



CSX Tanyard Cove

What you need to know

SITE LOCATION

Tanyard Cove (“the site”) consists of a 3-acre parcel of land located at the northwest end of Tanyard Cove Road in Anne Arundel County, Maryland. The parcel is east of Marley Creek, an estuarine tributary of the Patapsco River and west of Marley Neck Boulevard. Solley’s Cove lies to the north side of the parcel. The site is undeveloped and mostly wooded land. Currently, one residential property adjoins the southwest side of the site. Three drinking water wells are located within 200 feet southwest of the site.

SITE HISTORY

CSX Realty Development, LLC (CSX) owned a 610-acre tract of mostly wooded land located along the eastern shore of Marley and Curtis Creeks. In early 1990’s CSX planned to donate 40 acres of this land to Anne Arundel County for use as a park. During a preliminary inspection in 1995, it was found that the land had been used for about 20 years by trespassers for illegal disposal of a variety of wastes including general wastes, construction debris, chemicals, tires, underground storage tanks as well as smaller hazardous waste items like compressed gas cylinders, gasoline and paint containers, etc. Following additional investigation and remediation efforts of the 40 acre parcel, which included two separate waste removal actions, 37 acres of land were donated to Anne Arundel County. CSX retained ownership of the 3-acre site because it contained potential soil and groundwater contamination. This 3-acre land is restricted to trespassers by a chain link fence.

ENVIRONMENTAL HISTORY

In 1995, CSX retained Applied Engineering and Science, LLC (AES) to conduct a Phase I Environmental Site Assessment during which illegal disposal was observed in the 40 acres of land. A pit containing approximately 31 55-gallon drums with chemical wastes was discovered underneath one of the piles of debris. CSX collected a water and sediment sample from the pit which indicated the presence of polychlorinated biphenyl (PCB) and chlorinated volatile organic compounds (VOCs) at elevated concentration. This impacted area was within the 3-acre Site and was the focus of CSX’s remedial efforts to clean up the Site.

In 1996, additional soil and groundwater sampling was conducted outside the perimeter of the 3-acre site to determine the extent of impacted area. In 1996-97, AES collected soil and groundwater samples from the 3-acre site for additional evaluation of PCB distribution. The results indicated the presence of PCB in soil above the Maryland Department of the Environment’s (MDE) residential clean-up standards (RCUS). Five groundwater monitoring wells were installed during this time. Tetrachloroethylene (PCE) and its degradation products Cis/trans-1,2-dichloroethene(DCE), trichloroethene(TCE) along with aluminum, iron, and nickel,



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were detected in groundwater above the MDE's groundwater clean-up standards. But no significant vertical or horizontal migration was detected beyond the 3-acre site.

Between 1997 and 1999, AES collected additional soil samples from the site and adjacent private property known as the Vranas Tract to delineate the extent of PCB in surface soil. Following the detection of PCB above MDE's RCUS, CSX conducted an immediate removal of impacted soil from the southeastern portion of the residential property. In March 1999, approximately 1673 tonnes of impacted soil was removed from the Vranas property and transported off site. Clean soil was placed in the excavated areas following post excavation confirmatory sampling. In 2004, approximately 4176 tonnes of PCB impacted soil was removed from the 3-acre site. The remaining soil was in compliance with MDE's RCUS for PCB. However, confirmatory samples indicated the presence of VOC impacted soil continued to impact the groundwater in the saturated zone.

In 2005, AMEC Environment and Infrastructure, Inc. (AMEC) collected samples from the four existing monitoring wells and determined PCE and its degradation products TCE and DCE occurring above MDE's Groundwater Standard in a monitoring well which was in close proximity of the Vranas drinking water supply well. In 2005, AMEC installed five additional monitoring wells to better delineate impact in the groundwater.

Between 2006 and 2009, AMEC conducted additional site investigation including soil, groundwater, drinking water and crawl space air sampling to verify the extent of impact from PCE and its degradation products. AMEC also installed six additional monitoring wells three of which were installed in the Vranas property. PCE was observed in groundwater in both the site well as well as the Vranas wells. PCE was also detected in the site soil. Two air sampling events were conducted within the crawl space of the Vranas residence in 2007 but no constituents were detected above standards.

Between 2010 and 2011, AMEC conducted supplemental site investigation in preparation of planning and implementing a remedial measure. Based on this investigation, a former source pit was identified to be the source area.

In 2013, AMEC carried out a remediation at the 3-acre site which included excavation and removal of the impacted soil from a depth of 3 to 12 feet below ground surface at the site. The excavated area was backfilled with clean soil and site restoration activities were completed in 2014.



Maryland
Department of
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CURRENT STATUS

Following remediation, AMEC conducted groundwater monitoring in the 12 existing monitoring wells at the site from 2013 till 2018 to confirm a decreasing groundwater VOC concentration. However, no significant changes were noted potentially due to low hydraulic conductivity in the tight formation. At present, AMEC is in the process of developing an additional remediation activity on Site to address the remaining VOC contamination within the sandy layer of the Site.