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The Point Without a Purpose, Part 2: Difficulties Ahead

POSTED BY SEAN PLYES 55C ON DECEMBER 04, 2014



In [part 1](#), Radio Free Richmond explored the difficulty of gaining traction around any project at Point Molate. Endless red tape, poorly thought-out ideas, and an indecisive city government have made the prospect of development on the land seem less than feasible. In Part 2 we discuss what's in store for the future of Point Molate.

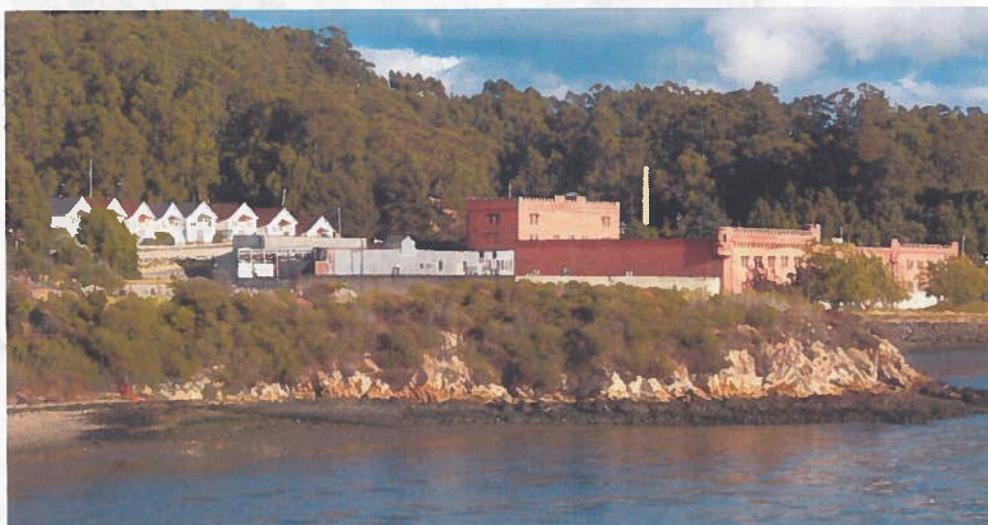
The cleaning of the remaining 15% of Point Molate was at a standstill throughout the city's litigation with UpStream. Fifteen years into the project, some community members thought the Navy was dragging their feet. Others were more patient for bureaucracy to run its course.

"Some issues take a long time to beat out all the details," explains George Leyva of the Bay Area Water Quality Control Board (BAWQCB). Leyva has been involved in Point Molate since 2005 and wrote orders for the clean up projects. "Finding the right contractor, cleaning up the area —this all takes time."



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To



consolidate the project —and to get the Navy out of the picture — an Early Transfer Cooperate Agreement (ETCA) was approved in March of 2010. The ETCA officially signed over the rest of Point Molate to Richmond. The city was given \$28.5 million by the Navy to finish the clean up, which the Navy estimated would continue past 2016.

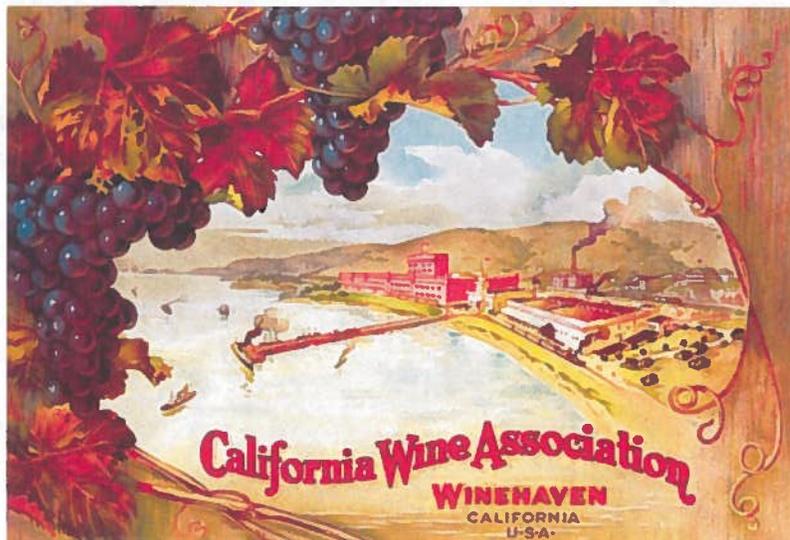
Since the ETCA was signed four years ago, the clean up has continued at Point Molate, but problems remain and have only grown in complication. While the land has been cleaned, many buildings on the site have continued to deteriorate and have been stripped of their copper.

This isn't to say that no concrete changes have happened at Point Molate. April 2014 saw the opening of the Point Molate Beach Park, a 900-foot stretch of land along the Bay. Restoration of Site 3, the area widely regarded as the most friendly to development, began in September and it scheduled for completion in January. The land at Point Molate is almost entirely restored nearly 20 years after the project began.

What happens next, though, is likely to stir a debate on two very different forms of sustainability. As required by the 1990 Base Realignment and Closure Act, Point Molate must be economically self-sustaining. This means that some sort of revenue stream must work through the area in order for it to support itself. Many see this clause of the Base Realignment and Closure Act as non-binding (mostly because the

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Navy doesn't want the land back). Regardless, its existence looms over discussions for future plans. As it stands right now, Point Molate costs the city more than a million of dollars per year for security services, plant maintenance, and consultant fees.



Further, before the land can be made into a potentially profitable development, there is another hurdle to cross. "Point Molate is frozen in time," explains Craig Murray, a development project manager for the city of Richmond. "It's frozen with 1940s technology and basic utilities." Any development wishing

to plant ground in Point Molate is going to have to fork out millions to prepare the area with basic utilities like running water and electricity.

A utility study from 1999 estimated it would cost \$18,413,000 to get the land up to speed. The cost today is estimated to be near \$60 million to establish basic utilities at Point Molate. This sticker shock alone is a deterrent to developers. But if it doesn't happen, Murray explains, "we'll just have a lot of city departments and other environmental groups out there storing materials and treating it like a large storage area." In other words, if the investment doesn't come, Point Molate will continue as is.

On the other side of the sustainability debate is the organization [Citizens for a Sustainable Point Molate](#). Their mission is to preserve the land of Point Molate and protect it as one of the last remaining undeveloped lands in the Bay Area. This vision butts heads with the requirements of the Base Realignment and Closure Act, though it is undoubtedly the easier option.



CITIZENS FOR A SUSTAINABLE POINT MOLATE

Mary Sundance, Vice Chair of the Point Molate Community Advisory Committee — a contemporary iteration of the Blue Ribbon Advisory Committee — understands the difficult balancing act of simultaneously cleaning up the oil, trying to draw in investors, and preserving the area's natural beauty. "The contamination is being addressed and

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remediated at this time, but no viable plans are in place on what to do with this site once the contamination is abated," Sundance explained.

Sundance acknowledges the binding agreement with the Navy for economic sustainability of the site and suggests that "the best route to making Point Molate successful, like the Presidio, is to have a trust firm come in that will recruit developers with experience, funds, and vision to make Point Molate a great place to visit, play at, and remember."



Unfortunately, the future of the stretch of land sprawling north of the San Rafael bridge is bound to be as complicated as its past. Memories of the city's troubles with UpStream and the developer's big losses are still fresh in the minds of potential investors. And any discussion of future projects will have to work out how to preserve the historic nature of the site —starting with the estimated \$26 million required to restore the Winehaven Building.

Password

Over its many iterations, Point Molate has proven to be a versatile resource. Whatever its next form may be, the land is certain to oblige —whether that be a dog park or a mega development. Not until the dust of restoration settles will a genuine debate on the future of Point Molate be feasible. Even then, the success of any endeavor will depend on the will of generous investors dedicated to a realistic project. For now, Point Molate remains in a state of transition, waiting for its next life.

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City of Richmond – POINT MOLATE COMMUNITY ADVISORY COMMITTEE

Multi-Purpose Room
440 CIVIC CENTER PLAZA

**PROPOSED MINUTES
MONDAY, October 20, 2014, 6:30 PM**

1. CALL TO ORDER

Chair Carman called the meeting to order at 6:35 p.m.

2. ROLL CALL

Present: Committee Members Carman, Gilbert (7:02), Hite, Kortz, Martinez, Smith and Sundance.

Absent: Garrett.

Staff Present: Craig K. Murray, Staff Liaison, Development Project Manager II;

3. WELCOME AND MEETING PROCEDURES

Carman presented.

4. AGENDA REVIEW AND ADOPTION

Carman reviewed. Carman noted that item 12 with the Council Liaison will need to be moved up just after item 7 due to the Mayor's schedule and needing to leave immediately thereafter. Carman noted that item 9 minutes will be carried over to the next regularly scheduled meeting.

Action: Committee approved (M/S Smith/Hite 6-0-2-0) to adopt the Agenda.

AYES: Carman, Hite, Kortz, Martinez, Smith and Sundance

NOES: None

ABSENT: Garrett, Gilbert

ABSTAIN: None

5. ANNOUNCEMENTS THROUGH THE CHAIR

Carman reported and discussed the Concord Naval Weapons Station process. Carman reported that Joe Puleo has been auto-resigned from the Committee.

6. OPEN FORUM

Cordell Hindler presented thoughts on Pt Molate. Vanessa Scott of Love Never Fails Organization presented and introduced Tim Russell of Renaissance.

7. PRESENTATIONS, DISCUSSION & ACTION ITEMS

1. Presentation: World War II Classic Music

Cordell Hindler reviewed his work with KCRT staff to put together a compendium of music video clips of the hits from World War II.

8. STAFF REPORTS

A. PROJECT MANAGER'S STAFF REPORT INCLUDING

1. EXPENDITURES AND BALANCE FROM THE NAVY ESCROW FUND
2. EXPENDITURES AND BALANCE FROM THE GENERAL FUND
3. INSURANCE REPORT FILINGS

4. LEASE/OCCUPATION STATUS FOR ALL PT MOLATE USERS
5. MONTHLY SUMMARY OF SECURITY INCIDENTS
6. MONTHLY SUMMARY OF AUTHORIZED ENTRIES
7. CARETAKER SUMMARY
8. BEACH PARK
9. IR SITE 3 REMEDIATION AND ABATEMENT PROJECT BID

Murray reported on project reports found in the Agenda packet.

9. CONSENT CALENDAR

- A. APPROVE – PMCAC MEETING MINUTES OF AUGUST 18, 2014
- B. APPROVE – PMCAC MEETING MINUTES OF SEPTEMBER 15, 2014

ACTION: COMMITTEE APPROVED (M/S HITE/SMITH 7-0-1-0) TO ADOPT BOTH THE AUGUST 18 AND THE SEPTEMBER 15, 2014 MINUTES. .

AYES:	CARMAN, GILBERT, HITE, KORTZ, MARTINEZ, SMITH AND SUNDANCE
NOES:	NONE
ABSENT:	GARRETT
ABSTAIN:	NONE

10. PMCAC QUARTERLY REPORT TO CITY COUNCIL

- A. APPROVE – PMCAC Annual Report to City Council

Carman noted that Garrett will rewrite. Hite noted that a Power Point Presentation would be a good tool.

11. FUTURE AGENDA ITEMS

Carman asked for items. Discussion regarding The Watershed Project be invited back to present further on proposed improvements to the intertidal zone of Pt Molate Beach Park. Vanessa Scott was also discussed as possible future speaker.

12. CITY COUNCIL LIAISON REPORTS

- A. REPORT BY COUNCILMEMBER/MAYOR McLAUGHLIN REGARDING RECENT ISSUES IN RICHMOND RELEVANT TO THE ADVISORY COMMITTEE

Carman read statement from Mayor regarding legal process and that the Tribe lost another motion and City will be waiting for their next steps.

- B. PMCAC APPOINTMENT STATUS

NO REPORT.

13. CHAIR AND SUB-COMMITTEE REPORTS

a. Clean-Up and Restoration:

1. Monthly Report for August 2014

Jeff Raines of Terraphase introduced himself and noted that he has worked with Terraphase for nine years. Raines provided a Power Point Presentation and showed current IR Site 3 status with locations above and below allowable thresholds. Discussion about the 0-5 feet and 5-10 feet and beyond 10 feet excavations. Additional discussion on the Storm Water Pollution Prevention Plan. Raines discussed that the clean up goals are found in the approved RAP/ROD. Raines entertained questions on the import soil, sampling and excavation process.

b. Community Outreach:

1. Review of previous month's activities and plans for next month
2. Review of schedule for Neighborhood Council presentations

Hite reported.

c. Grant Development:

1. Grant Application Status

No report.

d. Pt Molate Beach:

Smith reported.

e. Invasive Species

No report.

f. Chair: Identification of pending schedule conflicts

Carman opened to PMCAC.

No conflicts reported.

14. ADJOURNMENT

Hite moved to adjourn the meeting at 8:08 pm, seconded by Smith. Passed unanimously.

15. Assemblage of PMCAC Standing Sub-Committees

Adjourned to Sub-Committee Meetings.

SCHEDULED MEETINGS

Committee Meeting -

Monday, November 17, 2014, 6:30 p.m., Multi-Purpose Room, 440 Civic Center Plaza

Minutes respectfully submitted by:

Craig K. Murray, PMCAC Staff Liaison



October 17, 2014

Mr. George Leyva
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

sent via: email

Subject: Monthly Remediation Status Report for Work in September 2014, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Mr. Leyva:

This monthly remediation status report summarizes the remediation activities conducted by Terraphase Engineering Inc. (Terraphase) on behalf of the City of Richmond at the former Naval Fuel Depot Point Molate (the Site). This remediation status report is intended to meet the requirements of Task 9 in the Regional Water Quality Control Board (RWQCB) Order R2-2011-0087 (RWQCB 2011d). The requirements of Task 9 are as follows:

The Discharger shall submit a report to the Regional Water Board, 30 days prior to the start of any onsite remediation activities, and then on a monthly basis beginning 30 days after the start of the remediation activities, outlining the onsite remediation activities accomplished during the past month and those planned for the following month. The first monthly report at the beginning of each quarter shall include monitoring and test results and any conclusions or proposed changes to the remediation process based on those results. If any changes to the remediation are proposed during any monthly report, applicable supporting monitoring or test data will be submitted at that time. The status report shall also verify that the Prohibitions in Section A, stipulated above, have been adhered to. Should any of those prohibitions be trespassed, the report shall propose a recommendation acceptable to the Executive Officer to correct the trespass.

This remediation status report provides a monthly update on the progress of environmental investigations, remediation, maintenance, and monitoring at the Site. This report is organized around each task listed in the RWQCB Order R2-2011-0087 (RWQCB 2011d). Additional tasks related to the Installation Restoration (IR) Site 3 Packaged Groundwater Treatment Plant (PGWTP) and site-wide groundwater monitoring are included below. For major work tasks completed in 2013, please see the monthly status report for December 2013 (Terraphase 2014a). A reference list of reports and submittals is included as an attachment to this letter.

