

Public Informational Meeting on the Former Sparrows Point Steel Mill Environmental Cleanup



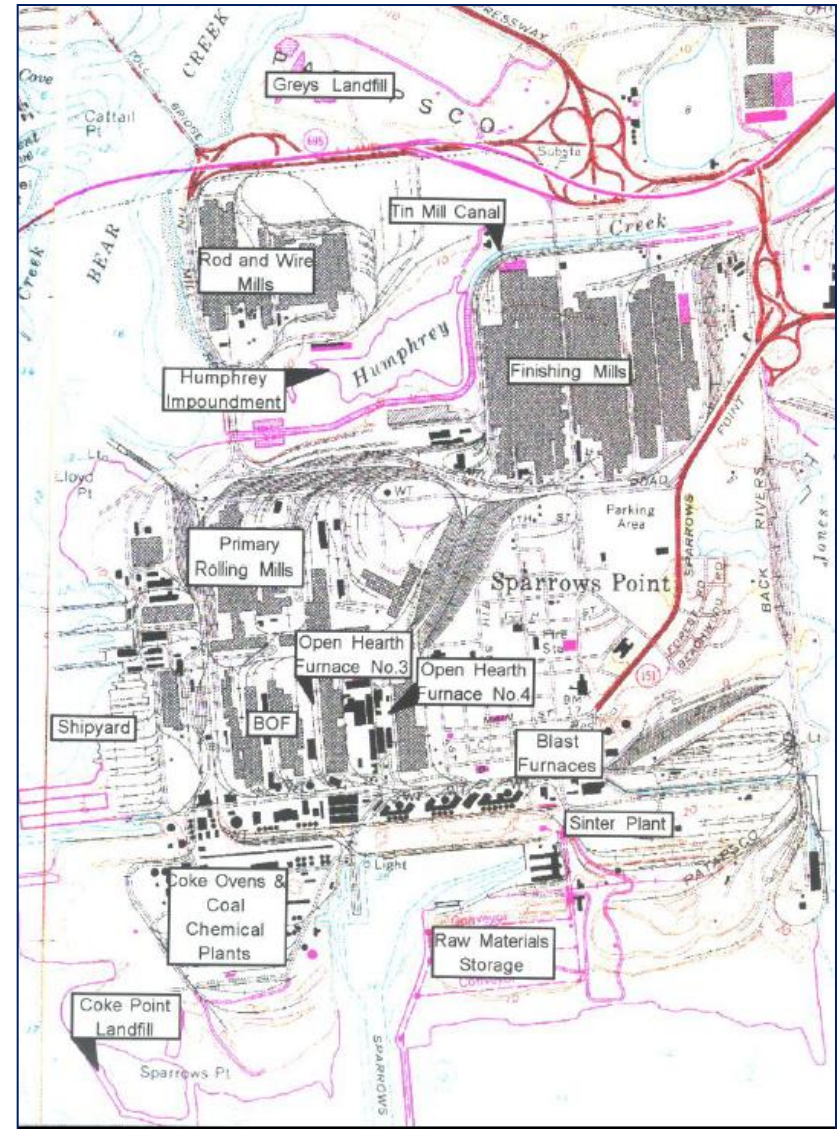
November 13, 2014

Site History

- First furnace at Sparrows Point built in 1887
- Bethlehem Steel Corporation purchased facility in 1916
- Produced cold rolled steel, galvanized sheets, tin mill products and steel plate
- Steel making from blast furnace and basic oxygen furnace (BOF) ceased in 2012
- Demolition of the Former Mill Ongoing



Sparrows Point Steel Mill Historical Conditions



Ownership History:

- **2001 - Bethlehem Steel Corp. declares bankruptcy**
- **2003 - International Steel Corp. acquires steel mill**
- **2005 - Mittal acquires International Steel Corp.**
- **2006 - Mittal merges with Arcelor**
- **2008 - Severstal N.A. acquires steel mill**
- **2011 - RG Steel Sparrows Point LLC (RGGSP) acquires steel mill**
- **2012 – RGGSP files for bankruptcy, steel making operations cease**
- **2012 - Joint venture (ELT, Inc., CDC, Inc., HRE Sparrows Point, LLC, & Sparrows Point LLC) acquires facility in September**
- **2014 - Sparrows Point Terminal, LLC acquires facility**





