

APPENDIX C
INSTITUTIONAL ANALYSIS AND REPORT

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INSTITUTIONAL ANALYSIS AND REPORT

1.0 PURPOSE OF STUDY

1.0.1 The objective of the institutional analysis is to identify government agencies having jurisdiction over Formerly Used Defense Sites (FUDS) at the former Camp Croft, and assess their appropriateness, capability, and willingness to assert this control. Information obtained during the analysis will be used for formulation of the Institutional Analysis Plan. The Technical Project Planning (TPP) process identified current land use and future land use plans. The five elements listed below were taken into consideration when assessing the ability of a local, state, or Federal agency to assist in the implementation or monitoring of a proposed institutional control program.

2.0 METHODOLOGY

2.1 RESPONSE STRATEGIES

2.1.1 There are three general categories of response strategies to MEC-related risk remaining on FUDS:

1. MEC removal (clearance);
2. Access Control; and
3. Behavior Modification.

2.1.2 The removal of the potential MEC exposure pathway is the ultimate goal, however, on certain sites this cannot be guaranteed. When the complete removal of all MEC cannot be carried out, is not necessary, or is not feasible, access control and behavior modifications become necessary. Access controls and behavior modification are also known as institutional controls. Institutional controls can be implemented as simply as placing signs around an area to warn of the possible dangers, to restricting access to the area of concern, to deed restrictions. Institutional controls must be performed with a joint effort of the property owner(s), local and/or state officials. Institutional Controls are not effective if one does not have the complete participation from all parties.

2.2 ANALYSIS METHODOLOGY

In order to determine the correct institutional controls (or land use controls; LUCs) for the former Camp Croft, the following issues need to be considered:

- Likelihood of MEC;
- Future land use; and
- Public access to the site.

3.0 SCOPE OF EFFORT

This Institutional Analysis report was prepared in accordance with guidance developed by the U.S. Army Engineering and Support Center, Huntsville (USAESCH). This analysis supports the development of strategies that will require the cooperation of private, and state, and Federal authorities. The institutions most likely to be involved variously in implementation of institutional or land use controls include: Corps of Engineers, South Atlantic Division,

Charleston District (CESAC), South Carolina Department of Health and Environmental Control (SCDHEC), the South Carolina State Park Service, and Spartanburg County. The authority of these institutions varies, depending on property ownership; for example, the USACE has no authority to implement LUCs on private property. Additional agencies may become relevant for the institutional controls to work. These agencies will also be evaluated.

4.0 SELECTION CRITERIA

4.0.1 A list of agencies, individuals, and organizations will be selected based on relevance to the institutional control process. A set of criteria was used in the selection of agencies. For each institution selected for review, the following information will be gathered:

- Agency name;
- Origin of institution;
- Basis of Authority;
- Sunset Provisions (refers to the periodic review of government agencies in order to continue their existence);
- Geographic jurisdiction;
- The limits of the agency's authority;
- Public safety function;
- Land use control function;
- Financial capability (in general terms only, not detailed accounting);
- Desire to participate in the institutional control program; and
- Constraints to Institutional Effectiveness.

4.0.2 This information will be included in a future revision of the Institutional Analysis.

5.0 ACCEPTANCE OF JOINT RESPONSIBILITY

All parties would need to accept some level of responsibility for institutional controls to remain viable.

6.0 TECHNICAL CAPABILITY

The South Carolina Parks Department and Spartanburg County have the ability to limit access and provide awareness to residents, visitors, and employees that work within the boundaries of the former Camp Croft. These controls require limited technical capability.

7.0 INTERGOVERNMENTAL RELATIONSHIPS

Intergovernmental relationships exist between SCDHEC, the South Carolina Parks Department, CESAC, and Spartanburg County.

8.0 STABILITY

The CESAC, SCDHEC, the South Carolina Parks Department, and Spartanburg County are government entities and, hence, are expected to be the most stable type of organizations.

