FINAL MEETING MINUTES

Meeting Subject: Former Norwalk Tank Farm Restoration Advisory Board (RAB) Semiannual Meeting	Meeting Date: February 23, 2017 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)
T. Winkler

Other Members
P. Cho (RWQCB)
S. Defibaugh (KMEP) (Co-Chair)
C. Devier-Heeney (DLA Energy)
C. Emig (City of Cerritos)
A. Figueroa (City of Norwalk)
N. Irish (SGI)

Other Attendees
B. Partington (WRD)
D. Jablonski (CH2M)
A. LaMonica (GSA)
C. Gross (GSA)
D. Swensson (SGI/Apex)
A. Czuba (SGI/Apex)
B. Thoms (SGI/Apex)
P. Parmentier (SGI/Apex)
L. Moreno (SGI/Apex)
H. Enciso (Norwalk Youth Soccer League)

Acronyms:
1,2-DCA..... 1,2-dichloroethane
CO_2..... carbon dioxide
DFSP..... Defense Fuel Support Point
DLA Energy ..... Defense Logistics Agency-Energy
DTSC.....Department of Toxic Substances Control
GSA..... U.S. General Services Administration
HHRA.....Human Health Risk Assessment
KMEP ..... Kinder Morgan Energy Partners
LNAPL ..... light non-aqueous phase liquids
MTBE ..... methyl tertiary-butyl ether
O_2 ..... oxygen
PCE ..... tetrachloroethylene
RAB ..... Restoration Advisory Board
RSLs.....Risk Screening Levels
RTO.....Regenerative Thermal Oxidizer
RWQCB..... Regional Water Quality Control Board
SFPP.....Santa Fe Pacific Pipeline
SGI ..... The Source Group, Inc.
SVE ..... soil vapor extraction
TBA ..... tert-butyl alcohol
TFE/GWE ..... total fluids extraction/groundwater extraction
TPH ..... total petroleum hydrocarbons
ug/L ..... micrograms per liter
USAF..... United States Air Force
VOCs..... volatile organic compounds
WRD..... Water Replenishment District of Southern California

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BACKGROUND

Defense Logistics Agency - Energy (DLA Energy) and Kinder Morgan Energy Partners (KMEP) are conducting environmental cleanup activities at the area 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 Mary Jane McIntosh, RAB Co-Chair, Meeting Chair

Mary Jane McIntosh, RAB Co-Chair, Meeting Chair, called the meeting to order at 4:20 p.m.
Ms. McIntosh asked for questions and comments on the minutes from the August 16, 2016 RAB meeting. Ms. McIntosh made a motion for the minutes to be approved as written. Mr. Steve Defibaugh approved the minutes and Ms. McIntosh seconded the motion. The minutes were approved without opposition.

Attendees introduced themselves.

GSA Update

Angela LaMonica stated that the GSA is waiting for No Further Action, a Critical Path Item to move forward. Once the No Further Action is issued, the Air Force will submit to GSA a Report of Excess, which will begin GSA's process to begin moving forward with the disposal.

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KMEP Update Dan Jablonski, CH2M

Remediation Operations Update

Mr. Jablonski provided an update on KMEP's remediation operations, biosparge pilot testing, and planned activities.

Mr. Jablonski presented 3rd and 4th quarter data for all of KMEP's treatment systems onsite, including the SVE, GWE, and TFE systems. These systems are located in the South-Central and Southeast areas. Additionally, pilot testing of the biosparge system began in January 2016.

During the 3rd quarter, the equivalent fuel treated by the SVE was approximately 4,600 gallons, or approximately 30,000 pounds. During the 4th quarter, the fuel removed was approximately 640 gallons. Since 1995, KMEP has removed 526,800 gallons.

Mr. Jablonski then displayed a slide showing the cumulative fuel removed by the SVE system to date. The system showed good mass recovery in the beginning. However, in 2005 conditions became asymptotic. During the past several years, KMEP reported an increase in mass removal due to the dropping water levels that have exposed more of the smear zone.

During the 3rd quarter, KMEP extracted 282,000 gallons of groundwater from the South-Central and Southeastern areas. During the 4th quarter, KMEP extracted close to 587,000 gallons of groundwater in the South-Central and Southeastern areas. Since 1995, KMEP has extracted close to 72 million gallons, with 27 million gallons removed from the West Side Barrier.

Fuel treated by the TFE system in the 3rd quarter was 1 gallon, and during the 4th quarter was 7 gallons. There has been a decrease in TPH concentration in the groundwater intake due to ongoing biosparge activity.

