

**FIRST FIVE-YEAR REVIEW REPORT FOR
LUSHER STREET GROUND WATER CONTAMINATION SUPERFUND SITE
ELKHART COUNTY, INDIANA**



Prepared by

**U.S. Environmental Protection Agency
Region 5
CHICAGO, ILLINOIS**

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LIST OF ABBREVIATIONS & ACRONYMS

AOC	Area of Concern
AR	Administrative Record
ARAR	Applicable or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
CSO	Combined sewer overflow
DCA	1,1-Dichloroethane
EPA	United States Environmental Protection Agency
FFS	Focused Feasibility Study
FYR	Five-Year Review
ICs	Institutional Controls
in. WG	inches of water gauge
IDEM	Indiana Department of Environmental Management
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PCE	Tetrachloroethene
PRPs	Potentially Responsible Parties
PWT	Pacific Western Technologies
PWT-Bay West	PWT-Bay West Joint Venture LLC
RAOs	Remedial Action Objectives
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SEDAC	Socioeconomic Data and Applications Center
Site	Lusher Street Ground Water Contamination Superfund Site
SOW	Statement of Work
TBC	To be considered
TCE	Trichloroethene
UU/UE	Unlimited Use and Unrestricted Exposure
VMS	Vapor Intrusion Mitigation System
VI	Vapor Intrusion
VOCs	Volatile Organic Compounds
µg/L	Micrograms per liter
µg/m ³	Micrograms per cubic meter

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is, and will continue to be, protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)) and considering EPA policy.

This is the first FYR for the Lusher Street Ground Water Contamination Superfund Site (Site). The triggering action for this statutory review is the on-site construction that began on September 11, 2017, for the Operable Unit (OU) 1 interim remedial action. The FYR has been prepared due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of two OUs, however, only OU1 will be addressed in this FYR. OU1 addresses actual and potential human health exposures from contaminated groundwater and soil vapor intrusion (VI). OU2 addresses the sources of soil and groundwater contamination. OU2 is not addressed in this FYR because OU2 does not yet have a Record of Decision (ROD) selecting a remedy for this OU.

The Lusher Street Ground Water Contamination Superfund Site FYR was led by Karen Kirchner, EPA Remedial Project Manager (RPM). Participants included EPA Community Involvement Coordinator Cheryl Allen, Jessica Fliss of the Indiana Department of Environmental Management (IDEM) and EPA's contractor PWT-Bay West Joint Venture LLC (PWT-Bay West). The Potentially Responsible Parties (PRPs), known as the Lusher Site Remediation Group, were notified of the initiation of the FYR. The review began on 8/26/2021.

Site Background

The Site is located in the west-central portion of Elkhart, Indiana, occupies approximately 870 acres, and is bounded by the St. Joseph River to the north, State Road 19 (Nappanee Street) to the west, Hively Avenue to the south and Oakland Avenue to the east (See Figure 1 in Appendix B). According to NASA's Socioeconomic Data and Applications Center (SEDAC, 2022), the estimated population living within the site boundaries in 2020 is approximately 3,060. The Site is divided by a railroad line and is comprised of residential neighborhoods north of the railway and a mix of industrial (i.e., pharmaceutical, automobile, and plastics manufacturing, metal scrapping, former dump site, etc.) and residential areas south of the railway. Most of the industrial activities operated along Lusher Avenue as early as the 1950's and continue to exist today, with no anticipated changes to the area.

Groundwater in this area was first investigated by Gemeinhardt Manufacturing under a 1985 Consent Order with EPA that identified volatile organic compounds (VOCs) in private residential wells near the facility, specifically trichloroethene (TCE) and trichloroethane. Investigations identified what is now called the Gemeinhardt VOC plume that exists outside and to the southwest of the Site boundaries. Results from the Gemeinhardt groundwater investigations spurred actions from the Elkhart County Health Department, IDEM and EPA to provide potable drinking water for residents and conduct

additional investigations to determine the source of contamination within the Site. Since 1985, several potential source areas were identified south of the railroad that likely contributed to VOCs in groundwater and soils (SulTRAC 2013a), all of which were identified as metal and plastics manufacturing or processing companies that utilized or managed various metals, solvents, and chemicals. Although in close proximity, the Gemeinhardt plume is not considered part of the Site and is being addressed separately. Due to the number of industrial activities and reported releases at the Site, the TCE plume is considered a comingled plume from multiple sources. The Site was added to the National Priority List (NPL) on March 19, 2008.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Lusher Street Ground Water Contamination		
EPA ID: IND982073785		
Region: 5	State: IN	City/County: Elkhart/Elkhart County
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	Has the site achieved construction completion? No	
REVIEW STATUS		
Lead agency: EPA		
Author name (Federal or State Project Manager): Karen Kirchner		
Author affiliation: EPA		
Review period: 8/26/2021 – 5/24/2022		
Date of site inspection: 4/20/2022		
Type of review: Statutory		
Review number: 1		
Triggering action date: 9/11/2017		
Due date (five years after triggering action date): 9/11/2022		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

SulTRAC conducted a Remedial Investigation (RI) in 2013 to define and characterize the nature and extent of contamination at the Site and evaluate its risk to human health and the environment (SulTRAC, 2013a). SulTRAC also submitted a Focused Feasibility Study (FFS) in September 2013 which utilized information from the RI to identify and evaluate remedial alternatives for OU1 (SulTRAC, 2013b).

The media specific contaminants of concern (COCs) presented in the ROD for OU1 (EPA, 2014) include the following VOCs:

Groundwater:

- TCE

Vapor Intrusion (VI):

- Tetrachloroethene (PCE)
- TCE
- Chloroform
- 1,1-Dichloroethane (DCA)

The TCE vapor intrusion area of concern (AOC) and the groundwater plumes are depicted in Figure 2 (Appendix B). Groundwater contamination at the Site follows the natural groundwater gradient northward toward the St. Joseph River. TCE is considered the main COC that is present in shallow groundwater, sub-slab soil vapor and potentially indoor air and has the widest extent and highest detections across the Site.

Two TCE groundwater plumes associated with the Site include the Main Plume and the Spot Plume. According to the RI, the Main Plume includes two major TCE lobes that exist near MW-021-S and near the intersection of West Indiana Ave and Thomas Street (Figure 3, Appendix B). Based on the groundwater monitoring wells installed during the RI, the depth to groundwater is approximately 20 feet below ground surface at the southern Site boundary (Hively Street) and decreases northward as groundwater discharges to the St. Joseph River at the northern Site boundary. Groundwater flow direction is generally horizontal toward the St. Joseph River. The Spot Plume was identified in the southwest portion of the Site during the 2013 RI and was further delineated during the 2017 Spot Plume Investigation (SulTRAC, 2018).

The receptors and exposure routes presented in the RI Human Health Risk Assessment (SulTRAC, 2013a) are summarized below:

- **Current and Future Residents:** Current and future adults and child residents were assumed to be exposed to groundwater through (1) ingestion, dermal contact, inhalation of volatile constituents released during potable groundwater use and (2) inhalation of volatile constituents migrating from groundwater to indoor air through subsurface vapor transport and VI.
- **Current and Future Industrial/Commercial Workers:** Current and future industrial/commercial workers were assumed to be exposed to groundwater through (1) ingestion and inhalation of volatile constituents released during potable groundwater use and (2) inhalation of

volatile constituents migrating from groundwater to indoor air through subsurface vapor transport and VI.

- **Current and Future Utility Workers and Construction Workers:** Current and future utility workers and construction workers were assumed to be exposed to groundwater through (1) dermal contact (only at locations with groundwater at less than 8 feet below ground surface) and (2) inhalation of volatile constituents migrating from groundwater to ambient air inside a utility or construction trench through subsurface vapor transport and VI.
- **Current and Future Recreationalists:** Current and future recreationalists (including anglers) were assumed to be exposed to surface water and sediment through incidental ingestion and dermal contact. Also, recreationalists were assumed to be potentially exposed through ingestion of food related to surface water and sediment food chains (such as fish).

Ingestion of contaminated groundwater and exposure to vapors from shallow groundwater contamination north of the railroad presents the greatest risk to humans at the Site. The primary risk driver in groundwater was TCE and the primary risk drivers for VI are TCE, PCE, chloroform, and DCA (EPA, 2014). Additionally, the FFS included a screening-level ecological risk assessment (SLERA) and found that the aquatic habitat and forested wetland near the St. Joseph River were not at risk from contaminated groundwater discharge from the Site.

The results of the Spot Plume investigation (SulTRAC, 2018) further defined the spot plume's boundary. Based on the refined boundary, all properties overlying the plume had already been connected to municipal water. The two residential wells sampled during the spot plume investigation are located side-gradient to the refined plume boundary and neither sample contained VOCs nor 1,4-dioxane above the IDEM screening levels. Additionally, contaminants associated with the Spot Plume were not found in the shallow water table at levels that would contribute to VI in the general area above the Spot Plume.

Response Actions

In 1987, EPA conducted a removal action at the Site which resulted in the connection of 11 homes to a municipal water system and installation of filtration systems in 24 homes. A second removal action was performed by EPA in 1988, which resulted in additional residences being connected to city water or provided with point-of-use filters. In the summer of 1989, IDEM began its own investigation to evaluate if other residents should be provided alternate water supplies at the state's expense. Municipal water lines were extended by IDEM to additional homes and businesses except for one residence located on Avalon Street because no municipal water main was located nearby.

On September 16, 2014, EPA issued the ROD selecting the interim remedial action for OU1 (EPA, 2014). The selected interim remedy addresses human exposure from contaminated groundwater and from VI into buildings from the Site. The remedial action objectives (RAOs) for the interim action for OU1 are as follow:

- Prevent human exposure to COCs in groundwater through ingestion, dermal contact, and inhalation above protective levels.
- Prevent human exposure to COCs in indoor vapor associated with soil and groundwater contamination above protective levels.

The major components of the selected remedy in the 2014 Interim ROD include the following:

- Extension of the City of Elkhart Municipal Water Supply to an estimated 72 properties within the contaminated groundwater plumes (Main Plume and Spot Plume), with an approximate 500-foot buffer around the plumes or downgradient of the plumes. Two areas within the Site boundary have been excluded from the interim groundwater remedial action; the northeast portion of the Site where no contamination has been detected and the southeast portion of the Site, upgradient from the plumes (Figure 2, Appendix B). Existing private potable water wells within the groundwater AOC will be abandoned to prevent future use.
- Vapor Intrusion (VI) mitigation to be implemented and maintained at approximately 200 buildings that overlie the site-related groundwater contamination plume.
- Operation and maintenance of the vapor intrusion mitigation systems (VMS) will continue until the groundwater contamination plume is remediated and the VI caused by Site contamination no longer poses an unacceptable risk to human health.
- Future buildings constructed in the Interim Remedial Action Area must comply with institutional controls (ICs) implemented by deed restrictions or local ordinances. The ICs that are put in place should address the following:
 - prevent potable use of untreated groundwater,
 - require newly constructed buildings to connect to municipal water (if available) or have filtration systems installed and maintained,
 - require notification of utility and construction workers of the presence of known and potentially contaminated groundwater so that they can take appropriate safety precautions, and
 - require builders to equip future buildings (residential and commercial) with VMS until EPA deems it is no longer required.

The Remedial Action Levels for groundwater and VI provided in the ROD (EPA, 2014) are summarized below:

Ground Water Remedial Action Levels:

- TCE – 5 micrograms per liter ($\mu\text{g/L}$)

Residential Vapor Intrusion Remedial Action Levels:

- TCE – 2.1 micrograms per cubic meter ($\mu\text{g/m}^3$)
- PCE – 42 $\mu\text{g/m}^3$
- Chloroform – 1.1 $\mu\text{g/m}^3$
- 1,1-DCA – 15 $\mu\text{g/m}^3$

Commercial/Industrial Vapor Intrusion Remedial Action Levels:

- TCE – 8.8 $\mu\text{g/m}^3$
- PCE – 180 $\mu\text{g/m}^3$
- Chloroform – 5.3 $\mu\text{g/m}^3$
- 1,1-DCA – 77 $\mu\text{g/m}^3$

Status of Implementation

City Water Supply Connections

In accordance with the Statement of Work (SOW) appended to the Consent Decree entered on March 29, 2016, much of the commercial businesses and residential units within the groundwater AOC received potable water from the city between September 2017 to December 2018. GHD prepared the Remedial Design (RD) and supervised the construction contractor (Selge Construction Co.) during the installation of the new water mains, water connections to residential and commercial buildings, and well abandonment. EPA, EPA's contractor PWT-Bay West and the City of Elkhart provided oversight of construction activities.

