



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MANUAL TRANSMITTAL SHEET

Release	2-289
Date	8/17/00

Subject

H-2101-4 PREACQUISITION ENVIRONMENTAL SITE ASSESSMENTS

1. Explanation of Materials Transmitted: This release transmits the PreAcquisition Environmental Site Assessments (ESA) Handbook. This guidance provides an ESA process to implement the policy and other provisions of 602 Departmental Manual (DM) 2. The requirements of 602 DM 2, and this guidance, apply to any BLM proposed acquisition of real property to which liability can attach. All acquisitions of real property, whether discretionary or nondiscretionary, will require an ESA prior to acquisition.
2. Reports Required: None.
3. Material Superseded: None.
4. Filing Instructions: File as directed below.

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H-2101-4

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PRE-ACQUISITION ENVIRONMENTAL SITE
ASSESSMENTS



BLM MANUAL HANDBOOK H-2101-4

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Chapter I - Introduction

A. Policy Implementation.

This guidance provides an Environmental Site Assessment (ESA) process to implement the policy and other provisions of 602 Departmental Manual (DM) 2.

The requirements of 602 DM 2, and this guidance, apply to any BLM proposed acquisition of real property to which liability can attach. All acquisitions of real property, whether discretionary or nondiscretionary, will require an ESA prior to acquisition. This includes real property acquisitions as well as transfers between Department of Interior Bureaus and other departments and agencies of the United States. An ESA will also be required for withdrawn public domain lands returning to BLM jurisdiction.

In addition, ESAs will be performed on properties acquired by the BLM if an ESA was not performed prior to the acquisition regardless of the method of acquisition. This requirement applies to recent acquisitions or acquisitions made after approval of this handbook, and would include acquisitions mandated or authorized by Congress. The purpose of performing an ESA at this point is to determine if recognized environmental conditions (REC) are present which would pose an imminent threat or long term risk to human health and/or the environment. Results may be used as a baseline to establish future liabilities of the previous owner and to establish the innocent landowner defense for the BLM.

Approval is required for all real property acquisitions that may require hazardous substance, petroleum product, or other environmental cleanup; or that may result in liability risk, including remediation and other known and reasonably estimated costs associated with the acquisition. The assistance of a specialist authorized for site entry should be secured if the site is suspected to be hazardous and site entry is necessary to complete an assessment.

The focus of this Handbook guidance is the Phase I ESA process. The information provided on the Phase II and III processes is limited to an overview of the complete process in the event that RECs are identified and remediation is pursued.

B. Manual Section and Handbook Supplements.

Supplements to Manuals and Handbooks may be issued by the State Office or Field Office to meet specific needs. The supplements can be used to implement local programs or enlarge upon BLM Manuals and contain instructions applicable to local situations or operations. Supplements must not conflict with the BLM Manual and must follow format requirements and standards in Manual 1221.

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Chapter I - Introduction

C. Objectives

This Handbook adapts the ASTM ESA guidance for use by BLM. Emphasis is placed on Departmental guidance 602 DM 2.1, 42 USC 9620, CERCLA/SARA 1986, 40 CFR 300, and BLM policy and procedures.

Specifically, the ESA will:

- Evaluate the potential environmental liability associated with an acquisition;
- Require the line manager to consider the potential liability in making an acquisition decision;
- Estimate the cost of remediation and assure that appropriated funds are not used without required approvals;
- Provide documentation to enable the BLM to assert an innocent landowner defense;
- Provide information to Congress on risks and liability associated with proposed acquisitions.

D. Environmental Law and Due Diligence

The Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendment and Reauthorization Act of 1985 (SARA) and the Oil Pollution Control Act, were enacted to identify and impose liability on parties responsible for contamination caused by hazardous substance releases. This liability encompasses both past and current landowners. However, CERCLA provides for the innocent landowner defense for purchasers who demonstrate due diligence prior to acquisition.

To invoke the innocent landowner defense, the BLM must be able to demonstrate the legal principal of "due diligence," as it relates to environmental law. As the owner or purchaser of property, it is essential that the BLM can demonstrate that "all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial or customary practices" have been completed.

The principles of due diligence and innocent landowner defense may reduce the liability of the BLM if contaminants are discovered on the property after acquisition is completed. Clean up costs and other liabilities may become the responsibility of the previous owner if BLM meets the principle of due diligence prior to acquisition.

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Chapter II - Pre-Acquisition ESA Process Overview

A. Adaption of ASTM Standards

Specific Federal guidance has not been developed that establishes a standard for due diligence. However, the American Standard for Testing and Materials (ASTM) has developed the following:

- Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E-1527).
- Standard Practice for Environmental Site Assessments: Transaction Screen Process (E-1528).
- Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process (E-1903)

There are no ASTM standards for Cleanup (Phase III). See Chapter VII.

The BLM is required to use the most recent ASTM standards when completing Pre-Acquisition ESAs (602 DM 2).

The ASTM standards are a minimum acceptable level of effort. The process outlined in this handbook meets the intent of the standards. Additional work beyond the requirements should be done when necessary. Deviations from the standards, such as not sending a contaminant survey questionnaire to a landowner, may be acceptable but the reasons for such deviations must be documented in the decision making process.

BLM employees involved in the Pre-Acquisition ESA process are expected to be familiar with the ASTM standards through available training (BLM or private) and applicable laws, regulations, and policies.

ASTM developed standards for completion of ESAs to assist sellers, buyers, lenders, and other parties to land transactions. ASTM is a private, not-for-profit, standards writing organization chartered with development and publication of specifications, tests, and practices concerning engineering materials, manufactured products, and the environment. As such, the ASTM has credibility to establish standards using industry representatives. The standards reflect a formal consensus of industry representatives.

The purpose of the ASTM standards are to define the practice for conducting an environmental site assessment within the range of CERCLA contaminants and petroleum products. The practice is intended to permit a property purchaser to qualify for the innocent landowner defense provisions of CERCLA.

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Key provisions of the ASTM Standards include the following:

Intended to constitute appropriate inquiry for due diligence/innocent landowner defense
No investigation can eliminate all uncertainty
Appropriate inquiry does not mean an exhaustive assessment of a clean property
The level of appropriate inquiry is variable

The ASTM Standards relate to the BLM Pre-Acquisition ESAs described in this Handbook as follows:

Preliminary Analysis (See Chapter III)	Developed by BLM Committee to meet requirements for appropriate inquiry using a more reduced level of effort than required for a Phase I for acquisitions where there is no apparent human intrusion that could have resulted in a REC
Initial Assessment (See Chapter IV)	Developed by BLM Committee to meet requirements for appropriate inquiry using a more reduced level of effort than required for a Phase I for acquisitions where there is a potential for a human intrusion that could have resulted in an REC
Phase I ESA (See Chapter V)	Process developed by ASTM and described in ASTM Standard E 1527 and E 1528
Phase II/Site Investigation (See Chapter VI)	Process developed by ASTM and described in ASTM Standard E 1903
Phase III Cleanup (See Chapter VII)	Process described in 40 CFR, EPA Guidance Document SW 846, State requirements and other documents to accomplish cleanup procedures for contaminated sites

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B. ESA Process Strategy.

ESAs should be integrated with the basic Environmental Assessments (EA) and other reports required in a lands transaction rather than considered as separate actions. Information gathered for these documents can be expanded beyond their scope to include those elements needed to satisfy the requirements of the ESA. The intent is to avoid duplication by referencing or combining information where possible in the most efficient manner while complying with relevant laws.

Both office and field work should, where possible, employ a team approach. The document shall be certified by that member of the group who has the required qualifications.

If additional expertise is required, assistance should be requested from a BLM specialist who has the training and experience necessary to complete the assessment. Assistance can also be requested from the National Science and Technology Center (NSTC) in Denver, technical support contractors, and other agencies.

The ESA process is a critical step that can directly affect the entire acquisition or exchange process. It is therefore important that BLM management either approve the finding or choose alternatives within the scope of their authority. Managers also need to understand both the environmental risks and liabilities involved. For this reason, managers must document their reasons if they choose a course of action that deviates from the technical report recommendation.

In many cases, it is appropriate to have the current landowner or exchange proponent be responsible for providing the ESA. This should be discussed in the early stages of the proposed acquisition and agreement reached as to who will be responsible for which aspects of the ESA. If there is known or suspected contamination from hazardous substances or petroleum products on property proposed for acquisition, the current landowner should generally be required to provide the Phase II Investigation and, if needed, the Phase III Cleanup. Deviation from these procedures should be documented. All acquisitions requiring Phase III cleanup with estimated costs exceeding \$250,000 must be approved by the BLM Director; estimated cleanup costs exceeding \$500,000 must be approved by the Assistant Secretary, Policy, Management and Budget.

Either BLM or the landowner may choose to use a private consultant to perform some or all of the assessment. However, all assessments must meet ASTM ESA standards and the requirements of this handbook. They must be reviewed and approved by qualified BLM personnel. Before approving the use of consultants, BLM should review their qualifications and work samples to ensure that they have demonstrated the appropriate knowledge and experience to prepare a report that will meet BLM requirements.

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Chapter II - Pre-Acquisition ESA Process Overview

C. Pre-Acquisition Environmental Site Assessment Levels of Analysis

There are 5 levels of analyses that comprise the ESA process. Each succeeding level performed further reduces the inherent uncertainties in the evaluation process. The appropriate level at which to begin the process may vary depending on the circumstances.

The first level of analysis is the **Preliminary Analysis**. This is a basic level of review that is only appropriate to use when the likelihood of contamination is extremely low. This level should be used only when the BLM is acquiring an interest in land that is less than fee title (i.e., an easement) or fee title in an area where there has been no apparent human intrusion on the land that could result in a REC on the subject property.

The second level of analysis consists of an **Initial Assessment**. It is a screening level evaluation to determine if a Phase I ESA is needed. An Initial Assessment is used when the likelihood of contamination is low but there is a potential that human intrusion that may have resulted in a REC being present. If there is a low likelihood of contamination on the site, a Phase I ESA is not needed.

The third level of analysis is the **Phase I ESA**. If the Initial Assessment indicates there is a potential for contamination or RECs being present on-site, a Phase I ESA will be performed.

The fourth level of analysis is the **Phase II Site Investigation**. If significant potential for contamination from hazardous substances or petroleum products is identified on the site, and proper approvals are obtained, a site investigation will be performed. During this phase, samples will be taken from the site and analyzed to determine the nature and extent of the contamination.

