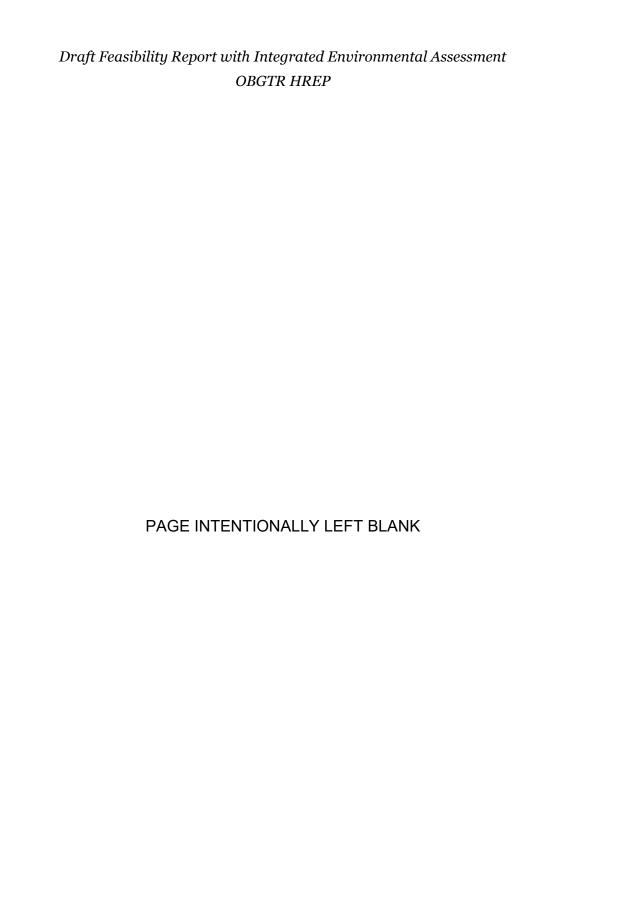
Appendix C Hazardous, Toxic, and Radioactive Waste



${\it Draft Feasibility Report\ with\ Integrated\ Environmental\ Assessment} \\ OBGTR\ HREP$

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ABBREVIATIONS

ABV	Description
AST	Above Ground Storage Tank
ATSM	American Society for Testing and Materials
BOL	Bureau of Land Inventory
	Comprehensive Environmental Response, Compensation and Liability
CERCLIS	Information System
DOD	Department of Defense
ECP	Environmental Condition of Property
EDR	Environmental Data Resources
EMF	Electromotive force
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FRDS	Federal Reporting Data System
HTRW	Hazardous Toxic Radioactive Waste
IEMA	Illinois Emergency Management Agency
LLC NPDES	Limited Liability Company
NPL	National Pollutant Discharge Elimination System National Priority List
NWI	National Wetlands Inventory
PCB	Polychlorinated Biphenyl
REC	Recognized Environmental Condition
SEMS	Superfund Enterprise Management System
SSURGO	Soil Survey Geographic Database
UIC	Underground Injection Control
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
	-9

1. INTRODUCTION

An Environmental Condition of Property (ECP) was conducted for Oakwood Bottoms Habitat Rehabilitation and Enhancement Project located in Jackson County, Illinois. The project area is located in the Middle Mississippi River in Jackson County, Illinois between River Miles 73 and 84 approximately 3 miles north of Wolf Lake, Illinois and extending north to Gorham, Illinois. The U.S. Forest Service (USFS), an agency of the U.S. Department of Agriculture, owns and manages Oakwood Bottoms as part of the Shawnee National Forest.

The overall project goals are to restore the natural ecosystem functions of Oakwood Bottoms as a site within the Mississippi River Floodplain which consists of wetlands and bottomland forest habitats for migratory wildlife and aquatic species.

This due diligence effort is intended to provide the minimum information required to assess potential environmental liabilities associated with this project. The objective of the Phase I is to identify, to the extent feasible pursuant to the process described herein, recognized environmental conditions (RECs) in connection with a given property(s). This assessment revealed only potential RECs in connection with this property, which are not anticipated to impact this lease transfer. Therefore, no Phase II Environmental Site Assessment (ESA) is required for the subject property.

2. BACKGROUND

The U.S. Army Corps of Engineers (USACE) regulations (ER 1165-2-132 and ER 200-2-3), and District policy requires procedures be established to facilitate early identification and appropriate consideration of potential hazardous, toxic, or radioactive waste (HTRW) in reconnaissance, feasibility, preconstruction engineering and design, land acquisition, construction, operations and maintenance, repairs, replacement, and rehabilitation phases of water resources studies or projects by conducting ECP Assessments. USACE specifies that these assessments follow the process/standard practices for conducting Phase I ESA published by the American Society for Testing and Materials (ASTM).

