



**UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III**

FINAL DECISION AND RESPONSE TO COMMENTS

**SAUCON TRACT
LEHIGH VALLEY INDUSTRIAL PARK
(A PORTION OF THE FORMER BETHLEHEM STEEL CORPORATION)**

BETHLEHEM, PA

PAD 99 082 4161

PURPOSE

The United States Environmental Protection Agency (EPA) is issuing this Final Decision and Response to Comments (FDRTC or Final Decision) selecting the Final Remedy for the Saucon Tract, an area consisting of twenty-eight (28) lots totaling 225 acres of the Former Bethlehem Steel Corporation – Bethlehem Structural Products located in Bethlehem, PA (hereinafter referred to as the Tract). The Final Decision is issued pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901, et seq. EPA issued a Statement of Basis (SB) in which it described the information gathered during environmental investigations at the Tract and proposed a Final Remedy for the Tract. The SB is hereby incorporated into this Final Decision by reference and made a part hereof as Attachment A.

This FDRTC selects the remedy that EPA evaluated under the SB. Consistent with the public participation provisions under RCRA, EPA solicited public comment on its proposed Final Remedy. On August 24, 2017, notice of the SB was published on the EPA website: [<https://www.epa.gov/pa/epa-public-notice-pennsylvania>] and in *The Express-Times* newspaper. The thirty (30) day comment period ended on September 25, 2017.

Since EPA did not receive any comments on the SB, the remedy proposed in the SB is the Final Remedy selected by EPA for the Tract.

FINAL REMEDY

EPA's Final Remedy for the Tract includes the following six (6) primary parts:


- EPA be provided copies of Final Reports for lots complying with the Generic Cleanup Plan;
- EPA review and approve Final Reports for Lots 11 and 14;
- EPA be provided a copy of the PADEP-signed Environmental Covenants recorded for Lots 11 and 14, after recordation;
- EPA be provided a coordinate survey, as well as a metes and bounds survey of the cap, engineering controls (current and future), Tract boundaries, developed lot boundaries and lot boundaries when developed, as specified in the SB;
- Construction on Lot 17 must keep the soil cap in place, or replace it with a one-foot soil cap, or other EPA-approved cap; and
- Compliance with existing PADEP-signed Environmental Covenants, which will ensure:
 - The lots shall not be used for residential purposes unless there is a prior demonstration to PADEP and EPA that such use will not pose a threat to human health or the environment;
 - Groundwater shall not be used for any potable purpose and no wells shall be installed, unless authorized by PADEP or EPA and used for monitoring or remediating;
 - If any asphalt, concrete, soil or other groundcover is excavated or removed, remaining soil or other materials in that area shall either 1) be demonstrated to meet Pennsylvania Medium-Specific Concentrations, or 2) be covered with material that eliminate pathways of exposure to the underlying soil; and
 - The lots will not be used in a way that will adversely affect or interfere with the integrity and protectiveness of the final remedy.

EPA's Final Remedy will be implemented through compliance with existing and future use-and-activity restrictions for the lots on the Tract. Except for Lots 11 and 14, these restrictions are already in place and include PADEP-signed Uniform Environmental Covenants, recorded with the Northampton County Recorder of Deeds. An existing City of Bethlehem ordinance restricts groundwater use.

DECLARATION

Based on the Administrative Record compiled for the corrective action at the Saucon Tract of the Former Bethlehem Steel Facility, I have determined that the remedy selected in this Final Decision and Response to Comments, which incorporates the August 24, 2017 Statement of Basis, is protective of human health and the environment.