The 2014 ROD estimated approximately 72 properties would require connection to the City of Elkhart Municipal Water Supply. Through public outreach activities and cross-referencing public utility data, the number of residential and commercial properties potentially requiring City water was determined to be 21 and 24, respectively. Additionally, the City of Elkhart contracted with the construction contractor to replace 8 existing residential City water connections, which consisted of installing new service lines between the curb stops and water main.

A summary of the residential property water connections is provided in Table 1 (in Appendix C), which includes replacement of existing service lines at 8 properties, connections to City water and well abandonment at 16 properties, 2 properties were found to be already connected to City water, 2 properties were non-responsive to public outreach efforts, and 1 property declined connection to City water. The public works department later confirmed that one of the nonresponsive properties did have a municipal water connection.

A summary of the commercial property water connections is provided in Table 2 (Appendix C), which includes connections to City water and well abandonment at 15 properties, 2 properties that were found to be already connected to City water, 2 properties that were found to have no water service on the properties, and 5 properties that did not require connections, because they received their water through adjacent properties. Additionally, two private wells were identified, and were not abandoned, because one well was stated to be damaged, and the other was used for non-contact production use only.

With an alternate water supply, the overall risk of the Site's population consuming or being exposed to contaminated water is considered low. However, one residential property declined the water connection, and two properties remain unresponsive. The residential property that declined had been sampled during the RI/FS and did not have any detections of VOCs. Of the two unresponsive properties, one property was confirmed to have a municipal water connection by Elkhart Public Works. Residential addresses of the two properties that maintain private wells within the plume boundaries were sent to the Elkhart County Health Department to be monitored in accordance with their ordinance. In accordance with the Elkhart County Private Water Well Ordinance, these private wells will not be approved for repairs to promote abandonment and connection to City water. For more details, please refer to the Remedial Action Construction Completion Report (GDH, 2019).

Vapor Mitigation System Installations

Approximately 200 buildings exist inside the Site VI AOC and were automatically eligible for VMS. As of April 2022, responses to outreach efforts performed by GHD to gain access for VMS installation so far included 84 residential properties (Table 3, Appendix C) and 10 commercial properties (Table 4, Appendix C).

GHD prepared the Remedial Design and supervised the construction contractors during the VMS installation at residential and commercial properties. EPA and EPA's contractor PWT-Bay West

provided oversight during VMS installation. Due to the Coronavirus pandemic, gaining access to personal properties was postponed and VMS installations were paused between Spring 2020 and Winter 2021. A summary of the residential VMS status is provided in Table 3 (Appendix C), which includes EPA approval on 65 property-specific VMS designs, VMS installation and fan wiring at 42 properties, and the status of Pre-Final/Final Inspections at 7 properties. Additionally, a summary of the commercial VMS status is provided in Table 4 (Appendix C), which includes EPA approval on 5 property-specific VMS designs and VMS installation and fan wiring at 4 properties. VI response efforts continue including outreach activities to gain access, VMS design and installation.

Institutional Controls

Table 1 below summarizes ICs planned or already implemented for the Site to meet the IC remedy requirements included in the 1994 ROD.

Table 1: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Groundwater	Yes	Yes	The area within the 500-foot buffer zone on Figure 2, Appendix B.	<p>Implemented by deed restrictions or local ordinances to:</p> <p>Prevent potable use of untreated groundwater</p> <p>Require newly constructed buildings to connect to municipal water or have filtration systems installed and maintained</p> <p>Require notification of utility and construction workers of the presence of known and potentially contaminated groundwater so that they can take appropriate safety precautions</p>	<p>Elkhart County Private Water Well Ordinance, September 2017, https://health.elkhartcounty.com/documents/152/PrivateWaterWellOrdinance.pdf;</p> <p>Additional instruments, such as local ordinance and/or deed restrictions, to be determined/planned</p>
Soil Vapor	Yes	Yes	The area within the TCE VI AOC on Figure 2, Appendix B.	<p>Implemented by deed restrictions or local ordinances to:</p> <p>Require builders to equip future buildings (residential and commercial) with VMS until the EPA</p>	Local Ordinance (planned)

				deems it is no longer required	
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Status of Access Restrictions and ICs: The PRPs are currently working with the City of Elkhart on a site-specific ordinance requiring VMS for all new construction within the VI AOC and investigating appropriate ICs for notification of construction workers of the presence of contaminated groundwater. The Elkhart County Private Water Well Ordinance includes several provisions that would pertain to the Site. These include:

- Paragraph 5 B: No permits will be issued for new wells in areas served by municipal water service.
- Paragraph 5 F: All wells in plume of known groundwater contamination must be abandoned as soon as practicable, but no later than one year after municipal water is first available and until that time the owner must use a drinking water filtration system on the well that meets EPA drinking water standards.
- Paragraph 5 G: Private wells are generally prohibited in areas of known groundwater contamination such as areas designated by EPA or IDEM.
- Paragraph 6 A: Permits are required to be issued before any new or replacement well can be constructed or installed.

Current Compliance: Compliance with all IC objectives to be achieved will be determined as ICs are implemented and as part of the future IC evaluation. In accordance with the 2017 Elkhart County Private Water Well Ordinance, no permits were issued for the construction, installation, or replacement of potable private water wells within the Site boundary.

IC Follow up Actions Needed: An Institutional Control Implementation and Assurance Plan (ICIAP) will be developed. The ICIAP will be developed in accordance with the Consent Decree by the PRPs with EPA oversight. The purpose of the ICIAP is to:

- document IC evaluation activities taking place to determine the ICs needed for each of the AOCs;
- ensure that ICs once implemented are effective;
- evaluate the specific additional ICs that are needed; and
- ensure that long-term stewardship procedures are put in place so that all ICs, once implemented, are properly maintained, monitored, and enforced. IC evaluation activities will include, as needed, developing updated maps depicting current conditions in Site areas that do not allow for UU/UE and reviewing current zoning and city ordinances.

Systems Operations/Operation & Maintenance

There are no operation and maintenance (O&M) requirements for the city water connections or service lines. Water lines and connections are owned, operated, and maintained by the City of Elkhart.

Once a VMS is installed, passes Final Inspection, and is operational, routine VMS inspections will occur on a biennial basis (every other year) in accordance with the Operation and Maintenance Manual located within Appendix F of the Final (100%) Remedial Design Report (GHD, 2018). Each VMS is equipped

with an audible alarm that will sound if the system does not achieve proper vacuum. In the event of a system failure or alarm, the property owner shall call the service number listed next to the alarm.

GHD performed the following maintenance on the VMS associated with three separate properties.

- Residential Property Inventory Number 33 is a residential property with a full basement. The system fan was found to be defective and was replaced.
- Commercial Property Inventory Number 6-C is a commercial property with slab on grade construction. In November 2019, the property owner contacted GHD stating that there was a loud gurgling noise in the north central section of the property. GHD inspected the system and determined that water was building up in the header pipe extraction line leading to the system fan. On October 8, 2020, Earth Link shut down this individual fan, inspected the extraction lines, and installed a drain line through the concrete inside the building just south of the north wall adjacent to the fan. The system was restarted with no buildup of water observed.
- Residential Property Inventory Number 4 is a residential property with a full basement. In October 2021, GHD was informed by EPA, who was contacted by the property owner, that the system alarm was sounding. GHD contacted the owner who also informed GHD that a section of the liner sealed to the wall has fallen. On October 25, 2021, Earth Link completed repairs of the fallen liner and inspected the system fan which was found to have failed. On October 28, 2021, Earth Link and GHD returned to the property to replace the system fan and restart the system.

III. PROGRESS SINCE THE LAST REVIEW

This report is the first FYR for the Site. Therefore, there are no protective statements or recommendations from a prior FYR.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

In 2009, the EPA developed the Lusher Site Community Involvement Plan (CIP) which exists to address community concerns and expectations. The CIP summarizes the Site history, discusses current progress of remedial actions, and holds open houses to share sampling results when available. EPA also works with the Agency for Toxic Substances and Disease Registry (ATSDR) to disseminate information and receive feedback from the public. The CIP was updated in 2018 and the existing website for community involvement can be found at:

<https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.docdata&id=0500018#SC>

A public notice was made available by a newspaper posting in *The Elkhart Truth*, on 5/11/2022, stating that there was a FYR and inviting the public to submit any comments to EPA. No comments were received. The results of the review and the report will be made available at the Site information repository located at Elkhart Public Library, 300 S. Second St. Elkhart, Indiana 46516. A copy of the public notification is provided in Appendix D.

During the FYR site inspection, EPA and IDEM met with representatives from the Elkhart Public Health Department, Elkhart Public Works and John Lang, Project Coordinator for the Lusher Site Remediation Group. This meeting was held to discuss and document any perceived problems or successes with the remedy that has been implemented to date. Neither local agency had received any inquiries from the

public regarding implementation of the remedy and had no issues regarding the remedy components. Access issues with the two remaining private residential wells were discussed. The property that declined did not have any detections of VOCs when it was sampled during the RI and the nonresponsive property appeared to be vacant. Both addresses have been provided to the Elkhart Department of Public Health to be added to their database of properties to be denied for any repairs to the wells under the Elkhart County Private Water Well Ordinance. Access issues for VMS installation were also discussed. Currently, less than 50% of properties have allowed access for VMS design and installation. Only 14 properties have declined, and the remaining properties have been nonresponsive. Outreach efforts have included:

- Holding an availability session in August 2017 to answer questions one-on-one with the community and receive access agreements;
- Transmittal of the initial access request letter by certified mail;
- A minimum of three attempts to contact the resident by telephone or in person;
- Hand delivery of an access request letter to the property; and
- Transmittal of a follow-up access request letter by certified mail.

Also discussed in the meeting was the city's plans for the Oakland Avenue Combined Sewer Overflow (CSO) Control Project. This project proposes constructing a CSO storage tank within the Lusher Site boundaries and conducting dewatering operations during construction. The CSO storage tank would be constructed to meet the terms of a 2011 Consent Decree between the City of Elkhart and EPA. The construction is expected to last one year and has the potential to impact the groundwater plume. Therefore, it is necessary to determine if the Oakland Ave CSO Project will have any impact on the VI AOC and groundwater AOC prior to construction to determine if steps need to be taken to prevent impacts to the groundwater plume.

Data Review

The Final (100%) Remedial Design Report (GHD, 2018) states that VMS prove-out will be considered complete if a minimum vacuum field of 0.004 inches of water gauge (in. WG) can be maintained everywhere below the membrane and/or slab. Additionally, EPA has identified 13 Category 3 residences where it has requested confirmatory indoor air sampling to verify that the mitigation systems are functioning effectively. Confirmatory indoor air sampling is also appropriate at locations where depressurization technology cannot be installed and thus the effectiveness of the VMS cannot be confirmed by vacuum readings alone. Additionally, five consecutive annual rounds of confirmatory indoor air samples will be collected at the 13 EPA-identified Category 3 residences and at other residences where vacuum readings are not possible to verify VMS effectiveness (GHD, 2018). These samples will be collected during the heating season, which is generally defined by IDEM as when the building windows are closed, the heating system is in operation, and the indoor temperature typically is at least 10 degrees higher than the outdoor temperature (approximately mid-November through March).

VMS sub-membrane and or sub-slab vacuum pressures were measured at seven residential properties during the Pre-Final/Final Inspections performed in February and April 2022. Six of the seven properties exceeded the minimum vacuum of 0.004 in. WG. Ambient and indoor-air sampling was conducted by GHD between April 18, 2022, and April 20, 2022, when the air temperature highs for Elkhart ranged from 39 to 50 degrees Fahrenheit. Oversight was provided by EPA and EPA's contractor PWT-Bay West. The indoor air samples were collected at 4 residential properties and the ambient air samples were collected from a location upwind of the 4 properties. The samples were shipped to the laboratory for

analysis by EPA Method TO-15. Analysis of the sample results could not be completed in time for this FYR and therefore will be included in the next FYR.

Site Inspection

The inspection of the Site was conducted on 4/20/2022 and consisted of inspecting the installed VMS to date. The VMS inspections were performed by EPA's contractor PWT-Bay West. The purpose of the inspection was to assess the condition of the installed VI mitigation systems.

The inspections included visual confirmation of the external components of the VI systems on all properties. Exterior VMS components were observed on 66 residential properties (Table 5, Appendix C) and 4 commercial properties (Table 6, Appendix C). One residential property where a system has been installed was not visited due to safety concerns.

A review of the Administrative Record (AR) located at the Elkhart Public Library was performed on April 20, 2022, by EPA contractor PWT-Bay West. Several major Site documents were present, including the CIP, the Proposed Plan, the FFS, and the Final RI Report. However, only half a dozen of the 70 documents identified as part of the AR on the EPA website were at the library (Table 7, Appendix C). Overall, the information repository needs significant updating to ensure a complete AR is available and key documents pertaining to the interim action are available for viewing.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

Yes. The interim remedy is currently under construction, and it is being constructed in accordance with the Final (100%) Remedial Design Report (GHD, 2018). The interim remedy is expected to be protective when it is complete and it includes four elements: Alternate Water Supply, VI Mitigation, O&M, and ICs.