2.1 Scope of Work

The Phase I ESA conducted at the subject property was in accordance with ASTM Standard Practice E1527-13, E1528-06, and E2247-08. Due diligence taken for this assessment are as follows:

 USACE has engaged with individuals having institutional knowledge of the subject property to discuss environmental conditions.

- USACE has gathered and reviewed available federal, state, and tribal environmental records. Standard environmental records reviewed included Federal NPL, Federal and State CERCLIS, federal and state institutional controls/engineering controls registries, Federal ERNS list, state and tribal landfill and/or disposal site lists, state and tribal leaking storage tank lists, state and tribal registered storage tank lists, state and tribal voluntary cleanup sites, and State Brownfield sites. Details from the standard environmental records review are available in Appendix C-1. Additional environmental records reviewed for this study are also available in Appendix C-1.
- USACE has gathered and reviewed historical land use and land cover data including: USDA/USGS historical aerial imagery, USGS historical topographic maps, City directories, FEMA flood zone database, National Wetland Inventory (NWI), AQUIFLOW, SSURGO soil maps, state and federal well databases, FRDS Public Water Supply System Information, and state oil/gas well databases.
- USACE has physically inspected the subject property via walking survey, looking
 for signs of recognized environmental conditions such as stressed vegetation,
 soil staining, dumping, and evidence of aboveground and underground storage
 tanks.
- USACE has physically observed adjoining properties, paying particular attention to business practices.

2.2 Limitations and Exceptions

U.S. Army Corps of Engineers, Environmental Quality and HTRW Section, Environmental and Munitions Branch should be contacted with any known or suspected variations from the conditions described herein. If future development of the property indicates the presence of hazardous or toxic materials, USACE should be notified to perform a re-evaluation of the environmental conditions.

The scope of this assessment did not include any additional environmental investigation, not outlined herein, or analyses for the presence or absence of hazardous or toxic materials in the soil, ground water, surface water, or air, in, on, under, or above the subject tract.

This site assessment was performed in accordance with generally accepted practices of consultants undertaking similar studies at the same time and in the same geographical area, and USACE observed that degree of care and skill generally exercised by consultants under similar circumstances and conditions. The findings and conclusions stated herein must be considered not as scientific certainties, but rather as professional opinions concerning the significance of the limited data gathered during the course of the environmental site assessment. No other warranty, express or implied, is made.

Specifically, USACE does not and cannot represent that the site contains no hazardous waste or material, oil (including petroleum products), or other latent condition beyond

that observed by USACE during its site assessment.

The observations described in this report were made under the conditions stated herein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedure beyond the scope of described services or the time and budgetary constraints imposed by the client. Furthermore, such conclusions are based solely on site condition and rules and regulations, which were in effect at the time of the study.

In preparing this report, USACE relied on certain information provided by state and local officials and other parties referenced therein, and on information contained in the files of state and/or local agencies available to USACE at the time of the site assessment. Although there may have been some degree of overlap in the information provided by these various sources, an attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment was not made.

Observations were made of the site and of structures on the site as indicated within the report. Where access to portions of the site or to structures on the site was unavailable or limited, USACE renders no opinion as to the presence of indirect evidence relating to hazardous waste, material, oil, or other petroleum products in that portion of the site or structure. In addition, USACE renders no opinion as to the presence of hazardous waste or material, oil, or other petroleum products or to the presence of indirect evidence relating to hazardous material, oil, or petroleum products where direct observation of the interior walls, floor, roof, or ceiling of a structure on a site was obstructed by objects or coverings on or over these surfaces.

Unless otherwise specified in the report, USACE did not perform testing or analyses to determine the presence or concentration of asbestos, radon, formaldehyde, lead-based paint, lead in drinking water, electromagnetic fields (EMFs) or polychlorinated biphenyls (PCBs) at the site or in the environment at the site.

The purpose of this report was to assess the physical characteristics of the subject site with respect to the presence in the environment of hazardous waste, material, oil, or petroleum products. Except as otherwise described in this report, no specific attempt was made to check on the compliance of present or past owners or operators of the site with federal, state, or local laws and regulations, environmental or otherwise.

Personnel from CEMVS-EC-EQ have specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject properties and declare that, to the best of our professional knowledge and belief meet the definitions of Environmental Professionals as defined under 40 CFR 312.

