



Incorporating Phase I Environmental Site Assessments into the HUD Environmental Review

February 22, 2023

Objective



Participants will be able to:

- Describe the various reasons for performing a Phase I Environmental Site Assessment (ESA) on HUD-assisted properties
- Outline the key components of a Phase I ESA
- Interpret the Phase I ESA results in the context of HUD environmental review regulations at 24 CFR 58.5(i)

Introduction

What a Phase I ESA Is and Why It Is Used

Introduction



What is a Phase I environmental site assessment (Phase I ESA)?

A report that investigates the current and historical uses of a site to identify known or potential contamination on the site as well as on adjacent properties that may affect the subject property

When is a Phase I ESA needed?

- Acquisition of real property/requirement of financing
- To document compliance with [24 CFR 58.5\(i\)\(2\)](#) for multifamily/nonresidential projects
- When there is a potential presence of contamination or there is a potential change in land use
- To satisfy U.S. Environmental Protection Agency's (EPA's) All Appropriate Inquiries (AAI) rule

When is a Phase I ESA conducted?

- As part of the HUD environmental review
- Prior to the proposed change in property ownership

HUD Regulations: 24 CFR 58.5(i)



(i) HUD environmental standards

- (2)(i) Also, it is HUD policy that all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.
- (ii) The environmental review of multifamily housing with 5 or more dwelling units (including leasing), or non-residential property, must include the evaluation of previous uses of the site or other evidence of contamination on or near the site, to ensure that the occupants of proposed sites are not adversely affected by any of the hazards listed in [paragraph \(i\)\(2\)\(i\)](#) of this section.
- (iii) Particular attention should be given to any proposed site on or in the general proximity of such areas as dumps, landfills, industrial sites, or other locations that contain, or may have contained, hazardous wastes.
- (iv) The responsible entity shall use current techniques by qualified professionals to undertake investigations determined necessary.

CERCLA Liability

The **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** assigns liability for cleanup of a contaminated site to potentially responsible parties (PRPs)

- The current (or future) owners can be a PRP even if they did not cause the contamination
- PRPs may be held responsible for cleanup costs

A HUD grantee purchasing a property could become responsible for the costs of cleanup if the property turns out to be contaminated

To protect against such liability, EPA's AAI rule can be followed



All Appropriate Inquiries (40 CFR §312)



AAI is the process of evaluating a site's environmental conditions and assessing potential liability for any contamination

- Investigates the past uses and ownership of the site and includes a visual inspection
- The process can be used by prospective buyers to protect against CERCLA liability
- [40 CFR §312](#) outlines the specific documentation and requirements that must be used to satisfy this rule



Phase I ESA Application

How does the Phase I ESA apply to HUD projects?

- **Environmental review:** HUD standards at [24 CFR 58.5\(i\)\(2\)](#) and [24 CFR 50.3\(i\)](#)
 - Identifies presence of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances that may pose a threat to health and safety of occupants or conflict with the intended use of the property
 - Investigates past uses of the property (**multifamily and nonresidential projects**)

Used to document compliance here →

And possibly here →

Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	A Phase I ESA was performed for the property. No recognized environmental conditions or other concerns were found. See Appendix C. Therefore, this project is in compliance with 58.5(i)(2).
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☐	
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	No aboveground storage tanks within one mile of the project were found by the Phase I ESA. See Appendix C. This project is in compliance with 24 CFR 51C.

- **Property acquisition:** Satisfies EPA's [AAI rule](#) and [CERCLA](#)
 - Identifies recognized environmental conditions (RECs)
 - Helps determine potential CERCLA liability for buyers when acquiring a property



Live Poll



You are proposing to acquire 3.8 acres of land for a three-story mixed-income apartment building. The land is currently vacant, but an automotive storage facility and filling station was previously sited on the property. Why would a Phase I ESA be needed? Select the correct answer:

- a) Protect against CERCLA liability
- b) The lending institution is requiring one
- c) To document compliance with HUD regulations
- d) All of the above



Preparation of a Phase I ESA

Preparers, Standards, and Components

Phase I ESA Preparers



Phase I ESAs are prepared/certified by **environmental professionals**, as defined by EPA at [40 CFR 312.10](#). Such a person must:

- Hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have 3 years of full-time relevant experience; or
- Be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in [§ 312.21](#) and have the equivalent of 3 years of full-time relevant experience; or
- Have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of 5 years of full-time relevant experience; or
- Have the equivalent of 10 years of full-time relevant experience.

ASTM Standard

ASTM E1527-21 (E1527-13): Standard for Environmental Site Assessments: Phase I Environmental Site Assessment Process

- The standard is consistent with EPA requirements and may be used to comply with the provisions of the AAI rule
- HUD states that the Phase I ESA should be prepared in accordance with ASTM E-1527

 HUD EXCHANGE

Using a Phase I Environmental Site Assessment to Document Compliance with HUD Environmental Standards at 24 CFR 58.5(i)(2) or 50.3(i)

Date Published: November 2015

Description

This guidance is focused on the investigation and documentation of contamination in HUD environmental review for projects with five or more units or non-residential properties. For these project types, the evaluation of contamination on or near the site. The American Society of Environmental Site Assessment (Phase I) is required analysis. This memorandum is intended to 1) document the environmental review, 2) describe the treatment of Phase I assessments, 3) explain the responsibility for potential further action based on the determination.

Resource Links

- [Using a Phase I Environmental Site Assessment to Document Compliance with HUD Environmental Standards at 24 CFR 58.5\(i\)\(2\) or 50.3\(i\)](#)

Using a Phase I Environmental Site Assessment to Document Compliance with HUD Environmental Standards at 24 CFR 58.5(i)(2) or 50.3(i)

Introduction

HUD policy requires that “all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property.”¹ Site contamination hazards must be analyzed using “current techniques by qualified professionals.”² The investigation and source documentation required to satisfy this standard will vary depending on the type of HUD-assisted activity, and its level of environmental review. HUD’s memorandum, “Site Investigation Screening - Guidance for complying with 24 CFR 58.5(i)(2) and 50.3(i),” provides guidance on determining the appropriate investigation and source documentation for each project type.

