

Phase I Environmental Site Assessment

Upper Harbor Terminal

Minneapolis, Minnestoa

MNPLS 160410 | March 1, 2022



Building a Better World for All of Us® Engineers | Architects | Planners | Scientists



March 1, 2022

RE: Upper Harbor Terminal Phase I Environmental Site Assessment Minneapolis, Minnestoa SEH No. MNPLS 160410

Ms. Hilary Holmes City of Minneapolis Department of Community Planning and Economic Development 505 Fourth Avenue South, Room 320 Minneapolis, MN 55415

Dear Ms. Holmes:

Please find enclosed the Phase I Environmental Site Assessment (ESA) for the Upper Harbor Terminal property located along the west bank of the Mississippi River in Minneapolis, Minnestoa. Thank you for choosing SEH to complete this assessment. Please feel free to contact me at 612.839.2430 if you have any questions.

Sincerely,

Jennifer Force, PG Senior Scientist II (Lic. MN)

rrh

x:\ko\m\mnpls\160410\3-env-stdy-regs\30-env-doc\14-phase1\phase i esa.docx

Certification

Phase I Environmental Site Assessment Upper Harbor Terminal Minneapolis, Minnestoa

SEH No. MNPLS 160410

March 2022

Jennifer Force, PG Senior Scientist II

-1 Lob

Robert Hawkins Graduate Scientist

Short Elliott Hendrickson Inc. 3535 Vadnais Center Drive St. Paul, MN 55110-3507 651.490.2000



Distribution

No. of Copies	Sent to
1	Hilary Holmes City of Minneapolis 505 Fourth Avenue South, Room 320 Minneapolis, MN 55415
1	Julie Aldrich Minneapolis Park and Recreation Board 2117 West River Road Minneapolis, MN 55411



Executive Summary

Phase I Environmental Site Assessment

Short Elliott Hendrickson Inc. (SEH[®]) was retained by City of Minneapolis to conduct a Phase I Environmental Site Assessment (ESA) for the Upper Harbor Terminal site in Minneapolis, Minnestoa (herein referred to as "site" or "subject property"). The subject property is depicted on **Figure 1**.

This Phase I ESA was completed in general accordance with American Society of Testing and Materials (ASTM) Standard Practice E 1527-13. The purpose of this Phase I ESA was to identify, to the extent feasible pursuant to the processes described in E 1527-13 and in a manner consistent with good commercial or customary practice, Recognized Environmental Conditions (RECs), Controlled RECs (CRECs) and Historical RECs (HRECs) in connection with the subject property.

The Upper Harbor Terminal is a 52-acre industrial property located approximately 2 miles from downtown Minneapolis along the west bank of the Mississippi River, between Lowry Avenue and the Camden Bridge in North Minneapolis. Portions of the site have historically been occupied by residential developments and used for lumber storage and processing. Most recently, the site was developed for intermodal transfer of a variety of bulk commodities including grain, aggregate, coal, fertilizer, and petroleum products, and comprises a number of buildings and structures for storing and handling these materials, including concrete domes, loading and conveyance structures, a large concrete warehouse building, outdoor storage areas, a riverwall, barge mooring cells, and an open area for storage of dredging materials.

Planning for redevelopment of the site has been on-going. The proposed plans include a riverfront park, a performing arts center, a health and wellness hub, housing, and light industrial/manufacturing space. Proposed plans for redevelopment of the site includes new parcel boundaries.

Portions of the site have been developed since at least the early 1890s. Site use generally consisted of either residential or lumber processing through the mid-1930s. By the late 1930s, aerial photographs depicted a majority of the site to be occupied by agricultural land. Minor development occurred throughout the late 1950s, and by the mid-1960s, mass grading activities were visible throughout the site. According to demolition permits, the structures in the western portion of the site (Parcels 7A and 7B) began to be removed in 1962 as I-94 was constructed. Demolition continued until 1980. Development of the existing site structures began in the mid-1970s and continued through the mid-1990s. Large stockpiles of various unknown materials (likely consisting of construction materials, aggregate, or coal), grading activities, and outdoor storage of various equipment were observed throughout the site in aerial photographs through the present day.

Currently, the site is owned by the City of Minneapolis, and portions of the site are leased to various tenants. Portions of Parcels 2, 3, and 4 along the Mississippi River and adjacent to the warehouse structure are occupied by Ames Construction through a temporary easement from the City of Minneapolis to the Minnesota Department of Transportation (MnDOT) and are used as a staging yard and access point for reconstruction of the 3rd Avenue Bridge in downtown Minneapolis. Portions of Parcel 2, southeast of the intersection of Dowling Avenue North and 1st Street North and southeast of the warehouse structure are occupied by Atomic Recycling, LLC, and are used as a staging area for empty roll-off dumpsters. Parcel 6B and the southern half of Parcel 6A are occupied by Thomas and Sons Construction, Inc., and is used as a staging yard for heavy equipment and construction materials. Parcel 7A and the northern portion of Parcel 7B are used by the City of Minneapolis for stockpiling plowed snow.

Executive Summary (continued)

The site reconnaissance for the Phase I ESA was completed on December 14 and 15, 2021. Stockpiles/berms of fill from an unknown source were generally observed on Parcels 1A, 1B, 2, 4, and 5. The presence of stockpiles/berms of fill from an unknown source is considered a **REC** for the subject property.

Multiple piles of refuse and empty containers of spray paint were observed throughout Parcels 1A, 1B, 2, and 3. The presence of debris/refuse throughout the site is considered an environmental note for the subject property and the debris/refuse should be properly disposed of as part of redevelopment.

A dismantled pad mounted transformer with stained pavement surrounding the transformer, an unregistered AST with an apparent petroleum odor, and a hydraulic gear box with petroleum staining on adjacent pavements were observed on Parcel 2 during the site reconnaissance. The AST and other indications of releases observed on Parcel 2 are considered **RECs** for the subject property.

A walkthrough of the warehouse structure on Parcel 3 was completed during the site reconnaissance and various piles of debris including petroleum products, power tools, gas cylinders, paints, aerosols, white goods/electronics, 55-gallon drums of adhesives/other unknown substances, and general refuse were observed throughout the structure. Free product was observed within the floor drain in the below grade fire sprinkler room and multiple areas of petroleum-stained concrete were observed throughout the main warehouse area. The concrete was generally in good condition. The presence of debris and oil staining in the warehouse is considered an environmental note and should be properly disposed prior to building demolition.

A number of various investigations associated with former site use, property transfers/lease agreements, and a temporary easement for MnDOT have been completed on-site. These investigations and the impacts identified on each proposed parcel are described in Site Specific Datasheets attached as **Appendix A**. Additionally, a closed Leak is listed for the site under MPCA Leak Site ID# LS0012239. The MPCA was unable to provide the digital file for this listing by the completion of this report. Information regarding the listing through the WIMN online database was limited and the exact location of the Leak is unknown, however, it is assumed to be associated with Parcels 6A and 6B. Information gathered via the WIMN online database indicate various technical documents were reviewed through August of 2001, a site visit was completed in November of 2001, and the site was closed on December 15, 2001. Given the limited knowledge available for the listing and the closed status, the listing is considered a **CREC** for the site.

Site use in the area of the subject property generally consists of light industrial/commercial properties. Off-site listings of environmental significance to the subject property include Precision Associates, Inc. (SEH Listing ID# [4]), Minneapolis Oxygen Company (SEH Listing ID# [5]), and Libra, Inc. (SEH listing ID# [9]).

SEH Listing ID# **[4]** includes MPCA VIC ID# 27900 and MPCA Leak ID# LS0018423. SEH Listing ID# **[5]** includes MPCA Superfund ID# SR0001517 and MPCA Brownfields ID# BF0000965. These sites are located adjacent to and west of Parcels 1A and 1B. Investigations completed between 2010 and 2018, identified low level concentrations of DRO and GRO in soil and concentrations of cis-1,2-dichloroethene and tetrachloroethene (PCE) in groundwater. Soil gas impacts included ethylbenzene and m&p-xylene exceeding their respective Industrial Intrusion Screening Values (ISVs), and PCE and trichloroethene (TCE) exceeding their respective MPCA 33X Commercial/Industrial EISVs. The

Executive Summary (continued)

potential for migration of chlorinated solvents and petroleum impacts to soil gas and groundwater identified on adjacent upgradient sites are considered **RECs** for the subject property.

SEH listing ID# **[9]** includes MPCA VIC ID# VP15870 and is located adjacent to and west of Parcel 5. An investigation completed in April of 2002, identified lead, chromium, 2-methylnaphthalene, naphthalene, chloroform, and TCE exceeding regulatory criteria in groundwater. The MPCA issued a NAD for the property owner; however, no remedial activity was documented for the site. The potential for migration of metals and chlorinated solvents impacted groundwater identified on the adjacent upgradient site is considered a **REC** for the subject property.

This Phase I ESA has identified the following, RECs or CRECs in connection with the subject property:

Parcel ID	Current Site Use	RECs or CRECs Identified in Connection with the Site			
1A	Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Potential for migration of chlorinated solvents and petroleum impacted soil gas and groundwater identified on adjacent upgradient sites.			
1B	Vacant	 REC; Stockpiles/Berms of fill from an unknown source. REC; Potential for migration of chlorinated solvents and petroleum impacted soil gas and groundwater identified on adjacent upgradient sites. REC; Debris, arsenic and petroleum impacted soil identified during former on-site investigations. 			
2	Contractor's Staging Yard / Roll-off Dumpster Storage / Vacant	 REC; Debris, PAH, and petroleum impacted soil identified during former on-site investigations. REC; Stockpiles/Berms of fill from an unknown source. REC; Apparent release associated with a dismantled pad mounted transformer on-site. REC; Apparent release associated with staining adjacent to ton-site hydraulic gear box. REC; Potential release associated with petroleum odor adjacent to on-site AST. REC; Former 3,000,000 gallon ASTs in far southern portion of site. 			
3	Contractor's Staging Yard / Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Debris impacted soil identified during former on-site investigations.			
4	Contractor's Staging Yard / Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Debris and petroleum impacted soil identified during former on- site investigations.			
5	Vacant	 REC; Stockpiles/Berms of fill from an unknown source. REC; Debris, PAHs, and petroleum impacted soil identified during former on-site investigations. REC; Potential for migration of metals and chlorinated solvents impacted groundwater identified on adjacent upgradient site. REC; Former 3,000,000 gallon ASTs. 			

