

**Yazoo River Basin**

**Arkabutla Lake Dam Repair**

**HTRW Assessment**

**Arkabutla Lake, Mississippi**

**July 2, 2024**

**Prepared by Ryan Horton**

**USACE Vicksburg District-Engineering & Construction Division  
Hydraulics Branch, River Engineering Section**

## 1. Introduction

The objective for conducting the PAS is to evaluate if any potential hazardous, toxic, or radioactive wastes (HTRW) concerns are present that require further evaluation and or likely remediation activities. This assessment is consistent with the following guidelines and procedures referenced in regulation; “Hazardous, Toxic, and Radioactive Waste Guidance for Civil Works Projects,” Engineer Regulation 1165-2-132 (U.S. Army Corps of Engineers, 1992), Lower Mississippi Valley Regulation 1165-2-132, “Water Resources and Authorities for Hazardous, Toxic and Radioactive Waste for Civil Works Projects” (14 June 1996), and the American Society for Testing and Materials, E1527-05, “Environmental Site Assessments: Phase I Environmental Site Assessment Process”.

## 2. Project Area Description

On May 9, 2023 it was discovered that the Arkabutla Lake Dam on the Coldwater River had a possible failure. This possible failure was identified as a sink hole. A sink hole on this dam causes concern for a possible breach which would result in flooding that could affect multiple areas downstream of the Dam in Mississippi and Arkansas. This project aims to safely repair the sinkhole at the Arkabutla Dam and excavate and create a new outlet channel. The outlet channel locations and borrow areas are shown in figure 1.

