Director

CERTIFIED MAIL # Z 773 036 409

January 25, 1995

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510)567-6700

Warren Gee
East Bay Regional Park District
Park Lands Design
P.O Box 2381
Oakland, California - 94605-0381

Sub: Redwood Regional Park Service Yard, Oakland, California

Dear Mr. Gee:

I am in receipt of your report "Quarterly Progress Report" dated January 10, 1994 on the referenced property. This report has been reviewed and the following issues identified by this Department still need to be resolved:

1. Confirmation soil samples collected in June 1993 from the south western end of the tank excavation pit indicated high concentrations of Gasoline (TPHg), upto 12,000 ppm. There is no indication from the reports submitted to this Department that soils from the southwest end of the pit which were found to contain significant concentrations of petroleum hydrocarbons was excavated from the pit. The existing contamination in soil if not removed, could potentially leach and add to the existing contamination in the groundwater as evidenced by the recent groundwater monitoring data.

2. A site visit conducted by Ron Owcarz of this Department revealed the presence of soil stockpiled near the creek at Firestation #2. Upon conducting an enquiry, we were informed that the stockpiled soil was from the above referenced property. This Department would like to know the source of this material as we are concerned about the likelihood of surface water runoff from the stockpile to the creek.

3. Six hundred cubic yards of contaminated soil removed from the tank excavation were stockpiled on the referenced property to be transported to Sibley Regional Preserve in Contra Costa County, California for further aeration. This Department has not received any information confirming the actual transportation of the soil to an off site facility

4. Based on the analytical data collected from both groundwater and surface water, there is a significant threat to the Redwood Creek from additional contamination transported from the groundwater. Hence a more aggressive groundwater remediation program would be required to prevent this migration.

This Department concurs with your recommendations, regarding conducting a risk assessment to assess potential impacts to wildlife or human health, and to collect surface water samples from the Redwood Creek on a quarterly basis. Please respond to the above listed issues within 30 days. If you have any questions, call me at (510) 567-6700.

Sincerely,

A handwritten signature in cursive script that reads "Madhulla Logan". The signature is written in dark ink and is positioned below the word "Sincerely,".

Madhulla Logan,
Hazardous Material Specialist

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Ave.

R0246 ~~R009~~

RAJAT A. SHAHID, Assistant Agency Director

November 23, 1994

Mr. Warren Gee
East Bay Regional
Park District
P.O. Box 5381
Oakland, CA 94605-0381

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
30 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

STID 4145

Re: Transportation of stockpiled soil, resulting from the tank removals, from Redwood Regional Park to Sibley Regional Preserve

Dear Mr. Gee,

In July 1993, soil samples were collected from stockpiled soil resulting from the underground storage tank removals. Analysis of these samples identified up to 180 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg) and 0.4 ppm benzene.

In a November 3, 1994 letter, the park district has proposed to transport the stockpiled soil from Redwood Regional Park to Sibley Regional Preserve, where there will be more land available to spread this soil out and expedite aeration. In response to the park district's request, this office assessed whether this soil would be considered a hazardous waste under the State's regulations such that the transportation of this soil would require a waste discharge permit and fall under the hazardous waste transportation requirements. Of the contaminant constituents identified in the stockpiled soil, only benzene is a listed toxic substance in Title 22 California Code of Regulations. The State's Regulatory Level for benzene is 0.5 ppm. Since the highest concentrations of benzene in the stockpiled soil did not exceed this regulatory level, it appears that the stockpiled soil is not hazardous and can be transported off site.

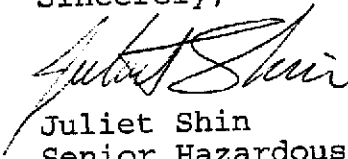
Please be reminded to adequately cover or secure this stockpiled soil during transportation to prevent any releases into the environment. Regardless of its location, this stockpiled soil shall be properly contained during the rainy season to prevent surface runoff from infiltrating the piles.

Please notify this office when the soil is transported to Sibley Park and submit information identifying the location of soil storage and aeration.

Mr. Warren Gee
Re: Redwood Regional Park
November 23, 1994
Page 2 of 2

If you have any questions or comments, please contact me at (510)
567-6700.