Remedial Action Performance

The Alternate Water Supply consists of connecting residential and commercial buildings to the City of Elkhart water supply and it is functioning as intended to prevent human exposure to COCs in groundwater. Property-specific VMS designs and installations are ongoing and thus far this element of the remedy appears to be functioning as intended where VMS have been installed.

System Operations/O&M

O&M of the Alternate Water Supply is performed by the City of Elkhart. Although several VMS systems are operating, they have not received Pre-Final/Final Inspections because of delays associated with the COVID pandemic. O&M will begin following the approval of property-specific Final Inspections.

Implementation of Institutional Controls and Other Measures

Thus far, the only IC in place is the City of Elkhart County Private Water Well Ordinance (2017-24) that was approved on September 28, 2017. This ordinance is intended to provide criteria for new private water wells constructed in Elkhart County, restrict repairs on existing private wells within impacted groundwater and assure that abandoned private water wells do not adversely affect aquifers from which water is drawn. There are plans to develop an ICIAP to document IC evaluation activities that are

needed to determine the additional ICs needed at the Site and to ensure that long-term stewardship procedures are put in place so that all ICs, once implemented, are properly maintained, monitored, and enforced.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Yes. The exposure assumptions, toxicity data, cleanup levels, and RAOs used at the time of the remedy selection are still valid. There are no known changes in the physical conditions of the Site that would affect the protectiveness of the remedy.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

Yes. Elkhart Public Works is developing the Oakland Avenue CSO Control Project, which will involve construction of an underground retention tank approximately 153 feet long by 110 feet wide and 35 feet in height. The below grade construction will extend 19 feet below the elevation of the existing groundwater table, and it will be located near the southeast corner of Lafayette Street and Thomas Street. During construction of the underground retention tank, the excavation will need to be dewatered continuously, removing an estimated 1 million gallons of groundwater per day for the duration of the project. The groundwater removal may influence the migration of contaminant plumes and increase VI risks to nearby residential and commercial properties. Therefore, it is necessary to determine if the Oakland Ave CSO Project will have any impact on the VI AOC and groundwater AOC prior to construction to determine if steps need to be taken to prevent impacts to the groundwater plume.

The Site has not been impacted by any natural disasters and has no new climate change vulnerabilities. No other information, beyond what has been previously discussed in this FYR report, has come to light that could call into question the protectiveness of the remedy.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations	
OU(s) without Issues/Recommendations Identified in the Five-Year Review:	
None	

Issues and Recommendations Identified in the Five-Year Review:	
---	--

OU(s): 1	<p>Issue Category: Institutional Controls</p> <p>Issue: An ICIAP is necessary to document IC evaluation activities that are needed to determine the additional ICs needed at the Site and to ensure that long-term stewardship procedures are put in place so that all ICs, once implemented, are properly maintained, monitored, and enforced.</p>
-----------------	---

	Recommendation: Develop an ICIAP with these components for EPA approval.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	9/8/2023

OU(s): 1	Issue Category: Changed Site Conditions			
	Issue: Construction of Oakland Ave CSO Project may have an impact on the nature and extent of the groundwater plume.			
	Recommendation: Determine impact, if any, of the Oakland Ave CSO Project on the VI AOC and groundwater AOC prior to construction to determine if steps need to be taken, and if so what steps, to prevent impacts to the groundwater plume.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	EPA	EPA/State	3/31/2023

OTHER FINDINGS

In addition, the following is a recommendation that was identified during the FYR and may improve community involvement, but does not affect current nor future protectiveness:

- The AR at local library needs updating. Ensure the proper documents have been added to information repository.

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
<i>Operable Unit:</i>	<i>Protectiveness Determination:</i>
01	Will be Protective
<i>Protectiveness Statement:</i> The remedy at OU1 is expected to be protective of human health and the environment upon completion. In the interim, municipal water connections have been completed for all but 3 properties within the groundwater area of concern addressing the groundwater exposure pathway and VMS have been installed at 71 properties addressing the inhalation exposure pathway. The VMS installations efforts are on-going and are largely dependent on access from property owners.	

VIII. NEXT REVIEW

The next FYR report for the Lusher Street Ground Water Contamination Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

- Consent Decree, USDC IN/ND case 3:15-cv-00613-JD-CAN, entered December 2015.
- EPA, 2014. Record of Decision for Interim Action, Lusher Street Groundwater Contamination Superfund Site, Operable Unit 1. U.S. Environmental Protection Agency Region 5. September 2014.
- GHD, 2019. Remedial Action Construction Completion Report, Water Main and Water Service Installation, Lusher Street Groundwater Contamination Superfund Site, Elkhart, Indiana. April 2019.
- GHD, 2018. Final (100%) Remedial Design Report, Lusher Street Groundwater Contamination Superfund Site, Elkhart, Indiana. May 2018.
- SEDAC, 2022. Socioeconomic Data and Applications Center (SEDAC) Population Estimation Service (2020). <https://sedac.ciesin.columbia.edu/mapping/popest/pes-v3/> Accessed January 11, 2022.
- SulTRAC. 2013a. Final Remedial Investigation Report, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana. September 2013.
- SulTRAC. 2013b. Final Focused Feasibility Study Report; Operable Unit 1, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana. September 2013.
- SulTRAC, 2018. Final Spot Plume Investigation Report, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana. April 2018.

APPENDIX B – FIGURES

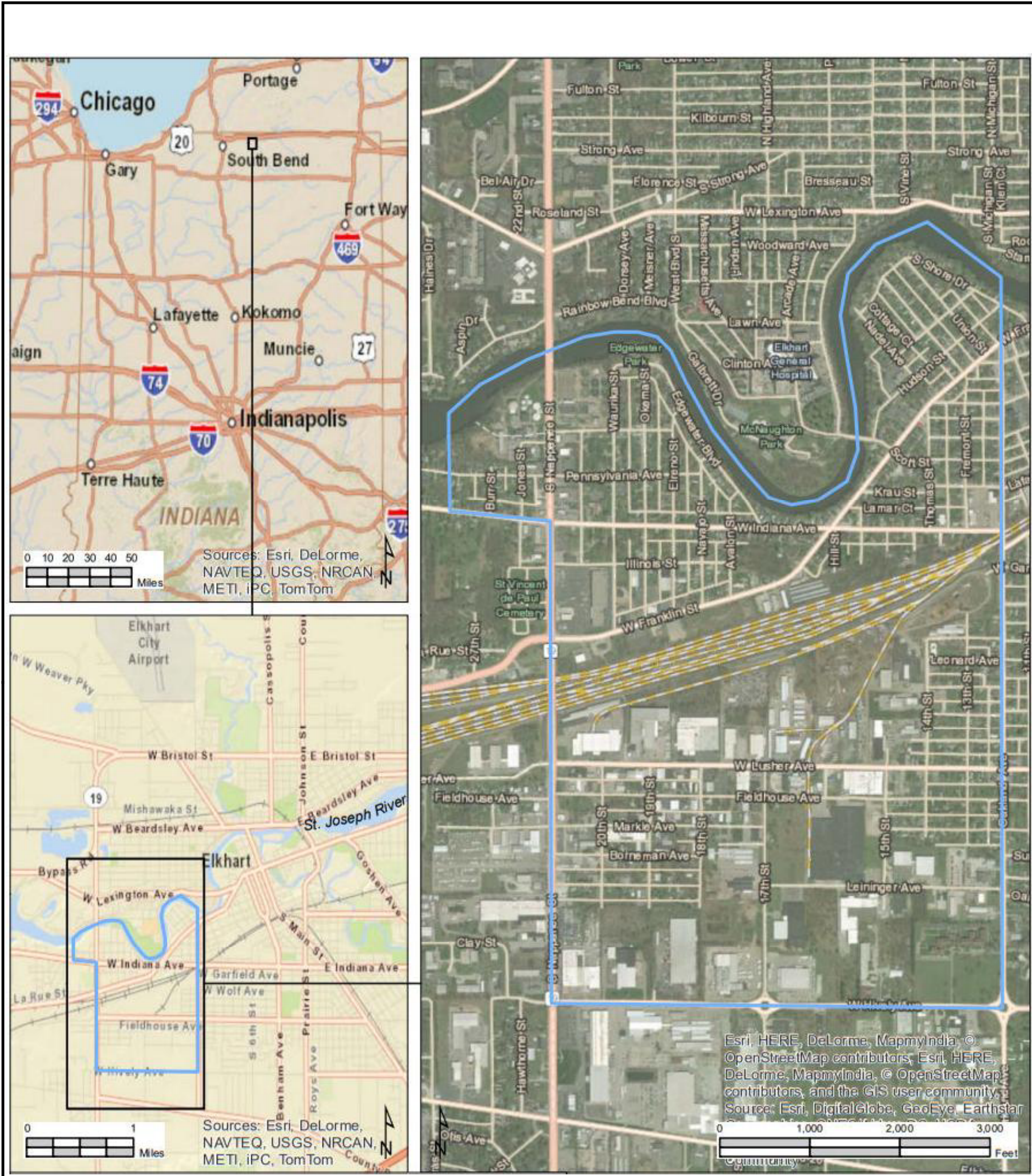



Figure 1

Lusher Street Site Location

**LUSHER STREET GROUNDWATER
CONTAMINATION SITE
ELKHART COUNTY, INDIANA**

 Site boundary

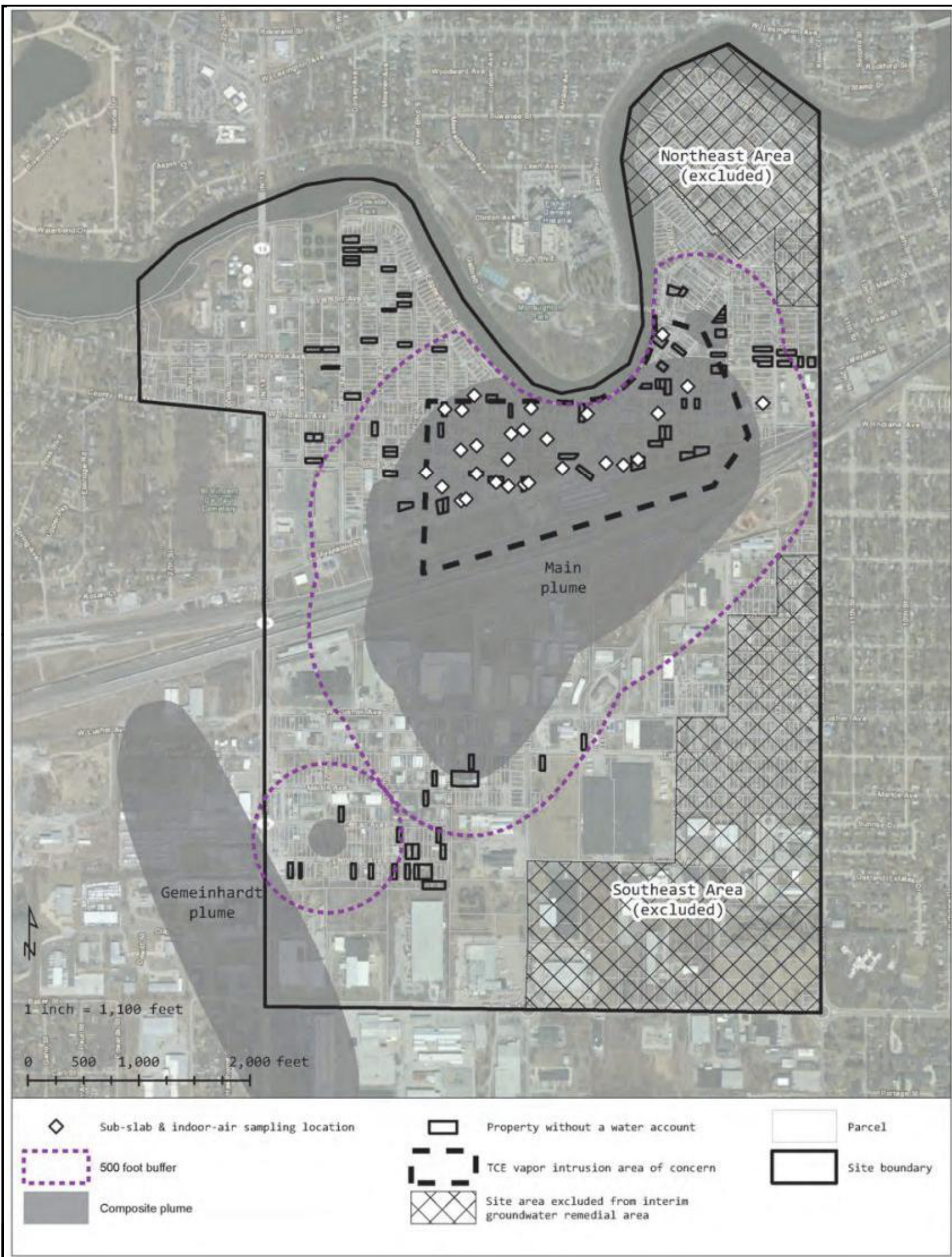


Notes:
Source: SuITRAC, 2018. Final Spot Plume Investigation Report, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana. April 2018.