Task 1: Soil Cleanup Goals (Compliance Date: February 13, 2012)

Work completed in September 2014:

1. None

Major Work Items Previously Completed in 2014:

1. Soil cleanup goals are presented in Table 32 of the final Feasibility Study/Remedial Action Plan (FS/RAP) accepted by the RWQCB on June 4th 2014 (Terraphase 2014o)

Upcoming Work in October 2014:

1. None

Task 2: Soil and Groundwater Management Plan (Compliance Date: March 15, 2012)

Complete - *Final Soil and Groundwater Management Plan submitted to the RWQCB September 21, 2012 (Terraphase 2012jj)*

Task 3a: IR Site 3 Feasibility Study and Remedial Action Plan (Compliance Date: May 4, 2012 Revised: February 28, 2014)

Complete - *Final Feasibility Study and Remedial Action Plan submitted to the RWQCB June 4, 2014 (Terraphase 2014o)*

Task 3b: IR Site 3 Remedial Action Completion Report (Compliance Date: February 3, 2014 Revised: June 30, 2015)

Remedial Action will take place August 2014 through February 2015. This task is dependent upon completion of the Remedial Action.

Task 4a: IR Site 4 Interim Remedial Action Work Plan (Compliance Date: April 3, 2012)

Complete - *IR Site 4 Interim Remedial Action Work Plan submitted to the RWQCB (Terraphase 2011r, 2012gg, 2012ii, and 2012mm)*

Task 4b: IR Site 4 Interim Remedial Action Completion Report (Compliance Date: November 2, 2012)

Work completed in September 2014:

1. Post treatment performance monitoring

Major Work Items Previously Completed in 2014:

1. Conducted fifth round of post-treatment performance monitoring at IR Site 4
2. Addressed comments on annual evaluation report for the Enhanced Reduction Dechlorination (ERD) program (Terraphase 2014k).
3. Submittal to RWQCB of annual evaluation report for the ERD program (Terraphase 2014k).
4. Conducted sixth round of post-treatment performance monitoring at IR Site 4.

Upcoming Work in October 2014:

1. Analysis of Post-treatment performance monitoring data.

Task 4c: IR Site 4 Human Health Risk Assessment (Compliance Date: November 4, 2013)

Not Applicable. Initiation of this task is dependent upon the completion of Task 4b. Currently seeking revised completion date from the RWQCB.

Task 4d: IR Site 4 Feasibility Study and Remedial Action Plan (Compliance Date: February 3, 2014)

Not Applicable. This task may not be necessary dependent upon the outcome of Task 4c. A revised completion date will be requested from the RWQCB.

Task 4e: IR Site 4 Remedial Action Completion Report (Compliance Date: February 3, 2015)

Not Applicable. This task may not be necessary dependent upon the outcome of Task 4c. A revised completion date will be requested from the RWQCB.

Task 5: UST Management Plan (Compliance Date: March 4, 2013)

Work completed in September 2014:

1. None

Major Work Items Previously Completed in 2014:

1. Response to RWQCB comments on draft UST Management Plan (Terraphase 2013j)

Upcoming Work in October 2014:

1. Preparation and submittal of tank closure requests to the RWQCB for USTs 2, 15, 18, and 19

Task 6: UST Removal Plan (Compliance Date: 90 days prior to UST demolition)

Not Applicable – Triggered when demolition of a UST is contemplated. No UST demolition is scheduled at this time

Task 7: UST Status Report (Compliance Date: June 3, 2012)

Work completed in September 2014:

1. Conducted the routine monthly UST closure monitoring inspections

Major Work Items Previously Completed in 2014:

1. Preparation and submittal of the combined 2013 fourth quarter/annual UST Monitoring Report (Terraphase 2014c)
2. Submittal of First Quarter 2014 UST monitoring report (Terraphase 2014i)
3. Submittal Second quarter UST Monitoring Report (Terraphase 2014u)

Upcoming Work in October 2014:

1. Conduct routine monthly UST closure monitoring inspections
2. Preparation of Third Quarter UST Monitoring Report

Task 8: Amended Land Use Controls (Compliance Date: When environmental closure is requested)

Not Applicable. No closures have been requested

Task 9: Remediation Status Reports (Compliance Date: Monthly)

Work completed in September 2014:

1. Submitted the monthly remediation status report for August 2014 to the RWQCB (Terraphase 2014v)

Major Work Items Previously Completed in 2014:

1. Submitted the monthly remediation status report for December 2013 to the RWQCB (Terraphase 2014a)
2. Submitted the monthly remediation status report for January 2014 to the RWQCB (Terraphase 2014f)
3. Submitted the monthly remediation status report for February 2014 to the RWQCB (Terraphase 2014i)
4. Submitted the monthly remediation status report for March 2014 to the RWQCB (Terraphase 2014j)
5. Submitted the monthly remediation status report for April 2014 to the RWQCB (Terraphase 2014n)
6. Submitted the insurance budget summary and project status update for January through March 2014 to the City of Richmond and the ACE Group
7. Submitted the monthly remediation status report for May 2014 to the RWQCB (Terraphase 2014p)
8. Submitted the monthly remediation status report for June 2014 to the RWQCB (Terraphase 2014q)
9. Submitted the insurance budget summary and project status update for March through May 2014 to the City of Richmond and the ACE Group
10. Submitted the monthly remediation status report for July 2014 to the RWQCB (Terraphase 2014s)

Upcoming Work in October 2014:

1. Submit the monthly remediation status report for September 2014 to the RWQCB
2. Submit the insurance budget summary and project status update for June through August 2014 to the City of Richmond and the ACE Group

Task 10: Discoveries During Facility Redevelopment (Compliance Date: 60 days from initial discovery)

None

Task 11: IR Site 1 ROD (Compliance Date: None)

Work completed in September 2014:

1. Routine monthly landfill inspection of signs, gates, locks, etc.
2. Routine operation, maintenance, and monitoring of the landfill treatment system
3. Quarterly landfill inspection with Contra Costa Environmental Health

Major Work Items Previously Completed in 2014:

1. Preparation and submittal of the combined fourth quarter and annual 2013 monitoring report to the RWQCB (Terraphase 2014d)

Upcoming Work in October 2014:

1. Routine monthly landfill inspection of signs, gates, locks, etc.
2. Routine operation, maintenance, and monitoring of the landfill treatment system

Task 12: Construction Stormwater General Permit (Compliance Date: Prior to field work)

A Notice of Intent was filed with the Water Board (Application # 449157) September 3, 2014. A WDID was issued for the project 2 07C370778.

IR Site 3: PGWTP

Terraphase, under the direction of the City of Richmond, operates, maintains, monitors, and prepares the quarterly and annual monitoring reports for the PGWTP under the existing General Waste Discharge Requirements for: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permit) (RWQCB 2012a). The following summarizes the activities related to the continued operation, maintenance, and monitoring of the PGWTP.

Work completed in September 2014:

1. Routine operation, maintenance, and monitoring of the PGWTP
2. The PGWTP was moved north of the remedial action area in anticipation of construction. A temporary spill containment pad was constructed around the PGWTP in the new location. No other changes to the treatment system are anticipated.

Major work items completed previously in 2014:

1. Preparation and submittal of combined fourth quarter and annual 2013 self-monitoring report (Terraphase 2014e)
2. Preparation and submittal of first quarter 2014 self-monitoring report (Terraphase 2014m)
3. Submittal of the second quarter 2014 self-monitoring report (Terraphase 2014t)

Upcoming Work in October 2014:

1. Routine operation, maintenance, and monitoring of the PGWTP
2. Preparation of the third quarter 2014 self-monitoring report

Site-wide Groundwater Monitoring

The purpose of the site-wide groundwater monitoring is to provide groundwater quality data that can be evaluated against established screening criteria for the Site. This program will help protect human health and the environment and prevent releases to the San Francisco Bay. Integrating data collected under this program with previous data is intended to support compliance and closure in accordance with regulatory requirements. Groundwater monitoring is being conducted on a semi-annual basis (wet-season and dry-season) per the Site-Wide Groundwater Monitoring Plan (Terraphase 2011n) that was approved by the RWQCB on August 30, 2011 (RWQCB 2011b). Data collected is summarized and submitted as semi-annual monitoring reports to the RWQCB.

Work completed in September 2014:

1. Destruction of monitoring wells in IR Site 3.
2. Monthly monitoring and skimming of free product in wells MTWB-01R, MWT05-02, MWT08-01, MWT06-02, MW10-23, MW10-24.

Major work items completed previously in 2014:

1. Submittal of the 2013 Dry-Season Annual Groundwater Monitoring Report to the RWQCB (Terraphase 2014b)
2. Wet-season 2014 annual groundwater monitoring
3. Submittal of the 2014 Wet-Season Semi-Annual Groundwater Monitoring Report (Terraphase 2014r)

4. Response to Notice of Violation dated August 26, 2014

Upcoming Work in October 2014:

1. Destruction of additional monitoring wells in IR Site 3.
2. Monthly monitoring and skimming of free product in wells MTWB-01R, MWT05-02, MWT08-01, MWT06-02, MW10-23, MW10-24.
3. Dry Season 2014 annual groundwater monitoring

Prohibitions Verification

As required in Task 9 of the RWQCB Order, the following prohibitions (Section A of the RWQCB Order) were adhered to during the remedial activities in September 2014, to the knowledge of Terraphase.

1. The discharge of wastes and/or non-hazardous or hazardous substances in a manner which will degrade, or threaten to degrade, water quality or adversely affect, or threaten to adversely affect, the beneficial uses of the waters of the State is prohibited.
2. Further migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup that will cause adverse migration of wastes or hazardous substances are prohibited.
4. The tidal marsh habitat and wetland habitats onsite shall be completely avoided unless encroachment on these areas is required to implement Facility remediation work and resultant impacts to the affected habitat are mitigated through a plan approved by the Executive Officer. A setback of 50 feet shall be established around the tidal marsh and any wetland area as a means of preventing any unintended impacts to it from the remediation.
5. The Site's offshore eel-grass habitat shall be completely avoided during any remedial work to the maximum extent practicable.

Summary

The above detailed summaries by task provide a look at the ongoing remediation activities at the former Naval Fuel Depot Point Molate. The RWQCB's and public's comments have been incorporated into the FS/RAP for IR Site 3. The RWQCB accepted the Final FS/RAP on June 4, 2014. Construction is now underway at IR Site 3 with an estimated completion date of February 2015.

If you have questions regarding this report, please call Tomer Schetrit at (510) 645-1850.

Sincerely,
For Terraphase Engineering Inc.



Tomer Schetrit, PE (C81411)
Project Engineer

cc: Craig Murray, City of Richmond
Carlos Privat, City of Richmond
Bruce Goodmiller, City of Richmond
LaShonda White, City of Richmond
Michael Leacox, NCE

James Whitcomb, BRAC Program Management Office
Venkat Puranapanda, ACE Group
Paul Carman, PMCAC
Joan Garrett, PMCAC

Attachments: Point Molate Bibliography

Point Molate Bibliography

- City of Richmond. 2012. Letter from Richard Mitchell (Planning Department) to Mr. Tristan Tozer (California Office of Historic Preservation) RE: *Section 106 Consultation for the Point Molate IR Site 3 Remediation Project, Former Naval Fuel Depot Point Molate, Richmond, CA*. April 3.
- Innovative Technical Solutions, Inc. (ITSI). 2005. Post-Closure UST Maintenance and Monitoring Plan. December.
- LSA. 2014. Osprey Nest Deterrent Implementation Plan. Point Molate Fuel Depot, Richmond, CA. January 13 2014.
- Regional Water Quality Control Board - San Francisco Bay Region (RWQCB). 2006. Order No. R2-2006-0075 NPDES No. CAG912002 General Waste Discharge Requirements for: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Fuel Leaks and Other Related Wastes at Service Stations and Similar Sites. November 13.
- RWQCB. 2007. Letter from Ms. Lila Tang to United States Navy Subject: *Notice of General Permit Coverage for Discharges from the Packaged Groundwater Treatment Plant located at Naval Fuel Depot Point Molate, Richmond, Contra Costa County, CA 94801, under the Requirements of Order No. R2-2006-0075, NPDES Permit No. CAG912002 (Fuels General Permit)*. June 6.
- RWQCB. 2010. Letter from Mr. George Leyva to Mr. Levine RE: *Approval of Field Assessment Methodology for Potentially Mobile Free Petroleum Product at Installation Restoration (IR) Site 3 at the former Naval Fuel Depot (NFD) Point Molate, Richmond, Contra Costa County*. November 30.
- RWQCB. 2011a. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Excavation Delineation Work Plan for Former Point Molate NFD Site-3 Richmond, Contra Costa County*. August 26.
- RWQCB. 2011b. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Site-Wide Groundwater Monitoring Plan for the Former Point Molate Naval Fuel Depot, Richmond, Contra Costa County*. August 30.
- RWQCB. 2011c. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Draft Groundwater Remediation Work Plan, IR Site 4, Drum Lot 2/Building 87 Area, Former Naval Fuel Depot Point Molate, Richmond*. November 8.
- RWQCB. 2011d. Order No. R2-2011-0087 Updated Site Cleanup Requirements and Recission of Order Nos. 95-235, 97-124 and 97-125, City of Richmond and United States Department of Defense, Department of the Navy for the: Former Point Molate Naval Fuel Depot, Located at 1009 Western Drive, Richmond, Contra Costa County. December 19.
- RWQCB. 2012a. Order No. R2-2012-0012 NPDES No. CAG912002 General Waste Discharge Requirements for: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permit). February 8.
- RWQCB. 2012b. Letter from Mr. George Levya to Mr. Bruce Goodmiller RE: *Review and Comments - Draft FS/RAP, Former Naval Fuel Depot Point Molate, Richmond, Contra Costa County*. February 17.
- RWQCB. 2012c. Letter from Ms. Lila Tang to Mr. Steve Duran RE: Reauthorization to Discharge from the Packaged Groundwater Treatment Plant (PGWTP) located at the former Naval Fuel Depot, Point



November 17, 2014

Mr. George Leyva
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

sent via: email

Subject: Monthly Remediation Status Report for Work in October 2014, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Mr. Leyva:

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This remediation status report provides a monthly update on the progress of environmental investigations, remediation, maintenance, and monitoring at the Site. This report is organized around each task listed in the RWQCB Order R2-2011-0087 (RWQCB 2011d). Additional tasks related to the Installation Restoration (IR) Site 3 Packaged Groundwater Treatment Plant (PGWTP) and site-wide groundwater monitoring are included below. For major work tasks completed in 2013, please see the monthly status report for December 2013 (Terraphase 2014a). A reference list of reports and submittals is included as an attachment to this letter.

