

Source Property Information

CLOSURE DATE: 12/27/2013

BRRTS #:

02-15-560921

ACTIVITY NAME:

Great Lakes Yacht

PROPERTY ADDRESS:

61 Michigan St

MUNICIPALITY:

Sturgeon Bay

PARCEL ID #:

281-10-85030901C

FID #:

415164860

DATCP #:

PECFA#:

***WTM COORDINATES:**

X: 727275 Y: 487679

** Coordinates are in
WTM83, NAD83 (1991)*

WTM COORDINATES REPRESENT:

Approximate Center Of Contaminant Source

Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

CONTINUING OBLIGATIONS

Contaminated Media for Residual Contamination:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property Information,
Form 4400-246")*

Soil Contamination > *RCL or **SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties
see "Impacted Off-Source Property Information,
Form 4400-246")*

Site Specific Obligations:

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

Direct Contact

Soil to GW Pathway

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic
development corporation was directed to
take a response action)*

Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes No N/A

* Residual Contaminant Level

**Site Specific Residual Contaminant Level



December 27, 2013

SHT Holdings, LLC
Attn: Ms. Sheila H. Turner
4369 Bay Shore Drive
Sturgeon Bay, WI 54235

Haven Funds, LLC
Attn: Mr. Peter H. Moede
700 S. Water Street
Milwaukee, WI 53204

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Final Case Closure with Continuing Obligations
Great Lakes Yacht, 61 Michigan Street, Sturgeon Bay, WI
DNR BRRTS Activity #: 02-15-560921

Dear Ms. Turner and Mr. Moede:

The Department of Natural Resources (DNR) considers Great Lakes Yacht closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wis. Adm. Code. The DNR Northeast Region (NER) Closure Committee reviewed the request for closure on November 25, 2013. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. A conditional closure letter was issued by the DNR on November 25, 2013, and documentation that the conditions in that letter were met was received on December 26, 2013.

This boat sales, service, storage, and repair site has soil contaminated with polynuclear aromatic hydrocarbons (PAHs). After completing the soil investigation, it was determined the PAHs are a result of historic soil fill material that was brought onto the property in the early 1900's. Responses include maintenance of the existing buildings and impervious surfaces as a barrier to the soil. The conditions of closure and continuing obligations required were based on the property being used for commercial purposes.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement and existing building foundations must be maintained over contaminated soil and the DNR must approve any changes to this barrier.

The DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at <http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf>.

GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at <http://dnr.wi.gov/topic/Brownfields/rrsm.html>, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/topic/wells/documents/3300254.pdf>.

All site information is also on file at the Northeast Regional DNR office, at 2984 Shawano Avenue, Green Bay, WI 54313. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement and existing building foundations are required, as shown on the **attached map**, Pre/Post Remaining Soil Contamination, Figure B.2.c., unless prior written approval has been obtained from the DNR:

- removal of the existing barrier;
- replacement with another barrier;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;

- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings;

Closure Conditions

Compliance with the requirements of this letter is a responsibility to which the current property owner and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plans are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications in accordance with the following requirements to the DNR, NER Green Bay DNR Service Center, to the attention of Tauren Beggs, Hydrogeologist in the Remediation and Redevelopment Program, 2984 Shawano Avenue, Green Bay, WI 54313-6727.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)

Soil contamination remains property wide on the northwest parcel, also referred to as Tract 1, as indicated on the **attached map**, Location Map, Figure D.1. If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval.

In addition, all current and future owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)

The pavement and existing building foundations that exist in the location shown on the **attached map**, Location Map, Figure D.1., shall be maintained in compliance with the **attached maintenance plan** in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single family residence.

The cover approved for this closure was designed to be protective for a commercial or industrial use setting. Before using the property for residential purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted.

A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation.

The **attached maintenance plan and inspection log (DNR form 4400-305)** are to be kept up-to-date and on-site. Inspections shall be conducted annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

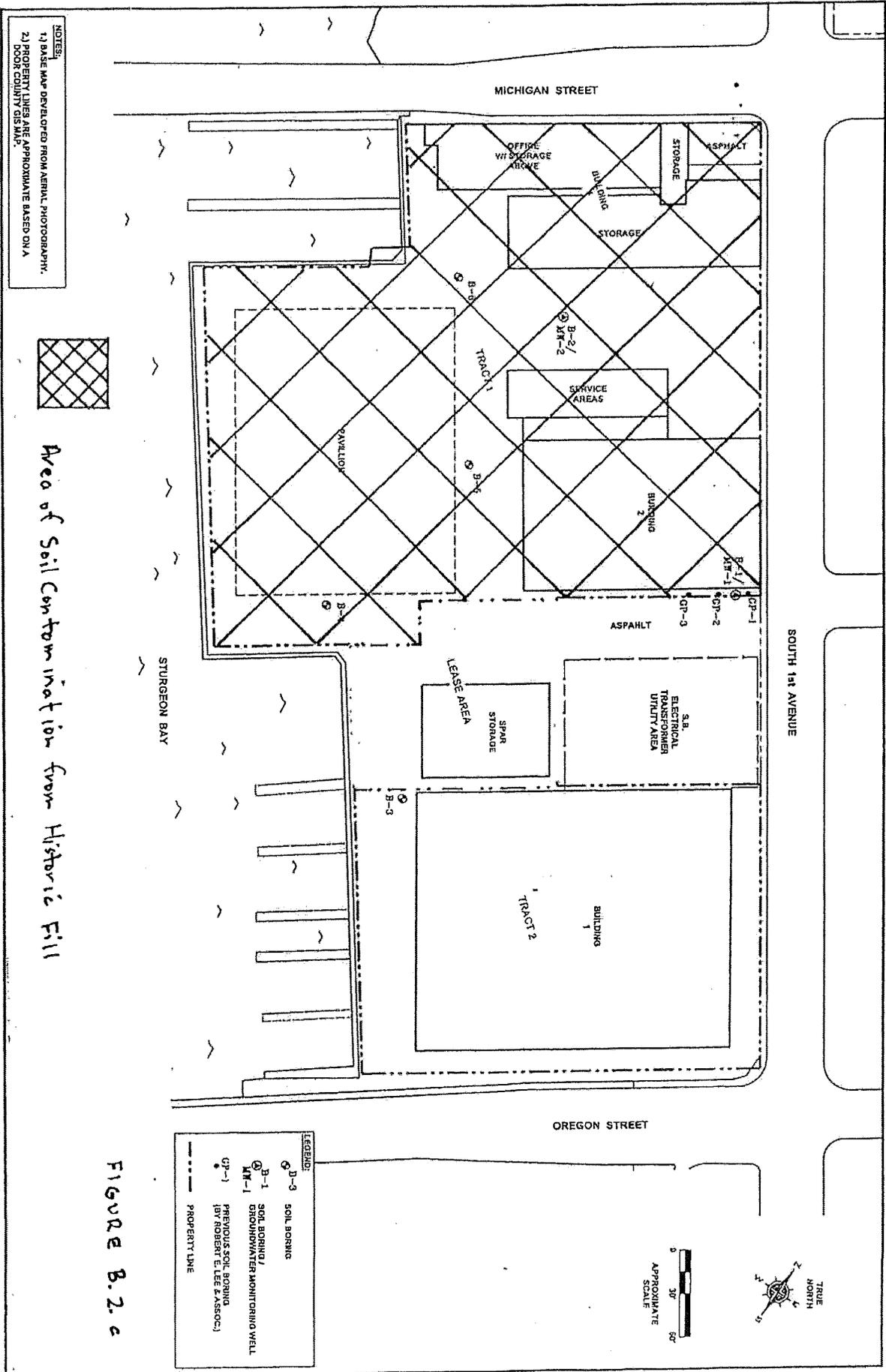
Sincerely,


Roxanne N. Chronert, Team Supervisor
NER Remediation & Redevelopment Program

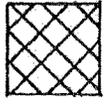
Attachments:

- Attachment B.2.c. Pre/Post Remaining Soil Contamination
- Attachment D.1. Location Map
- Attachment D Engineered Cap and Building Barrier Maintenance Plan
- Attachment D.4. DNR Inspection Log Form 4400-305)

cc: Scott Bartling, Reinhart Law (e-copy, sbartlin@reinhartlaw.com)



NOTES:
 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHY.
 2) PROPERTY LINES ARE APPROXIMATE BASED ON A DOOR COUNTY GIS MAP.

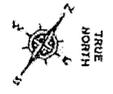


Area of Soil Contamination from Historic Fill
 Pre/Post Remaining Soil Contamination

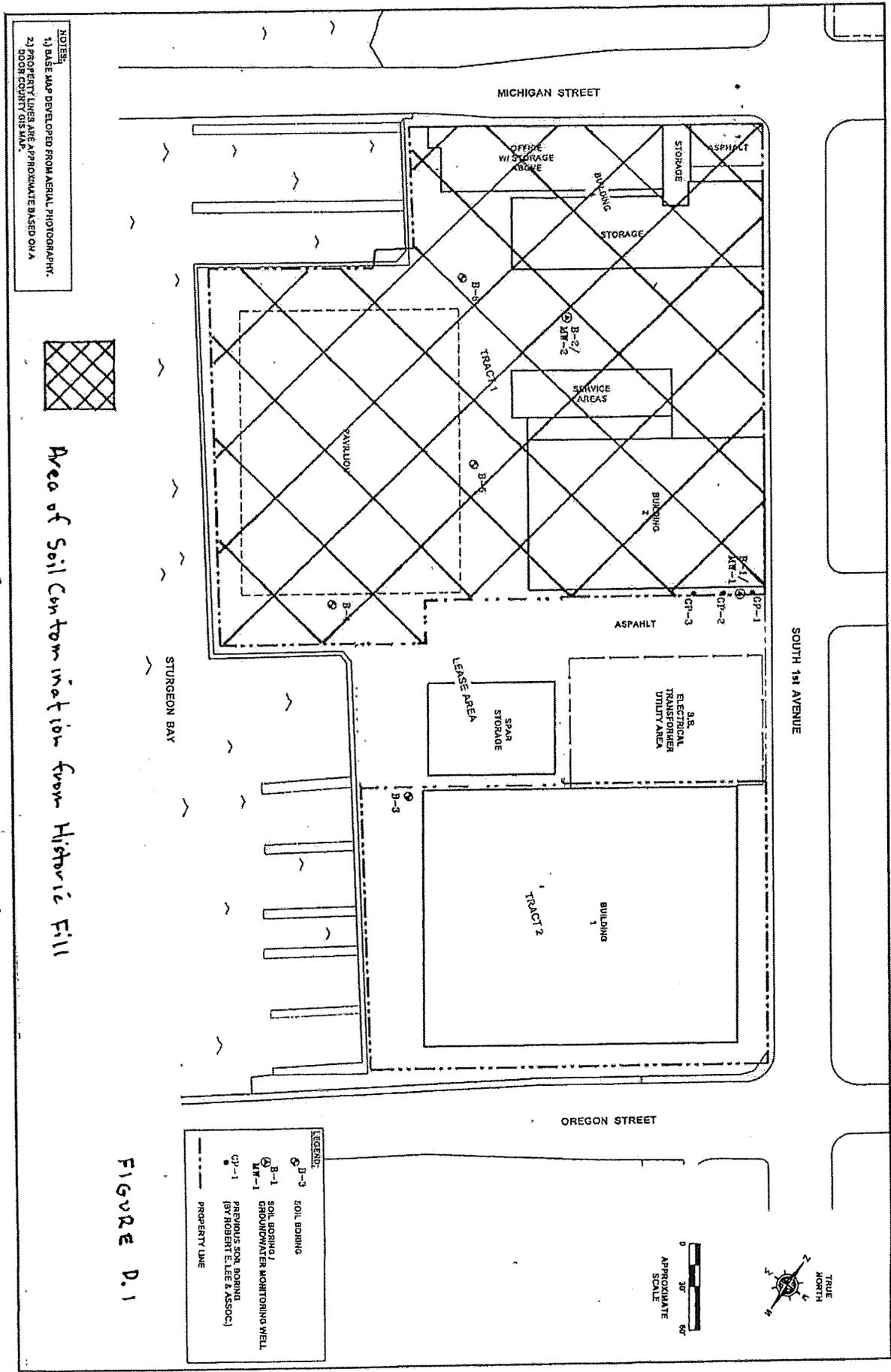
FIGURE B.2.c

LEGEND:
 B-3 SOIL BORING
 B-1 SOIL BORING / GROUNDWATER MONITORING WELL
 M-1 PREVIOUS SOIL BORING (BY ROBERT E. LEE & ASSOC.)
 GP-1
 --- PROPERTY LINE

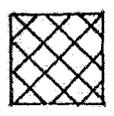
0 30 60
 APPROXIMATE SCALE



Attachment D. 1 Location Map. The asphalt and concrete area encompassing Tract 1, with the footprint for Building 2, storage area building, and the Pavillion is to be maintained as a part of the maintenance plan for an engineered cover.



NOTES:
 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPH.
 2) PROPERTY LINES ARE APPROXIMATE BASED ON A GROUND SURVEY ON 8/18/84.



Area of Soil Contamination from Historic Fill
 Pre/Post Remaining Soil Contamination

FIGURE D.1

LEGEND:
 B-3 SOIL BORING
 B-1 SOIL BORING
 MW-1 GROUNDWATER MONITORING WELL
 CT-1 PREVIOUS SOIL BORING (BY ROBERT E. LEE & ASSOC.)
 --- PROPERTY LINE

Engineered Cap and Building Barrier Maintenance Plan

October 22, 2013

Great Lakes Yacht Services,
61 Michigan Street
Sturgeon Bay, Wisconsin
BRRTS# 02-15-560921
Parcel ID Number 281-10-850-30901C

Introduction

This document is the Maintenance Plan for an engineered building barrier and asphalt and concrete ground surface system in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The Maintenance Plan and inspection plan for the engineered building barrier and asphalt and concrete ground surface will be kept on site and made available to all interested parties.

The building barrier maintenance activities relate to the existing slab on grade construction for on-site buildings and the Pavillion located within Tract 1 of the property. The proposed engineered asphalt and concrete cap overlies all of Tract 1. There are no landscaped areas or natural vegetation within the west and south portion of Tract 1.

Elevated levels of select PAHs, in excess of their respective suggested RR-890 RCL direct contact risk and soil to groundwater risk is largely confined to within the area of the Pavillion, located to the south and west of Building 2 in Tract 1 (Attachment D. 1).

More site-specific information about this site may be found in:

- The case file in the WDNR Northeast regional office,
- BRRTS on the web (BRRTS # 02-15-560921,
- GIS Registry file; and
- The DNR project manager (Tauren Beggs)

Engineered Building Barrier Purpose

The footprints Building 2 and the Pavillion and the asphalt and concrete ground surface within Tract 1 will be used as an impermeable barrier to prevent the direct contact risk and to reduce the soil to groundwater risk by reducing contaminant leaching from residual PAH soil contamination to the site shallow groundwater system.

Annual Inspection - Cap and Building Barrier

The slab on grade buildings and Pavillion and asphalt and concrete ground surface within the area of Tract 1, as depicted in Attachment D 1, shall be inspected annually to evaluate any potential damage due to settling and increasing age. During the site investigation it was noted that the asphalt and concrete ground surface was competent throughout Tract 1. The concrete footprint for the Pavillion was installed within the last 10 years and is in very good condition.

A log of inspections and any repairs will be maintained by the owner and is included as Attachment D. 4, Inspection Log. The log will include recommendations for necessary repair of cracks or deterioration of the asphalt and concrete ground surface where underlying soils are exposed and where infiltration will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be sent to the Wisconsin Department of Natural Resources (WDNR) upon request.

Maintenance Activities - Cap and Building Barrier

If problems are noted during the annual inspection or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must sample any soil that is excavated from the property prior to disposal to determine if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the existing barrier is removed or replaced with another barrier, the replacement barrier must be equally impervious and the WDNR shall be notified before any such action takes place. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR.

The following activities are prohibited on any portion of the property where the barrier is to be maintained unless prior written approval has been obtained from the WDNR: 1) removal of the existing barrier; 2) replacement with another barrier; 3) filling on capped or paved areas; or 4) construction or demolition of the existing buildings.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of WDNR.

