



Conservation Evaluation and Monitoring Activity

Site Assessment and Soil Testing for Contaminants Activity

CEMA 207

Definition

An environmental assessment of the site and soil suitability for use in the cultivation of crops in urban and suburban areas.

Applicable Land Uses

Crop, Forest, Range, Pasture, Farmstead, Associated Agriculture Lands, Other Rural Land, and Developed Land.

REQUIREMENTS

Qualified Individual Requirements

The Natural Resources Conservation Service (NRCS) strongly encourages participants to know the following Qualified Individual (QI) Requirements to ensure the person they hire is a good match for their needs and objectives.

A QI for this CEMA must meet one of the following:

- Professional Engineer's or Professional Geologist's license or registration and three years of full-time relevant experience; or
- Licensed or certified by a state, tribe, or the Federal government to perform All Appropriate Inquiries and have three years of full-time relevant experience; or
- Bachelor's degree or higher in science or engineering and five years of relevant, full-time work experience; or
- Ten years of relevant, full-time work experience.

Individuals under the guidance or management of a QI are allowed to collect soil samples and perform environmental site assessments.

General Requirements

- 1) This CEMA includes the performance of work and documentation of the tasks, results, interpretations, and other activities described herein by a QI.
- 2) Prior to initiation of the CEMA, the QI must arrange a pre-work conference to ensure all parties understand the participant's objectives, required deliverables, and characteristics of the CEMA tasks.
 - a) The parties in the pre-work conference must include the participant, the QI, and the NRCS field office staff. The parties should agree whether they will join in-person or join via phone, web-meeting, etc.

- b) If the participant will employ a Technical Service Provider (TSP) to implement a Conservation Planning Activity (CPA) or Design and Implementation Activity (DIA) that will be supported by results of this CEMA, it is recommended to invite them to the pre-work conference as well.
- 3) A QI may use any reference information, resource concerns, conservation practice standards and related documents served in the NRCS Field Office Technical Guide (FOTG) for the state where this CEMA is performed. The FOTG home page hyperlink is:
<https://efotg.sc.egov.usda.gov/#/>

Technical Requirements

1) Basic Site Assessment

- a) QIs must have certification for conservation plan development and job approval authority as appropriate. QIs may include Technical Service Providers or State or Federal Agency Partners.
- b) The site assessment activities include interviewing owners, operators and occupants; reviewing historical sources of information and federal, state, tribal and local government records; and performing visual site inspections.

2) History of Site

The QI must be an environmental professional as defined under QI Requirements above.

The QI will conduct Environmental Site Assessments as described according to industry standards for identifying potential environmental concerns according to previous uses of the property.

- a) ASTM-E1527: "Environmental Site Assessments: Phase I Environmental Site Assessment Process".
 - i) The QI shall use Phase I Environmental Site Assessments (ASTM 1527) and All Appropriate Inquiry (40 CFR 312).
- b) ASTM-E1903: "Environmental Site Assessments: Phase II Environmental Site Assessment Process"
 - i) The QI develops a sampling plan to evaluate the potential presence of contamination from hazardous substances and petroleum on the property and determines the sources and exposures. The QI will identify chemicals of concern, sample and test soil, and further investigate areas of concern.

DELIVERABLES

These deliverables apply to the Conservation Evaluation and Monitoring Activity (CEMA) 207 – Site Assessment and Soil Testing for Contaminants Activity.

Cover Page

Cover page reporting the technical services provided by the QI. Cover page(s) must include the following:

- 1) CEMA name and number.
- 2) Participant information: Name, farm bill program name, contract number (QI obtains contract number from participant), land identification (e.g., state, county, farm, and tract number).
- 3) QI name, mailing address, phone number, email.
- 4) A statement by the QI explaining how they currently meet the Qualified Individual Requirements for this CEMA. Attaching or enclosing a copy of documentation for how the QI requirements are met is encouraged. Examples include:
 - Certification Name and Number,
 - License Name and Number,
 - Agricultural Retailer Business Name, or
 - Other brief written statement indicating how the requirements of a QI for this CEMA are met.
- 5) A statement by the QI that services provided meet NRCS requirements, such as:

I certify the work completed and delivered for this CEMA:

 - *Complies with all applicable Federal, State, Tribal, and local laws and regulations.*
 - *Meets the general and technical requirements, as well as all other deliverables for this CEMA.*
 - *Is consistent with and meets the conservation objectives for which the program contract was entered into by the participant.*
 - *Addresses the participant's conservation objectives for this CEMA.*

QI Signature: _____ *Date:* _____

- 6) A Participant's acceptance statement, such as:

I accept the completed CEMA deliverables as thorough and satisfying my objectives.