Executive Summary (continued)

Parcel ID	Current Site Use	RECs or CRECs Identified in Connection with the Site		
6A	Contractor's Staging Yard / Vacant	REC ; Debris, PAHs, and petroleum impacted soil identified during former on-site investigations. CREC ; Closed MPCA Leak ID# LS00012239, potentially located onsite.		
6B	Contractor's Staging Yard	REC ; Debris and petroleum impacted soil identified during former on- site investigations. CREC ; Closed MPCA Leak ID# LS00012239, potentially located on- site.		
7A	Vacant	REC ; Petroleum impacted soil identified during former on-site investigations.		
7B	Maintained Greenspace	REC ; Debris impacted soil identified during former on-site investigations.		

Contents

Letter of Transmittal
Certification
Distribution
Executive Summary
Contents

1	Intr	oduction	.1
2	Pro	ject Description	. 1
	2.1	Purpose	1
	2.2	Scope of Services	2
	2.3	Significant Assumptions	3
	2.4	Limitations and Exceptions	3
	2.5	Special Terms and Conditions	3
	2.6	User Reliance	4
3	Sub	bject Property Description	. 4
	3.1	Location and Legal Description	4
	3.2	Subject Property and Vicinity General Characteristics	
	3.3	Current Use of the Subject Property	5
	3.4	Descriptions of Structures, Roads, and Other Improvements on the Subject Property	5
	3.5	Current Use of Adjoining Properties	
		3.5.1 Parcels 1A and 1B	
		3.5.2 Parcel 2	6
		3.5.3 Parcel 3	6
		3.5.4 Parcel 4	6
		3.5.5 Parcel 5	6
		3.5.6 Parcels 6A and 6B	6
		3.5.7 Parcels 7A and 7B	6
4	Use	er Provided Information	. 7
	4.1	Title Records, Environmental Liens or Activity and Use Limitations	7
	4.2	Specialized Knowledge	7
	4.3	Commonly Known or Reasonably Ascertainable Information	7
	4.4	Valuation Reduction for Environmental Issues	8
	4.5	Owner, Property Manager, and Occupant Information	8
	4.6	Reason for Performing the Phase I ESA	8

SEH is a registered trademark of Short Elliott Hendrickson Inc.

Contents (continued)

5	Rec	ords Review8			
	5.1	Standard Environmental Record Review8			
		5.1.1 MPCA WIMN Identified Sites			
		5.1.2 Environmental Database Report11			
		5.1.3 MPCA Spill Listings12			
		5.1.4 Additional Record Sources12			
		5.1.5 Standard Environmental Record Review Summary13			
	5.2	Prior Assessments14			
	5.3	Physical Setting14			
		5.3.1 Topography14			
		5.3.2 Geology and Soils15			
		5.3.3 Hydrogeology15			
		5.3.4 Water Wells and Wellhead Protection Areas15			
	5.4	Historical Use of the Subject Property and Adjacent Properties15			
		5.4.1 Sources			
		5.4.2 Historical Land Use Summary17			
6	Sub	ject Property Reconnaissance			
	6.1	Methodology and Limiting Conditions19			
7	Inter	rviews			
	7.1	Interview with current Site Manager20			
	7.2	Interview with City of Minneapolis Public Works			
8	Idor	itification of Vapor Encroachment Considerations20			
0					
	8.1	Methodology			
	8.2	Assumptions			
	8.3	Results of Vapor Encroachment Condition Evaluation			
9	Find	lings and Opinions21			
	9.1	General Overview			
	9.2	Area Wide Concerns23			
	9.3	Data Gaps and Data Failures24			
10	Con	clusions and Recommendations			
1 1					
	Deviations				
12	Limi	tations and Standard of Care			

Contents (continued)

13	References	 27

14 Signature(s) of Environmental Professional(s)......29

List of Figures

Figure 1 – Subject Property Location

Figure 2 – Subject Property Features

List of Appendices

Appendix A	Site Specific Datasheets
Appendix B	User Questionnaire
Appendix C	Environmental Database Report
Appendix D	Aerial Photographs
Appendix E	Topographic Maps
Appendix F	Fire Insurance and Historical Maps
Appendix G	City Directories
Appendix H	Qualifications of the Environmental Personnel

Phase I Environmental Site Assessment

Upper Harbor Terminal

Prepared for City of Minneapolis

1 Introduction

Short Elliott Hendrickson Inc. (SEH) was retained by the City of Minneapolis to conduct a Phase I Environmental Site Assessment (ESA) of the Upper Harbor Terminal site in Minneapolis, Minnestoa (herein referred to as "site" or "subject property"). The subject property is depicted on **Figure 1**.

2 Project Description

The Upper Harbor Terminal is an approximate 52-acre industrial property located approximately 2 miles from downtown Minneapolis along the west bank of the Mississippi River, between Lowry Avenue and the Camden Bridge in North Minneapolis. Portions of the site have historically been occupied by residential developments and used for lumber storage and processing. Most recently the site was developed for intermodal transfer of a variety of bulk commodities including grain, aggregate, coal, fertilizer, and petroleum products, and comprises a number of buildings and structures for storing and handling these materials, including concrete domes, loading and conveyance structures, a large concrete warehouse building, outdoor storage areas, a riverwall, barge mooring cells, and an open area for storage of dredging materials (SEH, 2015).

Planning for redevelopment of the site has been on-going. Currently, the plans include a riverfront park, a performing arts center, a health and wellness hub, housing, and light industrial/manufacturing space.

2.1 Purpose

An SEH environmental professional completed the Phase I ESA in general accordance with ASTM Standard Practice E 1527-13. The purpose of the Phase I ESA is to identify, to the extent feasible pursuant to the processes described in E 1527-13 and in a manner consistent with good commercial or customary practice, Recognized Environmental Conditions (RECs), Controlled RECs (CRECs) and Historical RECs (HRECs) in connection with the subject property.

By ASTM definition, **REC** means "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions."

The term **HREC** is defined by ASTM to mean "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria

established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

The term **CREC** is defined by ASTM to mean "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

2.2 Scope of Services

The Phase I ESA consists of the following four general tasks:

- Records Review The purpose of the records review is to obtain and review reasonably
 ascertainable records from standard sources (including government records, physical setting
 sources, and historical use records) to assist in identifying RECs, HRECs and/or CRECs (all
 referred to as RECs in this section) in connection with the subject property. Publicly-available
 federal, tribal, state, county and/or city records are reviewed as appropriate to determine if
 the property has had a history of spills, leaks, hazardous waste storage, regulatory
 compliance and improper waste disposal practices. Reasonably ascertainable standard
 historical sources are reviewed as necessary to identify prior uses of the property from the
 time the property was first developed or 1940, whichever is earlier. Significant data gaps of
 greater than 5 years in property historical information are identified and discussed.
- Site Reconnaissance The objective of the site reconnaissance is to observe the subject
 property to obtain information indicating the likelihood of RECs in connection with the subject
 property. As part of the site reconnaissance, SEH observes the property and structures, if
 any, located on the property for indications of RECs to the extent not obstructed by thick
 vegetation, bodies of water, stored materials or product, equipment, or other obstacles.
 Potential environmental concerns on the subject property and observable environmental
 concerns on adjoining properties that relate to improper waste storage and disposal, and
 hazardous materials are noted.
- Interviews The purpose of conducting interviews is to obtain information indicating RECs in connection with the subject property. As appropriate, past and present owners, operators, employees and occupants of the facility, and government officials are interviewed regarding the property. If the subject property is abandoned, one or more owners or occupants of neighboring properties are interviewed.
- Technical Report SEH prepares the technical report summarizing the compiled information, and offers findings, opinions and conclusions based on the available data. If significant data gaps are identified, they are discussed in the report. RECs, if any, identified during performance of the Phase I ESA are described in the report. The report also includes SEH's opinion of the potential impact of each REC, if RECs are identified.

For the tasks listed above, records reviewed will be limited to information that is publicly available, obtainable from its source within reasonable time and cost constraints, is practically reviewable, and determined by the environmental professional to be useful in evaluating the condition of the property.

The Phase I ESA was conducted in accordance with an Agreement between SEH and the City of Minneapolis dated October 26, 2021. The Phase I ESA does not include testing or sampling of materials (for example, soil, water, air or building materials) or any of the other following non-scope considerations specified in Section 13.1.5 of ASTM E 1527-13:

- 1. Asbestos-containing materials;
- 2. Biological agents;
- 3. Cultural and historic resources;
- 4. Ecological resources;
- 5. Endangered species;
- 6. Health and safety;
- 7. Indoor air quality related to *releases* of *hazardous substances* or *petroleum products* into the *environment;*
- 8. Industrial hygiene;
- 9. Lead-based paint;
- 10. Lead in drinking water;
- 11. High voltage power lines.
- 12. Mold;
- 13. Radon;
- 14. Regulatory compliance; and
- 15. Wetlands.

2.3 Significant Assumptions

The following significant assumption has been incorporated into this report:

• The local groundwater flow at the subject property and in the vicinity of the subject property is expected to be to the east, towards the Mississippi River (MGS, 2021).

2.4 Limitations and Exceptions

None of the buildings adjacent to the subject property were inspected by SEH, as it is not within the scope of a Phase I ESA. Contaminant sources and/or environmentally hazardous materials/substances may potentially exist within any structure. The following limitations and exceptions for this assessment include:

- Due to winter climate at the time of site reconnaissance, vegetation was dormant. Observations for stressed vegetation could not be made.
- Observations of the ground surface were obstructed by snow cover at the time of site reconnaissance.
- Some portions of the site were occupied by encampments for persons without homes. Access to these areas was limited, therefore, observations could not be made.

2.5 | Special Terms and Conditions

SEH performed the Phase I ESA in general accordance with ASTM E 1527-13 and the Agreement between SEH and the City of Minneapolis. Performance of the Phase I ESA in general accordance with ASTM E 1527-13 is intended to reduce, but not eliminate, uncertainty regarding the existence of RECs, CRECs or HRECs in connection with the subject property.

Reasonably ascertainable, data was obtained and reviewed; however, the accuracy of the collected data is not the responsibility of SEH. Information provided to SEH by client representatives and site contacts has been accepted in good faith and is assumed to be accurate unless written documentation, available within the scope of this Phase I ESA, or visual observations contradicted it.

The Phase I ESA is not a comprehensive site characterization and should not be construed as such. The findings and conclusions of the Phase I ESA are based on information collected and observed at the time of the Phase I ESA and are not scientific certainties, but probabilities based on professional judgment regarding the significance and accuracy of the collected data. Because professional judgments incorporated into the report are based on limited evidence, there is inherent uncertainty in the conclusions drawn and reported. The client has determined that the level of effort and corresponding degree of uncertainty are acceptable for the client's purpose. The Phase I ESA may not include all environmental conditions that can materially impact the property and a finding of no RECs, CRECs, or HRECs is not a warranty or guarantee that a property remains free from contamination.

Laws and regulations, if referenced in this report, are provided for information purpose and should not be construed as legal opinion or recommendation.

