

CITY OF RICHMOND
Pt. Molate Community Advisory Committee

Monday, February 8, 2016 6:30 PM
Multi-Purpose Room, 440 Civic Center Plaza

AGENDA

Members:

Shana Bagley
Vice Chair

Bruce Beyaert

Bruce Brubaker

Paul Carman

Charles Duncan
Chair

Joan Garrett

Dorothy Gilbert

Al Guggemos

Jim Hanson

Mark Howe

Jeanne Kortz

Jeff Lee

Bob McNeil

Katrinka Ruk

Pam Stello

1. **Call to Order** (1 min.)
2. **Roll Call** (1 min.)
3. **Welcome and Meeting Procedures** (1 min.)

Individuals who would like to address the committee on matters not listed on the agenda may do so under Open Forum. Please file a speaker's card with the note taker prior to the commencement of Open Forum. Individuals who want to comment on an individual item, please file a speaker's card before the item is called. The standard amount of time for each speaker will be three minutes.

At 8:30 PM, any items remaining on the agenda that require immediate attention may be taken out of turn, as necessary. All other items will be continued to another or the following committee meeting in order to make fair and attentive decisions. This meeting adjourns at 9:00 PM. The meeting may be extended by a majority vote of the committee.

4. **Agenda Review and Adoption** (2 min.)
The order in which items will be heard may be adjusted at this time. In addition, items may be removed from or placed on the Consent Calendar at this time.
5. **Announcements through the Chair** (2 min.)
 - a. Replacement of City Council Liaison Martinez
 - b. Richmond HS Coastal Day at Pt Molate Beach Park, 3rd Annual – Friday, February 26, 2016
6. **Open Forum** (3 minutes per person limit)
7. **Presentations, Discussion & Action Items** (45 min.)
 - a. Discussion: Weekly and monthly remediation progress report out with Terraphase (10 min.), Q&A (5 min.) Bill Carson, Principal, Terraphase
 1. QMR 4Q 2015 UST
 2. QMR Annual 2015
 3. QMR Annual 2015 Site 3
 4. Monthly Report – December 2015
 - b. Discussion: Cottages Review (10 min.)
 - c. Discussion: Historic Development Constraints (20 min.)

8. **Staff Reports** (10 min.)
Following discussion of each item, the Committee may vote to make recommendations to staff or to the City Council.
 - a. Project Manager's Staff Report (10 min.) – including
 1. Expenditures and balance from the Navy Escrow Fund
 2. Expenditures and balance from the General Fund
 3. Insurance Reporting 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
 10. Other

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9. Consent Calendar (2 min.)

Items on the consent calendar are considered matters requiring little or no discussion and will be acted upon in one motion

- a. APPROVE – PMCAC meeting minutes of January 11, 2016

10. PMCAC Quarterly Report to City Council (5 min.)

11. Future Agenda Items (5 min.)

- a. Presidio Trust Presentation
- b. EBRPD Pt San Pablo/Pt Molate Bay Trail
- c. ULI TAP Pre-summary w/TPL
- d. City Contracts
- e. PMCAC Goal Setting 2016
- f. Cottages Review
- g. Water Board

12. City Council Liaison Reports (12 min.)

- a. Report by Councilmember McLaughlin regarding recent issues in Richmond relevant to the Advisory Committee. (10 min.)
- b. PMCAC appointment status – TBD (2 min.)

13. Chair and Sub-Committee Reports (15 min.)

Following discussion of each item, the Committee may vote to make recommendations to staff or to the City Council.

- a. Clean-Up and Restoration (3 min.)
- b. Parks and Open Space (3 min.)
- c. Legal (3 min.)
- d. Finance (3 min.)
- e. ULI Ad Hoc Committee
- f. Chair (2 min.)
 1. Identification of pending schedule conflicts

14. Adjournment of PMCAC regular meeting

15. Assemblage of PMCAC Standing Sub-Committees

Scheduled Meetings

Committee Meeting - Monday, March 14, 2016, 6:30 pm. This meeting is held in a building that is accessible to people with disabilities. Persons with disabilities, who require auxiliary aids of services using city facilities, services or programs or would like information of the city's compliance with the American Disabilities Act (ADA) of 1990, contact: Rochelle Monk, City of Richmond (510) 620-6511 (voice).

Pt. Molate Community Advisory Committee Staff Liaison Contact: Craig K. Murray (510) 307-8140, craig_murray@ci.richmond.ca.us.

Agenda and minute information on the PMCAC can be found on the

City Clerk's web location: <http://ca-richmond2.civicplus.com/index.aspx?NID=2442>

Additional correspondence can be directed to PtMolateCAC@gmail.com

PMCAC Repository Information is available at: <https://docs.google.com/open?id=0B9WXrZeb-72MzVkJZWO1ZDQ0tNW1wNC00ZjE4LTgxYjctOTQyMDk4Y2FjNDYw>



January 26, 2016

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

Subject: Fourth Quarter 2015 Underground Storage Tank (UST) Monitoring Report, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Ms. Beth,

On behalf of the City of Richmond, Terraphase Engineering Inc. (Terraphase) has prepared the attached Fourth Quarter 2015 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 blue ink, appearing to read 'T.S.', located below the typed name of Tomer Schetrit.

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

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

Chris Jones
Senior Staff Engineer

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

Attachments: 4th Quarter 2015 Underground Storage Tank (UST) Monitoring Report

**4th QUARTER 2015 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

January 26, 2016

Project Number 0078.001.024



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- 1 Site Location Map
- 2 UST Locations
- 3 UST Cross Section

Appendices

- A Summary Tables of Quarterly Inspection

Acronyms and Abbreviations

bbbl	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

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 Stenmark 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 October 26, November 20, and December 23, 2015:

- 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).

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 December 23, 2015:

- 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 2015 monitoring period.

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 December 23, 2015:

- No indication of erosion, ponded water, depressions, or slope failure was found at USTs 1 through 20.
- Small animal burrows were observed on the surface of UST 3. The burrows will be monitored during future inspections.

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 December 23, 2015:

- Indications of light vehicle traffic such as tire tracks are present at USTs 1 through 20. The tire tracks are likely from lawn mowers.
- Some shallow desiccation cracks are present in the surface soils on USTs 9 through 14. The cracking will be monitored during future inspections.

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 December 23, 2015:

- 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 Table 1 of Appendix A, which is attached to this report. The West drain at UST 6 and the South drain at UST 15 could not be located. It is suspected that they were previously destroyed or were never constructed by the Navy. The east drain on UST 16 was not located due to overgrowth. The drains will be cleared of vegetation at the end of the rainy season.

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 each casing is inspected.

The quarterly observations for the groundwater monitoring wells can be found in Table 2 of Appendix A, which is attached to this report.

