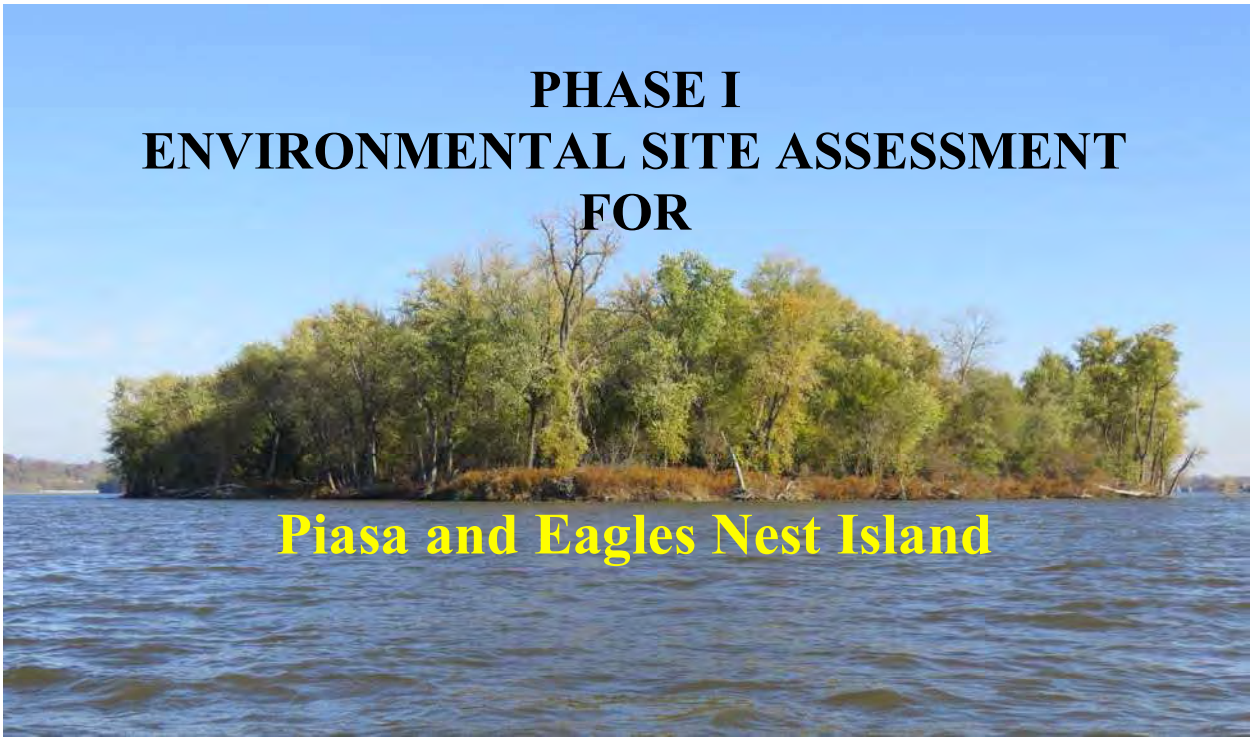
# Appendix E

## Hazardous, Toxic, & Radioactive Waste

# PHASE I
# ENVIRONMENTAL SITE ASSESSMENT
# FOR



# Piasa and Eagles Nest Island

**November 28, 2016**

Prepared By
U.S. Army Corps of Engineers
St. Louis District

# Phase I – Environmental Site Assessment
## Piasa and Eagles Nest Islands
## Godfrey, IL

Prepared for:
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, MO 63103

**Approved by:**

_____

Kevin P. Slattery
Chief, Environmental Quality Section

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____

Richard D. Archeski
Environmental Engineer

## Table of Contents

**Appendices** **Part of Electronic Administrative Record; Available Upon Request**

Appendix A Environmental Records

Appendix B Historical Data

Appendix C Photographs

Appendix D Threatened and Endangered Species

Appendix E Clean Water Act

Appendix F National Response Center (NRC) Report

Appendix G Interview Questionnaire

## Executive Summary

A Phase I Environmental Site Assessment was conducted for the Piasa and Eagles Nest Island Project. The project area is located in Mississippi River Pool 26 along the left descending bank of the Mississippi River, upstream from the city of Alton, IL in Madison and Jersey Counties between Mississippi river miles (RM) 207.5 to 211.5 on USACE fee-owned lands and managed waters. The islands are managed by the St. Louis Corps of Engineer's Rivers Project Office, in partnership with the Illinois Department of Natural Resources. Historically, the proposed project area was a dynamic area of islands, side channels, wetlands, and sand bar habitats. Since the construction of the lock and dams the pattern of habitats within the project area have been greatly modified leading to the loss of depth and flow in Piasa Chute, loss of year round connectivity and depth within Piasa Island backwater, loss of diverse island complex, and the loss of wetlands. The objectives of this project are to: restore and improve the quality and diversity of aquatic life, and island and wetland ecosystem resources.

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 low level RECs that should not impact this project.

# I. Introduction

## 1.1 Purpose

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 HTRW Initial Hazard Assessments (IHA). USACE specifies that these assessments follow the process/standard practices for conducting Phase I Environmental Site Assessments (ESA) published by the American Society for Testing and Materials (ASTM).