Map Projection: NAD 1983 UTM Zone 15N, Meters
Basemap: ESRI World Imagery WMS
5/9/2022 Project No. 200861



Y:\Clients\PWT_BAY_WEST_JOINT_VENTURE_LLC\Lusher_Street_Groundwater_Contamination\Five Year Review\200861_5YR_Review.mxd



- Sub-slab & indoor-air sampling location
- 500 foot buffer
- Composite plume
- Property without a water account
- TCE vapor intrusion area of concern
- Site area excluded from interim groundwater remedial area
- Parcel
- Site boundary

Figure 2

Vapor and Groundwater Areas of Concern

LUSHER STREET GROUNDWATER

CONTAMINATION SITE

ELKHART COUNTY, INDIANA



Notes:
 Source: EPA, 2014. Superfund Proposed Plan, Lusher Street Groundwater Contamination Superfund Site, Operable Unit 1. U.S. Environmental Protection Agency Region 5, April 2014

Map Projection: NAD 1983 UTM Zone 15N, Meters Basemap: ESRI World Imagery WMS

5/9/2022 Project No. 200861



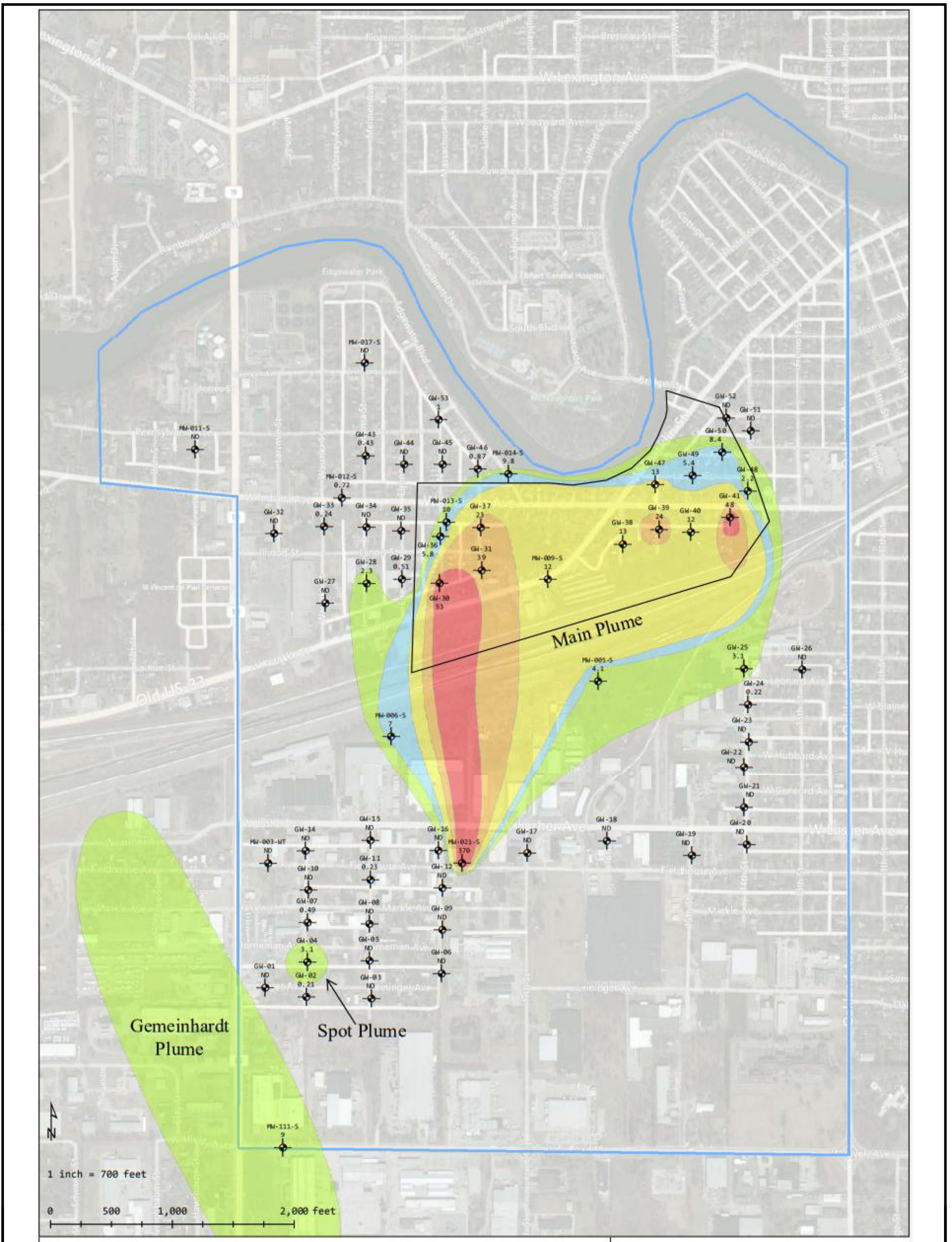










Figure 3
Trichloroethene in Groundwater
LUSHER STREET GROUNDWATER
CONTAMINATION SITE
ELKHART COUNTY, INDIANA

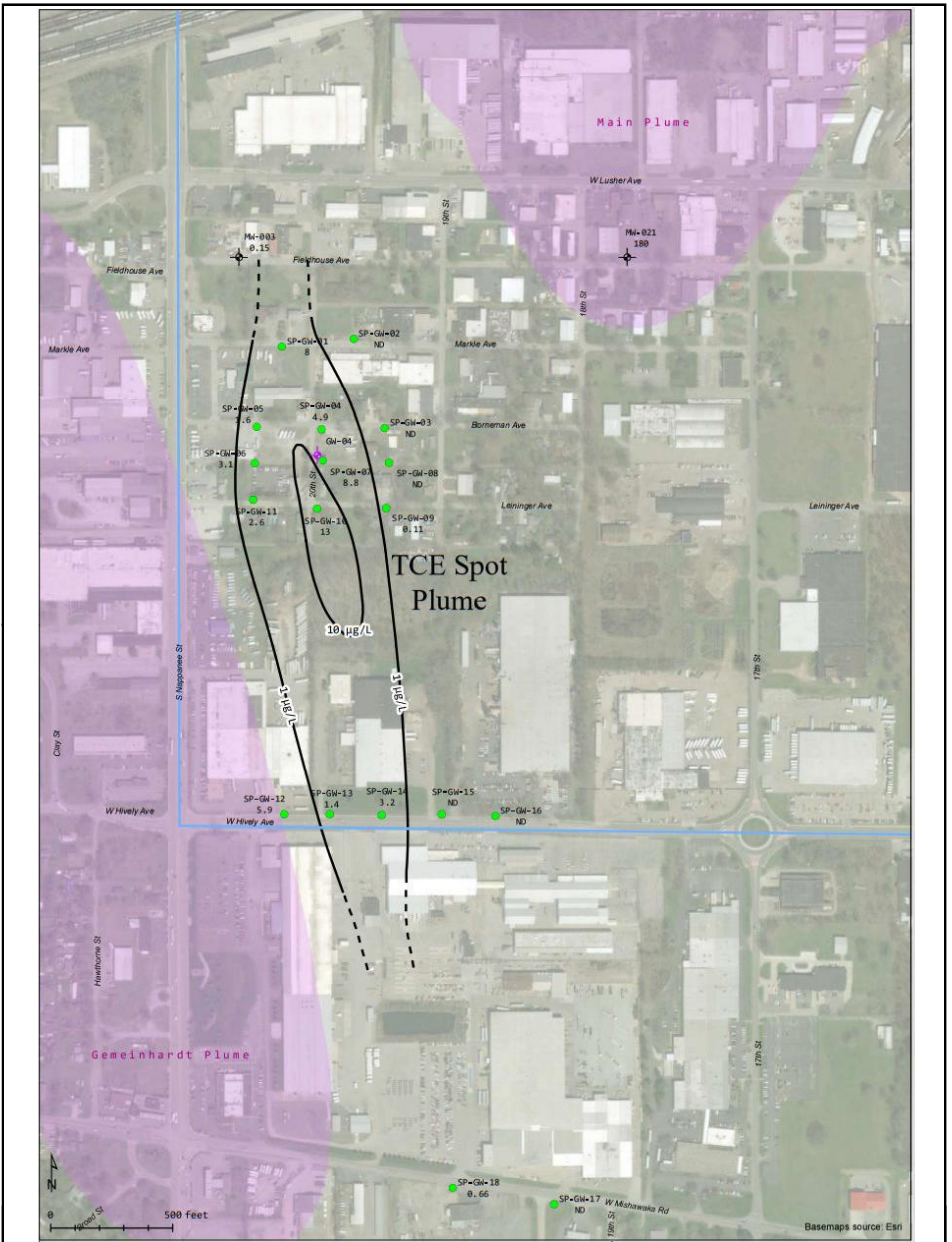


-  Groundwater sampling
-  Site boundary
-  TCE vapor intrusion area of concern
-  40 µg/L plume
-  20 µg/L plume
-  10 µg/L plume
-  5 µg/L plume
-  1 µg/L plume

Notes:

- 1) Groundwater samples shown are collected from where groundwater was first encountered when sampling.
- 2) Only detected Trichloroethene (TCE) results shown (stated in µg/L)
- 3) ND = not detected
- 4) Source: SulTRAC. 2013a. Final Remedial Investigation Report, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana. September 2013.
- 5) Map Projection: NAD 1983 UTM Zone 15N, Meters Basemap: ESRI World Imagery WMS





- SP-GW-14 3.2 Groundwater sampling point TCE concentration (deepest interval)
- Grab Sampling Location
- ⊕ Existing Monitoring Well
- ⊕ Historical Monitoring Well
- Plume identified in Record of Decision, 2014.
- Approximate TCE isoconcentration (µg/L)
- Inferred TCE isoconcentration (µg/L)
- Site boundary

Notes:
 1) Maximum Contaminant Level (MCL) for Trichloroethene (TCE) is 5 µg/L (micrograms per liter)
 2) Locations are Approximate
 3) Source: SuTRAC, 2018, Final Spot Plume Investigation Report, Lusher Street Groundwater Contamination Site, Elkhart County, Indiana, April 2018
 4) Map Projection: NAD 1983 UTM Zone 15N, Meters Basemap: ESRI World Imagery WMS

Figure 4

Spot Plume - TCE Groundwater Concentrations
LUSHER STREET GROUNDWATER CONTAMINATION SITE
ELKHART COUNTY, INDIANA



APPENDIX C – TABLES

**Table 1 - Summary of Water Connection to Residential Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES				
Residential Property Water Connection No.	Water Service Installed	Water Connection	Well Abandonment	Comments
1	Yes	10/13/2017	N/A	Replaced existing service line between water main to curb stop.
2	Yes	10/13/2017	N/A	Replaced existing service line between water main to curb stop.
3	Yes	10/13/2017	N/A	Replaced existing service line between water main to curb stop.
4	Yes	10/25/2017	N/A	Replaced existing service line between water main to curb stop.
5	Yes	10/24/2017	N/A	Replaced existing service line between water main to curb stop.
6	Yes	10/25/2017	N/A	Replaced existing service line between water main to curb stop.
7	Yes	10/18/2017	N/A	Replaced existing service line between water main to curb stop.
8	Yes	10/24/2017	N/A	Replaced existing service line between water main to curb stop.
9	Yes	11/7/2017	11/13/2017	Connected to City water and abandoned well.
10	Yes	11/1/2017	11/14/2017	Connected to City water and abandoned well.
11	Yes	9/17/2018	9/24/2018	Connected to City water and abandoned well.
12	Yes	9/27/2018	9/27/2018	Connected to City water and abandoned well.
13	Yes	10/18/2017	11/10/2017	Connected to City water and abandoned well.
14	Yes	11/9/2017	12/11/2017	Connected to City water and abandoned well.
15	Yes	12/2/2017	12/19/2017	Connected to City water and abandoned well.
16	Yes	11/7/2017	12/19/2017	Connected to City water and abandoned well.
17	Yes	9/12/2018	9/19/2018	Connected to City water and abandoned well.
18	Yes	9/12/2018	9/26/2018	Connected to City water and abandoned well.
19	Yes	12/2/2017	12/15/2017	Connected to City water and abandoned well.
20	Yes	10/21/2017	11/14/2017	Connected to City water and abandoned well.
21	Yes	10/17/2017	11/9/2017	Connected to City water and abandoned well.
22	Yes	10/17/2017	11/9/2017	Connected to City water and abandoned well.
23	Yes	9/20/2018	9/27/2018	Connected to City water and abandoned well.
24	Yes	12/18/2018	12/18/2018	Connected to City water and abandoned well.
25	No	N/A	N/A	Property was already on City water.
26	No	N/A	N/A	Property was already on City water.
27	No	N/A	N/A	Property was already on City water. (confirmed with City on 4/19/22)
28	No	N/A	N/A	Non-responsive to public outreach efforts.
29	No	N/A	N/A	Declined connection to City water.

