



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III
STATEMENT OF BASIS

July 2017

Parcel B16 Tin Mill Canal
Tradepoint Atlantic
Sparrows Point, Maryland
MDD053945432

Table of Contents

I Introduction	2
II. Background	3
A. History	3
B. Site Geology and Hydrogeology.....	4
III. Parcel Description	4
IV. Summary of Investigations	5
A. Sediment Characterization	5
B. Hazardous Waste Characterization	6
C. Risk Assessment	8
IV. Corrective Action Objectives	8
V. Proposed Remedy	9
A. Sediments	9
(1) Excavation.....	9
(2) Capping.....	9
(3) Institutional Controls.....	10
B. Groundwater	10
C. Implementation	10
VI. Evaluation of EPA's Proposed Remedy.....	11
VII. Financial Assurance.....	13
VIII. Public Participation	13

Attachment 1 – Administrative Record List

Figure 1 Site Map

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the Tin Mill Canal (TMC or Canal), Parcel B16, located on the 3,100-acre Sparrows Point Facility (Facility) in Baltimore Harbor. Tradepoint Atlantic (TPA), the current owner of the Facility, is subdividing the Facility into parcels for redevelopment.

The Facility is subject to EPA's Corrective Action authorities under the Solid Waste Disposal Act, as amended, commonly referred to as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq. The Corrective Action Program requires that facilities subject to certain provisions of RCRA investigate and address releases of hazardous waste and hazardous constituents, often in the form of soil or groundwater contamination, that have occurred at or from their property. Maryland is not authorized for the Corrective Action Program under Section 3006 of RCRA, therefore, EPA retains primary authority in the State of Maryland to implement it.

EPA's proposed remedy for sediments at Parcel B16 is: 1) excavation of accumulated sediments to base grade; 2) installation of a protective cap and cover to restrict human contact, and prevent cross-media transfer from the remaining residual contamination in the sediments, using a geosynthetic cover and slag; 3) land use restrictions preventing land use, and 4) operation and maintenance requirements to ensure the protectiveness and integrity of the remedy.

EPA will issue a separate SB for Facility-wide groundwater, including groundwater at Parcel B16, to solicit public comment once the groundwater at the entire Facility has been evaluated under the Corrective Action program. In the interim, in this SB, EPA is proposing to require groundwater use restrictions at Parcel B16 to prevent potable use of shallow groundwater until a final remedy for Facility-wide groundwater is selected.

EPA is providing a thirty (30) day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

Information on the RCRA Corrective Action Program as well as a fact sheet for the Facility can be found by navigating to <https://www.epa.gov/hwcorrectiveaction/hazardous-waste-cleanup-sparrows-point-llc-sparrows-point-md>. An index to the Administrative Record (AR) which supports this SB is attached as Attachment 1, and references all documents, including data and quality assurance information, on which EPA's proposed remedy is based. See Section VIII, Public Participation, for information on how you may review the AR.

II. Background

A. History

The Facility comprises a 3,100-acre peninsula in Baltimore Harbor (Sparrows Point Peninsula or Peninsula), generally bounded by the Back River, Bear Creek, and the Northwest Branch of the Patapsco River. In 1887 Maryland Steel built an iron furnace on the Facility, and the first iron was cast in 1889. The Bethlehem Steel Corporation (BSC) purchased the property in 1916 and enlarged it, building mills to produce hot rolled sheet, cold rolled sheet, galvanized sheet tin mill products, and steel plate. During peak production in 1959, BSC operated 12 coke-oven batteries, 10 blast furnaces, and four open-hearth furnaces at the Facility.

This SB summarizes work undertaken under a 1997 federal consent decree and a 2014 settlement agreement, as detailed below. RCRA Corrective Action work is ongoing at the Facility.

In 1997 the Federal District Court for the District of Maryland entered a Consent Decree (CD) under Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), that had been signed by BSC, the Maryland Department of Environment (MDE), and EPA (Civil Action Nos. JFM-97-558 and JFM-97-559). The CD required BSC to undertake certain RCRA Corrective Action activities at the Facility, including, among other tasks, completing a Site Wide Investigation (SWI) and a Corrective Measures Study (CMS), and implementing Interim Measures (IMs) as necessary. At the time the CD was entered, EPA and MDE had identified eighty-one (81) solid waste management units (SWMUs) and twenty-eight (28) areas of concern (AOCs) at the Facility, and had designated five special study areas to focus on initially in the SWI, consisting of the Tin Mill Canal/Finishing Mills, Greys Landfill, Coke Point Landfill, Coke Oven Areas and Humphreys Impoundment. The CD did not require implementation of corrective measures, apart from IMs, several of which are currently in operation at the Facility.

