Palm River Road VOC Plume

9647, 9713, 9801, and 9809 Palm River Road
Tampa, FL
County: Hillsborough
District: Southwest
Site Lead: Waste Cleanup Program
Approved for Cleanup: April 22, 2011
ERIC ID # 3952

Site Description and History

The Palm River Road Volatile Organic Compound [VOC] Plume (PRRVP) site includes four properties: 9647, 9713, 9801 and 9809 Palm River Road, Tampa, Hillsborough County, Florida. The site is located east of the US Highway 301/Palm River Road intersection in Township 29S, Range 20E, Section 19 at 27° 56′ 22.3487″ N, 82° 20′ 42.3358″ W and consists of a number of commercial and industrial businesses bordering the southern portion of Palm River Road. The site is predominantly utilized for light industrial, commercial and agricultural use. However, an apartment/condominium complex, constructed between 1999 and 2002, is located south-southwest of the site. The site is bordered by Palm River Road to the north. A feeder ditch of Delaney Creek borders the site on the east and south. A Tampa Electric Company (TECO) easement also borders the site to the south. Pastureland is located further south. The Palm River Business Park is located at 9647 Palm River Road. The Park consists of three warehouses that house various businesses. A lawn care company, Environmental Care Inc., currently occupies the property at 9713 Palm River Road. Prior to 1993, a plumbing supply company (1986-1991) and Engineered Chemicals (1971-1984) operated at this address. A 1971 commercial property photograph and a 1972 aerial photograph show 55-gallon drums on the Engineered Chemicals property. A trucking company, USF Dugan, is located at 9801 Palm River Road. This company operates a trucking facility/distribution center and has been at this address since 1997. Prior to 1997, two other trucking companies, Georgia Highway Express (1971-1979) and Transus (1984-1994), operated at this location. Japanese Auto Parts occupies 9809 Palm River Road. Prior to 1997, Valley Equipment and Thomas Trucking operated at the location.

Threat

Recent assessment activities showed that onsite soils were not contaminated with any contaminants of concern that exceeded the State Soil Cleanup Target Levels (SCTLs). Groundwater analysis indicated that volatile organic halocarbons (VOHs) and aromatic volatile organic compounds (VOCs) are present in the groundwater at levels that exceed the Groundwater Cleanup Target Levels (GCTLs). Direct contact or ingestion of contaminated groundwater is not anticipated since area residents are on municipal water.

Response Strategy and Status (December 2020)

This site was initially brought to the attention of the DEP as a result of chlorinated solvent contamination detected in two potable wells.

Site Investigations were completed in 1994 and 1998. The assessments found elevated levels of VOCs, in particular chlorinated solvents, in the groundwater. Two groundwater plumes have been

identified. The highest levels of VOCs in the first plume are located in the south-central area of the property boundary between 9709 and 9713 Palm River Road. Contamination from this plume is more prevalent in the deeper aquifer. A second plume, consisting of a different suite of VOCs, was identified in the south-central area of the 9709 Palm River Road property and has impacted the shallow aquifer.

In November 2006, a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation was completed. The investigation documented continuing ground water contamination by chlorinated solvents. During the investigation, the two potable wells that were identified during the 1996 investigation were resampled; one of the two potable wells had contamination above standards. It was reported that that these wells are now used for irrigation purposes only.

On December 19, 2003, the DEP Southwest District referred this site to the Waste Cleanup Program in Tallahassee for listing on the National Priorities List due to stalled assessment and remediation activities at the site. The site was later referred to the CERCLA Site Screening Section. In 2004, the CERCLA Site Screening Section determined that the Hazard Ranking System (HRS) score for the site was 50. Based on a review of the site information, the US EPA determined that the Palm River Road VOC Plume site needed further assessment but was a low priority. The site was referred to the DEP Office of General Counsel to determine if sufficient evidence could be established for an enforcement action against a responsible party; however, evidence was insufficient to establish such a case.

On July 21, 2010, the DEP Southwest District office forwarded this site to the DEP Waste Cleanup Program in Tallahassee for State-funded cleanup evaluation. The Palm River Road VOC Plume site was accepted for State-funded cleanup in April 2011.

