

# FINAL

## Meeting Minutes

<b>Meeting Subject:</b> Norwalk Tank Farm Restoration Advisory Board (RAB) Quarterly Meeting	<b>Meeting Date:</b> <u>25 October 2007</u> <b>Meeting Time:</b> 6:30 p.m. <b>Meeting Place:</b> Norwalk Arts & Sports Complex
<b>RAB, PROJECT TEAM, AND OTHER ATTENDEES</b>	
<b><u>RAB Community Members</u></b> D. Caughey E. Garcia M. McIntosh (Co-Chair) W. Miller T. Winkler	<b><u>Other Members</u></b> A. Figueroa (City of Norwalk) S. Hariri (DTSC) J. Holdren (City of Cerritos) J. Hu (RWQCB) M. Pitta (KMEP) (Co-Chair) Lt. Col. Ramer (DESC-AMW) (Co-Chair)
<b><u>Other Attendees</u></b> R. Baird (Office of Asm. Mendoza) B. Cardenas (Office of Rep. Napolitano) S. Chou (Geomatrix) R. Hassan (Parsons) N. Irish (The Source Group) M. Lucas (Parsons) L. Lund (Parsons) K. Olowu (DESC) S. Osborn (KMEP) V. Seyde (URS)	<b><u>Acronyms:</u></b> CHHSLs..... California Human Health Screening Levels DESC-AMW.. Defense Energy Support Center Americas West DTSC ..... Department of Toxic Substances Control GSA..... General Services Administration HHRA ..... Human Health Risk Assessment KMEP ..... Kinder Morgan Energy Partners LNAPL..... Light non-aqueous phase liquids MTBE ..... Methyl tertiary butyl-ether OCCS ..... Offsite Chemicals Cleanup Subcommittee OEHHA..... Office of Environmental Health Hazard Assessment 1,2-DCA..... 1,2-dichloroethane RAB ..... Restoration Advisory Board RBCA..... Risk-Based Corrective Action RWQCB..... Regional Water Quality Control Board SVE..... Soil Vapor Extraction TPH..... Total petroleum hydrocarbons URS..... URS Corporation VOCs..... Volatile organic compounds WRD ..... Water Replenishment District of Southern California
<b><u>Absentees</u></b> N. Matsumoto (WRD) W. Sterner B. Hoskins	
<b><u>Not Attending</u></b> Dr. Duran (OCCS) Dr. Landolph (OCCS)	
<b><u>BACKGROUND</u></b> DESC-AMW and KMEP are conducting environmental cleanup activities at the area in and around the former Defense Fuel Support Point Norwalk, also known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, CA. The RAB is an advisory committee of local citizens and project members that reviews and comments on documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled quarterly on the last Thursday of the month at 6:30 p.m. in January, April, July, and October unless otherwise voted on by the RAB community membership.	

# FINAL

## MEETING MINUTES

25 October 2007

### 1. Introduction Mary Jane McIntosh, Community Co-Chair, Meeting Chair

Mary Jane McIntosh called the meeting to order at 6:39 p.m. Ms. McIntosh introduced the guests attending the meeting. Ms. McIntosh asked for comments on the draft minutes from the July 26, 2007, RAB meeting. Ms. McIntosh made a motion to accept the minutes as written. The minutes were approved without opposition. Ms. McIntosh then provided two brief announcements. Wanda Sterner resigned from the RAB, for health reasons, after twelve years of service. Ms. McIntosh shared a letter from Ms. Sterner to the RAB. David Caughey then indicated that he too has decided to retire from RAB after twelve years of service.

### 2. KMEP Update Steve Osborn, KMEP, and Shioh-Whei Chou, Geomatrix Consultants

#### Second Addendum to RAP Update

Steve Osborn said that seven new wells and MW-O-1 were connected to the soil vapor and groundwater treatment systems to enhance product recovery. As of October 25, 2007, pumping from the new wells had not begun.

#### Remediation Operations Update

Shioh-Whei Chou indicated that groundwater extraction was turned off in well GMW-SF-9 in the southeastern area due to the reduction in the lateral extent of MTBE (methyl tertiary butyl-ether) and to focus efforts on the area with remaining product and MTBE. Groundwater extraction was also turned off in three West Side Barrier wells due to the reduced lateral extents of 1,2 DCA (1,2-dichloroethane) and MTBE and increased pumping in the South-Central area. She then displayed a map of the remediation systems. Overall, there are 30 vapor extraction wells in the South-Central Plume area and two vapor extraction wells in the Southeastern 24-Inch Block Valve area.

