



## Information for Norwalk Neighbors

### ROADMAP TO CLOSURE: CLEANUP CONTINUES FOR THE FIVE YEAR COMPLETION GOAL

*The purpose of this newsletter is to provide the community with an update on the environmental cleanup of soil and groundwater at the former Defense Fuel Support Point (DFSP) Norwalk, commonly known as the Tank Farm. The site is located at 15306 Norwalk Boulevard (see map on page 3) in Norwalk. There are two cleanup plans underway. One is conducted by the Defense Energy Support Center (DESC), who formerly used the facility to store and transport military fuels. The other cleanup plan is being conducted by Kinder Morgan Energy Partners (KMEP), which has pipelines that pass through the facility.*

*As stated in our Summer 2007 newsletter, DESC and KMEP began implementation of their new cleanup plans in 2007. The goal of each plan is to complete the cleanup within five years. To achieve site closure, the cleanup goals must be met and certified as complete by the California Regional Water Quality Control Board (RWQCB), the state regulatory agency overseeing the cleanup.*

#### DESC's Five-Year Cleanup Plan Progress

Over the past year, DESC has implemented several upgrades and changes to their remediation system in accordance with their five-year cleanup plan. In April 2008, DESC began upgrades and expansions to the entire Groundwater Treatment System and conducted start-up, evaluation, and testing. Upgrades included installing three six-inch diameter extraction wells to handle more groundwater flow. These three

wells are located in the northwest, central, and northeast areas. This will help contain migration of the plumes and help prevent off-site migration.

The biosparging and vapor extraction systems were expanded to include the eastern boundary area. In addition, DESC conducted weekly system inspections as part of the ongoing operations and maintenance. Four different tests were conducted in April, May, and June 2008 which included system performance, compliance sampling, and monitoring and change out of absorbent socks, which are materials

inserted into wells to absorb and remove fuel products.

DESC is currently conducting additional investigation work in Holifield Park and has installed two groundwater monitoring wells and three soil gas vapor probes in the Park. Onsite aquifer pump tests will be conducted to assist with the overall strategy selection for groundwater cleanup under Holifield Park. Previous investigations determined that there is no risk to Park users. Additionally, onsite testing will be conducted to determine the effectiveness of recent system upgrades. ■



DESC's contractors collect groundwater samples from a temporary borehole at Holifield Park.

# KMEP'S FIVE-YEAR CLEANUP PLAN PROGRESS

Over the past year, KMEP has also implemented several changes and upgrades as part of their five-year cleanup plan. These upgrades included installation of seven additional remediation wells, installation of pumps in the new wells and five existing wells to increase groundwater extraction, installation of a new air compressor to operate the additional pumps, and replacement of existing liquid-phase carbon vessels with larger ones to increase the groundwater treatment capacity. The increased pumping enhances remediation by lowering the groundwater table and exposing more soil for soil vapor extraction. Over the past year, KMEP has optimized the remediation system by extracting soil vapor from wells with higher concentrations of volatile organic compounds (VOCs) in soil vapor. In addition, pumping in the West Side Barrier area was gradually reduced based on consistently low concentrations of 1,2-DCA and MTBE below the risk-based corrective action (RBCA) goals in groundwater west of the site, and was recently discontinued. Groundwater chemical concentrations in the western area will continue to be monitored and the West Side Barrier system will be restarted if necessary.

KMEP also conducted additional investigation activities during July 2008 in the 24-inch Block valve area located in the southwestern portion of Holifield Park. The objectives of the investigation were to:

1. further evaluate the presence and distribution of benzene and other volatile fuel constituents in soil gas near the 24-inch block valve as identified during the 2006/2007 Holifield Park investigation;
2. delineate the lateral and vertical extent of dissolved fuel constituents in groundwater in the southwestern portion of Holifield Park; and
3. verify the presence and depth of the Bellflower aquitard in the southwestern portion of Holifield Park.

Three soil vapor sampling locations were installed after obtaining an access agreement with the City of Norwalk. Soil gas samples were collected at 6 feet and 16 feet below ground surface at each location. Results indicate principal chemicals of concern were either not detected or were not detected above California Human Health Screening Levels. Based on these results, additional sampling was not required in the Park area. Two additional borings were advanced to address objectives two and three above. The

data collected from these borings further defined the lateral extent of impacted groundwater and confirmed the presence of the Bellflower aquitard. The results of this investigation are summarized in the report entitled "Additional Off-Site Assessment Report, Off-Site 24-Inch Block Valve Area, Defense Fuel Support Point, Norwalk" prepared by AMEC Geomatrix on behalf of KMEP and submitted to the RWQCB on August 28, 2008.

Other current and/or planned remedial activities for KMEP's five-year cleanup plan include:

- Continue soil vapor extraction, total fluids extraction, and groundwater extraction in the south-central and southeastern parts of the site
- Continue routine system inspections
- Continue data collection for monitoring and evaluation of remediation systems
- Continue to make adjustments to optimize remediation
- Collect data to evaluate bioremediation. ■

## CLEANUP STATISTICS UPDATE

The DESC Groundwater Treatment System extracted and treated 83,650 gallons of total groundwater in the second quarter 2008. Over 43 million gallons of groundwater have been extracted and treated since 1996. From April 1996 through June 2008, approximately 428,716 gallons of total hydrocarbon mass were removed through DESC's Soil Vapor Extraction System. This includes approximately 215,865 gallons recycled and destroyed and an estimated 212,850 gallons of hydrocarbons destroyed due to enhanced bioremediation.

