# **FINAL**

#### **Meeting Minutes**

| Meeting Subject:       Meeting Date:       10 February 2011         Norwalk Tank Farm       Meeting Time:       5:00 p.m.         Restoration Advisory Board (RAB)       Meeting Place:       Norwalk Arts & Sports Complex         Semiannual Meeting       Meeting Place:       Norwalk Arts & Sports Complex         RAB. Community Members       Other Members       Meeting Status         M. McIntosh (Co-Chair)       P. Cho (RWQCB)       A. Figueroa (City of Norwalk)         Other Attendees       Lt Col Gaffney (DLA Energy) (Co-Chair)         D. Clark (USACE-LA)       A. Figueroa (City of Norwalk)         M. Estir (Eco & Assoc.)       Acronyms:         M. Fator (El Capitan)       CHHSLs California Human Health Screening         R. Hassan (Parsons)       DLA Energy Defense Logistics Agency Energy         D. Jablonski (CH2M HILL)       (formerly DESC)         M. Scott (BAH)       KMEP         M. Sout (DLA Energy)       HHRA         M. Wuttig (CH2M HILL)       MTBE   |  |  |  |  |
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| Restoration Advisory Board (RAB)       Meeting Place:       Norwalk Arts & Sports Complex         RAB, PROJECT TEAM, AND OTHER ATTENDEES       Other Members       P. Cho (RWQCB)         M. McIntosh (Co-Chair)       P. Cho (RWQCB)       P. Cho (RWQCB)         T. Winkler       S. Defibaugh (KMEP) (Co-Chair)       A. Figueroa (City of Norwalk)         Other Attendees       Lt Col Gaffney (DLA Energy) (Co-Chair)         D. Clark (USACE-LA)       CHHSLsCalifornia Human Health Screening         R. Hassan (Parsons)       DLA EnergyDefense Logistics Agency Energy         D. Jablonski (CH2M HILL)       (formerly DESC)         M. Lucas (Parsons)       DTSCDepartment of Toxic Substances Control         S. Martin (KMEP)       GSAGeneral Services Administration         K. Olowu (DLA Energy)       HHRAHuman Health Risk Assessment         M. Scott (BAH)       KMEPKinder Morgan Energy Partners         T. Whyte (URS)       LNAPLLight non-aqueous phase liquids         M. Wuttig (CH2M HILL)       MTBEMethyl tertiary-butyl ether         NPDESNational Pollutant Discharge Elimination       System         Absentees       OCCS   | Meeting Subject:                       |  |  |  |
| Semiannual Meeting       A.B., PROJECT TEAM, AND OTHER ATTENDEES         RAB, PROJECT TEAM, AND OTHER ATTENDEES       Other Members         RAB, Community Members       Other Members         M. McIntosh (Co-Chair)       P. Cho (RWQCB)         T. Winkler       S. Defibaugh (KMEP) (Co-Chair)         A. Figueroa (City of Norwalk)       Ut col Gaffney (DLA Energy) (Co-Chair)         D. Clark (USACE-LA)       A.Figueroa (City of Norwalk)         M. Estir (Eco & Assoc.)       Acronyms:         M. Fator (El Capitan)       CHHSLsCalifornia Human Health Screening<br>Levels         D. Hofmann (BAH)       DLA EnergyDefense Logistics Agency Energy<br>(formerly DESC)         M. Lucas (Parsons)       DTSC         S. Martin (KMEP)       GSAGarvices Administration         K. Olowu (DLA Energy)       HHRA         M. Sott (BAH)       KMEP         M. Wuttig (CH2M HILL)       MTBE         M. Wuttig (CH2M HILL)       MTBE         M. Wuttig (CH2M HILL)       MTBE         Methyl tertiary-butyl ether         NPDES       National Pollutant Discharge Elimination<br>System         Absentees       OCCS         C. Emig (City of Cerritos)       OEHA  |  |  |  |  |
| RAB, PROJECT TEAM, AND OTHER ATTENDEES         RAB Community Members       Other Members         M. McIntosh (Co-Chair)       P. Cho (RWQCB)         T. Winkler       S. Defibaugh (KMEP) (Co-Chair)         A. Figueroa (City of Norwalk)       Lt Col Gaffney (DLA Energy) (Co-Chair)         D. Clark (USACE-LA)       M. Estir (Eco & Assoc.)         M. Fator (El Capitan)       CHHSLs California Human Health Screening         L. Hassan (Parsons)       DLA Energy. Defense Logistics Agency Energy         D. Jablonski (CH2M HILL)       GSA  | •                                      | Meeting Place: Norwalk Arts & Sports Complex   |  |  |
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|  |  | California                                     |  |  |