1997 Consent Decree



Signed by EPA, MDE, Department of Justice (DOJ) and Bethlehem Steel Corporation and included requirements for:

- **Site Wide Investigation (RCRA Assessment)**
 - Human Health Risk Assessment
 - Ecological Risk Assessment (on and off-site)
 - Groundwater Assessment
- **Interim Measures implemented**
 - Rod and Wire Mill
 - Cells 1-6 Coke Oven Area
- **Corrective Measures Study (CMS)**
- **Waste Minimization**
- **Compliance Requirements for Air Emissions**
- **Compliance Requirements for Operation and Closure of Solid Waste Landfills**



Amended 1997 Consent Decree

**Signed by Sparrows Point LLC, MDE, DOJ and EPA
Approved by Judge Motz on July 28, 2014.**

- **Acknowledges Site Wide Investigation work already completed.**
- **Removes requirement to comply with Waste Minimization Plan and Visible Emissions from Basic Oxygen Furnace and Kish Reduction.**
- **Notes that under the 2012 sale Sparrows Point LLC did not assume any obligation to conduct the offshore investigation or prepare corrective measures study for off-shore.**
- **All other provisions of the 1997 Consent Decree remain in effect.**



Work under the 1997 Consent Decree ends with the approval of the Corrective Measures Study and does not include provisions for installation, operation and monitoring of cleanup remedies or financial assurance to ensure work is completed.

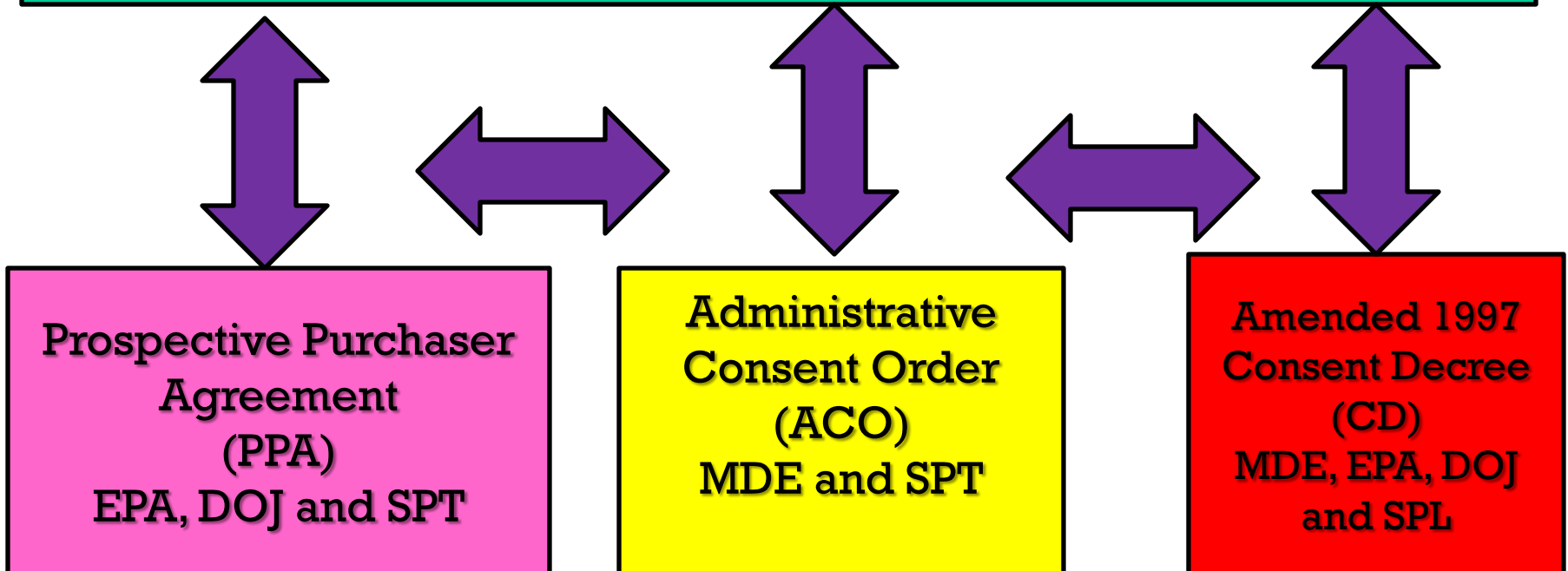
What framework moving forward will govern site activities required to complete the necessary cleanup plans and achieve the goal of a clean and redeveloped site?



