



Steps to Complete a Phase I Environmental Site Assessment

By Kevin Bolland

www.Greenisms.com

January 28, 2020

Introductory Letter and Limitation of Liability:

Hello!

Thank you for purchasing my guide to completing Phase I Environmental Site Assessments.

Please keep in mind that this guide is not intended to be used for any legal purposes, and no liability shall be assumed for the improper use of the information contained herein. The contents of this guide are purely for informational purposes and may be used at the sole discretion and risk of the reader. I assume no responsibility for the quality, completeness, or content of the products created as a result of this guide. My intention in the creation of this guide is to assist prospective landowners with understanding the requirements that go into the completion of Phase I ESAs. As such, the information contained herein is designed to be a resource for those looking to learn more about Phase I ESAs and their contents. No part of this guide shall be considered comprehensive; however, I have done my best to include all aspects of Phase I ESAs so that this guide can save the reader money and time when completing their due diligence reports.

The Basics - What is a Phase I ESA:

Generally, a Phase I Environmental Site Assessment is a due diligence report that must be completed prior to the completion of a real estate transaction.

The completion of these reports ensures that environmental liability is not inherited by an “innocent landowner” as defined by the Comprehensive Environmental Response, Compensation, and Liability Act ([CERCLA](#)). A Phase I ESA may be relied upon by a prospective purchaser to qualify for the “innocent landowner defense”. Essentially, this means that a prospective purchaser is performing their due diligence to ensure that any potential contamination on the “subject property” is assessed, and liability for said contamination is assigned to the proper party, and not inherited by a purchaser after the transaction has been completed.

Consider a Phase I ESA similar to insurance for environmental contamination on a property prior to acquiring the land. A Phase I ESA may cost a few thousand dollars (usually between \$1,500 and \$6,000 depending on the accessibility and complexity of the site), however, the liability that may be avoided by the completion of a Phase I may be on the order of hundreds of thousands of dollars if contamination is discovered. A Phase I ESA is both due diligence research that benefits the prospective landowner AND avoidance of environmental liability associated with contamination that may exist on-site.

According to the American Society for Testing and Materials (ASTM), specifically section 1527-13, typically, these reports may be legally relied upon for a term of 180 days prior to the completion of a real estate transaction. If the report is greater than 180 days old, but less than 1 year old, a comprehensive update may be sufficient to maintain the legal validity of the report.

After a term of 1 year, the Phase I must be recompleted in order to qualify for the Comprehensive Environmental Response, Compensation, and Liability Act ([CERCLA](#)) “innocent landowner” defense. The process of evaluating a property for the presence of contamination is known as “All Appropriate Inquiries” ([AAI](#)). By completing a Phase I ESA prior to the acquisition of a property, the prospective owner avoids potential liability for contamination that may be present on site.

*Note: according to ASTM 1527-13 standards, a Phase I ESA must be completed by an Environmental Professional (EP) as defined by the Federal Code of Regulations ([40 CFR § 312.10 - Definitions](#)). However, there are other types of due diligence reports may be completed by anyone, although they may not stand up in court. These reports are called Desktop Reviews, Transaction Screen Assessments, Historical Records Searches, etc. and can be completed by anyone who possesses the necessary information. It is always best to rely on a qualified Environmental Professional to complete these works because they possess the required knowledge to properly analyze the findings and research to make an educated conclusion. The definition of an Environmental Professional is provided as [Attachment 3](#). As for desktop reports, they can be completed for the sake of assessing a property to determine if a full Phase I or Phase II is necessary, but will not likely be sufficient to invoke the innocent landowner statute.

Results – How to Interpret the Conclusions of a Phase I ESA

Conclusions of a Phase I ESA are typically divided into four categories:

Recognized Environmental Conditions (RECs) – These are the most critical because they represent a current condition that may be potentially hazardous on the property or a nearby property. These conditions may have a direct impact on the usability, habitability, or value of the subject property.

Controlled Recognized Environmental Conditions (CRECs) – a REC that is known prior to the completion of the Phase I ESA by relevant agencies or other parties and may be undergoing remediation at the present time. CRECs are also called out when hazardous substances are known, identified, and allowed to remain on the property in question. Usually CRECs are identified through regulatory records searches or by observing the operations at nearby properties and learning about the history of operations on and off-site.

Historical Recognized Environmental Conditions (HRECs) – Historical in nature, usually referring to a past hazardous condition that has been rectified. Usually this refers to conditions that used to represent a significant problem, but have since been remediated or cleaned up.