Notes:

1. Property inventory numbers are used to protect personal identification information (address, name, phone number, etc..).
2. Information source: GHD, Remedial Action Construction Completion Report, Water Main and Water Service Installation, April 2019.
3. Residential Property Water Connection No. 1 thru 8 were previously on City water; however, the service line between the water main and curb stop was replaced.

N/A = Not Applicable

**Table 2 - Summary of Water Connection to Commercial Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

COMMERCIAL PROPERTIES				
Commercial Property Water Connection No.	Water Service Installed	Water Connection	Well Abandonment	Comments
1	Yes	9/12/2017	11/10/2017	None
2	Yes	10/18/2017	11/16/2017	None
3	Yes	9/14/2018	9/19/2018	None
4	Yes	9/14/2018	9/19/2018	None
5	Yes	9/19/2018	9/27/2018	None
6	Yes	9/18/2018	9/19/2018	None
7	Yes	9/26/2018	9/28/2018	None
8	Yes	9/26/2018	9/27/2018	None
9	Yes	10/27/2017	11/16/2017	None
10	Yes	10/27/2017	11/16/2017	Additional property added during the RA property inspection
11	Yes	11/9/2017	11/16/2017	Additional property added during the RA property inspection
12	Yes	12/1/2017	12/14/2017	None
13	Yes	12/1/2017	12/18/2017	None
14	Yes	10/18/2017	11/13/2017	None
15	Yes	9/19/2018	9/27/2018	Additional property added during the RA property inspection
16	No	N/A	N/A	On City water service
17	No	N/A	N/A	No water service on property, onsite production well not in use and damaged per the property owner
18	No	N/A	N/A	No water service on property
19	No	N/A	N/A	Private well used for noncontact production only, city water service provided through adjacent property located north of building
20	No	N/A	N/A	City water service provided through adjacent property
21	No	N/A	N/A	Property unoccupied and for sale, sale ad stated water and sewer service provided
22	No	N/A	N/A	City water service provided through adjacent properties
23	No	N/A	N/A	City water service provided through adjacent property
24	No	N/A	N/A	City water service provided through adjacent properties

Notes:

1. Property inventory numbers are used to protect personal identification information (address, name, phone number, etc..).
 2. Information source: GHD, Remedial Action Construction Completion Report, Water Main and Water Service Installation, April 2019.
- N/A = Not Applicable

**Table 3 - Property Specific Vapor Intrusion Mitigation System Status - Residential Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES										
Residential Property VI Inventory Number (See Note 1)	Vapor Intrusion Mitigation System Design Status					Vapor Intrusion Mitigation System Status				
	Pre-Design Building Inspection	Design Submitted	EPA Comments	Revised Design	EPA Approval	System Installation	System Fan Wiring	Pre- Final/Final Inspection	Final Inspection Complete	Comments
1	11/08/17	01/18/18	02/26/18	05/04/18	05/31/18	8/2/18	8/13/18	--	--	None
2	11/08/17	01/18/18	02/26/18	05/04/18	--	--	--	--	--	On hold (large void below slab) - sent to EPA 12/4/19
3	11/08/17	01/18/18	02/26/18	05/04/18	05/31/18	7/16/18	8/13/18	2/9/2022	Yes	None
4	11/08/17	01/18/18	02/26/18	05/04/18	05/31/18	8/20/18	9/12/18	--	--	None
5	11/09/17	01/18/18	02/26/18	05/04/18	05/31/18	7/16/18	9/13/18	--	--	None
6	11/08/17	01/18/18	02/26/18	05/04/18	05/31/18	7/16/18	8/13/18	4/19/2022	No	U-Tube to be added to Suction Point #2.
7	11/09/17	05/15/18	05/31/18	06/04/18	06/12/18	9/11/18	9/27/18	--	--	None
8	11/09/17	05/15/18	None	N/A	05/31/18	9/28/18	9/28/18	--	--	None
9	11/10/17	05/15/18	05/31/18	06/04/18	06/12/18	9/25/18	11/8/18	--	--	None
10	11/10/17	05/15/18	05/31/18	06/04/18	06/12/18	9/10/18	9/27/18	--	--	None
11	11/30/17	06/05/18	06/19/18	07/05/18	07/13/18	11/13/18	11/13/18	--	--	None
12	11/30/17	06/05/18	06/19/18	07/05/18	07/13/18	11/15/18	11/15/18	--	--	None
13	11/29/17	04/26/19	05/10/19	05/15/19	05/30/19	--	--	--	--	Cancelled - declined access
14	11/30/17	06/05/18	06/19/18	07/05/18	07/13/18	9/10/18	9/12/18	--	--	None
15	11/29/17	06/12/18	06/19/18	07/05/18	07/13/18	11/14/18	11/14/18	--	--	None
16	11/30/17	06/12/18	06/19/18	07/05/18	07/13/18	--	--	--	--	Cancelled - declined access
17	11/30/17	06/12/18	06/19/18	07/05/18	07/13/18	9/27/18	11/13/18	2/9/2022	Yes	Property owner deactivated system, because of concerns with insects and sewer issues.
18	12/15/17	06/12/18	06/19/18	12/20/19	2/10/2022	--	--	--	--	None
19	12/14/17	06/12/18	06/19/18	07/05/18	07/13/18	9/12/18	9/27/18	--	--	None
20	12/14/17	04/26/19	05/10/19	05/15/19	05/30/19	9/23/19	9/24/19	2/9/2022	Yes	None
21	12/14/17	04/26/19	05/10/19	05/15/19	05/30/19	9/23/19	9/24/19	2/9/2022	Yes	None
22	12/14/17	04/26/19	05/10/19	05/15/19	05/30/19	8/27/19	8/29/19	--	--	None
23	01/17/18	04/26/19	05/10/19	05/15/19	05/30/19	--	--	--	--	None
24	01/18/18	04/26/19	05/10/19	05/15/19	05/30/19	8/22/19	8/23/19	--	--	None
25	01/18/18	07/16/18	08/15/18	09/28/18	11/16/18	12/19/18	1/17/19	--	--	None
26	01/18/18	07/16/18	None	Not Req'd.	08/15/18	1/16/19	1/16/19	--	--	None
27	01/17/18	07/16/18	08/15/18	09/28/18	11/16/18	--	--	--	--	Cancelled - declined access
28	01/17/18	07/16/18	None	Not Req'd.	08/15/18	12/18/18	1/15/19	2/10/2022	Yes	None
29	04/04/18	12/20/19	--	--	--	--	--	--	--	Sent to EPA 12/20/19
30	04/04/18	07/16/18	08/15/18	09/28/18	11/16/18	7/23/2019 10/28/19	10/31/19	--	--	None
31	04/04/18	07/16/18	None	Not Req'd.	08/15/18	12/18/18	1/15/19	--	--	None
32	04/04/18	07/16/18	08/15/18	Not Req'd.	09/05/18	12/19/18	1/17/19	--	--	None

**Table 3 - Property Specific Vapor Intrusion Mitigation System Status - Residential Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES										
Residential Property VI Inventory Number (See Note 1)	Vapor Intrusion Mitigation System Design Status					Vapor Intrusion Mitigation System Status				
	Pre-Design Building Inspection	Design Submitted	EPA Comments	Revised Design	EPA Approval	System Installation	System Fan Wiring	Pre- Final/Final Inspection	Final Inspection Complete	Comments
33	05/11/18	04/26/19	05/10/19	05/15/19	05/30/19	7/22/19	8/23/19	--	--	None
34	05/11/18	07/16/18	08/15/18	09/28/18	11/16/18	1/15/19	1/15/19	--	--	None
35	05/11/18	--	--	--	--	--	--	--	--	On hold, redesign to EPA 12/4/19
36	06/19/18	10/05/18	11/16/18	11/29/18	12/06/18	--	--	--	--	Installed, not wired, electrical code issue
37	06/19/18	10/05/18	11/16/18	11/29/18	12/06/18	1/17/19	1/17/19	--	--	None
38	06/20/18	10/05/18	11/16/18	11/29/18	12/06/18	--	--	--	--	In progress - crawl issue
39	06/20/18	10/05/18	11/16/18	11/29/18	12/06/18	1/14/19	1/14/19	--	--	None
40	07/31/18	02/19/19	02/25/19	03/28/19	05/20/19	--	--	--	--	Inaccessible crawl space, difficult owner.
41	08/15/18	11/29/18	02/11/19	02/13/19	02/20/19	--	--	--	--	To be scheduled
42	08/15/18	11/29/18	02/11/19	02/13/19	02/20/19	--	--	--	--	In progress
43	08/15/18	02/19/19	02/25/19	03/28/19	05/20/19	--	--	--	--	In progress
44	09/28/18	11/29/18	02/11/19	03/28/19	05/06/19	--	--	--	--	None
45	09/27/18	11/29/18	02/11/19	02/13/19	02/20/19	3/6/19	4/3/19	2/10/2022	No	Modify the system to meet the minimum pressure field criteria of 0.004-in WG everywhere below the slab, add audible warning alarm, and install a fourth compliance port in the vicinity of the northwest corner of the basement.
46	11/07/18	02/19/19	02/25/19	03/28/19	05/20/19	--	--	--	--	In progress
47	11/07/18	02/19/19	02/25/19	04/02/19	05/20/19	6/27/19	6/27/19	--	--	None
48	11/08/18	--	--	--	--	--	--	--	--	On hold, design issues, to EPA 12/4/19
49	11/09/18	--	--	--	--	--	--	--	--	On hold, design issues, wood below slab
50	11/15/18	02/19/19	None	Not Req'd.	02/25/19	6/27/19	6/27/19	--	--	None
51	12/04/18	02/19/19	02/25/19	03/28/19	05/06/19	6/24/19	6/27/19	--	--	None
52	12/04/18	01/24/19	02/11/19	03/28/19	05/20/19	8/20/19 10/30/19	8/23/19	--	--	None
53	12/05/18	01/24/19	02/11/19	02/13/19	02/20/19	8/21/19 10/31/19	10/31/19	--	--	None
54	12/05/18	02/19/19	None	Not Req'd.	02/25/19	3/5/19	4/2/19	--	--	None
55	12/06/18	01/24/19	02/11/19	02/13/19	02/20/19	--	--	--	--	None
56	12/06/18	01/24/19	02/11/19	03/28/19	05/20/19	8/29/19 10/30/19	8/30/19	--	--	None
57	12/06/18	02/19/19	None	Not Req'd.	02/25/19	4/2/19	4/2/19	--	--	None
58	12/08/18	02/19/19	None	Not Req'd.	02/25/19	6/24/19	6/27/19	--	--	None
59	12/08/18	01/24/19	02/11/19	02/13/19	02/20/19	--	--	--	--	Operating, additional crawlspace found

**Table 3 - Property Specific Vapor Intrusion Mitigation System Status - Residential Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES										
Residential Property VI Inventory Number (See Note 1)	Vapor Intrusion Mitigation System Design Status					Vapor Intrusion Mitigation System Status				
	Pre-Design Building Inspection	Design Submitted	EPA Comments	Revised Design	EPA Approval	System Installation	System Fan Wiring	Pre- Final/Final Inspection	Final Inspection Complete	Comments
60	01/15/19	--	--	--	--	--	--	--	--	On hold, hoarder issue in basement
61	01/15/19	--	--	--	--	--	--	--	--	On hold - wood floor, design issues
62	01/16/19	04/26/19	05/10/19	05/15/19	05/30/19	--	--	--	--	None
63	06/11/19	09/27/19	None	Not Req'd.	11/06/19	--	--	--	--	Cancelled - declined
64	06/11/19	09/27/19	11/06/19	--	--	11/20/19	11/20/19	--	--	None
65	06/24/19	09/27/19	None	Not Req'd.	11/06/19	--	--	--	--	Installed, not wired, electrical code issue
66	08/07/19	09/27/19	None	Not Req'd.	11/06/19	1/25/20	11/21/20	--	--	None
67	08/26/19	09/27/19	None	Not Req'd.	11/06/19	11/19/19	11/20/19	--	--	None
68	10/02/19	01/31/20	--	--	12/10/2021	--	--	--	--	None
69	10/28/19	01/31/20	--	--	12/10/2021	--	--	--	--	None
70	10/28/19	01/31/20	--	--	12/10/2021	--	--	--	--	None
71	01/07/20	01/31/20	--	--	12/10/2021	--	--	--	--	None
72	10/08/20	01/12/21	--	--	12/10/2021	--	--	--	--	None
73	10/09/20	01/12/21	--	--	2/10/2022	--	--	--	--	None
74	--	--	--	--	--	--	--	--	--	TBD, tenant COVID concerns
75	--	--	--	--	--	--	--	--	--	To be scheduled
76	--	--	--	--	--	--	--	--	--	Demolished after fire
77	--	--	--	--	--	--	--	--	--	Non-responsive
78	--	--	--	--	--	--	--	--	--	Non-responsive
79	--	--	--	--	--	--	--	--	--	Non-responsive
80	--	--	--	--	--	--	--	--	--	Difficult coordination with owner
81	--	--	--	--	--	--	--	--	--	Cancelled - declined access
82	--	--	--	--	--	--	--	--	--	Difficult coordination with owner
83	--	--	--	--	--	--	--	--	--	Non-responsive
84	--	--	--	--	--	--	--	--	--	Cancelled - declined access