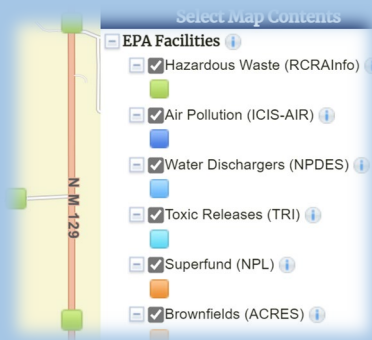


Phase I ESA Components



Typically involves:

- Visual inspections of the site and of adjoining properties
- Review of regulatory databases and agency records
- Review of historical records
- Interviews with current and past property owners or occupants



SALES HISTORY			
Document Date	Sale Price	Instrument	Sale Reason
10/24/2007	\$282,500.00	Statutory Warranty Deed	None
7/24/2006	\$252,500.00	Statutory Warranty Deed	None
6/19/2006	\$180,000.00	Quit Claim Deed	Other
1/14/1991	\$0.00	Quit Claim Deed	Other

A Phase I ESA is valid for up to 6 months. If certain sections are updated after 6 months, it can be valid for up to 1 year

Phase I ESA Format

Usually consists of the following components:

- Certification Statement
- Executive Summary
- Introduction
- Site Description
- User-Provided Information
- Records Review
- Site Inspection
- Adjacent Properties
- Interviews
- Findings and Opinions
- Conclusions
- Data Gaps
- Additional Services
- References
- Signature of Environmental Professional
- Qualifications of Environmental Professional



Phase I ESA Appendices

- Site Maps (e.g., topographic maps and insurance maps)
- Site Plan
- Site Photographs
- Historical Research Documents (e.g., historical aerials and site photos)
- Regulatory Records Documentation
- Interview Documentation
- Additional Services Reports
 - Such as lead-based paint inspection report, asbestos inspection report
- Special Contractual Conditions
- Qualifications of Environmental Personnel

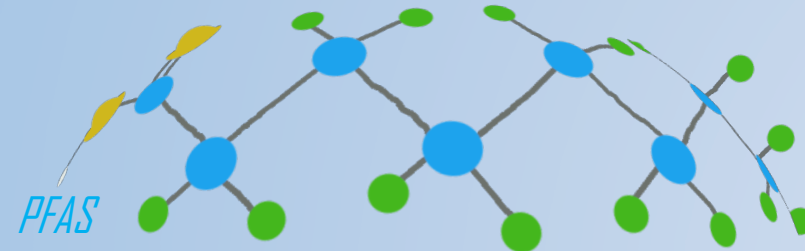
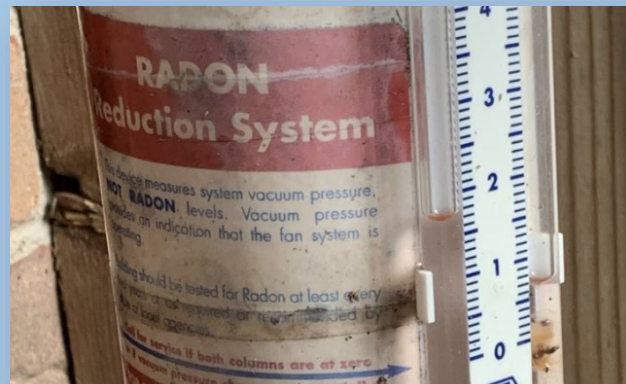


Customizing Phase I ESAs for HUD ERs



The Phase I ESA should include:

- Recognition of meeting HUD's 24 CFR 58.5(i)(2) or 50.3(i) requirements
- Inclusion of non-scope considerations, such as radon, mold, asbestos, lead-based paint, prior agricultural use (pesticides), and emerging contaminants (such as per- and polyfluoroalkyl substances, PFAs)
- Inclusion of recommendations on next steps (e.g. whether corrective action or further investigation is needed)



Live Poll



Nearly 8 months ago, a Phase I ESA was completed on a 4.9-acre site by a firm contracted by the current owner. Is All Appropriate Inquiries thereby satisfied?

Select the correct answer.

- a) Yes
- b) No
- c) Somewhat





Procuring a Phase I ESA

Logistics

How to Hire an Environmental Professional



How to find environmental professionals

- Networking
 - Ask for referrals from other grantees
- Yellow pages/search engines
 - “Phase I ESA consultants”
- Release a request for proposal
 - Recent experience
 - Qualifications
 - Scope of services
 - References
 - Fees

How to Hire an Environmental Professional



The contract:

- Type of contract (time and materials, fixed fee, etc.)
- Roles and responsibilities of the user/grantee versus the consultant/firm
- Scope of work
- Schedule for completion of the work
- Invoicing and change order processes

Phase I ESA Costs



For a typical HUD-assisted project, a Phase I ESA could be approximately **\$1,800-\$10,000**, depending on:

- Geographic location
- Size of the property
- Complexity of the project



Phase I ESA Timeframe



Approximately **1-3 months** to complete, depending on:

- Access to site, availability of owners and occupants for interviews, and other considerations
- Size of the property and number of structures on site
- Historical uses of the subject property and adjacent properties
- Difficulty in identifying historical records or if there is an abundance of documents to review
- Identification of potential contamination

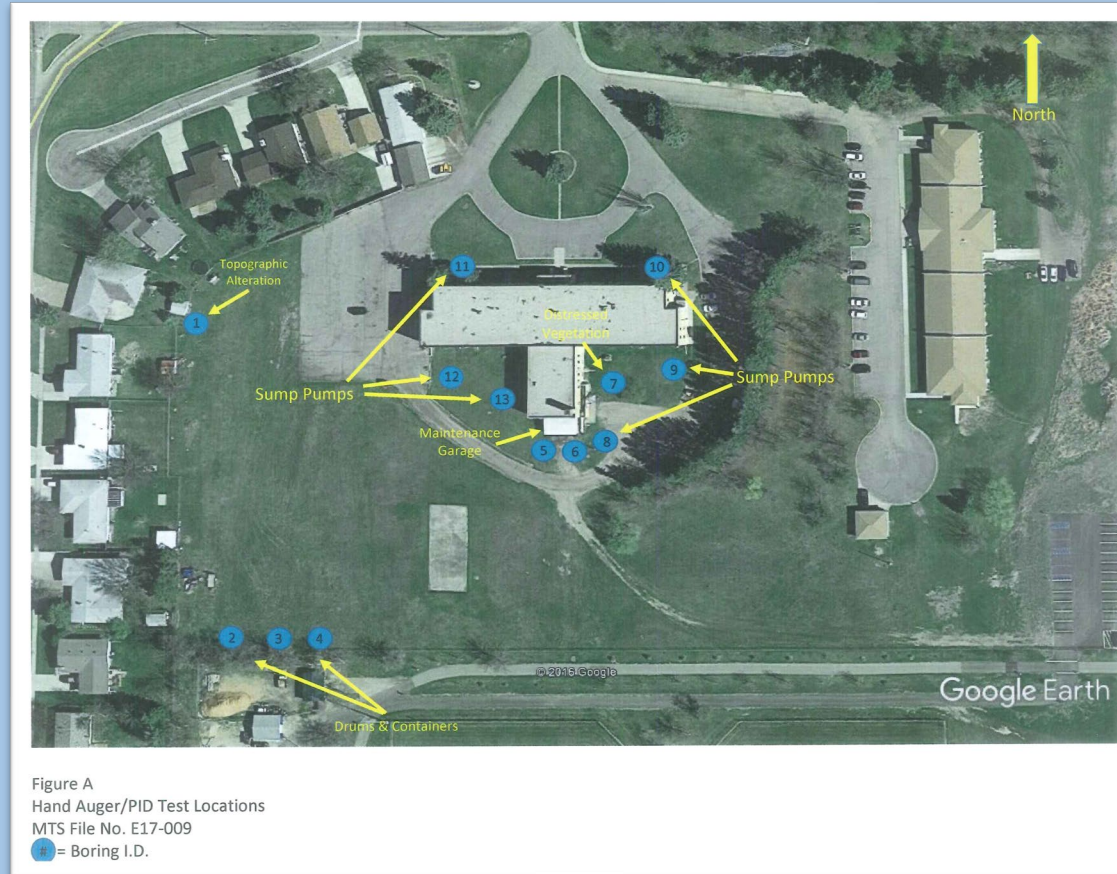
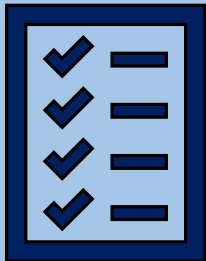
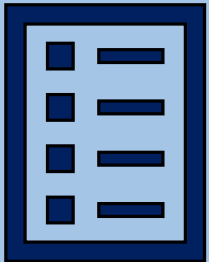
Reading a Phase I ESA