Date: 10-2-2017



Martha Shimkin, Acting Director
Land and Chemicals Division
U.S. Environmental Protection Agency, Region III

Attachment A: Statement of Basis (August 24, 2017)

ATTACHMENT A

STATEMENT OF BASIS

**Saucon Tract
(A Portion of Former Bethlehem Steel Corporation)
Bethlehem, PA**

PAD 99 082 4161

August 24, 2017



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

SAUCON TRACT
LEHIGH VALLEY INDUSTRIAL PARK
BETHLEHEM, PENNSYLVANIA

EPA ID NO. PAD 990824161

Prepared by
Office of Pennsylvania Remediation
Land and Chemicals Division
August 2017

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List of Acronyms

AR	Administrative Record
BHHRA	Baseline Human Health Risk Assessment
CP	Cleanup Plan
EPA	Environmental Protection Agency
FDRTC	Final Decision Response to Comments
FR	Final Report
HSWA	Hazardous and Solid Waste Amendments
IM	Interim Measures
RCRA	Resource Conservation and Recovery Act
RFI	Remedial Field Investigation
RIR	Remedial Investigation Report
RSL	Regional Screening Level
SB	Statement of Basis

Section 1: 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 225-acre tract of land located within the 1800-acre former Bethlehem Steel facility (BCS Facility) in Bethlehem, PA known as the Saucon Tract (Tract). Bethlehem Steel owned and operated an integrated steel mill on this site for nearly 100 years. The Bethlehem Steel Corporation (BSC) closed operations here in 1995 and entered bankruptcy proceedings in 2001. The Saucon Tract is currently owned by Lehigh Valley Industrial Park, Inc. (LVIP) and several other entities, with the intent to redevelop the Tract for commercial and industrial use.

EPA's proposed remedy consists of compliance with and maintenance of institutional controls (ICs) along with operation and maintenance of engineering controls (ECs) that are already in-place and approved by Pennsylvania Department of Environmental Protection (PADEP). A key component of the proposed remedy is the Soil Management Plan, which governs excavation and grading activity during the redevelopment of any parcel within Saucon. The Soil Management Plan was previously approved by EPA and PADEP and has been successfully used during the redevelopment of other areas within the BSC Facility. This SB highlights key information relied upon by EPA in developing this proposed remedy.

The former Bethlehem Steel Corporation - Bethlehem Structural Products property is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. The Commonwealth of Pennsylvania (Commonwealth) is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program. The Administrative Record (AR) for the Tract contains all documents, including data and quality assurance information, on which EPA's proposed remedy is based. An index to the AR is included at the end of this SB. See Section 9, Public Participation, for information on how you may review the AR.

Section 2: Facility Background

A. Site Description and History

From approximately 1899 to 1995, BSC and its corporate predecessors manufactured steel at the BSC Facility. In 1995, BSC discontinued steel manufacturing operations at the BSC Facility and in 2001, filed for bankruptcy under Chapter 7 of the United States Bankruptcy Code.

In May 2003, with approval of the U.S. Bankruptcy Court for the Southern District of New York, International Steel Group Acquisition, Inc. (ISG) acquired substantially all of BSC's assets. Title to the BSC Facility was taken by Tecumseh Redevelopment, LLC (Tecumseh), a subsidiary of ISG. In May 2004, Tecumseh sold approximately 1000 acres of the BSC Facility to LVIP. LVIP named that 1000-acre area LVIP VII. The Saucon Tract is a 225-acre parcel within LVIP VII. LVIP intends to redevelop the Saucon Tract, and toward that end has sold a number of lots to new owners.

EPA selected a final remedy for groundwater under the BSC Facility in a Final Decision issued on January 8, 2010. LVIP is performing the final remedy for groundwater and the post-remedial care requirements for the groundwater across the BSC Facility.

Section 3: Summary of Environmental Investigations

A. RCRA Facility Investigations

Multiple soil investigations were conducted to ascertain the extent and magnitude of soil contamination within the Tract and to evaluate potential routes of exposure associated with the expected future use. These investigations are discussed extensively in the Remedial Investigation Report Saucon Parcel, dated May 2005 (RIR) and Final Report for Soils on the Undeveloped Portions of the Saucon Tract Owned by LVIP, dated January 2012.

The non-residential state-wide health (SWH) standards established by Pennsylvania's Land Recycling Act 2 (Act 2) were used to evaluate the soil sample results. The SWH standards provide an equivalent protection to EPA's Regional Screening Levels (RSLs).