2.6 User Reliance

The Phase I ESA and all reports, verbal and written, are solely for the use of the City of Minneapolis and the Minneapolis Park and Recreation Board. Any third party may have different interests, purposes, and motives than the City of Minneapolis with regard to this assessment and report. Any reliance on the Phase I ESA by any other party shall be at such party's sole risk. unless that party has written authorization from SEH and the City of Minneapolis and is a party to the Agreement between SEH and the City of Minneapolis.

3 Subject Property Description

3.1 Location and Legal Description

The subject property is generally located north of North 33rd Avenue, between Interstate 94 (I-94) and the Mississippi River in Minneapolis, Minnestoa (Figures 1 and 2). The subject property is located in portions of Section 03 and Section 10 of Township 29N, Range 24W. The subject property is limited to the following Hennepin County parcel identification (PID) numbers:

- 3800 1st Street North; 0302924310008 •
- 2 36th Avenue North; 0302924340026 .
- 51 36th Avenue North: 1002924210002 .
- 51 34th Avenue North; 1002924210048
- 3360 1st Street North; 1002924240065 .
- 3700 Washington Avenue North; 0302924340007 •
- 3701 Washington Avenue North; 0302924340029 .
- 3639 Washington Avenue North; 0302924340031
- 3648 Washington Avenue North, 0302924340028 .

Plans for proposed redevelopment of the site include new parcel boundaries. The proposed parcels are depicted on attached Site Specific Datasheets included as **Appendix A** and are shown on **Figure 2**.

3.2 Subject Property and Vicinity General Characteristics

The subject property and surrounding area generally slope to the east, towards the Mississippi River. The elevation ranges from 850 feet above mean sea level (amsl) in the western portion of the site, adjacent to I-94, to 810 feet amsl in the east portion of the site. Various berms and stockpiles of soils, timbers, and other materials from former site use exist throughout the subject property. A berm, approximately 20 feet tall, overlooking the Mississippi River exists along portions of the eastern boundary of the subject property.

3.3 Current Use of the Subject Property

Currently, the site is owned by the City of Minneapolis and portions of the site are leased to various tenants. Portions of Parcels 2, 3, and 4 along the Mississippi River and adjacent to the warehouse structure are occupied by Ames Construction, through a temporary easement from the City of Minneapolis to the Minnesota Department of Transportation (MnDOT) and are used as a staging yard and access point for reconstruction of the 3rd Avenue Bridge in downtown Minneapolis. Portions of Parcel 2, southeast of the intersection of Dowling Avenue North and 1st Street North, and southeast of the warehouse structure are occupied by Atomic Recycling, LLC, and are used as a staging area for empty roll-off dumpsters. Parcel 6B and the southern half of Parcel 6A are occupied by Thomas and Sons Construction, Inc., and the area is used as a staging yard. Parcel 7A and the northern portion of Parcel 7B are used by the City of Minneapolis for stockpiling plowed snow. The approximate property boundary and site features are shown on **Figure 2**.

3.4 Descriptions of Structures, Roads, and Other Improvements on the Subject Property

The subject property includes multiple abandoned structures used for transfer and storage of various bulk products including grain, aggregate coal, fertilizer, and petroleum products. These structures include storage domes, load out shelters, dock structures/mooring cells, grain bins/elevators, a control tower, scales, scale buildings, a boiler shed, various aboveground and belowground conveyer structures/piping, an office building, and a warehouse structure. The remainder of the subject property is generally vacant. Various stockpiles and berms of soils/plant debris are located throughout Parcel 4 and the north portion of Parcel 5. The southern portion of Parcel 5 is occupied by a large surface level parking lot. North Washington Avenue separates Parcels 7A and 7B from Parcels 6A and 6B. The Soo Line Railroad corridor separates Parcels 6A and 6B from Parcels 1A, 1B, 2, 3, 4, and 5.

3.5 Current Use of Adjoining Properties

Based on information obtained from the site reconnaissance, interviews and historical records, current uses of adjoining properties were identified. Currently, properties surrounding the site are commercial/industrial and include the following.

3.5.1 Parcels 1A and 1B

North – Unnamed yard waste dumping area.

- South Parcel 2.
- East Mississippi River.
- West Precision Associates, a rubber products manufacturer and Minneapolis Oxygen Company, a welding supplier.

3.5.2 Parcel 2

- North Parcels 1A and 1B/staging yard for dumpsters.
- South Parcel 3/GAF, a roofing products manufacturer.
- East Mississippi River.
- West Parcels 3, 4, 5, 6A, and 6B.

3.5.3 Parcel 3

- North Parcel 2.
- South Parcel 4.
- East Parcel 2.
- West International Paper Company, a corrugated packaging manufacturer.

3.5.4 Parcel 4

- North Parcel 3.
- South Parcel 5.
- East Parcel 2.
- West International Paper Company, a corrugated packaging manufacturer.

3.5.5 Parcel 5

- North Parcel 4
- South GAF, a roofing products manufacturer.
- East Parcel 2.
- West Fabric Supply, a wholesaler and Libra, a commercial retail wholesaler.

3.5.6 Parcels 6A and 6B

- North Precision Associates, a rubber products manufacturer.
- South Camden MnDOT Truck Station.
- East beyond the Soo Line Railroad Corridor Parcel 2.
- West beyond North Washington Avenue Parcels 7A and 7B.

3.5.7 Parcels 7A and 7B

- North RCCS Program, a social services organization.
- South beyond North Washington Avenue Supreme Marine, a boat dealer.
- East Parcels 6A and 6B/Camden MnDOT Truck Station.
- West I-94 alignment.

4 User Provided Information

As specified under the ASTM standard, certain responsibilities generally lie with the "user" of this Phase I ESA. The "user" is the party seeking to use Practice E1527-13 to perform a Phase I ESA of a property. The "user" may include a purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. For purposes of this Phase I ESA, the "user" is the City of Minneapolis.

Under the ASTM standard, a questionnaire is completed by the "user" and submitted to the environmental professional conducting the ESA. The questionnaire completed by City of Minneapolis is included as **Appendix B**.

It is the responsibility of the "user" to verify whether any environmental liens exist with regard to the property, and provide this information to the environmental professional preparing the Phase I ESA unless specified otherwise in the contract between the "user" and SEH. The "user" must provide the environmental professional information regarding the price of the property versus fair market value of the property if the property were not contaminated. The "user must provide the environmental professional commonly known or reasonably ascertainable information on the property including, but not limited to; past uses of the property; specific chemicals present or once present on the property; spills or chemical releases on the property; environmental cleanups taken place on the property. Additionally, the "user" must make the professional aware of any specialized knowledge or experience that is material to RECs in connection with the subject property and the degree of obviousness of the presence or likely presence of contamination at the property. The following information was provided by the "user" and is accepted in good faith and is assumed to be accurate and complete.

4.1 Title Records, Environmental Liens or Activity and Use Limitations

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 U.S.C. §§9607(1) & 9607(r) and similar state or local laws.

The City of Minneapolis indicated they are not aware of environmental liens or activity and land use limitations for the site.

The Minnesota Pollution Control Agency (MPCA) MPCA online Voluntary Investigation and Cleanup (VIC) site search was reviewed for sites with institutional controls. SEH also reviewed the MPCA list of Remediation Sites with Institutional Controls. No institutional controls were found to exist for the subject property.

4.2 Specialized Knowledge

The "user" stated that that any specialized knowledge of the subject property is limited to the information identified in previously completed environmental reports and investigations.

4.3 Commonly Known or Reasonably Ascertainable Information

The "user" stated that any commonly known or reasonably ascertainable information is limited to the information identified in previously completed environmental reports and investigations.

4.4 Valuation Reduction for Environmental Issues

The City of Minneapolis indicated the purchase price is below fair market value.

4.5 Owner, Property Manager, and Occupant Information

According to the Hennepin County Parcel data, the current owners of the parcels that comprise the subject property are as follows:

County Parcel ID	Owner/Taxpayer	Occupant	Proposed Parcel #s
302924340007	City of Minneapolis	Thomas and Sons Construction Inc.	6A, 6B
302924340028	City of Minneapolis Thomas and Sons Construction Inc.		6B
302924310008	City of Minneapolis	Vacant	1A, 1B, 2
302924340026	City of Minneapolis	Ames Construction / Atomic Recyclers, LLC.	2, 3
302924340029	City of Minneapolis	y of Minneapolis Vacant	
302924340031	City of Minneapolis	Vacant	7B
1002924210002	City of Minneapolis	Ames Construction	2, 3, 4
1002924210048 City of Minneapolis		Vacant	2, 4
1002924240065	City of Minneapolis	Vacant	2, 5

4.6 Reason for Performing the Phase I ESA

The Phase I ESA is being performed to identify, to the extent feasible pursuant to the processes described in E 1527-13 and in a manner consistent with good commercial and customary practice, RECs, CRECs and HRECs in connection with the subject property. Additionally, the Phase I ESA is being completed to update the previous Phase I ESA (Braun, 2015), prepare a Response Action Plan (RAP) report, provide summary of previous environmental reports and investigations, and determine if there were new release or contamination at the site.

5 Records Review

The records review was performed to obtain and review reasonably ascertainable records from standard sources (including government records, physical setting sources, and historical use records) to assist in identifying RECs in connection with the subject property. SEH reviewed historical records of aerial photographs, topographic maps, city directories and fire insurance maps where available and deemed necessary to minimize data gaps.

5.1 Standard Environmental Record Review

SEH completed the standard environmental record search of available state and federal environmental databases. A summary of the results are included in **Section 5.1.5**. SEH uses the MPCA "What's in My Neighborhood" (WIMN) website and associated databases as the primary source of environmental listings information.

Additional state, county and/or federal database websites, as well as a database report provided by a third party, were reviewed as secondary sources of information. Information identified from these secondary sources is presented in this section.

5.1.1 MPCA WIMN Identified Sites

SEH used the MPCA WIMN website and associated databases as the primary source of environmental site information. SEH also reviewed WIMN sites with poor location information. MPCA listing locations were field verified and locations were reassigned to the correct property if necessary.

5.1.1.1 MPCA Program Databases

The following MPCA programs are referenced throughout the report.