## BACKGROUND

DLA Energy-AMW and KMEP are conducting environmental cleanup activities at the area in and surrounding the former Defense Fuel Support Point Norwalk, also formerly known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, CA. The Restoration Advisory Board (RAB) is an advisory committee of local citizens and project members that reviews and comments documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled semiannually on the second Thursday at 5:00 p.m. in the months of February and August unless otherwise voted on by the RAB community membership.

# 10 February 2011

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

Mary Jane McIntosh called the meeting to order at 5:12 p.m. Kola Olowu of the Defense Logistics Agency Energy (DLA Energy) introduced Monica Scott and David Hofmann of Booz Allen Hamilton (BAH). Ms. McIntosh introduced Diane Clark of the U.S. Army Corp of Engineers. Ms. Clark introduced Mohammed Esteri of Eco and Associates and Mark Fator of El Capitan Environmental Services, who are contractors for the Corps of Engineers. Ms. McIntosh introduced Lt Col Tam Gaffney, the new commander of DLA Energy-Americas West and new RAB Co-Chair.

Ms. McIntosh asked for comments on the draft minutes from the July 29, 2010, RAB meeting. Redwan Hassan made a motion for the minutes to be accepted as written. Steve Defibaugh seconded the motion. The minutes were approved without opposition.

# 2. <u>Tank Demolition Presentation</u> Diane Clark, U. S. Army Corps of Engineers, Los Angeles Region

Ms. Clark explained that the Corps of Engineers oversaw demolition of the tanks at the Norwalk facility. The Corps contracted with Eco and Associates in May of 2010. They held their first project meeting in August 2010 and held weekly meetings after that. They partnered with DLA Energy, Kinder Morgan Energy Partners (KMEP), Parsons, CH2M HILL, the RAB, and the City to make this a successful project. Demolition began on September 27, 2010. They are now done with the tank demolition and are conducting final cleanup. They expect this to be completed on Monday, February 14, 2011, and have a final walkthrough on Wednesday, February 16, 2011. Everyone is welcome to attend the final walkthrough. Ms. Clark thanked everyone for their help. Ms. McIntosh said she was pleased with how well the project went. The hotline only received one or two calls; a newsletter was mailed to the community ahead of time; and there were no noise complaints. She said the project was well coordinated and everyone worked well together.

## 3. <u>**Regulatory Agency Update</u>** Paul Cho, Regional Water Quality Control Board</u>

Paul Cho, the Regional Water Quality Control Board (RWQCB) Project Manager for the Norwalk site, said that they are performing a special three-year project with the Western States Petroleum Agency. They have been conducting pilot tests for LNAPL (light, non-aqueous phase liquids) with biosparging. They have learned a lot over the past few years with cutting edge investigations. The RWQCB's goal at Norwalk is to provide a dynamic relationship with DLA Energy and KMEP in order to expedite cleanup. He was happy that both DLA Energy and KMEP are conducting LIF/UVOST (laser induced florescence/ultra-violet optical screening tool) investigations. These investigations will tell us the distribution of the remaining contamination and how we can remediate. The RWQCB is also meeting with DLA Energy and with KMEP to help the remediation process move faster. Ms. McIntosh asked if the RWQCB is involved with an EPA action to set limits on chemicals in drinking water, in reference to an article she saw on cnn.com. Mr. Cho said that the State Department of Health Services sets the levels. The RWQCB has an obligation to protect the groundwater for potential future use.