Task 1: Soil Cleanup Goals (Compliance Date: February 13, 2012)

Work completed in October 2014:

1. None

Major Work Items Previously Completed in 2014:

1. Soil cleanup goals are presented in Table 32 of the final Feasibility Study/Remedial Action Plan (FS/RAP) accepted by the RWQCB on June 4th 2014 (Terraphase 2014o)

Upcoming Work in November 2014:

1. None

Task 2: Soil and Groundwater Management Plan (Compliance Date: March 15, 2012)

Complete - *Final Soil and Groundwater Management Plan submitted to the RWQCB September 21, 2012 (Terraphase 2012jj)*

Task 3a: IR Site 3 Feasibility Study and Remedial Action Plan (Compliance Date: May 4, 2012 Revised: February 28, 2014)

Complete - *Final Feasibility Study and Remedial Action Plan submitted to the RWQCB June 4, 2014 (Terraphase 2014o)*

Task 3b: IR Site 3 Remedial Action Completion Report (Compliance Date: February 3, 2014 Revised: June 30, 2015)

Remedial Action will take place August 2014 through February 2015. This task is dependent upon completion of the Remedial Action.

Task 4a: IR Site 4 Interim Remedial Action Work Plan (Compliance Date: April 3, 2012)

Complete - *IR Site 4 Interim Remedial Action Work Plan submitted to the RWQCB (Terraphase 2011r, 2012gg, 2012ii, and 2012mm)*

Task 4b: IR Site 4 Interim Remedial Action Completion Report (Compliance Date: November 2, 2012)

Work completed in October 2014:

1. Analysis of Post-treatment performance monitoring data.

Major Work Items Previously Completed in 2014:

1. Conducted fifth round of post-treatment performance monitoring at IR Site 4
2. Addressed comments on annual evaluation report for the Enhanced Reduction Dechlorination (ERD) program (Terraphase 2014k).
3. Submittal to RWQCB of annual evaluation report for the ERD program (Terraphase 2014k).
4. Conducted sixth round of post-treatment performance monitoring at IR Site 4.

Upcoming Work in November 2014:

1. Analysis of Post-treatment performance monitoring data.

Task 4c: IR Site 4 Human Health Risk Assessment (Compliance Date: November 4, 2013)

Not Applicable. Initiation of this task is dependent upon the completion of Task 4b. Currently seeking revised completion date from the RWQCB.

Task 4d: IR Site 4 Feasibility Study and Remedial Action Plan (Compliance Date: February 3, 2014)

Not Applicable. This task may not be necessary dependent upon the outcome of Task 4c. A revised completion date will be requested from the RWQCB.

Task 4e: IR Site 4 Remedial Action Completion Report (Compliance Date: February 3, 2015)

Not Applicable. This task may not be necessary dependent upon the outcome of Task 4c. A revised completion date will be requested from the RWQCB.

Task 5: UST Management Plan (Compliance Date: March 4, 2013)

Work completed in October 2014:

1. None

Major Work Items Previously Completed in 2014:

1. Response to RWQCB comments on draft UST Management Plan (Terraphase 2013j)

Upcoming Work in November 2014:

1. Preparation and submittal of tank closure requests to the RWQCB for USTs 2, 15, 18, and 19

Task 6: UST Removal Plan (Compliance Date: 90 days prior to UST demolition)

Not Applicable – Triggered when demolition of a UST is contemplated. No UST demolition is scheduled at this time

Task 7: UST Status Report (Compliance Date: June 3, 2012)

Work completed in October 2014:

1. Conducted the routine monthly UST closure monitoring inspections
2. Preparation of Third Quarter UST Monitoring Report

Major Work Items Previously Completed in 2014:

1. Preparation and submittal of the combined 2013 fourth quarter/annual UST Monitoring Report (Terraphase 2014c)
2. Submittal of First Quarter 2014 UST monitoring report (Terraphase 2014l)
3. Submittal Second quarter UST Monitoring Report (Terraphase 2014u)

Upcoming Work in November 2014:

1. Conduct routine monthly UST closure monitoring inspections
2. Preparation and submittal of Third Quarter UST Monitoring Report

Task 8: Amended Land Use Controls (Compliance Date: When environmental closure is requested)

Not Applicable. No closures have been requested

Task 9: Remediation Status Reports (Compliance Date: Monthly)

Work completed in October 2014:

1. Submitted the monthly remediation status report for September 2014 to the RWQCB (Terraphase 2014w)

Major Work Items Previously Completed in 2014:

1. Submitted the monthly remediation status report for December 2013 to the RWQCB (Terraphase 2014a)
2. Submitted the monthly remediation status report for January 2014 to the RWQCB (Terraphase 2014f)
3. Submitted the monthly remediation status report for February 2014 to the RWQCB (Terraphase 2014i)
4. Submitted the monthly remediation status report for March 2014 to the RWQCB (Terraphase 2014j)
5. Submitted the monthly remediation status report for April 2014 to the RWQCB (Terraphase 2014n)
6. Submitted the insurance budget summary and project status update for January through March 2014 to the City of Richmond and the ACE Group
7. Submitted the monthly remediation status report for May 2014 to the RWQCB (Terraphase 2014p)
8. Submitted the monthly remediation status report for June 2014 to the RWQCB (Terraphase 2014q)
9. Submitted the insurance budget summary and project status update for March through May 2014 to the City of Richmond and the ACE Group
10. Submitted the monthly remediation status report for July 2014 to the RWQCB (Terraphase 2014s)
11. Submitted the monthly remediation status report for August 2014 to the RWQCB (Terraphase 2014v)

Upcoming Work in November 2014:

1. Submit the monthly remediation status report for October 2014 to the RWQCB
2. Submit the insurance budget summary and project status update for June through October 2014 to the City of Richmond and the ACE Group

Task 10: Discoveries During Facility Redevelopment (Compliance Date: 60 days from initial discovery)

None

Task 11: IR Site 1 ROD (Compliance Date: None)

Work completed in October 2014:

1. Routine monthly landfill inspection of signs, gates, locks, etc.
2. Routine operation, maintenance, and monitoring of the landfill treatment system
3. Quarterly landfill inspection with Contra Costa Environmental Health

Major Work Items Previously Completed in 2014:

1. Preparation and submittal of the combined fourth quarter and annual 2013 monitoring report to the RWQCB (Terraphase 2014d)

Upcoming Work in November 2014:

1. Routine monthly landfill inspection of signs, gates, locks, etc.
2. Routine operation, maintenance, and monitoring of the landfill treatment system
3. Quarterly landfill inspection with Contra Costa Environmental Health

4. Annual groundwater monitoring well sampling event

Task 12: Construction Stormwater General Permit (Compliance Date: Prior to field work)

A Notice of Intent was filed with the Water Board (Application # 449157) September 3, 2014. A WDID was issued for the project 2 07C370778.

IR Site 3: PGWTP

Terraphase, under the direction of the City of Richmond, operates, maintains, monitors, and prepares the quarterly and annual monitoring reports for the PGWTP under the existing General Waste Discharge Requirements for: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permit) (RWQCB 2012a). The following summarizes the activities related to the continued operation, maintenance, and monitoring of the PGWTP.

Work completed in October 2014:

1. Routine operation, maintenance, and monitoring of the PGWTP
2. Preparation of the third quarter 2014 self-monitoring report

Major work items completed previously in 2014:

1. Preparation and submittal of combined fourth quarter and annual 2013 self-monitoring report (Terraphase 2014e)
2. Preparation and submittal of first quarter 2014 self-monitoring report (Terraphase 2014m)
3. Submittal of the second quarter 2014 self-monitoring report (Terraphase 2014t)
4. The PGWTP was moved north of the remedial action area in anticipation of construction. A temporary spill containment pad was constructed around the PGWTP in the new location. No other changes to the treatment system are anticipated.

Upcoming Work in November 2014:

1. Routine operation, maintenance, and monitoring of the PGWTP
2. Preparation and submittal of the third quarter 2014 self-monitoring report

Site-wide Groundwater Monitoring

The purpose of the site-wide groundwater monitoring is to provide groundwater quality data that can be evaluated against established screening criteria for the Site. This program will help protect human health and the environment and prevent releases to the San Francisco Bay. Integrating data collected under this program with previous data is intended to support compliance and closure in accordance with regulatory requirements. Groundwater monitoring is being conducted on a semi-annual basis (wet-season and dry-season) per the Site-Wide Groundwater Monitoring Plan (Terraphase 2011n) that was approved by the RWQCB on August 30, 2011 (RWQCB 2011b). Data collected is summarized and submitted as semi-annual monitoring reports to the RWQCB.

Work completed in October 2014:

1. Monthly monitoring and skimming of free product in wells MTWB-01R, MWT05-02, MWT08-01, MWT06-02, MW10-23, MW10-24.
2. Dry Season 2014 annual groundwater monitoring

Major work items completed previously in 2014:

1. Submittal of the 2013 Dry-Season Annual Groundwater Monitoring Report to the RWQCB (Terraphase 2014b)
2. Wet-season 2014 annual groundwater monitoring
3. Submittal of the 2014 Wet-Season Semi-Annual Groundwater Monitoring Report (Terraphase 2014r)
4. Response to Notice of Violation dated August 26, 2014
5. Destruction of monitoring wells in IR Site 3 (MW11-100A, MW13+27, MW11-88, MW16+25, MW11-104) August 15, 2014.

Upcoming Work in November 2014:

1. Monthly monitoring and skimming of free product in wells MTWB-01R, MWT05-02, MWT08-01, MWT06-02, MW10-23, MW10-24.
2. Preparation of Dry Season 2014 annual groundwater monitoring report

Prohibitions Verification

As required in Task 9 of the RWQCB Order, the following prohibitions (Section A of the RWQCB Order) were adhered to during the remedial activities in October 2014, to the knowledge of Terraphase.

1. The discharge of wastes and/or non-hazardous or hazardous substances in a manner which will degrade, or threaten to degrade, water quality or adversely affect, or threaten to adversely affect, the beneficial uses of the waters of the State is prohibited.
2. Further migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup that will cause adverse migration of wastes or hazardous substances are prohibited.
4. The tidal marsh habitat and wetland habitats onsite shall be completely avoided unless encroachment on these areas is required to implement Facility remediation work and resultant impacts to the affected habitat are mitigated through a plan approved by the Executive Officer. A setback of 50 feet shall be established around the tidal marsh and any wetland area as a means of preventing any unintended impacts to it from the remediation.
5. The Site's offshore eel-grass habitat shall be completely avoided during any remedial work to the maximum extent practicable.

Summary

The above detailed summaries by task provide a look at the ongoing remediation activities at the former Naval Fuel Depot Point Molate. The RWQCB's and public's comments have been incorporated into the FS/RAP for IR Site 3. The RWQCB accepted the Final FS/RAP on June 4, 2014. Construction is now underway at IR Site 3 with an estimated completion date of February 2015.

If you have questions regarding this report, please call Tomer Schetrit at (510) 645-1850.

Sincerely,
For Terraphase Engineering Inc.



Tomer Schetrit, PE (C81411)
Project Engineer

cc: Craig Murray, City of Richmond
Carlos Privat, City of Richmond
Bruce Goodmiller, City of Richmond
LaShonda White, City of Richmond
Michael Leacox, NCE
James Whitcomb, BRAC Program Management Office
Venkat Puranapanda, ACE Group
Paul Carman, PMCAC
Joan Garrett, PMCAC

Attachments: Point Molate Bibliography

Point Molate Bibliography

- City of Richmond. 2012. Letter from Richard Mitchell (Planning Department) to Mr. Tristan Tozer (California Office of Historic Preservation) RE: *Section 106 Consultation for the Point Molate IR Site 3 Remediation Project, Former Naval Fuel Depot Point Molate, Richmond, CA.* April 3.
- Innovative Technical Solutions, Inc. (ITSI). 2005. Post-Closure UST Maintenance and Monitoring Plan. December.
- LSA. 2014. Osprey Nest Deterrent Implementation Plan. Point Molate Fuel Depot, Richmond, CA. January 13 2014.
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- RWQCB. 2007. Letter from Ms. Lila Tang to United States Navy Subject: *Notice of General Permit Coverage for Discharges from the Packaged Groundwater Treatment Plant located at Naval Fuel Depot Point Molate, Richmond, Contra Costa County, CA 94801, under the Requirements of Order No. R2-2006-0075, NPDES Permit No. CAG912002 (Fuels General Permit).* June 6.
- RWQCB. 2010. Letter from Mr. George Levya to Mr. Levine RE: *Approval of Field Assessment Methodology for Potentially Mobile Free Petroleum Product at Installation Restoration (IR) Site 3 at the former Naval Fuel Depot (NFD) Point Molate, Richmond, Contra Costa County.* November 30.
- RWQCB. 2011a. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Excavation Delineation Work Plan for Former Point Molate NFD Site-3 Richmond, Contra Costa County.* August 26.
- RWQCB. 2011b. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Site-Wide Groundwater Monitoring Plan for the Former Point Molate Naval Fuel Depot, Richmond, Contra Costa County.* August 30.
- RWQCB. 2011c. Letter from Mr. George Levya to Mr. Steve Duran RE: *Approval of Draft Groundwater Remediation Work Plan, IR Site 4, Drum Lot 2/Building 87 Area, Former Naval Fuel Depot Point Molate, Richmond.* November 8.
- RWQCB. 2011d. Order No. R2-2011-0087 Updated Site Cleanup Requirements and Rescission of Order Nos. 95-235, 97-124 and 97-125, City of Richmond and United States Department of Defense, Department of the Navy for the: Former Point Molate Naval Fuel Depot, Located at 1009 Western Drive, Richmond, Contra Costa County. December 19.
- RWQCB. 2012a. Order No. R2-2012-0012 NPDES No. CAG912002 General Waste Discharge Requirements for: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permit). February 8.
- RWQCB. 2012b. Letter from Mr. George Levya to Mr. Bruce Goodmiller RE: *Review and Comments - Draft FS/RAP, Former Naval Fuel Depot Point Molate, Richmond, Contra Costa County.* February 17.
- RWQCB. 2012c. Letter from Ms. Lila Tang to Mr. Steve Duran RE: *Reauthorization to Discharge from the Packaged Groundwater Treatment Plant (PGWTP) located at the former Naval Fuel Depot, Point*



November 15, 2014

Mr. George Leyva
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: Third Quarter 2014 Underground Storage Tank (UST) Monitoring Report, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Mr. Leyva,

On behalf of the City of Richmond, Terraphase Engineering Inc. (Terraphase) has prepared the attached Third Quarter 2014 Underground Storage Tank (UST) Monitoring Report. This report describes the activities and status for the ongoing monitoring and maintenance program for USTs 1 through 20 at the former Naval Fuel Depot Point Molate located in Richmond, California. The inspections were conducted in accordance with the Final Post-Closure UST Maintenance and Monitoring Plan (PMMP) (ITSI 2005).