- **Hazardous Waste**: Hazardous waste includes substances that are corrosive, explosive, toxic, and/or fire hazards. The MPCA and its county partners regulate hazardous waste to help protect people and the environment. Industries that generate hazardous waste include auto repair and painting shops, medical or dental clinics, dry cleaners, printers and manufacturers.
- Investigation and Cleanup: Investigation and cleanup sites are places that are or were suspected of being contaminated by chemicals. The MPCA and its partners investigate these sites through several different programs, including Superfund, RCRA Cleanup and the VIC program. In some cases, sites are investigated, and no cleanup is necessary. In other cases, sites are found to be a danger to people or the environment, and MPCA staff work to make sure that those sites are cleaned up.
- **Solid Waste**: Solid waste includes recyclable materials, household garbage, industrial waste, and debris from construction or demolition. The MPCA regulates solid waste to ensure that garbage is disposed of in a way that minimizes its impact on the environment, and works to encourage recycling and reuse of materials to keep them out of landfills.
- **Tanks and Leaks**: The tanks and leaks program regulates with large storage tanks and responds to sites where petroleum contamination is suspected. The MPCA regulates tanks to help protect people and the environment from being exposed to the substances stored in those tanks. When leaks or spills occur, MPCA staff work to evaluate and reduce the impacts on the environment.

The following activities are referenced in the above mentioned MPCA programs.

- Hazardous Waste, TSD: A hazardous waste Treatment Storage and /or Disposal facility (TSD) is any business designed to treat, store and/or dispose of hazardous waste. These facilities typically collect hazardous wastes for other businesses and treat it or dispose of it properly. TSD facilities must have valid operating permits issued by the MPCA. This means that they are required to develop detailed plans to train and protect their workers and the environment.
- **Hazardous Waste, LQG**: A large quantity generator (LQG) is a facility that generates at least 1,000 kilograms (2,200 pounds) of hazardous waste or 1 kilogram (2.2 pounds) of acutely hazardous waste per calendar month. An MPCA permit is not required for a large quantity generator, but the facility must have a current hazardous waste license. This means that they must tell the MPCA what kinds of waste they generate, how much waste they generate, and how they dispose of the waste. For more information on hazardous waste licenses.

- Hazardous Waste, Small to Minimal Quantity Generator: A small to minimal quantity generator is a facility that generates less than 1,000 kilograms (2,200 pounds) of hazardous waste or 1 kilogram (2.2 pounds) of acutely hazardous waste per calendar month. These facilities have less stringent rules than large quantity generators. This group includes Small Quantity Generators (SQGs), which produce 100 1000 kg of hazardous waste per month; Very Small Quantity Generators (VSQGs), which produce less than 100 kg of hazardous waste per month; and Conditionally Exempt Generators, which produce less than 100 kg or 10 gallons of hazardous waste per year. Like large quantity generators, SQGs and VSQGs must have current hazardous waste licenses.
- State and Federal Superfund Projects: Superfund projects occur where known or suspected environmental contamination threatens public health, welfare or the environment. The Superfund Program identifies, investigates and determines appropriate cleanup plans for these sites. Superfund projects often occur at abandoned or uncontrolled sites, for instance, where the business that polluted a site no longer exists. Federal Superfund sites are on the U.S. Environmental Protection Agency's National Priority List (NPL), while State Superfund sites are on Minnesota's Permanent List of Priorities (PLP). MPCA staff may work with Environmental Protection Agency (EPA) staff or other state agencies to investigate and clean up these sites. In Minnesota, sites which may have been contaminated by agricultural chemicals are managed by the Minnesota Department of Agriculture.
- State Assessment Site: State Assessment sites are places that MPCA Site Assessment staff has investigated because of suspected contamination. The sites investigated include abandoned industrial properties, small commercial businesses and publicly-owned land. (Note that petroleum-contaminated sites are investigated by MPCA Tanks and Leaks staff.) These sites may be referred to the Site Assessment program by the Voluntary Investigation and Cleanup (VIC) program, the Petroleum Remediation program, Minnesota Duty Officer reports or citizen complaints. Site Assessment staff do an initial assessment, and then determine if further action is needed. If a site poses a threat to human health or the environment, it is referred to CERCLIS, Superfund, RCRA Cleanup or VIC.
- Voluntary Investigation & Cleanup (VIC) Site: The VIC Program is a non-Petroleum Brownfield. VIC provides technical assistance to buyers, sellers, developers or local governments seeking to voluntarily investigate or clean up contaminated land. Properties often enter the VIC program in preparation for sale, financing or redevelopment. Voluntary parties that complete investigation and/or cleanup activities under MPCA oversight can receive liability assurances that protect them from future Superfund liability. In some cases, the MPCA may use institutional controls as part of the overall site remedy and notify interested parties of any property use conditions or restrictions.
- **Petroleum Brownfield**: Petroleum Brownfield sites are places that may have been contaminated with petroleum due to a past or current leak. Petroleum Brownfields program staff assesses the risk associated with petroleum contamination at these sites and then provide technical assistance to help get the site cleaned up, developed, and/or transferred to a new owner.
- Landfill, Permitted By Rule: A landfill that is permitted by rule is not required to obtain an individual solid waste permit if it meets certain eligibility criteria. However, it must comply with waste management rules and regulations. Landfills may be permitted by rule if they have a small capacity and/or operate for a short period of time. Some yard waste composting facilities, recycling facilities and energy recovery facilities are also permitted by rule.

- Leak Site: Leak sites are locations where a release of petroleum products has occurred from a tank system. Leak sites can occur from aboveground or underground tank systems as well as from spills at tank facilities. A leak can result from an accident or from activities that occur over a long time. MPCA Petroleum Remediation Program staff investigates potential leaks and works to minimize or clean up contamination at those sites.
- **Tank Site**: A tank site is a place with an underground or aboveground storage tank of a certain size on the premises. One tank site may have multiple tanks, and these tanks may contain food products, petroleum products, or other substances. Tank sites include gas stations, bus companies and trucking companies, as well as factories that process sugar beets, ethanol, pulp and paper, or chemicals. The MPCA requires monitoring and maintenance at these sites, which helps to ensure that tanks do not cause environmental contamination.

5.1.2 Environmental Database Report

SEH retained GeoSearch to perform an electronic database search of documents published by the EPA and the MPCA. A summary of all records retrieved by the search, the minimum search distances, and the date that source information was last updated is included in the environmental database report in **Appendix C**. A list of data sources is also provided in the report.

The environmental database report review did not include a comprehensive, exhaustive review of all records. Listings identified with additional information are included in **Section 5.1.5**. The following listings were identified in the environmental database report for further review.

Name	Address	Activity	Database ID No.
Port of Minneapolis (Subject Property)	3750 Washington Ave N	Multiple	LS0012239 TS0050075
OTI Minneapolis (Subject Property)	3750 Washington Ave N	Solid Waste	PBR001318
Upper Harbor Terminal (Subject Property)	3750 Washington Avenue South	Multiple	BF0001318 MND071768162
Intex Corporation (Adjacent to the South)	50 33rd Ave N	Tank Site	TS0054023
Airtex Industries (Adjacent to the West)	3558 N 2nd St	Multiple	MND006211312 SA0001153
International Paper – Minneapolis (Adjacent to the West)	3558 N 2nd St	Hazardous Waste Generator	MNR000051144
Holcim Inc (Adjacent to the North)	3939 N 1st St	Multiple	LS0001059 TS0012869 MND985710789
MNDOT Camden (Adjacent to the West)	3636 Washington Ave N	Multiple	MND985746676 LS0004477 TS0002743
Space Center Minnesota Inc (Adjacent to the West)	3310 N 2nd St	Multiple	MND093919702 VP15870 TS0004048

Coghlans Ltd	3310 N 2nd St Ste	Hazardous Waste	MNR000061077
(Adjacent to the West)	100	Generator	
PAI Properties LLC (Adjacent to the West)	3800 N Washington Ave	Multiple	VP27900 LS0018423 TS0125408
Precision Associates, Inc	3800 Washington	Hazardous Waste	MND062838834
(Adjacent to the West)	Ave N	Generator	
Minneapolis Oxygen Co Inc (Adjacent to the West)	3842 Washington Ave N	Multiple	MNR000111260 BF0000965 SR0001517 LS0003770 SR0001517 TS0003046
Natrogas Inc	3900 Washington	Multiple	MND006221824
(Adjacent to the West)	Ave N		TS0001690
GAF Materials Corp (Adjacent to the South)	50 Lowry Ave N	Multiple	MND043851849 LS0001394 LS0003651 SA0002052 TS0001602

5.1.3 MPCA Spill Listings

A review of the MPCA Spills database identified 6,113 listings within the City of Minneapolis. MPCA Spills that could be located within the project area are summarized on Site Specific Datasheets included as **Appendix A**. The following Spill listings are suspected to be located within the project area; however, adequate details were not available to identify the exact location of these listings.

MPCA ID	Start Date	Material Released	Volume Released	Location	Regulatory Status
18314	1/1/1996	Petroleum Other	800 gallons	WASHINGTON Ave N MN	Closed or Completed
14227	1/1/1996	Other	0 Unknown Units	MISSISSIPPI R E of WASHINGTON A MN	Closed or Completed
14756	5/1/1991	Hydraulic Fluid	10 Gallons	WASHINGTON Ave MN 55401	Closed of Completed
18362	8/23/1993	Other	0 Unknown Units	WASHINGTON Ave MN 55401	Closed of Completed
23530	5/15/1996	Hydraulic Fluid	8 Gallons	2nd St MN	Closed of Completed

5.1.4 Additional Record Sources

SEH reviewed additional environmental record sources, including the Minnesota Department of Agriculture (MDA) County Spill Records, the MDA *What's in My Neighborhood* interactive mapping program, the MPCA *Petroleum Remediation Program Maps Online, MPCA Landfill*

Cleanup Act Participants, the MPCA *VIC Site Online Search for Sites with Institutional Controls,* the *MPCA Groundwater contamination Atlas* and the MPCA Spills database.

The following listings were identified for further review.

Name	Address	Activity	Database ID No.
River Services Inc.	Port Along Mississippi River	AgSpills	92-0147

5.1.4.1 Unlocatable Listings

In the numerous sources SEH reviews to identify environmental listings for the subject property, adequate information is not always provided to determine the location or status of a listing. As an extra level of due diligence, SEH reviewed MPCA WIMN listings identified within one mile radius of the subject property and WIMN listings with poor location information.

Additionally, environmental database reports typically include a number of "unlocatable" or "orphan" listings. GeoSearch could not specifically locate these listings due to poor address information or other limitations. A total of two unlocatable listings are identified in the environmental database report.

SEH attempted to identify unlocatable listings that were potentially located within the subject property based on site name, address, and available resources. The focus of this search is placed on sites that may pose the greatest potential for environmental impacts to the subject property. It is not within the scope of this Phase I ESA to conduct an exhaustive investigation to verify the locations of all unlocatable site listings. No orphan sites remained after the review.

5.1.5 Standard Environmental Record Review Summary

Based on information reviewed during the Standard Environmental Records Review, the following list summarizes listings identified as potential concerns for the subject property during the database records review. An SEH identification number (presented in bold brackets **[X]** after the listing name) is assigned to sites that are mapped on **Figure 2**. A complete summary of these listings are presented in **Section 9**.

