MEETING MINUTES

Meeting Subject: Former Norwalk Tank Farm Restoration Advisory Board (RAB) Semiannual Meeting	**Meeting Date**: **August 22, 2019** **Meeting Time**: 4:00 p.m. **Meeting Place**: Norwalk Arts & Sports Complex

RAB, PROJECT TEAM, AND OTHER ATTENDEES

RAB Community Members
M. McIntosh (Co-Chair, Meeting Chair) Via Phone
T. Winkler

Other Members
P. Cho (RWQCB)
C. Devier-Heeney (DF-FEE Energy) Via Phone
M. Garcia (City of Norwalk)
N. Irish (SG/Apex)

Other Attendees
N. Orliczky (Jacobs)
M. Thomas (Jacobs)
V. Carino (Jacobs)
C. Gross (GSA)
P. Parmentier (SGI/Apex)
L. Graves (SGI/Apex)
Y. Gallegos (SGI/Apex)
C. Sherra (Sherrill Company)
K. Weichert (Lewis Management Corp)
K. Lutton (Leighton Group)
M. Sprague (Whittier Daily News)
M. Hernandez (Jones Real Estate)

Acronyms:
µg/L……micrograms per liter
1,2-DCA..... 1,2-dichloroethane
dba……A-weighted decibels
DLA..... Defense Logistics Agency
DFSP ..... Defense Fuel Support Point
DF-FEE..... Defense Logistics Agency-Energy
ft/ft……feet per foot
GSA ..... U.S. General Services Administration
GWTS……..groundwater treatment system
KMEP..... Kinder Morgan Energy Partners
LNAPL ..... light non-aqueous phase liquids
MCL……maximum contaminant level
MTBE..... methyl tertiary-butyl ether
ND……Non-Detect
NFA ..... No Further Action
NPDES……National Pollutant Discharge Elimination System
NSZD……...natural source zone depletion
OEHHA……Office of Environmental Health Hazard Assessment
RAB ..... Restoration Advisory Board
RTO.....Regenerative Thermal Oxidizer
RWQCB..... Regional Water Quality Control Board
scfm..……..standard cubic feet per minute
SFPP.....Santa Fe Pacific Pipeline
SGI ..... The Source Group, Inc.
SVE ..... soil vapor extraction
TBA..... tert-butyl alcohol
TPH ..... total petroleum hydrocarbon
WSB……West Side Barrier

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BACKGROUND

DF-FEE Installation Operations Energy (DF-FEE) Restoration Branch of the Defense Logistics Agency (DLA) and Kinder Morgan Energy Partners (KMEP) are conducting environmental cleanup activities in and surrounding the former Defense Fuel Support Point (DFSP) Norwalk facility, formerly known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, California. The Restoration Advisory Board (RAB) is an advisory committee of local citizens and project members that review and comment on documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled semiannually on the fourth Thursday at 4:00 p.m. in the months of February and August unless otherwise voted on by the RAB community membership.

INTRODUCTION

Michael Garcia, City of Norwalk, City of Norwalk, called the meeting to order at 4:06 p.m.
Minutes from the February 28, 2019 RAB meeting approved.
Announcement made that S. Defibaugh is no longer with Kinder Morgan.
Attendees introduced themselves.

GSA Update Chelsey Gross, GSA

General Services Administration (GSA) is waiting for the No Further Action (NFA) from the Regional Water Quality Control Board (RWQCB) on the remaining 36 acres. Once we have the final report, it will be formally accepted, and we can start the disposal process. Federal screening is a 30-day screening period for other federal agencies. The 30-day process of government property gives federal agencies opportunity to bid first on the property, which does not often happen. After the 30-days, it will be offered to other groups, which can take 60 to 90-days. If there are no offers, the property will go to public auction.

DLA Update Neil Irish, SGI/Apex

Mr. Irish gave a brief discussion on noise/dust control, treatment systems, well abandonment and installation of new wells.

Status of Remediation System

We have five horizontal vapor extraction wells; only four were operating. HW-3 was plugged after showing no flow for extraction. The well has been abandoned and replaced by two additional wells (HW-8 and HW-9). While we are still extracting product, the treatment system has been idle while sorting out discharge limit requirements of our NPDES permit. We are awaiting a Los Angeles County Sanitation permit to discharge into public industrial sewers. The thermal oxidizer is operating during daylight hours to eliminate noise disturbance; the system will run full time once noise barriers are put into place.

Systems are operating; 79.3 million gallons of groundwater and 6,918 pounds (1,000 gallons) of vapor-phase hydrocarbons have been extracted. This includes the two newly installed horizontal wells HW-8 and HW-9. Two horizonal [wells] from the late 1990's that extended off-site have since been abandoned, filled with concrete, and are no longer serviceable. The amount of LNAPL recovery has decreased, which is typical after a heavy rain season. Once the water table has returned to normal, it will allow for product to be collected. A total of 9,813 gallons of LNAPL has been recovered since August 2016.