After BSC declared bankruptcy in 2003, steelmaking continued at the Facility under a series of new owners, each of which also continued to carry out the work required under the CD. Steelmaking operations at the Facility ended in 2012, when then-owner, RG Steel Sparrows Point LLC, declared bankruptcy. In August, 2012 several companies, including Sparrows Point LLC (SPLLC), purchased the Facility from RG Steel Sparrows Point LLC through a bankruptcy sale. SPLLC subsequently acquired all of the property interests in the Facility. In July, 2014, the District Court entered an amendment to the CD adding SPLLC as a Respondent. Meanwhile, SPLLC had notified EPA and MDE of its interest in selling the Facility to Sparrows Point Terminal LLC (SPTLLC). In September, 2014, EPA and MDE entered into a Settlement Agreement (SA) that was subject to public comment, and an Administrative Order on Consent (ACO), respectively, with SPTLLC. The agreements, together, provide for the cleanup of the Facility under both RCRA Corrective Action and Maryland law. SPTLLC subsequently acquired the Facility, and following public comment and publication of EPA's response, the SA was finalized in November, 2014. In 2016 SPTLLC changed its name to Tradepoint Atlantic (Tradepoint). Tradepoint has organized the Facility into parcels for redevelopment as commercial, light industrial and logistics facilities.

B. Site Geology and Hydrogeology

The Facility is located within the Coastal Plain Physiographic Province, which is the relatively low-lying portion of the Atlantic Slope. The unconsolidated sediments beneath the Sparrows Point Peninsula lie horizontally on a bedrock surface of Precambrian and Early Paleozoic crystalline rock that slopes downward to the southeast. The unconsolidated sediments include (from youngest corresponding to surficial to oldest) recent fill deposits consisting primarily of iron- and steel-making slag; the Pleistocene Talbot Formation (predominantly clays, organic clays, silts, and muds) approximately five to 100 ft. thick; the Upper Cretaceous Patapsco Formation (predominantly sand and gravel interbedded with lenses of sandy clay) approximately 145 to 255 ft. thick; the Upper Cretaceous Arundel Formation (predominantly dense, plastic clays with nodules of iron oxide and a few discontinuous lenses of sand) approximately 20 to 180 ft. thick with an average thickness of 100 ft.; and the Lower Cretaceous Patuxent Formation (interbedded and lenticular beds of gravel, sand, sandy clay, and clay) approximately 50 to 250 ft. thick. The Cretaceous formations comprise the Potomac Group.

The aquifer system immediately underlying the Sparrow's Point Peninsula is called the Lower Patapsco Aquifer system. A deeper confined aquifer exists below the approximately 100 feet overlying Arundel Clay confining unit in the Patuxent Formation and is called the Patuxent aquifer system. Groundwater investigations at Sparrow's Point are conducted solely in the Lower Patapsco because there is no connection between the two aquifers.

Unconfined groundwater exists within the shallow aquifer comprised of the slag fill material, and intermediate and deeper aquifers exist within the Talbot and Patapsco Formations, respectively. The Lower Patapsco aquifers are hydraulically interconnected, but are partially separated in areas by discontinuous lenses of silt and clay. Radial flow on the western side of the peninsula is toward Bear Creek and the Patapsco River to the west. Flow on the south side of the peninsula is south toward the southern shoreline and turning basin. Flow on the east side of the peninsula is toward Old Road Bay to the east. Groundwater flow direction within the intermediate aquifer along the western portion of the Peninsula is northwest, influenced by historical pumping activities in the area near the shipyard to the west of the Peninsula. Groundwater flow direction within the intermediate aquifer along the eastern portion of the peninsula is south-southwest in the apparent direction of the natural gradient. Groundwater flow direction within the deep aquifer is unidirectional to the east-northeast.