The fifth level of analysis is the **Phase III Cleanup**. If the Phase II indicates that hazardous substances or petroleum products are present above regulatory levels or in concentrations that could affect human health or the environment, a cleanup action can be undertaken only after proper approvals have been obtained. A Phase III involves full site characterization and cleanup.

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Chapter II - Pre-Acquisition ESA Process Overview

The Levels of Analysis and their objectives are as follows:

<u>Phase</u>	<u>Objective</u>
___ Preliminary Analysis	Provide a quick determination if an assessment is required.
Initial Assessment	Determine if a Phase I ESA is necessary.
ESA (Phase I)	Identify RECs in connection with the property.
Site Investigation (Phase II)	Identify the nature and extent of the contamination on the property.
Cleanup (Phase III)	Site characterization and cleanup.

D. Level of Analysis Selection Criteria

The following figure summarizes the criteria for selecting the Appropriate Level of Analysis:

Figure II-1	
Levels of Analysis/Selection Criteria	
Level of Analysis	Selection Criteria
Preliminary Analysis	Interest in land or title to land Likelihood of contamination is low No apparent human intrusion that could have resulted in a REC
Initial Assessment	Interest in land or title to land Likelihood of contamination is low Potential for human intrusion that could result in REC
Phase I ESA	Interest in land or title to land Known or suspected REC identified on the property
Phase II Site Investigation	Interest in land or title to land Verify findings of Phase I Intrusive study of soil and groundwater
Phase III Cleanup	Interest in land or title to land Fully characterize the vertical and lateral extent of contamination Identify and implement the most appropriate cleanup activities

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Chapter II - Pre-Acquisition ESA Process Overview

E. Multiple Parcel Acquisitions

Multiple parcel acquisitions may be completed and documented in a single report.

Information that is parcel specific should be described separately. For example, each parcel should be listed in the description of real estate and site reconnaissance.

Information that is generic and applies to all parcels need not be described separately. For example, if record searches do not reveal any evidence of RECs on any of the parcels, it would be appropriate to lump the parcels into a single descriptive sentence/paragraph/section.

This process would also provide for a mechanism to eliminate specific parcels from a proposed acquisition if RECs were discovered on a parcel.

F. Qualifications

The approving official/manager who signs a Pre-Acquisition ESA document is responsible for ensuring that the training qualifications shown on Figure II-2 are completed by employees completing Pre-Acquisition ESAs.

The Pre-Acquisition ESA must be conducted or supervised by a qualified individual. Figure II-2, Training Qualifications, identifies the minimum training required to perform different levels of investigation.

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Chapter II - Pre-Acquisition ESA Process Overview

G. Work Flow Chart

A flow chart showing the Pre-Acquisition ESA process is provided in Figure II-3.

Figure II-2 Training Qualifications	
Level of Pre-Acquisition ESA	Required Training
Preliminary Analysis	8 Hours*/**
Initial Assessment	16 Hours*/**
Phase I ESA	NTC Course 1703-13
Phase II Site Investigation	NTC Courses 1703-01 1703-05 1703-02 1703-07/11 1703-03 1703-09 1703-04 1703-13 COR/PI Course/Refresher***
Phase III Cleanup	Same as Phase II Site Investigation

LEGEND

- * State specific training to be developed and/or approved by State Director
- ** Or equivalent training
- *** Contracting Officer Representative/Project Inspector

BLM National Training Center (NTC) Courses

1703-01	Introduction to Environmental Compliance and Pollution Prevention
1703-02	Emergency Response/Removal Actions and Emergency Preparedness
1703-03	Environmental Site Characterization
1703-04	Environmental Service Contracting
1703-05	Federal Facility Compliance
1703-07/11	Hazard Recognition/Chemical Management
1703-08	Writing Statements of Work
1703-09	CERCLA Site Assessment
1703-13	Environmental Site Assessments

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Chapter III - Preliminary Analysis

A. Significance and Use

The Preliminary Analysis is a simplified process that may be used only when there is little likelihood that a property has been impacted by hazardous substances and/or petroleum products.

The preliminary analysis may only be used where no RECs are present and the proposed acquisition is for:

- A less than fee title interest in lands, such as an easement, right-of-way, reciprocal right-of-way agreement, or lease;
- Fee title where there has been no apparent human intrusion on the property.

The Preliminary Analysis consists of the following actions:

Conduct a limited records and historical source review.

Records to be reviewed will depend on the location, and past and current uses. For example, environmental records are generally not available for rural isolated areas. If the investigator has reason to believe records may be available, a records review should be conducted.

Historical sources to be reviewed should include, at a minimum, the most recent aerial photograph.

Observe site conditions.

A field review shall be conducted for all acquisitions. Emphasis should be placed on areas of potential contamination such as landings, spur roads, and areas accessible by vehicles.

The adjacent and surrounding area should also be inspected.

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Chapter III - Preliminary Analysis

Use of a Contaminant Survey Questionnaire and/or interviews is optional.

For isolated tracts in remote locations, a Contaminant Survey Questionnaire or interviews would normally not be required.

An interview might be conducted for purposes such as verifying observations or to gain information about the subject property or adjoining land.

A sample Preliminary Analysis Checklist is provided as Illustration 1.

B. Findings and Conclusions

Upon completion of the Preliminary Analysis, the report should summarize the findings and conclude either:

1. No Further Inquiry Needed

If the Preliminary Analysis does not identify any RECs on the property, no further inquiry is needed.

2. Further Inquiry Needed

If further inquiry is needed to confirm or deny the presence of RECs, an Initial Assessment or Phase I ESA will be conducted. Generally, if the RECs are on adjoining or surrounding property, an Initial Assessment is required. If the RECs are on the subject property, a Phase I ESA is required.

C. Who May Conduct and Review

The Preliminary Assessment may only be conducted by an individual who either has completed NTC Course 1703-07/11, Hazard Recognition/Chemical Management, or 8 hours of equivalent training and/or education.

The Preliminary Assessment should be reviewed by an individual who has completed NTC Course 1703-13, Environmental Site Assessment, or has equivalent training and/or education.

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Chapter III - Preliminary Analysis

D. Timing

The Preliminary Analysis must be completed within 12 months prior to the date of the acquisition. If there are any indications of changes in RECs found during the Certificate of Inspection and Possession, the analysis must be updated and any concerns resolved before final acceptance of title.

E. Approval Authority

Field Office Manager.

F. Example

An example of a completed Preliminary Analysis is provided as Illustration 2.

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Chapter IV - Initial Assessment

A. Significance and Use

The Initial Assessment is a process designed to identify RECs in connection with a property. The Transaction Screen Process, as described in ASTM Standard E-1528, will be used as a guide. An Initial Assessment is used when the likelihood of contamination is low but there is a potential that human intrusion may have resulted in a REC being present on the property.

A Phase I ESA may be conducted without a documented Initial Assessment, when it is apparent that a Phase I will be needed, unless managers desire to have a multi-phase decision process.

The Initial Assessment consists of asking questions contained within the Transaction Screen Questionnaire of owners and occupants of the property, observing site conditions at the property, and conducting limited research of certain government records and standard historical sources (E-1528 5.1).

The Initial Assessment consists of the following actions:

- Provide the landowner with a Contaminant Survey Questionnaire/Site Conditions Observations. An example is provided as Illustration 3.
- Conduct a limited research of certain government records and standard historical sources as described in E-1528 5.1. An example is provided as Illustration 4.
- Observe site conditions at the property using the Contaminant Survey Questionnaire/Site Conditions Observations. An example is provided as Illustration 3.

Complete a report. An example is provided as Illustration 5.

Step 1 above may be eliminated for real property with no obvious likelihood of RECs being present. However, a decision not to complete the questionnaire must be documented with a rationale.

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Chapter IV - Initial Assessment

B. Findings and Conclusions

Upon completion of the Initial Assessment, the report should summarize the findings and conclude either:

1. **No Further Inquiry Needed** to assess RECs for purposes of appropriate inquiry.

If the Initial Assessment does not identify any RECs on the property, no further inquiry is needed.

2. **Further Inquiry Needed** for specific issues to assess RECs for purposes of appropriate inquiry (E-1528 4.3.3).

If the Initial Assessment identifies a minor concern, limited additional work may be conducted to determine if a REC is actually present.

For example, research of Department of Environmental Quality (DEQ) records could indicate that underground storage tanks (UST) are present on adjoining property. As part of the Initial Assessment, records could be researched to determine if the UST affects the property proposed for acquisition. A Phase I would not be required if the USTs do not affect the property.

If further inquiry is needed to determine if RECs are present on the property after completion of the Initial Assessment, a Phase I ESA will be conducted as described in Section V.

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Chapter IV - Initial Assessment

C. Who May Conduct and Review

The Initial Assessment should be conducted by an individual who has completed a minimum of 16 hours total of ESA and hazard recognition training. The Initial Assessment should be reviewed by an individual who has completed NTC Course 1703-13, or equivalent training and/or education.

D. Timing

The Initial Assessment must be completed within 12 months prior to the date of the acquisition. If there are any indications of changes in RECs found during the Certificate of Inspection and Possession, the Initial Assessment must be updated and any concerns resolved before final acceptance of title.

E. Approval Authority

Field Office Manager.

F. Initial Assessment Report Outline

1. Opening Sections

- a. Title Page: Identifies the project, the office, and the date.
- b. Table of Contents: Follows the outline format where required.
- c. Summary: Brief description of the type of acquisition, investigative work completed, concerns, and the recommendation(s).
- d. Introduction: Purpose of the assessment, description of the real property, and limitations of the report.

2. Contaminant Survey Questionnaire

- a. Landowner Concerns: Describe how the questionnaire was provided to the landowner and discuss any known or suspected RECs identified by the landowner.
- b. Questionnaire Not Used: If the questionnaire was not provided to the landowner or was modified, provide an explanation why it was not provided or why the modifications were made.

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Chapter IV - Initial Assessment

3. Government Records and Historical Sources Research

- a. Records Search: Briefly describe the records searched.
- b. Historical Sources: Briefly describe the historical sources researched.
- c. RECs: Describe any RECs identified during the research. If none, so state.

4. Site Reconnaissance

- a. Subject Property Conditions: Describe the conditions on the subject property with emphasis on RECs that are or could affect the subject property.
- b. Adjacent/Surrounding Property Conditions: Describe the conditions on adjacent and surrounding property that could affect or are affecting the subject property.
- c. RECs: Describe any RECs identified during the site reconnaissance that could affect the subject property. If none, so state.