Environmental Work On the Entire Site For MDE and EPA

MDE will assume primary responsibility for overseeing implementation of the onshore work in consultation and cooperation with EPA




EPA will assume primary responsibility for implementation of the offshore work in consultation and cooperation with MDE



- September 12, 2014 MDE and EPA approve request to remove 2,200 acres from 1997 Consent Decree because its requirements have been achieved
- Entire 3,100 acres remain subject to final federal and state regulatory closure.



Sparrows Point Carve Out

	North_C_A_Area	(616 Acres)
	South_C_A_Area	(307 Acres)
	Carve Out_Area	(2237 Acres)





Administrative Consent Order (ACO)



Voluntarily entered into between the Maryland Department of the Environment and Sparrows Point Terminal, LLC

Purpose of Agreement is to protect public health and the environment by providing a framework for prompt and effective remedial measures to address treat, control prevent or mitigate the presence and/or release of contaminants of concern at the facility.

Effective Date September 18, 2014





Key Provisions of the ACO



Responsibility for Interim Remedial Measures and Other Ongoing Environmental Work

Completion of the Site-wide Cleanup

- Can use Voluntary Cleanup Program process to assess and remediate the entire site but per agreement in ACO, SPT cannot withdraw from the program.
- Allows environmental work to satisfy both MDE and EPA requirements
- Allows portions of the property to obtain regulatory signoff to allow clean or remediated parcels to be redeveloped
- Covers undiscovered contamination

Provision of Financial Assurance

- Upfront financial assurance of \$48 million dollars-with \$43 million in trust fund and \$5 million letter of credit has been funded.
- Mandatory six month review to ensure sufficient funds till the final regulatory signoff.
- MDE can take over and use funds if work is not completed.

Oversight Costs-\$100,000 yearly for MDE staff time

Stipulated Penalties if work is not completed according to schedule

Calculations Based on Site Conceptual Cleanup Plan

Site Conceptual Cleanup Plan Draft

Former RG Steel Facility



Prepared for:

Sparrows Point LLC
1430 Sparrows Point Boulevard
Sparrows Point Maryland 21219

May 22, 2014



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MDE, EPA and US Army Corp of Engineers (USACE) performed an independent cost estimate for proposed cleanup remedies.

USACE estimates included construction costs, operation and maintenance costs, monitoring costs, staff time, decommissioning costs and contingency planning.