The RIR showed of the 416 soil samples collected and submitted for laboratory analysis, only 27 exceeded the non-residential SWH standards. One volatile organic compound (chloromethane) was reported in one sample, and one semi-volatile organic compound (benzo(a)pyrene) was reported in two samples at concentrations above applicable standards. The remaining exceedances were limited to eight heavy metals (antimony, arsenic, cadmium, chromium, iron, lead, mercury, and selenium). The exceedances were sporadic in their occurrence and not spatially related, i.e., they occurred at varying depths at locations that were not in close proximity to one another. Consequently, the exceedances cannot be attributed to a single source but would be expected to occur infrequently at varying depths on a random basis. Complete soil results are available in the AR.

B. Site Redevelopment

Currently the Saucon Tract is being redeveloped and has been divided into 28 smaller lots as shown in Figure 1. Evaluation and cleanup of these lots is discussed below.

A number of lots in the Tract have been redeveloped with cleanup plans established and remediation completed based on their specific environmental conditions. Some or all of the

heavy metal constituents identified in the RIR, and discussed on Section 3A above, were found on each of the lots. These lots (See Figure 1 - Lots 1, 3, 6, 7, 10, 15, 16, 18, 29, 29A, and Pumphouse) have individual Final Reports which identify any remaining contamination as well as the build-out strategies and the need for surface cover to eliminate exposure pathways to these remaining contaminants. Typically, these build-out strategies use surface cover such as building footprints, parking lots, roads, sidewalks, and landscaping to eliminate exposure pathways to soils. The Final Reports can be found in the AR. Environmental Covenants have been recorded for each of these redeveloped properties which has residual contamination. These Covenants identify any engineering and institutional controls necessary to prevent human or environmental exposure. All lots except Lot 18 have residual contamination requiring engineering and/or institutional controls.

Lot 11 and Lot 14 currently have cleanup plans for eventual redevelopment, but no build-out plans. Final Reports will be submitted to EPA for approval in the future as these plans are created and implemented to eliminate exposure to remaining soil contaminants. Environmental Covenants identifying any engineering and institutional controls necessary to prevent exposure will be submitted to EPA upon recordation.

For the remaining lots of the Saucon Tract (See Figure 1 - Lots 2, 8, 9, 12, 13, 17, 21, 22, 23, 24, 26, 27, 28, P07-13-1, P07-13-1A) the Baseline Human Health Risk Assessment, dated May 2005 (BHHRA) which was approved by EPA and PADEP, demonstrates that under existing exposure conditions, the surface soils currently pose no risk to human health and the environment and can remain in their current state until redevelopment is completed.

Generic Cleanup Plan

To address the future of the lots assessed under the BHHRA, the Final Report for Soils on the Undeveloped Portions of the Saucon Tract Owned by LVIP (January 2012), approved by PADEP and EPA, stated that the implementation of a Generic Cleanup Plan will eliminate any routes of exposure to residual contamination that will be identified during any new development. The Generic Cleanup Plan provides guidance to future developers that purchase and develop individual lots within the Tract so that future development is consistent with previously approved cleanup plans and will comply with Act 2. Additionally, this Generic Cleanup Plan describes the engineering and institutional controls required to eliminate any routes of exposure to residual contamination during future redevelopment activities.

In addition, an Environmental Covenant signed by PADEP, and LVIP, pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 PA. C.S. §§ 6501-6517 (UECA), covering all of the lots addressed under the BHHRA was recorded in January 2012 (2012 Covenant). This Covenant identifies activity and use limitations for the lots and requires the implementation of the Generic Cleanup Plan for any redevelopment activities.

Section 4: Interim Measures

Lot 17 has a soil cap (1000 sq. feet) to prevent contact with lead found in the soil at two sampling points (13,000mg/kg and 92,000 mg/kg) above the acceptable limit (500 mg/kg) for contact and includes site use restrictions. Any construction must keep the cap in place or replace it with one-foot soil cap.

Section 5: Corrective Action Objectives

EPA's Corrective Action Objectives for the specific environmental media at the Facility are the following:

1. Soils

EPA's Corrective Action Objective for soil is to prevent human exposure to antimony, arsenic, cadmium, chromium, iron, mercury, selenium, and lead contaminants exceeding PA non-residential Statewide Health Standards.

2. Groundwater

A Final Decision for Groundwater for the entire Facility was issued on January 8, 2010 by EPA.