5. Closing Sections

- a. Conclusions: Provide a description of the conclusions that resulted from the information compiled during the investigation.
- b. Recommendations: The recommendation statement should be one of the following:
 - (1) No evidence of hazardous substances, petroleum products, or environmental conditions was discovered on this real property. No further inquiry is needed to assess recognized environmental conditions for purposes of appropriate inquiry; therefore, acquisition of this real property is recommended.
 - (2) This Initial Assessment has revealed evidence of recognized environmental conditions in connection with this real property; therefore, it is recommended this real property **not** be acquired.

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Chapter IV - Initial Assessment

- (3) This Initial Assessment has revealed evidence of recognized environmental conditions in connection with this real property; therefore, a Phase I Environmental Site Assessment is recommended.
 - (4) This Initial Assessment has revealed evidence of recognized environmental conditions in connection with this real property. It is recommended that only (describe) be included in this acquisition. The following portions should be excluded: (describe).
- c. Approvals: The report should be signed by the preparer, reviewer if necessary, and the manager.

6. Appendix

- a. Required Documents: site map/vicinity maps, landowner contaminant survey, government records and historical sources research, site conditions observations, and site photographs are the minimum documents generally required.
- b. Other Documents: Include other documents used in the investigation to form the conclusions and recommendations. If the documents are lengthy, consider incorporating them by reference in the report text or only include the applicable portions.

G. Example

An example of an Initial Assessment Report is provided as Illustration 5.

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Chapter V - Phase I Environmental Site Assessment

A. Significance and Use

The purpose of the Phase I ESA is to identify, to the extent feasible pursuant to the process described in ASTM Standards E-1527, RECs in connection with the property (E-1527 6.1). The Phase I process will be used when there are known or suspected RECs in connection with the property.

A Phase I ESA consists of 4 components (E-1527 6.2):

- Records Review
- Site Reconnaissance
- Interviews
- Report

B. Findings and Conclusions

At the conclusion of the Phase I ESA, the report should summarize the findings and conclude either:

1. No Further Inquiry Needed

No further inquiry is needed if (1) there is no evidence of contamination, or (2) there is evidence of contamination but a decision is made not to proceed with the acquisition.

2. Further Inquiry Needed

Further inquiry consists of a Phase II Site Investigation. In order to complete the recommendation to proceed with a Phase II, a preliminary Statement of Work (SOW) and a cost estimate will be prepared.

The preliminary SOW will be of sufficient detail to develop a cost estimate to verify findings of the Phase I ESA. The cost estimate dollar amount will be included in the recommendation. However, the preliminary SOW and cost estimate documentation will **not** be included with the Phase I ESA report.

The cost estimate will be used by the approving authority to determine if the BLM will proceed to Phase II Site investigation.

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Chapter V - Phase I Environmental Site Assessment

C. Who May Conduct

The Phase I ESA will be conducted or supervised by an individual who has completed NTC Course 1703-13, or equivalent training or education.

D. Timing

The Phase I ESA must be completed within 12 months prior to the date of the acquisition. If there are any indications of changes in RECs found during the Certificate of Inspection and Possession, the Phase I ESA must be updated and any concerns resolved before final acceptance of title.

E. Approval Authority

The Field Office Manager can approve a Phase I ESA where there are no RECs on the real property proposed for acquisition, or where the BLM will not proceed with the acquisition.

The State Director (SD) must approve the Phase I ESA where there is a recommendation to proceed with a Phase II Site Investigation and BLM will be paying for the investigation. However, the SD approval is not required if the landowner is financing the Phase II Site Investigation. However, the Field Office Manager will inform the SD about the planned investigation.

F. Report Format, Recommendations, and Approval

The Phase I ESA process should be approached in two distinct steps; the background analysis and the site reconnaissance. The concept is to find out enough about the property to know what to look for and where to look. This typically saves time and increases the probability of identifying RECs.

The following outline is designed for the most complex types of situation. The Phase I ESA process and report format is contained in ASTM E-1527 Standard.

The information resulting from the records review, site reconnaissance, and interviews should be included in the report. A discussion of the sections contained in the report outline, information contained in the sections, and discussions on obtaining/interpreting the information is in Section G of this Chapter.

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Chapter V - Phase I Environmental Site Assessment

G. Phase I Report Outline

1. Opening Sections

- a. Title Page - Identifies the project, the office, and the date.
- b. Table of Contents - Follows the outline format where required.
- c. Summary - Brings the conclusion up front in basic terms. May have more value in complex cases.
- d. Introduction - Purpose describes the reasons for the ESA both from a regulatory and a logic base.
- e. Special Terms and Conditions - Optional - there may be considerations or exceptions that are not part of a typical ESA that should be documented.
- f. Limitations - May include special conditions for the report.
- g. Location and Legal Description - Description can be an attachment. The map should include proposed property, boundaries, and adjacent land that affects proposed property. At a minimum it must be a USGS Topographic Quadrangle Map with watershed area, possible aquifer contamination zones, access related problems, and nearby contaminant sources. If this information becomes cumbersome, it can be placed in the Appendix.
- h. Serial No. - self-explanatory
- i. Ownership - self-explanatory
- j. Physical Setting - (Can be included in EA or Mineral Report and referenced if these reports cover the concerns on contaminant pathways.) The need for physical information in an ESA is typically more detailed than an EA or Mineral Report provides. This can be resolved by including more detail in any of the following reports.
 - (1) Geology - should include discussion of impervious strata, structure, karst zones, porosity, permeability, and nature of the vadose zone.

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- (2) Hydrology - for ground water, identify depth, direction of flow, presence of perched water tables, quality of the water, and uses; include information on surface water sources, size, and water quality.
- (3) Soils - includes those mechanical properties that affect contaminant transfer. Major considerations include permeability, porosity, depth, and basic characteristics.
- (4) Climate - typically includes temperature ranges, precipitation, and seasonal variations.

2. Records Search and Historical Source Review Section

- a. Records - This includes all reasonably ascertainable records on the subject property. This means (1) information that is publicly available; (2) is obtainable within reasonable time and constraints; and (3) information that is practical to review.
 - (1) Title Report - review for past ownership that may indicate prior uses and past and present encumbrances.
 - (2) Historical Use - include past uses that may have occurred on the property after a search of all available documented information about uses made of the site. Records include fire insurance maps for former uses, zoning as it affects use, trespasses, and encroachments. Illustration 6 is a list of high risk uses and potential problems.
 - (3) Environmental Liens - an environmental encumbrance to secure payment for cleanup or remediation typically associated with CERCLA, 42 USC 9607.
 - (4) Encumbrances - should include both past and present authorizations on private land. These include easements, building permits, and records of abandonments.
- b. Authorizations - may cover the public land ownership period and those uses either authorized and/or recorded. ASTM generally requires ownership records back to the patent. If the subject lands have not been patented or the patent is recent, the last 40 years of public land records must be reviewed. Document the individual records searched.
- c. Other Information - This is a catch-all section for information on the subject property and adjoining land, like reports, plans, and technical analyses.

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- d. Aerial Photo Analysis - Aerial photos can be exceptionally helpful in two ways, reducing field time on large areas and analyzing historical use. Contaminated areas have been discovered using aerial photos. Begin with most recent coverage available. They can be secured through USGS if not already available. It usually takes 4 per quadrangle for two-dimensional coverage and 16 for stereographic pairs. Older photos for historical use can usually be found at the field offices, other agencies, and commercial aerial photography dealers.
- e. Contaminant Survey Screen - If a screen is used to gain information about the site, then those problem areas can be summarized in this section. The complete document can be put in the Appendix.
- f. Environmental Records - This information covers identified sites that may be either suspected of being contaminated, for example, a CERCLIS association or known National Priority Listed site. Most of this information should be available from BLM local sources or companies that specialize in this service. If the site is off the property, a link between the two properties should be explored. This link can occur through a contaminant pathway or direct action, like dumping or storage.

Each subject and the information source has its own peculiarities. Some State Department of Environmental Quality and Environmental Protection Agency (EPA) locate sites by zip codes and latitude and longitude. Some State Department of Water Resources use Township and Range. Most of this work can be done on the phone. Minimum search distances are only a guide. The surrounding analysis and common sense may greatly expand these distances.

Vendors can provide record search information at a relatively low cost. They have automated the common databases which are updated on a regular basis. They can provide quick turnaround times for these records.

- g. Government Records and Standard Historical Sources Form - The information may be summarized in the main body of the report and the completed form included as an appendix. An example of the form is provided as Illustration 4.

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3. Site Reconnaissance Section

- a. Surroundings Analysis- Consider at a minimum those possible contamination sources identified in the development of the vicinity map outside the boundaries of the proposed property that may pose a threat of contamination. The environmental record and past uses are the main concerns. Consider surface and ground water pathways. This analysis may lead to additional record searches and interviews.
- b. Inspection Strategy - Develop a guide, things to look for, from everything that you have discovered about the proposed property. Formalize with documentation. The greater the number of risks related to the site, the more rigid the field investigation. Keep in mind that your guide is "reasonable probability." For example, do not waste time on areas that are physically inaccessible to 4-wheel motor vehicles. Instead, concentrate on dead-end roads, disturbed areas, draws and gullies, changes in vegetation, lack of vegetative cover, unnatural land forms, and any other evidence of human intrusion.
- c. Area Examination - Site and Vicinity: Conduct the on-the-ground inspection as indicated and guided by the "Inspection Strategy," and document all indicators of possible contamination and any suspicious intrusions or man-made disturbances. Photograph all areas of concern with photo points referenced on the map. Do not enter any area with any indicators of contamination. If entry is required on any area with suspected contamination, contact your HAZMAT Coordinator. The Coordinator can verify or refute the concern and take appropriate action.

Facility description covers all the man-made improvements on the property. It can be as simple as identifying a shed without any evidence of possible contaminants or a facility audit of a school. The facilities of concern are those that may contribute to a contamination problem. Current uses, like the facility description, should focus on activities that may contribute to a contamination problem.

- d. Agricultural Irrigation and Drainage: Since most farming in the west involves supplemental water, the nature and design of the system may be relevant to the survey. Long-term irrigation along with the use of agricultural chemicals must be examined. Drain collection areas and recovery systems become concentration zones for contaminants. Indicators of problems may be more visible in concentration zones.