Name	Location	Listing ID	Database
Port of Minneapolis	The Subject Property (Parcels 6A and 6B)	[1]	LS0012239 TS0050075
Upper Harbor Terminal	The Subject Property (Parcels 2, 3, 4)	[2]	BF0001318 MND071768162
OTI Minneapolis	The Subject Property (Parcel 2)	[3]	PBR001318
PAI Properties/ Precision Associates, Inc	3800 Washington Ave North	[4]	VP27900 LS0018423 TS0125408 MND062838834

	1		
			SR0001517
Minneapolis Oxygen Co Inc	3842 Washington Avenue North		BF0000965
		[5]	LS0003770
	North		TS0003046
			MNR000111260
	3900 Washington Avenue North	[6]	TS0001690
Natrogas Inc			TS0012869
			MND006221824
		F7 3	LS0001059
Holcim Inc	3939 N 1st Street	[7]	MND985710789
			SA0002052
GAF Materials Corp/			LS0001394
	50 Lowry Avenue North/ 50 33rd Avenue North	[8]	LS0003651
			MN0002119
Intex Corporation[2]			TS0001602
			TS0054023
			MND043851849
Space Center Mn\ Coghlans Ltd	3310 N 2nd Street	[9]	VP15870
			TS0004048
			MND093919702
			MNR000061077
Airtex Industries/	3558 N 2nd Street	[10]	SA0001153
International Paper -			MND006211312
Minneapolis			MNR000051144
	3636 Washington Avenue	[11]	LS0004477
MNDOT Camden			TS0002743
	North		MND985746676

5.2 Prior Assessments

SEH completed previous report and file reviews to evaluate the degree of potential impact to the subject property. A summary of reports and listings reviewed is included on Site Specific Datasheets included as **Appendix A**. Copies of reviewed reports are available upon request.

5.3 Physical Setting

SEH reviewed the physical setting of the subject property from various sources.

5.3.1 Topography

The subject property is depicted as generally sloping towards the east on the United States Geological Survey (USGS) 7.5-minute *Minneapolis North, Minneapolis South, MN* topographic map (USGS, 2019). The map indicates that the surface elevation of the subject property rages between 830 and 800 feet amsl. Topographic contours were observed depicting some of the various stockpiles on-site. The Mississippi River is located adjacent to the east of the subject property.

5.3.2 Geology and Soils

Boring logs from previous environmental studies on the site encountered up to 16 feet of sandy and clayey fill throughout the site. The actual depth of undocumented fill soils present on-site can be highly variable due to the former mass grading and stockpiling that has occurred. Additionally, fill soil would be expected to extend deeper adjacent to the underground structures on-site. Published geology (MGS, 2019) indicates native deposits in this area consist of Holocene aged coarse grained alluvium sediments generally comprised of sand and gravel. The western portion of the site adjacent to I-94 is mapped to include Late Pleistocene aged terrace sand and gravel similar to the coarse alluvium sediments closer towards the river. Unconsolidated sediments are mapped to exist anywhere between 50 and 200 feet bgs on-site (MGS, 2018).

The uppermost bedrock unit is the Middle to Late Ordovician St. Pater Formation. The St. Pater formation is described as a white to tan, fine to medium grained, friable quartzose sandstone. MGS, 2018).

5.3.3 Hydrogeology

Based on previous investigations and local well logs, groundwater is expected to be encountered at approximately between 10 and 20 feet bgs on-site. According to published hydrogeologic data (MGS, 2021), local topographic conditions, and prior assessments groundwater is expected to flow east across the subject property.

5.3.4 Water Wells and Wellhead Protection Areas

A review of wells listed in the Minnesota Department of Health (MDH) Minnesota Well Index (MWI) was conducted with an emphasis on abandoned (AB) and monitoring (MW) wells in the vicinity of the subject property. A number of wells are described in the same quadrant as the subject property; however, there is not adequate information to confirm the exact location or to determine whether or not they exist within the area of interest. It was not within the scope of Phase I ESA to verify wells with inadequate location information.

The following wells are mapped on the subject property:

Unique No.	Well Name	Туре
498771	MW-1	Monitoring Well
498772	MW-2	Monitoring Well
498773	MW-3	Monitoring Well

According to the MPCA Petroleum Remediation Program (PRP) and MDH MWI online mapping programs, the subject property does not fall within a wellhead protection area.

5.4 Historical Use of the Subject Property and Adjacent Properties

A historical review of the site and surrounding area was conducted to identify obvious previous uses of the subject property and surrounding area in order to help assess whether past uses may have led to RECs, CRECs or HRECs in connection with the subject property. According to ASTM E 1527-13 standard the uses of the property "shall be identified from the present, back to property's first developed use, or back to 1940, whichever is earlier". The historical review was completed by examining historic aerial photographs, topographic maps, city directories and fire

insurance maps where available. Historical information was also obtained through interviews (**Section 7**). Any significant temporal gaps in historical data are addressed in **Section 9.3** of this report.

5.4.1 Sources

The following sources were used to compile the history of the subject property and adjacent properties presented in **Section 5.4.2** and on Site Specific Datasheets.

5.4.1.1 Aerial photographs

Reasonably ascertainable historical aerial photographs showing the project corridor and surrounding areas were obtained for review from the years 1937, 1940, 1947, 1953, 1957, 1966, 1969, 1974, 1979, 1984, 1987, 1994, 1997, 2000, 2003, 2004, 2009, 2013, 2015, and 2109. Due to the scale and quality of some of the photographs, it is difficult to determine minor activities that may have occurred on the project corridor. Copies of the photographs reviewed are included as **Appendix D**.

5.4.1.2 Topographic Maps

The following historical maps were obtained and reviewed:

- USGS, 1902, 1955, *Anoka, Minnesota*, 15 Minute Topographic Map.
- USGS, 1952, 1967, 1972, 1980, 1993, 2013, 2016, 2019, Minneapolis *North, Minnesota*, 7.5 Minute Topographic Map.
- USGS, 1952, 1967, 1972, 1993, 2013, 2016, 2019, *Minneapolis South, Minnesota*, 7.5 Minute Topographic Map.

Copies of topographic maps reviewed are included as Appendix E.

5.4.1.3 Historic Maps

Sanborn and Rascher and Fire Underwriter Bureau fire Insurance maps consist of a uniform series of large-scale detailed maps, dating from 1867 through 1969 and depict the commercial, industrial, and residential sections of urban areas. Fire Underwriters Inspection Bureau Maps, or Fisher maps, are useful for searching smaller communities in Minnesota and North Dakota. The maps were designed to assist fire insurance agents in determining the degree of hazard associated with a particular property. These maps illustrate, in outline form, structural details such as the size, shape, and construction and building material of dwellings, commercial buildings, and factories.

Coverage of this site on fire insurance and other historic maps for the years 1889, 1892, 1898, 1903, 1904, 1912, 1914, 1930, 1940, 1950, 1952, and 1967 are included as **Appendix F.**

SEH also reviewed the *MnDOT Right of Way Mapping and Monitoring* interactive website. The website provides statewide coverage depicting MnDOT Right of Way Map information, information about transportation features (roads, railroads, runways and navigable waters), municipal boundaries, etc. The dates of the maps are typically not known, but the time frame can generally be deduced by examining other maps and historic records. The maps can be viewed on the state website at http://www.dot.state.mn.us/maps/gisweb/row/.

5.4.1.4 City Directories

City directories provide a means to investigate the past use of a site by reviewing information for a specific address in incorporated areas. City directories were obtained and reviewed for the subject property for the years 1930, 1935, 1940, 1946, 1952, 1957, 1962, 1966-1967, 1972, 1977, 1982-1983, 1987-1988, 1992-1993, 1997-1998, 2002, 2007, 2012, 2017. Significant information is incorporated into **Section 5.4.2** and on Site Specific Datasheets. Copies of city directories are included as **Appendix G**.

5.4.2 Historical Land Use Summary

5.4.2.1 Subject Property

As part of Phase I ESA, SEH reviewed the following report prepared as part of the alternative urban areawide review (AUAR) for the project:

• Nienow Cultural Consultants LLC for Kimley-Horn, April 8, 2021, Archeological Plan for Upper Harbor Terminal, Minneapolis, Hennepin County, Minnesota

According to the report, the northern portion of the site including Parcels 1A and 1B and the far northern end of Parcel 2 were developed since at least 1889 with a lumber mill. The mill included saw and shingle mills, a pump house, engine house, machine shop and blacksmith shop as well as wood frame sheds, log slides and platforms. The 1912 Sanborn fire insurance map indicates the mill is no longer in operation. Buildings associated with the former mill were generally situated between 38th and 39th Avenues North.

The report also indicates wooden structures were present on the central portion of Parcel 2, east of Parcels 3 and 4, on the 1892 C.M. Foote Map. These buildings are not shown on the subsequent 1889 Sanborn fire insurance map or the 1903 Minneapolis Real Estate Board map and their use is not known.

Parcels 7A and 7B were developed for residential use since at least the 1890s thru the 1950s with approximately 30 homes occupying the parcels. According to demolition permits, the structures began to be removed in 1962 as Interstate I-94 was constructed. Demolition continued until 1980. According to city ordinance at the time, "the foundation of all building or structures moved, torn down or wrecked shall be taken down to the level of the adjoining ground" indicating there is the potential buried debris or foundations are present on the parcels.

Based on a review of historic aerial photographs from between 1938 and 1945, the archeological study concluded the river line on Parcel 5 and the southern portion of Parcel 2 had shifted up to 65 meters east indicating fill had occurred during this time period.

Based on a review of historic maps, Parcel 5 was initially developed in the 1950s with the Log Cottage Company building, a log sled and a residential building.

5.4.2.2 North of the Subject Property

The area to the north of the subject property generally consisted of residential development west of Washington Avenue (north of Parcel 7A), and lumber yards and various small storage structures to the east of Washington Avenue (North of Parcels 1A, 2, and 6A).

North of Parcels 1A, 2, and 6A:

• Aerial photographs depicted the former lumber yards to be occupied by agricultural land since at least the late 1930s. Industrial development began north of parcel 6A and west of parcels 1A and 1B, in the early 1950s. By the mid-1960s, the present-day structures had been constructed. Various occupants included a bag factory/warehouse, a truck repair facility, a hospital supplies warehouse, a dairy facility, a lumber storage yard, an oil corporation, Lakes Gas, Minneapolis Oxygen Company, Precision Associates, and a stone products facility. Additionally, by the mid-1960s, grading activities were visible in the area north of Parcels 1A and 2. By the 1980s, multiple silo structures and a dock was constructed on-site. City directories indicate the site was occupied by Dundee Cement from the mid-1970s, through the early 1990s, and by the 1990s, the site was occupied by Holcim Inc.