Environmental Issues or **Environmental Concerns** – typically these are related to *de minimus* (limited hazards that do not pose a significant threat to health and safety) conditions, or, in other words, conditions that may represent a potential future concern or problem if left unattended. Generally these can also include out of scope conditions such as the presence of asbestos or lead based paints. Otherwise, these would be represented by petroleum or other hazardous substances that are present on the project site but have not been released to the environment (i.e. the presence of an underground storage tank, or aboveground storage tank with no record of releases). These conditions are worthy of mention, but do not necessarily constitute a significant hazard at the present time.

Please be aware that not all RECs will require a Phase II (geotechnical subsurface soil/groundwater investigation).

Many times, a REC will represent conditions on site that may restrict the usefulness of a property until remedied through natural or engineered means (this may be as simple as “leave it alone and make a note of it” or as complicated as “excavate all of the contamination and perform soil vapor extraction, groundwater remediation, and contaminant disposal under the oversight of regulatory agencies”).

In such cases, the EP can determine a best course of action and may bring in experts from other disciplines. In most cases, RECs may be somewhat obvious. However, an EP is qualified to find and assess potential RECs that are not obvious and may represent significant subsurface conditions that limit the usefulness of a property. An assessment of these conditions is completed through the collection of data pertaining to a project site.

The Report - A Step by Step Guide to Completing a Phase I ESA

The following list may be completed by anyone with a computer and a phone. By completing this guide and following these steps, you are essentially completing a Phase I ESA. However, as noted above, the Phase I ESA is only valid if completed or signed by an EP. If these steps are followed by someone other than an EP, the resulting report may be considered a Transaction Screen Assessment and may be sufficient to determine if a full Phase I or Phase II ESA is needed.

I have written these steps down in an organized way to ensure that the amount of time required to complete such a study is minimized. If you follow the steps in order, the result may save you money and time.

The Checklist

Instructions:

Using the attachments to this document, follow the steps and include as much of the information as is available. If data is not available to answer a specific question, respond with "This data is not available" or "This question does not apply because _____".

Where data is available, provide as much detail as possible to ensure clarity.

Step 1: Gather Information and Develop a Project Understanding

- 1.) Prepare a Scope of Work (SOW) and agree upon costs and timeline with the client.
- 2.) Set up a project kick-off call or send an email to the client to ensure that there is a clear project understanding (changes may happen, but its best to be aware of exactly what you are assessing right from the start).
- 3.) Sign the Scope of Work and begin researching the property.
- 4.) Send a questionnaire to the owner and the most knowledgeable individual(s) regarding the property in order to obtain the "Subject Property" address, Assessor's Parcel Number (APN), and any other specific property information they possess related to the full history of the operations on-site. (see [Attachment 1](#))
- 5.) Obtain all current and former addresses and APNs for both the subject property and all surrounding properties.
- 6.) Obtain legal description for the project site (can be found through the City or County Records Department)
- 7.) Describe property in detail including the following information (generally this information can be found through the City or County websites):
 - a.) Address:
 - b.) Nearest Cross Streets:
 - c.) Property Use and Zoning Designation: (i.e. multi-family, commercial, industrial, etc.)
 - d.) Land Acreage (Ac):
 - e.) Number of Buildings:
 - f.) Number of Floors:
 - g.) Gross Building Area (SF):
 - h.) Net Rentable Area (SF):
 - i.) Date of Construction:
 - j.) Assessor's Parcel Number (APN):
 - k.) Type of Construction: (Wood-framed, steel framed, concrete tilt-up, etc)

- l.) Number of Units:
- m.) Current Tenants: (Obtained from client, owner, AND City Directories to verify)
- n.) Site Assessment Performed By: (Signed or performed by an Environmental Professional)
- o.) Site Assessment Conducted On: (date)

8.) Research and analyze the history of the property using the following resources and links:

***Note:** Almost all of the information in this step can be obtained by paying a fee (approximately \$150 to \$500) to EnviroSite / EDR for a full radius report. Found here: <https://edrnet.com/prods/edr-radius-map-report-geocheck/>