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- e. **Physical Setting Analysis** - The object at this point is to bring all the information together that allows the weighing of all factors related to the site. Three main considerations/factors are examined in relation to each other: (1) the records, (2) the site inspection, and (3) the physical setting. At this point, formulate an opinion based on all the information. Deal with each indicator of a potential problem on an individual basis. Draw a conclusion for each identified area of concern. Remember this is a process of identifying areas of concern and finding even one valid concern for potential problems should and will lead to the next step in the process, a Phase II ESA.

The level of analysis will vary depending on the complexity of the site. Although information is collected related to the site, a detailed analysis is generally not required unless RECs are present. If present, the level of analysis must be of sufficient detail to adequately describe the potential impacts on the property from the known or suspected contaminants.

- f. **Sampling** - Sampling generally should not be conducted during the Phase I. Limited sampling may be used to confirm or deny the **presence** of a contaminant. Sampling to determine the **extent** of the contamination should not be done in a Phase I ESA.

Sampling during a Phase I might be appropriate to identify a small area of suspected soil contamination. The presence or absence of contamination could be determined by limited sampling. If BLM funds the sampling and testing, this limited work is defined as costing less than \$10,000 per site. Any sampling and testing by BLM beyond the \$10,000 amount should be deferred to Phase II.

- g. **Contaminant Survey Questionnaire** - The information collected during the site inspection may be summarized in the report and the completed form included as an appendix. An example of the form is provided as Illustration 3.

- 4. Interview Section** - Interviews and contacts begin with the known sources of information, such as the owner, neighbors, local zoning authorities, hazardous response units, county health and sanitation, past landowners, local emergency planning groups, State Water Resources Department, and add those other parties identified above that may provide any possible site contamination information.

If a Contaminant Survey Questionnaire is provided to the landowner, the information can be summarized in the report and the completed questionnaire included as an appendix to the report.

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Chapter V - Phase I Environmental Site Assessment

5. Closing Section

- a. Findings and Conclusions - In the findings portion, describe RECs, distinguishing between those resulting from current historical site uses and those potentially resulting from offsite sources.

The conclusions portions should include one of the following:

“A Phase I Environmental Site Assessment has been performed in conformance with the scope and limitations of ASTM Standard E-1527 on the subject property. This assessment has revealed no evidence of recognized environmental conditions in connection with this property.”

OR

“A Phase I Environmental Site Assessment has been performed in conformance with the scope and limitations of ASTM Standard E-1527 on the subject property. This assessment has revealed no evidence of recognized environmental conditions in connection with this property except for the following: (list)”.

- b. Recommendations for Additional Study - Describe methods and/or techniques to further investigate RECs identified in the findings and conclusions section. If none, so state. These exceptions will become the basis for further study during the Phase II.
- c. Certification - Should include the recommendation statement, the signatures from the author, a reviewer as required, and the delegated manager. The recommendation statement should be one of the following:
 - (1) This assessment has revealed no evidence of recognized environmental concern/contamination in connection with this property. Acquisition of this real property is recommended.
 - (2) This assessment has revealed evidence of recognized environmental concern/contamination in connection with this property. Acquisition of this real property is not recommended.

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Chapter V - Phase I Environmental Site Assessment

- (3) This assessment has revealed evidence of recognized environmental conditions in connection with this property. It is recommended that a Phase II Site Investigation be performed on this real property. The estimated cost of the Phase II investigation is \$_____.
- (4) This assessment has revealed evidence of recognized environmental conditions on this real property. It is recommended that only (describe) be included in this acquisition. The following portions should be excluded: (describe).

6. Appendix

- a. Required Documents: site map/vicinity maps, landowner contaminant survey, government records and historical sources research, site conditions observations, and site photographs are the required minimum documents.
- b. Other Documents: Include other documents used in the investigation to form the conclusions and recommendations. If the documents are lengthy, consider incorporating them by reference in the report text or only include the applicable portions.

H. Example

An example of a Phase I ESA is provided as Illustration 7.

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H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter VI - Site Investigation (Phase II)

A. Significance and Use

This guidance is limited to an overview of the Phase II process. More detail is located in ASTM Phase II guidance/E-1903, 40 CFR 300, and EPA guidance such as SW 846. Like the Phase I, the Phase II mirrors the CERCLA cleanup process covered in the National Contingency Plan (40 CFR 300).

The purpose of the Phase II Site Investigation is to verify findings of the Phase I ESA and to determine the nature and extent of the contaminants of concern. The Phase II is an intrusive study of the soil and groundwater to evaluate the location and extent of the impacts from past and current uses of the property.

There may be liabilities and risks associated with performing a Phase II Site Investigation, which the landowner must be willing to assume. BLM will not initiate and fund a Phase II investigation unless approved by the SD. Approval is not required if the landowner is financing the investigation, however, the Field Office Manager will inform the SD of the planned investigation.

As pointed out in Section II, B, it is appropriate to have the current landowner or exchange proponent be responsible for providing the ESA. This should be discussed in the early stages of the proposed acquisition and the current landowner should generally be required to provide the Phase II Assessment.

Cost and extent of the investigation are two major factors in developing the Phase II Site Investigation. Each site is unique. Therefore, each Phase II will include a scope of work designed to verify findings of the Phase I ESA in the most efficient manner possible at the least cost.

Assistance with this process can be provided by the National Science and Technology Center (NSTC) in Denver, the BLM's national technical support contractor, and site assessment contractor. NSTC would typically be the first choice for both technical help and hands on site assistance.

If a Phase II Assessment verifies that a site is contaminated, the following options are available:

- Clean up the contaminated site prior to the transfer.
- Evaluate the site in the context of the entire acquisition to determine if the uncontaminated portions land should be acquired.
- Do not acquire any of the subject property.

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Chapter VI - Site Investigation (Phase II)

At the conclusion of the Phase II Site Investigation, the report preparer should offer one of the following recommendations:

- This investigation has identified no contaminants exceeding a level of concern on the real property proposed for acquisition. Acquisition of this real property is recommended.
- This investigation has identified contaminants of concern exceeding regulatory cleanup levels on the real property proposed for acquisition. The estimated cost of the Phase III Cleanup is \$_____ to \$_____. It is recommended a Phase III Cleanup be completed.
- This investigation has identified contaminants of concern exceeding regulatory cleanup levels on the real property proposed for acquisition. It is recommended this real property **not** be acquired.

B. Findings and Conclusions

Upon completion of the Phase II ESA, the report should summarize the findings and conclude either:

1. No Further Inquiry Needed

No further inquiry is needed if (1) there is no evidence of contamination or, (2) if there is evidence of contamination but a decision is made not to proceed with the acquisition.

2. Further Inquiry Needed

Further inquiry consists of a Phase III Cleanup. In order to complete the recommendation to proceed with a Phase III, a preliminary remedial action plan and cost estimate to complete the cleanup will be developed.

The preliminary remedial action plan will be of sufficient detail to develop a cost estimate of a Phase III Cleanup, as described in Section VII. The cost estimate dollar amount will be included in the recommendation.

The cost estimate value will be used by the approving authority to determine if the BLM will proceed to a Phase III Cleanup.

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Chapter VI - Site Investigation (Phase II)

C. Who May Conduct

The role of BLM field employees in the Phase II Site Investigation is typically limited to contractor supervision. BLM policy does allow sufficient discretion to qualified employees to perform limited activities that are required to be in their position descriptions and follow the BLM site entry policy. NSTC has much broader capabilities to perform onsite activities at considerable cost savings over contracting.

Minimum qualification for BLM employees providing oversight will be the following NTC Courses or the equivalent:

- 1703-1 - Introduction to Environmental Compliance and Pollution Prevention
- 1703-2 - Emergency Response /Removal Actions and Emergency Preparedness
- 1703-3 - Environmental Site Characterization
- 1703-4 - Environmental Service Contracting
- 1703-5 - Federal Facility Compliance and Management
- 1703-8 - Writing Statements of Work
- 1703-9 - CERCLA Site Assessment
- 1703-7/11 - Hazard Recognition/Chemical Management
- 1703-13 - Environmental Site Assessments

In addition, the individual will have completed BLM approved Contracting Officers Representative and refresher training as appropriate.

The Field Level Manager is responsible for assuring the BLM employee assigned to project oversight meets the minimum educational and experience requirements.

D. Timing

The Phase II Site Investigation must be completed within 12 months prior to the date of the acquisition. If there are any indications of changes in RECs found during the Certificate of Inspection and Possession, the Phase II Site Investigation report must be updated and any concerns resolved before final acceptance of title.

E. Approval Authority

The Field Office Manager can approve a Phase II Site Investigation where the investigation has identified no contaminants above a level of concern and acquisition is recommended, and where the investigation has identified contaminants above a level of concern and acquisition is not recommended.

VI-4

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Chapter VI - Site Investigation (Phase II)

If the recommendation is to proceed to a Phase III Cleanup, the Approval Authorities for the cleanup/remediation costs estimated in the Phase II Site Investigation Report are as follows:

Figure VI-1 Approval Authorities - 602 DM 2	
State Director	Not to Exceed \$250,000
BLM Director	\$250,001 - \$500,000
Assistant Secretary, Policy, Management and Budget	Greater Than \$500,000

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter VII - Cleanup (Phase III)

A. Significance and Use

This guidance is limited to an overview of the Phase III Process. There are no ASTM Standards for completion of cleanup of a site contaminated with hazardous substances or petroleum products. Procedures can be found in 40 CFR 300, EPA Guidance Document SW 846, and State requirements. These guides are more specific to the Phase III process than the Phase I and II processes. It is paramount the Phase III process follow these requirements.

A Phase III Cleanup provides for a cleanup strategy to achieve site-specific and cost effective solutions to accomplish cleanup of contaminated properties.

The basic objectives of the Phase III are to:

Fully characterize the vertical and lateral extent of soil and groundwater contamination.

Identify and evaluate cleanup options.

Select and implement the most appropriate cleanup activities.

Characterizing the extent of the contamination means determining the three dimensional volumes of contaminated material that must be remediated. In order to determine the volumes, they must be easily identified, such as drums of material or, if contaminated soil and groundwater, they must be determined by sampling. In addition, cleanup levels are normally established to determine how much, if any, contaminated material may be left in place.

