



FACT SHEET

November 2021

Former Defense Supply Center Philadelphia Philadelphia, PA

LOCATION AND SITE HISTORY

The former Defense Supply Center Philadelphia (DSCP) is located at 2800 South 20th Street, Philadelphia, PA. Owned and operated by the United States Department of Defense from 1918 to 1999, the DSCP managed procurement and distribution of food, clothing, and medical supplies to all branches of the armed forces, authorized federal agencies, and foreign countries. Production of finished textile products for the United States Armed Forces continued at DSCP from the 1940s to 1994. In 1993, the Base Realignment and Closure (BRAC) Commission recommended closure of the DSCP. In 1999, all operations at the facility ceased.

Earlier environmental investigations in 1987 detected light non-aqueous phase liquid (LNAPL) or petroleum contamination in groundwater at the site. Due to known groundwater impacts and resulting remediation efforts, air rights at the site, defined as 10 feet below ground surface and above, were transferred to the Philadelphia Authority for Industrial Development (PAID) in 2001. While the United States Army retained the subsurface property rights, PAID transferred the air rights for re-development opportunities.

The former DSCP is located in a mixed industrial and residential area commonly referred to as Quartermaster Plaza. A collection of businesses including retail, whole sale, restaurants, and other enterprises now occupy most of the former DSCP. A large refinery, closed in 2019, is located to the west; to the east, are residential areas; to the north, are industrial and commercial facilities. The Philadelphia Housing Authority (PHA) previously owned the former military housing area called Passyunk Homes to the south. This property was sold for redevelopment, though an office and storage facility are still operated by PHA.

CONTAMINATION AT THE FORMER DSCP

A LNAPL plume is located in the shallow aquifer below the site. The plume extends underneath the Schuylkill Expressway, and is present beneath the former Passyunk Homes area. Where present, the LNAPL layer resides at the water table, which is located at a depth ranging from

22 feet below ground surface in the center of the former DSCP to 12 feet below ground surface in the southern portion of the former Passyunk Homes area. LNAPL thickness ranges from 6"-1 foot and historically covered 41 acres at its maximum extent.

LNAPL REMEDIATION SYSTEMS

Mobile skimmer pumps were used to remove LNAPL floating on the groundwater beginning in 1996. In 1999, permanent remediation systems were installed at the former DSCP and the former Passyunk Homes.

In 2005, a vacuum-enhanced skimming (VES) system was completed. The VES system generates pressure within the recovery well to increase LNAPL recovery rates. Petroleum vapors generated through this process are collected by the system and destroyed via thermal oxidizers located at the treatment system building. Operations are regulated by a current air emission permit with the City of Philadelphia.

The skimming system, which began operations in 1996, was capable of removing LNAPL from 18 recovery wells. The VES configuration enables the recovery of LNAPL from up to 46 recovery wells (Note: not all of these recovery wells contain recoverable LNAPL as the extent of product has reduced over time).

In 2011, an optimization study assessed the remediation strategy to determine if a more effective configuration could be used to recover LNAPL. Findings from this study were implemented in 2012, and LNAPL recovery as soil vapor extraction (SVE) using the VES system improved significantly. The VES system was later expanded in 2014. Additional recovery wells were installed to capture LNAPL from less easily accessible zones of the shallow aquifer. The technical team continues to optimize remediation efforts.

In 2019, a biovent and biosparge (BV/BS) pilot study started. The BV/BS injects oxygen into the subsurface to accelerate the process of LNAPL biodegradation. The oxygen stimulates microorganisms in the subsurface soil to naturally break down LNAPL. The BV/BS pilot study was conducted for an initial 6 months (March 6, 2019 through September 5, 2019). Several positive changes were observed during the study; however, more information is needed to assess the effectiveness of the technology. The BV-BS system continues to operate and is evaluated regularly.



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LNAPL RECOVERY TO DATE

As of 2020, roughly 1 million gallons of LNAPL have been recovered since remediation began. In addition, the remaining LNAPL plume is being degraded in place by the BS/BV system and the VES system. The LNAPL mass degraded in place by bioremediation is tracked by monitoring recovery of Carbon Dioxide gas in the VES system. Subsurface bioremediation is estimated to have removed another 330,000 gallons of LNAPL from the site from 2013 through the end of 2020.

COMMUNITY INVOLVEMENT

Upon closure of the former DSCP, a community involvement plan was developed and community outreach evolved over the years as remediation progressed. A Restoration Advisory Board (RAB) was created to provide communities and individuals affected by the LNAPL plume a framework for participating in the environmental remediation process. RAB public meetings were held on a regular basis, starting in 1996 through 2011, when RAB members decided meetings were no longer needed.

A Public Involvement Plan (PIP) was developed in 2004 as part of the remediation efforts. Under the Pennsylvania Land Recycling and Environmental Standards Act or Act 2 Program, community outreach continued with various communications and fact sheets. Community involvement for the former DSCP evolved to its current form, which consists of providing interested stakeholders and property owners impacted by the remediation efforts quarterly progress reports.

Community involvement will continue with outreach to the public according to an updated PIP included with the submission of the combined Remedial Investigation Report and Cleanup Plan (RIR/CP).

REMEDIAL INVESTIGATION REPORT AND CLEANUP PLAN

In 2017, the Defense Logistics Agency (DLA) issued a public notice and submitted to the Pennsylvania Department of Environmental Protection (PADEP) an updated Notice of Intent to Remediate (NIR) in accordance with the Act 2 Program. The NIR specified the combination of site-specific standards and pathway elimination for impacted media (soils, groundwater, and vapor intrusion) to achieve the release of liability or site closure under Act 2. The NIR also provided notice of the intent to submit the RIR/CP.

In response to the NIR, the City of Philadelphia Public Health Department requested that DLA submit a PIP update and conduct a public meeting to allow for public involvement in the RIR/CP review. The RIR/CP is available for public review and comment via the website below. Public comments will be incorporated into a revised RIR/CP for approval by PADEP and the United States Environmental Protection Agency (USEPA).

The RIR/CP summarizes data collection at the former DSCP since 1996, illustrates the Conceptual Site Model (CSM) for all media of concern, and details the mitigation strategy for each media of concern. In addition, the RIR/CP presents the path forward to achieve the release of liability under Act 2 by meeting remediation standards defined in the 2017 NIR.

ADDITIONAL INFORMATION

An electronic copy of the draft RIR/CP and other documents are available for download or review at: <https://www.dla.mil/HQ/InstallationManagement/DoingBusinessWithInstallationManagement/EnvironmentalDocuments/>

The RIR/CP is also available for review in-person at the Library of Philadelphia: Thomas F. Donatucci, Sr. Library at 1935 Shunk Street (Note: copying costs of the RIR/CP are subject to the library fee schedule).

Two virtual public meetings will be held to present the RIR/CP to the public. Meeting notices will be posted in publicly circulated newspapers and on the website above. Please refer to these specific notices for additional information on the public meetings.

Questions or comments concerning the former DSCP RIR/CP should be sent via email to the Defense Logistics Agency at DLAEnvPC@dla.mil. DLA will not accept comments via telephone, U.S. mail, or social media platforms at this time.

Additional information regarding the Act 2 Program and other PADEP requirements can be found at: <https://www.dep.pa.gov/Business/Land/LandRecycling/Pages/default.aspx>