# 4. <u>KMEP Update</u> Mark Wuttig, CH2M HILL

# **Remediation Operations Update**

Mark Wuttig of CH2M HILL, KMEP's environmental contractor, said that KMEP's remediation objectives are to contain and to remove contaminant mass in order to obtain site closure. In the South-Central and Southeast areas, KMEP operates a soil vapor extraction (SVE) system, a groundwater extraction (GWE) system, and a total fluids extraction (TFE) system. The TFE system extracts free product and groundwater. The West Side Barrier system was shut down in August 2008 based on low concentrations of MTBE (methyl tertiary-butyl ether) and 1,2-DCA (1,2-dichloroethane). In addition, TBA (tertiary-butyl alcohol) was added to the list of monitored chemicals. There have been some low-level offsite detections of TBA. They will keep a close eye on TBA and can restart the West Side Barrier system if needed.

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Mr. Wuttig next described the remediation systems in the South-Central and Southeastern areas and said that SVE vapors are treated with a catalytic oxidizer and then are safely discharged to the atmosphere under a permit with the South Coast Air Quality Management District (SCAQMD). TFE liquids include free product that is recycled offsite and groundwater that is treated by liquid-phase GAC (granular-activated carbon) and discharged into Coyote Creek under a NPDES (National Pollutant Discharge Elimination System) permit.

Next Mr. Wuttig discussed operation and maintenance activities, including weekly inspections and data collection, monthly pump inspections, measurement of individual well vapor concentrations, collection and analysis of influent and effluent vapor and groundwater samples, and gauging of select remediation wells.

Mr. Wuttig then summarized KMEP's SVE operations and discussed some statistics on effectiveness. They look at equivalent fuel treated. In the third quarter of 2010, 16 gallons (or 104 pounds) were treated. In the fourth quarter of 2010, 117 gallons (773 pounds) were treated. Since KMEP's Second Addendum to the Revised RAP (Remedial Action Plan), 3,107 gallons (20,508 pounds) were treated. A lot of mass has been removed since 1995. Mr. Wuttig then displayed a graph showing the cumulative fuel removed by vapor extraction to date, noting that they recovered a lot in the beginning, but the recovery rate has leveled off. They will continue to extract vapors out of wells where possible to prevent contaminant migration offsite.

Regarding KMEP's TFE/GWE system, Mr. Wuttig said that quite a bit of groundwater has been extracted. For the third quarter of 2010, 736,007 gallons of groundwater were extracted from the South-Central area and 807,267 gallons were extracted from the Southeastern area. In the fourth quarter of 2010, 1,432,144 gallons of groundwater were extracted from the South-Central area and 739,501 gallons were extracted from the Southeastern area. Total groundwater extracted since September 1995 includes: 43,557,246 gallons from the South-Central area; 11,802,577 gallons from the Southeastern 24-Inch Block Valve area; and 26,902,604 gallons from the West Side Barrier area. Mass of TPH (total petroleum hydrocarbons) removed in the groundwater extracted included 18 gallons, or 119 pounds, in the third quarter of 2010 and 13 gallons, or 84 pounds, in the fourth quarter of 2010. A total 182 gallons, or 1,201 pounds, of TPH mass has been removed since implementation of the Second Addendum. Mr. Wuttig said that free product was as thick as 10 feet in many wells in the beginning; now they are just seeing a sheen of free product over a few wells. No free product was recovered in the third and fourth quarters of 2010. Mr. Wuttig then showed a graph of extracted groundwater and recovered free product. A lot was recovered in the beginning, then less and less, and now there is very little measureable free product. The line on the graph representing the South-Central area shows a breakout that corresponds with the Second RAP Addendum. Numerous new wells were installed to remove more mass. Ms. McIntosh asked if there are any new technologies we could look at to boost remediation. Mr. Wuttig replied that the RWQCB wants them to complete the LIF/UVOST investigation first to understand how the remaining contamination is distributed. Then we can look at how to improve remediation. Mr. Cho said that it is very critical this year to complete the investigation so we can see how best to handle this situation. Mr. Wuttig said that the last 10 percent of the contamination is usually the most difficult to remove and the most costly.