Cleanup levels are normally established by one of the following:

Background concentrations (may be the most stringent)

Regulatory numeric levels (the EPA and several states have published soil and groundwater standards)

Risk-based concentrations (typically determined by a toxicologist using type of contaminants, concentration, and targets)

Once the volumes exceeding a cleanup level are determined, several cleanup alternatives are identified. These alternatives can be evaluated with the Engineering Evaluation/Cost Analysis (EPA/540-R-93-057) or by State guidance. NSTC can assist with process and the review. The appropriate regulatory agency should approve the selected alternative.

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Chapter VII - Cleanup (Phase III)

When the on-the-ground removal/remediation begins, the BLM should:

Overview the process to ensure that the contaminated material is removed or treated by residual sampling.

Document the disposition of the waste and the cost of the cleanup.

Require the contractor to produce a report describing the overall cleanup process. A No Further Action letter should be obtained from the appropriate regulator.

At the conclusion of the Phase III Cleanup, the report preparer should include the cost of the cleanup in the final report.

B. Who May Conduct

The role of BLM employees in the Phase III Cleanup will be generally limited to contractor supervision.

Like the Phase II, NSTC has the capabilities to both assist or perform a significant part of these requirements. Contracting is used for the action removal/remediation actions.

The minimum qualification for BLM employees overseeing Phase III contracts or actions are the same as for Phase II.

The Field Office Manager is responsible for assuring the BLM employee assigned to project oversight meets the minimum educational and experience requirements.

C. Timing

After a Phase III Cleanup, if there are any indications of changes in RECs found during the Certificate of Inspection and Possession, the appropriate reports must be updated and any concerns resolved before final acceptance of title.

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter VII - Cleanup (Phase III)

D. Approval Authority

When BLM is paying for remediation, approval authority for the Phase III Cleanup prior to acquisition is as follows:

Figure VII-1 - Approval Authority - 602 DM 2	
State Director	Not to Exceed \$250,000
BLM Director	\$250,001 - \$500,000
Assistant Secretary, Policy, Management and Budget	Greater Than \$500,000

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H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter III-Preliminary Analysis
Environmental Preliminary Analysis Sample Format

Property Description Serial No. _____

Name: _____

Location/Tax Lot No.: _____

Owner: _____

Name

Phone No.

Type and Purpose of Acquisition: _____

Site Inspection Date: _____

Inspection Item	None	Onsite	Nearby
Surface disturbance of any form			
Vegetative differences, stress differences from surroundings			
Sterile/modified water bodies			
Stained areas/discolored stream banks			
Oil Slicks/unusual colors on water			
Dump areas of any kind			
Structure of any type			

Any ONSITE existence of any of the above features will require further investigation by proceeding to an Initial Assessment or Phase I unless justified in the comments section.

Past Uses of the Property: _____

Current Uses of the Property: _____

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter III-Preliminary Analysis
Environmental Preliminary Analysis Sample Format

Records Search/Historical Sources

Date: _____

Type of Record	No	Yes	If yes, Describe
Landfills/Dumps			
USTs/LUSTs			

Any YES answers to the above questions will require further investigation by proceeding to an Initial Assessment or a Phase I.

Aerial Photos - Years Reviewed: _____

Description of What Can be Observed: _____

Anomalies/Recognized Environmental Conditions: _____

Questionnaire/Interviews (Optional)

Landowner: _____

Other: _____

Comments: _____

H-2101-4 - PRE-ACQUISITION OF ENVIRONMENTAL SITE ASSESSMENTS
Chapter III-Preliminary Analysis
Environmental Preliminary Analysis Sample Format

Recommendation (Check 1)

No evidence of hazardous substances, petroleum products, or any other environmental liability was evident on this property.

Acquisition of an Interest in this real estate is recommended.

Evidence of Recognized Environmental Conditions was evident or suspected on this property.

Acquisition of an Interest in this real estate is not recommended.

Evidence of Recognized Environmental Conditions was evident or suspected on this property.

Further inquiry is recommended: Initial Assessment Phase I ESA.

Approvals

Prepared By:

Name: _____ Date: _____
Signature: _____ Title: _____

Reviewed By:

Name: _____ Date: _____
Signature: _____ Title: _____

Recommended By:

Name: _____ Date: _____
Signature: _____ Title: _____

Approved By:

Name: _____ Date: _____
Signature: _____ Title: _____

Attachments:

Site Map

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H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
 Chapter III-Preliminary Analysis
 Environmental Preliminary Analysis Example

Records Search/Historical Sources: _____ Date: 2/3/97

Type of Record	No	Yes	If yes, Describe
Landfills/Dumps	XXX		
USTs/LUSTs	XXX		
	XXX		

Any YES answers to the above questions will require further investigation by proceeding to an Initial Assessment or a Phase I.

Aerial Photos - Years Reviewed: 1990 and 1996

Description of What Can be Observed: Easement location is a rocked road. Past and current use of the adjoining and surrounding property is a mix of residential, forestry, and agricultural.

Anomalies/Recognized Environmental Conditions: None.

Questionnaire/Interviews (Optional)

Landowner: A questionnaire was not provided to the landowner nor was the landowner interviewed. Because past and current uses of the property could be observed from aerial photos, it was not necessary for this acquisition. In addition, the purpose of the acquisition was for an interest in lands via a nonexclusive easement.

Other: Not Applicable

Comments Site Inspection Surface Disturbance: The easement is across an existing rocked road. There are no Recognized Environmental Conditions resulting from the road.

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Chapter III-Preliminary Analysis
Environmental Preliminary Analysis Example

Recommendation (Check 1)

XXX No evidence of hazardous substances, petroleum products, or any other environmental liability was evident on this property.

Acquisition of an Interest in this real estate is recommended.

 Evidence of Recognized Environmental Conditions was evident or suspected on this property.

Acquisition of an Interest in this real estate is not recommended.

 Evidence of Recognized Environmental Conditions was evident or suspected on this property.

Further inquiry is recommended: ___ Initial Assessment ___ Phase I ESA.

Approvals

Prepared By:

Name: XXXX XXXXXX Date: 2/6/97
Signature: _____ Title: Hazardous Materials Coordinator

Reviewed By:

Name: XXXX XXXXX Date: 2/8/97
Signature: _____ Title: ADM for Operations Support

Recommended By:

Name: XXX XXXXXXXX Date: 2/9/97
Signature: _____ Title: Area Manager

Approved By:

Name: XXXXX XXXXXXXXXXXX Date: 2/12/97
Signature: _____ Title: District Manager

Attachments:

XXXX Site Map (Not included with this Illustration)

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H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter IV - Initial Assessment
Initial Assessment Report Sample Format

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CONTAMINANT SURVEY QUESTIONNAIRE/
SITE CONDITIONS OBSERVATIONS
OF
PROPOSED REAL ESTATE ACQUISITION

INSTRUCTIONS:

This form may be used by both the Owner/Occupant and by the BLM Site Inspector or Contractor completing the Site Conditions Observations Inspection. If the form is to be provided to the owner/occupant, the form should be completed prior to the site inspection to allow visual confirmation of the information provided.

If a response to a question is YES, comment in the space provided. If additional space is needed, use separate sheets of paper referencing the paragraph number. The preparer(s) will sign and date the appropriate blocks on the final page.

Property Data

Name: _____ Serial No. _____

Address/Legal Description: _____

City: _____ County: _____ State: _____ ZIP: _____

Property Owner/Representative

Name: _____ Address: _____

Date Prepared: _____ Phone: _____

Organization: _____

Site Inspector

Name: _____ Title: _____

Date Prepared: _____ Phone: _____

Organization: _____

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
 Chapter IV - Initial Assessment
 Initial Assessment Report Sample Format

1. Is the *property* or any *adjoining property* currently used for an industrial use?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

2. To the best of your knowledge, has the *property* or any *adjoining property* been used for an industrial use in the past?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

3. Is the *property* or any *adjoining property* currently used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

4. To the best of your knowledge, has the *property* or any *adjoining property* been used in the past as a gasoline station; motor repair facility; commercial printing facility; dry cleaners; photo developing laboratory; junkyard or landfill; or as a waste treatment, storage, disposal, processing, or recycling facility?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
 Chapter IV - Initial Assessment
 Initial Assessment Report Sample Format

LAND ISSUES

5. Are there currently, or to the best of your knowledge, have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility.

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

6. Are there currently, or to the best of your knowledge have there been previously, any industrial *drums* (typically, 55 gal (208 L)) or sacks of chemicals located on the *property* or at the facility?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

7. Has *fill dirt* been brought onto the *property* that originated from a contaminated site or that is of an unknown origin?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

8. Are there currently, or to the best of your knowledge have there been previously, any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

H-2101-4 - PRE-ACQUISITION ENVIRONMENTAL SITE ASSESSMENTS
Chapter IV - Initial Assessment
Initial Assessment Report Sample Format

9. Is there currently, or to the best of your knowledge has there been previously, any <i>stained soil</i> on the <i>property</i> ?						
Owner/Occupant:	_____	Yes	_____	No	_____	Unknown
Comments:	_____					
Observed During Site Visit	_____	Yes	_____	No	_____	Unknown
Comments:	_____					

10. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered <i>storage tanks</i> (above or underground) located on the <i>property</i> ?						
Owner/Occupant:	_____	Yes	_____	No	_____	Unknown
Comments:	_____					
Observed During Site Visit	_____	Yes	_____	No	_____	Unknown
Comments:	_____					

11. Are there currently, or to the best of your knowledge have there been previously, any <i>vent pipes, fill pipes, or access ways</i> indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ?						
Owner/Occupant:	_____	Yes	_____	No	_____	Unknown
Comments:	_____					
Observed During Site Visit	_____	Yes	_____	No	_____	Unknown
Comments:	_____					

STRUCTURE ISSUES

12. Are there currently, or to the best of your knowledge have there been previously, any <i>flooring, drains, or walls</i> located within the facility that are stained by substances other than water or are emitting foul odors?						
Owner/Occupant:	_____	Yes	_____	No	_____	Unknown
Comments:	_____					
Observed During Site Visit	_____	Yes	_____	No	_____	Unknown
Comments:	_____					

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 Chapter IV - Initial Assessment
 Initial Assessment Report Sample Format

OTHER ISSUES

13. If the *property* is served by a private well or nonpublic water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

14. Does the *owner or occupant* of the *property* have any knowledge of *environmental liens* or governmental notification relating to past or current violations of environmental laws with respect to the *property* or any facility located on the *property*?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

15. Has the *owner or occupant* of the *property* been informed of the past or current existence of *hazardous substances or petroleum products* or environmental violations with respect to the *property* or any facility on the *property*?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

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20. Is there a *transformer, capacitor, or any hydraulic equipment* for which there are any records indicating the presence of PCBs?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

21. To the best of your knowledge, has there been a spill or release of a hazardous substance to include oil and petroleum products on the property?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

22. To the best of your knowledge, has there been a spill or release of a hazardous substance to include oil and petroleum products on the adjoining properties?