North of Parcel 7A:

• The area north of Parcel 7A remained residential through the mid-1960s. By the late 1960s, multiple structures were razed and grading activities, likely associated with construction of the I-94 alignment were visible. By the early 2000s, the existing facility north of Parcel 7A was constructed. The facility was occupied by a photography studio through the mid-2010s. Currently, the facility is occupied by a social services organization.

5.4.2.3 East of the Subject Property

The Mississippi River occupies the area east of the subject property. Filling actives in the area of Parcel 5 were observed in the mid-1960s, however no other major changes were visible in fire insurance maps, topographic maps, and aerial photographs.

5.4.2.4 South of the Subject Property

The area to the south of the subject property generally consisted of residential development west of Washington Avenue (south of Parcel 7B), and lumber yards and various small storage structures to the east of Washington Avenue (south of Parcels 2, 5, and 6B).

South of Parcels 2, 5, and 6A:

Since the late 1880s, the area south of Parcels 2 and 5 was generally occupied by lumber yards and multiple lumber mill facilities including a sawmill, blacksmith, machine shop, well house, and lumber sheds. By 1940, portions of the site were occupied by a roofing company, a coal company, and a lumber company. ASTs and USTs consisting of fuel oil, kerosene, and asphalt were depicted throughout the area. The facilities expanded through the late 1980s. Outdoor storage of various materials and equipment were visible in aerial photographs through the present day. Grading activities south of Parcel 6A were visible in the late 1960s, and by the late 1980s, the existing MnDOT facility had been constructed. Outdoor storage of various equipment was visible through the present day.

South of Parcel 7B:

• A majority the area south of Parcel 7B remained residential through the mid-1960s. The area was graded and reconstructed in association with the construction of the I-94 alignment in the late 1970s. By the late 1980s, the existing Supreme Marine facility was constructed south of the site. Outdoor storage of boasts and other associated equipment was visible in aerial photographs through the present day.

5.4.2.5 West of the Subject Property

The area to the west of the subject property generally consisted of residential development west of Washington Avenue (Parcels 7A and 7B), and lumber yards and various small storage structures to the east of Washington Avenue West of Parcels 3, 4, and 5).

West of Parcels 3, 5, and 5:

Since the late 1880s, the area west of Parcels 3, 4, and 5 generally consisted of lumber yards and the SOO Line railroad corridor, formerly the Minneapolis & Pacific Railroad. By the early 1900s, multiple greenhouse structures occupied a portion of the property adjacent to the boundary of Parcels 4 and 5. Multiple lumber sheds were constructed in the far southern portion of the property, adjacent to the railroad corridor. Aerial photographs indicate the area was mainly used as agricultural land since the late 1930s. Construction of the existing facilities occurred in the mid to late 1960s. Various occupants included a terminal warehouse, Minnesota Space Center, Airtex Industries, Fabric Supply Inc., United Recycling, International Paper Company, and Libra USA.

West of Parcels 7A and 7B:

• A majority the area south of Parcel 7B remained residential through the mid-1960s. By the late 1960s, a majority of the structures had been razed, likely in association the with the construction of the I-94 alignment in the 1970s. The area west of Parcels 7A and 7B was occupied by the I-94 alignment through the present day.

6 Subject Property Reconnaissance

SEH conducted a site reconnaissance of the subject property and surrounding properties on December 14 and 15, 2021. During the reconnaissance, existing conditions were noted. General comments regarding existing conditions are noted in **Section 6.1**. Select photographs of the subject property and significant observations are discussed in detail within Site Specific Datasheets in **Appendix A**.

6.1 Methodology and Limiting Conditions

The site reconnaissance included a site visit to observe the subject property to the extent not obstructed by bodies of water, buildings, heavy vegetation, stored materials, or other obstacles.

SEH conducted observations of the subject property by walking across the site. Thick vegetation in unmaintained areas and snow cover limited surface observations at the subject property. Adjacent property observations were made from public road right-of-ways, parking lots and other publicly accessible areas. Interior inspections of adjacent buildings are not within the scope of a Phase I ESA. Contaminant sources and/or environmentally hazardous materials/substances may potentially exist within any structure.

Interviews

Interviews were conducted with persons familiar with the subject property to obtain information regarding the presence or possible presence of RECs, CRECs or HRECs in connection with the subject property.

7.1 | Interview with current Site Manager

SEH interviewed David Wright, property manager for Newmark, during the site reconnaissance on December 14, 2021. Mr. Wright provided information regarding current and former site use, current and former site tenants, and provided access to the on-site structures. Information obtained through the interview is incorporated into this report.

7.2 Interview with City of Minneapolis Public Works

SEH attempted to contact the City of Minneapolis Public Works department for an interview. By the completion of this report, a response has not been received.

8 Identification of Vapor Encroachment Considerations

A Vapor Encroachment Condition (VEC) is the presence or likely presence of chemicals of concern (COC) vapors in the sub-surface of a property caused by the release of vapors from contaminated soil or groundwater either on or near the property with the contaminant source. Under certain conditions vapor encroachment can pose a risk to a property absent of a soil or groundwater condition. The new Phase I ESA standard (ASTM E1527-13) published in 2013 requires evaluation of VECs to address this concern.

The intent of this section of the report is to identify concerns for the subject property solely based on vapor encroachment (specifically in the absence of soil or groundwater RECs. Where a vapor condition is associated with a soil or groundwater REC the discussion is included in **Section 9** of this report. Based on the findings from the vapor consideration assessment, no VECs were identified during completion of this vapor migration assessment.

8.1 Methodology

The Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions (ASTM E2600-15) provides an industry consensus methodology to assess vapor migration. Use of E2600-15 methodology is not required to achieve compliance with AAI – an environmental professional (EP) may use alternative methodology as deemed appropriate, but this must be documented in the Phase I report (i.e., it must be "capable of being reconstructed by an EP other than the EP responsible for the Phase I").

In this Phase I investigation, the methodology used to conduct this vapor migration assessment is the Buonicore Methodology (Buonicore 2011). This method can be used when groundwater flow direction is known or can be inferred. The tables below show the distances from the target property that determines the possibility of a site causing/having caused a VEC.

Source Location	Distance (feet) - E 2600-10	Distance (feet) - E 2600-10 with Buonicore Methodology
Up Gradient	1,760	1,760
Down Gradient	1,760	100

Net Reduction in Area of Concern of Known or Suspect Chemicals Of Concern (COC) Sources

Net Reduction in Area of Concern of Known or Suspect Chemicals Of Concern (COC) Sources

Source Location	Distance (feet) - E 2600-10	Distance (feet) - E 2600-10 with Buonicore Methodology
Cross Gradient	1,760	100
Source Location	Distance (feet) - E 2600-10	Distance (feet) - E 2600-10 with Buonicore Methodology
Up Gradient	528	528
		30 (dissolved)
Cross Gradient	528	165 (LNAPL)
		95 (dissolved)

SEH also reviewed the MPCA online map Sites with Identified or Potential Vapor Risks.

8.2 Assumptions

As stated in **Section 2.3**, shallow/perched groundwater flow direction is expected to be towards the east in the vicinity of the subject property. Based on previous investigations and local well logs, groundwater is expected to be encountered at approximately between 10 and 20 feet bgs on-site.

8.3 Results of Vapor Encroachment Condition Evaluation

Based on the findings from the vapor consideration assessment, no VECs were identified for the subject property during completion of this vapor migration assessment.

RECs that may also pose a vapor concern to the subject property are discussed in Section 9.

9 Findings and Opinions

SEH has completed this Phase I ESA, and based on the information presented above, the following findings and opinions are summarized below. Select features are mapped on **Figure 2**.

9.1 General Overview

The Upper Harbor Terminal is a 52-acre industrial property located approximately 2 miles from downtown Minneapolis along the west bank of the Mississippi River, between Lowry Avenue and the Camden Bridge in North Minneapolis. Portions of the site have historically been occupied by residential developments and used for lumber storage and processing. Most recently, the site was developed for intermodal transfer of a variety of bulk commodities including grain, aggregate, coal, fertilizer, and petroleum products, and comprises a number of buildings and structures for storing and handling these materials, including concrete domes, loading and conveyance structures, a large concrete warehouse building, outdoor storage areas, a riverwall, barge mooring cells, and an open area for storage of dredging materials.

Planning for redevelopment of the site has been on-going. The proposed plans include a riverfront park, a performing arts center, a health and wellness hub, housing, and light

industrial/manufacturing space. Proposed plans for redevelopment of the site includes new parcel boundaries.

Portions of the site have been developed since at least the early 1890s. Site use generally consisted of either residential or lumber processing through the mid-1930s. By the late 1930s, aerial photographs depicted a majority of the site to be occupied by agricultural land. Minor development occurred throughout the late 1950s, and by the mid-1960s, mass grading activities were visible throughout the site. According to demolition permits, the structures in the western portion of the site (Parcels 7A and 7B) began to be removed in 1962 as I-94 was constructed. Demolition continued until 1980. Development of the existing site structures began in the mid-1970s and continued through the mid-1990s. Large stockpiles of various unknown materials (likely consisting of construction materials, aggregate, or coal), grading activities, and outdoor storage of various equipment were observed throughout the site in aerial photographs through the present day.

Currently, the site is owned by the City of Minneapolis, and portions of the site are leased to various tenants. Portions of Parcels 2, 3, and 4 along the Mississippi River and adjacent to the warehouse structure are occupied by Ames Construction through a temporary easement from the City of Minneapolis to the Minnesota Department of Transportation (MnDOT) and are used as a staging yard and access point for reconstruction of the 3rd Avenue Bridge in downtown Minneapolis. Portions of Parcel 2, southeast of the intersection of Dowling Avenue North and 1st Street North and southeast of the warehouse structure are occupied by Atomic Recycling, LLC, and are used as a staging area for empty roll-off dumpsters. Parcel 6B and the southern half of Parcel 6A are occupied by Thomas and Sons Construction, Inc., and is used as a staging yard for heavy equipment and construction materials. Parcel 7A and the northern portion of Parcel 7B are used by the City of Minneapolis for stockpiling plowed snow.

The site reconnaissance for the Phase I ESA was completed on December 14 and 15, 2021. Stockpiles/berms of fill from an unknown source were generally observed on Parcels 1A, 1B, 2, 4, and 5. The presence of stockpiles/berms of fill from an unknown source is considered a **REC** for the subject property.

Multiple piles of refuse and empty containers of spray paint were observed throughout Parcels 1A, 1B, 2, and 3. The presence of debris/refuse throughout the site is considered an environmental note for the subject property and the debris/refuse should be properly disposed of as part of redevelopment.