Approximately 514 gallons of fuel have been removed and from soil and destroyed by catalytic oxidation since July 2007, and 452,300 gallons equivalent of fuel have been removed from soil and destroyed by catalytic and thermal oxidation since September 1995.

The SVE system was shut down during the construction period when wells were connected to the manifold system and was also shut down during the South Coast Air Quality Management District (SCAQMD) permit renewal process. Overall, the SVE was operational 86% of the time, which is an improvement.

The groundwater/product extraction system extracted 817,000 gallons, a two-fold increase, from the South-Central Plume; 93,000 gallons from the Southeastern 24-Inch Block Valve area; and 258,000 gallons from the West Side Barrier area. Furthermore, 61 gallons of free product was manually recovered during the last quarter due to increased pumping.

Total groundwater extracted since September 1995 includes: 25.5 million gallons from the South-Central Plume area; 7.8 million gallons from the Southeastern 24-Inch Block Valve area; and 26.3 million gallons from the West Side Barrier area. A total of 59.6 million gallons of groundwater have been extracted, and 8,909 gallons of free product have been removed.

Ms. Chou said that the groundwater/product extraction system operated continuously during the third quarter of 2007 with the following exceptions: construction period for connecting wells to existing manifolds; South-Central and Southeastern system shut down pending SCAQMD's confirmation of permit renewal; Southeastern remediation wells shut down to replace solenoid valve; West Side Barrier system shut down for maintenance; South-Central and Southeastern systems shutdown for third quarter 2007 groundwater monitoring; South-Central and Southeastern systems shutdown to replace level sensor and controller components. Overall, the system operated for 54 percent of the time during the quarter. Ms. Chou also showed a graph of the cumulative groundwater and product extracted.

Planned activities include: weekly inspections; data collection for monitoring and evaluation of remediation systems; conversion of eight SVE wells to DPE wells in South-Central area; and upgrades on the existing

# FINAL

## MEETING MINUTES

25 October 2007

treatment system. Upgrades include a secondary transfer pump; liquid-phase carbon vessels; and the installation of a second air compressor. Ms. Chou then displayed a photograph of the air compressor as well as the two 1,500 gallon liquid-phase carbon vessels that will be replaced by two 2,000 gallon liquid-phase carbon vessels. The 1,500 gallon vessels can be used elsewhere on the project site.

Gene Garcia then asked how replacement of the two vessels will impact existing operations. Mr. Osborn indicated that they will have to phase in the operation of the new DPE wells. Ms. Chou also indicated that the system will be shut down for no more than seven days for replacing the carbon vessels and that system upgrades will be completed by the end of December.

### 3. Sentry Groundwater Monitoring

Ms. Chou indicated that 20 wells were sampled, including 4 Exposition wells. Groundwater levels generally increased since April 2007 in the uppermost aquifer. No volatile organic compounds (VOCs) were detected in Exposition wells. Benzene concentrations decreased or remained non-detect in the southern off-site area since May 2007.

In the Southeastern Block Valve area, free product was not detected in well GMW-36. MTBE concentrations have generally decreased in this area since May 2007.

In the Western Off-site area, 1,2-dichloroethane (1,2-DCA) and MTBE were detected in WCW-7 at concentrations below RBCA levels.

Other findings indicate that based on recent and historical laboratory analyses, the free product observed in well MW-9 has been characterized as weathered jet fuel. This characterization is consistent with previous samples. Dr. Garcia asked why so much fuel when free product has always been low. Mr. Osborn indicated that the increase could be due to increased pumping in the South-Central area. Dr. Garcia then asked if the pumping goes from east to west and MW-9 is to the east, then why doesn't the free product move from the west to the east. Mike Pitta indicated that this is due to the cone of depression, which is because of increased flow due to the center of pumping.

Redwan Hassan indicated that although they are still reviewing the data and have made no final determination, pumping could do that.

In the Intermediate Block Valve area, concentrations of total petroleum hydrocarbons (TPH) decreased since May 2007 and BTEX (benzene, toluene, ethylbenzene, and total xylenes) and MTBE were not detected. Well MW-SF-4, near the Intermediate Block Valve area and west of South-Central area, contained product and was not sampled. Historically, this well has contained product and the increase in apparent thickness was likely a result of increased pumping in the South-Central area. Ms. Chou then indicated that Parsons installed absorbent socks in well MW-4, and that Parsons will try and do the same for well MW-9.

### Conceptual Site Model

Ms. Chou indicated that KMEP is currently working with the Regional Water Quality Control Board (RWQCB) to develop a conceptual model showing generalized lithologic conditions and remediation progress. KMEP is using EarthVision software to develop a three dimensional type image and will review this with the DESC and the RWQCB before sharing it with the RAB. She mentioned that the conceptual site model will be presented in January 2008.