Mr. Wuttig said that the SVE system was in operation 20 percent of the time in the third quarter of 2010 and 30 percent in the fourth quarter of 2010. The SVE down time was due to a variety of issues, including the electrical panel and high temperature alarms. The problem was fixed, and there have been no shutdowns due to alarms since December 2010. The TFE/GWE system operated 96 percent of the time in the third quarter and 82 percent of the time in the fourth quarter of 2010. Mr. Defibaugh said that this high rate was because they are no longer experiencing any tripped breakers. There was downtime in the Southeastern area due to extracted groundwater not being conveyed from extraction wells to the remediation treatment system in the South-Central area. Well pumps in the Southeastern area were serviced and were confirmed operational. They ruled out mechanical issues with the pumps and think they recently solved the problem. Dan Jablonski said that they did some excavation work this afternoon in between wells GMW-O-15 and GMW-36, but no subsurface leaks were identified. An above-ground leak was found near the GMW-36 wellhead. The water line, which is encased in the vapor line, leaked water into the vapor line. The problem should be fixed within

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a couple of days. Ms. McIntosh requested an email report upon completion.

Mr. Wuttig next described the remediation system maintenance activities, including installation of new flow meters and pressure gauges; inspection of wellheads, replacement fittings and well boxes; and cleaning and/or replacement of extraction pumps. These activities increased system downtime, but will decrease future downtime and increase performance. They check pump operations monthly; inspect and clean pumps on an ongoing basis; replace bag filters weekly; monitor pre-catalyst pressure weekly; and sample between GAC vessels bi-weekly. He also listed numerous other preventative maintenance activities they perform for each of the other components of the remediation system.

KMEP plans to continue to focus on the South-Central and Southeastern areas by continuing to trouble shoot the SVE system; continue operating the TFE, GWE, and SVE systems; continue system maintenance, inspections, and data collection on weekly basis; conducting TBA treatment; and monitoring concentrations of 1,2-DCA, MTBE, and TBA in western area. They will restart the West Side Barrier System if necessary.

#### **Generator Fuel Spill Update**

A diesel powered generator was mobilized on June 14, 2010, to provide temporary power to the remediation systems. The generator was shut down due to a fuel leak on June 22, 2010. It impacted an unpaved area east of the power building on the KMEP property. Soil samples were collected to 14 feet below ground surface (bgs). Concentrations of TPHd (TPH quantified as diesel) and BTEX (benzene, toluene, ethylbenzene, and total xylenes) were detected, but they decrease with depth and distance from the source area. They excavated 40 cubic yards (290 square feet to 7 feet bgs) of soil between June and July 2010. The soil was characterized as non-hazardous and was transported to TPST in Adelanto, California, on September 13, 2010, for treatment and recycling. The excavation area was backfilled with clean imported soil on October 22, 2010.

#### Selenium Management

Mr. Wuttig said that selenium was an ongoing issue for about two years. They noticed detections in the treated groundwater at concentrations above permit levels. Due to the exceedences, they had to shut down the remediation system. They investigated potential treatment options. They also sent nine additional groundwater samples to three different laboratories for further analysis. The new labs found the selenium to be below the permit levels. Then they sent additional samples to confirm these findings. What they determined is that while the first lab was using an approved EPA analysis method, it was not as rigorous as the other labs. Therefore, for compliance sampling, KMEP is using a new lab that uses better technology that provides more accurate selenium analysis. They do not expect any further shut downs due to selenium.

#### Additional Assessment Update

Mr. Wuttig stated that work plans have been submitted to the RWQCB and approved for the Southeastern 24-Inch Block Valve Area, the South-Central Residential Area Vapor Study, and the Vertical Assessment of LNAPL in Soil. The Southeastern 24-inch Block Valve field investigation is complete, with results pending. Access agreements are being finalized for other two investigations. They should have an update by the end of February and hope to have all three investigations completed by the end of the year.

There were three investigations for increased contaminant levels in the Southeastern 24-inch Block Valve area. An off-site assessment was completed in the upper aquifer in July 2008. A supplemental vertical delineation was completed in the Exposition aquifer in November 2009. Fieldwork for a step-out investigation in the vicinity of well GMW-O-18 was completed in January 2011, and the analytical results are pending. Mr. Wuttig showed a figure of the sampling locations, which were located on the outside edge of the contamination in the area. They also wanted to analyze the Bellflower aquitard to make sure it is continuous.