Understanding What the Results Mean

Interpreting the Phase I ESA Results



- Findings and Opinions
- Conclusions
- Recommendations
- Data gaps



Interpreting the Phase I ESA Results



- **Recognized environmental condition (REC, as defined by [ASTM E1527-21](#))**
 - (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment;
 - (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or
 - (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

A de minimis condition is not a REC.

- Areas of Concerns (AOCs)
- Pursue further investigation with a Phase II (ex: soil or ground water testing)

Interpreting the Phase I ESA Results



- **Historic recognized environmental condition (HREC):** A past release of hazardous substances or petroleum products affecting the site that was remediated, received regulatory closure, and is not subject to any controls
- **Controlled recognized environmental condition (CREC):** A release of hazardous substances or petroleum products affecting the site that received regulatory closure and is subject to implementation of required controls

Other Concerns Identified by the Phase I

While other concerns may not trigger CERCLA liability, HUD requires that the project site be safe for its intended use

- Non-scope considerations
 - Historical pesticide use
 - Radon, lead-based paint, mold, asbestos, etc.

Pursue further testing or professional opinions if other concerns are potentially present



Example of a non-REC finding



Renovation project with no new construction:

Environmental issue identified:

- The subject property vicinity is present in an area that was once highly industrialized and where fill material consisting of dune sand and construction debris may be present. The fill materials are often associated with debris that may contain elevated concentrations of long-chain hydrocarbons such as bunker oil and creosotes and heavy metals such as lead. As such, **proposed construction projects in such areas where more than 50 cubic yards of soil would be excavated are required to perform soil sampling** in advance as part of the permitting process to determine if the excavated soil would be considered hazardous waste and if a soil mitigation plan would be required to protect the health of workers and passers-by. **Based on no current plans at the subject property consisting of excavating more than 50 cubic yards of soil**, this designation is not considered a significant environmental concern and no additional action is warranted at this time.

Live Poll

A redevelopment project has levels of lead in the soil that are high with respect to established exposure standards but are consistent with background soil concentrations levels for the surrounding area.

The Phase I ESA notes possibly high soil lead concentrations due to past uses but does not call this a REC because the concentrations are consistent with background levels.

Is this property safe for redevelopment into a playground?

- a) Yes
- b) No
- c) Depends



Next Steps



Did the Phase I ESA identify items that could pose a threat to the health and safety of the occupants?

No

Yes, investigate further with a Phase II ESA or other testing.

Did the Phase II ESA or other testing identify contaminants?

No

Yes, do those contaminants exceed applicable safety standards?

Is there an exposure pathway by which those contaminants could harm human health?

Delineate the extent of the contamination and remediate it to safe levels for the intended use of the property.

Perform Due Diligence



Some details may be missed in the Phase I ESA



- Do not focus on just the RECs or just the Conclusion section
- Review entire document and supporting documentation

Case Study

Phase I ESA for proposed construction of apartment buildings in NJ

Case Study – Apartment Construction



Construction of 48 affordable apartments on a 3.6-acre parcel of vacant land

- Two 3-story garden-style apartment buildings
- 77 parking spaces
- Community room space, common laundry facilities, security features, and offices for property staff

Why is a Phase I ESA needed, and what are the critical elements to focus on?



Case Study – Apartment Construction



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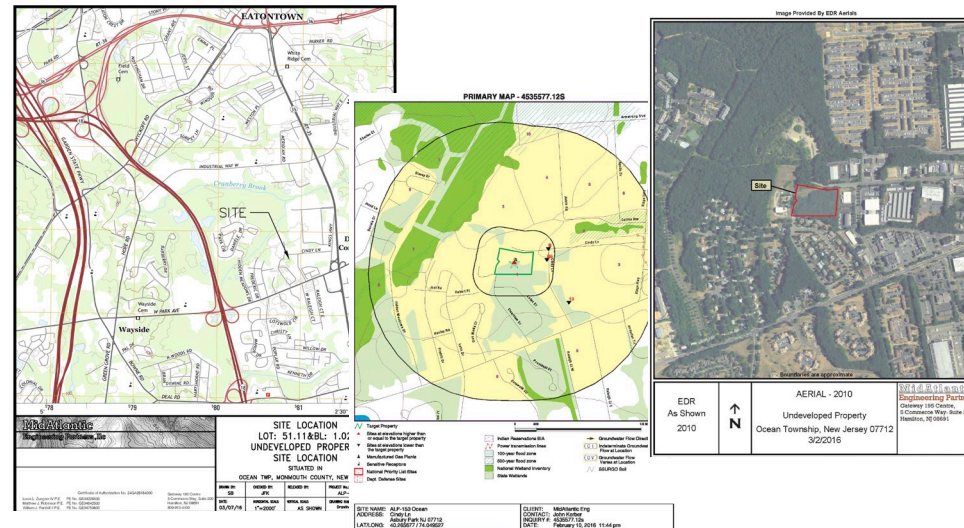
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Case Study – Apartment Construction



1.0 Introduction

1.1 Purpose

Firm has been retained by **Client** to conduct a Preliminary Assessment/Phase I Environmental Site Assessment (ESA) for the undeveloped property located at [address].

Client's purpose in securing **Firm's** services to conduct this PA/Phase I ESA is to secure landowner liability protections under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and New Jersey laws. These protections include the bona fide prospective purchaser liability protection, contiguous property owner liability protection and the innocent landowner defense from CERCLA liability.

This PA/ESA has been conducted in conformance with the scope and limitations of the ASTM Standard E 1527-13 and 40 CFR Part 312, as well as the TRSR for a PA.