No free product was observed in the product holding tank during either the 3rd or 4th quarter. The only free product removed during the 3rd and 4th quarters was from GMW-O-18 in the Southeastern area, approximately 4 gallons. There was less product recovered during the last two quarters due to the ongoing biosparge activity. Since 1995, KMEP has removed 14,425 gallons of free product.

Mr. Jablonski presented a graph showing cumulative extracted groundwater and product. The cumulative volume of extracted groundwater removed by KMEP is approximately 100 million gallons. During the last year, while biosparging, the amount of product recovered has dropped.

In December of 2016, KMEP saw an apparent increase in product in GMO-O-18, an extraction well in the Southeastern area offsite: there was a 5-foot increase in product. KMEP protocol requires that a new release be ruled out. In addition to other required activities, KMEP shut down all active pipelines in the area to conduct a pressure test, and submitted a sample for analysis. Product was bailed from the well and recovery of product was monitored over time. The product did not recover. Nearby monitoring wells with no history of product were monitored and no product was found. KMEP concluded the increase in product was due to dropping water levels and also downtime due to a pump in the well. The pump has since been removed and the well is back in operation.

Biosparge Pilot Testing Update

Mr. Jablonski provided detailed explanation of the biosparge well layout and design.

Mr. Jablonski discussed the objectives and approach of the biosparge pilot test: estimate zone of influence, evaluate vapor intrusion of offsite residential area, and evaluate effectiveness of mass removal.

Mr. Jablonski discussed the water level response to biosparge operations. Water levels rise 7-8 feet when the system is operational. Monitoring water displacement is vital to operation of the biosparge system during ramp-up periods. Dissolved oxygen levels have increased since installation of biosparge system.

Mr. Jablonski summarized the soil vapor monitoring data: during ramp up of biosparge system, there is an increase in VOC concentration in soil vapor probes, but over time the concentrations decrease. Probes in the deeper zones (~22 feet) do not experience the same drop in VOC concentration, but this is expected as it is right above the smear zone.

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DLA Energy Update Neil Irish, SGI

General Site Activities

Neil Irish, SGI Project Manager for the DFSP Norwalk site began by discussing the groundwater extraction system (GWE). In 2016, SGI treated approximately 700,000 gallons of groundwater. To date, SGI has recovered almost 3 million pounds of hydrocarbons from soil vapor and free product from the water table. According to calculations done by SGI, there is still quite a lot more hydrocarbons to be recovered.

Mr. Irish summarized the excavated soil treatment progress, stating that phase is coming to an end, and more effort will be focused on in-situ soil treatment in the near future.

In 2016, nearly 5,000 gallons of LNAPL was recovered. Mr. Irish described the SVE system maintained by SGI.

Mr. Irish stated that 100% of targeted shallow soil has been removed from the future park area, and 99.5% has been removed site-wide. The excavation of exploratory trenches has been completed.

Mr. Irish summarized the results of the soil remediation project progress. The majority of the excavated soil has been approved, or is pending approval, for backfill. Only 3,000 yards (4 treatment piles) remains in treatment. Any soil that does not pass laboratory screening will be hauled off site. Soil treatment is expected to conclude by end of March 2017.

Mr. Emig asked where former tanks 80008 and 55004 were located.

Mr. Irish pointed out the former locations of the two tanks and described excavation activities in those locations.

Mr. Irish summarized the progress of the conveyance of the park land. A Human Health Risk Assessment (HHRA) confirmed that the land is ready for re-use. Additional samples were taken at the request of the LARWQCB, and sample results indicate that the land is ready for re-use. An updated report will be submitted to the LARWQCB in March or April of 2017.

Mr. Irish presented a photo of flooding that occurred onsite.

Ms. Figueroa asked if the city will need to spray for mosquitos.

Mr. Irish stated that he did not believe that mosquitos would be an issue.

Planned Activities — Soil and Groundwater

Mr. Irish summarized plans for onsite berms; the berms will be tested, and if the soil is clean, the clean soil will be used onsite as backfill. This accomplishes two things 1) fewer trucks of soil would be coming and going from site, thereby reducing traffic in the city of Norwalk, and 2) removal of the berms would make the property more attractive to a future buyer.

Ms. McIntosh concurred that the property will be more attractive with the berms removed.

Mr. Irish stated that the outer berms currently keep rainwater onsite, which reduces offsite contamination. The outer berms will remain.

Ms. McIntosh thanked SGI and DLA for their consideration in reusing soils onsite, thereby reducing the impact on the City of Norwalk.