9.0 FUNDING SOURCES

The Defense Environmental Restoration Account (DERA) funds the FUDS program. The funding is programmed annually with congressional appropriations. Programming is also reviewed annually and can be modified if necessary.

10.0 RECOMMENDATIONS

A Feasibility Study (FS) is necessary to develop and analyze munitions response alternatives, including Institutional Controls, at the former Camp Croft. The FS will be a stand-alone document.

11.0 INSTITUTIONAL CONTROL ALTERNATIVES ANALYSIS

11.0.1 Managing risks related to MEC hazards can be accomplished through MEC removal actions, access control, public education, or a combination of these strategies. Three causative factors to avoid and understand that help prevent any MEC-related accidents:

- Presence of MEC;
- Access to MEC; and
- Behavior with MEC.

11.0.2 If there is no MEC on a site there is no possibility for a MEC-related accident, and conversely if there is MEC present and public access, there is the risk of a MEC-related accident. If site access is restricted and people are educated about the risk, the chance of a MEC-related accident can be reduced. Institutional Control Alternatives and recommendations presented in this report are based on the assumption that public access at the former Camp Croft site will be unrestricted.

11.1 INSTITUTIONAL CONTROL ALTERNATIVES

There are many ways to protect the public from MEC-related accidents. Institutional controls protect the public and other personnel with little to no impact on day-to-day activities. The following sections briefly describe actions and controls that may be considered for the former Camp Croft site.

11.1.1 Warning Signs

Warning signs are an effective way to inform personnel of the hazards in the area. They can also keep unauthorized personnel from entering a hazardous area. Warning signs should be placed on the outer boundary of the site warning the public of the possible danger if they come closer to the site, and the appropriate actions to take if a suspected munitions item is encountered.

11.1.2 Educational Programs

The use of educational programs is an effective means of reducing risk from public exposure to MEC. Education can be tailored to meet site-specific needs. Examples of educational programs include public notices and formal education sessions. Educating the local community is an important aspect of any institutional control program. Public awareness of the hazards associated with a site will encourage the public to take the necessary precautions to avoid exposure. Educational programs may be audience specific and can be performed as often as necessary to educate those with the greatest risk for exposure to MEC (e.g., construction

personnel). Educational efforts can be a stand-alone institutional control, but can also improve the effectiveness of other controls.

11.1.2.1 Public Notices

The local community can be educated through implementation of a public-notice campaign that may include mailings of informational pamphlets, installation of display cases, public service announcements, or recurrent notices in local newspapers. These educational media can serve to educate the local community and visitors to the area. The following paragraphs provide details concerning various types of public notices that can be used to educate and inform local communities.

11.1.2.2 Community Awareness Meetings

Community awareness meetings are normally held when significant site-specific documents are released to the public and provide information regarding:

- How site-specific information was evaluated in the RI and FS reports;
- MEC previously recovered at the site;
- Options available to remove MEC (if required) and enhance public safety; and
- Recommendations being made to address a particular site.

11.1.2.3 Letter Notifications, Informational Pamphlets, and Fact Sheets

Letter notifications (US certified mail) are an effective means of informing property owners of the results of the RI and FS investigations and the types of MEC that have been found. Letter notifications can be mailed to each landowner/resident within or adjacent to a MEC site to inform them of the investigation results and the proposed recommendations for the area. Informational pamphlets and fact sheets can be developed and distributed to support safety briefings and/or speaking engagements and can be effective as stand-alone educational materials. Informational pamphlets and fact sheets can warn the public of the hazards of MEC and provide information relating to the former military operations that occurred at a site. Informational pamphlets and fact sheets can be mailed to property owners/lessees in the vicinity of an MEC site and be included with seasonal hunting schedules and permits issued by the USFS. Effective pamphlets or fact sheets contain photographs and/or drawings of typical MEC items that the public might encounter and previously recovered MEC locations on a map, and the expected response/safety guidance. A telephone number for the appropriate local authority should be included in the informational pamphlet or fact sheet.