This assessment was prepared using the following ASTM Standards:

- E1527-13: Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment process

- E1528-06: Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (interview questionnaires)

- E2247-08 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property

The purpose of a Phase I ESA is to identify, Recognized Environmental Conditions (REC's) to the extent feasible in the absence of sampling and analysis. A recognized environmental condition is the presence or likely presence of any hazardous substance or petroleum products in, on or at a property. This may be the result of a release to the environment, under conditions indicative of a release, or under conditions that pose a material threat of a future release to the environment. The term hazardous consists of the range of contaminants within the scope of the U.S. Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.

The scope of this Phase I consist of the following four components:

a. Records review
b. Site reconnaissance
c. Interviews
d. Report

# II. Project/Site Description

## 2.1 Location Description

Piasa and Eagles Nest Islands are located along the left descending bank of the Mississippi River, upstream from the city of Alton, IL in Madison and Jersey Counties between Mississippi river miles (RM) 207.5 to 211.5 on USACE fee-owned lands and managed waters. The islands are owned by the St. Louis District Corps of Engineers and managed by the Illinois Department of Natural Resources under a cooperative agreement through the U.S. Fish and Wildlife Service. Historically, the proposed project area was a dynamic area of islands, side channels, wetlands, and sand bar habitats. Since the construction of the lock and dams the pattern of habitats within the project area have been greatly modified leading to the loss of depth and flow in Piasa Chute, loss of year round connectivity and depth within Piasa Island backwater, loss of diverse island complex, and the loss of wetlands. The objectives of this project are to:

- Increase deep aquatic habitat within Piasa Chute greater than 5 feet,
- Increase diversity of water velocities within Piasa Chute,
- Ensure adequate flow over existing freshwater mussel beds
- Provide year-round connectivity with Piasa Backwater and the Mississippi River
- Maintain existing acreage of island habitat
- Restore historic island habitat
- Maintain existing and restore wetland vegetation

See figures 1 & 2 for site location.