3.5 Biannual Interior Inspections for Standing Water

Every two years the manhole covers are removed on each UST and the interiors are inspected for standing water and sheen.

The biannual observations for standing water in USTs 1 through 20 were not conducted as part of this fourth quarter monitoring period. The biannual interior investigation was conducted in the 3rd quarter of 2015.

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. The rains in the 4th quarter 2015 and 1st quarter 2016 seemed to have remedied this issue. It 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:

Shallow desiccation cracks in the surface soils for USTs 9 through 14 are not significant enough to require repair by backfilling. The cracks should be monitored during future inspections.

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:

The vegetation around the North drain on UST 4 and the West drain on UST 16 should be cleared and maintained to allow access to these drains.

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

5.0 REFERENCES

- AGS, 2000. Structural Integrity Evaluation of Underground Storage Tanks at Naval Fuel Depot, Point Molate, Richmond, California, Final Report. September.
- Barajas and Associates, Inc. (BAI). 2007. Basewide Groundwater Monitoring, Site 1 Post Closure Monitoring and Maintenance, and Closed Underground Storage Tank Monitoring and Maintenance, Site Health and Safety Plan, Naval Fuel Depot Point Molate, Richmond, California. June.
- CDM. 2009. Final Annual 2007 – 2008 Post-Closure UST Monitoring Report Former Naval Fuel Depot Point Molate Richmond, California. September 30.
- Innovative Technical Solutions, Inc. (ITSI). 2005. Final Post-Closure UST Maintenance and Monitoring Plan, Former Naval Fuel Depot Point Molate, Richmond, California. December.
- _____. 2005b. Final Post-Construction Summary Report for Closure of the UST, Pipeline, and Valve Box Systems at Naval Fuel Depot Point Molate, Richmond, California. November 17.
- (United States) Department of the Navy and City of Richmond. 2003. Finding of Suitability for Transfer, Naval Fuel Depot Point Molate, Richmond, California. May 27.
- _____. 2008. Finding of Suitability for Early Transfer, Disposal Areas 3, 5, 10, and 13, Naval Fuel Depot Point Molate, Richmond, California. September 12.
- Terraphase. 2011. Underground Storage Tank Monitoring and Maintenance Plan, Former Naval Fuel Depot Point Molate, Richmond, California. March 11 (revised April 4).
- Terraphase. 2012. Well Abandonment Work Plan, Former Naval Fuel Depot Point Molate, Richmond, California. August 8.
- Tetra Tech EM Inc. (TtEMI), 1999. Underground Storage Tank and Hillside Pipeline Closure Conceptual Design, Naval Fuel Depot Point Molate, Richmond, California. 30 April.
- _____. 2002. Final Definitive Design for the UST and Hillside Pipeline Closure, Naval Fuel Depot Point Molate, Richmond, California. 24 January.



January 26, 2016

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

Subject: 2015 Annual Installation Restoration Site 1 Landfill Post-closure Monitoring Report, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Ms. Beth,

On behalf of the City of Richmond, Terraphase Engineering Inc. has prepared the attached 2015 Annual Installation Restoration Site 1 (IR Site 1) Landfill Post-closure Monitoring Report. This letter report describes the activities and status for the ongoing monitoring and maintenance program for the IR Site 1 landfill on the former Naval Fuel Depot Point Molate located in Richmond, California. This letter report is intended to meet the requirements of Task 11 of the California Regional Water Quality Control Board (RWQCB) Order No. R2-2011-0087, which was adopted on December 19, 2011. This Order requires the continuance of long-term monitoring and maintenance for the Site 1 landfill in accordance with the June 2005 Record of Decision (ROD) for the IR Site 1 landfill.

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. Schetrit'.

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

A handwritten signature in black ink, appearing to read 'Jennifer Repa'.

Jennifer Repa
Senior Staff Scientist

cc: Carlos Privat, City of Richmond
Craig Murray, City of Richmond
James Whitcomb, BRAC Program Management Office
Michael Leacox, NCE
Charles Duncan, PMCAC
Mark Howe, PMCAC
Joan Garret, PMCAC
Lori Braunesreither, Contra Costa County Environmental Health Services

Attachments: 2015 Annual IR Site 1 Monitoring Report

2015 ANNUAL LANDFILL MONITORING REPORT IR SITE 1 LANDFILL, 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

January 26, 2016

Project Number 0078.001.025



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- 1A Summary of Groundwater Monitoring Well Results – December 2015: Total Petroleum Hydrocarbons, Polyaromatic Hydrocarbons, and Metals
- 1B Summary of Groundwater Monitoring Well Results – December 2015: Semi-Volatile Organic Compounds
- 1C Summary of Groundwater Monitoring Well Results – December 2015: Volatile Organic Compounds
- 2 Summary of Influent and Effluent Total Petroleum Hydrocarbons Analytical Results 2015

Figures

- 1 Site Location Map
- 2 IR Site 1 Location Map
- 3 IR Site 1 Features

Appendices

- A Site Inspection Forms
- B Contra Costa County Health Services Inspection Report

Acronyms and Abbreviations

BRAC PMO	Base Realignment and Closure Project Management Office
Cal Recycle	California Department of Resources Recycling and Recovery
CCR	California Code of Regulations
CTRM	composite turf reinforced matting
FPAL	fuel product action level
GAC	granulated activated carbon
IR	Installation Restoration
MCA	mitigation compensation area
Navy	United States Navy
NFD	Naval Fuel Depot
OWS	oil/water separator
PAH	polyaromatic hydrocarbon
PMMP	Post-closure Maintenance and Monitoring Plan
ROD	Record of Decision
SVOC	semi-volatile organic compound
Terraphase	Terraphase Engineering Inc.
TPH	total petroleum hydrocarbons
TPHg	total petroleum hydrocarbons as gasoline
TPHd	total petroleum hydrocarbons as diesel
TPHbc	total petroleum hydrocarbons as bunker fuel C
TPHjp5	total petroleum hydrocarbons as jet propellant 5
TPHmo	total petroleum hydrocarbons as motor oil
TtEMI	Tetra Tech EM Inc.
UST	underground storage tank
VOC	volatile organic compound

Certification

I am familiar with the Final Post-Closure Maintenance and Monitoring Plan (PMMP), Installation Restoration Site 1 Final Cover, Naval Fuel Depot Point Molate (TtEMI 2002). I certify that this Installation Restoration Site 1 Landfill Post-closure Monitoring Report has been prepared in accordance with good engineering practices and applicable federal and state requirements.