Notes :

1. Property inventory numbers are used to protect personal identification information (address, name, phone number, etc..).
 2. Table lists all residential properties for which an access agreement was secured.
- in WG = inches of water gauge
-- = no data

**Table 4 - Property Specific Vapor Intrusion Mitigation System Status - Commercial Properties
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

COMMERCIAL PROPERTIES												
Commercial Property Inventory Number (See Note 1)	Vapor Intrusion Mitigation System Design Status					Vapor Intrusion Mitigation System Status						Comments
	General Building Description	Pre-Design Building Inspection	Diagnostics Completed	Design Submitted	EPA Comments	Revised Design Submitted	EPA Approval	System Installation	System Fan Wiring	Pre-Final/Final Inspection	Final Inspection Complete	
1	Garage/shop with office, vacant	07/31/18	07/31/18	06/11/19	07/17/19	07/17/19	07/30/19	10/9/2019	10/9/2019	--	--	None
2	Gas station, no basement	05/22/19	--	--	--	--	--	--	--	--	--	Owner will only allow portion of footprint to be addressed
3	Office/storage unit, no basement	12/07/18	05/01/19	06/11/19	07/17/19	07/17/19	07/30/19	10/9/2020	11/20/2020	--	--	None
4	Office/warehouse or manufacturing	--	--	--	--	--	--	--	--	--	--	Cancelled - Denied Access
5	Office/warehouse	11/15/18	05/21/19	06/11/19	07/17/19	07/17/19	07/30/19	--	--	--	--	Change in owner management rejected design, declined for now
6	Office and retail	11/15/18	05/02/19	06/11/19	07/17/19	--	--	8/26/2019	8/29/2019	--	--	None
7	Office/warehouse, slab	09/28/18	01/31/20	01/31/20	--	--	--	--	--	--	--	Design submitted to EPA 01/31/20
8	Multi-unit office building, two levels	11/16/18	10/02/19	--	--	--	--	--	--	--	--	HVAC & sewer lines under lower level slab, pending further review
9	Office, converted house	12/05/18	12/05/18	06/11/19	07/17/19	07/17/19	07/30/19	8/30/2019	8/30/2019	--	--	None
10	Church with full basement	11/15/18	06/12/19	12/20/19	--	--	--	--	--	--	--	Design submitted to EPA 01/31/20

Notes :

1. Property inventory numbers are used to protect personal identification information (address, name, phone number, etc..).
 2. Table lists all commercial properties for which an access agreement was granted.
- = no data

**Table 5 - Five-Year Review Site Inspection: Residential Vapor Intrusion Mitigations System Components
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES			
Residential Property Inventory Number (See Note 1)	Exterior System Components Observed	System Component Appear Functional/Intact	Comments
1	Yes	Yes	None
3	Yes	Yes	None
4	Yes	Yes	None
5	Yes	Yes	None
6	Yes	Yes	None
7	Yes	Yes	None
8	Yes	Yes	None
9	Yes	Yes	None
10	Yes	Yes	None
11	Yes	Yes	None
12	Yes	Yes	None
14	Yes	Yes	None
15	Yes	Yes	None
17	Yes	Yes	See Note 4.
19	Yes	Yes	None
20	Yes	Yes	None
21	Yes	Yes	None
22	Yes	Yes	None
24	Yes	Yes	None
25	Yes	Yes	None
26	Yes	Yes	None
28	Yes	Yes	None
30	Yes	Yes	None
31	Yes	Yes	None
32	Yes	Yes	None
33	N/A	N/A	Inspection not performed, because of previous safety concern with resident.
34	Yes	Yes	None
37	Yes	Yes	None
39	Yes	Yes	None
42	Yes	N/A	See Note 3.
45	Yes	Yes	None
46	Yes	N/A	See Note 3.
47	Yes	Yes	None

**Table 5 - Five-Year Review Site Inspection: Residential Vapor Intrusion Mitigations System Components
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

RESIDENTIAL PROPERTIES			
Residential Property Inventory Number (See Note 1)	Exterior System Components Observed	System Component Appear Functional/Intact	Comments
50	Yes	Yes	Discharge stack appeared to penetrate roof adjacent to chimney. Confirmed with PRP Contractor GHD that the fan was located in a utility closet inside the residence.
51	Yes	Yes	None
52	Yes	Yes	None
53	Yes	Yes	None
54	Yes	Yes	None
55	Yes	N/A	See Note 3.
56	Yes	Yes	None
57	Yes	Yes	None
58	Yes	Yes	None
62	Yes	Yes	None
64	Yes	Yes	None
65	Yes	N/A	See Note 3.
66	Yes	Yes	None
67	Yes	Yes	None

Notes:

- Property inventory numbers are used to protect personal identification information (address, name, phone number, etc.).
 - The PRP Contractor (GHD) provide a list of properties with vapor intrusion mitigation systems installed as of April 14, 2022. The site inspection of these properties consisted of a visual dashboard inspection to verify the exterior components of the VI mitigation systems and determine if they appeared to be functional/intact.
 - This property was not identified on the April 14, 2022 list of installed vapor intrusion systems. However, exterior components of a vapor intrusion system were observed.
 - Property owner deactivated vapor intrusion system because of concerns with insects and an assumed sewer issue.
 - Inspection Performed By: Robin Higham, P.E., and Tim Murphy, P.E., PWT-Bay West Joint Venture on April 20 2022.
- N/A = Not Applicable

**Table 6 - Five-Year Review Site Inspection: Commercial Vapor Intrusion Mitigations System Components
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

COMMERCIAL PROPERTIES			
Commercial Property Inventory Number (See Note 1)	Exterior System Components Observed	System Component Appear Functional/Intact	Comments
1	Yes	Yes	None
3	Yes	Yes	None
6	Yes	Yes	Four separate vapor intrusion mitigation systems were observed.
9	Yes	Yes	None

Notes:

1. Property inventory numbers are used to protect personal identification information (address, name, phone number, etc..).
2. The PRP Contractor (GHD) provide a list of properties with vapor intrusion mitigation systems installed as of April 14, 2022. The site inspection of these properties consisted of a visual dashboard inspection to verify the exterior components of the vapor intrusion mitigation systems and determine if they appeared to be functional/intact.
3. Inspection Performed By: Robin Higham, P.E., and Tim Murphy, P.E., PWT-Bay West Joint Venture on April 20 2022.