1.2 Scope of Work

- Document search, inquiries/interviews with current and former employees and agents, evaluation of operational and environmental information, and site inspection

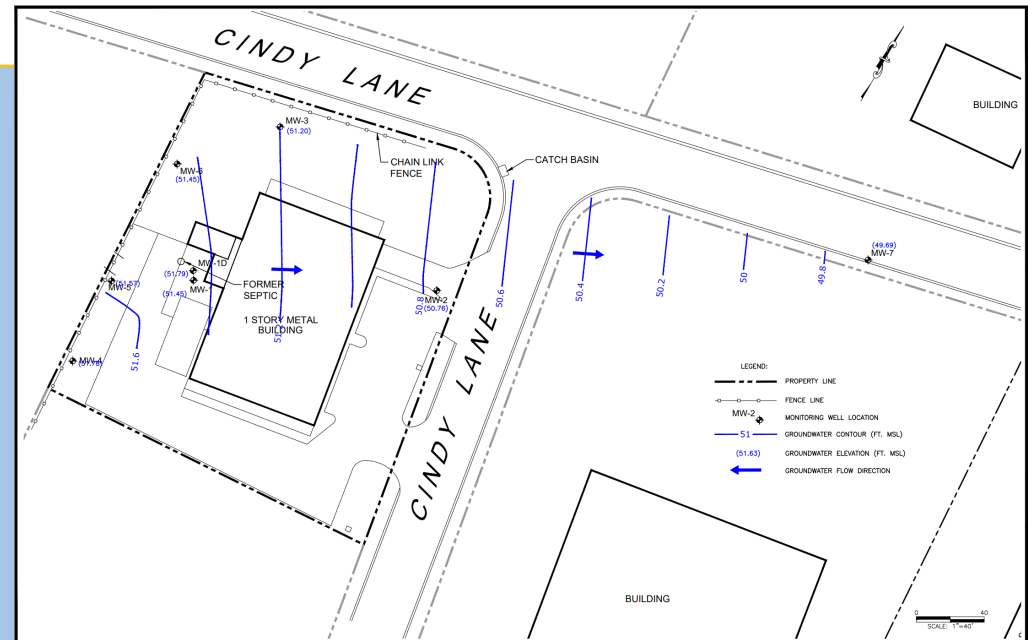
Case Study – Apartment Construction



1.0 Introduction (contd.)

1.3 Significant Assumptions

Based on topographic elevations and information obtained from the investigators of adjacent properties, the groundwater flow direction at the Site is to the east towards the Atlantic Ocean. This information was utilized in determining the potential for nearby properties to impact the Site.



Case Study – Apartment Construction



1.0 Introduction (contd.)

1.4 Limitations, Exceptions, and Deletions

The PA/ESA is based on the Site visit, literature/document review, government authority responses and interviews only. **The PA/ESA does not include:** (i) the conduct of sampling of soil, surface water, groundwater, air (e.g., vapor intrusion), building materials (e.g., asbestos or lead-based paint) or other media; (ii) tank integrity testing; (iii) an evaluation of naturally occurring materials which may be hazardous, such as radon or methane gas; or (iv) an evaluation of the presence or absence of wetlands. Actual conditions of soil, surface water, groundwater, vapor intrusion, potable water, air, wetlands and building materials can only be determined through sampling and laboratory analysis. Such sampling and analyses are not required but can be considered by the Client if added information is desired. All comments, findings and conclusions contained in this PA/ESA are based upon:

- Site conditions at the time of **Firm's** inspections being adequate to walk the entire site and boundary and inspection conducted by **Firm** on [date];
- Review of written or illustrated historical documents as referenced herein; and
- Information reported to **Firm** by others as referenced herein. While there are no indications that the information provided is suspect, **Firm** does not assume responsibility for errors and omissions in the information assembled to produce this PA/ESA.

There were no deviations from the TRSR or ASTM requirements.

Case Study – Apartment Construction



2.0 Information Provided by User/Others

2.1 Title and Lien Information

A title history for the Site obtained from the Monmouth County Clerk was provided by EDR. The following table presents a summary of ownership history for the Site.

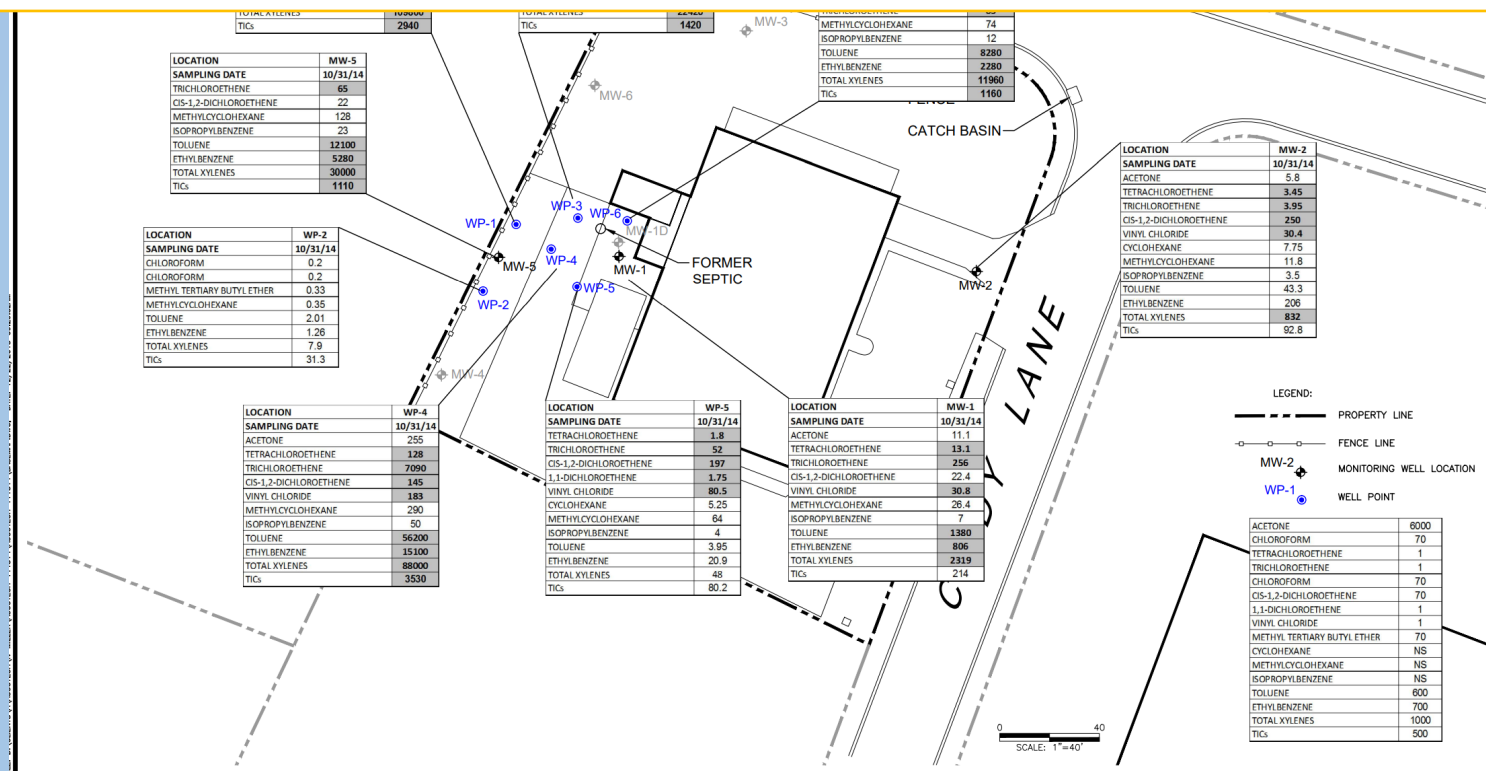
Date	From	To
9/13/1922	Name	Name
9/11/1959	Name	Name
9/20/1977	Name	Name
7/20/2004	Name	Name