A dismantled pad mounted transformer with stained pavement surrounding the transformer, an unregistered AST with an apparent petroleum odor, and a hydraulic gear box with petroleum staining on adjacent pavements were observed on Parcel 2 during the site reconnaissance. The AST and other indications of releases observed on Parcel 2 are considered **RECs** for the subject property.

A walkthrough of the warehouse structure on Parcel 3 was completed during the site reconnaissance and various piles of debris including petroleum products, power tools, gas cylinders, paints, aerosols, white goods/electronics, 55-gallon drums of adhesives/other unknown substances, and general refuse were observed throughout the structure. Free product was observed within the floor drain in the below grade fire sprinkler room and multiple areas of petroleum-stained concrete were observed throughout the main warehouse area. The concrete

was generally in good condition. The presence of debris and oil staining in the warehouse is considered an environmental note and should be properly disposed prior to building demolition.

A number of various investigations associated with former site use, property transfers/lease agreements, and a temporary easement for MnDOT have been completed on-site. These investigations and the impacts identified on each proposed parcel are described in Site Specific Datasheets attached as **Appendix A**. Additionally, a closed Leak is listed for the site under MPCA Leak Site ID# LS0012239. The MPCA was unable to provide the digital file for this listing by the completion of this report. Information regarding the listing through the WIMN online database was limited and the exact location of the Leak is unknown, however, it is assumed to be associated with Parcels 6A and 6B. Information gathered via the WIMN online database indicate various technical documents were reviewed through August of 2001, a site visit was completed in November of 2001, and the site was closed on December 15, 2001. Given the limited knowledge available for the listing and the closed status, the listing is considered a **CREC** for the site.

Site use in the area of the subject property generally consists of light industrial/commercial properties. Off-site listings of environmental significance to the subject property include Precision Associates, Inc. (SEH Listing ID# [4]), Minneapolis Oxygen Company (SEH Listing ID# [5]), and Libra, Inc. (SEH listing ID# [9]).

SEH Listing ID# **[4]** includes MPCA VIC ID# 27900 and MPCA Leak ID# LS0018423. SEH Listing ID# **[5]** includes MPCA Superfund ID# SR0001517 and MPCA Brownfields ID# BF0000965. These sites are located adjacent to and west of Parcels 1A and 1B. Investigations completed between 2010 and 2018, identified low level concentrations of DRO and GRO in soil and concentrations of cis-1,2-dichloroethene and tetrachloroethene (PCE) in groundwater. Soil gas impacts included ethylbenzene and m&p-xylene exceeding their respective Industrial Intrusion Screening Values (ISVs), and PCE and trichloroethene (TCE) exceeding their respective MPCA 33X Commercial/Industrial EISVs. The potential for migration of chlorinated solvents and petroleum impacts to soil gas and groundwater identified on adjacent upgradient sites are considered **RECs** for the subject property.

SEH listing ID# **[9]** includes MPCA VIC ID# VP15870 and is located adjacent to and west of Parcel 5. An investigation completed in April of 2002, identified lead, chromium, 2methylnaphthalene, naphthalene, chloroform, and TCE exceeding regulatory criteria in groundwater. The MPCA issued a NAD for the property owner; however, no remedial activity was documented for the site. The potential for migration of metals and chlorinated solvents impacted groundwater identified on the adjacent upgradient site is considered a **REC** for the subject property.

9.2 Area Wide Concerns

Historical structures such as residential properties, single family farms, sawmills, etc., may have remnants of historical structures, such as demolition debris or foundations associated with the removed buildings. The potential exists that buried materials are present within the site that require management as solid waste or waste with hazardous materials or regulated substances. Additionally, farmsteads and other structures historically may have used undocumented heating oil tanks and/or farm ASTs, and treated gravel roads with used oil, tar, or similar petroleum-based products to control dust and maintain the roads. Farm dumps can also be associated with historical farmsteads.

Active railroad tracks intersect the project site between Parcels 6A and 6B and Parcels 1A, 1B, 2, 3, 4, and 5. This alignment has been present since at least the 1880s, and other rail spurs branching off this corridor were present on-site. Railroad corridors present environmental concerns from property uses directly associated with railroad activities and surrounding industry. Facilities adjacent to railroad corridors have a greater risk of spills where loading/unloading of hazardous materials may have historically taken place. Historically, railroad property is known for heavy metals and polycyclic aromatic hydrocarbons (PAHs) associated with transport of coal and other industrial products. Additionally, railroads are known to sometimes use chemicals associated with controlling encroaching vegetation along the railroad. Railroads are depicted on **Figure 2**.

9.3 Data Gaps and Data Failures

The following data gaps or data failures were identified in completion of the ESA. The significance of the data gaps has been evaluated by the environmental professional as follows:

- Due to winter climate at the time of site reconnaissance, vegetation was dormant. Observations for stressed vegetation could not be made and observations of the ground surface were partially obstructed by snow cover at the time of site reconnaissance. This data gap does not appear to be significant to the Phase I ESA.
- Some portions of the site were occupied by encampments for persons without homes. Access to these areas was limited, therefore, observations could not be made. This data gap does not appear to be significant to the Phase I ESA.
- MPCA files for Leak ID#s LS0012239 were not available for review by the publication of this report. Based on the limited information obtained through the WIMN online database, this data gap is considered to be **significant to the Phase I ESA** and is considered a **CREC** for the subject property.
- MPCA files for Leak ID#s LS0001059, LS0003770, LS0001394, and LS0003651 were
 not available for review by the publication of this report. Based on documented
 groundwater flow direction and information obtained through the WIMN online database,
 this data gap does not appear to be significant to the Phase I ESA.
- Interviews with all past and current owners of parcels within the subject property were not within the scope of this Phase I ESA. The history of the subject property and prior assessments provided adequate information to complete the Phase I ESA. This is not a significant data gap.

10 Conclusions and Recommendations

SEH has performed a Phase I ESA in general conformance with the scope and limitations of ASTM Practice E 1527-13 of the subject property specifically described in **Section 3.1**. Any exceptions to, or deletions or deviations from, this practice are described in **Sections 2.4** and **11** of this report.

This Phase I ESA has identified the following, RECs or CRECs in connection with the subject property:

Parcel ID	Site Use	RECs or CRECs Identified in Connection with the Site
1A	Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Potential for migration of chlorinated solvents and petroleum impacted soil gas and groundwater identified on adjacent upgradient sites.
1B	Vacant	 REC; Stockpiles/Berms of fill from an unknown source. REC; Potential for migration of chlorinated solvents and petroleum impacted soil gas and groundwater identified on adjacent upgradient sites. REC; Debris, arsenic and petroleum impacted soil identified during former on-site investigations.
2	Contractor's Staging Yard / Roll-off Dumpster Storage / Vacant	 REC; Debris, PAH, and petroleum impacted soil identified during former on-site investigations. REC; Stockpiles/Berms of fill from an unknown source. REC; Apparent release associated with a dismantled pad mounted transformer on-site. REC; Apparent release associated with staining adjacent to ton-site hydraulic gear box. REC; Potential release associated with petroleum odor adjacent to on-site AST. REC; Former 3,000,000 gallon ASTs in far southern portion of site.
3	Contractor's Staging Yard / Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Debris impacted soil identified during former on-site investigations.
4	Contractor's Staging Yard / Vacant	REC ; Stockpiles/Berms of fill from an unknown source. REC ; Debris and petroleum impacted soil identified during former on- site investigations.
5	Vacant	 REC; Stockpiles/Berms of fill from an unknown source. REC; Debris, PAHs, and petroleum impacted soil identified during former on-site investigations. REC; Potential for migration of metals and chlorinated solvents impacted groundwater identified on adjacent upgradient site. REC; Former 3,000,000 gallon ASTs.
6A	Contractor's Staging Yard / Vacant	REC ; Debris, PAHs, and petroleum impacted soil identified during former on-site investigations. CREC ; Closed MPCA Leak ID# LS00012239, potentially located on-site.
6B	Contractor's Staging Yard	REC ; Debris and petroleum impacted soil identified during former on- site investigations. CREC ; Closed MPCA Leak ID# LS00012239, potentially located on- site.
7A	Vacant	REC ; Petroleum impacted soil identified during former on-site investigations.
7B	Maintained Greenspace	REC ; Debris impacted soil identified during former on-site investigations.

11 Deviations

Other than the limitations and exceptions listed in **Section 2.4** and **Section 9.1**, there were no substantial deletions, deviations, or additions from this practice.

12 Limitations and Standard of Care

This ESA was completed in general accordance with ASTM E 1527-13, *Standard Practice for Environmental Assessments* and SEH's agreement with City of Minneapolis. The findings and conclusions of this report are not scientific certainties, but probabilities based on professional judgment regarding the significance and accuracy of the collected data. When reasonably ascertainable, environmental data was obtained and reviewed. However, the accuracy of the sources and collected data is not the responsibility of SEH.

When a Phase I ESA is completed without subsurface exploration or chemical analyses of the soil and/or groundwater at the site, no statement of scientific certainty can be made regarding the environmental or subsurface conditions resulting from either onsite or offsite pollutant sources. The possibility always exists for contaminants to migrate from one property to another via surface water, groundwater or soil. The ability to accurately assess the environmental risk associated with the transport of pollutants through these media to the site is beyond the scope of this Phase I ESA.

This Phase I ESA report was prepared for the exclusive use of City of Minneapolis and the Minneapolis Park and Recreation Board. The negotiated scope of work imposed limitations on the collection and interpretation of evidence, consistent with the ASTM Standard, resulting in a commensurate uncertainty as to the conclusions drawn. The degree of uncertainty was deemed acceptable by City of Minneapolis. Any third party interested in using or relying upon this report must first secure written authorization from City of Minneapolis and SEH, and agree to accept SEH's terms and conditions respecting indemnification and agreed upon limitations of liability.

SEH's services were conducted in a manner consistent with the level of care and skill standard to the industry. The conclusions and recommendations contained in this report were arrived at in accordance with generally accepted professional practice at this time and location. Other than this, no warranty is implied or intended.