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
8/1/2014	IDEM LETTER RE: STATE OF INDIANA CONCURRENCE WITH THE INTERIM RECORD OF DECISION (ROD) (1 pp, 41.6 KB)	914888	PALIN, BRUCE, H (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	KARL, RICHARD, C (US ENVIRONMENTAL PROTECTION AGENCY)	No	None
4/29/2014	REDACTED MIDWEST REPORTING - LUSHER STREET PROPOSED PLAN PUBLIC MEETING TRANSCRIPT (57 pp, 2.29 MB)	938033	--	--	No	Present on disc in unredacted form
4/1/2014	EPA - SUPERFUND PROPOSED PLAN - LUSHER STREET GROUNDWATER CONTAMINATION SITE - APRIL 2014 (22 pp, 2.9 MB)	911172	(US ENVIRONMENTAL PROTECTION AGENCY)	--	Yes	Hardcopy and disc
9/1/2013	SULTRAC - FINAL FOCUSED FEASIBILITY STUDY REPORT OPERABLE UNIT 1 (117 pp, 6.24 MB)	909139	(SULTRAC)	US EPA, (US ENVIRONMENTAL PROTECTION AGENCY)	Yes	Hardcopy and disc
9/1/2013	SULTRAC - FINAL REMEDIAL INVESTIGATION REPORT (4761 pp, 334.89 MB)	909141	(SULTRAC)	US EPA, (US ENVIRONMENTAL PROTECTION AGENCY)	Yes	Hardcopy and disc
4/1/2012	LOCKHEED MARTIN - AERIAL PHOTOGRAPHIC ANALYSIS OF THE LUSHER STREET GROUNDWATER CONTAMINATION STUDY AREA (64 pp, 21.02 MB)	475518	MACK, W, M (LOCKHEED ENGINEERING & MANAGEMENT SERVICES CO INC)	--	No	None
3/16/2010	WESTON - PRELIMINARY INVESTIGATION REPORT (APPENDICES, TABLES, FIGURES ATTACHED) (56 pp, 367.95 MB)	909782	PATEL, OMPRAKASH (WESTON SOLUTIONS INC)	QUADRI, SYED (US ENVIRONMENTAL PROTECTION AGENCY)	No	None
4/1/2009	SULTRAC - FINAL COMMUNITY INVOLVEMENT PLAN (27 pp, 301.73 KB)	914891	VACCARELLO, CHERYL (SULTRAC)	KRAUSE, PATRICIA (US ENVIRONMENTAL PROTECTION AGENCY)	Yes	Hardcopy and disc
7/18/2007	IDEM - GROUND WATER PLUME BOUNDARY MAP DEFINED BY CHLORINATED VOCS FROM KEY FINDINGS LISTS, EVENTS 3, 4, & 5 INCLUDING POTENTIAL SOURCES (REFERENCE #28) (1 pp, 40.64 KB)	279345	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
7/18/2007	INDIANA GEOLOGICAL SURVEY - TOTAL THICKNESS OF CLAY IN INDIANA (REFERENCE #60) (2 pp, 518.25 KB)	279377	(IN GEOLOGICAL SURVEY)	--	No	None
7/16/2007	GENERAL AFFIDAVIT - FIVE SAMPLING EVENTS FOR LUSHER ST GROUNDWATER CONTAMINATION (REFERENCE #59) (1 pp, 25.8 KB)	279376	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
7/9/2007	REDACTED IDEM MEMO RE: INSTALLATION OF POINT-OF-ENTRY (POC) GRANULAR ACTIVATED CARBON (GAC) WATER FILTER SYSTEMS (REFERENCE #56) (5 pp, 3.63 MB)	938031	ESSERMAN, SUZANNE (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
7/9/2007	REDACTED GENERAL AFFIDAVIT - TELEPHONE CONVERSATION BETWEEN MARK JAWORSKI - RE SOURCE OF DRINKING WATER (REFERENCE #57) (1 pp, 59.96 KB)	938032	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
6/29/2007	AFFIDAVIT OF MARK JAWORSKI (REFERENCE #55) (1 pp, 19.83 KB)	279372	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
6/28/2007	EPA - SOM01.1 VOLATILE TARGET COMPOUND LIST & CORRESPONDING CRQLS (REFERENCE #54) (3 pp, 102.43 KB)	279371	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
6/27/2007	COMPANY PROFILE OF GEMEINHARDT CO INC (REFERENCE #53) (2 pp, 488.96 KB)	279370	--	--	No	None
5/7/2007	EPA - TOXICS RELEASE INVENTORY OF GASKA TAPE INC (REFERENCE #50) (4 pp, 127.79 KB)	279367	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
5/4/2007	IDEM MEMO RE: STURGIS SAMPLE RESULTS (REFERENCE #52) (1 pp, 17.05 KB)	279369	ESPICH, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
5/3/2007	THOMAS NET - COMPANY PROFILE OF B-D INDUSTRIES INC (REFERENCE #46) (1 pp, 44.16 KB)	279363	--	--	No	None
5/3/2007	COMPANY HISTORY OF FLEXIBLE FOAM PRODUCTS INC (REFERENCE #48) (1 pp, 72.9 KB)	279365	--	--	No	None
5/2/2007	EPA - DRINKING WATER CONTAMINANTS WITH LIST OF CONTAMINANTS & THEIR MCLS (REFERENCE #42) (12 pp, 1.11 MB)	279359	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
5/1/2007	EPA - SUPERFUND SITE INFORMATION, UPDATE ON LUSHER ST GROUNDWATER CONTAMINATION (REFERENCE #34) (2 pp, 90.24 KB)	279351	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
5/1/2007	REDACTED IDEM - SITE INSPECTION REPORT - VOL 1 (REFERENCE #3) (162 pp, 70.62 MB)	938021	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
5/1/2007	REDACTED IDEM - SITE INSPECTION REPORT - VOL 2 (REFERENCE #3) (501 pp, 101.3 MB)	938034	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
4/20/2007	IDEM TECHNICAL MEMORANDUM - HAZARD RANKING SYSTEM (HRS) DOCUMENTATION RECORD (REFERENCE #27) (18 pp, 2.05 MB)	279344	GIESTING, PAUL (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
4/19/2007	REDACTED IDEM MEMO RE: CORRELATION OF SAMPLE LOCATIONS & IDNR WELL RECORDS (REFERENCE #29) (3 pp, 139.88 KB)	938028	GIESTING, PAUL (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
4/13/2007	REDACTED IDEM MEMO RE: CONTAMINATION AT 1619 AVALON (REFERENCE #24) (1 pp, 70.6 KB)	938027	MCDANIEL, KEN (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	JAWORSKI, MARK (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
4/9/2007	REDACTED IDEM - SITE VIST/INTERVIEWS AFFIDAVIT (REFERENCE #20) (20 pp, 757.52 KB)	938026	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
3/22/2007	EPA - TOXICS RELEASE INVENTORY, FLEXIBLE FOAM PRODUCTS (REFERENCE #47) (7 pp, 815.13 KB)	279364	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
3/20/2007	INDIANA GEOLOGICAL SURVEY GIS ATLAS - MAP OF LUSHER ST GROUNDWATER CONTAMINATION SITE (REFERENCE #49) (1 pp, 878.39 KB)	279366	--	--	No	None
3/1/2007	REDACTED IDEM - TELEPHONE CONVERSATION LOGS, VARIOUS DATES IN 03/07 (REFERENCE #8) - REDACTED (11 pp, 380.79 KB)	938025	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
1/29/2007	POLLUTION REPORT (POLREP) - #1, FIRST & FINAL (REFERENCE #43) (2 pp, 566.51 KB)	279360	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
1/22/2007	EPA - REVIEW OF DATA RECEIVED FOR REVIEW ON 12/28/06, CASE #35998, KAP TECHNOLOGIES (REFERENCE #32) (321 pp, 12.62 MB)	279349	OSTRODKA, STEVE (US ENVIRONMENTAL PROTECTION AGENCY)	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
12/13/2006	REDACTED IDEM - SAMPLE FIELD SHEETS, 12/12/06-12/13/06 (REFERENCE #7) (5 pp, 353.56 KB)	938024	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
12/12/2006	IDEM MEMO RE: ANALYTICAL RESULTS FOR STURGIS METALS (REFERENCE #23) (8 pp, 1.61 MB)	279340	DELONG, ALLYN (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	CANTWELL, ROSEMARY (IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
12/7/2006	REDACTED IDEM - SAMPLE FIELD SHEETS, 12/05/06-12/07/06 (REFERENCE #6) (54 pp, 4.51 MB)	938023	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
12/4/2006	[REDACTED] US EPA ACTION MEMO - REQUEST FOR AN EMERGENCY REMOVAL ACTION (SECOND REMOVAL) (REDACTED) (REFERENCE #12) (12 pp, 570.44 KB)	960151	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	NACHOWICZ, LINDA (US ENVIRONMENTAL PROTECTION AGENCY)	No	Present in unredacted form (259797)
10/25/2006	EPA - REVIEW OF DATA RECEIVED FOR REVIEW ON 10/04/06, CASE #35735, MITKEM CORP (REFERENCE #31) (78 pp, 3.08 MB)	279348	OSTRODKA, STEVE (US ENVIRONMENTAL PROTECTION AGENCY)	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	No	None
10/23/2006	EPA - SUPERFUND CHEMICAL DATA MATRIX - 10/23/06 APPENDIX A (TRICHOETHYLENE); 01/27/04, APPENDICES B-I (HAZARDOUS SUBSTANCES FACTOR VALUES), B-II (HAZARDOUS SUBSTANCES BENCHMARKS); 06/23/06 APPENDICES BI & BII UPDATE (REFERENCE #2) (60 pp, 4.23 MB)	279322	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
9/12/2006	IDEM - SAMPLE FIELD SHEETS, 09/12/06 (REFERENCE #5) (17 pp, 1.5 MB)	938022	(IN DEPT OF ENVIRONMENTAL MANAGEMENT)	--	No	None
9/1/2006	EPA FACT SHEET - CONRAIL RAILYARD (REFERENCE #44) (3 pp, 159.16 KB)	279361	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
1/1/2005	US CENSUS BUREAU FACT SHEET - 2005 AMERICAN COMMUNITY SURVEY (REFERENCE #51) (2 pp, 90.06 KB)	279368		--	No	None
9/1/1998	EPA FACT SHEET - EVALUATING GROUNDWATER PLUMES UNDER HAZARD RANKING SYSTEM (REFERENCE #22) (5 pp, 397.32 KB)	279339	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
11/1/1996	EPA FACT SHEET - USING QUALIFIED DATA TO DOCUMENT AN OBSERVED RELEASE & OBSERVED CONTAMINATION (REFERENCE #58) (18 pp, 967.78 KB)	279375	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
3/31/1994	ECOLOGY & ENVIRONMENT INC - REMEDIAL INVESTIGATION/FEASIBILITY STUDY - CONRAIL SITE, ELKHART, IN - VOL 1 (REFERENCE #17) (313 pp, 11.61 MB)	279334	(ECOLOGY & ENVIRONMENT INC)	(US ENVIRONMENTAL PROTECTION AGENCY)	No	None
3/31/1994	ECOLOGY & ENVIRONMENT INC - REMEDIAL INVESTIGATION/FEASIBILITY STUDY - CONRAIL SITE, ELKHART, IN - VOL 2 (REFERENCE #18) (245 pp, 6.3 MB)	279335	(ECOLOGY & ENVIRONMENT INC)	--	No	None
1/1/1994	USGS - 7.5 MINUTE SERIES TOPOGRAPHIC MAP, ELKHART QUADRANGLE, IN; REVISED 1994 (REFERENCE #13) (1 pp, 42.17 KB)	279330	(US GEOLOGICAL SURVEY)	--	No	None
1/1/1994	USGS - 7.5 MINUTE SERIES TOPOGRAPHIC MAP, OSCEOLA QUADRANGLE, IN; REVISED 1994 (REFERENCE #14) (1 pp, 40.13 KB)	279331	(US GEOLOGICAL SURVEY)	--	No	None
1/1/1994	USGS - HYDROGEOLOGIC ATLAS OF AQUIFERS IN INDIANA, WATER-RESOURCES INVESTIGATIONS REPORT 92-4142 (REFERENCE #19) (13 pp, 8.78 MB)	279336	(US GEOLOGICAL SURVEY)	--	No	None
11/22/1993	EPA MEMO RE: ENTRY OF US V WALERKO TOOL & ENGINEERING CORP COST RECOVERY CONSENT DECREE (11/12/93 SIGNED CONSENT DECREE ATTACHED) (REFERENCE #21) (24 pp, 820.75 KB)	279338	PETERSON, LYNN (US ENVIRONMENTAL PROTECTION AGENCY)	TRAUB, JODI, L (US ENVIRONMENTAL PROTECTION AGENCY)	No	None
11/1/1992	EPA - (EXCERPT) HAZARD RANKING SYSTEM (HRS) GUIDANCE MANUAL (REFERENCE #30) (3 pp, 87.8 KB)	279347	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
9/11/1992	REDACTED DECLARATION OF, IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT - USA V WALERKO TOOL & ENGINEERING CORP - CIVIL ACTION NO S89-00348 (REFERENCE #41) (5 pp, 259.36 KB)	938040	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
8/27/1992	REDACTED DECLARATION OF, WALERKO TOOL & ENGINEERING CORP (REFERENCE #37) (4 pp, 214.15 KB)	938038	LANDRY, BRYAN (WALERKO TOOL & ENGINEERING CORP)	--	No	None
8/19/1992	REDACTED DECLARATION OF, WALERKO TOOL & ENGINEERING CORP (REFERENCE #38) (3 pp, 241.57 KB)	938039	MCDANIEL, DOUG (WALERKO TOOL & ENGINEERING CORP)	--	No	None

**Table 7 - Five Year Review Inspection of Administrative Record at Local Repository
Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
1/6/1992	WALERKO TOOL & ENGINEERING CORP RESPONSES TO REQUESTS FOR ADMISSIONS FROM USA - CIVIL ACTION S91-00411M (REFERENCE #36) (6 pp, 168.37 KB)	279353	(US DISTRICT COURT)	--	No	None
12/5/1991	REDACTED RESPONSE TO PLANTIFF'S FIRST SET OF INTERROGATORIES TO DEFENDANT WALERKO TOOL & ENGINEERING CORP - USA V WALERKO TOOL & ENGINEERING CORP - CIVIL CASE NO S91-00411M (REFERENCE #40) (11 pp, 562.97 KB)	938029	(US DISTRICT COURT)	--	No	None
1/23/1991	REDACTED (EXCERPT) DEPOSITION OF EDWARD MICHAEL WALERKO - USA V CONSOLIDATED RAIL CORP, CIVIL ACTION S90-00056 (REFERENCE #39) (5 pp, 374.57 KB)	938030	WALERKO, ED (WALERKO TOOL & ENGINEERING CORP)	--	No	None
12/14/1990	EPA - HAZARD RANKING SYSTEM (HRS), 40 CFR PART 300, APPENDIX A, 55 FR 51533 (REFERENCE #1) (138 pp, 8.9 MB)	279321	(US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
1/23/1990	ADMINISTRATIVE ORDER BY CONSENT (AOC) (SIGNED) - GEMEINHARDT - DOCKET NO V-W-85-C-003 (REFERENCE #45) (22 pp, 744.89 KB)	279362	CONSTANTELOS, BASIL, G (US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
11/10/1989	[REDACTED] GROUNDWATER TECHNOLOGY INC - SUBSURFACE INVESTIGATION FOR CONRAIL RAILYARD (REFERENCE #16) (420 pp, 13.02 MB)	965027	(GROUNDWATER TECHNOLOGY INC)	--	No	None
3/6/1989	REDACTED ON SCENE COORDINATORS (OSC) REPORT (REFERENCE #9) (18 pp, 762.64 KB)	938019	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	--	No	None
6/9/1988	EPA ACTION MEMO - CEILING INCREASE REQUEST FOR REMOVAL ACTION (6 pp, 241.15 KB)	225738	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	CONSTANTELOS, BASIL, G (US ENVIRONMENTAL PROTECTION AGENCY)	Yes	None
1/20/1988	REDACTED ELKHART COUNTY HEALTH DEPT - STATE ROAD 19 & LUSHER ST INVESTIGATION (REFERENCE #25) (206 pp, 13.35 MB)	938035	(ELKHART COUNTY HEALTH DEPT)	--	No	None

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Lusher Street Groundwater Contamination Site, Elkhart, Indiana**

DATE	TITLE	DOC ID	AUTHOR	ADDRESSEE	PRESENT	COMMENTS
1/15/1988	REDACTED WESTON SPER - GROUNDWATER INVESTIGATION REPORT (SITE HISTORY & COST ESTIMATES ATTACHED) (REFERENCE #11) (19 pp, 763.38 KB)	938018	SPRINGER, SCOTT, D (ROY F WESTON INC); BINKLEY, JEFFREY, S (ROY F WESTON INC)	FARYAN, STEVEN, J (US ENVIRONMENTAL PROTECTION AGENCY)	No	None
12/21/1987	REDACTED EPA ACTION MEMO - REQUEST FOR REMOVAL ACTION (REFERENCE #10) (5 pp, 253.5 KB)	938020	THEISEN, KENNETH (US ENVIRONMENTAL PROTECTION AGENCY)	CONSTANTELOS, BASIL, G (US ENVIRONMENTAL PROTECTION AGENCY)	No	Present in unredacted form (225739)
1/1/1987	IDNR - (EXCERPT) WATER RESOURCE AVAILABILITY IN ST JOSEPH RIVER BASIN, IN (REFERENCE #26) (21 pp, 2.68 MB)	279343	(IN DEPT OF NATURAL RESOURCES)	--	No	None
9/13/1985	IL EPA MEMO RE: PETERSON COAL CO W/ATTACHMENTS (4 pp, 180.27 KB)	379320	LIN, EDDY (IL ENVIRONMENTAL PROTECTION AGENCY)	FILE, (FILE)	No	None
3/7/1985	ADMINISTRATIVE ORDER (AO) (SIGNED) - GEMEINHARDT - V-W-85-C-003 (REFERENCE #33) (23 pp, 818.39 KB)	279350	ADAMKUS, VALDAS, V (US ENVIRONMENTAL PROTECTION AGENCY)	(GEMEINHARDT INC)	No	None
10/1/1981	USGS - HYDROLOGIC & CHEMICAL EVALUATION OF GROUND WATER RESOURCES OF NORTHWEST ELKHART COUNTY, IN (REFERENCE #15) (150 pp, 5.49 MB)	279332	(US GEOLOGICAL SURVEY)	--	No	None
Undated	UNITED STATES' MEMORANDUM IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT ON LIABILITY - US V WALERKO TOOL & ENGINEERING CORP - CIVIL ACTION S91-00411M (REFERENCE #35) (18 pp, 725.14 KB)	279352	(US DISTRICT COURT)	--	No	None

Notes :

1. Inspection of Administrative Record located at the Elkhart Public Library was performed on April 20, 2022.
 2. Link to online Administrative Record: <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.ars&id=0500018&doc=Y&colid=63497®ion=05&type=AR>
- DOC ID = Administrative Record Document Identification Number
-- = no data

APPENDIX D – PUBLIC NOTIFICATION

Master gardener class announced for fall

I am excited to announce there will be a Purdue Extension Master Gardener class held in person in Elkhart County this fall. Classes will be held Wednesdays, beginning Aug. 24 and running through Dec. 14. All programs begin at 1 p.m. and will end approximately 4:30 p.m. at the Purdue Extension Office on the Elkhart County 4-H Fairgrounds, 17746 C.R. 34, Goshen.