III. Parcel Description

The TMC is a man-made swale that currently conveys stormwater runoff and groundwater base flow from an approximately 800-acre drainage area of the Facility. Waters

collected in the TMC are routed to the Humphrey's Creek Waste Water Treatment Plant (HCWWTP) for treatment prior to discharge via the NPDES permitted Outfall 014. The average volume of water flowing through the Canal to the HCWWTP ranges from approximately 3,000 gallons per minute (gpm) during dry weather to over 50,000 gpm during storm events. The TMC is located in the central portion of the Facility, south of Interstate 695 and Highway Route 158 (Figure 1).

The TMC is approximately 7,500 feet in length, 30 to 50 feet wide and 15 feet below grade. The Canal was constructed from slag and includes numerous point discharges from the Facility storm sewer system. The eastern portion of the TMC began operating in the early 1950's. The western (remaining) portions of the canal and HCWWTP began operating in approximately 1969. Since its construction, the TMC has historically also conveyed wastewater discharged from numerous manufacturing operations associated with former steelmaking and steel finishing operations at the Facility. Over the years, some of the heavier particles and oils in the wastewaters from the steel manufacturing operations have settled to the bottom of TMC. The materials are located throughout the entire length and width of the Canal and affect water currently being controlled and discharged through the Canal. The Canal still receives and controls stormwater runoff; the HCWWTP remains operational to treat stormwater runoff prior to discharge.

IV. Summary of Investigations

Sediment samples were collected from 16 transects along the length of the TMC and from one transect along a channel way from the Pori Lagoon area during two sampling events (April, 2015, October, 2016). In total, 58 discrete depth samples were collected and analyzed for specific 40 C.F.R. Part 264 Appendix IX volatile organic compounds (VOCs); Appendix IX RCRA metals including hexavalent chromium, and for Toxicity Characteristic Leaching Procedure (TCLP). Additionally, 29 composite samples were collected and analyzed for Appendix IX semi-volatile organic compounds (SVOCs), cyanide, polychlorinated biphenyl (PCB) aroclors, TCLP SVOCs, and TCLP inorganics. Finally, geotechnical sediment samples were collected at three specific transects and analyzed for moisture content and bulk density.

As a result of elevated PCB results from the initial sampling event an additional 42 discrete sediment samples were collected to delineate the extent of elevated PCB concentrations surrounding a single sample location (TM-SD-31). The samples were collected between two transects (5 and 7) from the top 12 inches and bottom 12 inches of the sediment horizon at 21 locations spaced 50 feet apart. The samples were collected from the center of the Canal. Additional samples were collected elsewhere from the TMC from additional locations to complete the delineation effort.

A. Sediment Characterization

Sediment analytical results were screened against Project Action Limits (PALs) established in the site-wide QAPP. PALs are generally based on the EPA's Regional Screening Levels (RSLs) for the Composite Worker exposure to soil. The Composite Worker is defined by

the EPA as a long-term receptor exposed during the work day who is a full-time employee that spends most of the workday conducting maintenance activities (which typically involve on-site exposures to surface soils) outdoors.

There was one VOC detection in excess of its applicable PAL. Benzene was detected in a single composite sample at a concentration of 18 mg/kg (PAL = 5.1 mg/kg). The remaining PAL exceedances in sediment consisted of three inorganics (arsenic, cobalt, and lead) and three SVOCs (benzo[a]pyrene, naphthalene, and 2,4-dinitrotoluene). Arsenic was the most common inorganic exceedance, and was detected above the PAL in 62 of the total sediment samples analyzed. The maximum detection of arsenic was 132 mg/kg (PAL = 3.0 mg/kg). Lead and cobalt were each limited to a single PAL exceedance, 946 mg/kg (PAL = 800 mg/kg) and 386 mg/kg (PAL = 350 mg/kg), respectively. Benzo[a]pyrene exceeded the PAL in the largest number of samples (three) of any SVOC. The maximum detection of benzo[a]pyrene was 10.3 mg/kg (PAL = 2.1 mg/kg) from a composite sample. Naphthalene and 2,4-dinitrotoluene were each limited to a single PAL exceedance, 137 mg/kg (PAL = 17 mg/kg) and 26.8 mg/kg (PAL = 7.4 mg/kg), respectively.