Section 6: Proposed Remedy

A. Proposed Remedy

EPA has determined that the existing ground cover, structures and parking areas located on the Tract lots are protective of human health and the environment provided that compliance with their individual Covenants and the 2012 Covenant is maintained.

For Tract soils, EPA agrees that the activity and use limitations which are contained in the individual Covenants and 2012 Covenant for the lots comprising the Saucon Tract will maintain protectiveness of the engineering and institutional controls in place at those lots. These covenants restrict land use on the Saucon Tract to non-residential purposes and prohibit potable use of groundwater from beneath the Tract. The Lot numbers and date of covenants recordings are included in Table 1.

The January 2012 Covenant also requires compliance with the Generic Cleanup Plan for the Saucon Tract for the undeveloped lots. This Generic Cleanup Plan, which was developed by LVIP and approved by PADEP and EPA governs procedures and monitoring required during digging, excavating, grading, pile driving or other earth moving activities conducted within the

property- all activities essential to redevelopment. The Plan governs the excavation or removal of asphalt, concrete, soil or other ground cover and foundations and the digging of foundations for buildings and trenches for utilities. Generally, the plan states that all such activities "... shall be conducted in compliance with all applicable federal, state and local rules, regulations and ordinances including, without limitation, those pertaining to the environment and those pertaining to human health and occupational safety."

The Generic Cleanup Plan has been used successfully during redevelopment of other parcels within the larger LVIP VII. A copy of the Plan is can be found in the AR.

For the lots in the Tract that have not been developed yet, EPA's proposed remedy is compliance with the Generic Cleanup Plan and the implementation and maintenance of institutional controls. As part of the remedy, EPA proposes that a) EPA receive copies of Final Reports for lots complying with the Generic Cleanup Plan; b) EPA review and approve Act 2 Final Reports for Lots 11 and 14 and c) EPA receive a copy of the Environmental Covenants recorded for these lots after recordation.

B. Implementation

The proposed components of the Final Remedy for the Facility will be implemented through the Environmental Covenants for the Saucon Tract.

Under the proposed remedy, LVIP or other owners will be required to provide a coordinate survey, as well as a metes and bounds survey, of the cap, engineering controls (current and future), Facility boundaries, developed parcels boundaries and parcel boundaries when developed as follows:

The boundary of each use restriction shall be defined as a polygon; and

The longitude and latitude of each polygon vertex shall be established as follows:

- a. Decimal degrees format;
- b. At least seven (7) decimal places;
- c. Negative sign for west longitude; and
- d. World Geodetic System (WGS) 1984 datum.

Mapping the extent of the land use restrictions will allow for presentation in a publically accessible mapping program such as Google Earth or Google Maps.

If LVIP or any subsequent owner fails to meet its obligations under the enforceable mechanism selected or if EPA, in its sole discretion deems that additional corrective measures and/or land use restrictions are necessary to protect human health or the environment, EPA has the authority after public comment, to require and enforce such additional corrective measures and use restrictions, provided any necessary public participation requirements are met.

Section 7: Evaluation of Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the Proposed Remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria

- **Protect Human Health and the Environment** - The proposed remedy will prevent or and control exposure to contamination in the soil through the implementation and maintenance of land use restrictions and the implementation of the Generic Cleanup Plan. EPA is proposing to restrict land use to commercial or industrial purposes at the Facility.

Achieve Media Cleanup Objectives - The proposed remedy will achieve a non-residential standard (both PADEP and EPA) for the constituents of concern.

- **Remediating the Source of Releases** - There is no continuing source of releases.

Balancing Criteria

- **Long-term effectiveness** - The proposed remedy will maintain protection of human health and the environment over time by controlling the direct exposure to hazardous constituents remaining in the soils through requiring compliance with the land use restrictions and compliance with the Generic Cleanup Plan for the Property.
- **Short-term effectiveness** - The human health exposure pathway has been effectively removed with the installation of engineering controls. Lot 17 has a soil cap (1000 sq. feet) to prevent contact with lead found in the soil above acceptable limits for contact and includes site use restrictions. Any construction must keep the cap in place or replace it with one-foot soil cap.
- **Reduction of toxicity, mobility, or volume of the Hazardous Constituents** - The reduction of mobility and volume of hazardous constituents has already been achieved through the installation of engineering controls. The proposed remedy ensures the long-term reliability of the engineering controls to reduce the mobility of the hazardous constituents.
- **Implementability** - The proposed remedy is readily implementable. The remediation cap is in place. With respect to the implementation of the proposed use restrictions, the Environmental Covenants and/or cleanup plans are already in place.