Owner/Occupant: _____ Yes _____ No _____ Unknown

Comments: _____

Observed During Site Visit _____ Yes _____ No _____ Unknown

Comments: _____

Other issues that could result in Recognized Environmental Conditions on the Subject Property or on adjacent property or in the surrounding area that could affect the Subject Property:

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Owner/Occupant Inquiry and Response	
Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and, to the best of the preparer's actual knowledge, no material facts have been suppressed or misstated	
Signature _____	Date _____
Name (Printed)	
Title/Organization (If Appropriate)	
Phone Number _____	
Site Conditions Observations	
The <i>preparer</i> of the <i>questionnaire</i> must complete and sign the following statement:	
Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.	
Signature _____	Date _____
Name (Printed)	
Title/Organization (If Appropriate)	
Phone Number _____	

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Government Records and Historical Sources Research Sample Format

Government Records and
Historical Sources Research

Description of Site:

1. Environmental Records Reviewed

Records Reviewed*	Minimum Search Distance from Property Boundary	Agency*	YES	NO
Emergency Response Notification System (ERNS)	On the Property	EPA		
State Superfund as Appropriate	1 Mile	DEQ		
National Priority List (NPL)	1 Mile	EPA		
Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)	.5 Miles	DEQ		
Treatment, Storage, and Storage Facilities (TSDF)	1 Mile	DEQ		
Resource Conservation and Recovery Act Generators (RCRA)	On or adjacent to the property	Internet or DEQ		
Emergency Response Reports (SARA 304)	On or adjacent to the property	DEQ		
Underground Storage Tanks (UST)	On or adjacent to the property	DEQ		
Leaking UST (LUST)	.5 Miles	DEQ		
Landfills and Dumps	.5 Miles	DEQ/BLM/County		
Contaminated Well Records	On or adjacent to the property	DWR/DEQ		

* Records Name and Agency will Vary from State to State

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Chapter IV - Initial Assessment
Government Records and Historical Sources Research Sample Format

Government Records and
Historical Sources Research

Description of Site: _____

2. Historical Sources. At least one historical source dating back to 1940 must be used

Aerial Photographs _____ to _____ (Describe past uses of the property and adjoining property)

Recorded Land Title Records: _____

Building Department Records: _____

Zoning/Land Use Records: _____

Other (Describe): _____

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Chapter IV - Initial Assessment
Initial Assessment Report Example

**U.S. Department of the Interior
Bureau of Land Management
Eugene District**

**ENVIRONMENTAL
INITIAL ASSESSMENT REPORT**

Proposed Real Property Acquisition

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

ORXXXXX

October 1, 1996

**Prepared By:
XXXX X. XXXXXXX
Env. Prot. Spec.
(XXX) XXX-XXXX**

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**ENVIRONMENTAL
INITIAL ASSESSMENT REPORT**

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

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B Contaminant Survey Questionnaire	
C Government Records and Historical Sources Research	
D Site Conditions Observations	
E Site Photographs	

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Summary

The real property proposed for acquisition is owned by Mr. XXXXXX XXXXXX.

There are two separate parcels of vacant, unimproved lands bordering the east side of the Long Tom River north of Clear Lake Road in Lane County, Oregon.

Parcel I is 156.69 acres and Parcel II is 145.34 acres.

The Subject Property currently include pastures and various tree species such as fir, yew, oak, and other vegetation such as buffalo grass and ferns.

A Contaminant Survey Questionnaire was provided to the landowner, Mr. XXXXXX XXXXXX. The Oregon Department of Environmental Quality (DEQ) Office in Eugene was visited on August 8, 1996 and September 17, 1996 to review government records. Historical Sources in the form of aerial photographs were reviewed during the site reconnaissance and in the office. The site reconnaissance was conducted on September 4, 1996.

There were no recognized environmental conditions identified on the Subject Property, adjoining property, or surrounding property that could affect the Subject Property.

Based on work completed as part of this Initial Assessment, it is reasonable to conclude that there are no hazardous substances, petroleum products, or environmental liability associated with this property.

No further inquiry is needed and acquisition of this real property is recommended.

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1.0 Introduction.

1.1 Purpose.

The purpose of the Initial Assessment was to identify Recognized Environmental Conditions on the Subject Property, identify Recognized Environmental Conditions on adjoining property which could affect the Subject Property, and to determine if further inquiry was needed to assess Recognized Environmental Conditions for purposes of appropriate inquiry.

1.2 Description of Real Property.

The Subject Property is owned by Mr. XXXXX XXXXXX.

The Subject Property is located approximately 11 miles west of Eugene, Oregon in Lane County and North of Fern Ridge Reservoir and East of the Long Tom River. Past and current uses of the Subject Property include pastures and forestry. BLM use after acquisition will be for the same purposes.

The Subject Property consists of two land parcels separated by an intervening ownership. Parcel I is approximately 2,640 feet south of Parcel II. These two parcels are separately described as follows:

Parcel 1:

The parcel is irregular in shape and is 156.69 acres in size. It is bordered on the west by the Long Tom River, and traversed in the easterly portion by Coyote Creek.

There are two pastured areas separated by the old Long Tom River channel. The remainder of the property is covered by various tree species such as fir, yew, and oak. Other vegetation includes buffalo grass and fems.

The frontage on the Long Tom River is approximately 1230 feet and Coyote Creek, a year round stream, traverses the eastern potion of the parcel.

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Parcel 2:

The parcel is irregular in shape, level, and bordered on the west by the Long Tom River with approximately 2,750 feet of river frontage. Vegetation includes pasture grass, buffalo grass, various small trees and undergrowth, and heavy stands of large to small oak trees. There is also a duck pond on the parcel.

A Vicinity and Site Map of each parcel is provided in Appendix A.

1.3 Limitations.

This Initial Assessment was conducted using AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) STANDARD PRACTICE E 1527 and E 1528. Use of these practices was to allow the Department to qualify for the innocent landowner defense to CERCLA liability by conducting appropriate inquiry into the current and previous ownership and uses of the property.

The Initial Assessment was designed to reduce the uncertainty associated with the identification of Recognized Environmental Conditions but does not totally eliminate the likelihood of Recognized Environmental Conditions on the Subject Property.

2.0 Contaminant Survey Questionnaire

A transaction screen was provided to the landowner and returned with a response provided to each of the questions. In addition, a telephone interview was conducted with Mr. XXXXXX on August 30, 1996 whereby he stated, to the best of his knowledge, there were no environmental problems on site. Mr. XXXXXX did state that marijuana had been found growing on the site in the past.

Further, an employee of Mr. XXXXXX, Mr. XXX XXXX, was interviewed on September 4, 1996. Mr. XXXX stated he had worked for Mr. XXXXXX for 6 years and had been on both parcels. He had found a few drums, but they were empty. He had also found a few small tire dumps but couldn't recollect where. He said the only structure he was aware of was a small barn near the Long Tom River on Parcel II but it had collapsed and been burned.

Mr. XXXXXX did not identify any Recognized Environmental Conditions on the Subject Property and/or adjoining property.

The Contaminant Survey Questionnaire is provided in Appendix B.

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3.0 Government Records and Historical Sources.

Government records at the Eugene Office of the Oregon Department of Environmental Quality (DEQ) were reviewed on August 8, 1996 and September 17, 1996. In addition, a phone call was made to the Portland Office of the Oregon DEQ to determine if there were any RCRA generators in the local area. The results were negative.

No Recognized Environmental Conditions were identified on the Subject Property, adjoining property, or surrounding property that could affect the Subject Property.

Historical sources reviewed consisted of a 1990 and 1993 aerial photographs. No Recognized Environmental Conditions were identified on the Subject Property, adjoining property, or surrounding property that could affect the Subject Property.

A summary of government records and historical sources reviewed is provided as Appendix C.

4.0 Site Reconnaissance.

The site reconnaissance was conducted on September 4, 1996, beginning at 0800 hours and concluding at 1130 hours. The weather was warm, approximately 75 degrees, with light clouds and some overcast.

Parcel No. 1 is approximately 157 acres and is primarily flat. There are two pasture areas and the remainder is a mix of vegetation. Due to the heavy growth in some areas, not all the property was visually inspected. The area east of Coyote Creek was not inspected. One rusty 55-gallon drum and 5 tires were located on the property but did not require further investigation or constitute a problem.

Parcel No. 2 is approximately 145 acres and is also flat. The major portion of the parcel is pasture with the remaining portion consisting of vegetation including oak, fir, and various brush and grass species. There is also a duck pond in the eastern segment.

There were no structures on the Subject Property.

The adjacent and surrounding property was observed during the inspection. The Long Tom River is the west boundary on both parcels. Adjoining property for both parcels is timber and agricultural. The surrounding property is forestry and agricultural with a few residences.

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There were no Recognized Environmental Conditions identified during the site reconnaissance.

The Site Conditions Observations Screen is provided as Appendix D. Site photographs are provided as Appendix E.

5.0 Conclusions.

The findings of this Initial Assessment support the following conclusions:

1. Review of Government Records and Historical Sources did not identify any Recognized Environmental Conditions in connection with the Subject Property.
2. The site reconnaissance did not reveal any Recognized Environmental Conditions in connection with the Subject Property.
3. No further inquiry is needed.

6.0 Recommendations.

No evidence of hazardous substances, petroleum products, or environmental liability was discovered on this real property. No further inquiry is needed to assess Recognized Environmental Conditions for purposes of appropriate inquiry;

THEREFORE:

Acquisition of this real property is recommended.

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7.0 Approvals.