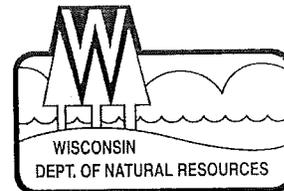
Contact Information

Site RP Representative: Mr. Peter H. Moede
700 South Water Street
Milwaukee, WI 53204
(414) 273-0711

Consultant: Mr. Scott Bartling
P.O. Box 2265
Waukesha, WI 53187
(262) 951-4517

WDNR: Mr. Tauren Beggs
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
Green Bay Service Center, Northeast Region
Green Bay, WI 54313
(920) 662-5178

Attachment D. 4 Inspection Log. A Barrier Inspection Log is attached.



November 25, 2013

SHT Holdings, LLC
Attn: Ms. Sheila H. Turner
4369 Bay Shore Drive
Sturgeon Bay, WI 54235

Subject: Conditional Closure Decision with Requirements to Achieve Final Closure
Great Lakes Yacht, 61 Michigan Street, Sturgeon Bay, Wisconsin
DNR BRRTS Activity # 02-15-560921

Dear Ms. Turner:

On November 25, 2013, the Department of Natural Resources (DNR) Northeast Region (NER) Closure Committee reviewed your request for closure of the case described above. The Closure Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the Closure Committee has determined that the polynuclear aromatic hydrocarbon (PAH) contamination at the site from historic soil fill material appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with ch. NR 726, Wis. Adm. Code and will be closed if the following conditions are satisfied.

MONITORING WELL ABANDONMENT

The monitoring wells at the site must be properly abandoned in accordance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to Tauren Beggs on Form 3300-005, found at <http://dnr.wi.gov/topic/groundwater/forms.html>.

When the above conditions have been satisfied, please submit the appropriate documentation (for example, well abandonment forms, disposal receipts, copies of correspondence, etc.) to verify that applicable conditions have been met, and your case will be closed.

Your site will be listed on the DNR's Remediation and Redevelopment GIS Registry. Information that was submitted with your closure request application will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web). The site may be viewed on the Remediation and Redevelopment Sites Map (RRSM), on the GIS Registry layer. To review the site on BRRTS on the Web, or to view the GIS Registry web page, see <http://dnr.wi.gov/topic/Brownfields/rrsm>.

CONTINUING OBLIGATIONS

As part of the approval of the closure of this case, you will be responsible for maintaining the following continuing obligations.

- If existing residual soil contamination is excavated or removed, it must be properly managed and disposed.

- Pavement and existing building foundations must be maintained over contaminated soil and the DNR must approve any changes to this barrier, as described in the Engineered Cap and Building Barrier Maintenance Plan.
- In the final closure approval, you will also be required to conduct annual inspections. Documentation of the inspection will be required to be kept on site and submitted to the DNR only upon request.

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats, or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at (920) 662-5178, or by email at Tauren.Beggs@wisconsin.gov.

Sincerely,



Tauren R. Beggs
Hydrogeologist
Remediation & Redevelopment Program

cc: Scott Bartling, Reinhart Law (e-copy - sbartlin@reinhartlaw.com)

SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided. Any section of the form not relevant to the case closure request must be fully filled out or explained on a separate page and attached to the relevant section of this form. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Site Information			
BRRTS No. 02-15-560921	Parcel ID No. 281-10-85030901C		
BRRTS Activity (Site) Name Great Lakes Yacht Services	WTM Coordinates		
	X 727,275	Y 487,679	
Street Address 61 Michigan Street	City Sturgeon Bay	State WI	ZIP Code 54235
Responsible Party (RP) Name Ms. Sheila Turner			
Company Name SHT Holdings LLC			
Street Address 4369 Bayshore Dr.	City Sturgeon Bay	State WI	ZIP Code 54235
Phone Number (920) 746-6251	Email sheila@glyservices.com		
<input type="checkbox"/> Check here if the RP is the owner of the source property.			
Environmental Consultant Name Scott Bartling			
Consulting Firm Reinhart Boerner Van Deuren s.c.			
Street Address P.O. Box 2265	City Waukesha	State WI	ZIP Code 53187
Phone Number (262) 951-4517	Email sbartlin@reinhartlaw.com		
Acres Ready For Use 3.89	Voluntary Party Liability Exemption Site? <input type="radio"/> Yes <input checked="" type="radio"/> No		

Fees and Mailing of Closure Request

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

- Send a copy of page one of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR regional Environmental Program Associate at <http://dnr.wi.gov/topic/Brownfields/Contact.html>. Check all fees that apply.

<input checked="" type="checkbox"/> \$750 Closure Fee	<input checked="" type="checkbox"/> \$200 GIS Registry Fee for Soil
<input type="checkbox"/> \$250 GIS Registry Fee for Groundwater Lost Well(s)	Total Amount of Payment \$ <u>950.00</u>
- Send one paper copy and one e-copy on compact disk of the entire closure package to the Regional Project Manager assigned to your site. Submit as *unbound, separate documents* in the order and with the titles prescribed by this form. For electronic document submittal requirements, see <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

Site Summary

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. General Site Information and Site History

- A. **Site Location:** Describe the physical location of the site, both generally and specific to its immediate surroundings.

The property consists of Parcel A (Tract 1) and Parcel B (Tract 2). A lease area, electrical substation and vacated Nebraska Street, owned by the City of Sturgeon Bay, is located between Parcel A and Parcel B. Parcel A (2.70 ac.) consists of three buildings (Building 2, Building 3, and Building 4) and a Pavillion. The buildings and pavillion were constructed slab-on-grade with no subsurface footings or drain tiles. Parcel A is bounded to the northwest by Michigan Street and to the northeast by South First Avenue. Parcel B (1.19 ac.) consists of one building (Building 1) and is bounded to the northeast by South First Street and to the southwest by Oregon Street.

The property is located in a portion of the City of Sturgeon Bay utilized for a combination of industrial, commercial and residential land use activities. Parcel A and Parcel B are bordered by Michigan Street to the northwest, South First Avenue to the northeast, Oregon Street to the southeast, and Sturgeon Bay to the southwest.

An asphalt parking lot owned by the City of Sturgeon Bay and a CPA and attorney offices are located to the northeast of the property, Stone Harbor Resort and Hotel is located to the northwest of the property, and a grassy vacant lot and commercial property is located to the southeast of the property.

- B. **Prior and current site usage:** Specifically describe the current and historic occupancy and types of use.

The Parcel A and Parcel B are currently occupied by Great Lakes Yacht Services and is used for boat sales, service, storage, and repair. Great Lakes Yacht Services currently leases the lease area from the City of Sturgeon Bay. The Calibre Boat Repair, LLC, a fiberglass boat repair facility; Dorsal, LLC, a sail loft and canvas shop; and Seacraft Design, LLC, a design, engineering, and consulting firm serving the boat building industry, are a subtenant of Great Lakes Yacht Services and currently occupy the lease area.

Sanborn Fire Insurance Maps indicated that in the late 1800's, the property was undeveloped or was primarily used for residential use. By 1911 the property was occupied by the Sturgeon Bay Boat Mfg. Co. and the Reynolds Preserving Co., a cherry canning facility. The Reynolds Preserving Co. was no longer operating on the property by 1928. The property has been utilized for boat building, mooring, repair and storage as Sturgeon Bay Boat Mfg. Co., Johnson and Gmack, Palmer Johnson, and Great Lakes Yacht Services. Palmer Johnson operated at the property from approximately 1961 through 2003.

Between 1919 and 1928, the original shoreline was expanded approximately two hundred feet into Sturgeon Bay. By 1958 this had been reduced to an expansion of approximately 150 feet. Consequently, fill material was brought onto the property between 1919 and 1928. Sometime after 1919 and before 1958 three tar and crude oil ASTs were located along South First Avenue, formerly near the southeast corner of current Building 2, or near the current east corner of the intersection of South First Avenue and vacated Nebraska Street.

- C. Describe how and when site contamination was discovered.

A Phase I Environmental Site Assessment (ESA) in July 2013, identified the former tar and crude oil ASTs as direct evidence of a potential recognized environmental condition (REC) on the property. To address the REC, a Phase II ESA, consisting of the advancement of three geoprobos (GP-1, GP-2, and GP-3) near the area of the former tar and crude oil ASTs was conducted on August 1, 2013. Select elevated PAHs, above their respective soil to groundwater risk (suggested RR-890 generic RCLs), were detected in soils from two of the geoprobos (GP-1 and GP-2) from near the watertable interface at 4-6 feet below grade. No PAH exceedances were detected in soils from geoprobe GP-3.

A subsequent soil/groundwater investigation, consisting of six soil borings (B-1 through B-6), two of which were converted to NR 141 monitoring wells (MW-1 and MW-2), were installed on the property on September 10, 2013. Soil boring/monitoring well B-1/MW-1 was advanced near the former ASTs. The remainder of the soil borings were advanced on the west portion of the property. Select PAHs, in excess of their respective suggested RR-890 Generic RCLs for direct contact risk, were detected in soils from soil borings B-1, B-2, B-4, B-5, and B-6. Select PAHs, in excess of their respective suggested RR-890 Generic RCLs for soil to groundwater risk, were detected in soils from soil borings B-2, B-4, B-5, and B-6.

Groundwater samples were initially collected from monitoring wells MW-1 and MW-2 on September 10, 2013 and analyzed for PAHs. Elevated levels of select PAHs, in excess of their respective NR 140 ES, were detected in groundwater from monitoring well MW-2. No PAH exceedances were detected in groundwater from monitoring well MW-1.

- D. Describe the type(s) and source(s) or suspected source(s) of contamination.

Elevated levels of select PAHs, in excess of their respective soil to groundwater risk (GP-1, GP-2 and B-1) and direct contact risk (GP-1 and B-1), were detected in the soils from near the location of the former ASTs and to the west and southwest of the former ASTs (B-2, B-4, B-5, and B-6). The lateral and vertical distribution of elevated PAHs suggests that

the source of PAH soil contamination in soils from GP-1, GP-2 and B-1 is related to the former ASTs, and saturated and unsaturated PAH soil contamination in soils from soil borings B-2, B-4, B-5 and B-6 is most likely related to fill material brought onto the property during expansion of the shoreline into Sturgeon Bay between 1919 and 1928.

- E. Other relevant site description information (or enter Not Applicable).
Not Applicable
- F. List BRRTS activity site name and number for all other BRRTS activities at this property, including closed cases.
Palmer Johnson, Inc., WDNR BRRTS # 02-15-541982
Palmer Johnson, Inc., WDNR BRRTS # 04-15-427654
Palmer Johnsons, WDNR BRRTS # 03-15-000361
- G. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to this site, and those impacted by contamination from this site.
There are no BRRTS activity/site name(s) for properties immediately adjacent to the site. There are no immediately adjacent properties impacted by contamination from the property.
- H. **Current zoning** (e.g. industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
Heavy Industrial (I-2)

2. General Site Conditions

- A. Soil/Geology
- i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
Native soils consist of sequences of silty sand and fine to medium sand. Intervals of peat and silty sand, with a little to some wood were noted in soil borings B-1, B-2, B-5, and B-6. The fine to medium sand sequences extend to at least 15 feet below grade within the area of investigation.
 - ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
Fill material consisting of fine to medium sand, silty sand, some silty clay, and a little gravel ranging in thickness from 2-4 feet, were noted within the area of investigation. Fill material within the area of the former ASTs extended to two feet below grade.
 - iii. Depth to bedrock, bedrock type, and whether or not it was encountered during the investigation.
Surficial deposits consist of unlithified Pleistocene sediments, which range in thickness from zero to about 10 m in the area surrounding the City of Sturgeon Bay. In general, the upland areas have a very thin (< 1 m) unconsolidated deposits and low-lying areas have thicker (> 2 m). The underlying bedrock is the Silurian dolomite aquifer which ranges in thickness from 200 to 500 feet in Door County. USGS bedrock topographic maps estimate the depth to bedrock at the site at 35 feet below grade.
 - iv. Describe the nature and locations of current surface cover(s) across the site (e.g. natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).
The current surface cover within the area of investigation consists of asphalt, concrete, and the footprints of site buildings and the Pavillion. There are no landscaped areas or natural vegetation on the property, except for a small berm area located to the southeast of soil boring/monitoring well B-2/MW-2.
- B. Groundwater
- i. **Discuss depth to groundwater and piezometric elevations.** Describe and explain depth variations, and whether free product affects measurement or water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
Liquid level measurements on September 10, 2013 for monitoring wells MW-1 and MW-2, indicated that depth to groundwater was 6.85 and 4.08 feet below grade, respectively. No free product was identified on the property. Each well was advanced to 15 feet below grade. Monitoring well MW-1 is located near the former ASTs and monitoring well MW-2 is located within the area of residual soil lead contamination between Building 2 and Building 4.

Groundwater was observed within fine and medium grained sands in both wells, with a medium to coarse sand lense, with a trace of gravel at 10-11 feet below grade in well MW-1.
 - ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.
Groundwater flow direction on October 21, 2003 was to the south.

- iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.

Site groundwater is located within fine to medium grained sands. The hydraulic conductivity for fine to medium grained sands is estimated at 10 ft/day, with a porosity of 25%. The hydraulic gradient on October 21, 2003 was calculated at 0.005 ft/ft. Groundwater velocity was calculated based on the measurement between isocontours on the October 21, 2003 ground water flow map. Consequently, the estimated groundwater velocity on the property was calculated at approximately 73 ft/yr.

- iv. Identify and describe locations/distance of potable and/or municipal Wells within 1200 feet of the site.
The City of Sturgeon Bay municipal well no.7 (WGNHS Well No. Dr-39) is the nearest municipal well to the property. This well is located at Oregon Street and S. 3rd Avenue, approximately 800 feet east of the property.

3. Site Investigation Summary

A. General

- i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

A Phase II ESA, consisting of three geoprobes (GP-1, GP-2, and GP-3), were advanced adjacent to the vacated Nebraska Street in a linear east to west pattern near the location of the former tar and crude oil ASTs on August 1, 2013. Geoprobe GP-1 was located nearest the location of the former ASTs, and geoprobes GP-2 and GP-3 were advanced 20 feet and 40 feet west of geoprobe GP-1, respectively. One soil sample was collected from each geoprobe and analyzed for VOCs and PAHs from near the watertable interface at 4-6 feet below grade.

A subsequent soil/groundwater investigation, consisting of the advancement of six soil borings (B-1 through B-6), two of which were converted to NR 141 monitoring wells (MW-1 and MW-2), were installed on the property on September 10, 2013. Soil boring/monitoring well B-1/MW-1 was advanced near the former ASTs and soil borings B-2/MW-2, B-3, B-4, B-5 and B-6 were advanced within the west portion of the property. One soil sample was collected from soils less than four feet below grade and one soil sample was collected from near the watertable interface from each soil boring and analyzed for PAHs. Groundwater was sampled from monitoring wells MW-1 and MW-2 on September 10, 2013 and analyzed for PAHs. Monitoring well MW-2 was redeveloped on September 25, 2013 and resampled on October 2, 2013.

Soil boring logs, tables and analytical data sheets for the Phase II geoprobe investigation (GP-1 through GP-2) and the soil and groundwater investigation (B-1/MW-1, B-2/MW-2, B-3, B-4, B-5, and B-6) have been submitted to the WDNR.

- ii. Identify whether contamination extends beyond the source property boundary, describe the off-site media (e.g., soil, groundwater, etc.) impacted, and the vertical and horizontal extent of off-site impacts.
No PAH soil or groundwater contamination has been identified beyond the source property boundary.

- iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

Structural impediments to the completion of the site investigation on the property, include the footprint of the Pavillion and Building 2 and 4, and tie-backs along the sea wall, which extent some 25 feet into the property. Building 2, Building 4, the Pavillion will also serve as the performance standard barrier for the protection of the direct contact risk and soil to groundwater risk.

B. Soil

- i. Describe degree and extent of **soil contamination** at and from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways.

Elevated levels of benzo (a) pyrene (580 ug/kg), benzo (b) fluoranthene (2,000 ug/kg), and chrysene (1,300 ug/kg), in excess of their respective suggested RR-890 generic RCLs soil to groundwater risk, were detected in soils from geoprobe GP-1. Elevated levels of chrysene (160 ug/kg), in excess of its RR-890 soil to groundwater risk, was detected in soils from geoprobe GP-2. No PAH exceedances were detected in soils from geoprobe GP-3. No VOC exceedances were detected in soils from geoprobes GP-1, GP-2, and GP-3. The lateral distribution of PAH soil contaminants in soils from GP1, GP-2, and GP-3, suggests that PAH soil contaminants are related to the former tar and crude oil ASTs. Geoprobe GP-3 defines the lateral extent of PAH soil contamination to the west of the former ASTs.