2.3 Qualifications

USACE EC-HQ has the specific qualifications based on education, training and

experience to assess a property of the nature, history, and setting of the subject properties and declare that, to the best of our professional knowledge and belief meet the definitions of Environmental Professionals as defined under 40 CFR 312.

3. SITE DESCRIPTION

3.1 Location and Legal Description

The project area is located within the Shawnee National Forest in Jackson County, Illinois. It is located in the Mississippi River Floodplain between river miles 73-84. It is approximately 2 miles east of the Mississippi River and west of the Big Muddy River. The project area is bounded on the west by Illinois Route 3, on the east by the Big Muddy River, on the north by the city of Gorham, and on the south by Howardton Road. Figure 1 indicates the location of the project area. The project area consists of approximately 4,700 acres.

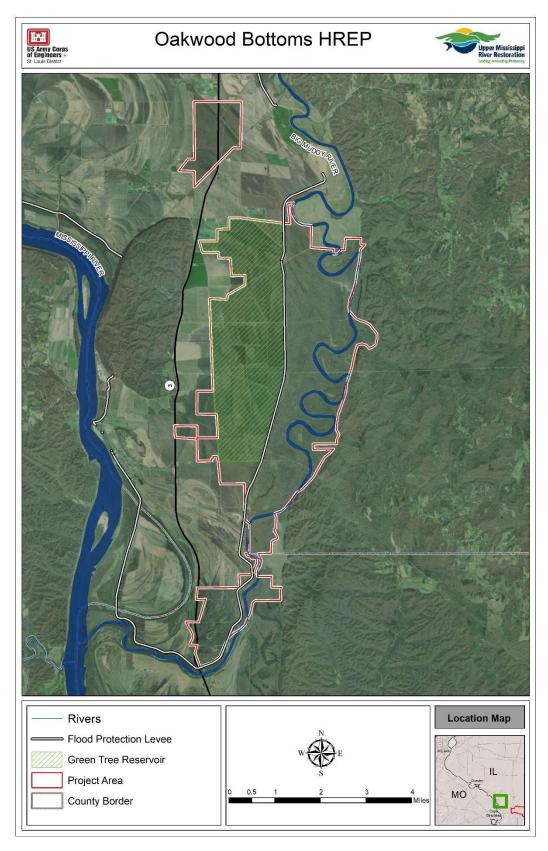


Figure 1: Oakwood Bottoms Habitat Rehabilitation and Enhancement Project.

3.2 Site/Vicinity Characteristics

The U.S. Forest Service (USFS) acquired the tracts for Oakwood Bottoms property between 1936 and 1938. The project area consists of approximately 13,500 acres. Prior to the USFS acquisition the property was intensively farmed cleared, leveled, and heavily manipulated from its natural state. Since acquiring the property, the USFS has been working to restore the ecosystem through different measures. The Flood of 1993 severely impacted the habitats within the project area by devastating the forest community. Since 2005 the project area has been part of a coordinated management plan consisting of more than 20 partners making up the Middle Mississippi River Partnership (MMRP). A unique aspect of Oakwood Bottoms is that it constitutes one of the largest contiguous bottomland hardwood tracts in the Middle Mississippi River Corridor (MMRC). The project area also consists of oxbows, sloughs, and wetland swales which provide habitat for migratory wildlife. The dominant tree species is the pin oak.

4. RECORDS REVIEW

For the purpose of this Phase I, the following standard record sources were obtained and reviewed to assist in the identification of potential RECs in connection with this project:

- Federal National Priorities List (NPL)
- Federal and State Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)
- Federal Emergency Response Notification System (ERNS)
- Illinois Emergency Management Agency (IEMA)
- Resource Conservation and Recovery Act Facilities (RCRA)
- Toxic Substance Control Act Facilities (TSCA)
- Federal and State institutional controls/engineering controls registries
- State and tribal landfill and/or disposal site lists
- State and tribal leaking storage tank lists
- State and tribal registered storage tanks lists
- State and tribal voluntary cleanup sites
- State Brownfield sites
- State 303D list (Clean Water Act)
- Historical aerial photographs
- USACE historical information
- Historical topographic maps
- National Pipeline Mapping System

These records assist in meeting the requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), and the ASTM Standard Practice for Environmental Site Assessments (E 1527-13). For properties that contained inadequate address information for mapping purposes, reasonable efforts were made to identify the

approximate location of the sites in relation to the target property as part of the review process. In addition, the physical setting was assessed for the target property by reviewing topographic maps to identify conditions in which hazardous substances or petroleum products could migrate.