#### NPDES Permit Update

Mr. Wuttig said that KMEP's treated groundwater is discharged into to Coyote Creek under KMEP's NPDES permit. The current permit expired in October 2010. The RWQCB has allowed them to operate under the old permit until a new permit is issued. A tentative permit was issued in December 2010 with TBA added as new discharge parameter. They are working with the RWQCB on a schedule for implementation of the new

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permitting requirements. He also said they are looking at different technologies to treat TBA.

#### **Five-Year Action Plan Progress Report**

Mr. Wuttig said that the Second Addendum to Remedial Action Plan was submitted to the RWQCB in November 2006 and was approved in April 2007. They added numerous new wells in order to target a five year goal for closure, which originally was estimated at August 2012. A revised schedule based on current conditions was provided to the RAB in February 2010 with a new estimated closure date of September 2013. Mr. Wuttig next provided a chart showing completed and future tasks. He said that the schedule for closure assumed that there would be enough mass removed to move to bioventing. However, contaminant levels are still too high for bioventing at this time, so they cannot provide a new estimated closure date yet. He said that long term groundwater monitoring will probably be necessary. Once the LIF/UVOST investigation is completed, then we should have a better handle on things and could provide a better closure schedule estimate.

#### 5. <u>DLA Energy-AMW Update</u> Redwan Hassan, Parsons

#### **Remediation Operations Update**

Redwan Hassan displayed a map showing DLA Energy's current remediation system layout. He pointed out two 16-inch diameter wells on the west side that are used to contain plume migration. He also pointed out the vapor extraction line to the Truck Fill Stand area and to the Water Tank area.

Next he listed general site activities completed recently including weed abatement; NPDES discharge monitoring reports (DMRs); remediation monthly status summary reports; groundwater monitoring (GWM); and treatment and evacuation of the contents of Tank 20001.

Recent groundwater remediation system activities included repair of a broken hose between GAC-1 and GAC-2; repair of a leak at the storm drain discharge point; carbon change-out; replacement of the collar and gasket at BF-3; adding an arsenic removal media/vessel; replacement of the pressure gauge between GAC-3 and the arsenic exchange vessel; repairs for a power failure at the remediation compound; shut down of the groundwater treatment system (GWTS) while the Tank 20001 contents were evacuated; and repair of a leak in a hose at GW-15.

Mr. Hassan next discussed the selenium issue. He said that additional samples were sent to three independent laboratories for confirmatory analysis. All results were below the permit levels and have stayed there since. Selenium exceedance was therefore determined to be a result of laboratory anomaly. They will continue to monitor it in the future.

Mr. Hassan then discussed the GWTS operational dates and said that the system was operational except for downtime period for the third quarter Sentry GWM; selenium exceedance evaluation; the second semiannual GWM; GAC change-out; a power outage; and temporary discharge of treated wastewater from Tank 20001. Vapor extraction system activities included a recent letter report describing reasons why the system had not been operating. There were permit delays and then the system was turned off to allow for recharge for sampling activities. The system is now operational. Ms. McIntosh said that Parsons gave her a tour of the system. She said the new VE system is much quieter than old one. Mr. Hassan said that this system has a big blower that can handle additional capacity, in anticipation of treatment of soil beneath the former tank locations.

Mr. Hassan said that other remediation system activities have included weekly system inspections, system performance and compliance sampling, GWTS GAC change outs, and GWTS shut down for quarterly groundwater monitoring events.

Mr. Hassan said that 460,295 gallons of groundwater were extracted and treated in the third quarter of 2010, which was lower than the previous period due to the selenium issue. He said that 1,106,835 gallons were extracted and treated in the fourth quarter of 2010, and 52.3 million gallons have been extracted and treated since 1996. He also said that free product is no longer a concern. They have remediated on 50,000 gallons of

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free product. There is only a sheen now which is not practical to treat, so they have been using absorbent socks. The vapor extraction system was down most of the year. Next quarter's report will see an increase in vapor extraction. They had also remediated a significant amount of hydrocarbons due to biosparging, but the biosparge system was offline due to the vapor extraction system being down.