Elevated levels of select PAHs, in excess of their respective suggested RR-890 generic RCLs direct contact risk, were detected in soils from soil borings B-1, B-2, B-4, B-5, and B-6 at 0-4 feet below grade. Highest PAH concentrations were detected in soils from soil boring B-6, with elevated levels of benzo (a) anthracene (6,320ug/kg), benzo (a) pyrene

(7,680 ug/kg), benzo(b) fluoranthene (5,750 ug/kg), chrysene (7,310 ug/kg), and indeno (1,2,3-cd) pyrene (4,230 ug/kg).

Elevated levels of select PAHs, in excess of their respective RR-890 generic RCLs soil to groundwater risk, were detected in soils from B-2, B-4, B-5, and B-6. Highest PAH concentrations were detected in soils at 8-10 feet below grade from soil boring B-4, with elevated levels of benzo (a) pyrene (2,070 ug/kg), benzo (b) fluoranthene (1,930 ug/kg), and chrysene (2,580 ug/kg).

The lateral and vertical extent of PAH soil contaminants, suggests that the PAH soil contamination in this area is related to fill material brought on to the property sometime after 1919. It also suggests that the source area of the impacted fill material was located in the area of soil borings B-6 (highest unsaturated PAH soil contamination), which had then migrated to the southwest, impacting saturated soils in the area of soil boring B-4 (highest saturated PAH soil contamination).

Based on the degree and vertical and lateral extent of PAH soil contamination, there are two (2) known or potential receptors/migration pathways that have been identified on the property: (a) direct contact pathway for the detection of elevated PAHs in excess of their respective RR-890 direct contact risk within the upper four feet of soil on the property; and (b) the groundwater pathway for the detection of elevated PAHs in excess of their respective RR-890 soil to groundwater risk on the property.

- ii. Describe the level and types of **soil contaminants** found in the upper four feet of the soil column. Elevated levels of select PAHs, in excess of their respective suggested RR-890 generic RCLs direct contact risk, were detected in soils at less than four feet below grade from soil borings B-1, B-2, B-4, B-5, and B-6. Highest PAH concentrations were detected in soils at 2-4 feet below grade from soil boring B-6, with elevated levels of benzo (a) anthracene (6,320 ug/kg), benzo (a) pyrene (7,680 ug/kg), benzo (b) fluoranthene (5,750 ug/kg), chrysene (7,310 ug/kg), and indeno (1,2,3-cd) pyrene (4,230 ug/kg).

- iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site: for example, a Residual Contaminant Level (RCL), a Site-Specific Residual Contaminant Level (SSRCL), or a Performance Standard as determined under ss NR 720.09, 720.11 and 720.19, Wis. Adm. Code. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/information in Attachment C.

The method used to establish the industrial generic soil residual contaminant level soil cleanup standard is the suggested RR-890 generic RCLs for the direct contact risk and soil to groundwater risk.

The proposed soil performance standard for the soil to groundwater risk would be the use of the footprint of site buildings and the Pavillion and on-site asphalt and concrete ground surfaces as an impermeable barrier to reduce PAH contaminant leaching to the site groundwater system. There are no landscaped areas or natural vegetation on the property, except for a small berm area to the southeast of soil boring/monitoring well B-1.MW-1.

The proposed soil performance standard for the direct contact risk would include the use of the footprint of site buildings and the Pavillion and on-site asphalt and concrete ground surface as an impermeable barrier.

C. Groundwater

- i. Describe degree and extent of groundwater contamination at or from this site. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

Two monitoring wells (MW-1 and MW-2) were installed on the property as part of the groundwater investigation. Monitoring well MW-1 is located near the former ASTs and monitoring well MW-2 is located between Building 2 and Building 4, within the area of residual soil lead contamination.

Monitoring wells MW-1 and MW-2 were advanced, developed and sampled on September 10, 2013. Elevated concentrations of benzo (a) pyrene (0.63 ug/l), benzo (b) fluoranthene (0.49 ug/l), and chrysene (0.62 ug/l), in excess of their respective NR 140 ES, were detected in groundwater from monitoring well MW-2. No ES or PAL exceedances were detected in groundwater from monitoring well MW-1. Since monitoring wells MW-1 and MW-2 were sampled on the same day the wells were advanced and developed, elevated PAH levels detected in well MW-2 may be associated with suspended soil particles or colloids.

At the request of the WDNR, monitoring well MW-2 was redeveloped with the removal of 10 additional well volumes on September 25, 2013. Monitoring well MW-2 was resampled utilizing a low flow pump on October 2, 2013. No PAH concentrations, to within their specified laboratory method detection limit, except for a marginally elevated naphthalene concentration of 0.66 ug/l, were detected in groundwater from monitoring well MW-2. Consequently, the elevated PAHs initially detected in groundwater from well MW-2 on September 10, 2013 were most likely associated with suspended soil particles or colloids in the groundwater. Therefore, there is no soil to groundwater risk related to the PAHs detected in unsaturated and saturated soils on west portion of the property (MW-2) or within the area of the former ASTs (MW-1),

Consequently, on-site groundwater has not been impacted by PAHs related to the former ASTs located near Building 2 or by fill material brought onto the property within the west portion of the property. Therefore, there is no known or potential receptors/migration pathways at risk from the groundwater pathway on the property.

- ii. Describe the presence of free product at the site, including the thickness, depth, and locations.
No free product has been identified on the property.

D. Vapor

- i. Describe how the vapor migration pathway was assessed, including locations where vapor or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.
The vapor migration pathway was not assessed. This decision was based on the following: (a) the residual soil contaminants on the property are PAHs. PAHs have a very low vapor pressure and they do not easily partition to vapor. Therefore there is a very low potential for off-gassing vapors from the residual unsaturated PAH soil contamination on the property; (b) the buildings on the property were constructed slab-on-grade, with no subsurface footings, floor drains, or building foundation; and (c) shallow groundwater has not been impacted by residual PAH soil contamination and is not in contact with the building foundations.
- ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).
The vapor migration pathway was not assessed.

E. Surface Water and Sediment

- i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.
This pathway was not assessed. Groundwater on the property has not been impacted by detected PAHs in unsaturated and saturated soils on the property. Consequently, the Sturgeon Bay surface waters and/or sediments have not been impacted by PAH soil contamination.
- ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.
No surface water and/or sediment sampling was conducted.

4. Remedial Actions Implemented and Residual Levels at Closure

- A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.
Institutional Controls: Remedial action will consist of the use of the footprint of site buildings and the Pavillion and on-site asphalt and concrete surfaces as an impermeable barrier to address the soil to groundwater risk and direct contact risk for elevated PAHs in unsaturated and saturated soils on the property.
- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.
No immediate or interim actions related to PAHs in on-site soils have been taken at the site.
- C. Describe the *active* remedial actions taken at the site, including: type of remedial system(s) used for each media impacted; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.
No active remedial actions related to on-site residual PAH soil contamination has been taken on the property.
- D. Provide a discussion of the nature, degree and extent of residual contamination that will remain at the site or on off-site affected properties after case closure.
Elevated levels of benzo (a) pyrene (580 ug/kg), benzo(b) fluoranthene (2,000 ug/kg), and Chrysene (1,300 ug/kg), in excess of their respective suggested RR-890 generic RCLs soil to groundwater risk, will remain present in soils (GP-1) near the former ASTs.

Elevated levels of select PAHs, in excess of their respective suggested RR-890 generic RCLs direct contact risk, will remain present in soils from soil borings B-1, B-2, B-4, B-5, and B-6. Highest PAH concentrations were detected in soils from soil boring B-6, with elevated levels of benzo (a) anthracene (6,320 ug/kg), benzo (a) pyrene (7,680 ug/kg), benzo (b) fluoranthene (5,750 ug/kg), and indeno (1,2,3-cd) pyrene (4,230 ug/kg). Soil boring B-6 is located near the north corner of the Pavillion.

Elevated levels of select PAHs, in excess of their respective RR-890 generic RCLs soil to groundwater risk, will remain present in soils from soil borings B-2, B-4, and B-6. Highest PAH concentrations were detected in soils at 8-10 feet below grade from soil boring B-4, with elevated levels of benzo (a) pyrene (2,070 ug/kg), benzo (b) fluoranthene (1,930 ug/kg), and chrysene (2,580 ug/kg). Soil boring B-4 is located to the west of the Pavillion.

Residual PAH soil contamination related fill material brought onto the property is largely confined to the west portion of the property, near the Pavillion. Residual PAH soil contamination related to the former AST is confined to near the northeast corner of Building 2. PAH soil contamination is confined to the property boundaries.

No PAH concentrations, in excess of their respective NR 140 standards, were detected in groundwater from monitoring wells MW-1 and MW-2.

- E. Describe the remaining soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds the ch. NR720, Wis. Adm. Code, standard(s) for direct contact.

Elevated levels of select residual PAHs, in excess of their respective RR-890 generic RCLs direct contact risk, are present in soils from soil borings B-1, B-2, B-4, B-5, and B-6 at 0-4 feet below grade. Highest PAH concentrations were detected in soils from soil boring B-6 at 2-4 feet below grade, with elevated levels of benzo (a) anthracene (6,320 ug/kg), benzo (a) pyrene (7,680 ug/kg), benzo (b) fluoranthene (5,750 ug/kg), and indeno (1,2,3-cd) pyrene (4,230 ug/kg).

- F. Describe the remaining soil contamination in the vadose zone that attains or exceeds the soil standard(s) for the groundwater pathway.

Depth to groundwater within the west portion of the property is at approximately four feet below grade (MW-2 at 4.08 feet below grade), indicating that the vadose zone is within the direct contact zone. Consequently, the remaining soil contamination within the vadose zone is defined by the description of the remaining soil contamination within four feet of the ground surface.

- G. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

The residual on-site PAH soil contamination will be addressed by the use of the footprint of site buildings and the Pavillion and on-site asphalt and concrete surfaces as an impermeable barrier to reduce the soil to groundwater risk. There are no landscaped areas or natural vegetation on the property, except for a small berm area to the southeast of B-2/MW-2.

The residual site PAH soil contamination within four feet of the ground surface will be addressed by the use of the footprint of site buildings and Pavillion and on-site asphalt and concrete surfaces as an impermeable to eliminate the direct contact risk.

- H. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration, (e.g. stable or receding groundwater plume). Since there are no PAH NR 140 PAL or ES exceedances in site groundwater, natural attenuation as a groundwater remedy is not required.
- I. Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s) described above in paragraphs, B, C, D, E and F. The footprint of site buildings and the Pavillion and on-site asphalt and concrete ground surfaces has eliminated the direct contact risk and has adequately addressed the soil to groundwater risk on the property.
- J. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain. No active remedial system related to on-site PAH soil contamination was installed on the property.

- K. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.

No NR 140 PAL and ES exceedances, related to the on-site PAH soil contamination, were detected in on-site groundwater. Therefore, there is no need for a ch. NR 140 WAC groundwater PAL or ES exemption.

- L. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed. The vapor migration pathway was not assessed.

- M. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed. Site groundwater has not been impacted by PAH soil contamination on the property. Consequently, the surface water and/or sediment pathway was not assessed.

5. Continuing Obligations: Situations where a maintenance plan(s) and inclusion on DNR's GIS Registry are required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: Maintenance Plans and GIS Registry	Maintenance Plan (s) Required in Attachment D	GIS Registry Listing
	A. On-Site	B. Off-Site			
i.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Engineering Control/Barrier for Direct Contact	✓	✓
ii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Engineering Control/Barrier for Groundwater Infiltration	✓	✓
iii.	<input type="checkbox"/>	<input type="checkbox"/>	Vapor Mitigation - post closure passive system	✓	✓
iv.	<input type="checkbox"/>	<input type="checkbox"/>	Vapor Mitigation - post closure active system	✓	✓
v.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None of the above scenarios apply to this case closure	NA	NA

6. Continuing Obligations: Situations where inclusion on DNR's GIS Registry is required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: GIS Registry Only	GIS Registry Listing
	A. On-Site	B. Off-Site		
i.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 generic or site-specific RCLs	✓
ii.	<input type="checkbox"/>	<input type="checkbox"/>	Sites with groundwater contamination equal to or greater than the ch. NR 140, enforcement standards (ES)	✓
iii.	<input type="checkbox"/>	<input type="checkbox"/>	Monitoring wells: lost, transferred or remaining in use	✓
iv.	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment (not as a performance standard)	✓
v.	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination remaining at ch. NR 720 Industrial Use levels	✓
vi.	<input type="checkbox"/>	<input type="checkbox"/>	Vapor intrusion may be future, post-closure issue if building use or land use changes	✓
vii.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	None of the above scenarios apply to this case closure	NA

7. Underground Storage Tanks

- A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? Yes No
- B. Do any upgraded tanks meeting the requirements of ch. SPS 310, Wis. Adm. Code, exist on the property? Yes No
- C. If the answer to question 7b is yes, is the leak detection system currently being monitored? Yes No

Data Tables (Attachment A)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General directions for Data Tables:

- Use bold and italics font on information of importance on tables and figures. Use **bold font** for ch. NR 140, Wis. Adm. Code, groundwater enforcement standard (ES) attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, groundwater preventive action limit (PAL) standard attainments or exceedances.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e. do not just list as no detect (ND)).
- Include the units on data tables.

- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15(2)(g)3, Wis. Adm. Code, in the format required in s. NR 716.15(2)(h)3, Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Pre-remedial Soil Analytical Table, etc).
- For required documents, each table (e.g., A.1., A.2., etc.,) should be a separate PDF.

A. Data Tables

- A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates, for all groundwater sampling points e.g. monitoring wells, temporary wells, sumps, extraction wells, any potable wells and any other wells, extraction wells and any potable wells for which samples have been collected.
- A.2. **Pre-remedial Soil Analytical Table(s):** Table(s) showing the soil analytical results and collection dates - prior to conducting the interim and/or remedial action. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).
- A.3. **Post-remedial Soil Analytical Table(s):** Table(s) showing the post-remedial action soil analytical results and collection dates. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).
- A.4. **Pre and Post Remaining Soil Contamination Soil Analytical Table(s):** Table(s) showing only the pre and post remedial action soil analytical results that exceed a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL).
- A.5. **Vapor Analytical Table:** Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.
- A.6. **Other Media of Concern (e.g., sediment or surface water):** Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, time period for sample collection, method and results sampling.
- A.7. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.
- A.8. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

Maps and Figures (Attachment B)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions for all Maps and Figures:

- If any map or figure is not relevant to the case closure request, you must fully explain the reason(s) why and attach that explanation (properly labeled with the map/ figure title) in Attachment B.
- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11x17 inches, in a portable document format (pdf) readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(2)(h)1 and 726.05(3)(a)4.d, Wis Adm. Code.
- Do not use shading or highlights on any of the analytical tables.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.

B.1. Location Maps

- B.1.a. **Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all impacted and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.
- B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for on-site and applicable off-site properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels

(SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code.

- B.1.c. **RR Site Map:** From RR Sites Map (<http://dnrmaps.wi.gov/imf/imf.jsp?site=brrts2>) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

B.2. Soil Figures

- B.2.a. **Pre-remedial Soil Contamination:** Figure(s) showing the sample location of all pre-remedial, unsaturated contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeded a Residual Contaminant Level (RCL) or a Site-Specific Residual Contaminant Level (SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code.
- B.2.b. **Post-remedial Soil Contamination :** Figure(s) showing the sample location of all post-remedial, unsaturated contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site-Specific Residual Contaminant Level (SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.
- B.2.c. **Pre/Post Remaining Soil Contamination:** Figure(s) showing the only location of all pre and post remedial residual soil sample location(s) where unsaturated contaminated soil remains after remediation and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site-Specific Residual Level (SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Admin. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.3. Groundwater Figures

- B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:
- Source location(s) and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
 - Source location(s) and lateral and vertical extent if groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES)
 - Surface features, including buildings and basements, and show surface elevation changes.
 - Any areas of active remediation within the cross section path, such as excavations or treatment zones.
 - Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1b)
- B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, Preventive Action Limit (PAL) and/or an Enforcement Standard (ES). Indicate the date and direction of groundwater flow based on the most recent sampling data.
- B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.
- B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been previously abandoned.