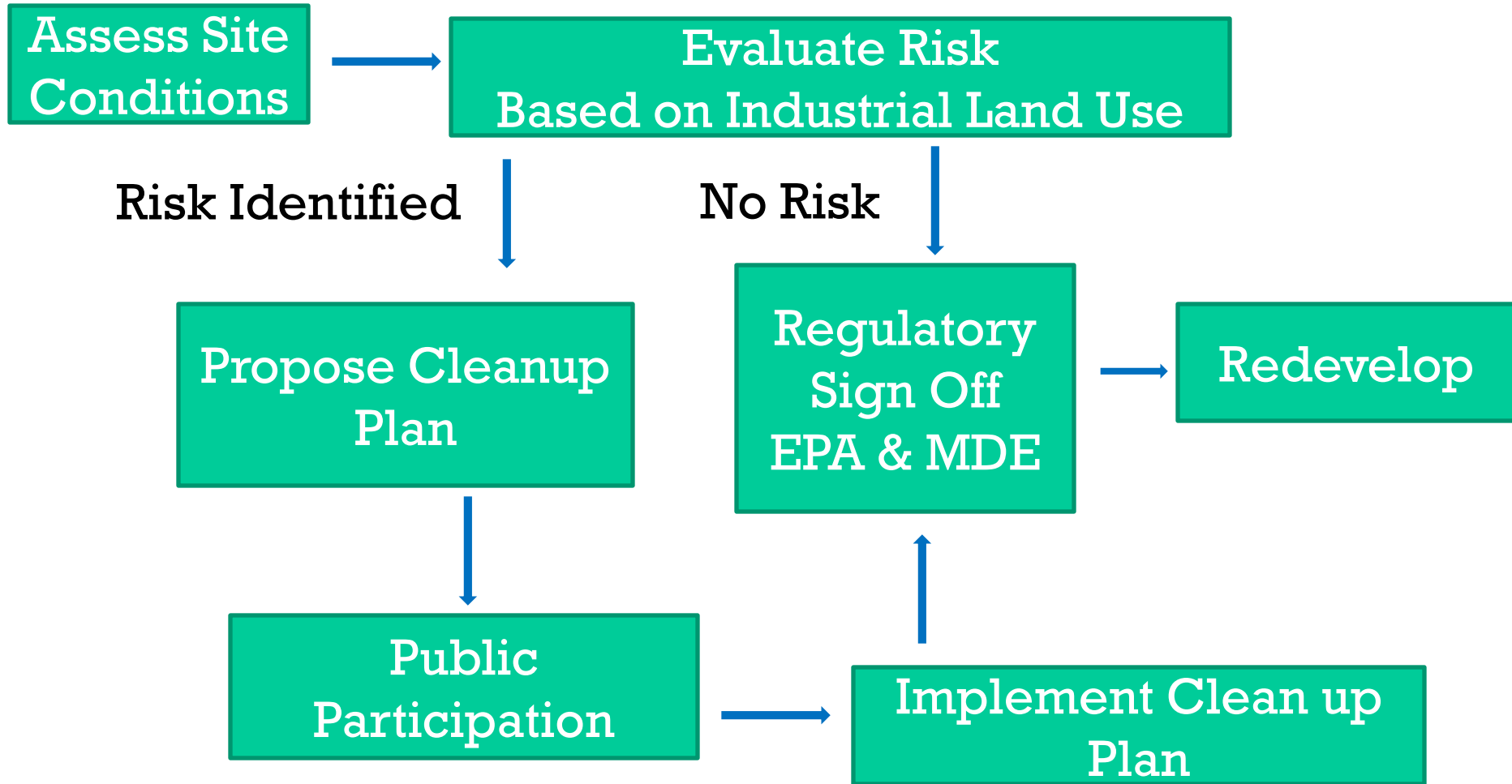
Both Cost Estimates provided by USACE and SPT/SPLLC were similar