In the subsequent PCB Supplemental Investigation Aroclor 1248 and total PCBs were detected at concentrations greater than 50 mg/kg at three sample locations. All samples with detected concentrations of PCBs greater than 50 mg/kg were collected from deeper sampling intervals (below the surface). Delineation samples collected as part of the Supplemental Investigation identified that areas with PCB concentrations greater than 50 mg/kg were laterally limited to the area between sample locations TM-SD-118 and TM-SD-124, as well as the area in the immediate vicinity of the individual sample location TM-SD-31. Because samples with PCB concentrations over 50 mg/kg were from deep sampling depth intervals, further vertical delineation will be performed during a remedial phase.

B. Hazardous Waste Characterization

Based on the historical records, the sediment currently present in the TMC may have contacted and been contaminated with wastewater treatment sludges from electroplating operations, containing a listed hazardous waste (EPA Waste Code F006), prior to the installation of the HCWWTP plant in 1987. Sediments may have also been contaminated with spent pickle liquor, which was beneficially reused to adjust pH in the TMC, and is also a listed hazardous waste (K062) when disposed rather than reused. Under EPA's "contained-in" policy, sediment excavated from the TMC could be considered contaminated media and could be subject to regulation under RCRA if determined to "contain" hazardous waste.

EPA generally considers contaminated environmental media to contain hazardous waste: (1) when they exhibit a characteristic of hazardous waste; or, (2) when they are contaminated with concentrations of hazardous constituents from listed hazardous waste that are above health-based levels. If contaminated environmental media contain hazardous waste, they are subject to all applicable RCRA requirements until they no longer contain hazardous waste. EPA considers contaminated environmental media to no longer contain hazardous

waste: (1) when they no longer exhibit a characteristic of hazardous waste; and (2) when concentrations of hazardous constituents from listed hazardous wastes are below health-based levels.

In the case of environmental media that are contaminated by listed hazardous waste, EPA guidance recommends that “contained-in” determinations be made based on health-based levels of hazardous constituents below which contaminated environmental media would be considered to no longer contain hazardous waste. Since this determination involves development of site specific health-based levels, EPA or authorized state approval is required. MDE has been delegated the authority to make the determination of when the sediments no longer contain hazardous waste. MDE determined that for the TMC remediation waste to be considered to no longer contain hazardous waste, the characterization of the remediation waste must demonstrate that: (1) the waste no longer exhibits any characteristics of a hazardous waste; and (2) the concentrations of constituents are below the USEPA industrial soil Regional Screening Levels (RSLs) set to a hazard index of 10 and a cancer risk of 1×10^{-4} (Adjusted RSLs).

A representative number of samples of sediment from the TMC were analyzed using the TCLP method. TCLP testing was completed for regulated volatile, semi-volatile and metal constituents of discrete and composite sediment samples recovered from all transects. No exceedances of the TCLP regulatory limits were identified; therefore, demonstrating that the contaminated environmental media that may be excavated/dredged from the canal does not exhibit a hazardous characteristic.

A health-based assessment of hazardous constituents within the TMC sediments was completed by comparing the 1) maximum detected concentrations or the 2) maximum Method Detection Limits (MDLs) of the constituents of potential interest (COPIs) developed for the sediments to the Adjusted RSLs. The TMC sediments were analyzed for a broad list of COPIs including TAL inorganics, TCL volatile organics, TCL semi-volatile organics, and PCBs. The COPI list specifically included the underlying hazardous constituents for which the F006 waste was listed (cadmium, chromium, cyanide, lead, nickel and silver) and K062 (Hexavalent chromium and lead). Detection limits for some SVOCs exceeded the Adjusted RSLs as part of the initial characterization work. Additional samples were collected for analysis of SVOCs during the supplemental investigation at the locations where the MDLs exceed the Adjusted RSLs, using analytical methodologies employing lower detection limits. These supplemental SVOC results confirmed that the MDLs used during the original sampling event supported the health-based Adjusted RSL assessment. The assessment also reviewed concentrations of constituents expected to be found in the sediment after possible dewatering or other solidification of the excavated material prior to disposal.

PCB Aroclor 1242 in a single sample and Aroclor 1248 in another single sample were the only hazardous constituents found in sample results above the Adjusted RSLs. Therefore, based on the results of the TCLP analyses and the health-based “contained in determination” protocol, excavated environmental media and sediment from the TMC do not require management as a hazardous waste. However, some detections of PCBs did exceed the TSCA limitation of 50 mg/kg. Therefore excavated environmental media that contains PCBs with concentrations greater than 50 mg/kg will require management as a TSCA regulated waste material.