Jeff Burbrink



The main purpose is to train volunteers to assist Purdue Extension with consumer horticulture education in Indiana communities. Extension Master Gardener volunteers are required to give a minimum of 40 hours back to the community after completing initial training

alternatives, trees, vegetables, flowers, lawns, indoor plants and fruit.

The Purdue Extension Master Gardener program's main purpose is to train volunteers to assist Purdue Extension with consumer horticulture education in Indiana communities.

Extension Master Gardener volunteers are required to give a minimum of 40 hours back to the community after completing initial training

and passing an exam. Volunteers completed 117,000 hours in 2021.

Most Master Gardeners stay involved in the program for years. Our local Master Gardeners created the Michiana Master Gardener Association in 1996, in part because they enjoy learning, and because they can work on big projects together, like our annual Garden Tour and Garden Expo. They are an amazingly talented and fun group of creative people.

Your application is due to our office by Aug. 15, either in person or by email. Once your application is approved, the Extension

Office will send you a link, where you will register and pay for the program. An individual registration costs \$194 and includes a print version of the Purdue EMG manual. The fee for two people sharing a print version of the manual is \$294. Refunds cannot be processed after Aug. 17.

Applications can be found at <https://bit.ly/3kWqxOF> or by contacting the Purdue Extension Office in Elkhart County at 574-533-0554.

Jeff Burbrink is an educator with Purdue Extension Elkhart County. He can be reached at 574-533-0554 or jburbink@purdue.edu.

OBITUARIES

OBITUARY INDEX

ELKHART
Loretta Andrews, 74
Jerry Lee Healey Sr., 80

Penny Lynn (Barbee) Matlock, 63
Marjorie "Marge" M. Teed, 97

To leave an online condolence for any of today's obituaries, visit elkhartrtruth.com.

Penny Lynn (Barbee) Matlock

March 5, 1959 - May 7, 2022

Penny Lynn (Barbee) Matlock went to her final rest at home surrounded by family and loved ones at the tender age of 63 early Saturday morning, May 7, 2022,



following a brief illness. She is profoundly missed by her best friend and husband of just 14 months, John Landi of Elkhart.

Penny was born March 5, 1959. She leaves behind daughter Melissa (Todd) Rorie of Wakarusa and her children Joey, Emily and Allison Rorie also of Wakarusa and Shayla Matlock of Mishawaka. She also leaves daughter Jennifer (Brian) Keip and her children JC and Julia Byers of Elkhart. She is survived by brother Donald H. (Shirley) Barbee of Elkhart and sisters Judy Tidwell of Sa-

vannah, Tennessee, and Candy (Kim) Butt of Florence, Alabama, and many nieces and nephews including Phyllis and David Woods of Elkhart and Jessica Haddock of Savannah, Tennessee. Penny was preceded in death by her parents J.L. and Gladys M. (Harper) Barbee, brothers JC and Darrel Barbee, and sisters Shirley Myers and Sandra Atkinson.

Penny worked for a time at Alumax in Bristol but was predominantly a homemaker. Visitation will be 5 to 7 p.m. Friday, May 20, at Thompson, Lengacher & Yoder Funeral Home in Wakarusa. A graveside service will be at 10 a.m. Saturday, May 21, at Old Olive Cemetery.

Marjorie M. Teed

Marjorie "Marge" M. Teed, 97, formerly of Elkhart, passed away on Tuesday, May 10, 2022, at Ritten-

house Village in Michigan City, Indiana. Billings Funeral Home, Elkhart, is assisting the family.

Loretta Andrews

Loretta Andrews, 74, of Elkhart, died Tuesday, May 10, 2022, at Golden Living Center

in Elkhart. Arrangements are pending at Hartzler-Gutermuth-Inman Funeral Home.

Jerry Lee Healey Sr.

Jerry Lee Healey Sr., 80, of Elkhart, died Tuesday, May 10, 2022. Arrangements are pending at Wal-

ley-Mills-Zimmerman Funeral Home.

Anti-Bullying event to be held at Freshman Division

TRUTH STAFF

ELKHART — Elkhart Community Schools is hosting an anti-bullying assembly Thursday for parents and guardians.

The event is scheduled for 6 p.m. and will be held at the Elkhart High School Freshman Division, One Blazer Blvd.

Elkhart Community Schools is focused on facilitating student development

through lessons in social awareness, self-awareness, responsible decision-making skills and relationship-building skills," said Sarita Stevens, Assistant Superintendent of Student Services, Elkhart Community Schools. "Our focus is to create a safe and kind school environment for all."

The event will begin in the auditorium where the district will review how it defines bullying, share

national trends about bullying, discuss the district's process for bullying investigations, and provide parent resources. Parents will have an opportunity to share their personal stories and insight with the district electronically.

"The purpose of the parent anti-bullying assembly," said Stevens, "is to bring vital voices to the table to create and sustain an effective plan to eliminate bul-

lying wherever it appears. We need parents, staff and community members to recognize, be vigilant, and to know how to intervene and report when they see bullying situations."

The event will feature speakers and facilitators from Triple P, CAPS, and the district's Student Services Department.

Light refreshments will be available. Translators also will be available.

Parents hunting for baby formula as shortage spans U.S.

By **MATTHEW PERRONE** and **HEATHER HOLLINGSWORTH**
Associated Press

WASHINGTON — Parents across the U.S. are scrambling to find baby formula because supply disruptions and a massive safety recall have swept many leading brands off store shelves.

Months of spot shortages at pharmacies and supermarkets

have been exacerbated by the recall at Abbott, which was forced to shutter its largest U.S. formula manufacturing plant in February due to contamination concerns.

On Monday, White House press secretary Jenn Psaki said the Food and Drug Administration was "working around the clock to address any possible shortages."

On Tuesday, the FDA said it was working with U.S.

manufacturers to increase their output and streamlining paperwork to allow more imports.

For now, pediatricians and health workers are urging parents who can't find formula to contact food banks or doctor's offices. They warn against watering down formula to stretch supplies or using online DIY recipes.

"For babies who are not being breastfed, this is the only

thing they eat," said Dr. Steven Abrams, of the University of Texas, Austin. "So it has to have all of their nutrition and, furthermore, it needs to be properly prepared so that it's safe for the smallest infants."

Trying to keep formula in stock, retailers including CVS and Walgreens have begun limiting purchases to three containers per customer.

LIBRARY

From page A1

would be mad that I pointed that out – but what we have are the books that people are checking out."

Mary Ann Kempa, branch supervisor, said library users have been returning in the months since the facility reopened.

"We came out of COVID, into renovation, out of renovation. So we are seeing

an increase with traffic every week," she said. "Our patrons are happy to not only be back in the library but to be back in the new renovated space."

Aside from keeping a few metal shelves, she said al-

most everything else inside is new: fixtures, furniture, paint, wallpaper and lighting. One thing the library made sure to keep was the view on the south side

overlooking the bird feeder, with a new floor-to-ceiling picture window.

"We're the branch in the woods, so we saved our big window that looks out

on the bird feeder," Kempa said. "It's something that Cleveland patrons, since the branch opened, they like to sit by the bird feeder and enjoy nature."

RV CLEANUP

From page A1

R-Ind., and economist Stephen Moore, a former member of the Wall Street Journal editorial board, are

expected to headline the breakfast. Also scheduled to speak are representatives of the RV Industry Association, the RV Dealers Association, Campgrounds of America (KOA) and RV Trader.

A panel discussion among four high-volume RV retailers also is planned during the breakfast. Delivering remarks virtually will be U.S. Sen. Mike Braun, R-Ind., and U.S. Rep. Jackie Walorski, R-Ind.



Nam Y. Huh / AP, File

Gas prices are displayed at a BP gas station in Elgin, Ill., on March 19. Just as Americans gear up for summer road trips, the price of oil remains stubbornly high, pushing prices at the gas pump to painful heights.

GASOLINE

From page A1

hoping to reduce prices. That helped temporarily, but prices shot back up and stayed stubbornly high.

Biden in remarks Tuesday stressed that fighting inflation is his top priority, a sign of both the economic challenges caused by prices rising at the fastest pace in four decades and the political drag for Democrats that has resulted.

"I believe that inflation is our top economic challenge right now," Biden said.

He said that switching away from fossil fuels and greater energy efficiency will ultimately protect Americans from higher gasoline and heating and cooling costs.

The president noted that Americans are finding ways

to limit how many fill-ups they need because of higher prices. "They're doing everything in their power to figure out how to not show up at the gas pump," he said.

White House press secretary Jen Psaki said a suspension of the federal gas tax is "an option on the table." The suspension could in theory reduce gas prices by as much as 18 cents a gallon.

Republican lawmakers say the key is to lease more federal land for oil and gas drilling and send a positive message to energy producers by greenlighting the Keystone XL pipeline that Biden nixed last year.

As the war Russia is waging on Ukraine continues and demand for gasoline continues to grow, experts are not expecting relief at the pump any time soon.

"We will see this trend con-

tinue probably throughout summer, mainly because of demand," Gross said. "The weather's getting warmer. The days are getting nicer. People are hitting the road."

That's particularly hard on people who drive for a living, or those who must drive to get to work.

"It's expensive," said Peter Lector, 28, who spent \$60 Tuesday to fill up his tank in Brooklyn. "I'm doing Uber, so it's costing me a lot of money every morning."

If the price of gasoline keeps going up, he feels like he might have to find another job, he said.

Still others have accepted that high gasoline prices may be here to stay.

"It is what it is," said David Stephen, who was also buying gasoline in Brooklyn. "Everything goes up, never comes down You can't do anything about it."



EPA Begins Review of the Lusher Street Groundwater Contamination Superfund site

Elkhart, Indiana

U.S. Environmental Protection Agency is conducting a five-year review of the Lusher Street Groundwater Contamination Superfund site in Elkhart, Indiana. The site is located in the west-central portion of Elkhart, Indiana, which occupies approximately 870 acres. It is bordered by the St. Joseph River to the north, State Road 19 (Nappanee Street) to the west, Hively Avenue to the south and Oakland Avenue to the east. The Superfund law requires regular checkups of sites that have been cleaned up with waste managed on-site to make sure the cleanup continues to protect people and the environment. This is the first five-year review for the site.

The five-year REMV review will include an evaluation of the interim remedial actions taken for Operable Unit 1 to address exposure to contaminated groundwater and soil vapor intrusion into buildings within the affected areas of the site.

All reviews ensure that the remedies put in place protect public health and the environment and function as intended by site decision documents. This five-year review is conducted to ensure that the remedy continues to be protective of human health and the environment.

More information is available at the Elkhart Public Library at 300 S. Second St., Elkhart, Indiana. Additional Lusher Street Groundwater Contamination Superfund site information can be found at: <https://www.epa.gov/superfund/lusher-street-groundwater>

The five-year review is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Cheryl Allen
Community Involvement
Coordinator
312-353-6196
allen.chervl@epa.gov

Karen Kirchner
Remedial Project Manager
312-353-4669
kirchner.karen@epa.gov

You may also call EPA toll-free at 1-800-621-8431, from 9:00 am to 5:30 pm, weekdays.