DRAFT

Tomer Schetrit

Senior Project Engineer

California Professional Engineer (81411)

1-26-2016

Date

1.0 INTRODUCTION

The 2015 Annual Installation Restoration (IR) Site 1 Landfill Post-closure Monitoring Report describes the activities and status for the ongoing monitoring and maintenance program of the IR Site 1 landfill at the former Naval Fuel Depot (NFD) Point Molate located in Richmond, California. This report is intended to meet the requirements of Task 11 of the California Regional Water Quality Control Board (RWQCB) Order No. R2-2011-0087, which was adopted on December 19, 2011. This Order requires the continuance of long-term monitoring and maintenance for the Site 1 landfill in accordance with the June 2005 Record of Decision (ROD; BRAC PMO, 2005) for the IR Site 1 landfill.

The site information included in this section was obtained from the Final Post-closure Maintenance and Monitoring Plan (PMMP), IR Site 1 Final Cover, Naval Fuel Depot Point Molate (TtEMI 2002).

1.1 Site Description

NFD Point Molate covers 413 acres in the Potrero Hills of Point San Pablo Peninsula northwest of Richmond in Contra Costa County, California (Figure 1). NFD Point Molate is a former bulk fuel storage and transfer facility operated by the United States Navy (Navy). The oil-handling facilities were built in 1942 during World War II and were capable of storing more than 40 million gallons of fuel in 20 underground storage tanks (USTs), with a capacity of two million gallons each connected by nine miles of buried fuel pipeline. Historically, base facilities also included an oily water treatment plant; aboveground storage tanks; a domestic wastewater treatment plant; an oil reclamation and storage facility; and a former waste disposal area, now designated as the IR Site 1 landfill.

The IR Site 1 landfill, as shown in Figure 2, is located approximately 1,000 feet east of San Francisco Bay, near the center of the former NFD Point Molate. From approximately 1957 until 1979, IR Site 1 was primarily used for the disposal of construction and landscaping debris. The debris was deposited over a one-acre area. In 1998, an investigation was conducted to determine the general nature and extent of the waste in the landfill. The estimated volume of fill at IR Site 1 was 20,000 cubic yards (TtEMI 2001a). The soil cover for IR Site 1 was designed in 2001 and constructed in 2002. The soil cover is three feet thick, has drainage controls and a monitoring system, and was hydroseeded with an annual native grass for erosion protection. The area of the IR Site 1 soil cover is shown on Figure 3.

Steep topography bounds the IR Site 1 landfill on the north, east, and west, with the steepest slopes near the top of the site, on the southwest side. A low-lying wetland area is located on the south side (down gradient) of the site, as shown on Figure 3.

1.2 Applicable Regulations

Non-hazardous solid waste disposal facilities in California are regulated under Title 27 of the California Code of Regulations (CCR). These regulations are administered by both the State Water Resources Control Board and the California Department of Resources Recycling and Recovery (Cal Recycle). The closure and post-closure maintenance requirements for closed landfills or disposal sites, such as IR Site 1, are defined in Title 27 CCR Chapter 3, Subchapter 5. The regulations require that a closed landfill or disposal site be maintained and monitored during the post-closure period to ensure that public health, public safety and the environment are protected and that wastes remaining on site do not pose a threat to water quality.

Section 21090 (Closure and Post-Closure Maintenance Requirements for Solid Waste Landfills) of Title 27 CCR Article 2, Subchapter 5 describes the performance standards and requirements for final cover systems, grading, erosion control, surface water drainage, and inspection and maintenance activities that are applicable to this site.

The IR Site 1 ROD indicates that monitoring of the landfill will continue in accordance with the PMMP (TtEMI 2002) as amended (Sullivan Consulting Group 2003).

1.3 Compliance Measures

The overall goal of the post-closure monitoring and maintenance program is to ensure the integrity, effectiveness and long-term maintenance and performance of the IR Site 1 soil cover and drainage system and associated institutional controls established for the site. A PMMP has been established for the former NFD Point Molate IR Site 1 landfill (TtEMI 2002). The requirement to implement the PMMP is specified in the Final ROD (BRAC PMO 2005).

The PMMP provides the following measures:

- Implementation of an inspection and maintenance program, including an emergency response plan, to maintain the integrity and long-term performance of the engineered soil cover and surface water drainage system were installed at IR Site 1;
- Performance of periodic inspection, monitoring, and reporting activities to document the long-term protection objectives;
- Performance of an annual topographic survey during the first three years for comparison with the baseline survey to detect areas of subsidence and monitor slope stability (since completed); and
- Performance of an annual inspection of the wetland mitigation compensation area (MCA) for the first three years to determine the success of the wetland vegetation establishment (since completed).

The results of the periodic inspections and surveys have been and will be compared with prior inspections to determine whether conditions of the soil cover system warrant reevaluation or repair.

1.4 Report Organization

This report is organized into six sections, including this introduction. Section 2 summarizes observations made during the monthly site visits. Section 3 discusses repair and maintenance activities recommended for the site. Section 4 discusses the wet season monthly sampling events. Section 5 discusses the annual groundwater monitoring well sampling event as well as soil gas monitoring conducted. Section 6 lists references used during performance of the site inspection and preparation of this report.

Appendix A contains the site inspection forms and Appendix B contains documentation from the Contra Costa County Environmental Health Services quarterly inspection for the 2015 reporting period.

2.0 SITE MONITORING

Lori Braunesreither, Contra Costa County Environmental Health Services (CCCHS) Environmental Health Specialist II, along with Terraphase staff, conducted quarterly 2015 site monitoring of the IR Site 1 landfill cover on March 30, June 10, September 2, and November 13, 2015. The monitoring included the quarterly and monthly inspection tasks established in the Final PMMP (TtEMI 2002) and the Final PMMP Revision 1 (Sullivan Consulting Group 2003).

Furthermore, monthly monitoring was conducted by Terraphase during the 2015 reporting period. Along with the monthly and quarterly inspections conducted by Terraphase, the City of Richmond also has a full-time security staff for the Former NFD Point Molate who performs periodic monitoring of the landfill's gates and locks.

The Final ROD (BRAC PMO 2005) specifies continuing monitoring per the Final PMMP as part of the selected remedy for the site. The purpose of the quarterly site monitoring is to assess the soil and vegetative cover and surface water drainage to identify evidence of erosion, cracking, and settlement that may warrant maintenance or repair. The purpose of the monthly monitoring was to assess site security and signage. Recommendations for repairs and further monitoring are provided in Section 3. The field notes from the site monitoring are included in Appendix A. The documentation from Contra Costa County Environmental Health quarterly site monitoring is include in Appendix B. Refer to Figure 3 for soil cover and drainage feature locations.

2.1 Signs and Gates

Signs at IR Site 1 were examined to verify they were posted, legible, and in good condition. Gate 17 (entrance gate) was secure and locked. The gates to the gas vent enclosures were locked. Signs were legible and in good condition. The signs near the paved area and at the northern boundary of the cover area were in good condition.