An environmental lien search report was obtained from EDR. The search did not identify any environmental liens or activity and use limitations in place at the Site.

Case Study – Apartment Construction

3.0 Previous and/or On-going Investigations

One on-going and one previous investigation were discovered relating to the Site. The on-going investigation relates to three ground water monitoring wells located on the Site. The previous investigation relates to a recently closed case adjacent and east of the Site that suggests contamination is present at the Site.



Case Study – Apartment Construction



3.0 Previous and/or On-going Investigations (contd.)

3.1 On-going Investigation

During the Site inspection, Firm discovered **three ground water monitoring wells at the Site**. The wells were locked and unmarked but in fair condition. Upon conducting a well search using NJDEP's Data Minor, Firm determined the wells are part of the XX Condominium Development investigation. XX is reported as being at [street corner]. **The site was flagged for groundwater contamination from a former spill**. Firm contacted the LSRP of record for XX, [Name]. [Name] indicated that the three wells installed at the Site as part of the investigation were only sampled once in 1997. [Name] provided ground water contour maps and analytical results summary tables from the July 28, 1997 sampling of the wells. The contour map depicts the Site at the southern end of the area being investigated and ground water flow to the east. **The analytical results were compared to the current remediation standards and no exceedances were discovered**. Although investigation of the facility (located north of the Site) is on-going, no further investigation of this AOC at the Site is warranted.

Case Study – Apartment Construction



4.0 Historic Document Review

4.1 Historic Site and Adjoining Property Uses

Aerial photographs depicting the Site and surrounding area in 1931, 1940, 1947, 1951, 1954, 1961, 1969, 1974, 1985, 1995, 2006, and 2010 were reviewed. In 1931 the Site and surrounding area were farmland. Roads bracketing the Site were present on its E and W sides. The area NW of the Site was undeveloped woodlands.

By 1940 some development of the property adjacent and to the west of the Site has occurred. A new roadway travelling generally east to west and cutting across the northwest corner of the Site first appears in the 1951 photo. By 1954, automobile storage had begun at the property immediately west of the Site. The 1961 photo shows many vehicles scattered on the property to the W and NW of the Site. At this time, **farming at the Site** may have ceased and some of the farm to the southwest is being developed with single-family homes.

The 1969 aerial shows many vehicles still parked at the adjacent property but organized into rows. The Site is definitely vacant and overgrown. The neighboring building and the N-S portion of the street to the E first appear in this photo.

The 1974 photo shows that more development has occurred to the E and NE. By 1995, almost all of the surrounding development was completed.

Case Study – Apartment Construction



4.0 Historic Document Review (contd.)

4.2 Government Records

A target property and radius government database search was conducted by EDR for environmental information (Radius Report). The radii searched conform to the minimum requirements of the AAI Rule and ASTM Standard E 1527-13.

The Site was identified in the EDR Radius Report database for FINDS, NJ NJEMS, NJ VCP, and the NJ Brownfields databases.

The Radius Report identified a number of facilities within the radii searched. Facilities that are not upgradient (west) of the Site based on the presumed direction of groundwater flow are not believed to have the potential to impact the Site unless there is a potential for vapor migration. Also, facilities that are greater than 660 feet (1/8 mile) from the Site are not likely to have the potential to impact the Site. No facilities were identified in the Radius Report that are west and less than 660 feet from the Site.

The Radius Report identified the following facility that is adjacent to the Site:

Case Study – Apartment Construction



4.2 Government Records (contd.)

- [Neighboring] site, [address] – adjacent and E of the Site; listed in the NJ UST, RCRA-SQG, NJ SHWS, NJ Release, ICIS, US AIRS (AFS), FINDS, NJ AIRS, NJ ISRA, and NJ Manifest databases. The UST was a 500-gallon capacity unleaded gasoline tank that was removed on [date]. PI# 594xxx is associated with the NJ SHWS. Case #1-xx is associated with the NJ Release; EPA ID #NJDxx is associated with the RCRA-SQG. This facility has been a Large Quantity Generator of the exact VOCs (toluene, EB and xylene) discovered at the facility (as previously discussed in this report) since at least 1973. The facility received a Notice of Violations (NOV) from EPA for the use of various nonhalogenated solvents generated in small quantities containing xylene, acetone, ethyl acetate, ethylbenzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol. As a large quantity generator the facility also produced methyl ethyl ketone, arsenic, barium, chromium, lead, and selenium. PI #02xx is associated with an ISRA case, which was issued an NFA-A. As discussed previously in this report, **although the facility is in the presumed downgradient direction from the Site, contamination was identified at the facility that may have originated at the Site. Additional investigation is required.**

Case Study – Apartment Construction



4.0 Historic Document Review (contd.)

4.3 Environmental Permits and Enforcement Actions

Review of environmental permits identified a proposed major subdivision to encompass the Site and three adjacent lots. Two Statewide Wetland General Permit applications were submitted to NJDEP's Land Use Regulation Program (LURP) on [date]. GP#2 was requested for a sanitary sewer extension to allow for disturbances/alteration of a small area of the existing wetlands and approximately 3,000 square feet of fill for a utility line crossing. The second permit, a GP#6, was requested to allow filling of 6,000 square feet of non-tributary wetlands and for a transition area. The permit applications were received by NJDEP and activated on [date] with file #130-00xx.

NJDEP conducted an inspection of the Site on [date] in conjunction with a review of the permit applications, confirming that the property **did have isolated wetlands** with portions of the site having been "highly disturbed." These disturbances were partially constructed utility and road improvements that had been abandoned. The **permit application was accepted**.

On [date], **company** sent a letter to the LURP requesting to withdraw both Permit applications because the project had become "inactive". This request was approved by NJDEP on [date] with no further action required.

Case Study – Apartment Construction



4.0 Historic Document Review (contd.)

4.4 Directories

Firm reviewed the City Directories Report obtained from EDR for 1973 through 2013. A summary of the city directory findings is provided below.