- a.) Aerial Photographs: <https://www.historicaerials.com/viewer>
- b.) Topographic Maps: <https://www.usgs.gov/core-science-systems/ngp/tnm-delivery/topographic-maps>
- c.) Soil type and conditions on the property: (also included in radius report) <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- d.) City Directories (summarize and analyze for the presence of potentially hazardous operations, i.e. drycleaners, gas stations ,auto mechanics, industrial tenants, etc.):
- e.) Sanborn Maps (Summarize each, if available):
- f.) Flood Zone Maps of the property and surrounding area: <https://msc.fema.gov/portal/home>
- g.) Ownership History Information:
- h.) Hazardous sites nearby: (follow these links if in CA: <https://geotracker.waterboards.ca.gov/> , <https://www.envirostor.dtsc.ca.gov/public/> , <https://siteportal.calepa.ca.gov/nsite>)
- i.) Historical uses of the property: (what businesses or structures have occupied the site in the past?)
- j.) Any Above Ground Storage Tanks or Underground Storage Tanks (ASTs or USTs), containers of hazardous materials (like 55-gallon drums), or dry cleaners ever present on site? (this includes hydraulic fluid or transformer fluids called polychlorinated bisphenols or PCBs):
- k.) Utility Provider Information (Trash, Water, Sewer, Gas, and Electricity):
- l.) Water Quality Information (obtained by Googling “Water Quality Report ‘Name of City or County’ ‘Most Recent month or year’, Include as an appendix”

*Include the aforementioned information as appendices to the final report.

9.) File Freedom of Information Act (FOIAs) Request with the following local agencies that have jurisdiction over the property (see template letter included as **Attachment 2** to this summary, and review each website to find out if a specific letter or template is required for the FOIA request):

- a.) Fire Department (any hazards on or adjacent to the property?)
- b.) Health Department (any hazards on or adjacent to the property?)
- c.) Building/Planning Department (historic building permits to determine age and size)
- d.) Assessor’s office (to obtain APN, site plans, maps, and ownership info, if not provided by the client)
- e.) State Historic Preservation Office (to determine if the property is historical in nature)

***Note:** Each agency may have its own preferred way to submit a FOIA. Research each agency prior to completing the template letter to save time. Otherwise, phone calls are usually helpful as well.

10.) Continue to perform the research necessary to learn about the property while FOIA requests are being processed. Most agencies will take between one and three weeks to respond to a FOIA request.

11.) Schedule a site assessment with the property manager or any other individual who has FULL ACCESS to the project site. See step 14.

12.) Record results of the FOIA requests in the report in tables that depict who was contacted, what information they had, and its relevancy to the conclusions of the report. Whether information was found

or not. Even if the agency doesn't get back to you. Record that you sent a FOIA to them and that you received no records or no reply.

- 13.) Interview current owner, property occupants, site managers, past owners and occupants, and any other relevant individual who has knowledge of the property
- 14.) Perform a site visit to determine the current conditions on the property. Take lots of photos of the property and the adjacent properties to be included in the report (looking for hazards, indications of underground storage tanks, spills, or anything that may be a problem)
 - a.) Arrive on-site at least 10 minutes prior to the scheduled meeting time with the site contact.
 - b.) Take note of the adjacent properties by identifying the addresses and businesses occupying them.
 - c.) Take photographs of each adjacent property from a vantage point on the subject property.
 - d.) Take photographs of the subject property from each accessible direction (facing N, S, E, W.)
 - e.) Meet with site contact and interview them to determine their knowledge of the property. Keep in mind that the individual who is escorting you may not have knowledge of why the Phase I ESA is being performed. Use discretion with what client specific information you disclose to people you speak with.
 - f.) Have the site contact escort you around the property, and attempt to gain access to as much of the property as possible. Note that the minimum requirements include 10% of all interior spaces within all structures on the property. Make note of any inaccessible structures or rooms. Make a note of all rooms entered and describe their characteristics in the report. Take photographs of all representative rooms (it helps to take photos of the unit numbers when entering to keep track of which rooms were viewed).
 - g.) Look for any indications of hazards, previous hazards, or previous tanks or chemical storage areas. Look to see if secondary containment is provided for chemical storage areas.
 - h.) Take photos of all potentially hazardous materials encountered, as well as all labels on storage containers.
 - i.) Be courteous, but do not reveal unnecessary information as to why the assessment is being completed. Some of these assessments are confidential in nature.
 - j.) Obtain copies of all Hazardous Waste Manifests and Material Safety Data Sheets (MSDS) prior to leaving site (from site manager or property owner). If MSDSs are unavailable on site, make a note of each substance and then use the internet to find the MSDS for each substance once the site assessment is complete.
- 15.) Based on age of the property (if built prior to 1978 specifically), determine the likelihood of asbestos and lead based paints on the site.
- 16.) Review local regulatory databases for information pertaining to the property and immediately surrounding area. Summarize potential properties or listings of concern in the Phase I report (use the Radius report as well)
- 17.) Make a determination on the risk associated with the property. If spills, releases, or other events involving hazardous materials have occurred on or adjacent to the property (and have not officially been cleaned up), the conclusion is likely a *Recognized Environmental Condition (REC)*, and a Phase II subsurface investigation may be required to determine if the presence of hazardous materials in the soil represent a health concern.
- 18.) Determine if there are any other potential hazards on the property. Things including Asbestos, Lead based paints, household quantities of cleaning chemicals, Radon Gas (in the soil – found by searching Radon Map of 'name of a city or state') etc. and 'write them off' by saying they pose little to no threat to the overall safety of the individuals utilizing the property (unless of course these materials ARE threatening to public safety). This is called an "environmental issue" or "environmental concern" and is something the vested individuals should know about.
- 19.) Include references to all sources used for the report.