Sincerely,



Juliet Shin
Senior Hazardous Materials Specialist

cc: Bruce Rucker
ES Engineering Science
1301 Marina Village Pkwy., Ste. 200
Alameda, CA 94501

Edgar Howell

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SITE ADDRESS: 7867 Redwood Rd.
Oakland, CA 94619

R0246

RAFAT A. SHAHID, Assistant Agency Director

August 25, 1994

Mr. Warren Gee
East Bay Regional
Park District
P.O. Box 5381
Oakland, CA 94605-0381

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

STID 4145

Re: Work plan for investigations at Redwood Regional Park
Service Yard, Oakland, California

Dear Mr. Gee,

This office has reviewed Engineering-Science's (ES) work plan, dated August 1994. This work plan is acceptable to this office. It is the understanding of this office that field work will commence in September 1994.

Creek water samples collected from Redwood Creek have identified up to 1.8 parts per billion (ppb) benzene, which exceeds the MCL drinking water standard of 1ppb. Based on the fact that this surface water is the home to Rainbow Trout, and flows to the Upper San Leandro Reservoir, which is used for municipal and domestic supplies, the contaminated surface water appears to be a potential threat to wildlife and human health. Therefore, you will be required to collect surface water samples from the creek on a quarterly basis, and include details of this work in the required quarterly ground water monitoring reports. Additionally, you will be required to either contain further impact to the creek or develop a Risk Assessment to indicate whether the observed contaminant levels will, in fact, pose a risk to wildlife or human health.

Lastly, the work plan proposes to use trisodium phosphate as detergent for the drilling equipment. Phosphate is known to be hazardous to aquatic life. Please be reminded to avoid disposing of this liquid in the storm sewer. Discharge into the sanitary sewer, under permit, is acceptable since this water is treated before it is outlet into the Bay.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

Mr. Warren Gee
Re: Redwood Regional Park
August 25, 1994
Page 2 of 2

cc: Bruce M. Rucker
Engineering-Science, Inc.
1301 Marina Village Pkwy.
Alameda, CA 94501

Edgar Howell

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Ave
Oakland, CA 94619

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

March 29, 1994

Mr. Warren Gee
East Bay Regional
Park District
P.O. Box 5381
Oakland, CA 94605-0381

STID 4145

Re: Creek Sampling at Redwood Road Park Service Yard, Oakland

Dear Mr. Gee,

This office has reviewed a copy of the figure showing the upstream and downstream sampling locations from Redwood Creek, dated March 29, 1994. These sampling locations are acceptable to this office, so you can go ahead and have them analyzed for the appropriate constituents.

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

cc: Bruce Rucker
Engineering Science, Inc.
1301 Marina Village Pkwy., Ste 200
Alameda, CA 94501

Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Rd,
Oakland, CA 94619

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

March 23, 1994

Mr. Warren Gee
East Bay Regional
Park District
2950 Peralta Oaks Ct.
P.O. Box 5381
Oakland, CA 94605-0381

STID 4145

Re: Investigations at Redwood Regional Park Service Yard,
Oakland

Dear Mr. Gee,

This office has reviewed Engineering-Science's (ES) creek sampling report, dated March 2, 1994. One soil sample was collected from the wall of the Redwood Creek bed, and one water sample was collected from Redwood Creek in response to the discovery of discolored soil being located along the sidewall of the creek. Analysis of these samples identified 130 parts per billion (ppb) Total Petroleum Hydrocarbons as gasoline (TPHg) in the water sample and 3 parts per million (ppm) TPHg in the soil sample. This soil and ground water contamination appears to be resulting from leaks occurring from the former underground storage tanks (USTs).

According to the cross section shown on Figure 4.1 of ES's December 1993 Site Characterization Report, the ground water and creek are hydraulically connected (i.e., it appears that the ground water recharges the creek since the depth to ground water is equal to the depth to water in the creek bed). In October 1993, elevated levels of soil and ground water contamination were identified from the borings located adjacent to the creek, B13, B14, and B15 (up to 1,900 ppm in soil and 19,000 ppb from the "grab" ground water samples). This office is concerned that comparable contaminant concentrations will eventually infiltrate this creek and impact the rainbow trout in the creek, and the people and wildlife utilizing Upper San Leandro Reservoir, located 4,000 feet downstream of Redwood creek.

You are required to collect another set of creek water samples, one from upgradient and one from downgradient of the discolored soil. If contaminant concentrations are noticeably greater in the downgradient creek sample, then immediate efforts will need

Mr. Warren Gee
Re: Redwood Regional Park
March 23, 1994
Page 2 of 2

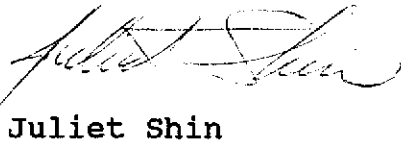
to be made to prevent further impact to the creek by the observed soil and ground water contamination adjacent to and beneath the creek. A short summary work plan shall be submitted to this office **within 30 days** of the date of this letter.