C. Risk Assessment

A Screening Level Risk Assessment (SLRA) was conducted for TMC sediments to further evaluate existing conditions to support the design of necessary response actions. The data were evaluated to assess baseline risk for the Composite Worker exposure scenario. The SLRA includes identification of contaminants of potential concern (COPCs), an area of exposure (EU), exposure point concentrations (EPC), and calculation of risk ratios. Lead was evaluated separately with the net result that all lead results equaling or exceeding 10,000 mg/kg would require delineation for possible excavation and removal. EPA determined that if the risk ratios for each noncarcinogenic COPC or cumulative target organ did not exceed 1 (excepting lead), and the sum of the risk ratios for the carcinogenic COPCs did not exceed a cumulative cancer risk of 1×10^{-5} , then a no further action determination would be acceptable.

TMC sediments did not exceed an average lead value of 800 mg/kg. There were no locations where detections of lead exceeded 10,000 mg/kg, the designated threshold at which further delineation would be required.

Risk ratios for the estimates of potential EPCs for the Composite Worker scenario indicated that the cumulative carcinogenic risk for a Composite Worker exposed to sediment was 3×10^{-5} . This level of risk exceeds the acceptable risk for no further action as defined above. When the non-cancer risks were segregated and summed by target organ for cumulative Hazard Index (HI), no target organ exceeded a cumulative HI of 1. The SLRA results indicate that a remedy controlling direct exposure to Composite Workers would be required to mitigate any potential future exposures to TMC sediments.

V. Corrective Action Objectives

EPA’s Corrective Action Objectives for the specific environmental media at the TMC are as follows:

1. Sediments

EPA's Corrective Action Objective for the sediments at the TMC is to prevent direct human contact with hazardous constituents remaining in the sediment that have been detected above risk ratios or that contain more than 50 mg/kg of total PCBs, in conformance with TSCA.

2. Groundwater

While Facility-wide groundwater continues to be evaluated site-wide under the Corrective Action Program, EPA proposes to prevent exposure to potential hazardous constituents in groundwater.

VI. Proposed Remedy

A. Sediments

EPA's Proposed Remedy for sediments at the TMC consists of excavation and then capping and implementation of institutional controls, as described below.

(1) Excavation

Accumulated sediments found higher than the historical base-grade will be removed and disposed of as described below, as will sediments or contaminated media below the historic grade that contain total PCB concentrations greater than 50 mg/kg and/or hazardous constituents at concentrations above risk ratios. Several sediment samples contained concentrations of PCBs that exceed 50 mg/kg and therefore, warrant delineation and excavation. Excavated environmental media in which the Total PCB concentration exceeds the 50 mg/kg threshold established by TSCA will require disposal as PCB remediation waste at a RCRA Sec. 3004 or 3006 permitted hazardous waste landfill or an approved PCB disposal facility [40 CFR §761.61(a)(5)(i)(B)(2)(iii)]. Other excavated environmental media containing hazardous constituents at concentrations above risk ratios will be disposed at the on-site Greys Landfill. Greys Landfill is a non-hazardous, industrial landfill that has received process waste and demolition debris from throughout the former mill and is operated under the oversight of MDE.

(2) Capping

Sediments or contaminated media that do not require excavation may be left in place if paved or otherwise capped. Following sediment excavation throughout the TMC, all such residual sediments and fill materials will be covered with a 2-foot thick (minimum) cap to prevent direct human contact exposure risks, and will also provide a non-erosive canal lining that will facilitate future stormwater conveyance. Additional slag fill will be placed in the PCB-contaminated sediment removal area as necessary to achieve the desired subgrade elevations prior to cap placement. The cap will consist of a geotextile filter fabric overlain by slag fines and coarse slag up to the final canal grade. The coarse slag will be similar to conventional rip-

rap lining, and will be sized in accordance with applicable procedures for erosion and sediment control to prevent scour and provide an erosion resistant surface based on the anticipated maximum flow velocities and shear stresses associated with projected flow rates in the Canal.