Ms. Chou then provided a brief power point presentation that displayed plume maps for different chemicals that have been detected at the site. The maps ranged in color from light blue to dark blue. The lighter blue shades indicated lower concentrations. Hard copies as well as transparencies were made available to the RAB.

# FINAL

MEETING MINUTES

25 October 2007

## 4. DESC-AMW Update Redwan Hassan, Parsons

### Holifield Park and Dolland Elementary School Investigation

The report, which included a summary and conclusions, was distributed to the RAB mailing list approximately two weeks before the RAB meeting. Revision pages were provided as a handout at the RAB meeting.

### Investigation Results for Holifield Park and Dolland Elementary School, Loren Lund, Senior Toxicologist, Parsons

Loren Lund then discussed the phased investigation approach. Samples were collected every 25 feet. Although Mr. Lund could not get access/approval for the collection of samples on the school site, samples were collected within a few feet of the school in order to understand the extent of the contamination.

To determine the human health risk assessment (HHRA), Mr. Lund used California Office of Environmental Health Hazard Assessment (OEHHA) screening values that were based on children and adults exposed 350 days per year. This is considered a conservative approach. If concentrations are less than the screening values then there is no human health risk. If the concentrations are above screening levels then this does not necessarily mean an adverse human health impact, but rather indicates that a further investigation using site-specific information is warranted.

### Soil Gas Analytical Results

Mr. Lund then presented a table that displayed the California human health screening levels (CHHSLs) for soil gas. The soil gas analytical results indicated the following: concentrations for VOCs were all below CHHSLs except for benzene, 1,2-DCA, MTBE and toluene; benzene exceedances occurred at B-24 which is near the 24-Inch Valve area and in a step out sample (B-24 south) just south of B-24; 1,2-DCA, MTBE and toluene CHHSL exceedances occurred at B-24 south.

### Soil Analytical Results

Mr. Lund then presented a table that displayed the US EPA Region 9 residential soil preliminary remediation goals (PRGs). The PRGs represent a very conservative value, if soil analytical results are below these levels, then one can say, with confidence, that there is no potential for any future impact. The soil analytical results indicated that across the entire Holifield Park VOCs and TPH were either not detected or below the PRGs at all locations except B-24 south. Benzene, toluene and TPHg (TPH gasoline) were detected above screening level concentrations at B-24 south. Mr. Lund indicated that this is not a surprise because these results are consistent with existing data in this area of known impact.

### Groundwater Analytical Results

Mr. Lund then presented a table that displayed US EPA Region 9 Tap Water (i.e. Drinking Water) PRGs. The groundwater analytical results indicated that TPH and 27 individual VOCs were detected at concentrations well above risk-based screening levels in two areas. One area was at B-120 which is in the main northwestern area of the park (just east of the fence line) and the second area was around B-122 in the 24-Inch Block Valve area. In the most eastern (B-108 through B-111) and northern (B-116) samples, TPHfp (TPH fuel product) was the only target analyte detected and ranged from the low one hundreds to 480 micrograms per liter (ug/L), which is below the screening value of 500 ug/L.

Mr. Lund then presented two figures that displayed the groundwater contour lines for benzene and TPH in groundwater within the project site. The contour lines are in units of ug/L and display the extent of groundwater impacts within the investigation area. The benzene groundwater contour concentrations range from 1 ug/L to 5,000 ug/L (the California maximum contaminant level for benzene in groundwater is 1 ug/L.) The TPH groundwater contour lines ranged from 500 ug/L to 20,000 ug/L. The cleanup or action level for TPH is 500 ug/L.

# FINAL

## MEETING MINUTES

25 October 2007

Benjamin Cardenas asked a question regarding what are the threats for future residents if the groundwater is eventually used for drinking water. Mr. Lund indicated that the results of the HHSE indicated two distinct areas of subsurface VOC impacts. They are: the Main Park Area, which is the northern area around the newly-installed monitoring well, GMW-62 (B-120); and the 24-Inch Block Valve area which is in the southern portion of the park near B-24/B-122. Mr. Lund concluded that if the groundwater were being used as drinking water right now, it would be a concern, but because it is not, then right now it is not a concern. Furthermore, Mr. Lund indicated that if this water is used in the future for drinking water then there is a need to get the chemical concentrations levels down, he also indicated, that is one reason why remediation is taking place in the area.

Other results of the HHSE for the Main Park area indicate that because there were no soil gas CHHSL exceedances, then adverse health effects are not expected for the hypothetical resident and park recreators or school receptors.