4.1 Findings from Records Review

- Illinois EPA 303d List, Big Muddy River Cedar Creek Watershed (HUC: 0714010612) is listed for Mercury, Dissolved Oxygen, Sedimentation, and Total Dissolved Solids. Waterbodies listed are outside the geographic scope of this study. This is not a REC.
- **Keystone Sand and Gravel** LLC, 1 Sickler Road, Gorham, IL is listed as a BOL: Bureau of Land database. This database is in reference to a NPDES permit. This is not a REC.
- **Shawnee Sand and Gravel**, 1 Sickler Road, Gorham, IL is a FINDS: Facility Index System database, and ECHO: Environmental and Compliance History Information site. These databases reference a NPDES permit. This is not a REC.
- **Keyesport Sand and Gravel LLC**, Route 1, Gorham, IL is a NPDES: National Pollution Discharge Elimination System, US AIRS: Air emissions, FINDS: Facility Index System, and ECHO: Environmental and Compliance History Information site. These findings are associated with a NPDES permit and minor air emissions. This is not a REC.
- **Flick, Gene**, 1083 Howardton Road, Grand Tower, IL is a BOL site. No information provided in the database. This is a residence with no industrial code. This is not a REC.
- **Royster, Philip**, 1033 Howardton Road, Grand Tower, IL is a BOL site. No information provided in the database. This is a residence with no industrial code. This is not a REC.
- **VEACH Oil Co.**, Route 3 and Grand Tower Road, Grand Tower, IL is a LUST (Leaking Underground Storage Tank) site. Spill was reported in 1994. A NFA/NFR letter was issued in 2009 indicating the site needs no further action. This is not a REC.
- **Gorham High School**, 200 BL of Washington, Gorham, IL is a BOL site. BOL database indicates that the school is abandoned and contains asbestos. This is not a REC.
- **CDL**: Clandestine Drug Lab 1.2 miles east of Route 3 on Howardton Road was listed in the Orphan Summary of the EDR Report. Report indicates it was a dumpsite for drug making materials. This is a Rec if drug making equipment was not cleaned up

and properly dispose. No work is proposed in this area, so this REC should not effect this project.

5. SITE RECONNAISSANCE

A site visit to Oakwood Bottoms Greentree Reservoir was conducted on February 26, 2019 by Mr. Rick Archeski and Mr. Travis Schepker of CEMVSEC-EQ. The site visit consisted mainly of taking photographs from the area roads due to limited access and that much of the area is flooded. In addition, the surrounding adjacent properties were also inspected as part of this survey. Photographs documenting the site visit are enclosed later in this report.

There were no observations made during the site visit that would be defined as a REC.

6. INTERVIEWS WITH KNOWLEDGEABLE PERSONS

Interviews were conducted in order to obtain information indicating RECs in connection with this site. The content of the questions asked followed the questionnaire format of ASTM 1528. An email questionnaire was sent to the following persons:

- Andrew Chappell U.S. Forest Service
- Chad Deaton U.S. Forest Service

There were no RECs discovered during either interview. Interview questionnaires are included in Appendix C HTRW Supplementary Materials: Photos, Questionnaire, and EDR.

7. DATA GAPS

Did not have access to maintenance buildings. Due to the large amount of acreage, and that much of the area is flooded the entire site was not walked. Focus was on areas along roadways. Flick and Royster were listed as BOL sites, but no information was provided in the databases. Spill listed in Orphan Summary section at Oakwood Bottoms of the EDR report, but no additional information was provided.

8. CONCLUSION

An Environmental Condition of Property Phase I ESA was conducted in accordance with the scope and limitations of ASTM Practice E 2247-16 and E 1527-13 for the Oakwood Bottoms Greentree Reservoir Habitat Rehabilitation and Enhancement Project. The assessment revealed no RECs in connection with this site that would prevent the project from proceeding.

9. REFERENCES

- E1527-13, A. (2013). Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- E1528-14e1, A. (2014). Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process.
- E2247-16, A. (2016). Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property.

10. FIGURES

Figures can be reviewed in enclosed Appendix C – HTRW Supplementary Materials: Photos, Questionnaire, and EDR

11. INTERVIEW WITH KNOWLEDGEABLE PERSONS

Interview with knowledgeable persons can be reviewed in enclosed Appendix C – HTRW Supplementary Materials: Photos, Questionnaire, and EDR

12. ENVIRONMENTAL RECORDS

Environmental Records can be reviewed in enclosed Appendix C – HTRW Supplementary Materials: Photos, and EDR