ACO requires additional funding if actual costs exceed estimates

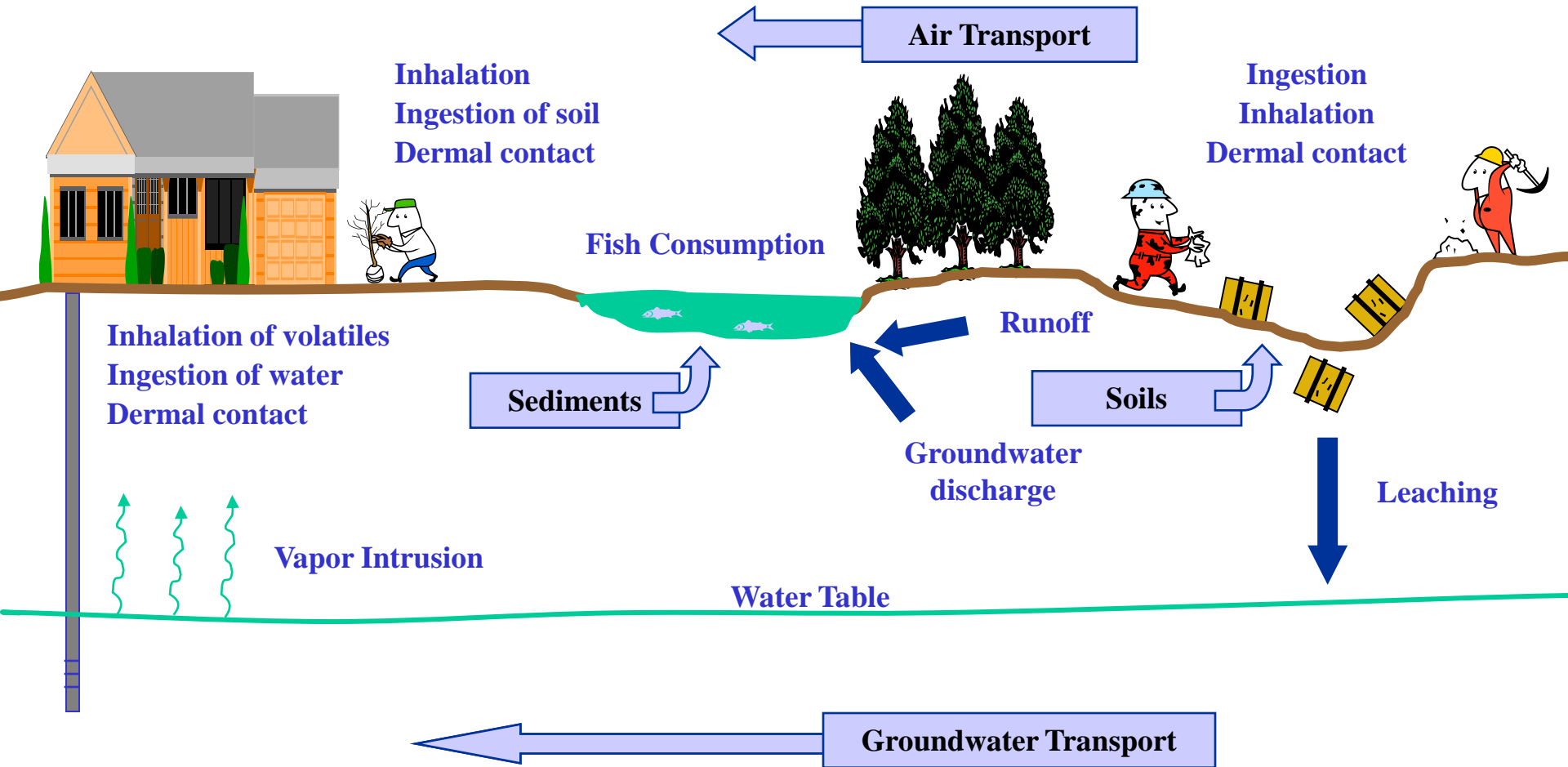


The Environmental Work Processes detailed in the PPA and ACO will be applied at the entire site; can be applied to individual parcels to facilitate redevelopment.