If you have any question or comments regarding this report, please contact Tomer Schetrit at (510) 645-1850.

Sincerely,
For Terraphase Engineering Inc.

A handwritten signature in black ink, appearing to read 'T.S.', located below the typed name of Tomer Schetrit.

Tomer Schetrit, P.E. (C81411)
Project Engineer

A handwritten signature in black ink, appearing to read 'Chris Jones', located below the typed name of Chris Jones.

Chris Jones
Staff Engineer

cc: Carlos Privat, City of Richmond
Craig Murray, City of Richmond
Jim Whitcomb, BRAC Program Management Office
Michael Leacox, NCE
William Carson, Terraphase Engineering
Paul Carman, PMCAC
Joan Garrett, PMCAC
Lori Braunesreither, Contra Costa County Environmental Health Services

Attachments: 3rd Quarter 2014 Underground Storage Tank (UST) Monitoring Report

**3rd QUARTER 2014 MONITORING REPORT
UNDERGROUND STORAGE TANKS
FORMER NAVAL FUEL DEPOT POINT MOLATE,
RICHMOND, CALIFORNIA**

Prepared on Behalf of

City of Richmond
450 Civic Center Plaza
Richmond, California

Prepared by

Terraphase Engineering Inc.
1404 Franklin Street, Suite 600
Oakland, California

November 15, 2014

Project Number 0078.001.014



13A4.3

REPORT ON THE MONITORING OF THE
FUEL SYSTEMS OF THE AIRCRAFT
FOR THE MONTH OF FEBRUARY 1948
RESEARCH, CALIFORNIA

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Appendices

- A Summary Tables of Quarterly Inspection

Acronyms and Abbreviations

bbl	barrel
BAI	Barajas and Associates, Inc.
BRAC	Base Realignment and Closure
CCHSD	Contra Costa Health Services Department
FOSET	Finding of Suitability for Early Transfer
ITSI	Innovative Technical Solutions, Inc.
JP-5	jet propellant grade 5 fuel
MSL	mean sea level
NFD	Naval Fuel Depot
ORS	oil recovery system
PMMP	Post-Closure UST Maintenance and Monitoring Plan
RWQCB	California Regional Water Quality Control Board, San Francisco Bay Region
Terraphase	Terraphase Engineering Inc.
TtEMI	Tetra Tech EM Inc.
UST	underground storage tank
VP	valve pit

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1.0 INTRODUCTION

On behalf of the City of Richmond Terraphase Engineering Inc. (Terraphase) has prepared this Underground Storage Tank (UST) Quarterly Monitoring Report to summarize the monitoring conducted on a monthly and quarterly basis as part of the ongoing monitoring and maintenance of USTs 1 through 20 at the former Naval Fuel Depot (NFD) Point Molate in Richmond, California. The inspections were conducted in accordance with the final Post-Closure UST Maintenance and Monitoring Plan (PMMP) (ITSI 2005).

2.0 HISTORY OF UST OPERATIONS AT NFD POINT MOLATE

The former NFD Point Molate was a fuel storage facility that had the capacity to store more than 40 million gallons of fuel. Prior to closure, the facility mainly held jet propellant grade 5 fuel (JP-5) and marine diesel fuel. Historically, other fuels were stored at the depot, including bunker fuel and aviation gasoline. Fuel was transferred to and from the facility by offloading and onloading ships and barges at the depot fuel pier, as well as through the Santa Fe Pacific Pipeline transfer station.

The former NFD Point Molate is on the San Pablo peninsula (Figure 1), approximately 1.5 miles north of the Richmond-San Rafael Bridge in the City of Richmond, Contra Costa County, California. Former NFD Point Molate covers approximately 412 acres in the Potrero Hills along the northeastern shore of San Francisco Bay of which 140 acres are submerged within San Francisco Bay. The San Pablo peninsula is the land mass between San Pablo Bay and San Francisco Bay. Former NFD Point Molate contains approximately 1.6 miles of shoreline, and its property extends into the adjacent hillsides to the top of the San Pablo ridge. Topography at the facility ranges from flat, filled areas (reclaimed tidal areas) near the Bay to steep, dissected slopes of nearly 500 feet above mean sea level (MSL) in elevation. The facility is bordered to the north, south, and east by the Chevron Corp. Richmond refinery (Chevron Richmond refinery) and to the west by San Francisco Bay.

Fuel storage and transfer operations at the facility ceased in May 1995. Former NFD Point Molate became a closing base under the Base Realignment and Closure (BRAC) IV program in September 1995, and operational closure of the facility occurred in September 1998. In September 2003, approximately 372 acres of the depot were transferred to the City of Richmond under a Finding of Suitability to Transfer (Navy 2003). The remaining 40 acres of the 412-acre federal facility were transferred to the City on March 29, 2010 on the basis of a Finding of Suitability for Early Transfer (FOSET; Navy 2008).

The Navy closed in place (without filling with concrete or other material) USTs 1 through 20, due to the large size and the good condition of the USTs. Tanks B and C were removed due to their relatively smaller size, central location, and history of bunker fuel releases near Tank B. The *Underground Storage Tank and Hillside Pipeline Closure Conceptual Design* (TtEMI, 1999), was reviewed by the Hazardous Materials Programs office at the Contra Costa Health Services Department (CCHSD), the City of Richmond, and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). CCHSD, the agency overseeing structural closure of the USTs, officially approved the conceptual plan in a letter dated 23 July 1999.

CCHSD approved final closure in place of USTs 1 through 20 in a letter dated 24 February 2005; CCHSD also recognized that associated fuel product pipelines and valves were cleaned and rendered inoperable, and that Tanks B and C were completely removed. To date, USTs 1, 4, 7, 9, 10, 11, 12, 14, 16, 17 and 20 have received environmental closure (NFA) letters from the RWQCB. The remaining USTs (USTs 2, 3, 5, 6, 8, 13, 15, 18, and 19) have not received

environmental closure from the RWQCB. Regardless of the closure status of the USTs with the RWQCB, they require on-going maintenance and monitoring to reduce the chances that they will become a physical hazard. This report describes the monitoring and maintenance for USTs 1 through 20.

USTs 1 through 20 each have a capacity of approximately 50,000 barrels (bbls), which is equivalent to 2.1 million gallons. Figure 2 is a site plan showing the locations of the USTs and appurtenances at the former NFD Point Molate.

Between 1943 and 1975, bunker fuel, marine diesel fuel, and JP-5 were stored at the former NFD Point Molate. Between 1975 and 1995, the northern portion of the facility (USTs 1, 2 and 5 through 13) was used to store and transfer diesel fuel. The southern portion of the facility (USTs 3, 4 and 14 through 19) was used to store and transfer JP-5. UST 20 stored bunker fuel from 1943 to 1975, and stored naval ballast, sediment and wastewater from 1975 to 1995.

USTs 1 through 20 were constructed between 1942 and 1943 by blasting bedrock in the hillside to create "benches" for the USTs. Concrete was poured into wooden forms built on the benches, apparently in direct contact with bedrock. The UST floors, walls, and roof support columns were constructed; the concrete roofs were then installed. Completed USTs were covered with varying amounts of fill (four to eight feet); fill materials were presumably blasted rock and locally-derived excavated fill. Appendix A includes a more detailed description of UST construction, as excerpted from the *Final Report, Structural Integrity Evaluation of Underground Storage Tanks at Naval Fuel Depot, Point Molate, Richmond, California* (AGS, 2000).

Approximate dimensions of USTs 1-20 are as follows:

- Each tank has an interior clear diameter of 135'-4".
- Each tank has an interior clear height of 20'-0".
- Each tank has roof and floor slabs 1'-4" and 1'-6" thick, respectively.
- Tank walls are 1'-6" thick up to 10'-0" in height and 1'-3" thick above that.

Each UST was constructed with a perimeter drain surrounding the tank bottom. Original design drawings indicate that each drain consisted of open joint tiles placed in a gravel bed. Each drain was laid on a slope to fall approximately 12 inches from the upper (uphill side) UST perimeter to the lower (downhill side) perimeter. Water collected by these drains was to the oil recovery system (ORS; TtEMI, 2002). The purpose of the perimeter drains was to prevent infiltrating surface water from accumulating in the backfill outside of the UST walls. Figure 3 is a typical cross section of a UST at former NFD Point Molate.

3.0 SITE INSPECTIONS

The PMMP requires:

- Monthly inspections of the gates, locks, and fences.
- Quarterly inspections of the vegetation for erosion control; surface grade for erosion control; UST systems (ground surface, French drain outfalls, and tank vents); and groundwater monitoring wells.
- Biannual (Two-year) inspections of the UST interiors for standing water.
- Five-year structural inspections, structural inspections after significant loading events, and structural inspections after major seismic events.

The purpose of the site inspections is to conduct the inspection tasks established in the Final PMMP (ITSI 2005), including: security, erosion control, condition of the UST systems, and condition of the groundwater monitoring wells to identify conditions that may warrant maintenance or repair. This section provides an overview of observations made during the inspections. Recommendations for repairs that could not be completed during the site inspection are provided in Section 5. Individual UST sites are referred to by tank number (e.g., UST 6).

The location of tanks, monitoring wells, and French drains are shown on Figure 2. Summary table of the inspection field notes are provided in Appendix A.

3.1 Monthly Inspection of Gates, Locks, and Fences

The gates, locks, and fences along Western Drive that provide security for the UST sites are inspected to make sure they are in good condition, locked, and secure.

Observations during the monthly inspections of the gates, locks, and fences performed on July 30, August 26, and September 18, 2014:

- The gates, locks, and fences for gates 15 through 19 are in good condition, locked, and secure.
- Gate 23 is under constant surveillance as it is located next to the guard house (Building 123).
- An additional lock was added to Gate 17 in March 2014.

3.2 Quarterly Inspection of Erosion Control

3.2.1 Vegetation

Vegetation protects the soil surface from wind and water erosion, improves slope stability, and improves visual aesthetics. A site-specific hydroseed mix that includes drought-tolerant native plant seeds has been used for providing a vegetative cover at the UST sites.

Vegetation on UST sites are inspected for bare spots, signs of stress, color changes, etc. and areas of both healthy and sickly growth are noted on a quarterly basis.

Observations during the quarterly inspection performed on August 28, 2014:

- Small, bare and/or brown patches of vegetation were present at USTs 1 through 20. Brown patches are most likely due to lack of rain during the first three quarters of 2014.

3.2.2 Surface Grade

Uniformity of the slight grade on top of the USTs mitigates erosion and reduces surface water infiltration.

The soil cover is inspected for erosion, visible depressions, ponded water, cracks, slope failure, and grade on top of the USTs to see if there was a uniformity of the slight (0.5 percent to 1 percent) grade on a quarterly basis.

Observations during the quarterly inspection performed on August 28, 2014:

- No indication of erosion, ponded water, depressions, or slope failure was found at USTs 1 through 20.

3.3 Quarterly Inspection of UST Systems

3.3.1 Ground Surface

The structural integrity of the USTs can be compromised by surface loads. Loading by structures, vehicles, and debris is prohibited. Overloading is a serious condition that could lead to catastrophic failure and must be addressed by a licensed structural engineer.

Ground surfaces of the USTs are inspected for surface loads including structures, signs of vehicle traffic, and dumping of debris on a quarterly basis.

Observations during the quarterly inspection performed on August 28, 2014:

- Indications of light vehicle traffic such as tire tracks are present at USTs 1 through 20. The tire tracks are likely from lawn mowers.

3.3.2 Tank Vents

The aboveground vent at each UST provides equilibrium of the UST atmosphere with the outside atmosphere and allows for humidity to escape the UST interior.

The vents are inspected for signs of vandalism and to assure that the vent opening was intact on a quarterly basis.

Observations during the quarterly inspection performed on August 28, 2014:

- The vents do not show any indication of vandalism and the vent openings were intact and unobstructed at USTs 1 through 20.

3.3.3 French Drain Outfalls

French drains at each UST are intended to direct surface water infiltration away from the structural joint between the tank ceiling and upper sidewalls. Rip-rap is located at each outfall to reduce erosion. French drain outfalls are inspected for vandalism or displacement on a quarterly basis.

The quarterly observations for the French drain outfalls can be found in the Appendix A, which is attached to this report. The West drain at UST 6, South drain at UST 15, and East drain at Tank 16 could not be located. It is suspected that they were previously destroyed or were never constructed by the Navy.

3.4 Quarterly Inspection of Groundwater Monitoring Wells

There are groundwater monitoring wells adjacent to many of the USTs. The well casings are typically completed aboveground and protected with a standpipe. The wells are locked with keyed padlocks.

The surface completions of the monitoring wells are inspected for general condition on a quarterly basis. The standpipe covers are opened, well casings and well caps are inspected, and grout surrounding the each casing is inspected.

The quarterly observations for the groundwater monitoring wells can be found in the Appendix A, which is attached to this report.

4.0 RECOMMENDATIONS

Recommendations for repairs that could not be completed during the site inspection are provided below.

4.1 Gates, Locks, and Fences

If locks are rusted or are missing, or if gates or fences are in disrepair, the City of Richmond must be notified that repairs should be made.

Recommended actions:

None

4.2 Erosion Control

4.2.1 Vegetation

If significant bare spots are found, the bare spots must be reseeded or planted in accordance with the specification for hydroseeding. Irrigation during the establishment period must be provided, as necessary.

Recommended actions:

Bare and/or brown vegetation is present at USTs 1 through 20, but the bare and/or brown patches of vegetation are not significant enough to require reseeding or planting. This will be monitored for future degradation.

4.2.2 Surface Grade

Erosion must be mitigated. Visible depressions and cracks must be backfilled. Slope failures must be mitigated by backfilling and placing rip-rap or other erosion-limiting engineered control.

Recommended actions:

None

4.3 UST Systems

4.3.1 Ground Surface

Any objects, debris, or material that represents a load to the USTs must be removed. If a UST has been significantly overloaded, a structural inspection must be conducted.

Recommended actions:

None

4.3.2 Tank Vents

Vents must be repaired as required. Any object in the vent opening must be removed.

Recommended actions:

None

4.3.3 French Drain Outfalls

Blockages of the drain pipe must be removed. Riprap must be replaced in kind. Small vegetation growing into the rip-rap is beneficial and should not be removed.