A new 3,000 scfm natural gas-fired thermal oxidizer has been tested and operated during daylight hours Monday through Friday. We have completed a noise study; our evaluation findings: traffic noise measured at 78.8 dba (A-weighted decibels), on-site ranged from 60 dba to 90 dba at the source (i.e. treatment system). Generally, noise levels should not exceed 60 dba. Equipment will be equipped with sound shields and/or blankets to eliminate the equipment noise to meet the city ordinance. We are currently installing sound shields/blankets. After installation has been completed, we will perform final noise test and the thermal oxidizer will operate long term, full-time. Additional vapor extraction capacity is provided by a 500 scfm system using activated carbon treatment.

Remediation of Upper 10 Feet

Since submitting the Western Area Report to the RWQCB, OEHHA has provided comments via memo. Requirements for potential risk calculations for soil gas have since changed. We are in a waiting period as we evaluate the upper 10 feet of soil. The State is asking to look at this data as an industrial facility but also as residential area risk. However, DLA does not own residential property. In order for DLA to provide such data, we proposed to collect additional soil gas samples at the outer most perimeter of the site. Results showed in three location soil gas concentrations above the new risk threshold. DLA is now preparing to take additional samples further away from the facility, close to the residential area within the foot print of DLAs property. Once funding is approved, samples will be collected, results recalculated, and submitted for closure approval.

Dust Control

After recent months of Santa Ana winds causing dust clouds at the site, DLA has put in place twice-weekly (mid-week and Friday's) water trucks to maintain dust control. These water applications will be conducted in anticipation of future wind conditions. DLA has elected to use an environmentally friendly, non-toxic soil binder to further mitigate dust during wind events.

Q&A – SGI/Apex DLA Update

Q: On page 5 of your presentation, the blue marking located on this map look to be in the residential area. What does this represent? (T. Winkler)

A: The color coding represents LNAPL <1 foot thickness in a well located within the residential area. (N. Irish)

Kinder Morgan Update Vladimir Carino, Jacobs

Vladimir provided an update on Kinder Morgan Energy Partners (KMEP)'s remediation systems operation, completed remediation activities, and plan forward of the remediation activities.

Remediation System Operations Summary

The GWTS, SVE, and biosparge systems were shut-down from the end of December 2018 to January 11 to repair air compressors that supply air to pneumatic valves on the RTO and the pneumatic pumps in the wells. Biosparging at the site was suspended during 4Q2018 to February 9 to accommodate the installation, inspection, and start-up of the new biosparge system.

The SVE and biosparge systems were shut down on February 12 and restarted on February 21, 2019 to obtain static conditions for soil vapor sampling of soil vapor probes SVP-105 through SVP-109 in the south-central area. GWTS was shut down on March 19 through April 4, 2019 for carbon change-out and repairs to carbon vessels. The biosparge system was shut down from March 29 to April 2, 2019 to include an output for indicator lights to the GWTS pad. The SVE system, biosparge system, and the GWTS were shut down on April 9 to April 23, 2019 to facilitate gauging and sampling activities during the first semiannual groundwater sampling event that was conducted April 16 to 23, 2019. The SVE system, biosparge system, and the GWTS were shut down on May 6 to accommodate Southern California Edison's on-site activities. Runtime for SVE ~80%, runtime of biosparge ~63% with a total GWTS removed first and second quarter 2019 of 106.8 million gallons and SVE total mass removal of 3.6 million pounds.

Overview of All Remedial Activities

Southeast and South-Central biosparge systems off-site have similar LNAPL types and distribution as LNAPL South-Central on-site. The biosparge treatment of both areas are anticipated to progress similarly to the on-site South-Central biosparge system. Installation of three additional SVE and two biosparge wells were installed during the first quarter 2019. We plan to tie-in these wells in September 2019 and expect to initiate biosparging in the fourth quarter 2019. In late 2019, we anticipate the installation of one 800-foot dual horizontal biosparge well and SVE well. We will utilize existing and additional probes for vapor monitoring to achieve remedial objective.

Natural Source Zone Depletion Evaluation

Based on the decline in mass removal, there has been a decrease in dissolved concentrations that are near or below MCLs. We have seen this decline since starting operations of the South-Central biosparge operations. It should take 3 years of operations to reach an endpoint of remediation efforts. We are considering temporarily suspending pump and treat, biosparge and SVE in the south-central area to evaluate NSZD using soil gas and groundwater indicators. A NSZD Workplan was submitted to the Water Board in July 2019. Response is expected in September 2019.