Prepared By:

Signature _____

Title: Environmental Protection Specialist Date: _____

Recommended By:

Signature _____

Title: Coast Range Area Manager Date: _____

Approved By:

Signature _____

Title: District Manager Date: _____

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Chapter V - Phase I Environmental Site Assessment
High Risk Use

Use List	Typical Contaminant of Concern
air strip	pesticides/herbicides mixing, fuel spills and tanks
auto battery recycling	lead, acid
cathodic protection	lead
communications site	fuel, lead
concession	fuel, general chemicals
dairies	nitrates
drug labs	variety of hazardous chemicals
dry cleaning	solvents
dumps	chemical and biological
electrical transformers	PCBs
feed yards	nitrates, pesticides
fire stations	fuel, solvents
generating stations	PCBs, lead
golf course	nitrates
incinerators	heavy metals
laboratory	spent chemicals
landfills	chemicals, biological
maintenance yards	solvents
manufacturing	chemicals
mercury switching	mercury
mercury metering	mercury
gas pipelines	mercury
metering stations	mercury, lead
military ranges	lead, unexploded ordinance
mining/milling	heavy metals, chemicals
petroleum production	acids, heavy metals, solvents, petroleum spills
pipelines	petroleum products
plant nursery	nitrates, pesticides/herbicides
plating	chrome, heavy metals
pole treating	arsenic, creosote, penta
pumping stations	fuel tanks

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Chapter V - Phase I Environmental Site Assessment
High Risk Use

Use List	Typical Contaminant of Concern
rail lines	hazards carried by rail, herbicides
salvage yards	heavy metals, solvents
schools, high school	spent chemicals
scrap metal	heavy metals, solvents
service stations	fuel, solvents, lead
shooting ranges	lead
storage facilities	chemicals
sub stations	PCBs
transfer station	chemicals, biological
wire burns	lead, dioxin

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BUREAU OF LAND MANAGEMENT
ARIZONA

Phase I Environmental Site Assessment

Ranch at Palominas

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Appendix {NOTE: Appendix not included.}
 Site Map
 Surrounding Analysis Map
 Photos w/photo points
 Chain of title, leases
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**Environmental Site Assessment
Ranch at Palominas**

Summary

This property has a variety of features that require consideration as a source of contaminants or recognized environmental conditions. These include an old dump, a group of cottonwoods with early yellowing leaves, six electrical transformers, and irrigated agriculture. All concerns for these features were resolved through investigations and verification testing and analysis. As a result this property has no recognized environmental conditions within the scope of this assessment that would prevent the acquisition of this property.

Introduction

Purpose.

The Ranch was identified in the Resource Management Plan approved on August 12, 1984, as property that would facilitate the management and consolidate the ownership on the San Pedro National Conservation Area. Funding for this property was requested in the Land and Water Conservation Fund and was approved in the 1995 fiscal budget

Special Conditions.

Two segments of the farm are to be excluded from the purchase, 25 acres to include the farm house and the farm buildings, and 11 acres on the northeast property corner adjacent to the river.

Limitations.

None

Location and Legal Description

Location/Description.

The subject property lies just south of Hereford, in Cochise County, Arizona. The Tucson Field Office manages the public land in this area. Legal Description: T. XX S., R. XX E. portions of Sections X, X, and X. Mail ZIP code XXXXX. See the map in the Appendix.

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Serial No.

AZA XXXXX

Land Ownership.

XXX XXXXXX XXXXXX

Physical Setting

General.

The Palominas area is located near the center of the San Pedro Basin, less than one mile west of the San Pedro River. The river's origin is to the south in Mexico and during flooding, brings sediments and debris. This north-south trending valley is flanked by the Huachuca Mountains on the west and the Mule Mountains on the east.

Geology.

The central part of the valley, like most valleys of the Basin and Range province, is covered by both consolidated and unconsolidated basin-fill sedimentary deposits, up to or over 1,000 feet thick.

Hydrology.

According to Jackson, et al- (1987), these deposits, consisting predominantly of interbedded gravels, sands, silts, and clays, form the regional aquifer. Local aquifers occur in flood plain deposits in the immediate vicinity of the river. Wells on the subject parcel require pumping, although there is an area of artesian flow immediately east of the subject parcel. Jackson, et al. (1987. p. 97) stated, "Groundwater moves down gradient from the mountain fronts toward the San Pedro River which is the discharge point for most of the groundwater system. Here the groundwater flows into the more porous sediments of the flood plain aquifer, discharging into the San Pedro river channel and maintaining its flow." Jackson, et al- (1987) reported that groundwater in the area moves much more easily horizontally than vertically due to numerous impermeable layers of clay that disrupt vertical flow, and laterally continuous layers of very permeable sand and gravels that provide excellent hydraulic conductivity. According to Konieczki (1980), groundwater flow in the area is influenced by the east-west conductivity from the mountains to the river, and by the northerly flow of the river, making the groundwater in the area of the subject parcel flow to the northeast. Konieczki (1980) produced a map showing water levels in the immediate area of the subject parcel to be approximately 50 to 100 feet below the surface.

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Soils.

The soils in the area consist of the Gunsight and Rillito series on old alluvial fans and the Cherioni series on hills and lower slopes. Rock outcrop makes up the rest of the surface features. The Gunsight and Rillito soils are deep and well drained. These soils are in hydrologic Soil Group A. The Cherioni soils are shallow and well drained. These soils have a hardpan that rests directly over bedrock at depths of less than 20 inches. These soils are in Hydrologic Soil Group D (SCS, 1976)

Climate:

The subject area is characteristic of the lower Sonoran Desert. Annual precipitation is less than 7 inches. Evaporation rates are high and because of high summer temperatures. Average/mean statistics are as follows:

Average minimum January temperature: 42.9 degrees F
Average maximum July temperature: 102.0 degrees F
Mean days w/ maximum temperature > 90 degrees: 161 days
Mean days w/minimum temperature < 32: 6 days
Average annual precipitation: 6.47 inches
Reference Cited:

Jackson, William, Martinez, Tony, Cuplin, Paul, Minkley, W.L., Shelby, Bo, Summers, Paul, McGlothlin, Dan, and Van Haveren, Bruce, 1987, Assessment of water conditions and management opportunities in support of riparian values: BLM Sari Pedro River Properties, Arizona, Project Completion Report. U.S. Department of Interior, Bureau of Land Management Service Center, Denver, Colorado, 180pp.

Konieczki, A.D., 1980, Maps showing ground-water conditions in the upper San Pedro basin area, Pima, Santa Cruz, and Cochise Counties, Arizona-1978. U.S. Geological Survey, Water-Resources Investigations, Open-File Report 80-1 192, Tucson, Arizona, 70 pp., 2 maps.

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Record Review**Historical Use.**

This property has historically been used for irrigated farming. The only changes have included improvements in pumping and irrigation equipment. The property has a total of 11 recorded wells, 6 of which are currently being used for irrigation. All six wells use four phase electric power, which has been updated from three phase. In the past diesel motors were used to power the pumps. With this level of power demand on the property, a large number of electrical transformers are expected. Although no fuel storage tanks are of record, they are expected to be on the property to either fuel, in the past, the diesel motors or the current use for farm equipment.

Environmental Liens.

None on Record.

Chain of Title.

A chain of title search was performed and can be found in the Appendix. Ownership has been restricted to individuals, farming and ranching entities, and a bank (apparently due to a creditors default). Recent and most historic owners were recognized as farm and ranch operators.

Aerial Photos.

Aerial photos were reviewed spanning a period from 1939 to 1988. Land uses appeared to be limited to farming and ranching. The addition of irrigation pivots in 1985 to the present total of three can be seen, along with the dump, initiated in 1952 and the gravel pit in 1967. No otherwise identified indicators of possible problems were identified.

Transaction Screen Process.

The interview process was expected to be more productive than a Transaction Analysis Screen (TAS), since there was no long time residents of the subject property. Therefore the TAS process was not used.

Encumbrances.

The only legal encumbrance of record on the property is a 115 KV power line on the southern edge of the near the boundary. It is owned by Arizona Public Service Company.

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Authorizations.

None on Record.

Other Records.

None.

Environmental Records

These cover both the site, adjacent land and other sites at a range of distances from the boundary of the property under assessment.

Records Reviewed*	Minimum Search Distance from Property Boundary	Agency*	YES	NO
Emergency Response Notification System (ERN)	On the Property	BLM		XXX
National Priority List (NPL)	1 Mile	EPA		XXX
Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)	.5 Miles	EPA		XXX
Water Quality Arizona Reclamation Fund (WQARF)	1 Mile	ADEQ		XXX
Treatment, Storage, and Storage Facilities (TSDF)	1 Mile	ADEQ		XXX
Resource Conservation and Recovery Act Generators (RCRA)	On or adjacent to the property	ADEQ		XXX
Emergency Response Reports (SARA 304)	On or adjacent to the property	ADEQ		XXX
Underground Storage Tanks (UST)	On or adjacent to the property	ADEQ		XXX
Leaking UST (LUST)	.5 Miles	ADEQ		XXX
Contaminated Well Record	On or adjacent to the property	ADWR		XXX
Landfills and Dumps	.5 Miles	ADEQ/BLM		XXX

* Records Name and Agency will Vary from State to State

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Information from the records is as follows:

*The only reported leaking underground storage tank is located at the Palominos/Hereford Airstrip, approximately 2 miles north of the site. This should not affect the site since the ground water flow moves in the opposite direction and the release was not of significant size. No recorded underground storage tanks are listed on the site or on adjacent property. This does not mean that tanks do not exist since farm use has size exemptions and not all tanks required to be registered actually are recorded.

There is a dump on the property located in Section 8, adjacent to the property line on the north edge and the State of Arizona excavated gravel in the southern part of Section 9.

There are eleven recorded wells on the property. These are as follows: Identification #, 642035 to 642044 inclusive and 642072. The depth of these well ranged from 50 to 340 feet. The standing water level in the wells averaged 50 feet. The earliest date of a well filing was 1952 and the latest was 1982. None of these wells are identified as contaminated by the Arizona Department of Environmental Quality.

Interviews

XXXX XXXXXX, the current lessee was, asked about the site. Mr. XXXXXX has leased the site for the past 4 years. He has done most of the modernization and improvements on the site. These include the removal of two known underground storage tanks, the upgrading of the electric well pump motors, excavation and cleanup of the known dump, and general trash cleanup. The previous lessee was not known to have improved the property.

XXXX XXXXXX with the Nature Conservancy is directly involved with the acquisition of the property and is well acquainted with the site. He has followed the cleanup of the dump, the general trash cleanup, and walked the entire river boundary. He did not find any indicators of contamination along the river, but has some concern about the dump. Although the dump was excavated, he was going to check the residual material for any contamination. Mr. XXXXXX also mentioned that some cottonwoods near-the river were turning yellow and dropping as if it was fall.