Recommended actions:

None

4.4 Groundwater Monitoring Wells

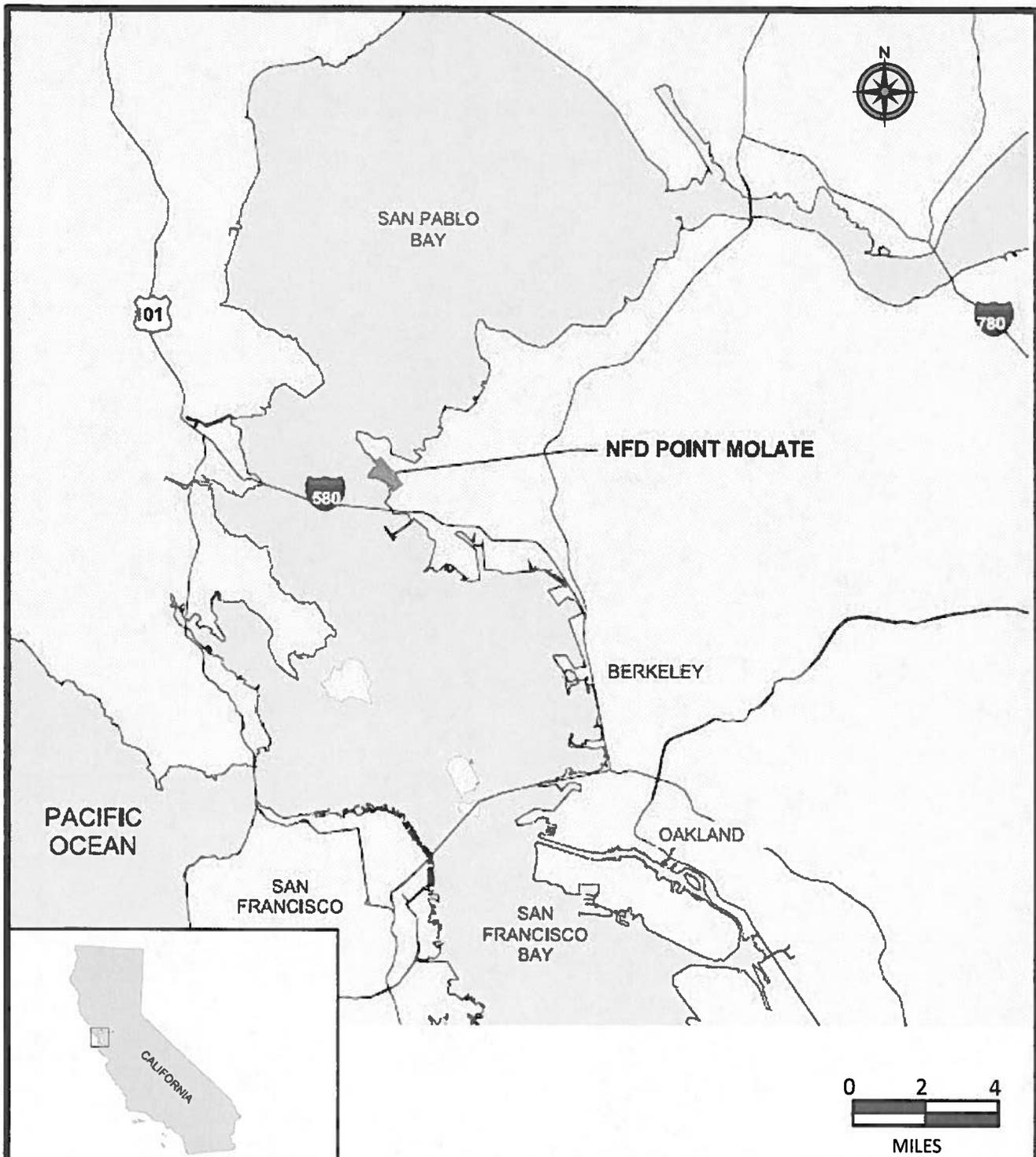
If standing water is present in the well standpipes, it must be removed from the standpipe and the condition allowing water to accumulate should be mitigated. If casing caps are missing, they should be replaced. If grout is cracked, it should be removed and replaced.

Recommended actions:

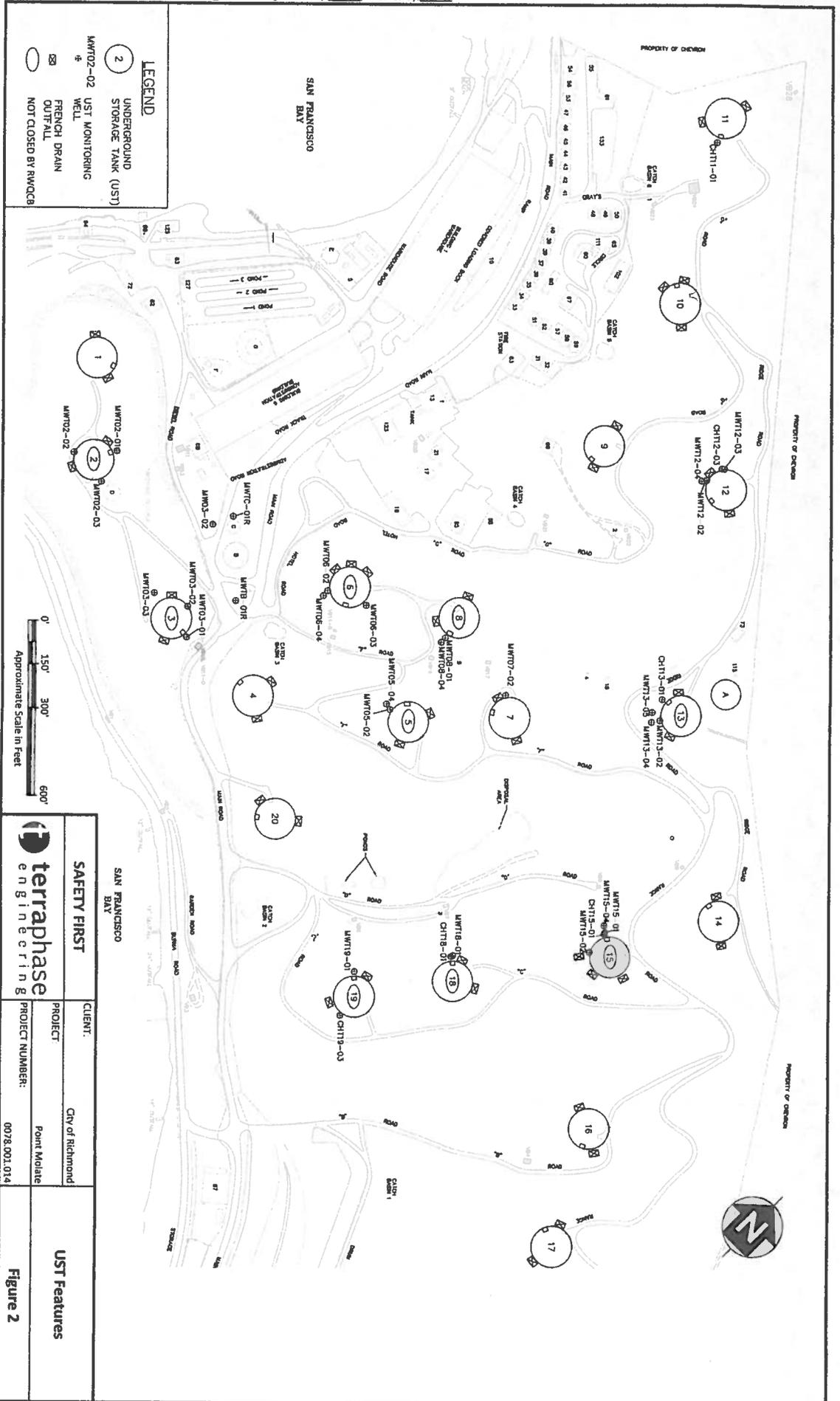
None

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SAFETY FIRST 	CLIENT: City of Richmond	Site Location Map
	PROJECT: UST Monitoring Report	
	PROJECT NUMBER: 0078.001.014	FIGURE 1



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Appendix A - Table 2
 Observations for the Groundwater Monitoring Wells
 Former Naval Fuel Depot Point Molate, Richmond, California



Tank	Groundwater Monitoring Well	Observations during the August 2014 Inspection
UST 2	MWT02-01	Good condition
	MWT02-03	Good condition
UST 3	MWT03-02	Good condition
UST 5	MWT05-02	Good condition
UST 6	MWT06-02	Good condition
UST 8	MWT08-01	Good condition
UST 12	MWT12-03	Good condition
UST 13	MWT13-02	Good condition
UST 15	MWT15-02	Good condition
UST 18	MWT18-01	Good condition
UST 19	MWT19-01	Good condition

Appendix A - Table 1
Observations for the French Drain Outfalls
Former Naval Fuel Depot Point Molate, Richmond, California



Tank	French Drain Outfall	Observations during the August 2014 Inspection
UST 19	North drain	Good condition
	South drain	Good condition
UST 20	Northeast drain	Good condition
	West drain	Good condition

Appendix A - Table 1
 Observations for the French Drain Outfalls
 Former Naval Fuel Depot Point Molate, Richmond, California



Tank	French Drain Outfall	Observations during the August 2014 Inspection
UST 10	Northwest drain	Good condition
	West drain	Good condition
	Southeast drain	Good condition
UST 11	North drain	Good condition
	South drain	Good condition
UST 12	East drain	Good condition
	West drain	Good condition
UST 13	Northwest drain	Good condition
	South drain	Good condition
UST 14	Northwest drain	Good condition
	Southeast drain	Good condition
UST 15	South drain	Cannot be located
	Southwest drain	Good condition
	East drain	Good condition
UST 16	East drain	Cannot be located
	West drain	Good condition
UST 17	North drain	Good condition
	South drain	Good condition
UST 18	Northeast drain	Good condition
	Northwest drain	Good condition

Appendix A - Table 1
 Observations for the French Drain Outfalls
 Former Naval Fuel Depot Point Molate, Richmond, California



Tank	French Drain Outfall	Observations during the August 2014 Inspection
UST 1	East drain	Good condition
	West drain	Good condition
UST 2	North drain	Good condition
	South drain	Good condition
UST 3	North drain	Good condition
	South drain	Good condition
UST 4	North drain	Good condition
	East drain	Good condition
UST 5	North drain	Good condition
	South drain	Good condition
UST 6	North drain	Good condition
	Northwest drain	Good condition
	West drain	Cannot be located
UST 7	East drain	Good condition
	West drain	Good condition
UST 8	North drain	Good condition
	Southwest drain	Good condition
UST 9	North drain	Good condition
	South drain	Good condition

APPENDIX A
SUMMARY TABLES



November 15, 2014

Ms. Lourdes Gonzales
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Attn: NPDES Wastewater Division
Fuel General NPDES No. CAG912002

Subject: Third Quarter 2014 Self-Monitoring Report for the Packaged Groundwater Treatment Plant,
Former Naval Fuel Depot Point Molate, Richmond, California (Orders No. R2-2006-0075,
R2-2012-0012, NPDES Permit No. CAG912002)

Dear Ms. Gonzales:

The City of Richmond (the "City") and Upstream Point Molate LLC ("Upstream") entered into the Point Molate Remediation Agreement in 2008 (the "Remediation Agreement"). Upstream has assumed responsibility for certain remediation-related work at Point Molate, including the preparation of this report, pursuant to the Remediation Agreement. Upstream has retained qualified professionals to assist in carrying out the subject work, including Terraphase Engineering Inc. ("Terraphase"). In addition, the City has retained Nichols Consulting Engineers ("Nichols") to represent and advise regarding remediation-related matters at Point Molate, including this report. Based upon their qualifications and experience, the City has reasonably relied on Upstream, Terraphase and Nichols to prepare the report and other attached documents and to advise the City regarding its preparation and contents. Based upon the foregoing, the City makes the following certification:

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A handwritten signature in black ink, appearing to read "Craig K. Murray".

Craig K. Murray
Development Project Manager II

450 Civic Center Plaza, 2nd floor Richmond, CA 94804-1630

Telephone: (510) 307-8140 Fax: (510) 307-8116 www.ci.richmond.ca.us

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terraphase
engineering

November 15, 2014

Ms. Lourdes Gonzales
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Attn: NPDES Wastewater Division
Fuel General NPDES No. CAG912002

Subject: Third Quarter 2014 Self-Monitoring Report for the Packaged Groundwater Treatment Plant,
Former Naval Fuel Depot Point Molate, Western Drive, Richmond, California (CIWQS
657165) Order No. R2-2012-0012, NPDES No. CAG912002

Dear Ms. Gonzales:

On behalf of the City of Richmond, Terraphase Engineering Inc. (Terraphase) has prepared this National Pollutant Discharge Elimination System (NPDES) Third Quarter 2014 Self-Monitoring Report for the Packaged Groundwater Treatment Plant (PGWTP) located at the Former Naval Fuel Depot Point Molate in Richmond, California ("the Site"). This letter report was prepared in accordance with the RWQCB Order No. R2-2012-0012, NPDES Permit No. CAG912002 (adopted March 15, 2012), titled "GENERAL WASTE DISCHARGE REQUIREMENTS FOR: Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC), Fuel Leaks and Other Related Wastes (VOC and Fuel General Permit)".

This report presents the data collected during the third quarter of 2014 ("the reporting period") in accordance with reporting requirements specified in Attachment E of the VOC and Fuel General Permit. This report presents flow rates, field water-quality measurements, and laboratory analytical results of the PGWTP influent and effluent for total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene, and total xylenes (BTEX) compounds; and polycyclic aromatic hydrocarbon (PAH).

PGWTP Description

The PGWTP treats groundwater extracted from four screened wells set into a trench that extends below the water table and has been backfilled with gravel to minimize the resistance to groundwater flow into the wells. The groundwater is pumped from the extraction wells using submersible well pumps and conveyed directly to a two-pod sand filter. Following the sand filter, water then flows through four GAC units (2,000 pounds each) plumbed in series to further reduce the concentrations of the chemicals of concern in the PGWTP's effluent discharge. Treated groundwater is discharged directly to San Francisco Bay under the requirements of the NPDES Permit.

PGWTP 2014 Third Quarter Operations

Power to the site has been intermittent throughout the reporting quarter and a generator has been brought out to the site to keep the extraction wells running. Extraction wells C and D, which feed the PGWTP were operated every 5 days for an hour and a half from July 1, through September 30, 2014. The PGWTP was moved to the northern edge of IR Site 3 on September 29, 2014 to facilitate the active remediation effort taking place at IR Site 3. The PGWTP came back online in its new location on October 1, 2014. The extraction wells and PGWTP were not operated during this time. The PGWTP was operated and maintained in accordance with the Operation and Maintenance (O&M) Manual, prepared by Terraphase, dated July 25, 2011. A copy of this O&M Manual is located at the PGWTP.

During the third quarter of 2014, the PGWTP treated approximately 27,400 gallons of groundwater with an average flow rate of approximately 16 gallons per minute (gpm) (Table 1). These numbers are estimated, as totalizer readings show the PGWTP treated approximately 340 gallons of groundwater with an average flow rate of approximately 0.0 gallons per minute. Upon further investigation, Terraphase discovered that the totalizer was found to be malfunctioning. The totalizer was cleaned and repaired. The estimated volume of groundwater treated was calculated based upon 1.5 hours of operation every 5 days at an average flow rate of 16 gpm.