Figure 1
Locator map for Piasa & Eagles Nest Islands

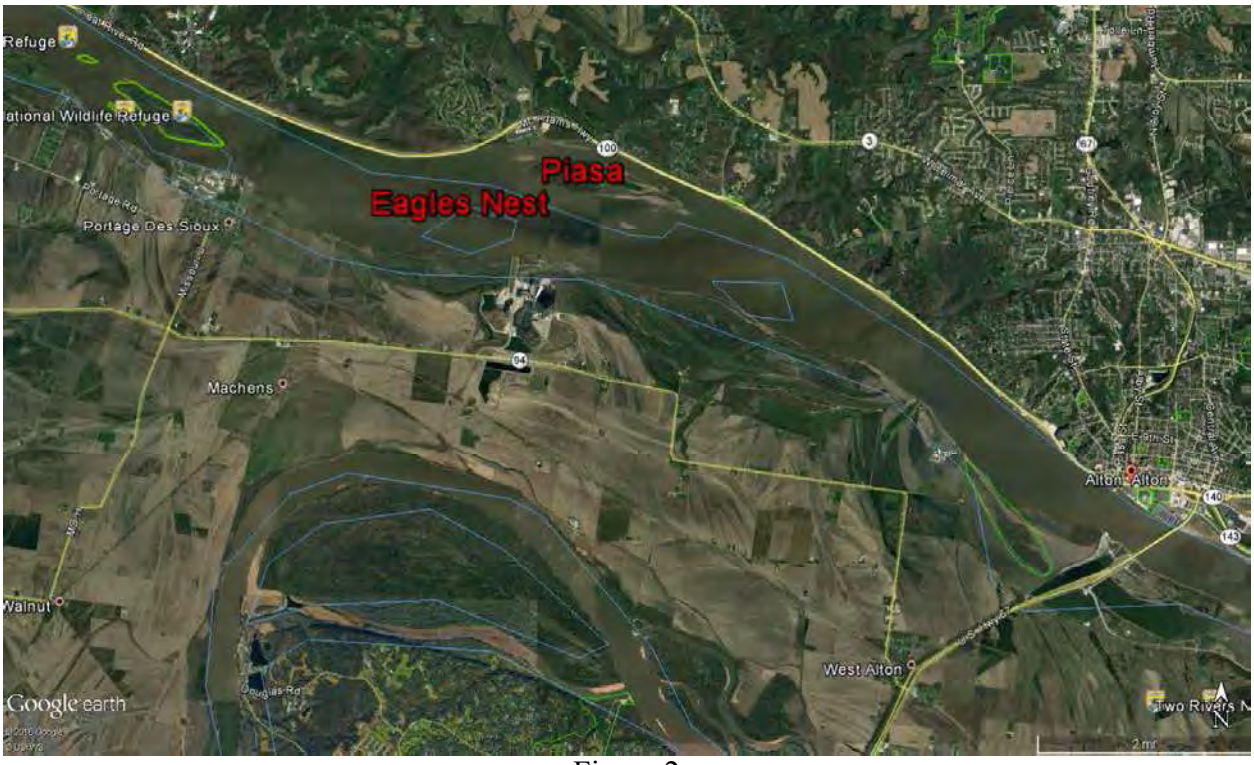



Figure 2
Piasa and Eagles Nest Islands vicinity map

This project will consist of dredging channels in the interior backwater of Piasa Island, dredge material would be placed behind constructed chevrons increasing the likelihood of island or sandbar formation, dike notching, three chevrons and two trail dikes are proposed to be built at the tail end of Eagles Nest Island, and erosion protection structures at the head of Piasa and Eagles Nest Islands. The following reference provides additional details of the project *Piasa and Eagles Nest Islands Habitat Rehabilitation and Enhancement Project*. See figure 3 for locations of structures.