Additionally, you are required to submit a work plan addressing the installation of permanent monitoring wells **within 45 days** of the date of this letter. These wells shall be monitored on a quarterly basis and corresponding quarterly ground water monitoring reports shall be submitted. Water level measurements are to be conducted on a monthly basis for the first three months and quarterly thereafter. Ground water gradient determinations are to be included in the quarterly ground water monitoring reports.

Lastly, please notify the California Fish and Game regarding the impact to Redwood Creek.

If you have any questions or comments, please contact me at (5100 271-4530.

Sincerely,



Juliet Shin
Hazardous Materials Specialist

cc: Bruce Rucker
Engineering Science, Inc.
1301 Marina Village Pkwy., Ste 200
Alameda, CA 94501

Richard Hiett, RWQCB

Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Rd.
Oakland, CA 94619

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

January 27, 1994

Warren Gee
East Bay Regional
Park District
2950 Peralta Oaks Ct.
P.O. Box 5381
Oakland, CA 94605-0381

STID 4145

Re: Investigations at Redwood Regional Park Service Yard,
Oakland

Dear Mr. Gee,

This office has reviewed Engineering-Science's letter work plan, dated January 27, 1994, for the collection of one creek water sample and one soil sample from the creek sidewall. This work plan is acceptable to this office. Please keep us apprised of the work schedule.

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

A handwritten signature in cursive script, appearing to read "Juliet Shin".

Juliet Shin
Hazardous Materials Specialist

cc: Bruce M. Rucker
ES Engineering-Science, Inc.
1301 Marina Village Pkwy., Ste 200
Alameda, CA 94501

Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Rd.
Oakland, CA 94619

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

January 10, 1994

Warren Gee
East Bay Regional
Park District
2950 Peralta Oaks Ct.
P.O. Box 5381
Oakland, CA 94605 0381

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

STID 4145

Re: Investigations at Redwood Regional Park Service Yard,
Oakland

Dear Mr. Gee,

This office has reviewed ES Engineering-Science's (ES) report for the Closure of Underground Fuel Storage Tanks and Initial Site Characterization, dated December 1993. In addition to the investigations proposed in ES's August 1993 work plan, you will be required to collect a creek water sample to determine the degree of impact on the creek by the contamination resulting from the former underground storage tanks. If the creek water is found to be contaminated, you will be required to conduct a risk assessment for the wildlife potentially impacted by the contaminated creek.

Containment measures may be required for the ground water contaminant plume, and immediate remediation of the observed soil contamination in contact with the creek, in order to prevent further impact to the creek. Please notify the Fish and Game, if you haven't already, and inform them of the investigation results to date.

Additionally, elevated levels of kerosene were observed in samples collected from the initial characterization of the site. Therefore, please include the analysis for kerosene in the next phase of work at the site.

Lastly, this office encourages you to apply for the State Trust Fund for potential reimbursement for site investigations and remediation. If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

Mr. Warren Gee
Re: Redwood Regional Park
January 10, 1994
Page 2 of 2

cc: Bruce M. Rucker
ES Engineering-Science, Inc.
1301 Marina Village Pkwy., Ste 200
Alameda, CA 94501

Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Rd.
Oakland, CA

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

September 16, 1993

Warren Gee
East Bay Regional
Park District
2950 Peralta Oaks Ct.
P.O. Box 5381
Oakland, CA 94605 0381

STID 4145

Re: Work plan for investigations at Redwood Regional Park,
Corporation Yard, Oakland

Dear Mr. Gee,

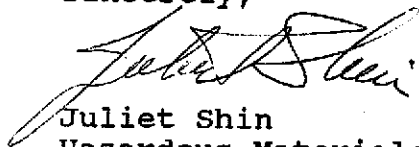
This office has received and reviewed Engineering-Science's work plan, dated August 1993, for soil and ground water investigations at the above site. This work plan is acceptable to this office with the following comments:

- o Permanent monitoring wells shall be installed subsequent to this phase of work. Temporary wells and "grab" ground water samples can only be used as a screening tool for determining the locations of the permanent monitoring wells. These permanent monitoring wells shall be sampled on a quarterly basis for a minimum of four quarters.
- o Per my conversation with Bruce Rucker, Engineering-Science, on September 16, 1993, a total of five soil samples will be analyzed for Total Petroleum Hydrocarbons (TPH) as diesel, in addition to TPH as gasoline and benzene, toluene, ethylbenzene, and xylenes. It is the understanding of this office that at least a portion of these samples will be collected from locations nearest the former diesel tank.
- o A total of 15 boreholes will be placed at this site, although only 10 were shown on the figure in the work plan.
- o Field work must commence within 60 days of the date of this letter. A report documenting the work shall be submitted within 45 days after completing field activities.