Site	
The Site was not listed within the City Directory Report.	
Adjacent Properties	
[ADDRESS]	
Name	City's City Directory – 1988

A MacRAE's Industrial Report for 1901 through 2016 for the Site was also obtained from EDR. The Site was not identified in any of the databases.

Case Study – Apartment Construction



4.0 Historic Document Review (contd.)

4.5 File Reviews

ASTM E1527-13 requires that if the Site or an adjoining property are identified in one or more of the standard environmental record sources discussed above, pertinent regulatory files should be reviewed. Based on the findings of the preceding sections, **Firm** requested file reviews of local (Township, Monmouth County, Monmouth Regional Health Commission), state (NJDEP) and federal (USEPA) agencies records for the Site.

Firm reviewed NJDEP's files on [date] for **XYZ Estates, LLC**. The file review revealed only the Freshwater Wetland Permit files discussed previously in this report.

Case Study – Apartment Construction



5.0 Interviews

5.1 Past/Present Owners/Operators

There was no key site manager available at the time of the Site inspection or past owners / operators of the Site to be interviewed.

5.2 State and Local Government Agencies

Local, county, state, health and federal agencies were contacted directly requesting information pertaining to the Site using OPRA or federal Freedom of Information Act (FOIA) requests. The local, county, and health agencies had no information about the Site on record. **Received responses** are included in Appendix 8. Except as previously discussed with respect to the wetlands permit applications submitted and withdrawn, no significant information was obtained.

Case Study – Apartment Construction



6.0 Site Reconnaissance

6.1 Methodology and Limiting Conditions

On [date], **Firm** personnel conducted a reconnaissance of the Site. The purpose of the Site reconnaissance was to note Site conditions with respect to indicators of hazardous materials that could potentially affect the Site. **Firm** personnel also made note of the surrounding areas at this time.

Live Poll



Which picture(s) shows a REC?



Photo 1: A dirt pile found at the northwest corner of the Site



Photo 2: A view of several tires discarded on the Site



Photo 3: An asphalt pile found on Site

- A) Photo 1
- B) Photo 2
- C) Photo 3
- D) All of the above

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6.0 Site Reconnaissance (contd.)

6.2 Site Description

6.2.1 Physical Setting

The Site is an undeveloped lot with numerous deciduous trees. The ground is covered with vegetation, but piles of tires, concrete and asphalt debris are present in several areas throughout the Site. A partially constructed road and sewer improvements were observed cutting through the Site at the southern Site border to the Site's north border. Based on the condition of the road and the vegetation in and around it, this road has been unfinished and abandoned for several years.

The Site is generally flat, but the piles of non-native debris and soil modify the topography. Surface water was not observed at or in the immediate vicinity. The EDR Radius map depicts State Wetlands at the Site. The Site is within 1/8 mile of a 100-year flood zone and 1/2 mile of a brook to the north.

According to the US Department of Agriculture Soil Conservation Service National Cooperative Soil Survey, as provided in the Radius Report, the dominant soil is classified as loamy sand, which drains somewhat poorly. Underlying the loamy sand at approximately 3 feet to 6 feet is sand followed by 2 to 3 feet of loamy sand.

According to the Federal Emergency Management Agency (FEMA) map, the Site is not located within a flood zone area.

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6.0 Site Reconnaissance (contd.)

6.2 Site Description

6.2.1 Operations

The Site is undeveloped and unoccupied.

6.2.3 Structures, Roads and Other Improvements at the Site

An incomplete and abandoned road is present at the Site.

6.2.4 Utilities

Evidence of partial storm and sanitary sewers, including manholes and stub-ups were observed in the vicinity of the incomplete roadway, but none are believed to be connected or active.

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6.0 Site Reconnaissance (contd.)

6.3 Adjacent Properties

Residential buildings were observed to the west and the south of the Site's boundary. To the east of the Site's boundary and north beyond the street, commercial businesses were noted. No obvious signs of environmental concerns that could impact the Site were observed.

6.4 Hazardous Materials and Substances

No evidence of hazardous materials storage or use was observed at the Site during the inspection.

6.5 Tanks and Other Apertures

No evidence of USTs or ASTs or related appurtenances was observed at the Site.

6.6 Wastewater and Process Waste

There are no wastewater or process wastes produced in association with current Site operations.

Case Study – Apartment Construction



6.0 Site Reconnaissance (contd.)

6.7 Radioactive Materials

Based on a review of available information, there is no evidence that present or any past operations at the Site utilized or produced radioactive materials. As such, radioactive materials are not considered an AOC at the Site.

6.8 Fill Material

There is no apparent clean or alternate fill material at the Site. Based on the aerial photographs, Sanborn Maps and topographic maps, the Site does not appear to have been filled. **Firm** has also reviewed the "Historic Fill of the Long Branch Quadrangle – 2004" prepared by the United States Geological Survey (USGS), which depicts the Site as not having historic fill material.

6.9 Waste Disposal

Waste disposal areas (dumps, landfills, etc.) were identified at the Site during the PA/ESA. **Piles of tires**, a pile mixture of concrete, soils, and **asphalt** were observed on Site.

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6.0 Site Reconnaissance (contd.)

6.10 Non-Scope Environmental Issues and Other Conditions of Concern

Non-scope issues such as **radon, asbestos and wetlands, were not investigated** as part of this PA/ESA. However, the following information was found during the course of the investigation on these topics.

6.10.1 Radon

According to the information obtained from the USEPA, Monmouth County is located in a Tier 3 zone. Tier 3 zones have a predicted average indoor radon screening level less than 2 pCi/L. These zones are considered to have low potential for radon gas. The NJDEP 2015 Radon Tier Assignment Report classifies Monmouth County as Tier 3. Tier 3 zones have a **low potential** for indoor radon gas.

While this data provides general information, it cannot necessarily be used to suggest that the subject Site has or does not have radon gas. The only way to obtain accurate site-specific information is to test for radon. NJDEP does not treat such interior conditions as areas of concern requiring investigation or remediation.

6.10.2 Asbestos

Asbestos-containing materials such as ceiling and floor tiles were not observed throughout the Site.

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6.0 Site Reconnaissance (contd.)

6.10 Non-Scope Environmental Issues and Other Conditions of Concern

6.10.3 Wetlands

According to the State Wetlands Inventory map, **wetlands are located on the Site**. However, the Site is not located on National Wetlands and the actual determination of the presence or absence of wetlands is beyond the scope of this investigation.

6.10.4 ISRA Applicability

Based on the known current use, the Site is not ISRA applicable.

6.10.5 Flood Plain

The Site is **not in FEMA flood plain** area or in close proximity of a property that is in a flood plain.

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7.0 Summary of Site Operations

Based on **Firm's** review of all information provided and documented herein, the Site does not have a known history of any operations.