- 20.) Include appendices of all photos, aerials, topo maps, site plans, relevant maps, FOIAs, records of hazards, building permits, etc.
- 21.) Have an Environmental Professional* read and sign off on the document to make it legally solid.
*An Environmental Professional is defined in [Attachment 3](#).
- 22.) Obtain Liability Insurance prior to providing the document to the client.

Wrapping Up

Once the data has been obtained, the site assessment completed, and records have been provided, compile all of it in a report formatted to your liking with a table of contents and an executive summary disclosing the conclusions of the report.

Include language that limits your liability and discloses the aspects that were and were not assessed. Once the report has been completed, review the entire report for consistency and provide the client with your conclusions.

Once payment has been received, send the finalized report to the client and make yourself available for any questions they may have.

At this point, you are done! Save your work and all reports for future usage, although some may be confidential in nature. Use your “write-ups” of hazardous conditions and environmental issues to boost your performance and speed on future reports. Completing these reports will build your portfolio and maintaining contact with every client that you have will open doors for future opportunity. These relationships will be the foundation of your marketing strategy if you so choose to continue performing Phase I ESAs.

If you are looking for an Environmental Professional to peer review a Phase I ESA that you have completed, look no further than www.greenisms.com.

Thank you so much for reading! If you have any questions, please contact me via www.greenisms.com

Attachment 1: Environmental Site Assessment Questionnaire

Please complete to the best of your knowledge. For those questions that are not applicable, please respond with an "N/A". For those questions that are unknown, please respond with "unknown".

1. PROPERTY INFORMATION:

Property Name:

Property Address:

City:

State:

Zip:

Assessor's Parcel Number:

Property Owner & Contact Information:

Date Property Owner Purchased:

Key Site Manager & Contact Information:

Maintenance Supervisor & Contact Information:

2. COMPLETED BY

Signature:

Date:

Printed Name:

Relation to Subject Property:

3. PREVIOUS INVESTIGATIONS

Have any previous environmental investigations been performed at the property, including Phase I ESAs, Phase II Subsurface Investigations, Remediation, Asbestos or Lead-Based Paint surveys?

(If yes, please provide copies)

4. PROPERTY DESCRIPTION

Property Size:

Number of Building(s):

Number and Type of Unit(s):

Number of ground floor units:

Size of Building(s):

Date of Construction:

Date of Addition(s) / Renovation(s):

Property Type:

*If **Pre-1978**, are Lead Pamphlets ([EPA Protect Your Family from in Your Home Guide](#)) being handed out to tenants?

Historical Use of Property:

5. SURROUNDING PROPERTY USES (*Include Roadways*)

Are you aware of any potential environmental concerns associated with surrounding properties?