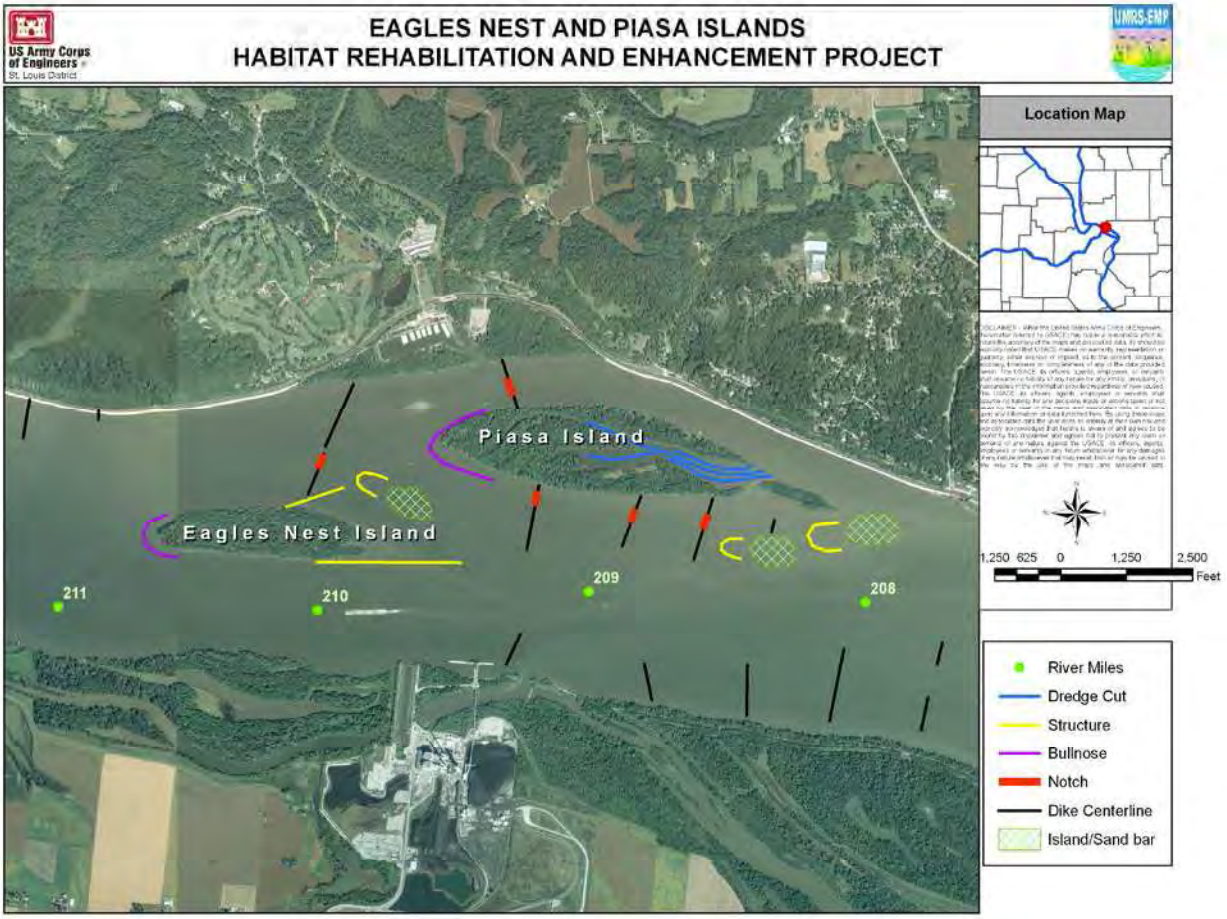



Figure 3
Potential structure locations.

## 2.2 Site/Vicinity Characteristics

Since the 1930's Piasa and Eagles Nest Islands have been owned by the St. Louis District Corps of Engineers and are currently managed by the Illinois Department of Natural Resources under a cooperative agreement through the U.S. Fish and Wildlife Service. The islands are located in Mississippi River Pool 26 between RM 207.5 and 211.5 near the confluence of Piasa Creek. The topography of both islands consist of flat heavily vegetated sites. The islands are susceptible to routine flooding based on their location in the Mississippi River. Piasa Island is almost exclusively floodplain forest with small pockets of shallow annual marsh and wetland meadows. Land cover on Eagles Nest Island is a mixture of cottonwood forest and mixed floodplain forest. The dominant tree species on both islands are cottonwoods and maples with occasional sycamores. Being that these properties are islands, there is no direct contact with adjoining properties.

## III. User Provided Information

Site visits, records search, and personal interviews with persons familiar with the area and local hazardous response personnel revealed the remote possibility of encountering HTRW issues. The environmental impact for the migration of off-site contaminants onto the project property is negligible. A Site Health and Safety Plan, and a Quality Control Plan should be required, discussed ad implemented to avoid any environmental hazards. If any evidence of REC's are discovered during construction activities, operations should cease until the Environmental Quality section of the St. Louis District Corps of Engineers is able to assess the project area.