Sampling Data for Risk Assessment



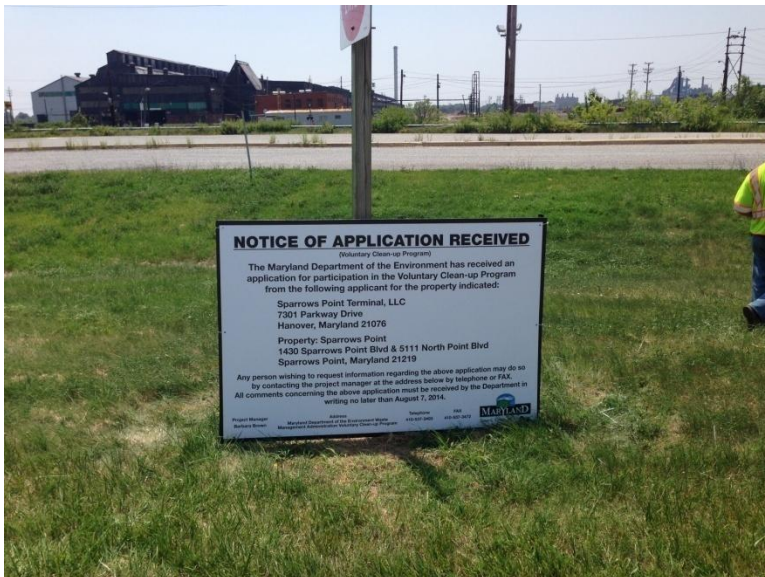


Sign at Property

MDE Website- Meeting Calendar

MDE Sparrows Point Website

Notice in Local Paper



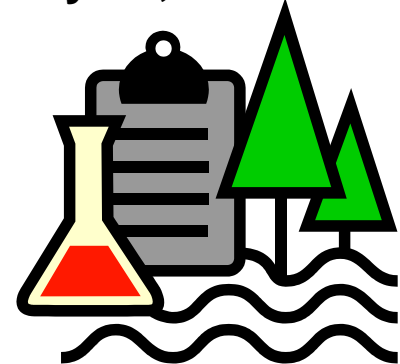
VCP Applications

MDE has determined that Sparrows Point Terminal, LLC is an inculpable person (no prior ownership history in the site as defined in the VCP statues) therefore is eligible for participation in the Voluntary Cleanup Program.

- **IP Letter issued to SPT on September 11, 2014**
- **SPT VCP Application for the entire property submitted on June 26, 2014 for 3100 Acres**
- **SPT VCP Application for Area A submitted on September 12, 2014 for 789 Acres**

VCP Application for Industrial Land Use (Tier 3B)

Included Phase I Environmental Site Assessment dated May 19, 2014 and draft Site Conceptual Cleanup Plan dated May 22, 2014



Area A



Development Area A - Exhibit A

General Motors Site Before:



General Motors Site After:





Prospective Purchaser Agreement (PPA)



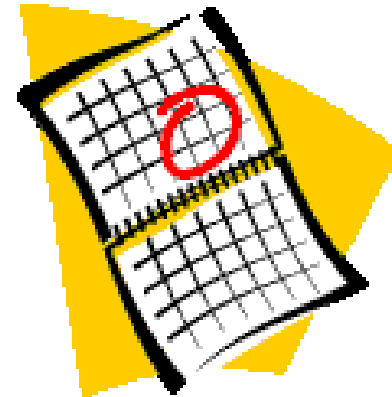
- **Signed by EPA, DOJ and Sparrows Point Terminal, LLC in September 2014.**
- **After 30 day public comment period and EPA review of public comments, EPA will determine whether to finalize.**
- **SPT assumes responsibility for Interim measures (along with SPLLC under the Consent Decree)**
- **Phase II investigation conducted as necessary.**
- **EPA's proposed determination for a parcel (cleanup work or no further action, as appropriate) set forth in a Statement of Basis made available to the public for review and comment.**
- **Corrective Measures Implementation (CMI) to complete work**
- **\$3,000,000 to EPA to conduct offshore investigation, and remediation as necessary**
- **\$100,000 initially and \$50,000 annually thereafter to EPA for oversight costs related to offshore work.**



First Major Milestone

Within 60 days of EPA approval of the PPA, Sparrows Point Terminal, LLC is required to:

Submit a Phase II Investigation plan for Area A and the Coke Oven Area and schedule for Area B



Timeframes for submittal to Agencies of other documents outlined in PPA and ACO

Interim Measures

Interim Measures are included in the 1997 Consent Decree to address appropriate areas prior to developing a final remedy in the RCRA process.

Interim Measures technology may be incorporated into the final remedy selected.





Maintaining institutional controls at the former in situ leaching area

Groundwater treatment system (cadmium and zinc), monitoring, operation and maintenance,

Semi-annual groundwater elevation monitoring
Semi-annual sampling and analysis of groundwater



From 1987 to the end of 2013
the groundwater pumping
system has removed:

10,529 lbs of cadmium and

334,806 lbs of zinc

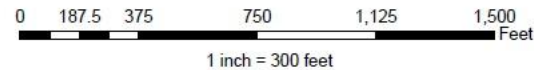


Coke Oven Interim Measures



August 2013

Sparrows Point Former Coke Oven Area Interim Measures
Site Location Map



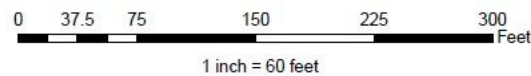
Legend
 COA IM Cells

Figure 1-1



August 2013

Sparrows Point Former Coke Oven Area Interim Measures
Cell 2 Site Plan & Cell Layout