Since there were no soil risk-based screening level exceedances then there are no adverse health effects from direct exposure to chemicals of potential concern (COPCs) in soil. Furthermore, future impacts to groundwater are not expected because concentrations of COPCs in soils were below soil-to-groundwater screening levels, including TPHg and TPHfp.

Other conclusions of the Main Park investigation area indicated that selected fuel-related VOCs, TPHg, and TPHfp in groundwater have migrated off DESC property and into the subsurface beneath the park. The lateral extent of groundwater impacts above screening levels is limited to approximately 90 feet east of DESC property beneath the park. The northern and southern extent of groundwater impacts near B-120 is limited to 170 feet to the south and 200 feet to the north. Groundwater impacted above screening levels does not extend beneath Dolland Elementary school property.

Ms. McIntosh then asked if samples were not collected on school property, how can the RAB be assured that the groundwater beneath the school property is not contaminated? Mr. Lund indicated that the phased approach to this investigation considered the movement of groundwater as well as historical areas in the park. He indicated that as you move east, the impacts do not continue, in fact, the eastern most samples were below screening levels.

Tracy Winkler then asked if the source of the contamination could be associated with the tanks or KMPEP. Mr. Lund directed the RAB to reference Appendix D, Table 4 for the 24-Inch Block Valve results, as well as the two figures that display the benzene and TPH groundwater contours which provide a visual indication on the pattern of contamination.

Mr. Pitta indicated that in reference to the pipeline, based on the integrity tests that were conducted, the source of the contamination is not the pipeline.

Mr. Hassan indicated that the exact source of the contamination in the main park area can not be determined definitively at this time. He indicated that the spread of the contamination is from the facility and that it is not the tanks or the pipeline. He also indicated that even with hundreds of soil samples collected and analyzed, to date, no definitive source can be pinpointed.

Mr. Cardenas then asked why there were no samples or results from the school. Mr. Lund indicated that for the park, they were able to gather information regarding former land uses. The eastern boundary shows a hot spot close to the property/fence line, however, near the school the concentrations are low. If this were a continuous source, then one would see soil contamination on a vertical basis. Results from the investigation indicate that soil and soil gas along the vertical extent near the school are non-detect. Therefore, there isn't a need for further testing, although remediation for higher concentrations will be conducted.

Mr. Cardenas then asked about groundwater contamination along the school property line. Mr. Lund indicated that because the investigation was implemented using a phased approach, step out samples are only required when sample concentrations increase. Because the results decreased from west to east, there was no

# FINAL

## MEETING MINUTES

25 October 2007

reason to collect samples at the school because the school site is east of the park. Again, under the phased sampling approach, as the concentrations decreased from west to east, then the collection of samples on the eastern boundary is not warranted. Representatives from the Department of Toxic Substances Control (DTSC) as well as the RWQCB agreed with this decision. Overall, in the groundwater along the border line from B-52 through to B-111 (200 feet west of the school), all of the samples were less than risk based screening levels; therefore, there was no need to step out. Furthermore, it was not possible to get an access agreement with the school.

Adriana Figueroa indicated that former land uses for the park and school included a tank farm and DESC activities.

Mr. Hassan indicated that when the property transferred there was no data available, however, their investigation was thorough and whatever is out there is limited.

Steven Hariri from DTSC indicated that if levels increase then there will be subsequent investigations.

Mr. Lund then provided final conclusions regarding the Main Park area investigation. He indicated that: soil gas and soil have not been impacted with site-related VOCs above screening levels and that soil gas and soil sampling / remediation is not needed; groundwater impacts have been adequately characterized and the area near B-120 will be remediated via an expansion of the existing DFSP Norwalk site remediation system; the existing DFSP Norwalk remediation system consists of biosparging, soil vapor extraction, and total fluids and groundwater extraction; a DESC work plan for the remediation of the groundwater beneath the park will be forthcoming. An outline for the northern plume will be addressed by DESC and an outline for the southern plume will be addressed by KMEP.

Regarding the remedial action for groundwater beneath the park, a performance evaluation will be conducted and the results will be included in the work plan. For well GW-15, a groundwater extraction well that is six inches in diameter will contain plume migration to the east, and this plume will tie in to the existing treatment on site such that a No Further Action can be obtained.

### **Results of HHSE for 24-Inch Block Valve Area**

There were CHHSL soil gas exceedances for benzene, 1,2-DCA, MTBE and toluene in the immediate vicinity of sampling locations B-24 and B-24 South. Soil risk-based screening level for benzene was exceeded. Also, the maximum detected concentrations of benzene, toluene, TPHg, and TPHfp were above soil-to-groundwater screening levels, however, soil conditions are currently being remediated by the existing system. Selected COPCs in groundwater exceeded the PRGs and risks and hazards may be above target levels if groundwater were used as a drinking water source in the future, however, at this time, groundwater is not used for domestic purposes.