2.2 Erosion Control

Terraphase conducted visual monitoring of the vegetation, the composite turf reinforced matting (CTRM), and riprap by first inspecting the perimeter and then the interior areas of the soil cover. The vegetation was examined for signs of stress, stunted growth, wilting, changes in color, and bare spots. The CTRM was examined for loose areas, peeling, vegetation growth, and silt buildup. The riprap was examined for vandalism, displacement, vegetation, and sedimentation. The vegetation consisted primarily of grasses and low shrubs growing in various places on the landfill cover, particularly along the edges of the cover. Grasses have filled in between plugs and the paving stone area has well established vegetation. Rodent activity was observed during site visits, but the burrows were not significant. The CTRM was well secured to the ground and at the transition with the riprap, concrete, and paving stone.

2.3 Final Grading

Terraphase engineers conducted visual monitoring by walking the perimeter and traversing across the soil cover area. Terraphase examined the soil cover for the following:

- Erosion rills;
- Visible depressions;
- Ponded water;
- Exposed refuse;
- Cracks;
- Settlement and subsidence;
- Slope failure;
- Seeps; and
- Burrowing of animals.

No significant surface cracking (desiccation) was observed during the monitoring. The landfill cover will continue to be checked for surface cracks during future quarterly monitoring events. No ponding of water or any areas of subsidence were observed during the monthly site monitoring visits. Evidence of ponding will continue to be monitored.

During monitoring, there was evidence of burrowing animals on the north-central portion of the site, but the burrows were not significant. Rodent burrows will continue to be monitored.

No evidence of visible depressions, exposed refuse, settlement or subsidence, slope failure or seeps were observed during the quarterly monitoring.

Surveying of the settlement markers was conducted for three years following the final capping of the landfill.

2.4 Monitoring Systems

Terraphase engineers conducted visual monitoring of the groundwater monitoring wells, the soil gas monitoring wells, and the gas vents for structural integrity and general condition. The monitoring wells and gas vents were generally in good condition. Covers on the groundwater monitoring wells have bolts, but are not locked. All landfill gas turbines were observed to be turning and operational during the monthly site visits.

Terraphase is conducting a monitoring program for methane in soil gas and impacts of landfill constituents to groundwater and conducting site maintenance in accordance with the oil/water separator (OWS) PMMP, as required by the Final ROD (BRAC PMO 2005). The scheduled sampling and analysis program assesses whether concentrations of chemicals in groundwater and OWS effluent, and concentrations of methane in soil gas samples at or immediately down gradient of IR Site 1, exceed applicable action levels and require additional action as a compliance activity. A complete description of the required monitoring activities can be found in the IR Site 1 PMMP (Tetra Tech 2002), and its subsequent revision (Sullivan Consulting Group 2003). The results of the monitoring are summarized in Section 5.0.

2.5 Drainage Features

The purpose of the surface water drainage system is to provide surface drainage to minimize infiltration through the landfill cover and to reduce and control erosion. The surface water drainage system consists of two cast-in-place concrete V-ditches located on the western and eastern sides of the IR Site 1 soil cover, grassed channels located on the east and west sides of the IR Site 1 soil cover, a natural drainage outlet on the north side of the IR Site 1 soil cover, pipes and a culvert near the paving stone area and two tail water basins at the southern end of the IR Site 1 soil cover. The locations of the drainage features are shown on Figure 3. Construction details are described in the Final Cover Design, Design Basis Report, Design Drawings, and Specifications (TtEMI 2001b).

Terraphase engineers walked the surface water drainage features to monitor areas for discharge water, standing water, blockage of drainage channels, and the condition of the drainage features. The flow paths of the drainage channels and culvert were generally clear of blockages (some minor presence of vegetation). The condition of the concrete V-ditches showed some minor cracking; however, the V-ditches appeared to be stable. The tailwater basins were in good condition with some vegetation growth. The natural drainage outlet was clear of significant buildup of silt and weeds. The OWS was intact. Standing water was noted in the tank. The flow paths of the eastern and western grassed channels were free of debris, blockages, or other trash.

2.6 Paving Stones

Terraphase conducted visual monitoring of the paving stone area for signs of buckling or displacement. The paving stone area is located on the southeast side of the soil cover, north of the tailwater basin. The paving stones appeared to be sound without appreciable silt buildup. The vegetation is well established between the stones and the stones are secure. No broken stones were visible.

3.0 RECOMMENDATIONS

Recommendations for repairs that could not be completed during the site monitoring visits and further monitoring are provided below.

3.1 Erosion Control

Continue monitoring rodent holes during future inspections to determine if the cover is being compromised. Actions will be taken if significant erosion is evident or refuse is exposed.

3.2 Drainage Features

Continue monitoring vegetation and maintain height of vegetation in the drainage features between 6 and 12 inches per PMMP Section 2.3.4.2.

4.0 TREATMENT SYSTEM MONITORING

During the wet season (November through April), monthly influent and effluent sampling is conducted on the treatment system. This section summarizes the monthly monitoring results from 2015 at the treatment system.

Treatment system influent and effluent monitoring for total petroleum hydrocarbons (TPH) was conducted at IR Site 1 by Terraphase. Monitoring for TPH as Gasoline (TPHg), TPH as diesel (TPHd), TPH as jet propellant 5 (TPHjp5), TPH as bunker fuel C (TPHbc), and TPH as motor oil (TPHmo) was conducted in March, and December 2015. A summary of the analytical results from influent and effluent monitoring can be found in Table 1, which is attached to this report. Sampling was not conducted in January, February, April or November due to lack of precipitation.

TPHg was detected in the influent to the OWS at concentrations between 52 to 120 $\mu\text{g/L}$ and was not detected above the reporting limit of 50 $\mu\text{g/L}$ in the effluent from the treatment system. However, the effluent samples were flagged as estimated values at 18 $\mu\text{g/L}$ and 24 $\mu\text{g/L}$.

TPHd was detected in the influent to the OWS at concentrations ranging from 26 to 340 $\mu\text{g/L}$ and was not detected above the reporting limit of 50 $\mu\text{g/L}$ in the effluent from the treatment system. However, the effluent sample was flagged as an estimated value at 23 $\mu\text{g/L}$. The concentrations of TPHd in both the influent and effluent were below the applicable cleanup goal (FPAL) of 640 $\mu\text{g/L}$.

TPHjp5 was detected in the influent to the OWS at concentrations ranging from 21 to 310 $\mu\text{g/L}$ and was not detected above the reporting limit of 50 $\mu\text{g/L}$ in the effluent from the treatment system. The concentrations of TPHjp5 in both the influent and effluent were below the applicable cleanup goal (FPAL) of 640 $\mu\text{g/L}$.

TPHbc was detected in the influent to the OWS at concentrations ranging from below the reporting limit of 310 $\mu\text{g/L}$ to 810 $\mu\text{g/L}$ and was not detected above the reporting limit of 300 $\mu\text{g/L}$ in the effluent from the treatment system. The concentrations of TPHbc in the effluent were below the applicable cleanup goal (FPAL) of 640 $\mu\text{g/L}$.

