



Cox Creek Dredge Material Containment Facility (MD0456)

What You Need to Know

Site Location

The Cox Creek Dredge Material Containment Facility (“DMCF”) Property (the “Site”), formerly known as the Cox Creek Copper Refinery Property, is located at 1000 Kembo Road in the Curtis Bay area of Anne Arundel County, Maryland. The Site occupies approximately 167 acres of land. 70 acres on the eastern portion of the Site contain dredge material containment cells, earthen dikes, and associated operational support infrastructure associated with the DMCF operated by the Maryland Port Administration (“MPA”). The remaining 97 acres are identified as the Cox Creek Uplands area and consists of a mix of unoccupied land, graded areas, and ongoing construction of expanded earthen dikes and dredge containment cells associated with the DMCF. The Site is zoned W-3 for heavy industrial use and is served by a municipal water and sewer system. Neighboring properties include portions of the Cox Creek DMCF and the Patapsco River to the east; the former Cristal Titanium Dioxide Manufacturing Facility (MD1687) and Hawkins Point Industrial Landfill to the north; a CSX railroad track with office and warehouse structures beyond to the west; and Kembo Road, a MPA dredge material containment and wetland conservation area, and unimproved forested land to the south, with the CSX-owned B&O Railroad Landfill Property (MD0362) located beyond. Environmental oversight for the Site is currently provided by the Land Restoration Program (“LRP”) of the Maryland Department of the Environment (“MDE”).

Site History

From 1959 until 1995 the Site was an active copper refinery and fabricator of copper products. The copper refinery operations were run from 1959 to 1986 by the Kennecott Refining Company and from 1986 to 1995 by the Cox Creek Refining Corporation. In April 1997, the Site was purchased by the MPA who operated a field office associated with the DMCF operations on the eastern portion of the Site and on the easterly and southerly adjoining properties. Additionally, during the period of MPA ownership, the Site was leased to several businesses for various construction storage and light industrial purposes, most recently by a landscaping firm who used the Site for bulk storage of landscaping materials such as crushed stone and mulch. By 2017, the MPA was the sole occupant of the Site. From 2017 until the present, efforts were made to expand the easterly adjoining and on-Site dredge material containment operations across most of the remainder of the Site, including the demolition of structures associated with the former copper refinery operations; earth-moving and grading activities; removal and disposal of contaminated soils, demolition debris, and assorted refuse materials; and the raising and expansion of the earthen dikes associated with the dredge containment cells.

Environmental Investigation and Remediation

The MDE has had regulatory involvement with the Site as far back as 1991 via the United States Environmental Protection Agency (“EPA”)-mandated Resource Conservation and Recovery Act (“RCRA”) inspections, investigations, and remediation efforts. The environmental inspections and investigations of

the Site identified significantly elevated concentrations of metals, volatile organic compounds (“VOCs”), semi-volatile organic compounds (“SVOCs”), and petroleum constituents in soil and groundwater at the Site. The contamination originated from manufacturing areas, ore storage areas, and both aboveground and underground storage tanks associated with fuel storage. In 1993, the United States Coast Guard (“USCG”) reported a release of polychlorinated biphenyl (“PCB”)-containing oil at the Site, which was addressed by the responsible party at the time. Later investigations would identify additional areas impacted by PCB-containing oils at the Site, which originated from releases from several pieces of industrial hydraulic equipment used in copper refining and manufacturing processes, trash compactors, and a designated bulk storage area for PCB-containing oils.

In 1994, the Site Assessment Division of MDE performed a preliminary assessment of the Site on behalf of the EPA, which further characterized known areas of on-Site contamination and identified several additional areas of concern at the Site. An EPA no further remediation planned designation under the Comprehensive Environmental Response, Compensation, and Liability Act was recommended for the Site, based on the fact that active remediation was under active environmental regulatory oversight by the MDE’s Hazardous Waste Program’s RCRA Program at the time. Environmental investigations of the Site performed by the MPA’s environmental contractors further characterized elevated concentrations of metals, including arsenic, copper, lead, mercury, nickel, and total petroleum hydrocarbons (“TPH”) in soil. Between 1994 and 1995, approximately 4,820 tons of TPH- and/or metal-impacted soils were excavated and removed from the Site, including soil with potentially hazardous lead concentrations. Additional groundwater sampling identified elevated concentrations of metals including arsenic, cadmium, copper, lead and nickel in groundwater at the Site. A limited Phase I Environmental Site Assessment (“ESA”) performed in 2008 identified several additional recognized environmental conditions (“RECs”), including additional aboveground and underground storage tanks, 55-gallon drums, chemical storage containers, on-Site filling stations, assorted on-Site infrastructure of unknown purpose, back-filled pits, and suspect historical monitoring wells. The 55-gallon drums and several of the storage tanks were subsequently removed from the Site and disposed of in accordance with applicable regulations.

In 2015, the MPA approached the LRP with the desire to resolve the outstanding environmental concerns related to the Cox Creek Uplands portion of the Site to allow for the pending construction of the Cox Creek DMCF Expansion. From 2015 to 2016, MPA’s environmental contractors performed additional Phase II ESAs on the Site to address remaining data gaps in the Site characterization and to better define areas requiring additional remediation and/or mitigation actions. From 2016 to June 2020, targeted remediation and mitigation actions were performed at the Site, including: targeted removal and disposal of PCB-impacted soils and demolition debris associated with former bulk storage areas and refinery equipment and infrastructure; removal of the remaining aboveground and underground storage tanks and removal of soils from the central portion of the Site that had been determined to be grossly impacted by TPH contamination under MDE’s Oil Control Program (“OCP”) oversight; removal of isolated areas of contaminated soils that had exhibited acute concentrations of metals and/or SVOCs; and demolition of the former main refinery building, also referred to as Building 210, which included characterization and disposal of demolition debris, targeted removal of building debris, equipment, and interior finishes identified or suspected to contain PCBs, asbestos, hazardous materials, or been heavily impacted by petroleum products and targeted removal of acutely contaminated soils that were previously inaccessible beneath the building foundation.

Current Site Status

The completion of the razing and removal of demolition debris and impacted soils associated with Building 210 in June 2020 marked the end of the remediation phase of the project. The LRP is currently working with the State of Maryland's Office of the Attorney General ("OAG"), the MPA, and MPA's environmental contractors to resolve a few remaining administrative items related to the Project, most notably the drafting of an environmental covenant ("EC") to prohibit the use of groundwater from beneath the Site, restrict future use of the Site to appropriate land uses, and provide appropriate regulatory notification requirements related to any future change in Site ownership, use, or redevelopment.