8.0 Vapor Encroachment Screening

ASTM 1527-13 **requires** that the potential for vapor migration from or to the Site be evaluated as part of the ESA. Accordingly, Vapor Encroachment Screening (VES) has been completed in compliance with ASTM E 2600-10 "ASTM Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions." The purpose of VES is to determine if a Vapor Encroachment Condition (VEC) exists in connection with the Site. A VEC is defined as the presence or likely presence of COC vapors in the subsurface of the Site caused by the release of vapors from contaminated soil or groundwater either on or near the Site. The VES report included as Appendix 9 indicates that a VEC is not likely to exist at the Site. However, the presence of VOCs and CVOCs at the eastern Site boundary with IV Miller **does represent a potential VEC.**

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9.0 Evaluation

9.1 Potential Areas of Concern

The following table lists all potential AOCs identified at the Site during the conduct of this PA/ESA. Where a potential AOC is identified, it has been assigned a unique number. The **AOC locations are provided in Figure 3**, AOC Locations, where each AOC is depicted by placing its number on a scaled drawing of the Site. The table below also identifies if each potential AOC is considered an HREC, CREC or REC and whether additional investigation of the potential AOC is recommended. Each identified potential AOC is discussed in the **Conclusions section**.

Firm has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the Site in Ocean Township, Monmouth County, New Jersey. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this report. This assessment has revealed no evidence of RECs except as listed in the table.

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9.1 Potential Areas of Concern (contd.)

Area of Concern Type	AOC #	HREC	CREC	REC	Additional Investigation?
Aboveground Storage Tank and Piping					
Non-contact Cooling Water Discharge					
Storm Sewer and Spill Containment Collection System	1	No	No	No	No
Waste Pile as defined by N.J.A.C. 7:26	2	No	No	Yes	No
Potential Groundwater Contamination	3	No	No	No	No
Blue Plastic Object	4	No	No	Yes	No
VOCs/CVOCs identified by IV Miller	5	No	No	Yes	Yes

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9.0 Evaluation (contd.)

9.2 Conclusions

The conclusions are presented by AOC and are based solely on the findings of this assessment as presented herein.

AOC-1 Storm and Sanitary Sewers

A partially constructed storm sewer was observed at the Site in the partially constructed and abandoned road. Several sanitary sewer stickup PVC connections were also observed along the abandoned road. These utilities have never been in service. This AOC is not suspected to contain contamination above the applicable remediation standards and **no further investigation** or remediation is required.

AOC-2 Waste Piles

Several piles of concrete asphalt and dumped soils were observed at the Site. Near the northeast corner of the Site, an approximately 600 square foot pile of asphalt and soil was observed. A similar pile was observed adjacent to the southern end of the unfinished roadway. These two piles are **assumed** to be related to the aborted roadway construction. None of the piles are suspected to contain contaminants at levels exceeding the applicable remediation standards and no further remediation is required. However, **all of the piles should be properly disposed.**

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9.2 Conclusions (contd.)

AOC-3 Groundwater Investigation

Three stick-up ground water monitoring wells were observed at the Site. The wells were locked and had no identifying information. The Firm determined that the wells were installed and sampled in 1997 as part of the XX investigation. The laboratory results from all three wells are below **the current remediation standards**. This AOC is not suspected to contain contaminants above the **applicable remediation standards** and no further investigation or remediation is required.

AOC-4 Buried Plastic Object

A blue plastic object was observed in this AOC. This object was mostly buried. Upon inspection it was **believed to be hollow**. However, the **exact nature or contents of the object could not be determined**. This AOC is not suspected to contain contaminants above the applicable remediation standards and no further investigation or remediation is required, but the object should be removed and properly disposed.

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9.2 Conclusions (contd.)

AOC-5 VOCs and CVOCs

VOCs and CVOCs were identified at levels exceeding the applicable remediation standards in ground water and soil at the eastern Site border during the investigation of the adjacent [neighboring] property. The LSRP conducting the [neighboring] investigation concluded the contamination at [neighboring property] was a result of a release that occurred at the Site or further upgradient to the west. **Additional investigation of both soil and ground water is recommended in this AOC** to determine if contamination is present at the Site.

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9.3 Data Gaps and Deviations

There are no known data gaps or deviations from the ASTM and PA requirements.

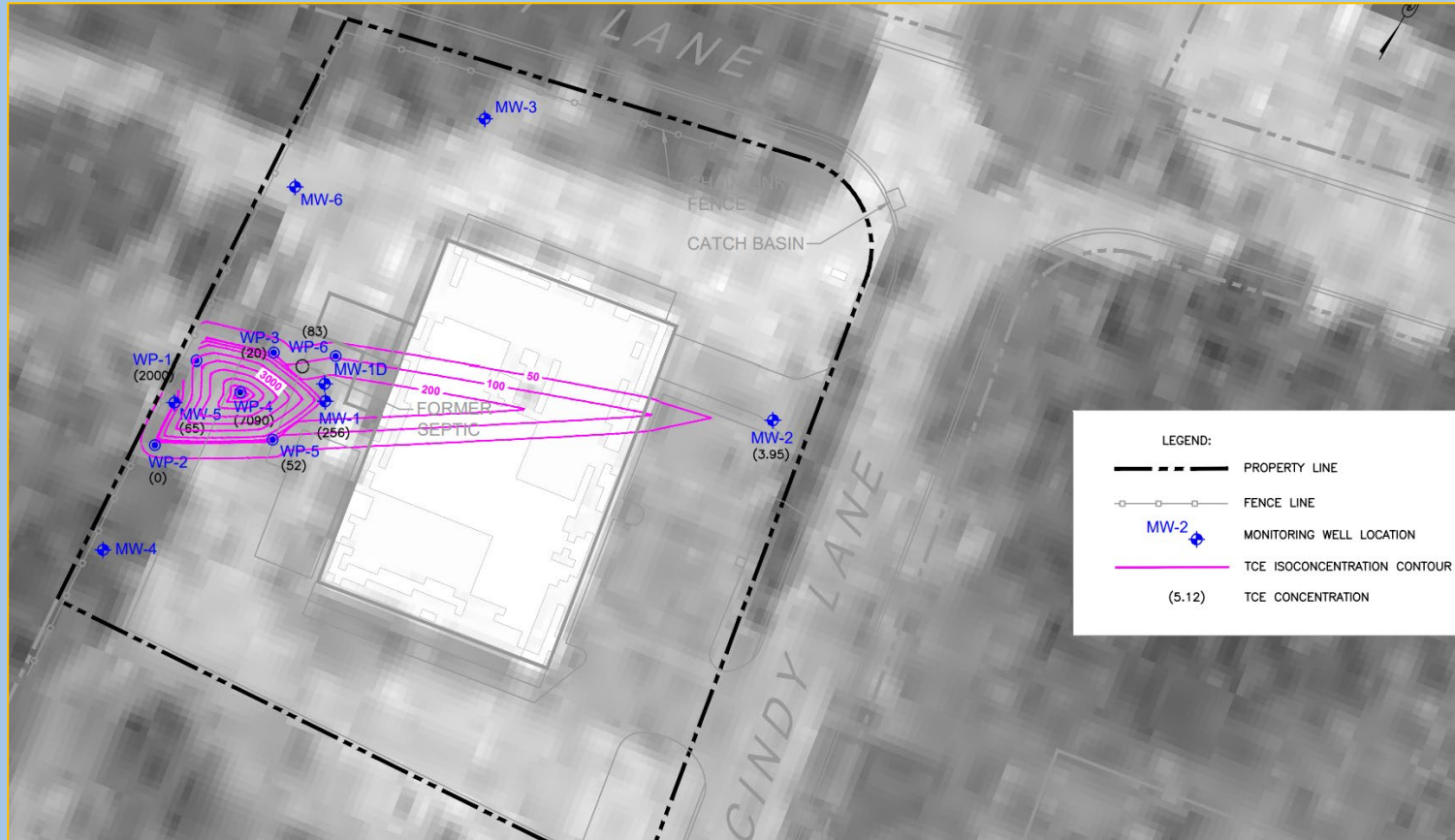
9.4 Environmental Professional's Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