TPHmo was not detected in the influent to the OWS or in the effluent from the treatment system above the reporting limit of 300 $\mu\text{g/L}$, which is below the applicable cleanup goal (FPAL) of 640 $\mu\text{g/L}$.

5.0 GROUNDWATER AND SOIL GAS MONITORING

Monitoring at the groundwater monitoring wells and soil gas monitoring were conducted by Terraphase engineers at IR Site 1 in November 2015. Four monitoring wells (MW02-06R, MW02-21, BR02-18, and MW02-16) were sampled. Monitoring wells MW02-22 and MW02-15 were not sampled as they were either dry or contained insufficient water to sample.

A summary of the analytical results of the groundwater samples can be found in Tables 1a, 1b, and 1c, which are attached to this report. Detections of polyaromatic hydrocarbons (PAHs) semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs) were below their respective FPALs. Well MW02-06R exhibited levels of TPHjp5, TPHd, TPHmo and TPHbc above FPALs however, downgradient wells MW02-21 and MW02-16 were below FPAL criteria signifying that the FPAL exceedance is localized to well MW02-06R and is not representative of the overall groundwater trend at the site. An absorptive sock has been installed in well MW02-06R and it has been included in monthly product skimming and sock change-out activities of other wells in the groundwater monitoring well network.

A Landtec GEM 5000 Gas Monitor (Methane, Carbon Dioxide and Oxygen) was used to assess the gases being vented through the four passive landfill gas vents, GV02-01, GV02-02, GV02-03, and GV02-04. The methane concentrations were non-detect at each of the four landfill gas vents. The results of methane monitoring indicate that the passive gas vents are functioning as designed within the site boundary and methane generated does not pose an immediate threat to human health or the environment.



January 26, 2016

Ms. Mary Boyd
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: Annual 2015 Self-Monitoring Report for the Packaged Groundwater Treatment Plant,
Former Naval Fuel Depot Point Molate, Stenmark Drive, Richmond, California (CIWQS
657165) Order No. R2-2012-0012, NPDES No. CAG912002

Dear Ms. Boyd:

On behalf of the City of Richmond, Terraphase Engineering Inc. (Terraphase) has prepared this National Pollutant Discharge Elimination System (NPDES) Annual 2015 Self-Monitoring Report (SMR) 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 SMR presents the data collected during the 2015 reporting period ("the reporting period") in accordance with reporting requirements specified in Attachment E of the VOC and Fuel General Permit. The PGWTP was operated in 2015 until July 31, 2015 at which time all discharge activities ceased and system operation was discontinued. The City requested rescission of permit coverage on October 1, 2015 and rescission was granted on October 8, 2015.

This report presents flow rates 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 treated 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 was pumped from the extraction wells using submersible well pumps and conveyed directly to two, two-pod sand filters plumbed in parallel. To reduce turbidity, water then passed through an eight basket bag filter containing 5 micron filter bags. Following the bag filter, water then flowed 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. The

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configuration of the GAC units was modified on June 5, 2015 to include 6 GAC units running in parallel to allow for treatment of increased flow associated with dewatering during active remediation of IR Site 3. Treated groundwater was discharged directly to San Francisco Bay under the requirements of the NPDES Permit.

PGWTP 2015 Operations

The PGWTP operated continuously from January 1, 2015 through July 31, 2015. On July 31, 2015 construction dewatering activities were complete and the remaining groundwater in the settling tanks was pumped through the system. 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 was located at the PGWTP.

On May 19, 2015 the extraction wells were demolished as part of the active remediation of IR Site 3. After destruction of the extraction wells, groundwater generated as part of construction dewatering activities continued to be directly pumped to the PGWTP.

On June 5, 2015 the PGWTP was upgraded from a treatment capacity of 100 gallons per minute (gpm) to a capacity of 200 gpm per the Modified Notice of Intent (NOI) submitted to the RWQCB on February 4, 2015. The Modified NOI addressed increased flows resulting from dewatering activities occurring at IR Site 3. The upgrade included the addition of a larger pump as well as an additional three GAC units plumbed in parallel to the three existing GAC units. These units were added in combination with the existing treatment system components that include two, two pod sand filter units, an 8 basket bag filter (1-5 μ m), an 18,000 gallon settling tank, and two 20,000 gallon fractionation tanks.

On July 8, 2015 an exceedance was identified upon receipt of results from the June 25, 2015 effluent water samples collected as part of the June monthly sampling event. Immediately following identification of the effluent limit violation, four of the six carbon units running in parallel for the PGWTP were replaced as a corrective action. A resampling of the effluent was collected on July 9, 2015 along with a sample collected from the receiving waters.

Expedited results of this re-sampling event were received on July 13, 2015; the results established that there were no detections for PAHs or TPH as Bunker C Fuel (TPHbc) in the effluent and detections for TPH as gasoline (TPHg) and TPH as diesel (TPHd) were below permit limits. Receiving waters also sampled on July 9th indicated elevated levels of TPHd, TPHbc and PAHs, but TPHg did not exceed permit limits. The receiving waters were re-sampled two additional times on July 14, 2015 and July 17, 2015 with expedited results indicating no significant detections.

On August 6, 2015 an exceedance of TPH compounds was identified when the analytical results were received, for the July 28, 2015 effluent water samples. The day the analytical report was received, water treatment at the PGWTP had already ceased and the treatment system was in the process of being dismantled however, a sample of the receiving waters was collected and submitted to the analytical laboratory on a 24 hour turn-around time. The RWQCB was notified of all events associated with the June and July violations by phone and e-mail on August 6, 2015.

Expedited results of this re-sampling event conducted on August 6, received on August 10, 2015, indicated that there were no detections for PAHs, TPHd, or TPHbc in the receiving waters and detections for TPHg was below permit limits as well as below the laboratory reporting level.

The City requested rescission of permit coverage on October 1, 2015 and rescission was granted on October 8, 2015.

During the 2015 reporting period the PGWTP treated approximately 5,563,300 gallons of groundwater with an average flow rate of approximately 18.2 gallons per minute (Table 1).

During the 2015 reporting period approximately 42.8 kilograms of TPH were removed by the PGWTP (Table 2).

Summary of NPDES Sampling Results

Influent, effluent, and receiving water samples from the PGWTP were collected and analyzed during the reporting period in accordance with the 2012 Order. Tables 3A, 3B and 3C summarize the analytical data for influent samples collected from the PGWTP. Tables 4A, 4B, and 4C summarize data for the same analytes in effluent samples collected from the PGWTP during the reporting period. Tables 5A, 5B, 5C, and 5D summarize the data for the receiving water sample collected in compliance with the 2012 Order. 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 monthly throughout the reporting period. The analytical results for these compounds are presented in Table 3A for influent samples, Table 4A for effluent samples and 5A for receiving water samples.