During the third quarter of 2014, approximately 92.7 grams of TPH were removed by the PGWTP (Table 2).

Summary of NPDES Sampling Results

Influent and effluent water samples from the PGWTP were collected and analyzed during the reporting period in accordance with the 2012 Order. Tables 3A and 3B summarize the analytical data for influent samples collected from the PGWTP. Tables 4A and 4B summarize data for the same analytes in effluent samples collected from the PGWTP during the reporting period. The following sections of this report summarize the sampling results.

TPH Analytical Results

Influent and effluent sampling for TPH as gasoline (TPHg), TPH as diesel (TPHd), and TPH as bunker fuel C (TPHbc) was performed on July 31, August 26, and September 26, 2014. The analytical results for these compounds are presented in Table 3A for influent samples and in Table 4A for effluent samples.

The concentrations of TPHg in effluent samples were below their respective effluent limitations during the reporting period. The concentrations of TPHd and TPHbc in effluent samples were below the analytical laboratory's reporting limits of 17 µg/L and 100 µg/L respectively during the reporting period.

Historically, the influent and effluent samples at the PGWTP have contained concentrations of compounds that interfere with the analytical laboratory's performance of TPH analysis when using United States Environmental Protection Agency (EPA) Method 8015B. Interference of this type is typically caused by a biogenic source, usually carboxylic acids that have elution times similar to the range of TPHd and TPHbc compounds. When present in samples, these organic acids are interpreted by laboratory analytical equipment to be TPH. The interference in site samples has led to false elevated

analytical results for TPH. Subjecting the sample to a process referred to as a “silica gel cleanup” effectively removes the interfering compounds from a sample and allows the laboratory to separate out and quantify the true concentration of petroleum-related TPH compounds. Silica gel cleanups were performed on the TPHd and TPHbc samples collected from the PGWTP.

BTEX Analytical Results

Influent and effluent sampling for BTEX compounds was performed on July 31, August 26, and September 26, 2014. BTEX analytical results are presented in Table 3A for influent samples and in Table 4A for effluent samples.

The concentrations of BTEX compounds in the effluent samples were below analytical laboratory’s reporting limit of 0.5 µg/L during the reporting period.

PAH Analytical Results

Influent and effluent sampling for PAH compounds was performed on July 31, August 26, and September 26, 2014. PAH analytical results are presented in Table 3B for influent samples and in Table 4B for effluent samples.

The concentrations of PAH compounds in the effluent samples were not detected above the analytical laboratory’s reporting limit of 0.1 µg/L, which is the lowest reporting limit that the analytical laboratory can reach.

Visual Observations

Visual observations regarding floating materials, discoloration, turbidity, odor, evidence of beneficial use, hydrographic condition, and weather condition for the receiving water; and odor, weather condition, deposits, discoloration, clogging, and valve exercise regarding the PGWTP were recorded during the monthly sampling events. The visual observation forms for the reporting period are provided as Attachment A.

Quality Assurance/Quality Control (QA/QC)

Standard QA/QC measures were implemented during the sample collection, transportation, and chemical analysis process. The primary objective of these QA/QC measures is to ensure that resulting analytical data are reproducible, are of adequate quality for their intended use, and are representative of actual conditions.

- July Method Blank Detection:
 - TPHg was detected in the method blank associated with the samples collected on July 31, 2014. The concentration was 11 J µg/L.
- July Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on July 31, 2014. The concentration was 14 J µg/L.

- August Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on August 26, 2014. The concentration was 32 J $\mu\text{g/L}$.
- September Method Blank Detection:
 - TPHg was detected in the trip blank associated with the samples collected on September 26, 2014. The concentration was 16 J $\mu\text{g/L}$.

Estimated concentrations: Analytes that were present in samples above the laboratory method detection limit (MDL) but below the laboratory reporting limit (RL) are qualified with a "J" flag to indicate that the concentration is an estimated value.

No further qualification has been applied to the analytical results presented in this report because the concentrations of the analytes in the method and trip blank samples are below the analytical laboratory's reporting limit and the concentrations of the analytes in the effluent samples are below the Effluent Limitations.

Compliance Evaluation Summary

During the third quarter 2014 reporting period, the PGWTP complied with the applicable sampling requirements.

If you have questions regarding this report, please call Tomer Schetrit at (510) 645-1850.

Sincerely,
For Terraphase Engineering Inc.



Tomer Schetrit P.E. (C81411)
Project Engineer



Chris Jones
Staff II Engineer

cc: Carlos Privat, City of Richmond
Craig Murray, City of Richmond
Venkat Puranapanda, ACE Group
Jim Whitcomb, United States Navy BRAC
Michael Leacox, Nichols Consulting Engineers
George Levya, California RWQCB
Joan Garrett, PMCAC
Bruce Bayaert, PMCAC

Tables:

- 1 PGWTP Summary of Flow Data
- 2 PGWTP Summary of Total Petroleum Hydrocarbon Mass Removal Data
- 3A PGWTP Summary of Influent BTEX and Total Petroleum Hydrocarbons Sample Results
- 3B PGWTP Summary of Influent PAH Sample Results
- 3C PGWTP Summary of Influent 1,4-Dioxane Sample Results
- 4A PGWTP Summary of Effluent BTEX and Total Petroleum Hydrocarbons Sample Results
- 4B PGWTP Summary of Effluent PAH Sample Results
- 4C PGWTP Summary of Effluent 1,4-Dioxane Sample Results

Attachments:

Attachment A Visual Observation Forms

Table 1
PGWTP Summary of Flow Data
Former Naval Fuel Depot Point Molate, Richmond, California



Month	Period of Operation ⁽¹⁾ (hours)	Volume Per Period (gallons)	Volume Per Period (liters)	Average Flow Rate During Operation (gpm)
July	11	10,080	38,153	16.0
August	9	8,640	32,702	16.0
September	9	8,640	32,702	16.0

Notes:

(1) Number of days system is operating, which may not coincide with the number of days in the month.
gpm = gallons per minute

Second Quarter 2014 Summary (7/1/2014 to 9/30/2014)	
Total hours of operation	29
Total volume of groundwater treated (gallons)	27,360

Table 2
PGWTP Summary of TPH Mass Removal Data
Former Naval Fuel Depot Point Molate, Richmond, California



Month	Period of Operation ⁽¹⁾ (hours)	Volume Per Period (gallons)	Volume Per Period (liters)	Total TPH Influent Concentration ⁽²⁾ (µg/l)	Total TPH Effluent Concentration ⁽²⁾ (µg/l)	Total TPH Removal Concentration (µg/l)	TPH Mass Removed Per Period ⁽³⁾ (kg)	TPH Mass Removal (kg/day) Rate
July	11	10,080	38,153	1,622	15	1,607	0.1	0.0
August	9	8,640	32,702	340	31	310	0.0	0.0
September	9	8,640	32,702	669	19	650	0.0	0.0

Notes:

- (1) Number of days system is operating, which may not coincide with the number of days in the month.
- (2) For total TPH concentration, non-detects are treated as zero.
- (3) Total TPH concentration is based on addition of TPHg, TPHd, and TPHbc results. Because the range of hydrocarbons reported for each analyte overlaps, this mass removal may be biased high.

ND = Not Detected (Analyte was not detected above the RL.)

RL = Reporting Limit

TPH = Total Petroleum Hydrocarbons

kg = kilograms

µg/l = micrograms per liter

Second Quarter 2014 Summary (7/1/2014 to 9/30/2014)	
TPH mass removed this period (kg)	0.1
TPH mass removed this period (g)	92.7

Table 3A
PGWTP Summary of Influent BTEX and Total Petroleum Hydrocarbons Analytical Results
Former Naval Fuel Depot Point Molate, Richmond, California

Constituent	Analytical Method	Units	Sample Frequency	Sample Date																	
				7/31/14						8/26/14						9/26/14					
				Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed						
Benzene	EPA 8260B	µg/l	Q	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep						
Toluene	EPA 8260B	µg/l	Q	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep						
Ethylbenzene	EPA 8260B	µg/l	Q	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep						
Total xylenes	EPA 8260B	µg/l	Q	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep						
TPHg	EPA 8015B	µg/l	Q	22 J ⁽²⁾	50	11	1-Aug	27 J ⁽²⁾	50	13	27-Aug	19 J ⁽²⁾	50	13	30-Sep						
TPHd ⁽¹⁾	EPA 8015B	µg/l	Q	300	17	5.5	5-Aug	63 Y	17	5.5	4-Sep	140	17	5.5	2-Oct						
TPHbc ⁽¹⁾	EPA 8015B	µg/l	Q	1,300	100	--	5-Aug	250	100	--	4-Sep	510	100	--	2-Oct						

Notes:

(1) Silica gel cleanup used for TPHd and TPHbc analysis

(2) Analyte detected in Trip Blank and/or Method Blank

-- = Not measured/Not applicable

BOLD = Analyte detected

EPA = Environmental Protection Agency

J = Estimated concentration. Compound detected at a concentration below its RL and above the MDL.

MDL = Method Detection Limit

ND = Not Detected (Analyte was not detected above the RL.)

Q = Quarterly

RL = Reporting Limit

TPHbc = total petroleum hydrocarbons quantified as bunker C

TPHd = total petroleum hydrocarbons quantified as diesel

TPHg = total petroleum hydrocarbons quantified as gasoline

µg/l = micrograms per liter

Y = Sample exhibits chromatographic pattern, which does not resemble standard.



Table 3B
PGWTP Summary of Influent PAHs Analytical Results
Former Naval Fuel Depot Point Molate, Richmond, California

Constituent	Analytical Method	Units	Sample Frequency	Sample Date											
				7/31/14			8/26/14			9/26/14					
				Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed
Naphthalene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Acenaphthylene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Acenaphthene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Fluorene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Phenanthrene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Anthracene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.03	2-Oct
Fluoranthene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Pyrene	EPA 8270C-SIM	µg/l	Q	0.1	0.1	0.02	5-Aug	0.05 J	0.1	0.02	28-Aug	0.07 J	0.09	0.02	2-Oct
Benzo(a)anthracene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Chrysene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.03	2-Oct
Benzo(b)fluoranthene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(k)fluoranthene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(e)pyrene	EPA 8270C-SIM	µg/l	Q	0.02 J	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Indeno(1,2,3-cd)pyrene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Dibenz(a,h)anthracene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(g,h,i)perylene	EPA 8270C-SIM	µg/l	Q	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct

Notes:

- = Not measured/Not applicable
- BOLD** = Analyte detected
- EPA = Environmental Protection Agency
- J = Estimated concentration. Compound detected at a concentration below its RL and above the MDL.
- MDL = Method Detection Limit
- ND = Not Detected (Analyte was not detected above the RL.)
- Q = Quarterly
- RL = Reporting Limit
- µg/l = micrograms per liter

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Table 4A
 PGWTP Summary of Effluent BTEX and Total Petroleum Hydrocarbons Analytical Results
 Former Naval Fuel Depot Point Molate, Richmond, California

Constituent	Analytical Method	Units	Sample Freq.	Effluent Limit.	Sample Date											
					7/31/14			8/26/14			9/26/14					
					Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed
Benzene	EPA 8260B	µg/l	M	5	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep
Toluene	EPA 8260B	µg/l	M	5	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep
Ethylbenzene	EPA 8260B	µg/l	M	5	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep
Total xylenes	EPA 8260B	µg/l	M	5	ND	0.5	0.1	1-Aug	ND	0.5	0.1	27-Aug	ND	0.5	0.1	30-Sep
TPHg	EPA 8015B	µg/l	M	50	15 J ⁽²⁾	50	11	1-Aug	23 J ⁽²⁾	50	13	27-Aug	19 J ⁽²⁾	50	11	30-Sep
TPHd ⁽¹⁾	EPA 8015B	µg/l	M	50	ND	17	5.5	5-Aug	ND	17	5.5	4-Sep	ND	17	5.5	2-Oct
TPHbc ^(1,3)	EPA 8015B	µg/l	M	--	ND	100	--	5-Aug	ND	100	--	4-Sep	ND	100	--	2-Oct

Notes:

- (1) Silica gel cleanup used for TPHd and TPHbc analysis
- (2) Analyte detected in Trip Blank and/or Method Blank
- (3) TPHbc has a trigger limit of 50 µg/l. However, the analytical method reporting has been 100 µg/l since January 25, 2012.

-- = not measured/not applicable

BOLD = Analyte detected

EPA = Environmental Protection Agency

J = Estimated concentration. Compound detected at a concentration below its RL and above the MDL.

M = Monthly

MDL = Method Detection Limit

ND = Not Detected (Analyte was not detected above the RL.)

RL = Reporting Limit

TPHbc = total petroleum hydrocarbons quantified as bunker C

TPHd = total petroleum hydrocarbons quantified as diesel

TPHg = total petroleum hydrocarbons quantified as gasoline

µg/l = micrograms per liter

Y = Sample exhibits chromatographic pattern, which does not resemble standard.

Table 4B
 PGWTP Summary of Effluent PAHs Analytical Results
 Former Naval Fuel Depot Point Molate, Richmond, California

Constituent	Analytical Method	Units	Sample Frequency	Trigger	Sample Date											
					7/31/14			8/26/14			9/26/14					
					Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed	Result	RL	MDL	Date Analyzed
Naphthalene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	0.03 J	0.09	0.02	2-Oct
Acenaphthylene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Acenaphthene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Fluorene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Phenanthrene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Anthracene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Fluoranthene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Pyrene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(a)anthracene	EPA 8270C-SIM	µg/l	M	0.0044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Chrysene	EPA 8270C-SIM	µg/l	M	0.044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(b)fluoranthene	EPA 8270C-SIM	µg/l	M	0.0044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(k)fluoranthene	EPA 8270C-SIM	µg/l	M	0.0044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(e)pyrene	EPA 8270C-SIM	µg/l	M	0.0044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Indeno(1,2,3-cd)pyrene	EPA 8270C-SIM	µg/l	M	0.0044 ⁽¹⁾	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Dibenz(a,h)anthracene	EPA 8270C-SIM	µg/l	M	0.0044	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct
Benzo(g,h,i)perylene	EPA 8270C-SIM	µg/l	M	-	ND	0.1	0.02	5-Aug	ND	0.1	0.02	28-Aug	ND	0.09	0.02	2-Oct

Notes:

(J) The RL is greater than the trigger concentration and the minimum level listed in Appendix 4 of the 2005 State Water Resources Control Board, Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). However, for EPA 8270C-SIM, the lowest level for the reporting limit that the analytical laboratory can report down to is 0.09 ug/L.