Jim XXXXXX, the County Extension Agent, was asked about his knowledge of the property. Mr. XXXXXX has worked in the County for the past 26 years. He has advised the past lessee of the property on pesticide applications and considers all the past users to prudently use all farm chemicals. One of the longest tenants even practiced organic farming for more than 10 years.

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Surrounding Analysis

Most of the property around the site has and is currently being used for farming. There are commercial uses for a general store on the north side of the site. The majority of the east boundary of the site is San Pedro River and since this river flows north from Mexico, some debris has been carried onto the site from seasonal flooding. The ground water aquifer flows to the north east and is affected to a much larger extent than the surface flow. Therefore, any adjacent contamination to the site can be expected to be impacted more from the ground water than from the surface runoff. The property to the west has the greatest off site influence from both a surface and ground water pathway on the subject property.

Inspection Strategy

General concerns for contamination on agriculture land always include underground fuel storage, accumulation of pesticides and herbicides, proper disposal of pesticides, irrigation tail waters, and equipment cleaning and repair areas. Specific to this property are the existence of old/abandoned underground storage tanks, contaminate indicators in surface flow accumulation areas like the gravel pit in the south edge of the site, pump sites, age and condition of the transformers, dead end roads, the cause for the yellowing of leaves on a group of cottonwoods and the condition of the excavated dump. The exclusion of the equipment areas, yard and all of the buildings from the acquisition, precluded our concern for these areas. The dump stands out as a contaminant concern. Even though most of the dump has been removed, verification test for pesticides and herbicides are suggested.

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 Chapter V - Phase I Environmental Site Assessment
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Site Inspection: Date of Survey, July 7, 1995

(optional checklist constructed from site records)

Inspection Item		Onsite	Nearby
1.	Dumps, especially with drums or containers (Read labels if possible. Do not open or handle. If no labels, note identifying characteristics).	Yes	No
2.	Other debris: household, farm, industrial waste, burned areas.	Yes	No
3.	Fills/depressions: possible cover for dumps	No	No
4.	Unusual chemical odors.	No	No
5.	Storage tanks/stand pipes: petroleum products, pesticides, etc.	No	No
6.	Buildings: chemical storage, equipment repair, solvents.	No	No
7.	Structures evidence of asbestos, sprayed fire proofing, acoustical plaster.	No	No
8.	Vegetation different from surrounding for no apparent reason, e.g. bare ground.	Yes	No
9.	“Stereo” or modified water bodies.	No	No
10.	Oil seeps, stained ground, discolored stream banks.	No	No
11.	Oil Slicks on water, unusual colors in water.	No	No
12.	Spray operation base: equipment, parking area.	No	No
13.	Machinery repair areas.	No	No
14.	Pipelines: major electrical equipment.	No	No
15.	Oiled or formerly oiled roads.	No	No
16.	Electrical transmission lines; pole mounted transformers, pad mounted transformers, evidence of leakage.	Yes	No

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Narrative:

The only dump on the north edge of Section 8 had been excavated and left open. The pit is about 20 feet in diameter and 12 feet deep. The exposed side of a 10-gallon container remained in the wall of the pit about one half way down. This should be removed. There is no staining in the lower two thirds of the pit and black burn markings in the upper one third. Any volatiles were probably burned. The excavated material included wire, and miscellaneous metal and concrete scrap. No containers were found in this material. Testing of this dump was suggested to verify that no contaminants were present. The details of the laboratory results can be found in the Appendix.

A group of cottonwoods with yellowing leaves covering about 5 acres near the River in Section 8 were examined to determine if contaminants caused the change. Individual branches and entire trees were affected. On those trees with just affected branches, the adjacent branches from the same tree appeared healthy. If contaminants were taken up by the roots then this individual branch yellowing would not occur. Contacts were made with Dr. XXXXX X XXXXX of Arizona State University. An associate of hers had inspected the area suspecting damage by the longhorn beetle. After evaluation, the professional opinion is that the yellowing is caused by moisture stress. This time of year is especially stressful in that monsoon rains have not arrived and winter moisture is running out.

Facilities.

Since the buildings were excluded from this acquisition, the only facilities are the electrically powered irrigation pumps and the power line. Electrical transformers were located at or near all six wells. They appear to be in excellent condition without any sign of leakage. Adjacent property transformers looked the same. Since the electrification of the irrigation system has taken place within the last few years and new equipment was used, polychlorinated biphenyls, a carcinogen, are not expected to be present in the transformers. The power line owned by APS was also recently constructed. APS stated that no PCB transformers were used.

Agriculture Drainage History

There is no tail waters/irrigation return water system on the site. Irrigation is closely regulated to avoid any runoff. The only accumulation of drainage waters appears to be in the area excavated for gravel and then only in insignificant quantities.

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Physical Setting Analysis

The direction of both surface and ground water are similar. The variability of ground water depth relates to the geologic structure in the area. From a pathway stand point, only the San Pedro River on the eastern boundary and the land to the west of the subject property pose any threat of off-site contaminants. The inspection of the Rivers riparian only identified the early leaf yellowing as mentioned, which was not caused by an off-site contaminant source. The farm to the west is used to grow grain crops just like the subject property. No other contaminant sources were identified during the inspection.

Findings and Conclusions

We have preformed a Phase I Environmental Site Assessment within the scope of ASTM Practice E 1527 and Departmental Manual 602 DM 2 of the Property described in the Legal Description section. This assessment has revealed no evidence of recognized environmental conditions in connection with this property.

Recommendations for Additional Study

Neither a Phase II nor Phase III is recommended.

Certification

I hereby certify that to the best of my knowledge, no contaminants/recognized environmental conditions are present on this real property and there are no obvious signs of any effects of contamination.

Signature of Preparer

Date

Signature of Reviewer
(If required)

Date

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Recommendation:

I recommend that the proposed acquisition be approved:

Print Name

Signature (1st Line Manager)

Date

Title

Approval:

I concur with the above recommendation:

Print Name

Signature (2nd Line Manager)

Date

Title

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ASTM - The American Society for Testing and Materials is a private, not-for-profit, standards-writing organization chartered with development and publication of specifications, tests, and practices concerning engineering materials, manufacturing products, and the environment.

Contaminant Survey Questionnaire - A questionnaire that may be sent to the current landowner or is the basis for asking questions during interviews. It is a modified form of the transaction screen described in ASTM Standard E-1528 and is intended to be used as described in the standard.

Due Diligence - Comes from judicial law and establishes the standard for ESAs under the innocent landowner defense as acquiring and analyzing all reasonable ascertainable records related to or that may affect a site. It is the process of inquiring into the environmental characteristics of a parcel of real estate. The degree and level of effort vary for different properties and differing purposes.

Hazardous Substance and Release - Is defined in 602 DM 2 as all CERCLA listed substances, petroleum products, nuclear source materials, and unexploded ordnance. A release means any unauthorized discharge of a hazardous substance into the environment.

Historical Sources - Sources that provide information about past uses of the site. Sources generally include aerial photographs, property tax files, recorded land title records, and similar records/sources.

NSTC - National Science and Technology Center is a BLM organization located in Denver, Colorado that provides direct and contracted service in Hazmat site evaluation, risk assessment, facility audits, cost recovery/potentially responsible party searches, and natural resource damage assessment and restoration services to field offices.

Pathways - Media through which hazardous substances and/or petroleum products move through the environment. The four pathways are generally soil (direct contact), surface water, groundwater, and surface water. The term fate and transport is also used which refers to how the materials are affected as they move through the environment. The pathways of most concern during the ESA are soil and groundwater.

Pre-Acquisition Environmental Site Assessment (ESA) - Is defined in 602 DM 2 as an environmental site assessment, prior to acquisition, to determine the potential of and extent of liability for hazardous substances or other environmental remediation injury. This includes, but is not limited to, a determination of the absence or presence of hazardous substances or conditions that indicate an existing or past release, or a material threat of a release on the real property, into the air, soil, sediment, groundwater, surface water, or any structures located on the real property. BLM has adapted the ASTM standards to develop a process that includes up to 5 levels of effort associated with the process.

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Real Property - Any land or an interest therein, and all buildings, structures, and improvements affixed to the land acquired by the BLM unless determined, with concurrence of the Office of the Solicitor, that no environmental liability will attach to such interest.

Real Property Acquisition - Real property obtained either through discretionary acts or when acquired by law, whether by way of condemnation, donation, escheat, right-of-entry, escrow, exchange, withdrawal revocations or terminations, lapses, purchase, or transfer and that will be under the jurisdiction or control of the United States for any period of time, however short.

Recognized Environmental Condition (REC) - The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Records Review - The review of records that will help identify recognized environmental conditions in association with the property. These records may be located at Federal, State, and local jurisdictions. Examples include National Priority Listed sites, State listed sites, underground storage tanks, leaking underground storage tanks, BLM Historical Indices, and any other records that might indicate potential problems on a parcel of property.

Release - As defined in 40 CFR 300 and CERCLA Section 101(22). Includes any “spilling, leaking, discharging, injecting, pumping, pouring, emitting, escaping, leaching, dumping, or disposing into the environment, including abandoning or discarding barrels, containers, and any other closed receptacles containing any hazardous substance or pollutant or contaminant.”

Site Reconnaissance - The process for physically observing a parcel to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property (ASTM Standard E-1527 8.0). The terms site inspection, site observation, site visit, and others are also used.

Statement of Work - The SOW is a step in the BLM contracting process that is a clear statement of the work required to be completed during the contract. It becomes the basis for developing the government cost estimate.

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Part 602 DM 2, PUBLIC LANDS; Land Acquisition, Exchange and Disposal; Real Property Pre-Acquisition Environmental Site Assessments; RELEASE NUMBER 3047; Dated Sep 29, 1995

AMERICAN SOCIETY FOR TESTING AND MATERIALS, Designation E 1527; Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

AMERICAN SOCIETY FOR TESTING AND MATERIALS, Designation E 1528; Standard Practice for Environmental Site Assessments: Transaction Screen Process

Site Auditing: Environmental Assessment of Property, Specialty Technical Publishers, Inc., 267 West Esplanade, Suite 306, North Vancouver, B.C. CANADA V7M 1A5

Title 40, CODE OF FEDERAL REGULATIONS, Part 300: National Oil and Hazardous Substances Pollution Contingency Plan

EPA SW-846 (Solid Waste) - Environmental Analytical Methods