B.4. Vapor Maps and Other Media

- B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway, in relation to remaining soil and groundwater contamination, including sub-slab, indoor air, soil vapor, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.
- B.4.b. **Other media of concern (e.g., sediment or surface water):** Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.
- B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank)

Documentation of Remedial Action (Attachment C)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc).
- If the documentation requested below is "not applicable" to the site-specific circumstances, include a brief explanation to support that conclusion.
- If the documentation requested below has already been submitted to the Department, please note the title and date of the report for

that particular document requested.

- C.1. **Site investigation documentation**, that has not otherwise been previously submitted.
- C.2. **Investigative waste** disposal documentation.
- C.3. **NR 720.19 analysis**, assumptions and calculations for site specific RCLs (SSRCLs) , with justification, including EPA Soil Screening Level Model Calculations and results.
- C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.
- C.5. **Decommissioning of Remedial Systems**. Include plans to properly abandon any systems or equipment upon receiving conditional closure.
- C.6. **Photos**. For sites or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system. Include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features should be visible and discernible. Photographs must be labeled with the site name, the features shown, location and the date on which the photograph was taken.
- C.7. **Other**. Include any other relevant documentation not otherwise noted above. (This section may remain blank)

Maintenance Plan(s) (Attachment D)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

When one or more "maintenance plans" are required for a site closure, include in each maintenance plan all required information in sections D.1. through D.5. below, and attach the plan(s) in Attachment D. The following "model" maintenance plans can be located at: (1) Maintenance plan for a engineering control or cover: <http://dnr.wi.gov/topic/Brownfields/documents/maintenance-plan.pdf>; and (2) Maintenance plan for vapor intrusion: http://dnr.wi.gov/topic/Brownfields/documents/appendix5_606.pdf.

- D.1. **Location map(s)** which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) and all property boundaries.
- D.2. **Brief descriptions** of the type, depth and location of residual contamination.
- D.3. **Description of maintenance action(s)** required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
- D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter.
- D.5. **Contact information**, including the name, address and phone number of the individual or facility who will be conducting the maintenance.

Monitoring Well Information (Attachment E)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

Attach monitoring well construction and development forms (DNR FORM 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf) for all wells that will remain in-use, be transferred to another party or that could not be located. A figure of these wells should be included in Attachment B.3.d.

Select One:

- No monitoring wells were required as part of this response action.
- All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site
- Select One or More:**
- Not all monitoring wells can be located, despite good faith efforts. Attachment E must include description of efforts made to locate the "lost" wells.
- One or more wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s).
- One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use.

Notifications to Owners of Impacted Properties (Attachment F)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- State law requires that the responsible party provide a 30-day, written advance notice (i.e., a letter) to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned.
- A model "template letter" for these mandatory notifications can be downloaded at: <http://dnr.wi.gov/files/PDF/pubs/rr/RR919.pdf>.

Check all that apply to the site-specific circumstances of this case closure:

	A. Impacted Source Property and Owner is not Conducting Cleanup	B. Impacted Right of Way	C. Impacted Off-Site Property Owner	Impacted Property Notification Situations: Ch. NR 726 Appendix A Letter
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual groundwater contamination exceeds Ch. NR 140 Wis. Administrative Code enforcement standards.
2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination that attains or exceeds standards is present after the remedial action is complete, and must be properly managed should it be excavated or removed.
3.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	An engineered cover or a soil barrier (e.g. pavement) must be maintained over contaminated soil for direct contact or groundwater infiltration concerns.
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Industrial land use soil standards were used for the clean-up standard.
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A vapor mitigation system (or other specific vapor protection) must be operated and maintained.
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor assessment needed if use changes.
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural impediment.
8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lost, transferred or open monitoring wells.
9.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable.

If any of the previous boxes in rows 1 thru 8 were checked, include the following as part of Attachment F:

- FORM 4400-246;
- Copy of each letter sent, 30 days or more prior to requesting closure; and
- Proof of receipt for each letter.
- For this site closure, 1 (number) property (ies) has/have been impacted, the owners have been notified, and copies of the letters and receipts are included in Attachment F.

Source Legal Documents (Attachment G)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Include all of the following documents, in this order, in Attachment G:

- G.1. **Deeds - Source Property and Other Impacted Properties:** The most recent deed with legal descriptions clearly labeled for (1) the **Source Property** (where the contamination originated) and (2) all **off-source** (off-site) properties where letters were required to be sent per the ch. NR 700, Wis. Adm. Code, rule series (e.g., off-site cover maintenance required, lost monitoring well, off-site cover property impacts to groundwater exceeding the ch. NR 140, Wis. Adm. Code).
Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- G.2. **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. (Lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).
- G.3. **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- G.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

Signatures and Findings for Closure Determination

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Check the correct signature block below for this case closure request, and have the proper environmental professional(s) sign this document, in accordance with the ch. NR 700 Wis. Adm. Code rule series. Both boxes may be checked if applicable to this case closure.

- A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies). In this situation, the closure request must be prepared by, or under the supervision of, a professional engineer and a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code. Include both signatures provided below with the submittal.
- The response action(s) for this site addresses media other than groundwater. In this situation, the case closure request must be prepared by, or under the supervision of, a professional engineer, as defined in ch. NR 712, Wis. Adm. Code. The "engineering certification" language below, at a minimum, must be signed.

Engineering Certification

I _____ hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. All phases of work necessary to obtain data, develop conclusions, recommendations and prepare submittals for this case closure request have been prepared by me, or their preparation has been supervised by me. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Printed Name	Title	
Signature	Date	P.E. Stamp and Number

Hydrogeologist Certification

I Scott Bartling hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. All phases of work necessary to address groundwater contamination including obtaining data, developing conclusions, recommendations and preparing submittals for this case closure request have been prepared by me, or their preparation has been supervised by me. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Scott Bartling Printed Name	Hydrogeologist/Geologist Title
 Signature	<u>2/21/14</u> Date

TABLE A.1
GROUNDWATER ANALYTICAL DATA

GREAT LAKES YACHT SERVICES
STURGEON BAY, WISCONSIN

Sample Location	MW-1	MW-2		NR 140 Preventive Action Limit	NR 140 Enforcement Standard
	Sample Date	09/10/13	10/02/13		
Depth to Water (ft btc)	6.90	4.15		0.5	5
Benzene (ug/L)	<0.50	NA	NA	0.5	5
PAHs (ug/L)					
Acenaphthene	0.0060 J	0.17 J	<0.0092	NS	NS
Acenaphthylene	0.0080 J	0.29	<0.10	NS	NS
Anthracene	0.012 J	0.46	<0.14	600	3,000
Benzo (a) anthracene	0.0060 J	0.57	<0.049	NS	NS
Benzo (a) pyrene	<0.0095	0.63	<0.057	0.02	0.2
Benzo (b) fluoranthene	0.0086 J	0.49	<0.061	0.02	0.2
Benzo (g,h,i) perylene	0.0088 J	0.35	<0.36	NS	NS
Benzo (k) fluoranthene	<0.010	0.49	<0.13	NS	NS
Chrysene	0.0095 J	0.62	<0.070	0.02	0.2
Dibenzo (a,h) anthracene	<0.0066	0.16 J	<0.085	NS	NS
Fluoranthene	0.020 J	1.2	<0.15	80	400
Fluorene	0.016 J	0.27	<0.13	80	400
Indeno (1,2,3-cd) pyrene	<0.0085	0.34	<0.058	NS	NS
1-Methylnaphthalene	0.059	0.20	<0.37	NS	NS
2-Methylnaphthalene	0.065	0.23	<0.063	NS	NS
Naphthalene	0.039 J	0.55	0.66 J	10	100
Phenanthrene	0.050	0.76	<0.16	NS	NS
Pyrene	0.017 J	1.1	<0.17	50	250

Notes:

- PAH: Polynuclear Aromatic Hydrocarbons
- ug/L: microgram per liter equivalent to parts per billion (ppb)
- ft btc: Feet below top of casing
- <x: compound not detected to a detection level of x
- NR: Natural Resources Chapter of the Wisconsin Administrative Code
- NA: Not Analyzed
- NS: No Standard
- J: Result detected between laboratory method detection limit and quantitation limit
- Italics / Parentheses / Blue*: Concentration Exceeds NR 140 Preventive Action Limit
- Bold / Underline / Red**: Concentration Exceeds NR 140 Enforcement Standard

TABLE A.2
Pre-remedial Soil Analytical Table

GREAT LAKES YACHT SERVICES
STURGEON BAY, WISCONSIN

Sample Location	GP-1	GP-2	GP-3	B-1 / MW-1		B-2 / MW-2		Suggested RR-890 Generic RCLs	
	4-6	4-6	4-6	2-4	6-8	0-2	4-6	Direct Contact Risk (ug/kg)	Soil to Groundwater Risk (ug/kg)
	Sample Date	8/1/13	8/1/13	8/1/13	09/10/13	09/10/13	09/10/13		
PAH Results (ug/kg)	Unsat	Unsat	Unsat	Unsat	Sat	Unsat	Sat		
Acenaphthene	<10	<9.9	11 J	<9.0	<9.9	<9.0	<103	33,000,000	NS
Acenaphthylene	53	19 J	<7.6	131	<9.9	17.2 J	411	NS	NS
Anthracene	90	24 J	36	88.9	<9.9	41	529	100,000,000	196,744.2
Benzo (a) anthracene	740	130	95	166	<9.9	124	1,600	2,110	NS
Benzo (a) pyrene	<u>580</u>	130	85	(252)	5.7 J	143	<u>1,660</u>	211	470
Benzo (b) fluoranthene	<u>2,000</u>	200	140	188	<9.9	159	<u>1,210</u>	2,110	480
Benzo (g,h,i) perylene	620	120	44	179	<9.9	59.6	918	NS	NS
Benzo (k) fluoranthene	610	69	52	208	4.5 J	147	1,390	21,100	NS
Chrysene	<u>1,300</u>	<u>160</u>	110	197	<9.9	<u>166</u>	<u>1,630</u>	211,000	145.1
Dibenzo (a,h) anthracene	140	29 J	<9.2	55.5	<9.9	22.5	316	211	NS
Fluoranthene	1,300	330	290	207	<9.9	301	2,860	22,000,000	88,817.9
Fluorene	15 J	10 J	<7.5	<9.0	<9.9	9.4 J	126 J	22,000,000	14,814.8
Indeno (1,2,3-cd) pyrene	460	78	36	128	<9.9	59.7	807	2,110	NS
1-Methylnaphthalene	22 J	29 J	<16	86	7.9 J	8.6 J	<36.5	53,100	NS
2-Methylnaphthalene	<44	<43	<43	120	<9.9	11.2 J	<103	2,200,000	NS
Naphthalene	25 J	23 J	<6.4	79	<9.9	9.8 J	<103	26,000	658.7
Phenanthrene	190	210	190	126	<9.9	142	888	NS	NS
Pyrene	1,800	350	250	215	<9.9	246	2,840	16,500,000	54,472.5

Notes:

PAH: Polynuclear Aromatic Hydrocarbons

ug/kg: microgram per kilogram equivalent to parts per billion (ppb)

RCLs: Residual Contaminant Levels

NS: no standard

J: Result detected between laboratory method detection limit and quantitation limit

Result indicated in red/underlined exceeds the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway.

Result indicated in green/parentheses exceeds the June 2013 WDNR Publication RR-890 RCL for direct contact risk (only samples within four feet of the ground surface).

Result indicated in red/underlined and parentheses exceed the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway and direct contact.

TABLE A.2
Pre-remedial Soil Analytical Table

GREAT LAKES YACHT SERVICES
STURGEON BAY, WISCONSIN

Sample Location	B-3		B-4		B-5		B-6		Suggested RR-890 Generic RCLs	
	2-4	4-6	2-4	8-10	2-4	4-6	2-4	4-6	Direct Contact Risk (ug/kg)	Soil to Groundwater Risk (ug/kg)
	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13		
Sample Date	Unsat	Sat	Unsat	Sat	Unsat	Sat	Unsat	Sat		
PAH Results (ug/kg)	<8.9	<10.5	<9.0	1,120	<99.0	<12.8	2,620	34.3 J	33,000,000	NS
Acenaphthene	<8.9	<10.5	21.6	700	221	16.7 J	494 J	273	NS	NS
Acenaphthylene	<8.9	<10.5	22.6	2,790	513	41.7	2,570	364	100,000,000	196,744.2
Anthracene	<8.9	<10.5	35.2	2,480	1,320	122	(6,320)	423	2,110	NS
Benzo (a) anthracene	<8.9	<10.5	63.8	2,070	(1,430)	134	(7,680)	602	211	470
Benzo (a) pyrene	<3.2	<3.7	50.1	1,930	(1,410)	122	(5,750)	558	2,110	480
Benzo (b) fluoranthene	<8.9	<10.5	37.3	668	762	83.7	4,930	292	NS	NS
Benzo (g,h,i) perylene	<8.9	<10.5	38.3	1,740	1,170	69.3	7,380	369	21,100	NS
Benzo (k) fluoranthene	<3.1	<3.7	49.2	2,580	1,400	145	7,310	399	211,000	145.1
Chrysene	<8.9	<10.5	10.6 J	287	(252)	43.9	(1,750)	94.7	211	NS
Dibenzo (a,h) anthracene	<8.9	<10.5	41.8	6,460	2,550	154	12,000	633	22,000,000	88,817.9
Fluoranthene	<8.9	<10.5	<9.0	2,280	<99.0	13.5 J	1,590	131	22,000,000	14,814.8
Fluorene	<8.9	<10.5	25.1	695	649	51.8	(4,230)	226	2,110	NS
Indeno (1,2,3-cd) pyrene	<8.9	<10.5	8.6 J	759	<35.0	10.3 J	351 J	75.6	53,100	NS
1-Methylnaphthalene	<3.1	<3.7	10.0 J	976	<99.0	13.0 J	580 J	222	2,200,000	NS
2-Methylnaphthalene	<8.9	<10.5	<9.0	128 J	<99.0	24.2 J	2,120	177	26,000	658.7
Naphthalene	<8.9	<10.5	33.2	8,400	1,200	116	9,450	635	NS	NS
Phenanthrene	<8.9	<10.5	52.9	5,470	2,190	150	9,930	895	16,500,000	54,472.5
Pyrene	<8.9	<10.5								

Notes:

PAH: Polynuclear Aromatic Hydrocarbons

ug/kg: microgram per kilogram equivalent to parts per billion (ppb)

RCLs: Residual Contaminant Levels

NS: No Standard

J: Result detected between laboratory method detection limit and quantitation limit

Result indicated in red/underlined exceeds the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway.

Result indicated in green/parentheses exceeds the June 2013 WDNR Publication RR-890 RCL for direct contact risk (only samples within four feet of the ground surface).

Result indicated in red/underlined and parentheses exceed the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway and direct contact.

Table A. 3 Post-remedial Soil Analytical Table not included. No active remedial actions related to PAHs in on-site soils has been taken at the property therefore, there are no post-remedial action soil analytical results.