The site was assigned to a DEP Project Manager in June 2011 for further assessment. The site assessment work plan was submitted by HSA Engineering and approved by DEP in November 2011. Site assessment activities began in January 2012 and were completed in October 2012. The contamination assessment activities found no soil contamination above the SCTLs and some limited VOC groundwater contamination above the GCTLs. There was no offsite contamination identified. Therefore, offsite notification was not warranted.

Site Assessment Activities were conducted using a phased approach by HSA Engineers & Scientists from January 2012 through March 2013. During the assessment activities 13 soil samples were collected and analyzed. No contaminants were detected above the SCTLs. 10 piezometers were installed in order to conduct two Modified Active Gas Sampling Surveys (MAGS). The highest contaminant concentrations were for tetrachloroethene (PCE) at 0.759 mg/m^3, trichloroethene (TCE) at 0.0758 mg/m^3, *cis*-1,2-dichloroethene (CIS) at 0.172 mg/m^3 and vinyl chloride (VC) at 0.00256 mg/m^3. Groundwater samples from existing and newly installed monitoring wells were analyzed. Contaminants of concern above the GCTLs were; PCE (25 µg/L), TCE (280 µg/L), CIS (2,400 µg/L), 1,1-dichloroethene (13 µg/L), VC (2.2 µg/L), chlorobenzene (120 µg/L), isopropyl benzene (0.93 µg/L), 1,2-dichlorobenzene (140 µg/L),

ethylbenzene (92 µg/L), xylenes (220 µg/L) and naphthalene (30 µg/L). The majority of groundwater contamination appears to be located south-southeast of the building on parcel 2.

The final Site Assessment Report was submitted on May 14, 2013 and approved on June 19, 2013. An Interim Source Removal Work Plan was received in April 2014. Prior to the source removal activities, groundwater sampling and analysis occurred in June 2014. Groundwater down gradient of the proposed area of excavation exceeded groundwater GCTLs for PCE, TCE, chlorobenzene, VC, isopropyl benzene 1,2-dichlorobenzene (DCB), ethylbenzene and total xylenes. CIS and 2-chlorotoluene exceeded the Natural Attenuation Default Concentrations.

Interim Source Removal (ISR) Activities were initiated on June 23, 2014. During these activities a total of 150.57 tons of soils were excavated, the sump tank was tested and determined not to be leaking and Emulsified Oil Substrate (EOS) was applied to the excavation area. The excavated area was filled with #57 stone and clean fill. During the excavation activities, a subsequent contaminated area on the opposite site of the storm drain was located. A subsequent ISR was initiation on April 27, 2015, during which, an additional 128.12 tons of soils were removed, additional EOS was applied and the excavated area was filled with #57 stone and clean fill.

Annual groundwater monitoring was conducted in October 2015 and preliminary results indicate that levels of TCE, CIS, 2-chlorotoluene, DCB and xylenes still exceed cleanup target levels.

In June 2016 GHD conducted assessment in a suspected dumping area. No contaminants were detected in either of the two groundwater samples. TCE, methyl ethyl ketone, and acetone were detected in soil samples. TCE detection exceeded the method detection limit but was below the practical quantitation limit. Neither acetone nor methyl ethyl ketone occurred in concentrations exceeding any direct exposure Soil Cleanup Target Level.

Groundwater sampling was conducted on September 19, 2016. Sampling data indicates that target analyte concentrations in the source area have been significantly reduced and are now below GCTLs.

Annual groundwater monitoring was conducted in the Fall of 2017. Impacted groundwater is limited to one deep well (CIS: 86 µg/L) located on site.

The September 2018 sampling data indicates that target analyte concentrations have increased slightly (CIS: 100 µg/L) when compared to concentrations measured in 2017, but impacted groundwater is still limited in its areal distribution to onsite.

The August 2019 monitoring event indicated concentrations of per and polyfluoroalkyl substances (PFAS) above the provisional cleanup target level in site monitoring wells. VOC impacts remain limited to one deep well (CIS: 134 µg/L) located on site.

Additional groundwater assessment conducted in November 2020 indicated multiple exceedances for PFAS onsite. However, VOC detections have decreased below GCTLs.

Schedule

Additional site assessment for PFAS is ongoing and results are expected in the Spring of 2021. VOC sampling will occur in March 2021 to confirm concentrations remain below GCTL.