Warren Gee
Re: Redwood Regional Park
September 16, 1993
Page 2 of 2

If you have any questions or comments, please contact me at (510)
271-4530.

Sincerely,



Juliet Shin
Hazardous Materials Specialist

cc: Bruce M. Rucker
ES
Engineering-Science, Inc.
1301 Marina Village Pkwy., Ste 200
Alameda, California 94501

Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



SITE: 7867 Redwood Rd.
Oakland, CA

R0246

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

July 16, 1993

Warren Gee
East Bay Regional
Park District
2950 Peralta Oaks Ct.
P.O. Box 5381
Oakland, CA 94605 0381

STID 4145

Re: Sampling of stockpiled soil piles at Redwood Regional Park

Dear Mr. Gee,

This office reviewed Engineering Science's proposal, dated July 9, 1993, for sampling of the contaminated stockpiled soil at the above site. This office is requiring that the soil samples be analyzed for Total Petroleum Hydrocarbons (TPH) as diesel, in addition to TPH as gasoline and benzene, toluene, ethylbenzene, and xylenes. It appears that no soil samples, to date, have yet been analyzed for diesel although a diesel underground storage tank was also removed from the site.

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin
Hazardous Materials Specialist

cc: Edgar Howell-File(JS)

ALAMEDA COUNTY
HEALTH CARE SERVICES

DAVID J. KEARS, AGENCY
~~XXXXXXXXXX~~
MICHAEL LEAHY, Agency Director



IN ENVISION:

RO246: BSRPD Redwood Regional
Park at 7067 Redwood.
Oakland.

470-27th Street, Third Floor
Oakland, California 94612
(415) 271-4320

March 23, 1988

East Bay Regional Park
1500 Skyline Blvd.
Oakland, CA 94619
Attn: Ted Krebs

**SUBJECT: UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK)/
CONTAMINATION SITE REPORT**

Dear Mr. Krebs:

On March 4, 1988, our office received a report from Testing and Technology for the following East Bay Regional Parks which failed the underground storage tank and/or piping test:

1. Tilden Park
2. Redwood Park
3. Sunol Park

The California Administrative Code, Title 23, requires all unauthorized releases to be reported. Section 2652(b) requires within five (5) working days of detecting the release, the operator or permittee shall submit to the local agency (Alameda County Hazardous Materials Division) a full written report to include all of the following information which is known at the time of filing the report:

1. List of type and quantity of hazardous substances released.
2. The results of all investigations completed at that time to determine the extent of soil or groundwater or surface water contamination due to the release.
3. Method of clean-up implemented to date, proposed clean-up actions, and approximate cost of actions taken to date.
4. Method and location of disposal of the released hazardous substance and any contaminated soils or groundwater or surface water (indicate whether a hazardous waste manifest(s) is utilized).

East Bay Regional Park Dist.
UGT Unauthorized Release (Leak)/
Contamination Site Report
March 23, 1988
Page 2 of 2

5. Proposed method of repair or replacement of the primary and secondary containers.
6. Facility operator's name and telephone number.

Until clean-up is complete, the operator or permittee shall submit reports to the County and the Regional Water Quality Control Board (RWQCB) every three (3) months or at a more frequent interval if specified by either agency. The reports shall include the information requested in 2, 3 and 4 of the above. The report requested above shall be prepared in accordance with the San Francisco Regional Water Quality Control Board's "Guidelines for Addressing Fuel Leaks," September 1985. The initial investigation report shall be submitted within 30 days and shall include a site safety plan.

Soils contaminated at hazardous waste concentrations shall be transported by a licensed hazardous hauler and disposed of or treated at a California Department of Health Services approved facility. Soils contaminated below hazardous waste concentrations may be managed as non-hazardous but are subject to waste discharge requirements of the Regional Board.

Enclosed are three (3) "Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report" forms which should be completed and returned within five (5) working days. Should you have any questions regarding this letter, please contact Lizabeth Rose, Hazardous Materials Specialist at 271-4320.

Sincerely,

Rafat A. Shahid
Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:LR:lr

cc: RWQCB
City of Oakland Fire Dept.
Alco Fire Dept.

Enclosure(s)