Regarding groundwater extraction in the northeastern area, Mr. Hassan said that they installed three wells in the Park area. Soil is not impacted. They performed an aquifer test. Extraction began in 2009, and concentrations of TPH were low to non-detect in some wells and decreasing in others. At well GWM-62, a sheen of product was observed in the third quarter of 2010 and 0.18 feet of product was measured in fourth quarter of 2010. They plan to take a sample of it for fingerprinting. They are not seeing free product in any other wells in the area, so they need to confirm whether or not the free product in this well is related to the site. Ms. McIntosh commented that we are seeing decreasing concentrations is this area. Mr. Hassan said that the remediation system is pulling back contaminants. When the system was off, they saw an uptick in concentrations due to recharge. Mr. Cho asked if there was a decrease in water levels in this area. Mr. Hassan did not think there was a significant decrease in the area. He next displayed a series of charts showing decreasing concentration trends in wells GMW-58, -59, -60, -61, and -62. He also said that MTBE concentrations are generally very low in these wells.

#### Additional Investigation Update

Mr. Hassan discussed the assessment of the Truck Fill Stand (TFS), Water Tank, and Northeast Settling Pond areas. They conducted additional samples to delineate the areas. The report was completed in October 2010. They concluded that the TFS area is still impacted. Vapor extraction in the area did what they expected it to. Now they need additional wells to capture more contaminants. In the settling pond area, a previous assessment was non-detect. Only 0.02 pounds of mass of contaminants is estimated to remain in the soil. A well installed to monitor groundwater was non-detect. Vapor probes installed along the northern boundary were also non-detect. They have three more quarters to monitor. Parsons is recommending No Further Action for this area.

Next Mr. Hassan discussed the LIF investigation. LIF is a technology approved by the EPA and used in conjunction with a cone penetrometer test (CPT). CPT/UVOST was conducted at 15 locations to investigate the presence and thickness of the Bellflower aquitard, and to see if LNAPL is submerged below the water table and by how much. Four core samples were analyzed for hydrocarbons to verify what UVOST reported. There were 14 soil gas samples taken and were all non-detect. The results of the CPT indicated that he Bellflower aquitard is primarily clay with silty sand layers. It is thicker in the west and decreases in thickness as you go east. It is still thick enough to protect the Exposition aquifer. Sampling has shown that the Exposition aquifer has not been affected. Mr. Hassan next showed some cross-sections of the investigation results. It shows some of the contamination is submerged. It is within the smear zone, where the fluctuations are small enough; it is not hugely submerged. Mr. Wuttig said that this is a different situation than they have experienced at their Carson facility, where they have observed several tens of feet of fluctuations. Mr. Cho said that the RWQCB's first LIF investigation was at the Carson facility, and now they plan to require it for all oil company sites. Finally, Mr. Hassan displayed a 3-D graphic showing a conceptual site model of LNAPL distribution beneath the site. He pointed out the Bellflower aquitard that protects against vertical migration. He also pointed out free product, which is a maximum of one to two feet thick within the fluctuation zone.

#### **Remedial Action Plan Update**

Mr. Hassan discussed the revised Remedial Action Plan (RAP) and said that the closure goal is a moving target based on site conditions. Free product thickness has decreased. Soil venting and biosparging has been expanded. The SVE system began continuous operation in the northeastern area in January 2011. Groundwater extraction has effectively decreased the free product plumes. Extraction from the northwest corner and northeastern area for containment has been effective. Offsite wells continue to show non-detect or decreasing trends in TPH and BTEX concentrations. Although TPH concentrations in most wells are lower

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and/or are declining, the primary purpose of groundwater extraction is for plume containment.

Mr. Hassan next discussed the revised soil remediation schedule. SVE operation will continue until December 2013, but will change with the system expansion for areas beneath the former tank locations. An investigation under the concrete foundations will take place through June 2011. SVE and bioventing combined is scheduled to take place from March 2011 through December 2013. Respiration testing and confirmation soil sampling is scheduled to take place from January 2014 to June 2014. A potential new remedial solution is still to be determined. Ms. McIntosh asked if any soil would be excavated in the areas beneath the former tank locations. Mr. Hassan said it would depend on the risk evaluation, but they probably will remove some of the top soil. Ms. McIntosh also asked about sampling in the berms, since she said it could be possible that some of the soil that was used to create the berms was dirty. Mr. Hassan said that Parsons would take it into consideration and discuss it with DLA Energy. Mr. Hassan also said that they cannot give a specific date for completion of groundwater remediation at this time because it is a longer term activity. There will likely need to be continuous monitoring.