TABLE A.4
Pre and Post Remaining Soil Contamination Soil Analytical Table

GREAT LAKES YACHT SERVICES
STURGEON BAY, WISCONSIN

Sample Location	GP-1	GP-2	GP-3	B-1 / MW-1		B-2 / MW-2		Suggested RR-890 Generic RCLs	
	4-6	4-6	4-6	2-4	6-8	0-2	4-6	Direct Contact Risk (ug/kg)	Soil to Groundwater Risk (ug/kg)
Sample Depth (feet)	8/1/13	8/1/13	8/1/13	09/10/13	09/10/13	09/10/13	09/10/13		
Sample Date	Unsat	Unsat	Unsat	Unsat	Sat	Unsat	Sat		
PAH Results (ug/kg)									
Acenaphthene	<10	<9.9	11 J	<9.0	<9.9	<9.0	<103	33,000,000	NS
Acenaphthylene	53	19 J	<7.6	131	<9.9	17.2 J	411	NS	NS
Anthracene	90	24 J	36	88.9	<9.9	41	529	100,000,000	196,744.2
Benzo (a) anthracene	740	130	95	166	<9.9	124	1,600	2,110	NS
Benzo (a) pyrene	580	130	85	(252)	5.7 J	143	1,660	211	470
Benzo (b) fluoranthene	2,000	200	140	188	<9.9	159	1,210	2,110	480
Benzo (g,h,i) perylene	620	120	44	179	<9.9	59.6	918	NS	NS
Benzo (k) fluoranthene	610	69	52	208	4.5 J	147	1,390	21,100	NS
Chrysene	1,300	160	110	197	<9.9	166	1,630	211,000	145.1
Dibenzo (a,h) anthracene	140	29 J	<9.2	55.5	<9.9	22.5	316	211	NS
Fluoranthene	1,300	330	290	207	<9.9	301	2,860	22,000,000	88,817.9
Fluorene	15 J	10 J	<7.5	<9.0	<9.9	9.4 J	126 J	22,000,000	14,814.8
Indeno (1,2,3-cd) pyrene	460	78	36	128	<9.9	59.7	807	2,110	NS
1-Methylnaphthalene	22 J	29 J	<16	86	7.9 J	8.6 J	<36.5	53,100	NS
2-Methylnaphthalene	<44	<43	<43	120	<9.9	11.2 J	<103	2,200,000	NS
Naphthalene	25 J	23 J	<6.4	79	<9.9	9.8 J	<103	26,000	658.7
Phenanthrene	190	210	190	126	<9.9	142	888	NS	NS
Pyrene	1,800	350	250	215	<9.9	246	2,840	16,500,000	54,472.5

Notes:

PAH: Polynuclear Aromatic Hydrocarbons

ug/kg: microgram per kilogram equivalent to parts per billion (ppb)

RCLs: Residual Contaminant Levels

NS: no standard

J: Result detected between laboratory method detection limit and quantitation limit

Result indicated in red/underlined exceeds the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway.

Result indicated in green/parentheses exceeds the June 2013 WDNR Publication RR-890 RCL for direct contact risk (only samples within four feet of the ground surface).

Result indicated in red/underlined and parentheses exceed the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway and direct contact.

TABLE A.4
Pre and Post Remaining Soil Contamination Soil Analytical Table

GREAT LAKES YACHT SERVICES
STURGEON BAY, WISCONSIN

Sample Location	B-3		B-4		B-5		B-6		Suggested RR-890 Generic RCLs	
	2-4	4-6	2-4	8-10	2-4	4-6	2-4	4-6	Direct Contact Risk (ug/kg)	Soil to Groundwater Risk (ug/kg)
	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13	09/10/13		
Sample Date	Unsat	Sat	Unsat	Sat	Unsat	Sat	Unsat	Sat		
PAH Results (ug/kg)	<8.9	<10.5	<9.0	1,120	<99.0	<12.8	2,620	34.3 J	33,000,000	NS
Acenaphthene	<8.9	<10.5	21.6	700	221	16.7 J	494 J	273	NS	NS
Acenaphthylene	<8.9	<10.5	22.6	2,790	513	41.7	2,570	364	100,000,000	196,744.2
Anthracene	<8.9	<10.5	35.2	2,480	1,320	122	(6,320)	423	2,110	NS
Benzo (a) anthracene	<8.9	<10.5	63.8	2,070	(1,430)	134	(7,680)	602	211	470
Benzo (a) pyrene	<3.2	<3.7	50.1	1,930	(1,410)	122	(5,750)	558	2,110	480
Benzo (b) fluoranthene	<8.9	<10.5	37.3	668	762	83.7	4,930	292	NS	NS
Benzo (g,h,i) perylene	<8.9	<10.5	38.3	1,740	1,170	69.3	7,380	369	21,100	NS
Benzo (k) fluoranthene	<3.1	<3.7	49.2	2,580	1,400	145	7,310	399	211,000	145.1
Chrysene	<8.9	<10.5	10.6 J	287	(252)	43.9	(1,750)	94.7	211	NS
Dibenzo (a,h) anthracene	<8.9	<10.5	41.8	6,460	2,550	154	12,000	633	22,000,000	88,817.9
Fluoranthene	<8.9	<10.5	<9.0	2,280	<99.0	13.5 J	1,590	131	22,000,000	14,814.8
Fluorene	<8.9	<10.5	25.1	695	649	51.8	(4,230)	226	2,110	NS
Indeno (1,2,3-cd) pyrene	<8.9	<10.5	8.6 J	759	<35.0	10.3 J	351 J	75.6	53,100	NS
1-Methylnaphthalene	<3.1	<3.7	10.0 J	976	<99.0	13.0 J	580 J	222	2,200,000	NS
2-Methylnaphthalene	<8.9	<10.5	<9.0	128 J	<99.0	24.2 J	2,120	177	26,000	658.7
Naphthalene	<8.9	<10.5	33.2	8,400	1,200	116	9,450	635	NS	NS
Phenanthrene	<8.9	<10.5	52.9	5,470	2,190	150	9,930	895	16,500,000	54,472.5
Pyrene	<8.9	<10.5								

Notes:

PAH: Polynuclear Aromatic Hydrocarbons

ug/kg: microgram per kilogram equivalent to parts per billion (ppb)

RCLs: Residual Contaminant Levels

NS: No Standard

J: Result detected between laboratory method detection limit and quantitation limit

Result indicated in red/underlined exceeds the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway.

Result indicated in green/parentheses exceeds the June 2013 WDNR Publication RR-890 RCL for direct contact risk (only samples within four feet of the ground surface).

Result indicated in red/underlined and parentheses exceed the June 2013 WDNR Publication RR-890 RCL for soil to groundwater pathway and direct contact.

Table A. 5 Vapor Analytical Table not included. Residual soil PAH contaminants have a very low vapor pressure and do not readily partition to vapor. Therefore there is a very low potential for off-gassing of PAH vapors. Additionally, buildings on the property were constructed slab-on-grade, with no subsurface footings, floor drains, or building foundation. Consequently, the vapor migration pathway was not assessed.

Table A. 6 Other Media of Concern (e.g., sediment or surface water) not included. Groundwater on the property has not been impacted by PAHs in unsaturated and saturated soils on the property. Consequently, Sturgeon Bay surface waters and/or sediments have not been impacted by PAH soil contamination. Therefore, the surface water and sediment pathway was not assessed.

Table A. 7 Water Table Elevations not included. Two monitoring wells (MW-1 and MW-2) were installed on the property as part of the site investigation. Depths to water measurements were collected only on September 10, 2013, with a depth to water of 4.08 feet below grade for MW-2 and 6.85 feet below grade for MW-1.

Table A. 8 (1) Natural Attenuation Data not included: Since there are no PAH NR 140 PAL or ES exceedances in site groundwater, natural attenuation as a groundwater remedy is not required.

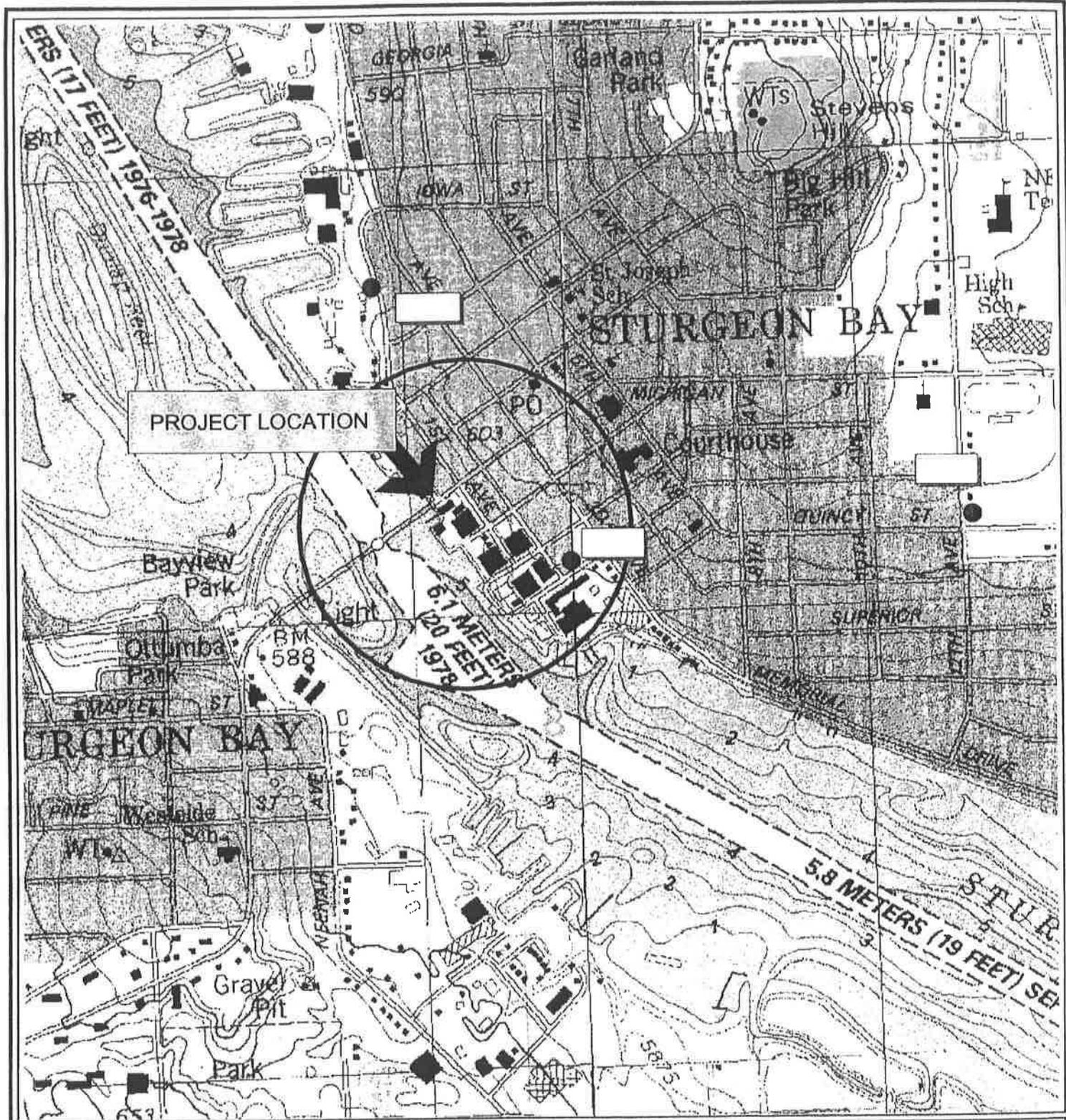
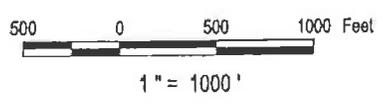


FIGURE B.1. a

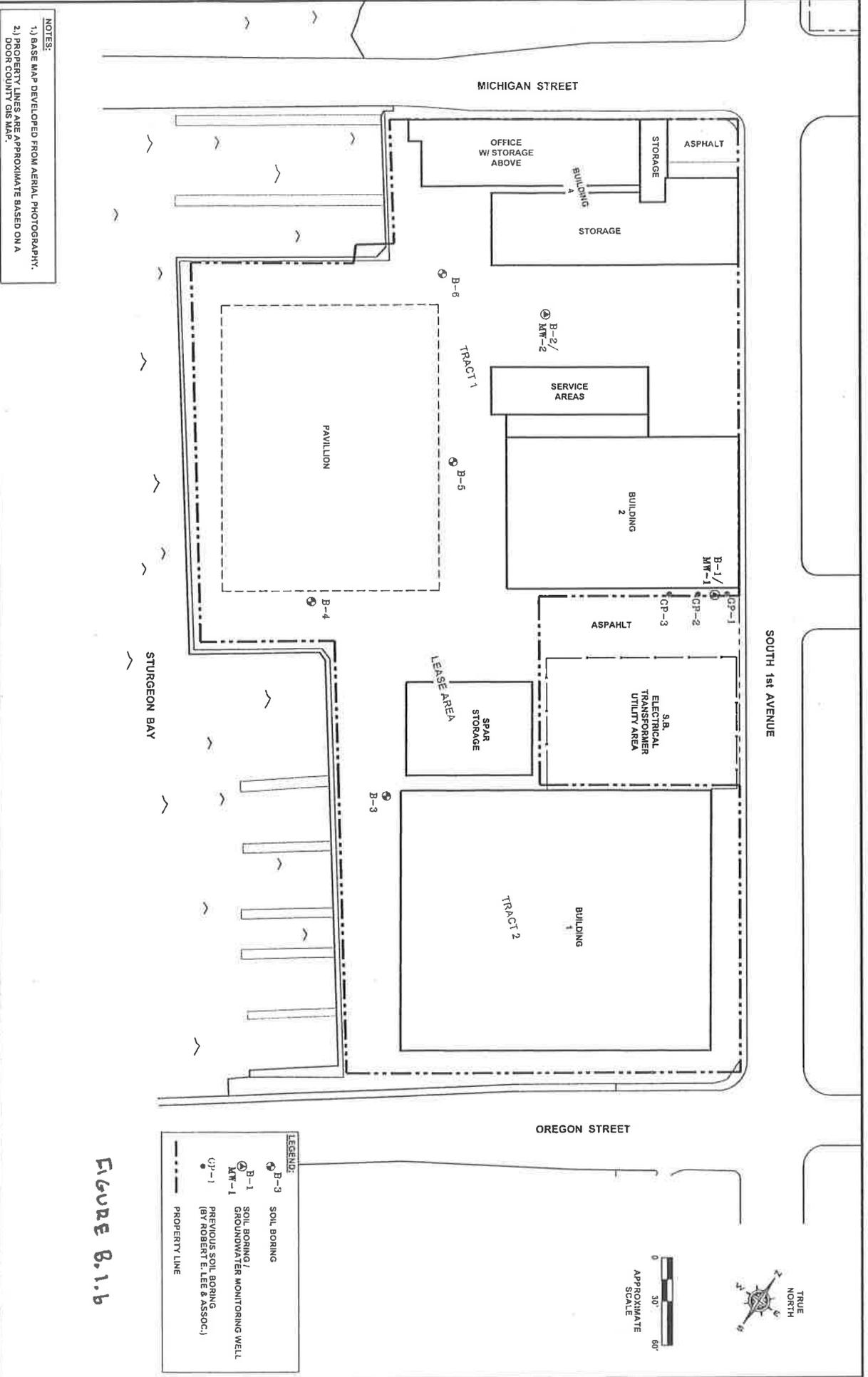
Site Location Map

 1200' Site Buffer



QUADRANGLES SHOWN:
STURGEON BAY EAST; STURGEON BAY WEST

Data Sources:
Public Wells: Wisconsin DNR
Digital Raster Graphic (DRG): Wisconsin DNR
Well Locations are Approximate



NOTES:
 1.) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHY.
 2.) PROPERTY LINES ARE APPROXIMATE BASED ON A DOOR COUNTY GIS MAP.

LEGEND:
 B-3 SOIL BORING
 B-1 SOIL BORING /
 MW-1 GROUNDWATER MONITORING WELL
 CP-1 PREVIOUS SOIL BORING
 (BY ROBERT E. LEE & ASSOC.)
 --- PROPERTY LINE

0 30' 60'
 APPROXIMATE
 SCALE



Detailed Site Map

FIGURE B.1.b



RR Site Map



Legend

- ◆ Open Site (ongoing cleanup)
- Open Site Boundary
- ◆ Closed Site (completed cleanup)
- Closed Site Boundary
- Airport
- 2010 Air Photos (WROC)
- Cities
- Villages

0.1 0 0.05 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

© Latitude Geographics Group Ltd.