Ms. Figueroa thanked SGI for their promptness in handling any complaints lodged against the site.

Mr. Irish summarized the future of the shallow soil remediation, concluding that a request for No Further Remedial Action will be submitted in June 2017.

Mr. Irish stated that the next step is to update a work plan for removing the LNAPL from the site, the majority of which is being recovered from TF-18 and surrounding wells. There has been a huge spike in product recovery recently. Ms. Devier-Heeney also explained DLA would try to promote efforts to recover product while there are good conditions at site. Biosparging wells, similar to the well KMEP has installed will be installed in the north area of the site in 1-2 years.

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Second Semiannual 2016 Groundwater Monitoring Report Daniel Swensson, SGI

Mr. Swensson summarized the Second Semiannual 2016 Groundwater Monitoring Report for sampling conducted in October 2016. Well gauging and groundwater sample collection was conducted by The Source Group, Inc., and Blaine Tech. A total of 147 wells were gauged. Groundwater samples were collected from 107 wells using low-flow methodology.

Mr. Swensson stated that groundwater levels are continuing to drop in the uppermost aquifer, approximately 1 foot since the previous groundwater monitoring event in April 2016, on average. In the Exposition aquifer, groundwater levels have dropped approximately 2 feet on average since the previous groundwater monitoring event in April 2016.

Mr. Swensson displayed and discussed groundwater elevation maps for the uppermost groundwater zone and the Exposition Aquifer.

Mr. Swensson stated that floating product was measured in 16 of the 147 wells gauged, and measured thicknesses range from 0.01 feet to 4.94 feet. Product was found in GMW-68 for the first time.

Mr. Irish stated that KMEP experienced a similar event at approximately the same time.

Mr. Swensson presented the sampling results for the uppermost aquifer wells and the exposition aquifer wells.

Mr. Swensson stated that detected contaminants occurred in approximately the same areas as the last groundwater monitoring event.

Mr. Cho asked for the location of groundwater extraction well EXP-1.

Mr. Swensson pointed out EXP-1 on the graphic.

Ms. McIntosh asked if it was in the same general area as GMW-62.

Mr. Swensson replied that EXP-1 is south of GMW-62.

Mr. Cho asked if the TBA concentration had increased compared to the historical results.

Mr. Swensson stated that he would have to check, but he believed that samples from GMW-62 had high concentrations of TBA in the past.

Ms. Winkler asked if jet fuel was considered TPHd or TPHg.

Mr. Swensson replied it was more similar to TPHd.

Mr. Irish clarified the types of jet fuel that were previously stored onsite.

Ms. Winkler asked if jet fuel was currently being transported via KMEP's pipeline.

Mr. Defibaugh confirmed.

Mr. Cho asked Mr. Jablonski if he had any theories on where the TBA was coming from in PZ-5.

Mr. Jablonski replied that the wells nearby had historically high concentrations, possible coming from a breakdown of MTBE, adding concentrations changed with the installation of the biosparge well.

Ms. Winkler asked if MTBE was added to California gas.

Mr. Swensson confirmed.

Ms. McIntosh commented that she is pleased with the progress that is being made onsite. She stated that she is concerned with the 1,2-DCA concentrations.

Mr. Swensson stated that 1,2-DCA is not appearing in any new wells, and the plume has receded.

Mr. Defibaugh concurred.

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Regulatory Agency Update Paul Cho, Regional Water Quality Control Board

Mr. Paul Cho, the Regional Water Quality Control Board (Regional Board) Project Manager for the Norwalk site, stated that the due date for the final response to the Human Health Risk Assessment is March 15, 2017 (for the 15-acre park portion) from DLA-Energy and Kinder Morgan Energy Partners. The HHRA will then be sent to a RWQCB toxicologist for review to ensure enough sampling was conducted.

Set Date and Agenda for Next Meeting

The next semiannual RAB meetings will be held on Thursday, August 24, 2017, at 4:00 p.m. in the Hargitt Room at the Norwalk Arts & Sports Complex. Agenda items to be included are pilot testing and remediation system updates.

Public Comment Period

Ms. McIntosh made a motion to adjourn the meeting. Meeting adjourned at 6:12 p.m.

ACTION ITEMS

Item	Responsible Party	Due Date
Schedule August 2017 RAB Meetings in Hargitt Room	Adriana Figueroa/Lisa Moreno	6/1/17
1,2-DCA was reported as Benzene in error on page 4-4 of the Second Semiannual 2016 Groundwater Monitoring Report. Report page to be corrected, distributed and uploaded to GeoTracker.	Daniel Swensson	Completed on 2/24/17