## IV. Records Review

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

- National Response Center (NRC)
- Historical Aerial Photographs
- USACE Historical Information
- Historical Topographic Maps

These records assist in meeting the requirements of EPA's Standards and Practices for All Appropriate Inquires (40 CFR Part 312), and the ASTM Standard Practice for Environmental Site Assessments (E 1527-05). 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 properties as part of the review process. In addition, the physical setting was assessed for the target properties by reviewing topographic maps to identify conditions in which hazardous substances or petroleum products could migrate.

### 4.1 Historical Use Information

The following available historic information sources were obtained and reviewed: The following historical aerial photographs were reviewed:

1937, 1941, 1953, 1956, 1968, 1974, 1980, 1988, 1995, 2005, 2007, 2009, 2010, 2011, and 2012

The following historical topographic maps were reviewed:

1933, 1946, 1947, 1954, 1968, 1974, 1995, and 2012

No sanborn maps were available for this area. Review of land use maps reveal as well as interviews indicate that these areas have been forested with no agricultural production. Piasa Island had several recreational cabins in the past, but only two still exist. The cabins appear to be used intermittently. Recent flood events have deposited several inches of mud on the lower level of the cabins. The area around the cabins have

been maintained with the grass mowed and the boat docks useable. See photos of cabins in Appendix C.

No evidence was discovered during the historical research that would indicate that previous land use represents a significant environmental liability.

## V. Site Reconnaissance

A site visit to Piasa and Eagles Nest Islands was conducted on 15 November 2016 by Mr. Rick Archeski and Mr. Ben Greeling of CEMVS-EC-EQ. Piasa Island consists of old growth forest. There are 2 recreational cabins located on Piasa. Flood events deposit a range of debris on the island. Several drums where found near one of the cabins and a couple of propane tanks. Plastic bottles and large pieces of styrofoam were scattered about the island. Although in the past there were several cabins on Piasa, only two currently exist. We did not have access to the buildings. The eastern end of Piasa Island was not accessible on foot due to dense vegetation. Eagles Nest Island consists of newer growth forest. It had a larger amount of flood debris than Piasa probably because it is up river from Piasa and catches debris before it reaches Piasa. Photographs documenting the site visit are enclosed as appendix C. In addition, the surrounding adjacent properties which are located across Piasa Chute and the main river channel were also inspected as part of this survey.

## VI. Interviews

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. Interviews were conducted with the following persons:

- Charles Deutsch – USACE St. Louis District, Riverlands Project Office
- Kenny Scott – Illinois Department of Natural Resources
- Ben Greeling – USACE St. Louis District, Environmental Quality, formerly worked at Riverlands Project Office

Interview responses are in Appendix G.

## VII. Findings

The following recognized environmental conditions (REC's) have been identified:

- Great Rivers Land Trust have three underground storage tanks (2- 10,000 and 1-12,000 gal.) at the Piasa Marina. This site is approximately 0.5 miles north of the proposed project on the Illinois side of the Mississippi River. These tanks are scheduled to be removed on 30 November 2016. This is a low level REC based on the fact that Piasa Chute is between the marina and Piasa Island as well as the current would take any petroleum product downstream. The site will be monitored during the tank removal to ensure no petroleum product is released into

Piasa Creek and possibly into the Mississippi River. Although any spill or release would be the responsibility of the owners of the Marina.

- Western Boat & Motor (Piasa Marina) had four underground storage tanks (2- 8,000 and 2- 2,000 gal.) that self-excavated during 1993 flood event. This is considered a low level REC based on the fact the flood event occurred 23 years ago and there have been numerous flood events during this time frame which would have flushed any spill residue down river.

- Lockhaven Country Club greater than 0.5 miles from project maintains a NPDES permit for a Sewage Treatment Plant (STP). This facility closed in 2014, but appears to have reopened based on current website and phone message. This is a low level REC based on the distance from the site and the dilution factor of the Mississippi River.