(3) Institutional Controls

EPA's proposed remedy for sediments remaining in the TMC includes the following use restrictions and requirements to be implemented through institutional controls (ICs):

- Parcel B16 shall be used for the singular purpose of conveying stormwater;
- The then-current owner shall maintain the integrity of all caps and covers by conducting regular periodic inspections (no less frequently than [yearly]), making timely repairs if needed, and maintaining a record of such inspection and maintenance;
- Any earth moving activities including excavation, grading, and/or utility construction, shall be conducted in compliance with an MDE-approved Soil Management Plan such that the activity will not pose a threat to human health and the environment or adversely affect or interfere with the use of the TMC as stormwater conveyance;
- A site-specific health and Safety Plan shall be submitted to MDE and EPA for approval prior to any earth moving activities to protect construction workers from engaging in activities that could expose them to contaminants remaining in sediments; and
- The then-current owner shall allow EPA, MDE and their authorized agents and representatives, access to inspect and evaluate the continued effectiveness of the caps and covers, and, if necessary, to ensure completion of any additional remediation necessary to ensure the protection of public health and safety and the environment.

B. Groundwater

Because contaminants remain in the groundwater at the Facility above levels appropriate for residential use, while Facility-wide groundwater is being investigated further, EPA is proposing to prohibit the potable use of groundwater to prevent human exposure to those contaminants in the short-term. The groundwater use restriction will be implemented through enforceable ICs in conjunction with the land use restriction described above.

C. Implementation

Once EPA selects the Final Remedy for the TMC, the components of the Final Remedy will be incorporated into and become enforceable under Paragraph 72 of the SA. In addition, if not previously submitted, within sixty (60) days of the issuance of the Final Remedy, TPA is

required to submit to EPA for approval a Corrective Measures Implementation Workplan ("CMI Workplan") for implementation of the corrective measures selected in the Final Remedy, in accordance with Paragraph 72 of the SA. EPA anticipates that the use restrictions necessary to prevent human exposure to contaminants remaining in soils at the TMC will be implemented through an enforceable environmental covenant, filed with the Baltimore County Land Records Office or other appropriate office. If EPA determines that additional maintenance and monitoring activities, use restrictions, or other corrective actions are necessary to protect human health or the environment, EPA has the authority to require and enforce such additional corrective actions through an enforceable instrument, provided any necessary public participation requirements are met.

VII. Evaluation of EPA's Proposed Remedy

A. Threshold Criteria

1. Protect Human Health and the Environment

The Proposed Remedy will protect human health from exposure, including future exposure, to sediment and groundwater contamination. The Proposed Remedy will require that the owner remove sediments with total PCB concentrations greater than 50 mg/kg and cap the remaining sediment. In addition, EPA's Proposed Remedy requires land and groundwater use restrictions that will prohibit future uses that would pose an unacceptable risk.

2. Achieve Media Cleanup Objectives

EPA's Proposed Remedy meets the cleanup objectives appropriate for the current and reasonably anticipated future land use. The Proposed Remedy does not include cleanup of groundwater, which will instead be addressed separately by a Facility-wide groundwater remedy developed for the entire 3,100-acre Facility. In the short-term, the Proposed Remedy will prohibit potable use of groundwater at Parcel B16.

3. Remediating the Source of Releases

Historical sources of contamination to the TMC have been eliminated already through the decommissioning and removal of the former steel production operations. The Proposed Remedy will require the proper removal and disposal of contaminated sediments that exceed applicable levels, thereby removing the source of contaminants from the TMC and reducing the potential for contaminants to migrate.

B. Balancing/Evaluation Criteria

1. Long-Term Effectiveness

The Proposed Remedy will provide long-term effectiveness in protecting human health and the environment by removal and secure disposal of contaminated sediments and controlling exposure to contaminants remaining in sediment through the placement of an erosion-resistant and stable cap. Land use restrictions will prohibit use of the TMC in any way that would result in exposure to contaminated sediments. The Proposed Remedy requires compliance with an MDE-approved Soil Management Plan to control exposure to and spread of contaminated soil during excavation activities. Additionally, the ICs will impose a requirement that the owner inspect the engineering cover no less than annually, and to make repairs as necessary.

2. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The Proposed Remedy provides immediate reduction in contaminant toxicity, mobility and volume through the treatment of liquids from PCB-contaminated areas. The mobility and volume of contaminated sediments throughout the canal will be significantly reduced through excavation and secure containment of sediments, and the placement of a non-erosive cap above residual sediments.