During the second quarter 2008, approximately 225 gallons of fuel were removed by KMEP's Soil Vapor Extraction System. Approximately 452,800 gallons equivalent of fuel have been removed from the soil and destroyed by catalytic and thermal oxidation since 1995. Over one million gallons of total groundwater was extracted and treated by KMEP's Groundwater/Product Extraction System during the second quarter 2008. Over 64 million gallons have been extracted and treated since 1995.

# TANK FARM CLEANUP: WHO'S WHO

The environmental cleanup is jointly conducted by the Defense Energy Support Center (DESC) and Kinder Morgan Energy Partners (KMEP).

The California Regional Water Quality Control Board (RWQCB) is the state regulatory agency overseeing the cleanup.

Chemicals of concern at the site include petroleum hydrocarbons (fuel products), 1,2-dichloroethane (1,2-DCA), benzene, and methyl tertiary butyl ether (MTBE).

The chemicals are from past releases to the soil and groundwater and are generally found approximately 20 to 40 feet below ground.

DESC is headquartered in Virginia with local offices in San Pedro. It is a part of the Defense Logistics Agency, which provides energy solutions to the Department of Defense and other government agencies.

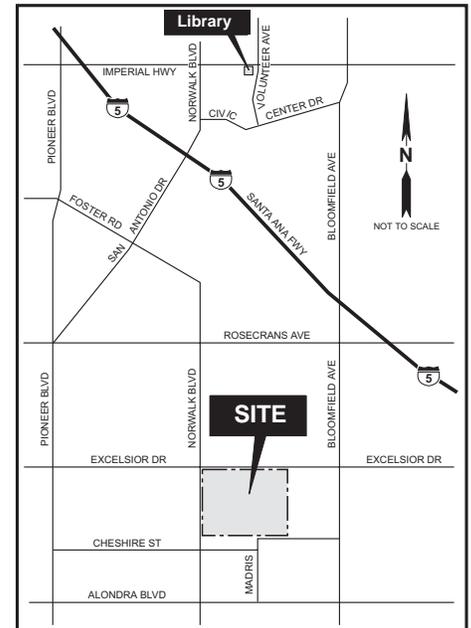
Parsons is DESC's environmental contractor at the Tank Farm and also conducts facility maintenance.

URS Corporation provides public involvement support to DESC.

KMEP is the primary distributor of commercial and military fuels in the western United States. AMEC Geomatrix, Inc. is KMEP's environmental contractor.

The Restoration Advisory Board (RAB) is a group of Norwalk area

residents and representatives of the DESC, Kinder Morgan, RWQCB, and the City of Norwalk that meets regularly to discuss and comment on the cleanup. ■



**Aerial Photo of Norwalk Tank Farm Site and Surrounding Area**



## PROPERTY SALE UPDATE

The U. S. Air Force Real Property Agency put the former Norwalk Tank Farm property out for competitive bid under the Real Property Exchange Program. The Air Force plans to exchange the 50-acre property for construction of facilities of comparable value as those at March Air Reserve Base in Riverside, the nearest Air Force installation facility.

The announcement was made in February 2008. The Air Force then held an "Industry Day" in March for developers, contractors, lenders, and interested parties to learn about the opportunity and tour the facilities. Bids were due in August, and the Air Force is expected to choose the winning bid soon.

Developers will be responsible for working with the City of Norwalk regarding zoning and permits. Future use of the property will be determined in accordance with the City's master plan and zoning designation.

Developers will also be responsible for continuing and completing the DESC's portion of the environmental cleanup of soil and groundwater beneath the facility. KMEP will continue to be responsible for their portion of the cleanup and the operations of their existing pipelines. The RWQCB will continue to oversee all cleanup actions at the site. ■

## GLOSSARY

**Biosparging:** An air compressor is used to inject air into the groundwater below the groundwater level. This helps to volatilize, or turn into vapors, the chemicals that are dissolved in the groundwater. It also provides oxygen for the growth of bacteria. The bacteria eat the dissolved hydrocarbons, breaking them down into non-hazardous components. This process is called **bioremediation**.

**Free Product/Groundwater Recovery:** Groundwater recovery wells reach down underground to remove groundwater and **free product** (fuel floating on top of the groundwater). The recovered free product and groundwater are sent via piping to the treatment system. Also known as **total fluids** recovery.

**Soil Vapor Extraction:** Fuel vapors are removed from the soil by applying a vacuum which extracts them out through a series of underground wells. The vacuum removes vapors from the free product and removes hydrocarbon vapors created during the biosparge process. The vapors are sent via piping to the treatment system. ■

## FOR MORE INFORMATION . . .

If you have any questions or comments on the environmental cleanup of the former Norwalk Tank Farm, please contact one of the representatives listed below:

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Air Quality Management District Hotline  
1-800-CUT-SMOG

*Or, visit the information repository to review RAB meeting handouts, minutes, and project documents:*

Information Repository  
Norwalk Regional Library  
County of Los Angeles Public Library  
Reference Section  
12350 Imperial Highway  
Norwalk, CA 90650  
(562) 868-0775

Hours:  
M, Tu, W: 10:00 a.m. to 8:00 p.m.  
Th, F: 10:00 a.m. to 6:00 p.m.  
Sa: 10:00 a.m. to 5:00 p.m.  
Closed Sundays and Holidays.

*Si quiere una copia de este boletín en español, por favor llame a la Sra. Leticia Hernandez al (714) 648-2819.*