11.1.2.4 Formal Education Sessions

Formal education sessions may include community education classes. The classes can be given to a variety of audiences including public forums, local government, emergency response personnel, property owners, and construction personnel. The training sessions can be tailored to meet the specific interests/concerns of the audience, and can be an effective method to communicate the nature and extent of the hazards associated with MEC and the precautions to be taken in the event a person comes into contact with MEC. The training sessions may either be provided live by personnel knowledgeable in the site-specific conditions or through the distribution of MEC safety awareness training pamphlets or videos to local organizations and public libraries. To be effective, educational sessions need to be recurrent (e.g., every six months) so the public does not become complacent about the hazards associated with MEC.

Formal education sessions that are consistently performed are also successful in educating new homeowners and visitors to the area.

11.1.3 Zoning Restrictions

Zoning restrictions are primarily legal mechanisms imposed to ensure the continued effectiveness of land use restrictions imposed as part of a remedial decision. Legal mechanisms may include restrictive covenants, negative easements, equitable servitudes, and deed notices. Administrative mechanisms include notices, adopted local land use plans and ordinances, construction permitting, or other existing land use management systems that may be used to ensure compliance with use restrictions. All of these measures would require the cooperation of, and coordination with the landowner.

11.1.4 Fencing and Barriers Combined with Trespass Law Enforcement

Direct intervention like fencing and other barriers combined with trespass law enforcement are the most effective way to keep unauthorized personnel from entering a hazardous area. These physical and legal mechanisms are imposed to ensure the continued effectiveness of land use restrictions imposed as part of a remedial decision. All of these measures would require the cooperation of, and coordination with the landowner.

11.2 COST

The cost for each of these institutional controls can vary greatly. The cost analysis of the proposed institutional controls will be provided in detail in the FS report.

12.0 RESIDUAL RISK

12.1 EDUCATIONAL CONTROLS

12.1.1 The use of educational controls is usually a good strategy to manage and reduce residual risk from public exposure to MEC. An educational program may take on many forms and be easily tailored to meet the specific needs of a site and the surrounding community. Examples of educational programs include formal education seminars and public notices (EP 1110-1-24).

12.1.2 Generally, if people are aware of and understand the hazards associated with a MEC-contaminated site, they will take the necessary precautions to avoid exposure. Educational programs can be tailored to meet the specific needs of a particular audience (e.g., local homeowners, school children, regulators, developers, etc.) and can be performed as often as necessary to educate those that are at greatest risk for exposure to MEC. Educational efforts constitute a stand-alone institutional control, but can also improve the effectiveness of other controls that are part of the overall program (EP 1110-1-24).

13.0 ROLES, RESPONSIBILITIES AND AUTHORITIES FOR INSTITUTIONAL CONTROLS

Several agencies and/or organizations would have a role in institutional control alternatives that might be implemented at the former Camp Croft site. Table 1 depicts the control alternative, management role, execution role, and MEC risk reduction if selected as the appropriate alternative for any of the MRS' within the former Camp Croft site. The potential roles, responsibilities, and authorities that each organization will have in implementing, maintaining,

monitoring, and enforcing institutional controls are provided in Table 2. Legal, administrative, and engineering controls are not likely to be implemented as the sole institutional control option. As part of the analysis, stakeholders will be contacted to determine their willingness and capability to participate in implementation of institutional controls, if selected; Table 3a provides a summary of efforts to correspond with stakeholders through the date of the draft Remedial Investigation. This table will be completed once interviews are conducted, concurrent with finalizing the FS document. As a result, each agency's willingness and capability to implement institutional controls is unknown at this time (Table 3b).

TABLE 1 INSTITUTIONAL CONTROLS ALTERNATIVES ANALYSIS

Control Alternative	Management Role	Execution Role	MEC Risk Reduction
Barriers/Fencing with Enforcement	CESAC	TBD	Highly effective at minimizing exposure to potential MEC.
Zoning Restrictions	CESAC	TBD	Moderately effective.
Installation & Maintenance of Warning Signs	CESAC	TBD	Moderately effective.
Appropriate land uses by landowner	CESAC	TBD	Moderately effective.
Notices attached to permits	CESAC	TBD	Highly effective.
Educational Programs	CESAC	TBD	Highly effective.