#### **Planned Activities**

Mr. Hassan said that activities planned for the next semiannual period include:

- Weekly system inspections, required sampling, evaluation, and optimization of GWTS
- Operation, system inspections, required sampling, and optimization of VES
- Site-wide weed abatement
- First semiannual GWM (January 10-12) and second GWM event
- Prepare and submit NPDES DMRs for fourth quarter 2010 and first quarter 2011
- Concrete demolition activities.
- 6. Semiannual Monitoring Event Redwan Hassan, Parsons

Mr. Hassan summarized the second semiannual 2010 groundwater monitoring event. He said that 122 wells were sampled, including 4 Exposition aquifer wells. Groundwater elevations decreased by approximately 0.5 foot since April 2010. Free product was detected in 13 wells and ranged in thickness from 0.01 feet to 1.05 feet (in well MW-15). Next Mr. Hassan showed maps comparing groundwater elevations and free product plumes in October 2009 and October 2010. Free product is found in the north-central and south-central areas. Groundwater elevations and flow were in the same general direction in 2010 as in 2009. Free product was similar in extent to the April 2010 monitoring event. TPH concentrations were similar as well, with some decreases in the northeast area. Benzene was not detected in any offsite wells to the west, nor in any of the Exposition wells. Concentrations of 1,2-DCA remained below risk-based levels and was not detected in any Exposition wells. MTBE concentrations generally remained non-detect or below risk-based levels. The extent of TBA is similar to MTBE in the south-central area. Very low estimated concentrations of MTBE were detected in two Exposition aquifer wells, so that will be monitored carefully.

Monica Scott asked about cleanup goals. Mr. Cho replied that soil cleanup goals are flexible depending on the future land use. Groundwater cleanup goals are more fixed, because the goals are for protection and beneficial use. Ms. McIntosh said that the City has zoned the site for park expansion, commercial, industrial, and some retail, but no residential. Mr. Cho said that zoning can be changed, so the RWQCB would likely require a deed restriction.

Mr. Hassan next showed maps comparing plume sizes of TPH, benzene, MTBE, and 1,2-DCA from 2006 through 2010. The reduction in TPH shows the effectiveness of the remediation. Benzene has stayed generally the same, with some spreading in the east. MTBE is similar to benzene, with a little spreading since 2006. 1,2-DCA has been reduced, and Mr. Defibaugh added that the concentrations have been reduced as well. Mr. Hassan next showed TBA plume maps for 2009 and 2010, which are generally similar to the MTBE plume maps.

Ms. McIntosh referenced page 4.2 of the report that mentioned TPH was generally the same as previous, but moving north and west. She asked if there was a potential for it to travel offsite. Mr. Hassan said that the

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levels are low, and they are pumping wells in the area to pull back the plume. Ms. McIntosh requested that wells in this area be added to the quarterly groundwater monitoring schedule for the rest of the year.

Ms. McIntosh next asked if benzene degrades much, and why are there still some high concentrations in the west portion of the northern plume if there is no source remaining. Mr. Hassan replied that it is in an extraction area, and they are pulling in benzene from farther out. The system downtime for the selenium evaluation may have also had an effect.

## 7. Set Date and Agenda for Next Meeting

The next semiannual RAB meeting will be held on Thursday, August 11, 2011 at 5:00 p.m. in the Norwalk Arts & Sports Complex. The agenda is to include remediation system updates, additional assessment updates, five-year plan updates, and semiannual monitoring update.

## 8. Public Comment Period

Ms. McIntosh said that she thought that the communication throughout the team has been great, and the monitoring reports have been really comprehensive. She complimented the team members and said she was excited with the direction the project is going. She also discussed a pipeline safety brochure she received in the mail from KMEP and said it was very well produced. Ms. McIntosh adjourned the meeting at 7:20 p.m.

| ACTION ITEMS                           |                          |                   |
|--|--------------------------|-------------------|
| Item                                   | <b>Responsible Party</b> | Due Date          |
| GMW-36 Repair Completion Report to RAB | КМЕР                     | Completed 2/11/11 |
| Next RAB meeting                       | All                      | 8/11/11           |