Q&A – Jacobs/Kinder Morgan Update

Q: How long is the system expected to be suspended? (M. McIntosh)

A: At this time, we are working with Los Angeles RWQCB to implement a plan. If we see recurrence of product, we can turn the system on. Systems are still operating off-site to remove product. (V. Carino)

Q: There is currently one biosparge well working, a second well to start up December/January and a third off-site well to be installed. Are these wells installed at the same? (T. Winkler)

A: Correct, a third well would be installed off-site in the residential area at a 45 degree (5 to 1) as the current wells. Access agreement will be needed by the residence before installation; Kinder Morgan is responsible for obtaining approval. (V. Carino)

Kinder Morgan Update Malcolm Thomas, Jacobs

Malcom provided an update on Kinder Morgan Energy Partners (KMEP)'s summary of First-Half 2019 Semiannual Groundwater Monitoring.

First-half 2019 Semiannual Groundwater Monitoring

The site-wide monitoring event April/May 2019 was performed by both Kinder Morgan and DLA. Well gauging and sampling was performed by Blaine Tech and SGI. 188 wells were gauged, and 138 wells sampled using low-flow sampling method. Split samples were collected from wells EXP-1, EXP-2, and EXP-3. Kinder Morgan and DLA remediation systems remained offline during gauging activities with exception of DLA sparge system.

Uppermost Aquifer Groundwater Elevations and Flow: Groundwater elevations increased over most of the site compared to November 2018. **Groundwater flow:** converging toward groundwater depressions in the south-western, north-central, and eastern areas; diverging away from groundwater mounds in north-west, south-central and south-east areas. The horizontal hydraulic gradient was between 0.001 to 0.011 feet per foot (ft/ft). Exposition Aquifer groundwater elevations and flow groundwater elevations increased between 1.03 and 1.33 ft/ft relative to November 2018. Horizontal hydraulic gradient was 0.0003 ft/ft to the east-southeast in the central/northwestern portions of the gauging area, and 0.0004 ft/ft to the northwest in the eastern/southeastern off-site areas.

Free product was measured in 21 of the 188 wells that were gauged. **North-central area:** EP-73, GW-14R, TF-15, TF-16, TF-17R/EP-72, TF-18, TFR-12, TFR-14, TFR-15, TFR-18, TFR-22, TFR-24, TFR-27, TFR-29, TFR-33, RTF-18-N, RTF-18-NW, and RTF-18-W. **Eastern area:** GMW-58 and GMW-68. **South-central area:** GMW-O-12, 0.01 foot (in wells GMW-58, GMW-68, TF-18, and TFR-12) to 2.05 feet (in well TFR-29). Decrease in product areal extent and thickness is primarily likely due to ongoing remediation efforts.

Uppermost Aquifer Wells: In most areas, the lateral extents of TPH, benzene, 1,2-DCA, MTBE, and TBA have been reduced from the historical maximum and appear to be consistent with previous monitoring events. Reduction and consistency of plumes is a result of hydraulic containment by the treatment systems and attenuation mechanisms. Free product accumulation across the site has decreased relative to the 2018 events, likely due to remediation efforts and an increase in precipitation in 2019. Low level detections of MTBE and 1,2-DCA and plume extents in the western area do not warrant restarting the WSB treatment system.

Exposition Aquifer wells sampled: EXP-1, -2, and -3 (sampled twice by Kinder Morgan and DLA), EXP-4 (sampled once by SFPP), EXP-5 (sampled once by SFPP). All analytical results were Non-Detect (ND).

Among five wells screened in the Exposition Aquifer, only one (EXP-1) had detections in the last 10 years below MCLs and did not have an increasing trend. Seven of the last eight results were ND. Kinder Morgan will continue with semi-annual sampling frequency.

Q&A – Kinder Morgan

Q: Which wells in the eastern boundary line (near the 15 acres donated to the City) showed an increased benzene concentration? ** My concern is that our systems are not pushing contamination off-site or onto the eastern property line near the park area. (M. McIntosh)

A: Wells that showed slight increase in benzene concentrations since the First Semiannual 2018 sampling event: GMW-36 at 26 µg/L, PZ-5 at 66 µg/L, and duplicate sample taken from this well was detected at 51 µg/L. (M. Thomas) **Kinder Morgan is sparging in this eastern area which will contain free product migration. (V. Carino) It is typical to see an increase at biosparge start-up; with oxygen mechanics, there tends to be air movement. As the system runs there will be a decrease in contamination detected. ** DLA will be keeping a close eye on trends to assure systems are operating properly. (C Devier-Heeney)

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Regulatory Agency Update Paul Cho, Regional Water Quality Control Board

Mr. Paul Cho, the Regional Water Quality Control Board (RWQCB) Project Manager for the Norwalk site, stated RWQCB is working with Kinder Morgan and DLA on the 36 acres.

Set Date and Agenda for Next Meeting

The next semiannual RAB meetings will be held on Thursday, February 27, 2020, at 4:00 p.m. in the Hargitt Room at the Norwalk Arts & Sports Complex.

Public Comment Period

M. Garcia adjourned 5:31 pm.

ACTION ITEMS

Item	Responsible Party	Due Date
Bylaws for RAB	DLA/Kinder Morgan	February 2020
Reserve February 27, 2020 RAB Meeting in Hargitt Room	Michael Garcia / Lisa Graves	December 2019