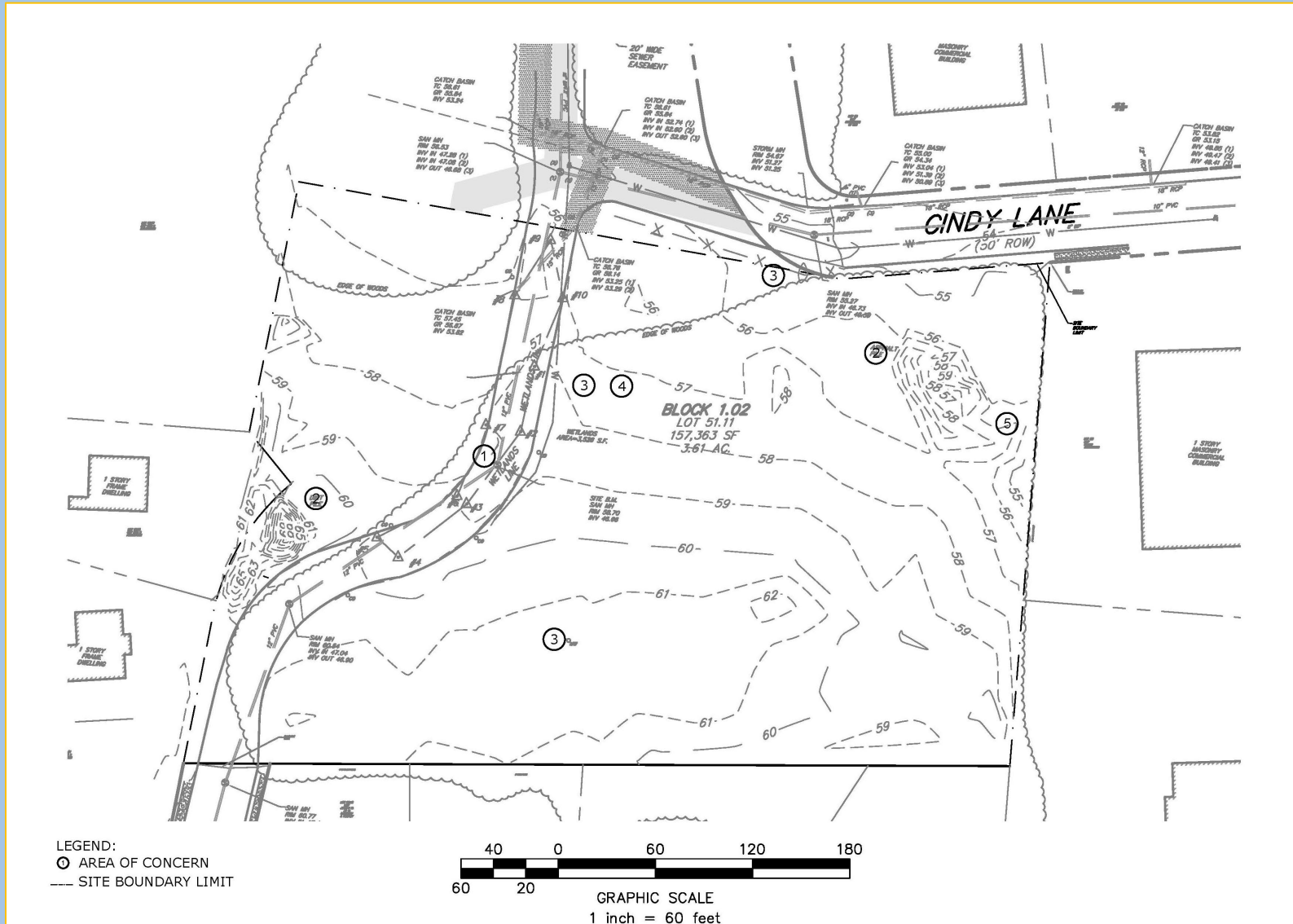
Signature

Name/Title

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Summary map
of areas of
concern

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Summary

- 551-pages
 - Narrative was only the first 24 pages
 - The other 500+ pages are supporting documentation (maps, database reports, search records, etc.)
- AOCs/RECs
- Next steps for this project – Phase II ESA

Resources



HUD:

- 24 CFR 58.5 (i)(2): Related Federal laws and authorities – HUD environmental standards
[https://www.ecfr.gov/current/title-24/subtitle-A/part-58/subpart-A/section-58.5#p-58.5\(i\)\(2\)\(i\)](https://www.ecfr.gov/current/title-24/subtitle-A/part-58/subpart-A/section-58.5#p-58.5(i)(2)(i))
- 24 CFR 50.3(i): Environmental policy
[https://www.ecfr.gov/current/title-24/subtitle-A/part-50#p-50.3\(i\)](https://www.ecfr.gov/current/title-24/subtitle-A/part-50#p-50.3(i))
- Using a Phase I Environmental Site Assessment to Document Compliance with HUD Environmental Standards at 24 CFR 58.5(i)(2) or 50.3(i)
<https://files.hudexchange.info/resources/documents/Using-a-Phase-I-ESA-in-HUD-Environmental-Review.pdf>

USEPA:

- All Appropriate Inquiries Final Rule
https://www.epa.gov/sites/default/files/2017-07/documents/aa_i_factsheet_final_rule_epa_560_f_17_195_508.pdf
- Superfund: CERCLA Overview
<https://www.epa.gov/superfund/superfund-cercla-overview>
- 40 CFR 312: Innocent Landowners, Standards for Conducting All Appropriate Inquiries
<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-312>

ASTM:

- Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process
<https://www.astm.org/e1527-21.html>



Attendee Discussion Q&A

Thank you for attending!



Visit

<https://www.hudexchange.info/programs/environmental-review/site-contamination/> on HUD Exchange.