1: 3,250



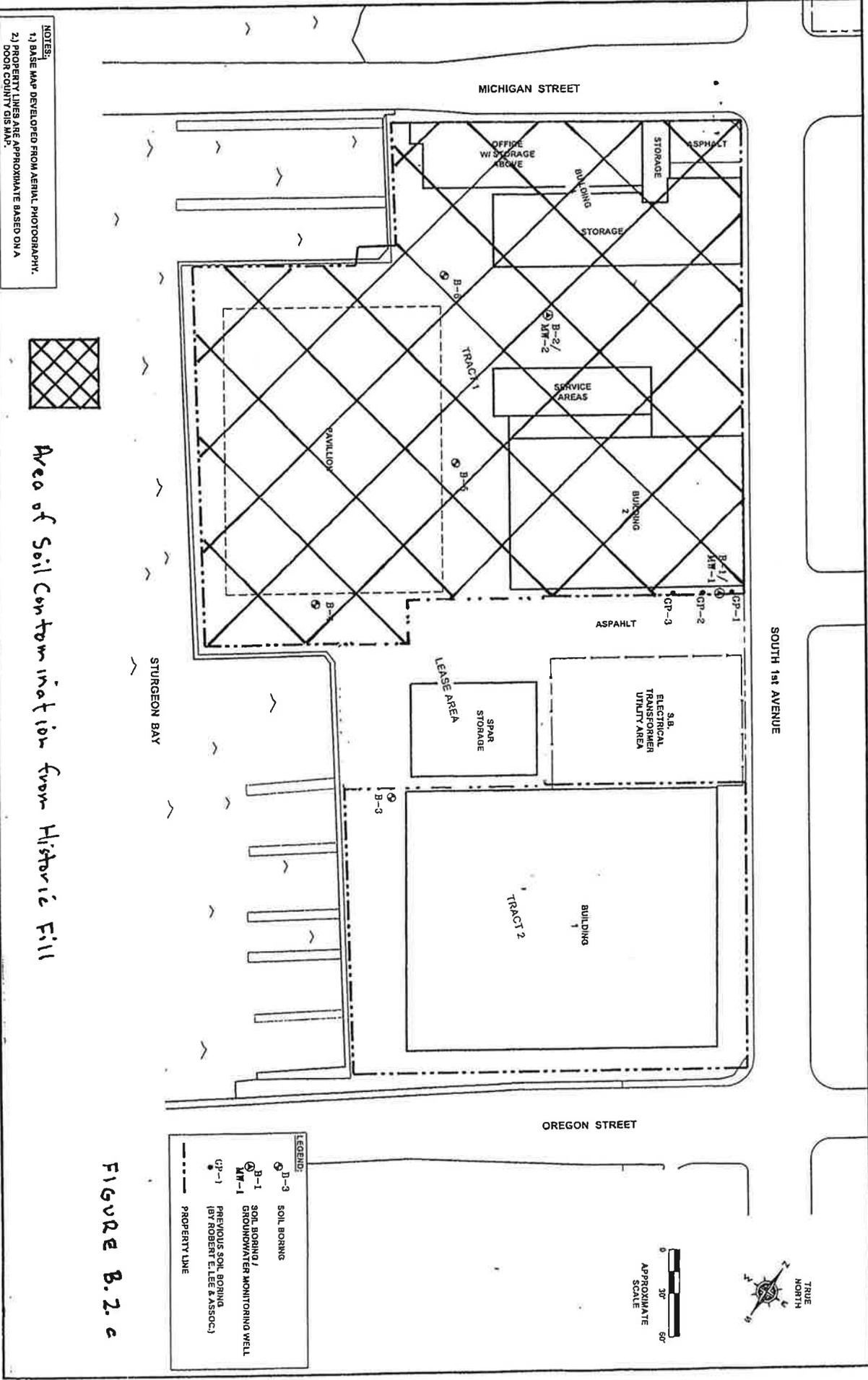
DISCLAIMER: The information shown on these maps has been obtained from various sources and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wis.gov/org/legal/>

Note: Not all sites are mapped.

Notes

FIGURE B.1.c

Figure B. 2. b Post-remedial Soil Contamination Map not included. Soil active remedial activities related to on-site PAH soil contamination were not conducted on the Great Lakes Yacht Services site.



NOTES:
 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHY.
 2) PROPERTY LINES ARE APPROXIMATE BASED ON A DOOR COUNTY GIS MAP.



Area of Soil Contamination from Historic Fill
 Pre/Post Remaining Soil Contamination

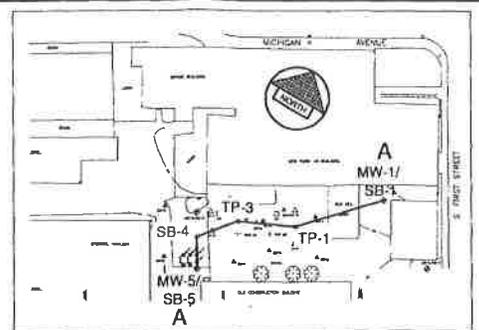
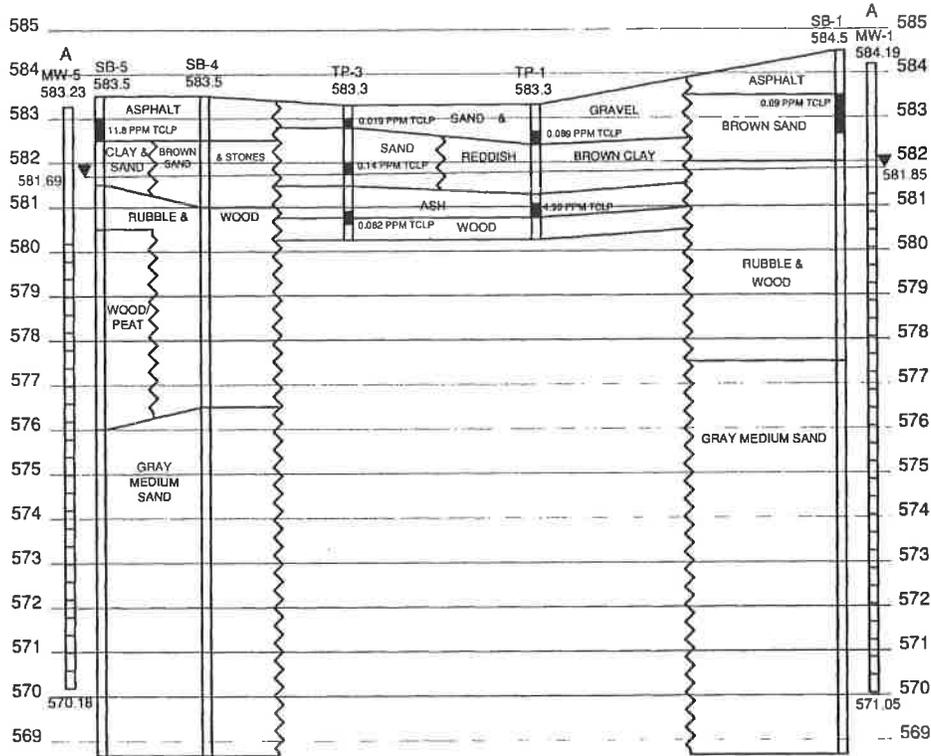
LEGEND:
 B-3 SOIL BORING
 B-1 SOIL BORING / SPT BORING / GROUNDWATER MONITORING WELL
 M-1 PREVIOUS SOIL BORING (BY ROBERT E. LEE & ASSOC.)
 --- PROPERTY LINE

0 30' 60'
 APPROXIMATE SCALE



FIGURE B.2.c

Figure B. 3. a Geologic Cross-Section Figure. Since the lithology in soil borings B-1 through B-6 is consistent with the lithology depicted in the geologic cross-section presented in the 2005 closure report by Robert E. Lee & Associates (REL), the geologic cross-section presented in Figure B. 3. a is from the REL closure report.



SCALE

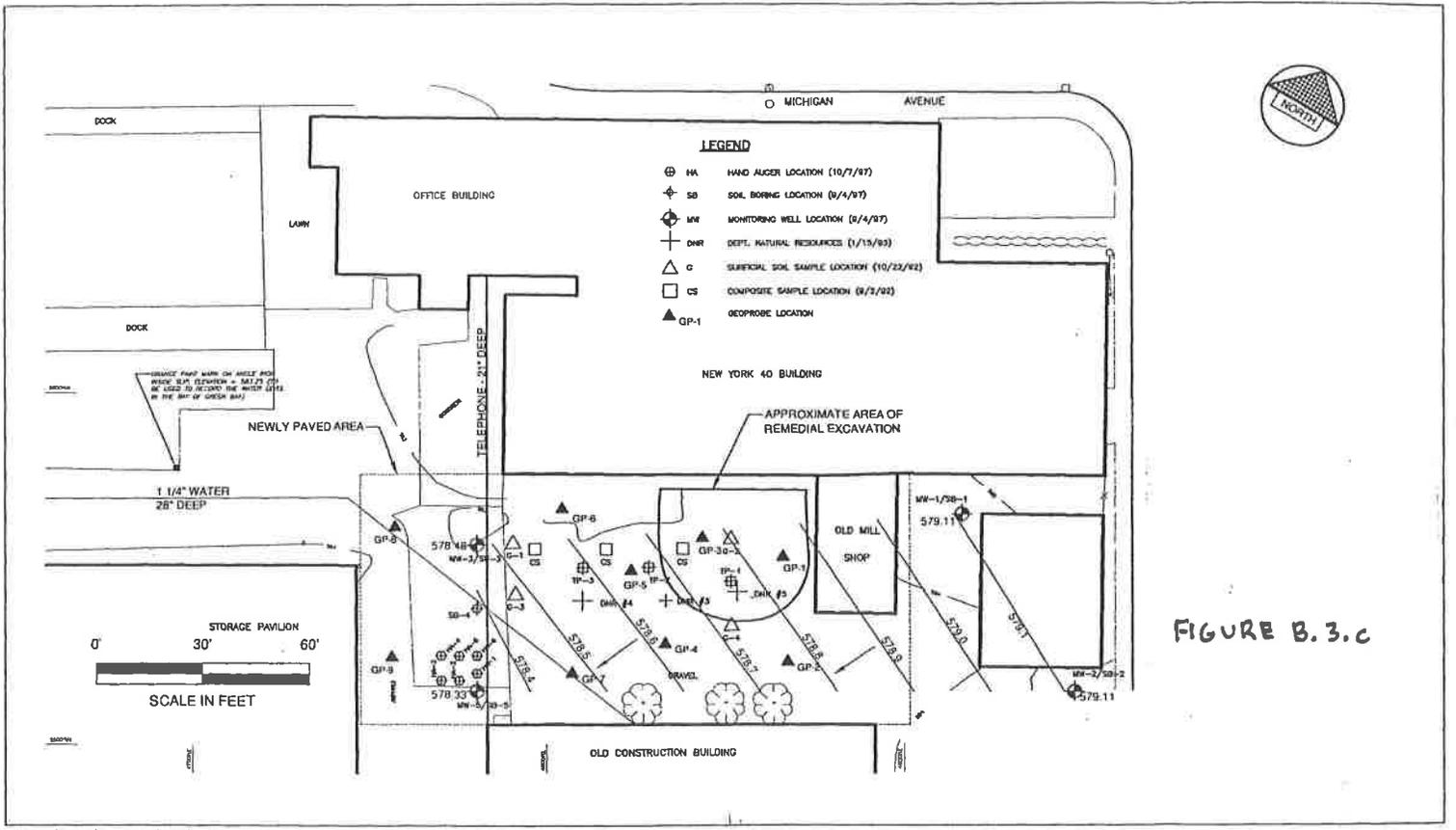
VERTICAL 1" = 2'
 HORIZONTAL 1" = 20'

FIGURE B.3.a

Geologic Cross-Section

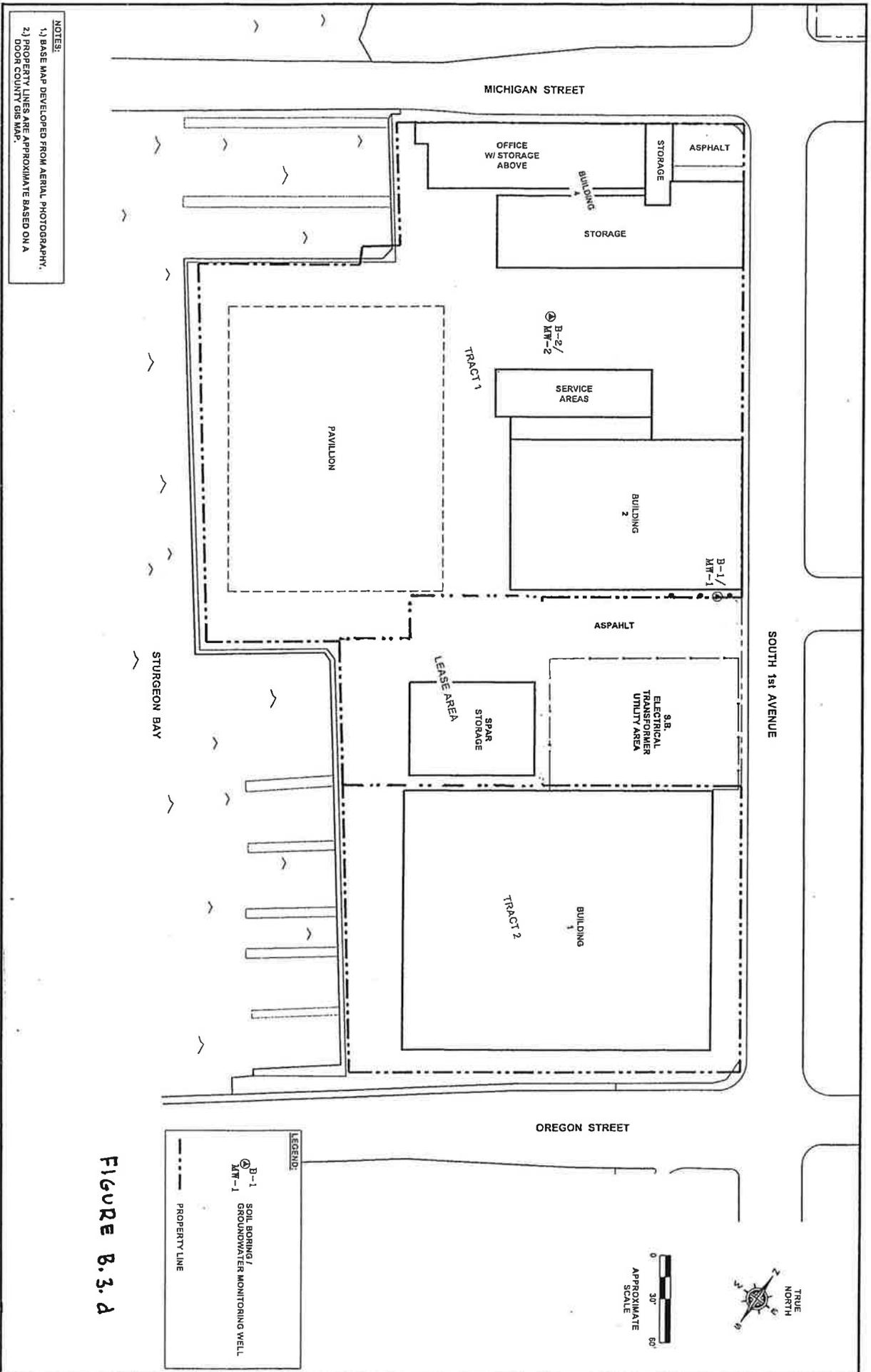
Figure B. 3. b Groundwater Isoconcentration Figure not included. No ch. NR 140 PAL or ES exceedances, related to on-site PAH soil contamination, were detected in groundwater from monitoring wells MW-1 and MW-2.

Figure B. 3. c Groundwater Flow Direction Figure. Since only two monitoring wells (MW-1 and MW-2) were installed as part of the PAH soil and groundwater investigation and it is likely that groundwater flow has been consistently towards Sturgeon Bay, the groundwater flow direction depicted for October 21, 2003 in the 2005 closure report by REL is presented in Figure B. 3 .c.



R:\1400\1476\1476006\dwg\LVIT'S.dwg - KPK - 11/18/2004

Groundwater Flow Direction
 October 21, 2003



NOTES:
 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHY.
 2) PROPERTY LINES ARE APPROXIMATE BASED ON A DOOR COUNTY GIS MAP.

LEGEND:
 B-1 SOIL BORING /
 MW-1 GROUNDWATER MONITORING WELL
 - - - - - PROPERTY LINE

0 30' 60'
 APPROXIMATE SCALE



FIGURE B.3.D

Monitoring Wells
 Proposed to be Abandoned

Figure B. 4. a Vapor Intrusion Map not included. The vapor migration pathway was not assessed. This was based on the following: a) the residual soil contamination on the property is PAHs have a very low vapor pressure and they do not easily partition to vapor therefore, there is a very low potential for off-gassing of PAH vapors; b) the buildings on the property were constructed slab-on-grade, with no subsurface footings, floor drains, or building foundation.

Figure B. 4. b Other media of concern (e.g. sediment or surface water) maps were not included. The sediment and/or surface water pathway was not assessed. No PAH ES or PAL exceedances were detected in groundwater from monitoring wells MW-1 and MW-2. Therefore, groundwater on the property has not been impacted by residual PAHs in unsaturated and saturated soils on the property. Consequently, the Sturgeon Bay surface waters and/or sediments have not been impacted by PAH soil contamination.