TABLE 2 - ROLES, RESPONSIBILITIES AND AUTHORITIES FOR IMPLEMENTATION OF INSTITUTIONAL CONTROL

Agency/ Institution	Role	Responsibility	Authority
CESAC	Represents federal government in execution, oversight, and procurement of munitions response actions at former Camp Croft.	<ul style="list-style-type: none"> • Initiate the Decision Document • Inspect condition of signage • Report new discoveries of MEC to SCDHEC • Disseminate information and instructional pamphlets at meetings • 	<ul style="list-style-type: none"> • Fund MEC response actions • Perform MEC investigations and munitions response actions
SCDHEC	SCDHEC represents the state government agency conducting regulatory oversight of munitions response actions at the former Camp Croft	<ul style="list-style-type: none"> • To protect human health and the environment. • Responds to releases, threats of releases, or discoveries of hazardous substances that present a substantial endangerment to public health or the environment. • Enforcement of environmental laws. 	<ul style="list-style-type: none"> • Applicable South Carolina Code • Review/Comment on Decision Documents • Enforcement of environmental laws
South Carolina Parks Department	Represent issues related to site use for recreational purposes and the impacts of Institutional Controls on these uses.	<ul style="list-style-type: none"> • Allow installation of signage alerting recreational users and others of the MEC hazards at the site • Participate in Educational Awareness Program • Distribute information to personnel and site visitors 	<ul style="list-style-type: none"> • Institute and enforce controls on site visitors
Spartanburg County	Represents the county government	<ul style="list-style-type: none"> • Distribute information to county personnel/residence • Participate in Educational Awareness Program 	<ul style="list-style-type: none"> • None

TABLE 3a SUMMARY OF EFFORTS TO CORRESPOND WITH STAKEHOLDERS

Stakeholder	Point-of-Contact	Willingness to Participate in the Institutional Control Program Communications (email and/or telephone)	Response Received y/n
CESAC	Shawn Boone Shawn.A.Boone@usace.army.mil 843-329-8158 (work) 69A Hagood Avenue Charleston, SC 29403-5107		
SCDHEC	Susan Byrd byrdsk@dhec.sc.gov 803-896-4188 (work) Columbia, SC		
South Carolina Parks Department	John Moon jmoon@scprt.com 864-585-1283 (work) 450 Croft State Park Road Spartanburg, SC 29302		
Spartanburg County	Katherine L Hubbard (County Administrator) (864) 596-2526 (Phone) khubbard@spartanburgcounty.org		

TABLE 3b - WILLINGNESS AND CAPABILITY TO IMPLEMENT INSTITUTIONAL CONTROLS

Institutional Control	Willingness				Capability			
	CESAC	SCDHEC	South Carolina Parks Department	Spartanburg County	CESAC	SCDHEC	South Carolina Parks Department	Spartanburg County
Maintenance of Signs	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
MEC Awareness Training	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Issue Pamphlets, Fact Sheets, Brochures with permits (i.e. building permits)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Fencing with Trespass Laws	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Zoning Restrictions	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Note: TBD – To be determined

**ATTACHMENT A
INDIVIDUAL INSTITUTIONAL ANALYSES**

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Name of Agency: Corps of Engineers, South Atlantic Division, Charleston District (CESAC)

Origin of Institution: The US Army Corps of Engineers (USACE) was established in 1775 under the Continental Congress for military and civil works missions. The Corps of Engineers Charleston District (CESAC) was established in 1821.

Basis of Authority: Defense Environmental Restoration Program (DERP) [10 USC Section 2701 et seq.], Executive Order 12580 - Implementing response actions for releases of hazardous substances from each facility that is, or was, under the jurisdiction of the U.S. Department of Defense (DoD) in accordance with DERP and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

Sunset Provisions: None

Geographic Jurisdiction: CESAC area of responsibility that encompasses South Carolina with the exception of the Savannah River Watershed.