- | Legend | |
|---|---|
|  | Cell 2 Existing Monitoring Wells |
|  | Proposed Monitoring Wells Shallow |
|  | Proposed Monitoring Wells Intermediate |
|  | Air Sparge Well |
|  | SVE Recovery Riser |
|  | Intermediate Zone Groundwater Recovery Well |
|  | Piping |
|  | AS/SVE Treatment Equipment |
|  | Groundwater Treatment Equipment |
|  | Re-Injection Trenches |
|  | Extraction Zone |

Figure 1-2

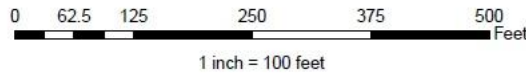


August 2013

Sparrows Point Former Coke Oven Area Interim Measures
Cell 4/5 Site Plan & Cell Layout

Legend

-  Cell 4 & 5 Existing Monitoring Wells
-  Proposed Monitoring Wells Shallow
-  Groundwater Extraction Wells
-  Piping
-  Groundwater Treatment Equipment
-  Re-Injection Trenches
-  Extraction Zone
-  Naphthalene Iso Concentration Shallow Zone



Cove Over Interim Measures Air and Water Treatment Equipment





Coke Oven Interim Measures Progress



- **Cell 1- Shallow groundwater treatment with Air Sparging and soil vapor extraction.**

Cell 1 has destroyed approximately 12,422 pounds of recovered hydrocarbons

- **Cell 2-Groundwater Extraction Intermediate Aquifer and Air Sparging and Soil Vapor Extraction Shallow Groundwater**

Pumping began September 2014.

- **Cell 3-Shallow Groundwater Treatment with Air Sparging and soil vapor extraction.**

Cell 3 has destroyed approximately 1,428.6 pounds of recovered hydrocarbons

- **Cell 4/5 Shallow Groundwater pumping replaces bio-remediation augmentation to recover naphthalene.**

Pumping began September 2014

- **Cell 6 Recovery of carrier oil (LNAPL) from coke oven area.**

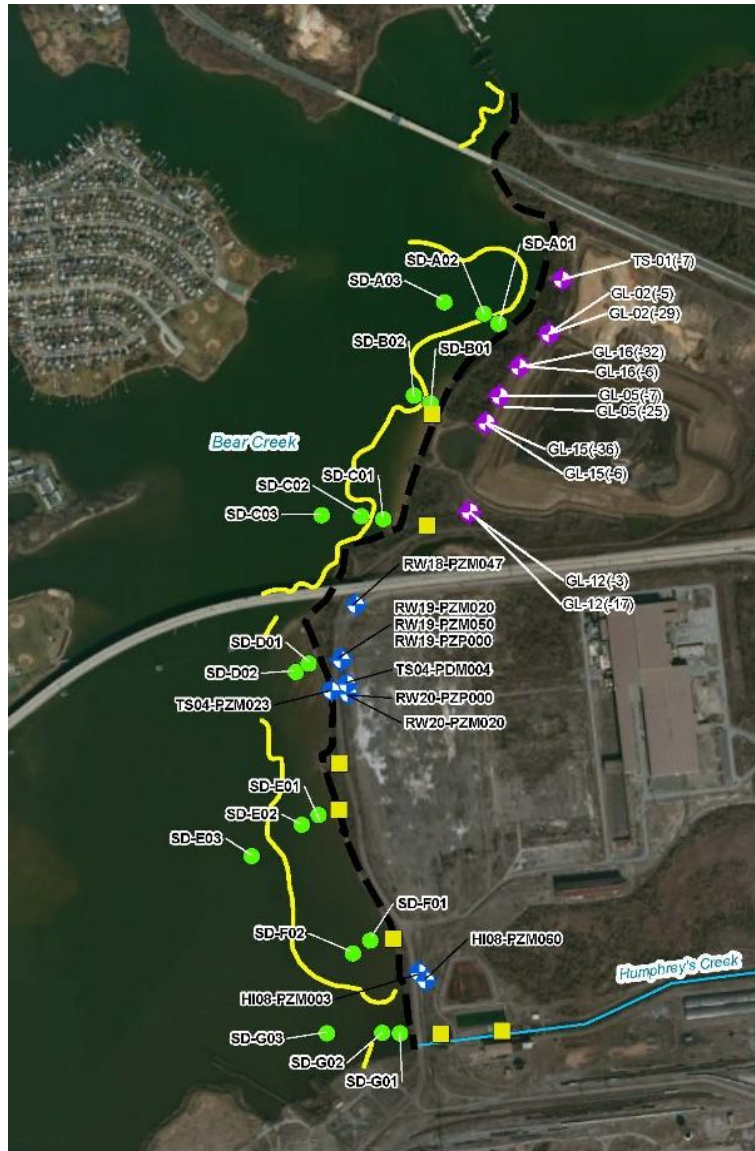
Cell 6 has recovered 82, 156 pounds of hydrocarbons or 11,213 gallons as of September 30, 2014.