Documentation of Remedial Action (Attachment C)

DISCLAIMER

Documents contained in Attachment C of the Case Closure – GIS Registry (Form 4400-202) are not included in the electronic version (GIS Registry Packet) available on RR Sites Map to limit file size.

For information on how to obtain a copy or to review the file, please contact the Remediation & Redevelopment (RR) Environmental Program Associate (EPA) at dnr.wi.gov/topic/Brownfields/Contact.html



Attachment D - Maintenance Plan

Engineered Cap and Building Barrier Maintenance Plan

October 22, 2013

Great Lakes Yacht Services,
61 Michigan Street
Sturgeon Bay, Wisconsin
BRRTS# 02-15-560921
Parcel ID Number 281-10-850-30901C

Introduction

This document is the Maintenance Plan for an engineered building barrier and asphalt and concrete ground surface system in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The Maintenance Plan and inspection plan for the engineered building barrier and asphalt and concrete ground surface will be kept on site and made available to all interested parties.

The building barrier maintenance activities relate to the existing slab on grade construction for on-site buildings and the Pavillion located within Tract 1 of the property. The proposed engineered asphalt and concrete cap overlies all of Tract 1. There are no landscaped areas or natural vegetation within the west and south portion of Tract 1.

Elevated levels of select PAHs, in excess of their respective suggested RR-890 RCL direct contact risk and soil to groundwater risk is largely confined to within the area of the Pavillion, located to the south and west of Building 2 in Tract 1 (Attachment D. 1).

More site-specific information about this site may be found in:

- The case file in the WDNR Northeast regional office,
- BRRTS on the web (BRRTS # 02-15-560921,
- GIS Registry file; and
- The DNR project manager (Tauren Beggs)

Engineered Building Barrier Purpose

The footprints Building 2 and the Pavillion and the asphalt and concrete ground surface within Tract 1 will be used as an impermeable barrier to prevent the direct contact risk and to reduce the soil to groundwater risk by reducing contaminant leaching from residual PAH soil contamination to the site shallow groundwater system.

Annual Inspection - Cap and Building Barrier

The slab on grade buildings and Pavillion and asphalt and concrete ground surface within the area of Tract 1, as depicted in Attachment D 1, shall be inspected annually to evaluate any potential damage due to settling and increasing age. During the site investigation it was noted that the asphalt and concrete ground surface was competent throughout Tract 1. The concrete footprint for the Pavillion was installed within the last 10 years and is in very good condition.

A log of inspections and any repairs will be maintained by the owner and is included as Attachment D. 4, Inspection Log. The log will include recommendations for necessary repair of cracks or deterioration of the asphalt and concrete ground surface where underlying soils are exposed and where infiltration will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be sent to the Wisconsin Department of Natural Resources (WDNR) upon request.

Maintenance Activities - Cap and Building Barrier

If problems are noted during the annual inspection or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must sample any soil that is excavated from the property prior to disposal to determine if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the existing barrier is removed or replaced with another barrier, the replacement barrier must be equally impervious and the WDNR shall be notified before any such action takes place. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR.

The following activities are prohibited on any portion of the property where the barrier is to be maintained unless prior written approval has been obtained from the WDNR: 1) removal of the existing barrier; 2) replacement with another barrier; 3) filling on capped or paved areas; or 4) construction or demolition of the existing buildings.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of WDNR.

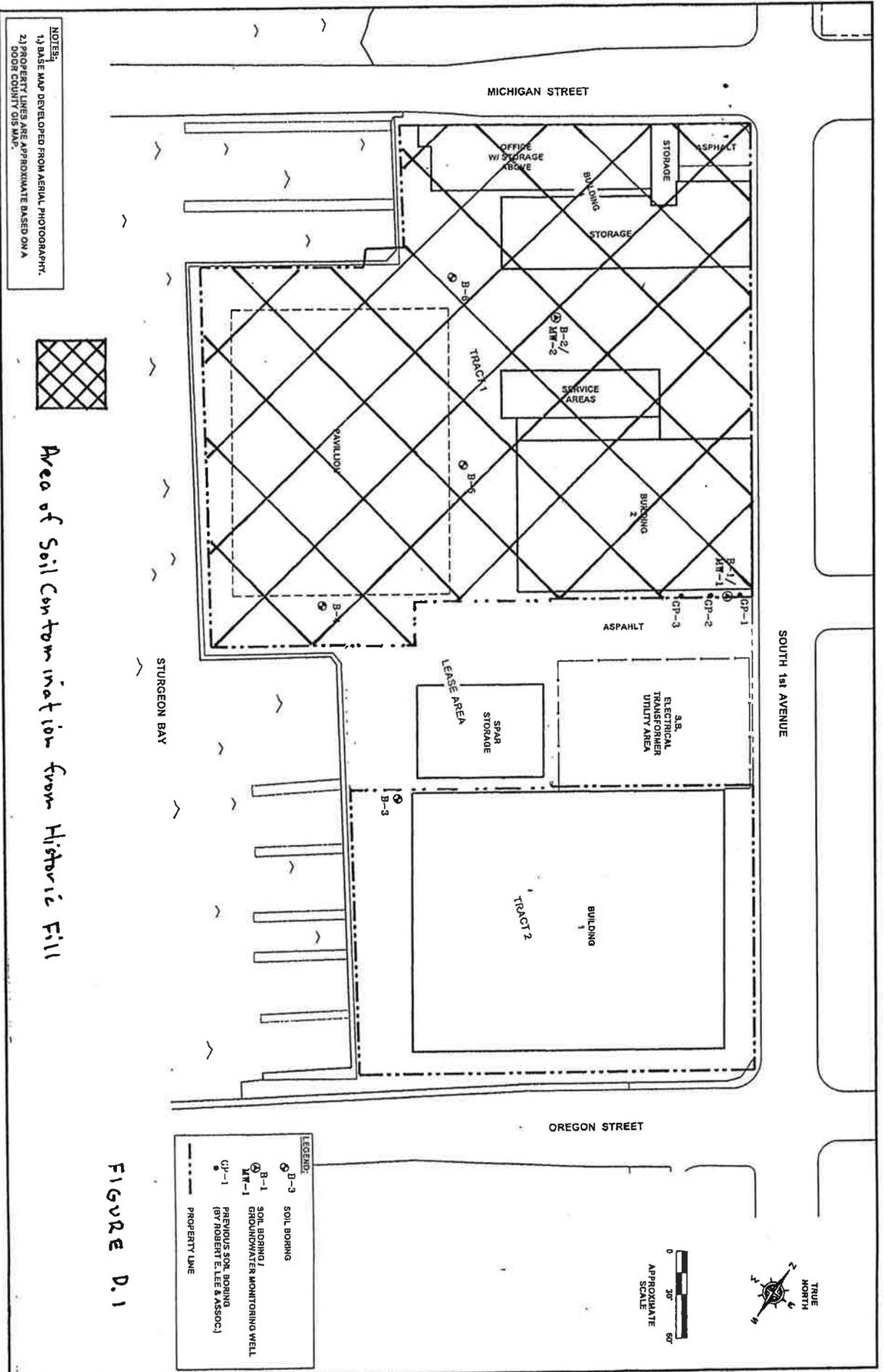
Contact Information

Site RP Representative: Mr. Peter H. Moede
700 South Water Street
Milwaukee, WI 53204
(414) 273-0711

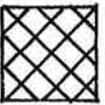
Consultant: Mr. Scott Bartling
P.O. Box 2265
Waukesha, WI 53187
(262) 951-4517

WDNR: Mr. Tauren Beggs
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
Green Bay Service Center, Northeast Region
Green Bay, WI 54313
(920) 662-5178

Attachment D. 1 Location Map. The asphalt and concrete area encompassing Tract 1, with the footprint for Building 2, storage area building, and the Pavillion is to be maintained as a part of the maintenance plan for an engineered cover.



NOTES:
 1) BASE MAP DEVELOPED FROM AERIAL PHOTOGRAPHY.
 2) PROPERTY LINES ARE APPROXIMATE BASED ON A BOON COUNTY GIS MAP.



Area of Soil Contamination from Historic Fill
 Pre/Post Remaining Soil Contamination

LEGEND:
 ● B-3 SOIL BORING
 ●⊗ B-1 SOIL BORING / GROUNDWATER MONITORING WELL
 ●⊗ CP-1 PREVIOUS SOIL BORING (BY ROBERT E. LEE & ASSOC.)
 - - - - - PROPERTY LINE

0 30 60
 APPROXIMATE SCALE



FIGURE D.1

Attachment D. 4 Inspection Log. A Barrier Inspection Log is attached.

Attachment E - Monitoring Well Information. All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site.

October 24, 2013

Mr. Peter H. Moede, Manager
Haven Funds LLC
700 S. Water Street
Milwaukee, WI 53204

Dear Mr. Moede:

This letter is in regards to the investigation of a release of Polycyclic Aromatic Hydrocarbons (PAHs) on 61 Michigan Street, Sturgeon Bay, Wisconsin that has shown that PAH contamination remains in soil on your property. I have conducted a response action for the residual PAH soil contamination, and will be requesting that the Department of Natural Resources grant case closure. Closure means that the Department will not be requiring any further investigation or additional cleanup action to be taken.

As part of the cleanup, I am proposing that the footprint of Building 2, Building 4 and the Pavillion and the on-site asphalt and concrete ground surfaces be used as an impermeable barrier (Engineered Cap and Building Barrier) to address the soil to groundwater risk and the direct contact risk for residual PAHs in site soils. The residual PAH soil contamination is largely confined to within and adjacent to the Pavillion.

The impermeable barrier shall be inspected annually to evaluate any potential damage due to settling and increasing age. A log of inspections and any repairs shall be maintained by the owner (Attachment D. 4). The log will include recommendations for necessary repair of the impermeable barrier where underlying soils are exposed and where infiltration will not be effectively minimized. A copy of the inspection log will be sent to the Wisconsin Department of Natural Resources upon request.

The Department of Natural Resources will not review my closure request for at least 30 days after the date of this letter. As the property owner, you have a right to contact the Department to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the Department of Natural Resources that is relevant to this closure request, you should mail that information to:

Mr. Tauren Beggs, Hydrogeologist
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
Northeast Region Headquarters
2984 Shawano Avenue
Green Bay, WI 54313

In lieu of the Department's 30 day waiting period, please contact us or the Department waiving the 30 day waiting period. The Department can then begin review of the case closure application upon receipt of your waiver.

Please review the enclosed legal description of your property, and notify me within the next 30 days if the legal description is incorrect.

Before I request closure, I will need to inform the Department as to who will be responsible for the continuing obligation on your property. Under s. 292.12, Wis. Stats., the responsibility for maintaining all necessary continuing obligations for your property will fall on you or any subsequent property owner, unless another person has a legally enforceable responsibility to comply with the requirements of the final closure letter. If you need more time to finalize an agreement on the responsibility for an Engineered Cap and Building Barrier, you will need to request additional time from the Department contact identified in the last paragraph of this letter.

Under s. 292.12(5), Wis. Stats., occupants of this property are also responsible for complying with any continuing obligations. Please notify any current and future occupants that may be affected by a continuing obligation, by supplying them with a copy of this letter. The DNR fact sheet, RR-819, "Continuing Obligations for Environmental Protection", has been included with this letter, to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain copies at <http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf>.

Prohibited Activities: The following activities will be prohibited on any portion of the property where pavement, an engineered cover or building barrier is located, as shown on the attached map (Attachment D. 1, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) disturbing the barrier by planting trees or shrubs; 3) replacement with another barrier; 4) excavating or grading of the land surface; 5) filling on covered or paved areas; 6) plowing for agricultural cultivation; 7) construction or placement of a building or other structure, or 8) changing the use or occupancy of the property to a residential setting, which may include certain uses such as single or multiple family residences, a school, day care, senior care, hospital or similar residential exposure settings.

Continuing Obligations:

If closure for this site is approved, the following are some continuing obligations for which you and any subsequent property owner will be responsible.

Residual PAH soil contamination remains largely within and adjacent to the Pavillion and encompasses soils within the area of soil borings B-2, B-4, B-5, and B-6 (Attachment D. 1). The remaining PAH contaminants of concern include Benzo (a) pyrene, Benzo (a) anthracene, Benzo (b) fluoranthene, Indeno (1,2,3-cd) pyrene, and Chrysene. The following steps have been taken to address any exposure to the remaining soil contamination. The footprint of site buildings and the Pavillion and on-site asphalt and concrete ground surfaces will eliminate the direct contact risk for PAH contaminants within four feet of the surface, and will reduce the soil to

groundwater risk by reducing the leaching or infiltration of PAH soil contaminants to the shallow groundwater.

If soil in the specific locations described above is excavated, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

The footprint of site buildings and the Pavillion and the asphalt and concreted ground surface that exists in the locations shown on the attached map (Attachment D. 1) must be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual PAH soil contamination that might otherwise pose a threat to human health.

If you choose to remove any portion of the cover, you will need to notify the Department of Natural Resources, in order to determine what additional cleanup actions may be needed.

In this case, the buildings are also considered a structural impediment, and additional investigation and response requirements apply if the buildings are removed.

PAH soil samples that are representative of currently remaining residual soil contamination on this property contained Benzo (k) fluoranthene in concentrations that met NR 720 industrial soil standards but exceeded the non-industrial soil standards. Under s. 292.12 (2) (c), Wis. Stats., the property may not be used or developed for a residential, commercial, agricultural or other non-industrial uses, unless (at the time that the non-industrial use is proposed) an investigation is conducted, to determine the degree and extent of select PAH contamination that remains on the property, and remedial action is taken as necessary to meet all applicable non-industrial soil cleanup standards. You will need to notify the Department of Natural Resources prior to changing the use of this property, to determine what additional cleanup actions may be needed.

Structural impediments existing at the time of cleanup, such as the footprint of Building 2, Building 4, and the Pavillion, made complete investigation and remediation of the contamination on this property impracticable. Prior to the removal of the structural impediment, you will need to notify the Department of Natural Resources, in order to determine if further investigation and cleanup will be required. If the structural impediments on this property are removed, the property owner will need to investigate the degree and extent of PAH soil contamination and is responsible for any further cleanup necessary.

Summary:

Once the Department makes a decision on my closure request, it will be documented in a letter. If the Department grants closure, you will receive a copy of the closure letter. If you need to, you may also obtain a copy of the closure letter by requesting a copy from me, by writing to the agency address given above or by accessing the DNR Geographic Information System (GIS)

Registry (via RR Sites Map) on the internet at <http://dnr.wi.gov/topic/Brownfields/clean.html>. The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan. The final closure letter, any required maintenance plan and a map of the properties affected will be included as part of the site file attached on the GIS Registry.

If this case is closed, all properties within the site boundaries where soil contamination attains or exceeds ch. NR 720 residual contaminant levels; a continuing obligation is required under ch. NR 726, will be listed on the publically accessible Bureau for Remediation and Redevelopment Tracking System on the Web (BOTW) to provide public notice of remaining contamination and of any continuing obligations. In addition, information will be displayed on the Remediation and Redevelopment Sites Map (RR Sites Map); a mapping application, under the GIS Registry theme. This GIS Registry is available to the general public on the Department of Natural Resources' internet web site. DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09(4) (w), Wis. Adm. Code.

Should you or any subsequent property owner wish to construct or reconstruct a well on your property, special well construction standards may be necessary to protect the well from the remaining soil contamination. Any well driller who proposes to construct a well on your property in the future will first need to obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. The well construction application, form 3300-254, is on the internet at <http://dnr.wi.gov/topic/wells/documents/3300254.pdf>, or may be accessed through the GIS Registry web address in the preceding paragraph.

If you need more information about my proposed cleanup completion and request for closure, you may contact me at 4369 Bayshore Dr., Sturgeon Bay, (920) 746-6251. If you need more information about cleanups and closure requirements, or to review the Department's file on my case, you may contact Tauren Beggs, Wisconsin Department of Natural Resources at 2984 Shawano Avenue, Green Bay, WI 54313, (920 662-5178).