- Alton Boat & Motor Club (11134 Harbor Dell, Godfrey, IL) is listed as an ERNS (Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances). A spill of 28 gallons in 2009 was reported to the National Response Center (NRC). This is not considered a REC due to the numerous flood events that have occurred since 2009.

- Clandestine drug lab (CDL) located on Hazelnut Lane, Godfrey,IL approximately 0.5 to 1 mile from project site. This was a meth lab, but there were no spills associated with this activity. This is not considered a REC.

- Ameren (Union Electric) Portage de Sioux Power Station located in St. Charles County , Missouri approximately 1.75 miles from project site had the following listings:
  RCRA small quantity generator,
  Underground storage tank site (research indicates these tanks were removed in 2003)
  Coal Ash EPA (coal combustion residue surface impoundment),
  MO Coal Ash (power plants with coal ash ponds)
  TRIS (Toxic Chemical Release Inventory System) lists facilities that release toxic chemicals to the air, water and land in reportable quantities under SARA Title III
  SEMS-ARCHIVE (Superfund Enterprise Management System Archive formerly known as the CERCLIS-NFRAP) tracks sites that have no further interest under the Federal Superfund Program based on available information.
  ERNS: A spill of 8 gals of lube oil into the Mississippi River from an intake pump was reported to the NRC in October of 2010.
  Although the listings above are numerous for the Ameren Portage de Sioux Power Station it would be a low level REC based on the distance from the islands and the fact that the current of the river would carry the contaminants down river away from the two islands. As mentioned above if hazardous material did migrate from this site to the islands, the responsible party would be required to remediate the site.

- Flood debris on the islands is considered a low level REC. None of the debris observed was associated with hazardous substances or petroleum products. As mentioned the majority of the debris was plastic or glass bottles, empty drums with no labeling, two empty propane cylinders, and large pieces of Styrofoam.

- The potential for a large pesticide or herbicide spill in the Mississippi River above these islands or in Piasa Creek effecting this project is minimal. Pesticides/herbicides break down in the presence of atmospheric conditions (phyto and biodegradation) and the dilution factor would greatly reduce the amount of pesticides impacting the island. If such a spill would occur the responsible party would be required to fully remediate all properties effected. This is considered a low level REC.

- No transformers are in the immediate vicinity of this project. This is not considered a REC.

See the EDR radius map in Appendix A for full details of findings.

## VIII Data gaps

Due to large amount of data only the last 10 years of NRC records for Jersey, Madison Counties in Illinois and St. Charles County in Missouri were reviewed.

Did not have access to the cabins and did not test for asbestos or lead-based paint.

## IX. Opinion

An Environmental Site Assessment was conducted in conformance with the scope and limitations of ASTM Practice E 1527 for Piasa and Eagles Nest Islands. There is a potential that future flood debris could create a REC on these islands. However, the possibility is remote. This opinion is based on the fact that no hazardous substances or petroleum contamination was found during the site visit, historical documentation including interviews do not indicate any spills, and the islands are isolated from adjacent properties by the Mississippi River. This assessment revealed low level RECs in connection with these properties that should not have any effect on the project.

## X. Conclusions

An Environmental Site Assessment Phase I ESA was conducted in accordance with the scope and limitations of ASTM Practice E 1527 for Piasa and Eagles Nest Islands. The assessment revealed only the potential for low level RECs in connection with these properties. The properties have been under the jurisdiction of the USACE since the 1930's and there are no records indicating any spills, pesticide/herbicide use, or HTRW contamination. There had been several cabins on Piasa Island in the past, only two remain. There was no indication of any spills or contamination around these cabins or on either island. Therefore, no Phase II ESA is necessary for the proposed project.

## XI. Limitations

U.S. Army Corps of Engineers, Environmental Quality and HTRW Section 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 or material or 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 or 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.

## XII References

- *E1527-13: Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process, ASTM*
- *E1528-06: Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (interview questionnaire), ASTM*
- *E2247-08 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property*
- *Upper Mississippi River Restoration Feasibility Report With Integrated Environmental Assessment, Piasa and Eagles Nest Islands Habitat and Enhancement Project*

## XIII 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.