The concentrations of TPHg, TPHd, and TPHbc in effluent samples were below their respective effluent limitations during the monthly sampling events from January through May.

Effluent concentrations of TPHg, TPHd, and TPHbc exceeded their limits of 50 µg/L during the monthly sampling event on June 25, as noted above. Upon receiving the June analytical report the PGWTP was re-sampled within 24 hours on July 9, 2015. Prior to resampling four of the six carbon units running in parallel were replaced. The effluent concentrations of TPHg, TPHd, and TPHbc from the June re-sampling event were below their respective limits.

As part of the resampling on July 9, 2015, a receiving water sample was also collected. Elevated TPHd and TPHbc concentrations in the receiving water samples collected on July 9 led to additional receiving water sampling on July 14 and 17, 2015. The analytical results from the sampling events on July 14 and 17 did not detect any TPH concentrations above the analytical laboratory's reporting limits.

The concentrations of TPHg, TPHd, and TPHbc in effluent samples were below the effluent limitation on July 9 but exceeded the limit of 50 µg/L during the July 28, 2015 sampling event. Upon receiving the July 28th analytical report on August 6th, the PGWTP had ceased treating water and was no longer operational however, the same day that the report was received, samples of the receiving waters were

collected and submitted to the lab with an expedited turn-around time. The concentrations of TPHg, TPHd, and TPHbc in the samples collected of the receiving water were all below their respective limits as well as the laboratory's reporting limits.

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. As required by the O&M manual approved by the RWQCB, 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 monthly during the 2015 reporting period. BTEX influent and effluent analytical results are presented in Table 3A for influent samples and in Table 4A for effluent samples.

Sampling of the receiving water for BTEX compounds was performed on July 9, July 14, July 17, and August 6, 2015 supplementing the TPH samples collected on those dates. The receiving water BTEX analytical results are presented in Table 5A.

The concentrations of BTEX compounds in the effluent and receiving water 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 monthly during the 2015 reporting period. 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, for the sampling events from January through May, which is the lowest reporting limit that the analytical laboratory can reach.

PAH trigger value exceedances were detected in the effluent sample collected on June 25, but upon the re-sampling event on July 9, and the monthly sampling event on July 28, 2015, the concentrations of PAH compounds were analyzed to be non-detect or below the 0.1 µg/L laboratory reporting limit.

Sampling of the receiving water for PAH compounds was performed on July 9, 14, and 17, 2015 following the effluent exceedances on June 25 as well as on August 6 following the effluent TPH exceedance on July 28, 2015. Analytical results showed an exceedance of trigger values for PAH

compounds in the receiving water on July 9th but these compounds could not be detected above the laboratory's reporting limit in the samples collected on July 14th, July 17th or August 6th, 2015. The receiving water PAH analytical results are presented in Table 5B.

VOC Analytical Results

VOC sampling of the receiving waters was performed on July 14, July 17, and August 6, 2015 following the exceedances of TPH and PAH compounds. VOC analytical results are presented in Table 5C.

The concentrations of VOC in the receiving water samples were below their respective effluent limitations during the reporting period.

1,4-Dioxane and Fish Toxicity Analytical Results

Annual sampling for 1,4-Dioxane and fish toxicity was not completed in 2015 due to the discontinued operation of the PGWTP on July 31, 2015.

Turbidity Analytical Results

Influent and effluent sampling for turbidity was performed during the monthly sampling events from January through April 2015 in accordance with trigger process outlined in the permit following an exceedance of the 5.0 NTU trigger value in December 2014.

Due to the increased influent suspended sediment loads associated with dewatering and an effluent turbidity reading of 7.2 NTU in December 2014, an 18,000 gallon settling tank, two 21,000 gallon fractionation tanks, a second 2-pod sand filter plumbed in parallel, and an 8 basket bag filter (1-5 μ m) was added to the system in January 2015 in an effort to reduce effluent turbidity to below 5.0 NTU.

During the January sampling event there was once again an exceedance of the turbidity trigger value with an analytical result of 7.5 NTU. Upon notification of the RWQCB of the January results, additional construction controls were implemented to reduce the turbidity of the water being pumped to the treatment system.

The turbidity samples collected from February through April showed no results exceeding the turbidity trigger value of 5.0 NTU. Turbidity analytical results are presented in Table 3C for influent samples and in Table 4C for effluent samples.

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.

- January Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on January 30, 2015. The concentration was 14 J µg/L.
- January Method Blank Detection:
 - TPHg was detected in the method blank associated with the samples collected on January 30, 2015. The concentration was 13 J µg/L.
 - TPHd was detected in the method blank associated with the samples collected on January 30, 2015. The concentration was 7.1 J µg/L.
- March Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on March 26, 2015. The concentration was 20 J µg/L.
- March Method Blank Detection:
 - TPHg was detected in the method blanks associated with the samples collected on March 26, 2015. The concentrations were 24 J µg/L and 12 J µg/L.
- April Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on April 23, 2015. The concentration was 14 J µg/L.
- April Method Blank Detection:
 - TPHg was detected in the method blank associated with the samples collected on April 23, 2015. The concentration was 18 J µg/L.
- May Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on May 27, 2015. The concentration was 17 J µg/L.
- May Method Blank Detection:
 - TPHg was detected in the method blanks associated with the samples collected on May 17, 2015. The concentration was 12 J µg/L.
- June Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the samples collected on June 25, 2015. The concentration was 14 J µg/L.

- July Trip Blank Detection:
 - TPHg was detected in the trip blanks that accompanied the samples collected on July 9, 14, 17, and 28, 2015. The concentrations were 14 J µg/L, 17 J µg/L, 17 J µg/L, and 13 J µg/L respectively.
- July Method Blank Detection:
 - TPHg was detected in the method blank associated with the samples collected on July 14 and 17, 2015. The concentrations were 16 J µg/L and 12 J µg/L, respectively.
 - TPHd was detected in the method blank associated with the samples collected on July 17, 2015. The concentration was 10 J µg/L.
- August Trip Blank Detection:
 - TPHg was detected in the trip blank that accompanied the receiving water samples collected on August 6, 2015. The concentration was 19 J µg/L.
- August Method Blank Detection:
 - TPHg was detected in the method blanks associated with the receiving water samples collected on August 6, 2015. The concentration was 20 J µg/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 2015 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)
Senior Project Engineer



Chris Jones
Senior Staff Engineer

cc: Carlos Privat, City of Richmond
Craig Murray, City of Richmond
Venkat Puranapanda, ACE Group
Jim Whitcomb, United States Navy BRAC
Michael Leacox, NCE
Margarete Beth, California RWQCB
Joan Garrett, PMCAC
Charles Duncan, PMCAC
Mark Howe, 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 Turbidity 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 Turbidity Sample Results
- 5A PGWTP Summary of Receiving Water BTEX and Total Petroleum Hydrocarbons Sample Results
- 5B PGWTP Summary of Receiving Water PAH Sample Results
- 5C PGWTP Summary of Receiving Water VOC Sample Results
- 5D PGWTP Summary of Receiving Water Dissolved Oxygen Sample Results

Attachments:

Attachment A Visual Observation Forms



January 26, 2016

Ms. Margarete Beth
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 December 2015, Former Naval Fuel Depot Point Molate, Richmond, California

Dear Ms. Beth:

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 2014, please see the monthly status report for December 2014 (Terraphase 2014aa). 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 December 2015:

1. None.

Major Work Items Previously Completed in 2015:

1. None.

Upcoming Work in January 2016:

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 commenced August 2014 and was substantially completed in November 2015.