Sparrows Point Offshore Investigation

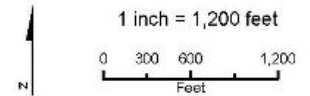
- Phase 1 Northwest Shoreline
- Phase 2 Southeast Shoreline





Legend

-  Phase 1 Northwest Shoreline
-  Perennial Creek/Stream
-  Boundary between Sand and Fine Grained Sediment
-  Proposed Sediment Sampling Location
-  Approximate Location of Stormwater Outfall
-  Greys Landfill Wells
-  Groundwater Well Sampled in June 2014

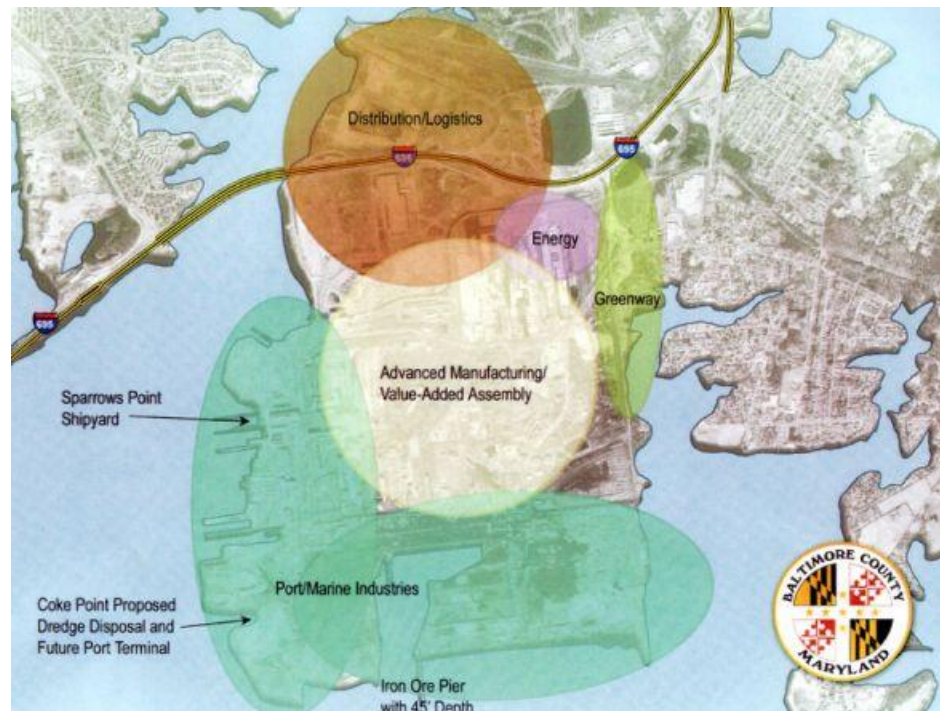


Sediment Sampling



Final Thought

The PPA and ACO provide the financial and legal framework to bind the new owner to complete the Site Investigation and to develop and implement a Master Cleanup plan to address the entire site and redevelop portions of the site as they are cleaned up.





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Visit the MDE Website!

<http://www.mde.maryland.gov>

THANK YOU !

Northpoint-Edgemere Volunteer Fire Department



Questions?