- **Cost** - LVIP has already expended the capital costs involved in performing the investigations completed to date. LVIP will either perform tasks required of the Generic Cleanup Plan or will have any buyer perform those tasks as part of redevelopment of a particular lot.
- **Community Acceptance** – The redevelopment of the BSC Facility is a long-term effort that has been active for many years. The local officials and the community have been extremely supportive of these efforts. EPA will evaluate community acceptance of the proposed remedy during the public comment period and will be described in the FDRTC.
- **State/Support Agency Acceptance** – The Saucon Tract cleanup was conducted under the EPA and PADEP One Cleanup Program. PADEP has already implemented this proposed remedy under its Act 2 program.

Section 8: Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed remedy at the Tract. EPA's proposed remedy does not require any further engineering actions to remediate soil contamination at this time and given that the costs of implementing institutional controls at the Tract will be minimal, EPA is proposing that no financial assurance be required.

Section 9: Public Participation

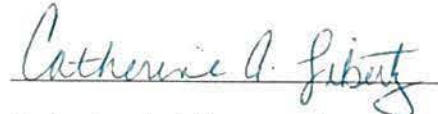
Before EPA makes a final decision on its proposed remedy for the Tract, the public may participate in the remedy selection process by reviewing this SB and documents contained in the AR for the Tract. The AR contains all information considered by EPA in reaching this proposed remedy. It is available for public review during normal business hours at:

U.S. EPA Region III
 1650 Arch Street
 Philadelphia, PA 19103
 Contact: Leonard Hotham
 Phone: (215) 814-5778
 Fax: (215) 814-3113
 Email: hotham.leonard@epa.gov

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 Mr. Leonard Hotham. EPA will hold a public meeting to discuss this proposed remedy upon request. Requests for a public meeting should be made to Mr. Leonard Hotham.

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 a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed remedy will receive a copy of the FDRTC. Others may obtain a copy by contacting Mr. Leonard Hotham at the address listed above.

Date: 8-24-17



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

Attachments:

Figure 1: Location of Facility

Table 1: Environmental Covenants at Saucon Lots

Section 10: Index to Administrative Record

Remedial Investigation Report Saucon Parcel, LMS Engineers, May 2005

Final Report for Soils for the Brandenburg Industrial Services Property, HDR/LMS, July 2006

Final Report for Soils for Lot 29, HDR, Engineering, June 2007

Final Report for Soils for Lots 6 and 7, HDR Engineering, July 2009

Final Report Lot 10, HDR Engineering, July 2014

Final Report for Soils on the Undeveloped Portions of the Saucon Tract Owned by LVIP, HDR Engineering, January 2012. Final Report Lot 10, HDR Engineering, July 2014

Final Report Lot 15 and Lot 16, HDR Engineering, September 2014

Remedial Investigation/Final Report Former Saucon Pumphouse Property, HDR Engineering, September 2014