Participant Signature: _____ *Date:* _____

- 7) A designated space for NRCS Reviewer to certify the agency's acceptance of the completed CEMA and, such as:

NRCS administrative review completion by:

Signature: _____ *Title:* _____ *Date:* _____

Notes and Correspondence

- 1) Brief overview of the participants objectives.
- 2) Document each site visit, its participants, the activity completed in the field, and results of each site visit.
- 3) Copies of correspondence between the QI and the participant relating to decision-making and completion of this CEMA.
- 4) Copies of observations, data, technology tool output, or test results prepared during completion of this CEMA.

Maps

- 1) Basic Site Assessment or ASTM-E1527 “Environmental Site Assessments: Phase I Environmental Site Assessment Process” to include, but not limited to:
 - a) General location map of the implementation areas showing access roads to the location.
 - b) Conservation Plan map(s); may consist of several maps (soils, water courses, etc.) to account for the entire implementation area. These maps may be obtained from the participant or from NRCS once the participant has signed the appropriate permission to release conservation planning data.
 - c) Other maps as needed, with appropriate interpretations.
- 2) ASTM-E1903 “Environmental Site Assessments: Phase II Environmental Site Assessment Process” to include, but not limited to:
 - a) General location map of the implementation areas showing access roads to the location.
 - b) Conservation Plan map(s); may consist of several maps (soils, water courses, etc.) to account for the entire implementation area. These maps may be obtained from the participant or from NRCS once the participant has signed the appropriate permission to release conservation planning data.
 - c) Map showing the sampling plan used to collect samples for evaluation of heavy metals or other contaminants.
- 3) At a minimum, all maps developed for this CEMA will include:
 - a) Map Title.
 - b) Participant’s name (individual or business).
 - c) Assisted by [QI planner’s name].
 - d) Name of applicable Conservation District, County and State.
 - e) Date prepared.
 - f) Map scale.
 - g) Information needed to locate the assessment or monitoring area, such as geographic coordinates, public land survey coordinates, etc.
 - h) North arrow.
 - i) Appropriate map symbols and a map symbol legend (on map or as attachment).

Evaluation or Monitoring Results

- 1) Soil Sampling and Testing
 - a) Develop a sampling strategy, describing the sampling methodology, with a map to evaluate the potential presence of contamination from hazardous substances and petroleum on the property and determines the sources and exposures.
 - b) Collect soil samples following appropriate safety protocols and industry standards.
 - c) Prepare soils for transport to accredited laboratory for chemical analysis of heavy metals or other contaminants.
 - d) Receive soil test results of full metal panel, polycyclic aromatic hydrocarbons, and additional constituent analysis.

Documentation

- 1) Completed forms Environmental Site Assessments (ASTM 1520), All Appropriate Inquiry (ASTM 312) or NRCS ACEP HazMat Checklist and ACEP HazMat Interview. *If the assessment indicated no evidence of the presence or likely presence of any heavy metal, hazardous substance or other contaminants, then no further action to evaluate soil contamination is needed.*
- 2) Results of soil test for heavy metals or other contaminants.
- 3) Results and report from prior NRCS screening of heavy metals conducted by qualified NRCS uses of the portable x-ray fluorescence (pXRF).
- 4) State approved risk threshold levels based on residential bare soil use for any metals detected.
- 5) Conclusion statement
 - a) that the assessment has revealed no evidence of the presence or likely presence of any hazardous substances in, on, or at the site, no further action to evaluate for soil contamination is needed, OR
 - b) the assessment revealed the presence of any hazardous substance or compared to the State approved risk threshold levels, the soil is safe for agricultural reuse, OR
 - c) the contamination found at the property exceeds State approved risk thresholds for the proposed agricultural reuse. NRCS will refer the client to US EPA Brownfields and Land Revitalization Program.

Deliver Completed Work

- 1) The QI must prepare and provide the participant two sets of all of the items listed in the **General Requirements**, the **Technical Requirements** and the **Deliverables** sections of this document.
- 2) One set is for the participant to keep.
- 3) The other set is for the local NRCS Office.
- 4) The QI may transmit a set of the completed work to the local NRCS Office, if their participant has authorized it.
- 5) An additional copy of the plan should be uploaded to the NRCS Registry under completed works if the Qualified Individual is also a TSP.

It is recommended to provide the NRCS field office an opportunity to review the CEMA deliverables, prior to asking for their acceptance.

References

USDA Natural Resources Conservation Service. National Planning Procedures Handbook
<https://directives.sc.egov.usda.gov/viewerFS.aspx?hid=44407>

USDA Natural Resources Conservation Service. Field Office Technical Guide
<https://efotg.sc.egov.usda.gov/#/>

USDA Natural Resources Conservation Service. National TSP Website.
<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/technical/tsp/>

USDA Natural Resources Conservation Service. National TSP Resources.
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/technical/tsp/?cid=nrcseprd1417414>

ASTM International. 2013. E1527 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

ASTM International. 2011. E1903 Standard Practice for Environmental Sites Assessments: Phase II Environmental Site Assessment Process.