3. Short-Term Effectiveness

In the short-term the Proposed Remedy presents a slight increased risk from direct contact exposure to contaminated sediments and liquids in association with excavation, drying, loading and transport, but the risks can be controlled through implementation of conventional best management practices for waste handling, dust control, and worker health and safety.

4. Implementability

The Proposed Remedy is readily implementable as it can be completed in a reasonable timeframe, in a manner consistent with applicable permit requirements and regulations, the technologies are feasible and well proven, and the required services and materials are readily available.

5. Cost

Implementation of the Proposed Remedy will cost several hundred thousand dollars for sediment excavation, handling, transportation, disposal and capping. Long-term the Proposed Remedy costs will be relatively low for long-term maintenance and inspection. Overall this remedy is a cost-effective approach for addressing identified media cleanup objectives.

6. Community Acceptance

EPA will provide public comment opportunity on the Proposed Remedy for the TMC to evaluate community acceptance and document the Final Remedy in the Final Decision.

7. State/Support Agency Acceptance

MDE and EPA have jointly conducted this investigation. The Proposed Remedy is consistent with applicable MDE permitting requirements and addresses the applicable requirements of the MDE Voluntary Cleanup Program.

VIII. Financial Assurance

The ACO requires Tradepoint to establish and maintain financial assurance for completion of work in accordance with Section XIII (Financial Assurance) of the ACO. Tradepoint has provided MDE a copy of the Trust Agreement and documentation that the Trust has been initially funded with \$43 million, in addition to a \$5 million letter of credit. This financial assurance, for which MDE is the custodian, will also satisfy EPA's financial assurance requirements for this Proposed Remedy.

IX. Public Participation

Before EPA selects a Final Remedy for the TMC, the public may participate in the remedy selection process by reviewing this SB and documents contained in the Administrative Record (AR). The AR contains all information considered by EPA in reaching this proposed decision and is available for public review during office hours at two locations:

Barbara Brown
Land Management Administration
Maryland Department of the Environment
1800 Washington Boulevard Baltimore, Maryland 21230
(410) 537-3493

Or

Erich Weissbart
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
weissbart.erich@epa.gov
(410) 305-2779

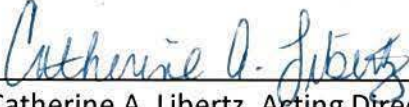
Interested parties are encouraged to review the AR and comment on EPA's Proposed Remedy. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to

Erich Weissbart, EPA project manager. EPA may hold a public meeting to discuss this Proposed Remedy upon request, which should also be made to Erich Weissbart whose contact information is listed above.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrants a modification to the Proposed Remedy, EPA will modify the Proposed Remedy or select other alternatives based on such new information and/or public comments. EPA will announce its Final Remedy and explain the rationale for any changes in the Final Decision. All persons who comment on this Proposed Remedy will receive a copy of the Final Decision. Others may obtain a copy by contacting Erich Weissbart at the address listed above.

Signature:

Date:


Catherine A. Libertz, Acting Director
Land and Chemicals Division
USEPA, Region III

7-25-17

Attachment 1

Administrative Record List

1. Tin Mill Canal Remediation Waste Determination, February 4, 2016
2. Sediment Characterization Report for the Tin Mill Canal, Sparrows Point Terminal, Maryland, Revision 1, June 14, 2017.
3. Maintenance Cleanup Plan for the Tin Mill Canal, Tradepoint Atlantic Sparrows Point, MD, Revision 0, May 5, 2017.
4. Corrective Measures Study – Tin Mill Canal, Tradepoint Atlantic Sparrows Point, MD, Revision 0, June 16, 2017.
5. Quality Assurance Project Plan, Sparrow's Point Terminal Site, Sparrow's Point, Maryland. Enviroanalytics. Revision 3, April 5, 2016.



Image courtesy of USGS Earthstar Geographics SIO © 2016 Microsoft Corporation

  ARM Group Inc. Earth Resource Engineers and Consultants 0 375 750 1,500 Feet	<ul style="list-style-type: none"> Site Boundary Private Property Area A Boundaries Area B Boundaries	Tradeport Atlantic Area A and Area B Parcels August 1, 2016	EnviroAnalytics Group	Tradeport Atlantic	Figure 1
		Area A: Project 150298M Area B: Project 150300M		Baltimore County, MD	