13 | References

- Barr, August 2000, Supplemental Phase II Investigation Report, Koch Materials Company (KMC), Washington Avenue Facility
- Barr, December 3, 2001, Memorandum Regarding KMC Minneapolis Facility Environmental Work
- Barr, December 13, 2021, Letter regarding Environmental Investigation Summary, Upper Harbor Terminal
- Braun, January 27, 2015, Geotechnical Services, Minneapolis Upper Harbor Terminal
- Braun, September 17 2015a, Hazardous Building Materials Inspection Report
- Braun, September 17, 2015b, Phase I Environmental Site Assessment, Upper Harbor Terminal, Nine Parcels North of 33rd Avenue North, West of Mississippi River
- Braun, October 14, 2015c, Phase II Environmental Site Assessment, Upper Harbor Terminal
- Braun, January 27, 2016, Preliminary Geotechnical Evaluation Report, Upper Harbor Terminal, Between 33rd Avenue North and Dowling Avenue
- Braun, October 25, 2018, Environmental Evaluation Report, GAF Lease Property, 3360 First Street North
- Braun, April 10, 2019, Phase II Drilling Investigation Report, Upper Harbor Terminal Site
- Braun, August 5, 2021, Environmental Investigation Report, Upper Harbor Terminal Parcel 1B
- Braun, July 30, 2021a, Geotechnical Evaluation Report, Upper Harbor Terminal, Parcel 1B
- Braun, August 4, 2021b, Geotechnical Evaluation Report, Upper Harbor Terminal, Parcel 5, Mississippi River and North 33rd Avenue
- Braun, August 5, 2021c, Environmental Investigation Report, Upper Harbor Terminal Parcel 5, 51- 34th Avenue North and 3360-1st Street North
- Braun, August 5, 2021d, Environmental Investigation Report, Upper Harbor Terminal Parcel 6A, 3700 Washington Avenue North
- Braun, August 6, 2021e, Geotechnical Evaluation Report, Upper Harbor Terminal, Parcel 6A, Washington Avenue North and Dowling Avenue North
- Hess, Roise and Company, October 2007, Upper Mississippi Harbor Development Architectural/Historical Survey
- GeoSearch, December 15, 2021, Radius *Report Target Property, Upper Harbor Terminal, West* of Miss. Rover between Lowry and N. 41st Avenues, Minneapolis, Hennepin County, Minnesota
- Minnesota Department of Agriculture (MDA), 2011, Hennepin County Spill Report
- MDA *What's in my neighborhood*, interactive online mapping, www.mda.state.mn.us/chemicals/spills/incidentresponse/disclaimer.htm

Minnesota Department of Health (MDH), *Minnesota Well Index*, <u>http://www.health.state.mn.us/divs/eh/cwi/</u>

- Minnesota Department of Transportation (MnDOT *Right of Way Mapping and Monitoring* interactive website, http://www.dot.state.mn.us/maps/gisweb/row/
- Minnesota Geological Survey (MGS), 2018, *Geologic Atlas of Hennepin County, Minnesota,* County Atlas Series, Atlas C-45

MGS, 2019, Geologic Map of Minnesota Quaternary Geology, State Map Series S-23

- MnTOPO, 2021, Topography of Minnesota Web Map http://arcgis.dnr.state.mn.us/maps/mntopo
- Minnesota Pollution Control Agency (MPCA) Contaminated Sites Data online, https://www.pca.state.mn.us/data/contaminated-sites-data
- MPCA Landfill Cleanup Act Participants, http://mpca.maps.arcgis.com/apps/Solutions/s2.html?appid=6470bb44bd83497993da5836 333d1cb3
- MPCA *Petroleum Remediation Program Maps* online, <u>http://pca-gis02.pca.state.mn.us/prp/index.html</u>
- MPCA, 2008, *Risk-Based Guidance for the Vapor Intrusion Pathway,* Guidance Document c-s4-06
- MPCA Sites with Identified or Potential Vapor Risks online map, <u>http://www.pca.state.mn.us/index.php/waste/waste-and-cleanup/cleanup/superfund/vapor-intrusion/map-vapor-risk-sites.html</u>
- MPCA *What's in my neighborhood*, online database, <u>https://www.pca.state.mn.us/data/whats-my-neighborhood</u>
- Pinnacle, June 10, 2013, Letter Report Regarding Results AST Closure Sampling, 3750 North Washington

Pipeline and Hazardous Materials Safety Administration (PHMSA), 2012, *National Pipeline Mapping System Public Map Viewer,* <u>https://www.npms.phmsa.dot.gov/PublicViewer/composite.jsf</u>

- Short Elliott Hendrickson (SEH), June 30, 2015, Existing Condition Inspection and Re-Use Report, Upper Harbor Terminal
- Terracon, December 17, 1991, Environmental Assessment Report, Asphalt Storage Facility, 3750 Washington Avenue North
- Wenck, May 27, 2015, LIMITED Subsurface Investigation, Former Organic Technologies, 3750 North Washington

14 | Signature(s) of Environmental Professional(s)

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312 (**Appendix H**).

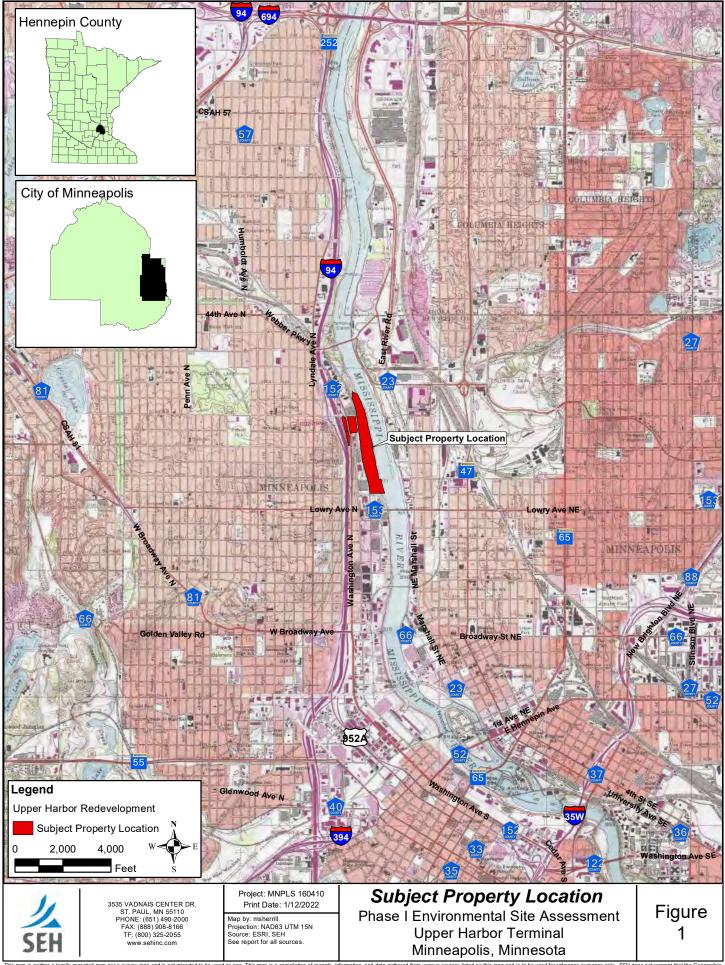
I have the specific qualification based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in §312.10 of 40 CFR 312.

Jennifer Force, PG Senior Scientist II

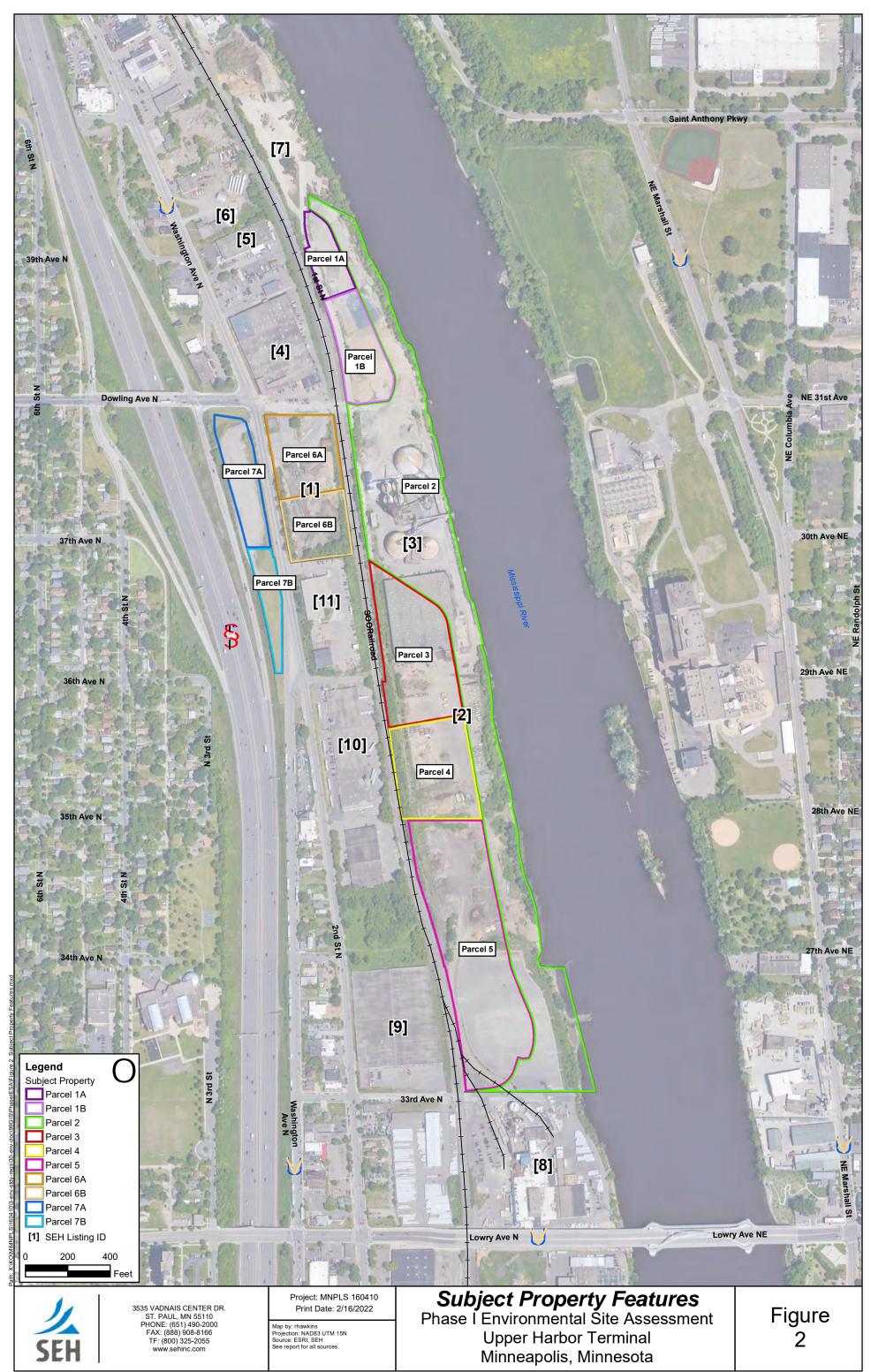
rrh

Figures

Figure 1 – Subject Property Location Figure 2 – Subject Property Features



This map is neither a legally recorded map nor a survey map and is not intended to bused as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information, your data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information, your data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information, your data gathered from various sources listed on this map and is to be used for reference purposes only. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.



This map is nether a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.