Final Report US Cold Storage, HDR Engineering, June 2015

Final Report Lot 3, HDR Engineering, October 2015

Generic Cleanup Plan

Soil Management Plan

Figure 1

Site Map

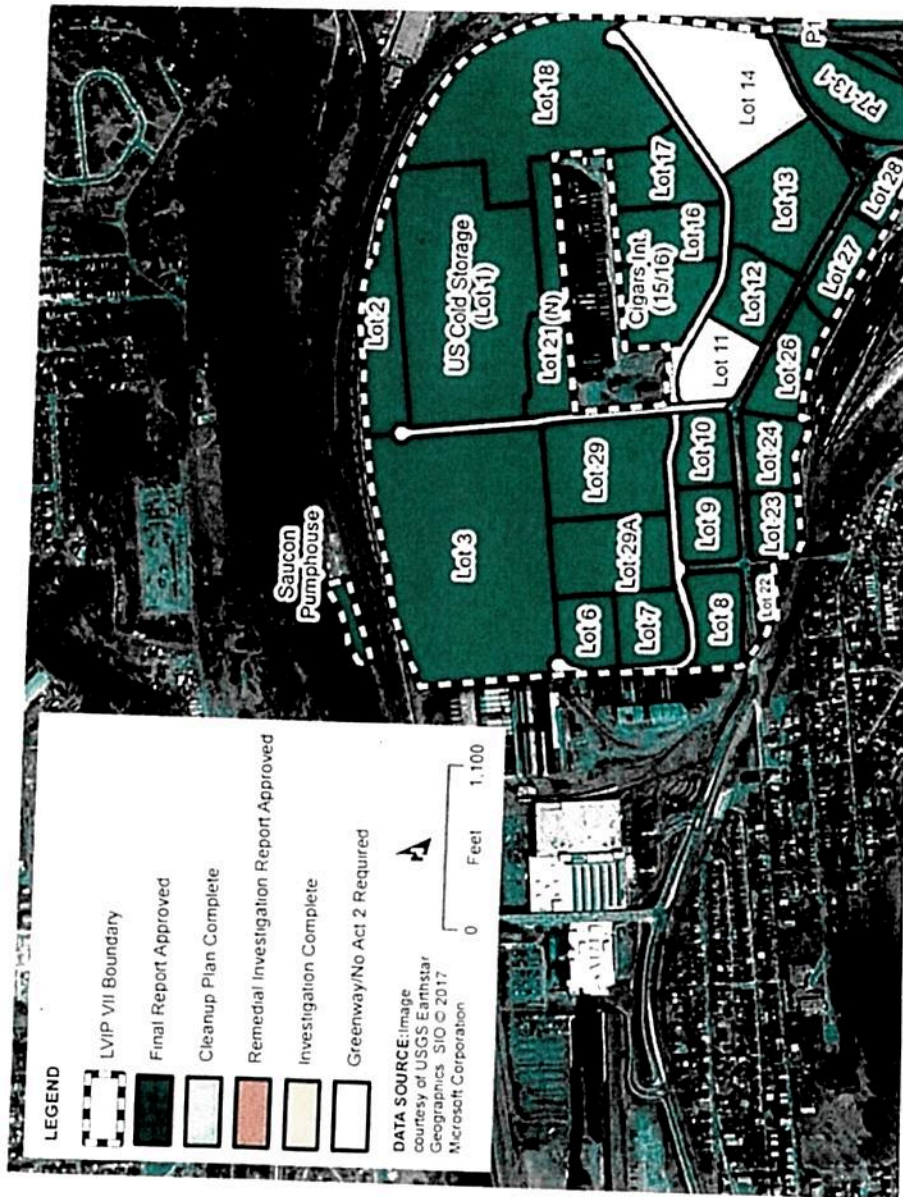


Table 1

Environmental Covenants at Saucon Lots

Table 1**Environmental Covenants at Saucon Lots**

Parcel No.	Environmental Covenant Recorded	Covered under Generic Cleanup Plan	Interim Measures
1	02/05/2016		
2	01/23/2012*	Yes	
3	04/01/2016		
6	05/26/2009		
7	05/26/2009		
8	01/23/2012*	Yes	
9	01/23/2012*	Yes	
10	11/13/2014		
11			
12	01/23/2012*	Yes	
13	01/23/2012*	Yes	
14			
15	01/14/2015		
16	01/14/2015		
17	01/23/2012*	Yes	Yes
18	N/A		
21	01/23/2012*	Yes	
22	01/23/2012*	Yes	
23	01/23/2012*	Yes	
24	01/23/2012*	Yes	
26	01/23/2012*	Yes	
27	01/23/2012*	Yes	
28	01/23/2012*	Yes	
29	05/26/2009		
29A	05/26/2009		
Pumphouse	07/13/2015		
P07-13-1	01/23/2012*	Yes	
P07-13-1A	01/23/2012*	Yes	

* - Covered under Covenant for Undeveloped Portions of Saucon –recorded 01/23/2012

N/A – parcel met unrestricted use standards. No covenant is required.