-- = Not measured/Not applicable

EPA = Environmental Protection Agency

MDL = Method Detection Limit

RL = Reporting Limit

ND = Not Detected (Analyte was not detected above the RL)

PAHs = Polycyclic aromatic hydrocarbons

M = Monthly

µg/l = micrograms per liter

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ATTACHMENT A
VISUAL OBSERVATION FORMS

Site Visit Date: 7/31/14 Personnel: Chris Jones & Jen Repa

Visual for Receiving waters

None	Floating and suspended materials of waste origin (oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of
None	Discoloration and turbidity: Description of color, source, and size of affected area
None	Odor: presence or absence, characterization, source distance of travel, and wind direction
Yes, birds	Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site
N/A	Hydrographic condition, if relevant (Tidal conditions, depth of sample)
74, Wind 4.2 mph SW, 0.0" total precipitation	Weather Conditions: air temperature, wind direction/velocity, Total precipitation in previous 5 days and on day of observation

Visual for Groundwater Treatment System

None	Odor: presence or absence, characterization, source, distance of travel, and wind direction
4.2 mph SW	Weather Conditions: Wind direction/velocity
None	Deposits, discolorations, and/or plugging in the treatment system that could adversely affect the system reliability and performance
Yes	Operation of the float and pressure shutoff valves installed to prevent system overflow or bypass

Site Visit Date: 8/26/14 Personnel: Jen Repa	
Visual for Receiving waters	
None	Floating and suspended materials of waste origin (oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of
None	Discoloration and turbidity: Description of color, source, and size of affected area
None	Odor: presence or absence, characterization, source distance of travel, and wind direction
Yes, birds	Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site
N/A	Hydrographic condition, if relevant (Tidal conditions, depth of sample)
72, Wind 2.2 mph SSW, 0.0" total precipitation	Weather Conditions: air temperature, wind direction/velocity, Total precipitation in previous 5 days and on day of observation
Visual for Groundwater Treatment System	
None	Odor: presence or absence, characterization, source, distance of travel, and wind direction
2.2 mph SSW	Weather Conditions: Wind direction/velocity
None	Deposits, discolorations, and/or plugging in the treatment system that could adversely affect the system reliability and performance
Yes	Operation of the float and pressure shutoff valves installed to prevent system overflow or bypass

Site Visit Date: 9/26/14 Personnel: Tomer Schetrit

Visual for Receiving waters

None	Floating and suspended materials of waste origin (oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of
None	Discoloration and turbidity: Description of color, source, and size of affected area
None	Odor: presence or absence, characterization, source distance of travel, and wind direction
Yes, birds	Evidence of beneficial water use: presence of waterfowl or wildlife, people fishing, and other recreational activities in the vicinity of the site
N/A	Hydrographic condition, if relevant (Tidal conditions, depth of sample)
68, Wind 9.0 mph W, 0.53" total precipitation	Weather Conditions: air temperature, wind direction/velocity, Total precipitation in previous 5 days and on day of observation

Visual for Groundwater Treatment System

None	Odor: presence or absence, characterization, source, distance of travel, and wind direction
9.0 mph W	Weather Conditions: Wind direction/velocity
None	Deposits, discolorations, and/or plugging in the treatment system that could adversely affect the system reliability and performance
Yes	Operation of the float and pressure shutoff valves installed to prevent system overflow or bypass



December 5, 2014

Mr. Venkat Puranapanda
ACE USA
10 Exchange Place, 9th Floor
Jersey City, New Jersey 07302

Sent via e-mail

Subject: Transmittal of the Remediation Project Update for the Former Naval Fuel Depot Point Molate Richmond, California (Policy RCC G2488965B 001)

Mr. Puranapanda:

As requested, this transmittal includes the Remediation Project Update monthly report and cost summary worksheet for the remediation work at the former Naval Fuel Depot Point Molate located in Richmond, California. These documents were prepared on behalf of the City of Richmond, the named insured.

If you have any question or comments regarding this transmittal, please contact Tomer Schetrit at (510) 645-1850.

Sincerely,
For Terraphase Engineering Inc.

A handwritten signature in blue ink, appearing to read 'T-S', is positioned above the typed name of the sender.

Tomer Schetrit, PE (C81411)
Project Engineer

cc: Carlos Privat, City of Richmond
Craig Murray, City of Richmond
Michael Leacox, NCE
William Carson, Terraphase Engineering

Attachments: Remediation Project Update (as of November 2014)
Cost Summary (June 2014 to November 2014)
October 2014 Monthly Remediation Status Report
Invoices for June 2 through November 2, 2014
Waste Manifests through November 4, 2014

Terraphase Engineering Inc.
1404 Franklin Street, Suite 600
Oakland, California 94612
www.terrphase.com

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REMEDATION PROJECT UPDATE

Named Insured	City of Richmond	Insured contact(s)	Kim Greer, Carlos Privat, Craig Murray (City of Richmond)
Insured Location	450 Civic Center Plaza, 2 nd Floor, Richmond	Other Insured Contact (Technical)	William Carson
Additional Site Location(s)	None	Other Insured Contact (Legal)	
Policy Number	RCC G2488965B 001	Insured's Lead Consultant/Contractor	Terraphase Engineering, Inc.
Policy Term	March 31, 2010 to March 31, 2020	Regulatory Contact	George Leyva (California RWQCB)
Policy Limit	\$20,000,000	Broker Contact	Seth Cole (Alliant Insurance Services)
Projected Remediation Cost	\$19,308,266	ACE Underwriter	Venkat Puranapanda
Self Insured Retention	\$29,500,000	ACE Cost Cap Monitoring Manager	Venkat Puranapanda
Date Submitted	December 5, 2014	Reporting Period	June 2, 2014 through November 2, 2014

Scope of Work Conducted in Reporting Period

List activities conducted in the reporting period in accordance with the scope of work in the Remediation Plan Schedule Endorsement No. _____ to the policy...

Scope of work

1. *Brief description of project activities completed in the reporting period*
See attached monthly status reports.
2. *List tasks completed since last update*
See attached monthly status reports.
3. *List tasks which are at 100 % completion*
 IR Site 4 – Drum Lot 1 and 2 – Site Management Plan (Task 1.0)
 Long-Term Groundwater Monitoring – Plans (Task 1.0)
 Long-Term Groundwater Monitoring – Sampling and Analysis (Years 1-4) (Task 3.0)
 IR Site 4 – Drum Lot 1 and 2 - Additional Investigation for TCE Plume at IR Site 4 Drum Lot 2 (Task 3.0)
 IR Site 3 – Feasibility Study and Remedial Action Plan (Task 1.0)
 IR Site 3 – Waste Characterization Plan (Task 2.0)
 IR Site 3 – Remedial Design Implementation Plan (Task 3.0)

Changes in Project Conditions

Please identify the following:

1. *Changes in project assumptions (field conditions, regulatory changes; changes in site use, permit approvals/delays etc.)*

The treatment area at IR Site 4 was expanded both horizontally and vertically based on groundwater samples collected during investigation. Even with increase of treatment area, the remediation efforts are currently estimated to remain under budget.

The revised IR Site 3 FS/RAP addresses comments by the RWQCB regarding development of IR Site 3 as a Waste Management Unit under Title 27 as reported on March 11, 2013 and discussed in the June 2013 meeting with ACE in Emeryville, CA. Costs under Task 4 have been adjusted in accordance with the low bid received for remediation work at IR Site 3. The costs estimated for the recommended alternative for remediation of IR Site 3 is below the original budget.

On February 7th 2014 the RWQCB informed the city that silica gel cleanup analysis shall not be implemented prior to analysis of total petroleum hydrocarbons (TPH) as previously performed. This change in regulation resulted in a RWQCB Notice of Violation (August 26, 2014) for discharge of TPH and TPH decomposition products into waters of the state and could potentially affect monitoring and remediation costs.

2. *Any increase/decrease in contamination.*

The extent of the Non-RCRA hazardous waste located in the former fuel reclamation facility has increased relative to initial estimates by approximately 50%. Step-out excavations in the 0-5 foot and 5-10 foot excavation phases has increased Class II excavation, transport and disposal by approximately 10%.

3. *Off-site migration of contaminant plume; impacts to sensitive receptors?*

None

Project Schedule

1. *Describe events/activities that may impact the project schedule including revised completion dates that may exceed the original estimates schedule, if any.*

The remediation is based on the RWQCB Order R2-2011-0087 (see attached monthly status report for a breakdown of tasks and required completion dates). IR Site 3 remedial activities commenced in August 2014.

The IR Site 3 FS/RAP was revised to February 28, 2014 and IR Site 3 Remedial Action Completion Report has been revised to June 30, 2015. The Final IR Site 3 FS/RAP was approved by the RWQCB on June 4, 2014.

The Remediation and Abatement contract for IR Site 3 was awarded on August 8, 2014 and implementation of the remedial plan is currently underway with a tentative completion date of March 20, 2015.

Out of Scope Activities (if any)

Please identify any out of scope activities including those conducted due to the following:

1. *Changes in Regulatory conditions*

- a. Revisions of IR Site 3 remediation approach based on changes in the RWQCB regulatory approach to IR Site 3 to treat IR Site 3 as a Title 27 Waste Management Unit.
- b. RWQCB letter informing that silica gel cleanup will no longer be allowed to be used prior to analysis for total petroleum hydrocarbons.

- c. Notice of Violation (August 26, 2014) from RWQCB regarding discharge of TPH decomposition byproducts into waters of the state. The City will submit a work plan to the RWQCB by January 1, 2015, that proposes alternative quantification methodology, additional characterization and/or risk evaluation for areas outside of IR Site 3 where USEPA Method 8015 without Silica Gel Cleanup quantifies TPH and TPH decomposition products as exceeding the Fuel Product Action Levels within 150 feet of the San Pablo Bay.

2. *Discovery of additional contamination*

The extent of the Non-RCRA hazardous waste located in the former fuel reclamation facility has increased relative to initial estimates by approximately 50%. Step-out excavations in the 0-5 foot and 5-10 foot excavation phases has increased Class II excavation, transport and disposal by approximately 10%.

3. *Discovery of new contaminants*

None

4. *Changes in site conditions*

Please refer to response above regarding changes in regulatory conditions.

5. *Changes in Project schedule*

The remediation is based on the RWQCB Order R2-2011-0087 (see attached monthly status (October 2014) report for a breakdown of tasks and required completion dates).

6. *Other unanticipated changes*

None

Project Cost/Controls for Out of scope Activities

1. *Describe plans to address out of scope activities, actions undertaken to control project costs and to meet the project schedule.*

As required by the RWQCB, the out of scope activities will be completed as quickly as possible to allow for the remediation of IR Site 3. The work needs to be completed in accordance with compliance dates in the RWQCB Order R2-2011-0087. As described above, the City is currently preparing a work plan that proposes alternative quantification methodology, additional characterization and/or risk evaluation for areas outside of IR Site 3 where USEPA Method 8015 without Silica Gel Cleanup quantifies TPH and TPH decomposition products as exceeding the Fuel Product Action Levels within 150 feet of the San Pablo Bay.

Project Deliverables - Milestone Completion

Please identify project deliverables and scheduled date of completion.

Please see the attached monthly remediation status report (October 2014).

Project Budget Report

USE ATTACHED EXCEL SPREADSHEET TEMPLATE (COST REPORT)

Please discuss the following:

1. *Changes if any to the anticipated costs incurred in comparison to the projected budgets*

The projected cost to complete has been revised to \$19,308,266, slightly down from the previous project update (\$19,494,377) due to adjustments associated with real costs of implementation of the remedial plan IR Site 3 task 4.0 and adjustments to projected costs as indicated by work in the field.

2. *Backup provided for costs incurred.*

Invoices June through November 2014.

3. *Costs/tasks associated with items not included in the insured scope of work (Out of Scope items).*

None

Potential for Excess Remediation Costs

1. *Please provide a brief description of any issues that have arisen since the last update that may lead to any "Remediation Costs" or "Excess Remediation Costs" as defined in the policy.*

Please refer to the above discussion of Out of Scope Activities item 1.C.

2. *Please provide a brief description/summary of issues that have arisen to date that may lead to any "Remediation Costs" or "Excess Remediation Costs" as defined in the policy.*

Sand filters installed at the IR Site 1 Landfill treatment system (approximately \$30,000). Included in Task 1.0 of IR Site 1 – Closed Landfill.

Additional remediation on IR Site 4 Drum Lot 2. Included in Task 4.0 of IR Site 4 – Drum Lot 1 and 2.

Permitting and construction of compensatory mitigation wetlands on site (approximately \$500,000). Included in Task 4.0 of IR Site 3- Former Oily Sump Area.

Evaluation of soil vapor and Title 27 requirements at IR Site 3 (approximately \$100,000). Included in Task 2.0 of IR Site 3-Former Oily Sump Area.

Extended operation of the PGWTP for two additional years (approximately \$550,000). Included in Task 5.0 of IR Site 3- Former Oily Sump Area.

Backup Documentation

The Insurer requires backup documentation that can substantiate all "Remediation Costs" and "Excess Remediation Costs" for which coverage may be afforded under the policy, including, but not limited to, the following:

1. *Copies of all invoices associated with implementation of remediation activities at the site. The invoices should include a listing of personnel, equipment and expenses along with unit rates, quantities and description of activities performed at the site.*

Invoices and backups provided for the invoice period June 2, 2014 through November 2, 2014.

2. *Copies of all subcontractor expenses associated with implementation of remediation activities at the site.*

Subcontractor expenses and invoices are included on the invoices and backups.

Insured Name: City of Richmond
Date: December 5, 2014

3. Copies of daily field notes describing the activities conducted at the site.

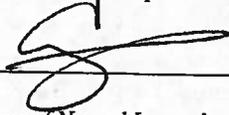
Field notes are incorporated into the reports (provided to ACE Group when they are submitted to the RWQCB), invoices (services), and monthly status reports (see attached).

4. Copies of subcontractor time sheets and equipment records.

Subcontractor expenses and invoices are included on the invoices and backups.

5. Copies of disposal manifests and bills of lading associated with the offsite disposal of remediation generated wastes at the site.

Manifests for the period June 2, 2014 to November 2, 2014 are included.



Signature of Named Insured

CRAIG K. MURRAY

Print Name

DEVELOPMENT PROJECT MANAGER II

Title

DECEMBER 5, 2014

Date

BY SIGNING THIS REMEDIATION PROJECT UPDATE ("UPDATE") THE NAMED INSURED WARRANTS TO THE INSURER THAT ALL STATEMENTS MADE IN THIS UPDATE INCLUDING ATTACHMENT(S), ARE TRUE AND COMPLETE AND THAT NO MATERIAL FACTS HAVE BEEN MISSTATED OR CONCEALED IN THIS UPDATE.