Work completed in December 2015:

1. Preparation of Remedial Action Completion Report

Major Work Items Previously Completed in 2015:

1. None.

Upcoming Work in January 2016:

1. Preparation of Remedial Action Completion Report

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 December 2015:

2. None.

Major Work Items Previously Completed in 2015:

2. Submittal of Completion Report (Terraphase, 2015u).

Upcoming Work in January 2016:

1. None.

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

Work completed in December 2015:

1. Preparation of HHRA work plan

Major Work Items Previously Completed in 2015:

1. None.

Upcoming Work in January 2016:

1. Preparation of HHRA work plan

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 December 2015:

1. Preparation of tank closure requests to the RWQCB for UST 2.

Major Work Items Previously Completed in 2015:

1. None.

Upcoming Work in January 2016:

1. Preparation 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 December 2015:

1. Conducted the routine monthly UST closure monitoring inspections.

Major Work Items Previously Completed in 2015:

1. Submittal of Fourth Quarter/Annual 2014 UST Monitoring Report (Terraphase 2015d).
2. Submittal of Q1 2015 Quarterly Monitoring Report (Terraphase 2015j).
3. Preparation and submittal of Q2 UST Monitoring Report (Terraphase 2015p).
4. Conducted biannual UST interior inspection.
5. Submit Q3 UST Monitoring Report (Terraphase 2015w).

Upcoming Work in January 2016:

1. Conduct routine monthly UST closure monitoring inspections.
2. Preparation of Q4 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 December 2015:

1. Submitted the monthly remediation status report for November 2015 (Terraphase 2015y) to the RWQCB.

Major Work Items Previously Completed in 2015:

1. Submitted the monthly remediation status report for January 2015 to the RWQCB (Terraphase 2015g).
2. Submitted the monthly remediation status report for February 2015 to the RWQCB (Terraphase 2015h).
3. Submitted the monthly remediation status report for March 2015 to the RWQCB (Terraphase 2015i).
4. Submitted the monthly remediation status report for April 2015 to the RWQCB (Terraphase 2015l).
5. Submitted the monthly remediation status report for May 2015 (Terraphase 2015m)
6. Submitted the monthly remediation status report for June 2015 (Terraphase 2015n) to the RWQCB
7. Submitted the monthly remediation status report for July 2015 (Terraphase 2015r) to the RWQCB.
8. Submitted the monthly remediation status report for August 2015 (Terraphase 2015s) to the RWQCB.
9. Submitted the monthly remediation status report for September 2015 (Terraphase 2015t) to the RWQCB.
10. Submitted the monthly remediation status report for October 2015 (Terraphase 2015x) to the RWQCB.

Upcoming Work in January 2016:

1. Submit the monthly remediation status report for December 2015 to the RWQCB.

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 December 2015:

1. Routine monthly landfill inspection of signs, gates, locks, etc.

2. Routine operation, maintenance, and monitoring of the landfill treatment system.
3. Monthly sampling of treatment system.
4. Conversion of treatment system to gravity fed system.

Major Work Items Previously Completed in 2015:

1. Submittal of 2014 Annual Monitoring Report (Terraphase 2015e).
2. Maintenance of vegetation on the site including access to wells.

Upcoming Work in January 2016:

1. Routine monthly landfill inspection of signs, gates, locks, etc.
2. Routine operation, maintenance, and monitoring of the landfill treatment system.
3. Routine winter sampling of treatment system.
4. Preparation of 2015 annual monitoring report.

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 December 2015:

1. None.

Major work items completed previously in 2015:

1. Submittal of Modified Notice of Intent (Terraphase 2015b).
2. Submittal of 2014 Annual Monitoring Report (Terraphase 2015f).
3. Submittal of Q1 2015 Monitoring Report (Terraphase 2015k).
4. Demobilization of all rental equipment associated with the PGWTP.
5. Preparation and submittal of Q2 2015 Monitoring Report (Terraphase 2015q).
6. Submittal of Notice of Termination for the VOC and Fuel General Permit to the RWQCB and receipt of Notice of Rescission from the RWQCB October 9, 2015.

Upcoming Work in January 2016:

1. Preparation and submittal of 2015 Annual 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 December 2015:

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 2015 semi-annual groundwater monitoring report.
3. Post monitoring event data evaluation and analysis.

Major work items completed previously in 2015:

1. Dry Season 2014 annual groundwater monitoring report (Terraphase 2015c).
2. Draft Workplan for 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 (Terraphase 2015a).
3. Submittal of Wet Season 2015 semi-annual groundwater monitoring report (Terraphase 2015o)

Upcoming Work in January 2016:

1. Monthly monitoring and skimming of free product in wells MTWB-01R, MWT05-02, MWT08-01, MWT06-02, MW10-23. MW10-24 will now be monitored and skimmed bi-weekly.
2. Submittal of Draft Workplan for 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 (Terraphase 2015a).
3. Submittal of 2015 dry season semi-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 December 2015, 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 accepted the Final FS/RAP on June 4, 2014. Construction at IR Site 3 was substantially completed in November 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)
Senior 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
Charles Duncan, PMCAC
Mark Howe, PMCAC
Joan Garret, 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

POINT MOLATE REUSE PLAN R I C H M O N D • C A L I F O R N I A

■ ■ ■

SUBMITTED TO THE :
CITY OF RICHMOND

PREPARED BY :
CITY OF RICHMOND
BRADY AND ASSOCIATES, INC.