YES NO

If yes, please describe:

6. UTILITIES & SERVICES

Please provide the name of the utility or contractor providing the following:

Electric:

Gas:

Potable Water:

Sanitary Sewer:

County:

Bio-hazardous Waste (if applicable):

Elevator Maintenance (if applicable):

Used Grease (if applicable):

Hazardous Waste (if applicable):

Solid Waste (if applicable):

Medical Waste (if applicable):

Other contractor provided service(s):

7. ON SITE OPERATIONS

1. Water-damaged areas Yes No

2. Suspect / Confirmed Mold-affected areas Yes No
3. Stored Chemicals Yes No
4. Underground Storage Tanks Yes No
5. Aboveground Storage Tanks Yes No
- Emergency Generators
 - Propane Tanks
 - Oil Tanks
 - Gasoline Tanks
 - Other Automotive Substances (please specify)
6. Spills or Releases (*greater than 5-gallons*) Yes No
7. Dump Areas / Landfills Yes No
8. Waste Treatment Systems Yes No
9. Clarifiers / Separators Yes No
10. Vents / Odors Yes No
11. Floor Drains / Sumps Yes No
12. Stained Soil Yes No
13. Electrical Transformers: Pad-mounted / Pole-mounted Yes No
14. Hydraulic Lifts / Elevators Yes No
15. Dry Cleaning Operations Yes No
16. Oil / Gas / Water / Monitoring Wells Yes No
17. Water Supply Wells Yes No
18. Environmental Permits Yes No
19. Abatement Activities
- Asbestos/Lead/Mold
 - Water/Fire Restoration
 - Yes No
20. Mitigation Activities
- Radon / Subsurface cleanup
 - Vapor Intrusion (*i.e. Methane*)
 - Yes No
21. Marketability / Noise Concerns
- Have noise issues created a marketability issue at the property?
 - Yes No
- If so, why (road, rail, air, etc)*

22. Marketability

What percentage has the occupancy rate been since the original date of construction?

(If occupancy rate since original date of construction is unknown, list the occupancy rates for known dates, i.e. 85% between 1985 and present)

8. PROPOSED Stationary tanks, which includes aboveground storage tanks including emergency generators, propane tanks, etc. **100 gallons or larger**

Yes No

9. PREVIOUS REPORTS OR OTHER RELEVANT INFORMATION REQUESTED:

If Lead Pamphlets handed out to tenants obtain copy of [EPA Protect Your Family from in Your Home Guide](#)

Rent Roll

Site Layout Map / Brochure

Previous Environmental Reports, including, but not limited to:

- o ESAs,
- o Asbestos/Lead-Based Paint Surveys,
- o Mold Inspections,
- o Water Supply Well Testing Reports

Ascertain if the following are available?

- Haz-Waste manifests, including, but not limited to: (most recent) Bio-hazard manifest, waste grease (food-grade), list of manifests for any potentially hazardous materials on-site. (any drum with a Material Safety Data Sheet [MSDS])
- Additional reports regarding environmental issues.

Attachment 2: Freedom of Information Act Request Template

Instructions:

Copy and paste the below letter into an email to each agency from which records are required, and alter the <information> to reflect names of the agencies and contact points.

Dear <Contact>

<Agency Information>

<Date>,

Hello,

My name is <Your Name>. I am writing to request public records for the property located at <ADDRESS>, also known by the APN(s) <List of APNs>, in the city of <City>, <State> <Zip Code>.

I would like to review any and all documentation you may possess with regard to the current and historical uses of the property for the purposes of conducting a Phase I Environmental Site Assessment (Environmental Due Diligence Report). In particular, I am looking for information pertaining to the past and present use and disposition of potentially hazardous materials that may have existed on the property at any time in the past.

Records relating to <List of records maintained by the proper department> would be very useful to me in completing this project.

If the aforementioned records are available via digital means, please email them to the following address at your earliest convenience. However, if digital copies are unavailable, please contact me to arrange a time for an in-person review of the available records.

Thank you so much for your time. Please contact me at any time if you have questions or need additional information from me to complete this request.

Sincerely,

<Your Name>

<Your Contact Information>

<Your Email Address>

Attachment 3: Definition of an “Environmental Professional”

According to the ASTM 1527-13 code:

“3.2.32 *environmental professional*—a person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b). For the convenience of the reader, this section is reprinted in [Appendix X2](#). The person may be an independent contractor or an employee of the *user*.”

Appendix X2 is included below:

X2. DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERETO, PURSUANT TO 40 CFR §312.10

X2.1 Environmental Professional

X2.1.1 *Environmental Professional* means:

(1) a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1(c)) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).

(2) Such a person must: (i) 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 the equivalent of three (3) years of full-time relevant experience; or (ii) 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 three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.

(3) An environmental professional should remain current in his or her field through participation in continuing education or other activities.

(4) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b).

(5) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

X2.2 Relevant Experience

X2.2.1 *Relevant experience*, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1(c)) to the subject property.