ANY PERSON WHO KNOWINGLY AND WITH INTENT TO DEFRAUD ANY INSURANCE COMPANY OR ANOTHER PERSON FILES AN APPLICATION FOR INSURANCE OR STATEMENT OF CLAIM CONTAINING ANY MATERIALLY FALSE INFORMATION OR CONCEALS INFORMATION FOR THE PURPOSE OF MISLEADING OR MISREPRESENTATION COMMITS A FRAUDELENT INSURANCE ACT AND IS POTENTIALLY SUBJECT TO CRIMINAL AND CIVIL PENALTIES

FOR USE BY ACE PERSONNEL ONLY			
Claim Number		ACE Claims Manager	Christopher Stella christopher.stella@acegroup.com
Date Received		ACE Cost Cap Monitoring Manager	Venkat Puranapanda venkat.puranapanda@acegroup.com
Date Reviewed			
Reviewed By		Distribution	

Named Insured	City of Richmond	Insured Contact.	Carlos Privat, Craig Murray, Kim
Insured Location	450 Civic Center Plaza, 2nd Floor, Richmond	Consultant	Terraphase Engineering Inc.
Policy Number	RCC G2488965B 001	Contractor	Terraphase Engineering Inc.
Policy Term	March 31, 2010 to March 31, 2020	Submitted By	Tomer Schetrit
Policy Limit	\$20,000,000	Date Submitted	12/5/2014
Self Insured Retention	\$29,500,000	Reporting Period	June 2, 2014 through December 1

Task Number	Description	Performance Measure (units)	Proposed Budget (\$)	Total This Period		Total to Date		Under/Over Budget	Projected Co to Complete
				Costs incurred (\$)	Work completed (%)	Costs incurred (\$)	Work completed (%)	Costs (\$)	Costs (\$)
	IR Site 1 - Closed Landfill	N/A	\$ 684,051	\$ 15,091	0.8%	\$ 292,014	40%	\$ 392,037	\$ 269,95
1.0	Annual Operations and Monitoring	N/A	\$ 471,863	\$ 13,011	0.8%	\$ 287,838	40%	\$ 184,025	\$ 241,51
2.0	Annual Maintenance	N/A	\$ 144,625	N/A	N/A	N/A	N/A	N/A	N/A
3.0	Close Out	N/A	\$ -	\$ -	0%	\$ -	0%	\$ -	\$ -
4.0	Annual Project Management	N/A	\$ 67,563	\$ 2,079	3.1%	\$ 4,176	13%	\$ 63,387	\$ 28,424.1
5.0	Regulatory Oversight	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	IR Site 3 - Former Oil Sump Area	N/A	\$ 20,449,113	\$ 2,447,403	15.7%	\$ 4,892,903	31%	\$ 15,556,210	\$ 10,701,2
1.0	Feasibility Study and Remedial Action Plan	N/A	\$ 282,275	\$ -	0%	\$ 133,392	100%	\$ 148,883	\$ 25,00
2.0	Waste Characterization Study	N/A	\$ 195,990	\$ -	-	\$ 325,584	100%	\$ (129,594)	\$ 5,00
3.0	Remedial Design Implementation Plan	N/A	\$ 287,215	\$ -	-	\$ 445,069	100%	\$ (157,854)	\$ -
4.0	Implementation of Remedial Plan	N/A	\$ 18,245,411	\$ 2,231,829	18.2%	\$ 2,231,829	18%	\$ 16,013,582	\$ 10,020,95
5.0	Annual OM&M on PGWTP	N/A	\$ 951,350	\$ 153,424	8.5%	\$ 1,632,191	94%	\$ (680,841)	\$ 174,28
6.0	Long-Term Monitoring	N/A	\$ 345,553	\$ -	0%	\$ -	0%	\$ 345,553	\$ 345,55
7.0	Project Management	N/A	\$ 141,321	\$ 62,151	24.4%	\$ 124,837	49%	\$ 16,484	\$ 130,40
8.0	Regulatory Oversight	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	IR Site 4 - Drum Lot 1 and 2	N/A	\$ 2,123,901	\$ 28,866	1.4%	\$ 837,995	42%	\$ 1,285,906	\$ 1,159,50
1.0	Site Management Plan	N/A	\$ 159,485	\$ -	0%	\$ 64,944	100%	\$ 94,541	\$ -
2.0	Contingency Excavation - Drum Lot 1	N/A	\$ 1,061,591	\$ -	0%	\$ -	0%	\$ 1,061,591	\$ 1,061,55
3.0	Additional Investigation for TCE Plume Drum Lot 2	N/A	\$ 105,309	\$ -	0%	\$ 262,436	100%	\$ (157,127)	\$ -
4.0	Localized Remediation for TCE Plume Drum Lot 2	N/A	\$ 542,420	\$ 22,411	4.2%	\$ 497,649	94%	\$ 44,771	\$ 32,65
5.0	Monitoring of Remediation at TCE Drum Lot 2	N/A	\$ 124,202	\$ -	0%	\$ -	0%	\$ 124,202	\$ 19,55
6.0	Updated Risk Assessment and Reporting for Drum Lot 2	N/A	\$ 93,169	\$ -	0%	\$ -	0%	\$ 93,169	\$ 13,06
7.0	Project Management	N/A	\$ 37,724	\$ 6,455	N/A	\$ 12,966	N/A	\$ 24,758	\$ 32,60
8.0	Regulatory Oversight	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	Underground Storage Tanks	N/A	\$ 237,481	\$ 722	0%	\$ 1,450	1%	\$ 236,031	\$ 235,11
1.0	Annual Operations and Monitoring - Large USTs	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
2.0	5 Year Monitoring - Large USTs	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
3.0	Annual Maintenance - Large USTs	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
4.0	Large UST Environmental Closure Documentation	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
5.0	Remediation of Groundwater around Large USTs	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
6.0	Smaller USTs Removal and Remediation	N/A	\$ 169,918	\$ -	0%	\$ -	0%	\$ 169,918	\$ 169,91
7.0	Annual Project Management	N/A	\$ 67,563	\$ 722	0%	\$ 1,450	0%	\$ 66,113	\$ 65,20
8.0	Regulatory Oversight	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	Long-Term Groundwater Monitoring	N/A	\$ 1,430,715	\$ 37,327	3.6%	\$ 652,285	63%	\$ 778,430	\$ 381,38
1.0	Plans	N/A	\$ 34,596	\$ -	0%	\$ 20,819	100%	\$ 13,777	\$ -
2.0	New Wells	N/A	\$ 82,367	N/A	N/A	\$ -	0%	\$ 82,367	\$ 82,36
3.0	Annual Sampling and Analysis (Year 1-4)	N/A	\$ 532,445	N/A	N/A	\$ 323,921	100%	\$ 208,524	\$ -
4.0	Annual Sampling and Analysis (Year 5-8)	N/A	\$ 523,456	\$ 32,979	11.4%	\$ 70,481	24%	\$ 452,975	\$ 217,97
5.0	Annual Sampling and Analysis (Year 9-10)	N/A	\$ 211,658	N/A	N/A	\$ -	0%	\$ 211,658	\$ 15,84
6.0	Monitoring Well Destruction	N/A	\$ -	\$ -	-	\$ 228,331	100%	\$ (228,331)	\$ -
7.0	Annual Project Management	N/A	\$ 46,194	\$ 4,348	0%	\$ 8,734	12%	\$ 37,460	\$ 65,20
8.0	Regulatory Oversight	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	Program Management	N/A	\$ -	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL		\$ 24,925,260	\$ 2,529,409	13.0%	\$ 6,676,647	34%	\$ 18,248,614	\$ 12,747,17
	Amended Land Use Controls	N/A	\$ -	\$ -	N/A	\$ -	N/A	N/A	\$ 25,00
	Remediation Status Reports	N/A	\$ -	\$ -	N/A	\$ -	N/A	N/A	N/A
	Discoveries During Facility Redevelopment	N/A	\$ -	\$ -	N/A	\$ -	N/A	N/A	N/A
	Construction Stormwater General Permit	N/A	\$ -	\$ -	N/A	\$ -	N/A	N/A	N/A

Please discuss the following:

1. Changes if any to the anticipated costs incurred in comparison to the projected budgets
2. Backup provided for costs incurred.
3. Costs/tasks associated with items not included in the insured scope of work.

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Claim Number		Reviewed By	
Date Reviewed		Distribution	

(City of Richmond)

Total	Comment
Costs to date) + (cost to completion)	
561,952	
529,352	until 2020
N/A	included in individual work orders
-	
67,563	
N/A	Not Covered
15,594,133	
158,392	
330,584	
445,069	
12,252,823	Markup of subcontractors not covered
1,806,474	Through March 2014
345,553	20 years
255,237	
N/A	Not Covered
1,997,501	
64,944	
1,061,591	
262,436	
530,306	
19,594	
13,063	
45,566	
N/A	Not Covered
236,568	
N/A	Not Covered
169,918	
66,650	
N/A	Not Covered
1,033,671	
20,819	
82,367	
323,921	complete
288,459	4 years
154,000	2 years
228,331	
73,934	
N/A	Not Covered
N/A	Not Covered
19,423,824	
25,000	
N/A	included in above tasks
N/A	unknown
N/A	included in IR Site 3 Task 4.0

* LINK TO ENTIRE 63.90 MB DOCUMENT *

Craig Murray

From: Tomer Schetrit <tomer.schetrit@terrphase.com>
Sent: Friday, December 05, 2014 12:24 PM
To: Venkat.Puranapanda@acegroup.com
Cc: Carlos A. Privat; William Carson; Craig Murray; mleacox@ncenet.com
Subject: Naval Fuel Depot Point Molate ACE Project Update November 2014

Mr. Puranapanda,

Please find below a link to the Remediation Project Update report and cost summary worksheet for the remediation work at the former Naval Fuel Depot Point Molate. Project update for November 2014 is available for your review.

↳ <https://terrphaseengineering.sharefile.com/d/s26bccd096ed45a1b> *

If you have any questions or issues accessing the files please feel free to contact me.

Sincerely,

Tomer Schetrit

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Craig Murray

From: charles smith <rredryder@yahoo.com>
Sent: Wednesday, November 26, 2014 9:29 AM
To: Mark Maltagliati
Cc: Nina Smith; Carol Fall; Tarnel Abbott; Chia Hamilton; Marilyn Langlois; Scott Nilson; Lech Naumovich; Pam Stello; Judith Piper; Joan Garrett; Joan Garrett; Jeanne Kortz; Eduardo Martinez; David Helvarg; Alan La Pointe; DOROTHY GILBERT; Tim Laidman; Joe Puelo; Jim Hanson; Jim Hite; Craig Murray; ian@baykeeper.org; paulcarman@comcast.net; Bruce Beyaert; daryl@bridgeartspace.com; Jim McKissock; David Amme; Lynne Scarpa; Doria Robinson (doria@urbantilth.org) ; Toody Maher (toody@pogopark.org) ; Tony Brake; Frank Gonzales; Joseph Burns; Carlos; Juliana; Greg Hardesty; Yader Bermudez; MaSundan@aol.com
Subject: Re: Point Molate Update !

Mark,
I've included all the names from the Friends of Point Molate list in the copied (cc) section. It now includes Greg Hardesty, Mr. Bermudez and Ms. Scarpa. Craig and Pam were already on it. Four of "Friends..." have already responded and want to participate in the planning stages. I'm confident there will be more.
Have a good Thanksgiving.

Charles

Class consciousness is the fertilizer of revolution.

On Wednesday, November 26, 2014 7:26 AM, Mark Maltagliati <Mark_Maltagliati@ci.richmond.ca.us> wrote:

Charles, good meeting yesterday. As we spoke, a meeting of stakeholders and special interest should be held soon to plan and co-ordinate park maintenance and improvements. Please include Public Works Director Yader Bermudez on all communications as a Cc. Also Pam Stello, Lynn Scarpa, Craig Murray, Greg Hardesty should be in email thread amongst others.

From: charles smith [<mailto:rredryder@yahoo.com>]
Sent: Tuesday, November 25, 2014 7:09 PM
To: Mark Maltagliati; Greg Hardesty
Subject: Fw: Point Molate Update !

fyi

Charles

Class consciousness is the fertilizer of revolution.

On Tuesday, November 25, 2014 6:54 PM, charles smith <rredryder@yahoo.com> wrote:

Friends of Point Molate,

As luck would have it, today was a good day to visit Point Molate Beach. At first, after spotting large amounts of black smoke and flames coming from Chevron, I had second thoughts about going into the dragon's mouth but there were no sirens or special bulletins on the news so I proceeded with caution. When I arrived I could smell a rather faint odor from the overhead black smoke but nothing more. When I got out of the car Maintenance Leadworker Mark Maltagliati arrived in a City truck. Currently, Mark is the go-to guy for Point Molate. Mark and I walked around the work areas that Friends of Point Molate has been concentrating on. It didn't take long for me to realize that Mark is well versed in the history of Point Molate. He also has good ideas about what kind of work we could perform in the future to further our goal of restoring the park to its native habitat.

I suggested that we meet with him to share ideas about the kind of work we can do. Mark is open to such a meeting. Before we meet with him, however, I suggest we have our own meeting to evaluate our work so far and develop a plan of action of our own for the future. We should include ideas for work we want to do at Point Molate beyond the Beach Park. Let me know if you want to participate in such a preliminary meeting after which we can arrange a meeting with Mark.

Mark questioned the value of searing the French broom sprouts located on the trail we cleared out a couple of months ago, pointing out that this area will be redone when it becomes part of the Bay Trail within the next two or three years. He added that when the broom is two to three inches high he can cut it to ground level. He was interested in the searing method, though. He expressed his opinion that if the searing is done each year it should kill off the broom within three years. This is something we'll need to discuss.

Mark said that the tree by the entrance to the beach with the fallen branch is going to have to come down. This job will be done soon and if they have time tomorrow our accumulated debris will be removed. This will include the debris from the work David Amme and his son Jacob did a couple of days ago. Attached is a picture of yet another tree that Mark says we should take out.

Our chance meeting was very fruitful. I think we are working in the right direction. Please keep in mind that we welcome anyone who wants to sign on to our work group. It's a great volunteer opportunity where you can work when you want and as hard as you want. You are your own boss.

In addition, I am forwarding on to all of you a message I received from Craig K. Murray of the City of Richmond. Especially take note of the request that everyone working at the Park sign the Waiver forms. I have a supply of these forms in the trunk of my car if you need them. Give the signed forms to me and I'll see that they get to Craig.

Charles:

Thanks to group for work and for your detailed report. Please continue to work closely with Parks Dept./Frank Gonzales on Pt Molate Beach Park. Frank should be conferring w/you, group on proposed actions including removals, and future plantings. There should be signed Waivers for all the workers.(not for the dogs (: I am copying Eric Munson in RFD (we toured the proposed Goat sites with Eric earlier in year). Eric can review/comment any use of proposed fire to torch the little broom seedlings. Also, let me know if you are getting near Chevron property or need contact and I can discuss. I am sure Bruce Beyaert and TRAC would very much appreciate continue to clear the future EBRPD bike/ped path.

Craig K. Murray, SRWA

Charles

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