SUBMITTED IN CONJUNCTION WITH :
DINWIDDIE & ASSOCIATES
BAY AREA ECONOMICS
MANNA CONSULTANTS, INC.
BUESCHER BIOLOGICAL CONSULTING
CHEUNG ENVIRONMENTAL
PITTMAN & HAMES ASSOCIATES
THE ENVIROSYSTEMS GROUP
ARCHITECTURAL RESOURCES GROUP

MARCH, 1997

BRADY AND ASSOCIATES, INC. PLANNERS AND LANDSCAPE ARCHITECTS



7c.1

Table 1
EXISTING BUILDINGS AT POINT MOLATE

Building Description	Current NRHP	Structural Condition	Size (SF)
Building 1 (Winehaven) General Warehouse, Wine Cellar	Yes	Fair to poor. Unreinforced brick, steel beam frame, and unreinforced parapets.	198,865
Building 6 Administration and Warehouse, Wine Cellar	Yes	Good to fair - except ceiling of lower warehouse partially collapsed from water damage.	116,196
Building 10 Lab, Sampling Equipment and Flammable Storage, Loading Dock, Refrigeration Bldg.	Yes	Fair to poor with the brick portion in better condition.	18,864
Building 13 Steam Generating Plant	Yes	Fair - building contains concrete rubble and debris.	5,067
Structure 14A Fuel Dispensing Station	No	Good.	NA
Building 17 Maintenance Storage	Yes	Fair.	2,016
Building 18 Storage Shed	No	Poor, roof has partially collapsed.	4,800
Building 21 Fuel Laboratory	No	Good.	903
Building 24 Storage Shed	No	Poor.	645
Building 63 Fire Station	Yes	Good.	4,236
Building 68 Pump House #2	No	Good, but some cracks on walls and interior paint heavily peeling.	4,555
Building 69 Pump House #1	No	Good, but interior paint is heavily peeling.	4,637
Building 70 Gagers' Gear Locker	No	Fair.	169
Pump House #6	No	Poor.	100
Building 73 Water Pump House	No	Fair.	1,000
Building 76 Waterfront Operations	No	Fair.	1,153
Building 77 Oil Spill Storage	No	Poor.	1,963
Building 82 Pump House #3	No	Good, but interior paint is heavily peeling.	2,346
Building 83 Pump House #4	No	Good, but interior paint is heavily peeling.	1,598
Building 85 Paint Shop	No	Good.	1,836
Building 86 Pump House #5	No	Good.	561

Table 1 *continued*

Building Description	Current NRHP*	Structural Condition	Size (SF)
Building 87 DVECC Laboratory	No	Good to fair.	8,900
Building 88 Vehicle Wash	No	Fair. Floor drain plug is still intact.	8980
Building 89 Drum Filling Shed	No	Good.	7,643
Building 93 Range House	No	Poor. Building is overgrown with vegetation.	388
Building 94 Truck Oil Loading Facility	No	Good.	NA
Building 95 Shed	No	Poor to fair.	NA
Building 115 Transmitter Building	No	Fair.	48
Building 118 Storage Shed	No	Poor.	366
Building 123 Shop	No	Good.	6,000
Building 132	No	Unknown.	Unknown
Housing: Bldgs 31-60	Yes	Good to fair.	820 to 2,097
Housing: Building 111 Garage	No	Fair.	Unknown
Garages: 55, 65, 67, 80, 81	Yes	Fair	Unknown

* NRHP: Contributing Historical Building on the National Register of Historic Places.

Source: PRC Environmental Management, Inc., 1996, and JRP Historical Consulting Services, 1996.

Education, Recreation and Open Space; and 4) Marketing and Economic Development. These subcommittees began meeting on a regular basis in 1995 to develop a policy framework for the Plan.

On January 30, 1996, the Navy published a notice in the Federal Register listing Point Molate as surplus property. In accordance with the Redevelopment Act, the City of Richmond LRA then published its Notice of Interest to solicit reuse proposals from state and local agencies, including representatives of homeless organizations. The solicitation period extended from February 16, 1996, to May 16, 1996. From the close of the solicitation period, the LRA has 270 days to complete its reuse plan.



Pt Molate Report

PMCAC #57 February 8, 2016

Expenditures and balance from Navy Escrow Fund:

- One Expenditure totaling \$279,641.87
- Balance: \$5,810,976.30

Expenditures and balance from City General Fund:

- Expenditures to date for FY 15-16 total \$92,055.
- Balance: \$244,656.

Insurance Report filings

- Report for Sept. 2015 was included in the Dec.2015 PMCAC Agenda Packet.

Lease/Occupation status for all Pt. Molate Users

- Caretaker review for January 2016 enclosed.
- Caretaker has attended the IR Site 3 Project Meetings conducted by PSEC

Monthly Summary of security incidents:

- January, 2016 report enclosed.
- One significant incident was reported for January 2016. On January 5, security personnel observed and reported a fallen tree near Gate #6 (South of Navy Administration Building on Diesel Road on the southern edge to IR Site 3). Security contacted the City for the tree's removal.
- DP Security performed 26 Contacts during this period.
- DP Security provided seven guards to Pt Molate during this month and initiated 2026 security checks within Point Molate designated patrol site during the month of January 2016.

Monthly Summary of authorized entries:

- There were no public entry authorizations for prior month

Caretaker Summary

- Public Works Dept. provided the enclosed report for this past period.

Beach Park

- Paul Carman to provide a summary of January activity report from the Friends of Point Molate group.
- A slope stabilization grant announcement from CalRecycle is enclosed. There is a category for Lightweight fill for slope stabilization, embankment fill, and landslide repair that may be of interest for applications within the Beach Park.

IR Site 3 Remediation and Abatement Project

- Tomer Schetrit of Terraphase will be providing a current status update on IR Site 3 at tonight's meeting.
- A ribbon cutting site reopening event was held on Thursday January 28. Thanks to all PMCAC members that helped see this significant environmental remediation to its completion. Special thanks to seven PMCAC members that participated and attended the event: Bagley, Brubaker, Duncan, Guggemos, Hanson, Howe and Ruk. City Council Liaison Martinez also attended the event.
- Red Rocks Marina is up for sale. This is significant historical location and place for the Richmond – Pt San Quentin/San Rafael ferry ran up until the Richmond San Rafael Bridge was built and open in 1956. Red Rocks property owner of record shows Castro Point, LLC, 3781 La Honda Road, San Gregorio, CA 94074. Further information on property may be obtained via Friddle Real Estate, Mike Friddle Broker, 421 Central Park Place, Brentwood, CA 94513, Phone: 925-513-1893, email: mike.friddle@comcast.net.

Other

- Committee Member Beyaert provided a couple of related items in the PMCAC Agenda packet this month including a webpage link and summary of information from the San Pablo Peninsula website and a Bay Area Toll Authority (BATA)/Cal Trans presentation on the I-58- Richmond-San Rafael Bridge Access Improvement with images of safe access over its Scofield Bridge to/from Stenmark Drive.
- Staff will be meeting with the new Security firm First Alarm Security during the month of February to have them ready to take over security services at Pt Molate on March 1. The Security Services contract, PMCAC reviewed security services at last months meeting, will appear in front of City Council at its February 16 meeting.