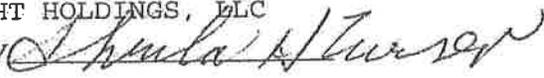
Attachments:

Fact Sheet

RR 819 -- Continuing Obligations for Environmental Protection

Maintenance Plan

Special Warranty Deed with Legal Description

SHT HOLDINGS, LLC
Signature: BY 

Date: 10/24/2013

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Peter Tomasi, Esq.
Quarles & Brady, LLP
411 E. Wisconsin Ave,
Ste 2040
Milwaukee, WI 53202-4426

2. Article Number

(Transfer from service label)

7009 3410 0001 6761 5844

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Maureen Sorrell* Agent
 Addressee

B. Received by (Printed Name)

Sackie Sorrell

C. Date of Delivery

10-29-13

D. Is delivery address different from item 1? Yes

If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes

Attachment G. 1 Deed - Source Property

eRecorded by: First American Title Insurance Company - NCS - Milwaukee

DOC#: 775049

Recorded
Oct 21, 2013 AT 03:27 PM

CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI

Fee Amount Paid: \$ 30.00
Transfer Fee Paid: \$ 7725.00
WHZ: W-7

State Bar of Wisconsin Form 6-2003
SPECIAL WARRANTY DEED

Document Number _____ Document Name _____
THIS DEED, made between SHT Holdings, LLC, a Wisconsin limited liability company
("Grantor," whether one or more), and Haven Funds LLC, a Wisconsin limited liability company
("Grantee," whether one or more).
Grantor for a valuable consideration, conveys to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Door County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):
See Legal Description on Exhibit A, attached hereto and incorporated herein.

Recording Area _____
Name and Return Address
Bernard J. Kearney III
Quarles & Brady LLP
411 East Wisconsin Avenue
Milwaukee, WI 53202

281-10-85030901C
Parcel Identification Number (PIN)
This **is not** homestead property.
(*) (is not)

Grantor warrants that the title to the Property is good, indefeasible, in fee simple and free and clear of encumbrances arising by, through, or under Grantor, except:
the Permitted Exceptions as shown on Exhibit B, attached hereto and incorporated herein.

Dated as of October 11, 2013

* _____

* _____

SHT HOLDINGS, LLC
Sheila H. Turner (SEAL)
* **Sheila H. Turner, Sole Member**

* _____

AUTHENTICATION
Signature(s) _____
authenticated on _____
* _____
TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, _____
authorized by Wis. Stat. § 706.06)
THIS INSTRUMENT DRAFTED BY:
Lucas N. Roe, Esq.
Reinhart Boerner Van Deuren s.c.

ACKNOWLEDGMENT
STATE OF **WISCONSIN**)
) ss.
Door COUNTY)
Personally came before me on **October 9, 2013**
the above-named **Sheila H. Turner, Sole Member of**
SHT Holdings, LLC
to me known to be the person(s) who executed the foregoing
instrument and acknowledged the same.
Susan I. Hirsch
* **Susan I. Hirsch**
Notary Public, State of Wisconsin
My commission (~~is permanent~~) (expires: **May 18, 2014**)

Exhibit A
Legal Description

A TRACT OF LAND, ALSO BEING A PORTION OF VACATED NEBRASKA STREET, CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT AN IRON PIN ON THE NORTHWESTERLY CORNER OF FIRST AVENUE AND NEBRASKA STREET; THENCE SOUTHWESTERLY ALONG THE NORTHERLY LINE OF NEBRASKA STREET 225 FEET MORE OR LESS, TO THE FOOT OF NEBRASKA STREET; THENCE SOUTHEASTERLY ALONG THE FOOT OF NEBRASKA STREET 60 FEET TO THE SOUTHERLY LINE OF NEBRASKA STREET; THENCE NORTHEASTERLY ALONG THE SOUTHERLY LINE OF NEBRASKA STREET 225 FEET MORE OR LESS, TO AN IRON PIN ON THE SOUTHWESTERLY CORNER OF FIRST AVENUE AND NEBRASKA STREET; THENCE NORTHWESTERLY ALONG THE WESTERLY LINE OF FIRST AVENUE 60 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THE TRACT OF LAND RECORDED AT VOLUME 488 OF RECORDS, PAGE 130, DOCUMENT NO. 507999.

AND

A TRACT OF LAND IN BLOCK 4, ASSESSOR'S MAP, CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT AN IRON PIN ON THE NORTHWESTERLY CORNER OF FIRST AVENUE AND NEBRASKA STREET; THENCE NORTHWESTERLY ALONG THE WESTERLY LINE OF FIRST AVENUE 25 FEET; THENCE SOUTHWESTERLY PARALLEL TO NEBRASKA STREET A DISTANCE OF 320 FEET MORE OR LESS, TO A POINT 50 FEET NORTHEASTERLY OF THE DOCK FACE; THENCE NORTHWESTERLY PARALLEL TO AND 50 FEET FROM SAID DOCK FACE A DISTANCE OF 165 FEET TO A POINT 10 FEET SOUTHEASTERLY OF THE NORTHERLY LINE OF LOT NINE (9), BLOCK FOUR (4), ASSESSOR'S MAP; THENCE SOUTHWESTERLY PARALLEL TO THE NORTHERLY LINE OF SAID LOT 9, A DISTANCE OF 50 FEET TO THE DOCK FACE; THENCE SOUTHEASTERLY ALONG THE DOCK FACE TO THE SOUTHERLY LINE OF NEBRASKA STREET EXTENDED; THENCE NORTHEASTERLY ALONG THE SOUTHERLY LINE OF NEBRASKA STREET EXTENDED TO THE FOOT OF NEBRASKA STREET; THENCE NORTHWESTERLY ALONG THE FOOT OF NEBRASKA STREET 60 FEET TO THE NORTHERLY LINE OF NEBRASKA STREET; THENCE NORTHEASTERLY ALONG THE NORTHERLY LINE OF NEBRASKA STREET A DISTANCE OF 225 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

AND

THAT PART OF LOTS 11 AND 12, IN BLOCK 4 OF GRAHAM'S PLAT, OF CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHERE THE LINE BETWEEN LOTS 10 AND 11 OF BLOCK 4, GRAHAM'S PLAT, INTERSECTS THE SOUTHWESTERLY LINE OF FIRST AVENUE; THENCE SOUTHEASTERLY ALONG THE NORTHEASTERLY LINE OF LOTS 11 AND 12, A DISTANCE OF 75 FEET; THENCE SOUTHWESTERLY PARALLEL TO THE NORTHWESTERLY LINE OF LOT 12 AND SAID NORTHWESTERLY LINE EXTENDED, TO A POINT 50 FEET DISTANCE FROM THE FACE OR EDGE OF THE CITY DOCK; THENCE NORTHWESTERLY PARALLEL TO THE FACE OR EDGE OF SAID CITY DOCK AND DISTANT 50 FEET THEREFROM TO A POINT OF INTERSECTION WITH THE LINE BETWEEN LOTS 10 AND 11, BLOCK 4, EXTENDED SOUTHWESTERLY; THENCE NORTHEASTERLY ALONG THE LINE BETWEEN LOTS 10 AND 11, BLOCK 4 TO THE PLACE OF BEGINNING. (NOW KNOWN AS THAT PART OF LOTS 11 AND 12, IN BLOCK 4 OF THE ASSESSOR'S MAP, CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN.)

AND

THAT PART OF LOTS 9 AND 10, IN BLOCK 4 OF GRAHAM'S PLAT, CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN, DESCRIBED AS FOLLOWS; BEGINNING AT A POINT WHERE THE LINE BETWEEN LOTS 8 AND 9 INTERSECT THE SOUTHWESTERLY LINE OF WATER STREET; THENCE SOUTHWESTERLY ALONG SAID LINE BETWEEN LOTS 8 AND 9 PROJECTED TO THE SOUTHWESTERLY FACE OF THE CITY DOCK; THENCE SOUTHEASTERLY ALONG THE FACE OF SAID DOCK A DISTANCE OF 10 FEET; THENCE NORTHEASTERLY PARALLEL TO THE AFORESAID LINE BETWEEN LOTS 8 AND 9, A DISTANCE OF 50 FEET; THENCE SOUTHEASTERLY PARALLEL TO THE FACE OF CITY DOCK TO THE POINT OF INTERSECTION WITH THE LINE BETWEEN LOTS 10 AND 11; THENCE NORTHEASTERLY ALONG SAID LINE BETWEEN LOTS 10 AND 11 TO THE POINT OF INTERSECTION WITH THE SOUTHWESTERLY LINE OF WATER STREET; THENCE NORTHWESTERLY ALONG THE SAID LINE OF WATER STREET TO THE POINT OF BEGINNING. (NOW KNOWN AS THAT PART OF LOTS 9 AND 10, IN BLOCK 4 OF THE ASSESSOR'S MAP, CITY OF STURGEON BAY, DOOR COUNTY, WISCONSIN.)

AND

LOTS 7 AND 8, BLOCK 4, ACCORDING TO THE ASSESSOR'S MAP OF THE CITY OF STURGEON BAY, EXCEPTING THEREFROM THAT PORTION THEROF RESERVED FOR STREET AND RAILROAD RIGHT-OF-WAY.

AND

LOTS 9, 10, 11 AND 12, BLOCK 3, ASSESSOR'S PLAT, CITY OF STURGEON BAY, EXCEPTING THE EASTERLY 50 FEET THEROF AND EXCEPTING THE SOUTHERLY 20 FEET OF THE EASTERLY 228 FEET OF LOT 12, BLOCK 3.

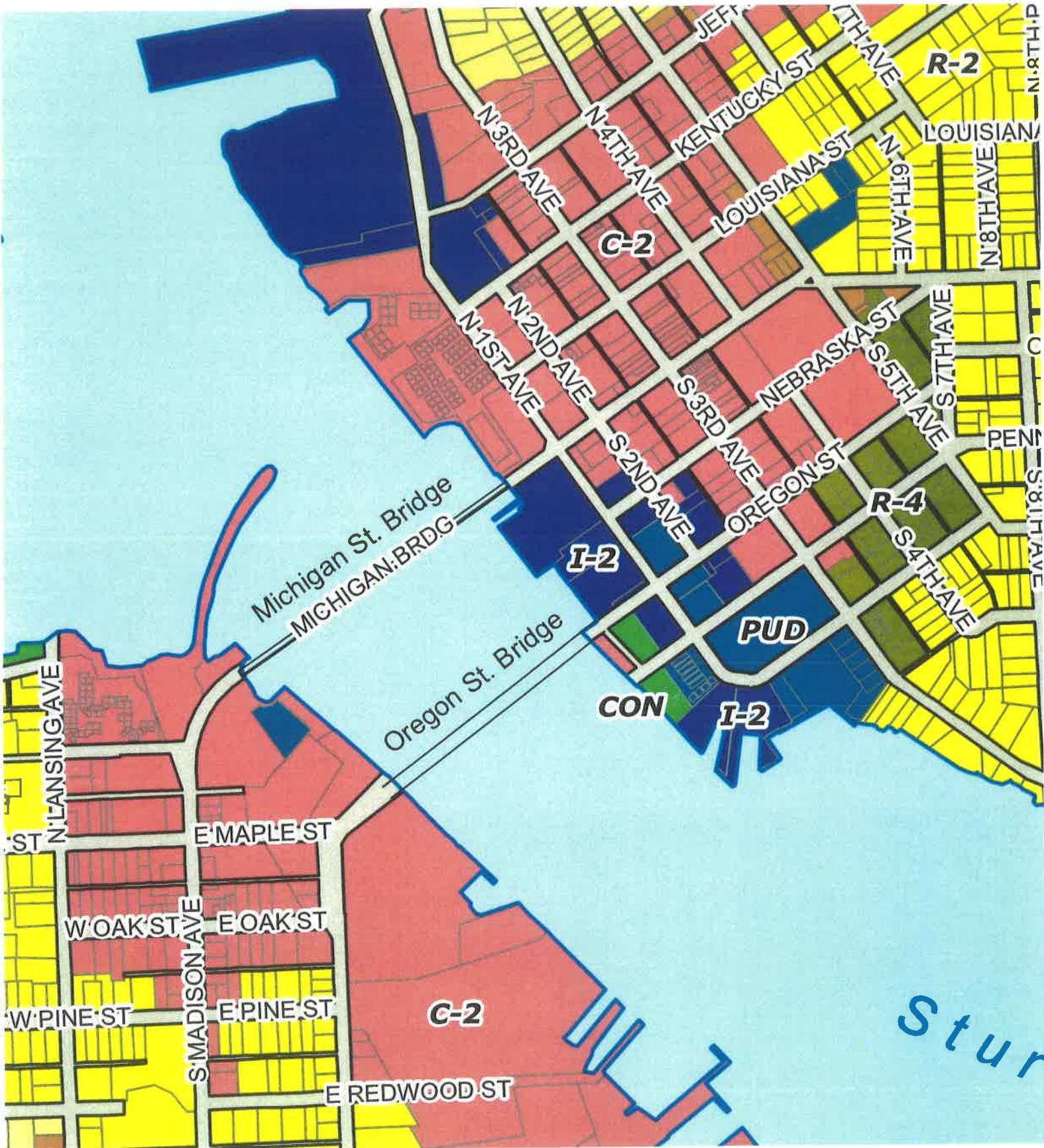
EXCEPTING THEREFROM THE ABOVE DESCRIBED PARCELS ANY PORTION PREVIOUSLY DEEDED TO THE CITY OF STURGEON BAY FOR STREET PURPOSES, IN PARTICULAR SOUTH FIRST AVENUE, NEBRASKA STREET AND OREGON STREET.

EXHIBIT B
PERMITTED EXCEPTIONS

1. General real estate taxes and special assessments for the year 2013, not yet due and payable.
2. Rights of the following tenants in possession including any rights to tenant fixtures owned by such tenants located on the leased premises and any liens on such tenants' fixtures, and any parties having a lien on or claiming by through or under said tenants: Seacraft Design, LLC; Dorsal LLC; Poverty Island, Calibre Boat Repair, LLC and warehouse tenants.
3. Any portion of the Property laid out, taken, dedicated or used for street, alley or highway purposes, as depicted on the ALTA/ACSM survey made by Michael G. McCarty on August 28, 2013, designated Job Number 21933.
4. Rights of the public, State of Wisconsin and the United States of America in that portion of the Land lying below the ordinary high water mark of Sturgeon Bay and title to any artificially filled-in lands.
5. Terms, provisions and conditions set forth in Waterfront Redevelopment Authority of the City of Sturgeon Bay, Wisconsin, Resolution Designating Proposed Boundaries of Redevelopment Project Area, Approving Redevelopment Plan and Authorizing Certification of Plan to Common Council and Recording of Plan with Register of Deeds, recorded on October 1, 1992, in Volume 506, Page 285, as Document No. 515659.
6. Limitations and restrictions set forth in Deed Restriction made by SHT Holdings, LLC recorded on November 22, 2005, as Document No. 688661.
7. Any facts, rights, interests or claims that may exist or arise by reason of the following matters disclosed by an ALTA/ACSM survey made by Michael G. McCarty on August 28, 2013, designated Job Number 21933:
 - A. Encroachment of building up to 1.7 feet onto Oregon Street and up to 0.8' over west property line of Lot 9 onto Lot 8.
 - B. Shore Line as per E.W. Odbert Plat of Block 3 Graham Village Dated July 2, 1925.
 - C. Encroachments of sidewalk, concrete, asphalt and fence onto Oregon Street.
 - D. Overhead wires, underground electrical, underground gas, storm sewer and underground communication line located in areas not provided for by recorded easements.

Attachment G. 2 Certified Survey Map

Attachment G. 3 Verification of Zoning



Legend

	Single Family Residential (R-1)
	Single Family Residential (R-2)
	Two-Family Residential (R-3)
	Multiple-Family Residential (R-4)
	Manufactured Home Court Residential (R-M)
	General Commercial (C-1)
	Central Business District (C-2)
	Commercial / Light Manufacturing (C-3)
	Office / Business District (C-4)
	Mixed Residential-Commercial (C-5)
	Light Industrial (I-1)
	Light Industrial (Industrial Park) (I-1A)
	Heavy Industrial (I-2)
	Heavy Industrial (Industrial Park) (I-2A)
	Agricultural (A)
	Conservancy (CON)
	Planned Unit Development (PUD)

Attachment G. 4 Signed Statement

Certification of Legal Description

Parcel Identification No. 281-10-85030901C

61 Michigan Street

Sturgeon Bay, Wisconsin

I believe as the Responsible Party, that the attached legal description accurately describes the correct above referenced contaminated property.

SHT Holdings, LLC

Signature: *Charles Sturgeon*

Title: *Sale Member*

Date: *10/22/2013*