Overall, soil gas, soil and groundwater have been impacted with site-related VOCs above screening levels. The extent of soil gas impacts are defined to the north (B-24 North), east (B-24 East), and approximately 100 feet to the south. The area is already being remediated by KMEP. Remediation consists of soil vapor extraction, groundwater extraction and product recovery and is related to KMEP's response to a release from a 24-Inch Block Valve in April 1994. KMEP is also preparing a work plan to collect additional data in this area.

Mr. Cardenas had a question regarding the results at B-24 North and B-24 East, which are twenty feet away from B-24. Mr. Lund mentioned that the results indicated that the levels are below risk-based concentrations for soil and soil gas. Ms. Winkler asked if children can get into this area because it seems that the area is inside the park and if children can get into this area is the area considered dangerous. Mr. Lund indicated that there is no danger to the children because the contamination is twenty feet below ground surface.

# FINAL

MEETING MINUTES

25 October 2007

## General Remediation Activities

Mr. Hassan said that recent remediation activities included the installation of a sump at the air stripper on September 9; installation of a fiberglass cell on September 12<sup>th</sup> (carbon for the new cell is under procurement); electrical connections are scheduled for October 25<sup>th</sup> at GW-13, GW-14, and GW-15; weed abatement throughout the site began on October 23<sup>rd</sup> and should be completed by the end of the week; and free product was measured south of the truck fill stands in MW-09 (0.99 feet) and GMW-04 (0.45 feet) on September 24<sup>th</sup> and absorbents socks were installed on October 10<sup>th</sup> at GMW-04.

## Central Plume Remediation

Since April 1996, approximately 422,731 gallons of total hydrocarbon mass were removed: 55,538 gallons of free product were recovered; 1,397 gallons of dissolved phase hydrocarbons were recovered; 152,291 gallons of volatile hydrocarbons were recovered through soil vapor extraction; and estimated 210,505-plus gallons of hydrocarbons were destroyed due to enhanced biodegradation. Approximately 42.2 million gallons of groundwater were treated. Mr. Hassan next displayed a slide showing these numbers on a graph. The next slide gave a graph with an additional breakdown of the hydrocarbon mass removal from the horizontal wells, the truck fill stand area, biodegradation, and the vapor wells in the east and in the west.

## Conceptual Site Modeling Update

Data has been entered into the model. A draft version of the model for TPHfp was created based on the first semiannual 2007 data. The model will undergo further changes. Similar models were created for TPHg and BTEX. The models for each compound will be created for multiple years to review changes in the plume. The results for each model will be presented in January.

Ms. Winkler asked if the Holifield Park Report was sent to the school district. Ms. McIntosh asked that the report be sent to Maureen Saul at the school district. Ms McIntosh indicated that she would provide a mailing address.

Jeffrey Hu indicated that the RWQCB will submit a comment letter regarding the Holifield Park Report in a few weeks. Mr. Hariri also indicated that the DTSC will submit review comments on the Holifield Park Report next week.

Ms. McIntosh then asked URS to update the RAB mailing list given the recent resignations as well as adding Mr. Robert D. Baird to the list. Ms McIntosh provided contact information for Mr. Baird to URS and asked URS to provide revised mailing lists at the next RAB.

## 5. Set Date and Agenda for Next Meeting

The next quarterly RAB meeting will be held on **Thursday, January 31, 2008, at 6:30 p.m.** in the Norwalk Arts & Sports Complex. The agenda is to include the remediation updates, Semi-Annual Monitoring Event, Plume overlays, and Conceptual Site Modeling.

## 6. Public Comment Period

Ms. McIntosh made a motion to adjourn the meeting. The motion was seconded and passed without opposition. Ms. McIntosh adjourned the meeting at 8:10 p.m.

# FINAL

<b>ACTION ITEMS</b>		
<b>Item</b>	<b>Responsible Party</b>	<b>Due Date</b>
KMEP will submit an interim MW-SF-4 findings/gauging report to the RAB.	KMEP	Before January 2008
Parsons will provide an interim findings report to the RAB regarding the MW-09 November 2007 monitoring event.	Parsons	Before January 2008
Parsons will submit a 500 ml sample from MW-09 to DESC	Parsons	Before January 2008
Update mailing list and provide a copy at the next RAB	URS	1/31/08
Plume Overlays	DESC/KMEP	1/31/08
Next Quarterly RAB meeting	All	1/31/08