Public Safety Function: Responsible for following CERCLA in the execution of the DERP-FUDS program in its area of responsibility. Implements response actions for releases of hazardous substances from Formerly Used Defense Sites were under the jurisdiction of the DoD in accordance with DERP and CERCLA.

Land Use Control Function: Not an agency mission for private property, although they can perform real estate services for the military and civil works activities of the Army and Air Force, and for other federal agencies as requested.

Financial Capability: Defense Environmental Restoration Account (DERA) for environmental restoration activities at non-National Priorities List (NPL) sites, such as Lake Bryant BGR. DoD and State Memorandum of Agreement (DSMOA) to fund states in identifying, prioritizing, investigating, and remediating FUDS in their states.

Desire to participate: TBD

Constraints on institutional effectiveness: CESAC has minimal control relative to implementing, maintaining, monitoring, or enforcing institutional controls on privately owned property.

**Name of Agency: South Carolina Department of Health and Environmental Control
(SCDHEC)**

Origin of Institution: State lawmakers created South Carolina's first State Board of Health in 1878, after a series of yellow fever outbreaks killed 20,000 Americans. In 1950, fish kills and streams polluted with sewage and industrial waste prompted lawmakers to add a Water Pollution Control Authority Board to the State Board of Health. When air pollution control was added in 1965, the environmental arm was renamed the Pollution Control Authority. After a short-lived organizational split in 1970, the Pollution Control Authority and the State Board of Health were reunited in 1973 to form DHEC.

Basis of Authority: Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CFR40: "Protection of the Environment", Chapter I, Parts 1-799-Environmental Protection Agency.

Sunset Provisions: None

Geographic Jurisdiction: State of South Carolina.

Public Safety Function: SCDHEC regulates other federal agencies, state and local governments. It develops and enforces regulations to protect human health and the environment under existing environmental laws.

Land Use Control Function: N/A

Financial Capability: Defense Environmental Restoration Account (DERA) for environmental restoration activities at non-National Priorities List (NPL) sites, such as the former Camp Croft.

Desire to participate: TBD

Constraints on institutional effectiveness: Has responsibility, but not local authority, for implementing, maintaining, monitoring, and enforcing institutional controls at the former Camp Croft.

Agency: *South Carolina State Park Service*

Origin of Institution: In 1967, the General Assembly passed legislation creating the Department of Parks, Recreation and Tourism (PRT), governed by the PRT Commission, whose primary functions were to promote tourism in the state, operate the state parks system, and assist local governments in the development of recreation facilities and programs.

Basis of Authority: South Carolina Constitution and the South Carolina Code of Laws Title 51 - Parks, Recreation and Tourism.

Sunset Provisions: None

Geographic Jurisdiction: State of South Carolina.

Public Safety Function: Law enforcement and emergency services.

Land Use Control Function: Only within the applicable regulatory framework.

Financial Capability: TBD

Desire to participate: TBD

Constraints on institutional effectiveness: TBD

Agency: Spartanburg County, South Carolina

Origin of Institution: "Spartan District" was created in 1795, from Ninety-Six District. In 1791, at the request of the citizens the legislature renamed the same place Spartanburg District (county) in honor of the district/county seat. In 1868, all districts including Spartanburg were renamed counties.

Basis of Authority: CODE County of SPARTANBURG, SOUTH CAROLINA Codified through Ordinance No. O-12-13, adopted April 16, 2012. (Supp. No. 18)

Sunset Provisions: None

Geographic Jurisdiction: Spartanburg County, SC.

Public Safety Function: Law enforcement and emergency services.

Land Use Control Function: Only within the applicable regulatory framework.

Financial Capability: TBD

Desire to participate: TBD

Constraints on institutional effectiveness: TBD

REFERENCES

<http://www.sac.usace.army.mil/>

<http://www.scdhec.gov/>

<http://www.spartanburgcounty.org/>

<http://www.southcarolinaparks.com/>

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