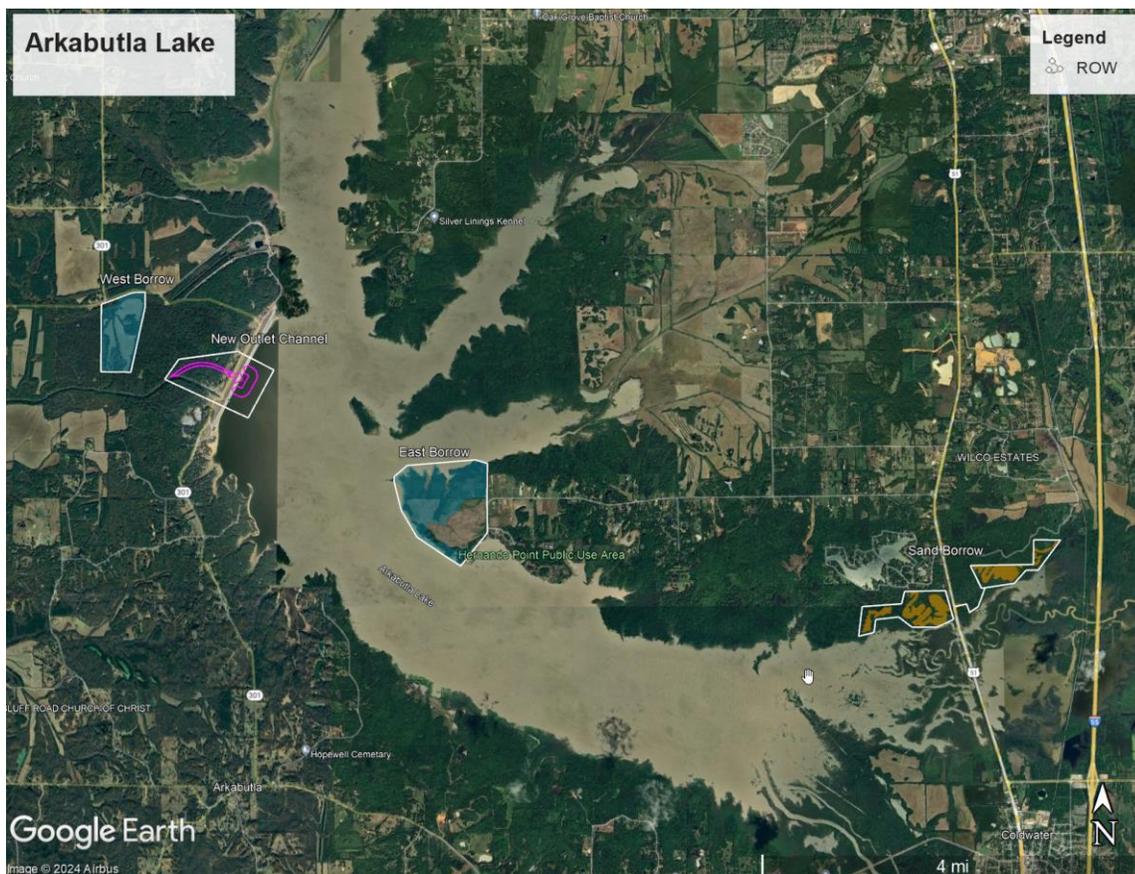


Figure 1 New outlet channel and four proposed borrow areas.

## Figure 1. Location of the Proposed Work

### 3. Records Review

To evaluate if potential HTRW concerns are present within the project area, a review of EPA's environmental databases of known facilities permitted to handle, treat, store, or dispose of hazardous waste was performed. In addition, a review of reported spills, remediation projects and accidental releases of hazardous materials was also performed. The review was restricted to an area within the minimum search distances reported in the American Society for Testing and Materials, E1527-13, "Environmental Site Assessments: Phase I Environmental Site Assessment Process".

The database review was conducted utilizing EPA's EnviroMapper online query system for regulated facilities. A query of EPA's listed facilities for Superfund Sites (National Priorities List sites), Resource Conservation and Recovery Act sites (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act sites (CERCLA), and National Pollutant Discharge Elimination System sites (NPDES) was performed on June 26, 2023.

EPA maintains the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) which contains information on potentially hazardous waste sites that have been reported to EPA as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS contains facility information on sites which are proposed to be or are placed on the National Priorities List (NPL). The database also includes sites which are being assessed for possible inclusion on the NPL. No CERCLIS sites were identified within a 1-mile radius of the project area.

A query of facilities previously reported to the U.S. Environmental Protection Agency (USEPA) for having one or more toxic releases, Toxic Release Inventory (TRI), was conducted. No TRI sites were identified within a 1-mile radius of the project areas.

A query of facilities regulated by the USEPA that handle materials designated as hazardous waste was also conducted. Under the Resource Conservation and Recovery Act (RCRA), generators, transporters, treatment, storage, and disposers of hazardous waste (as defined by the federally recognized hazardous waste codes) must provide information concerning their activities to state environmental agencies. These agencies then provide the information to regional and national USEPA office. The database did not identify any RCRA facilities with a one-mile buffer of the project area.

The EnviroMapper query included a search for specific facilities regulated by the USEPA that discharge to United States waters. This includes municipal and industrial wastewater treatment facilities, which often discharge into rivers, streams, lakes, and other waterways. Under the National Pollutant Discharge Elimination System (NPDES), EPA regulates these discharges under permits regulating their discharge. Four NPDES permits were found to be maintained within a one-mile radius of the project areas. According to the EPA's database two of them are maintained by USACE for the recreational areas, one is maintained by MDOT for the Highway 51 S bridge crossing the Coldwater River, and the last is maintained by L and A contracting for sand and gravel construction.

The query also included a review of the USEPA online records for Underground Storage Tanks (UST). Active USTs are storage tanks that are still in use. Inactive USTs are tanks that are not in use. The USTs were classified as closed release, no release, or open release. USTs

classified as closed release are tanks which experienced a previous release that have been contained. USTs classified as no release are tanks that have no evidence of prior leakage. USTs classified as open release are tanks that have been documented for prior leakage and have not conducted remedial activity. One underground storage tank managed by USACE was located within a half mile radius of the project area.

#### 4. Site Reconnaissance

A site reconnaissance of the work area was conducted July 2024 by Ryan Horton, Tedris Smith and John Hogue. The inspection was conducted on-foot and by vehicle in various locations around the ROW. Some household refuse and large collections of trash were observed, likely caused by the falling of the Arkabutla Lake, but no items of that may pose an HTRW concern were discovered during the site visits.

#### 5. Findings and Recommendations

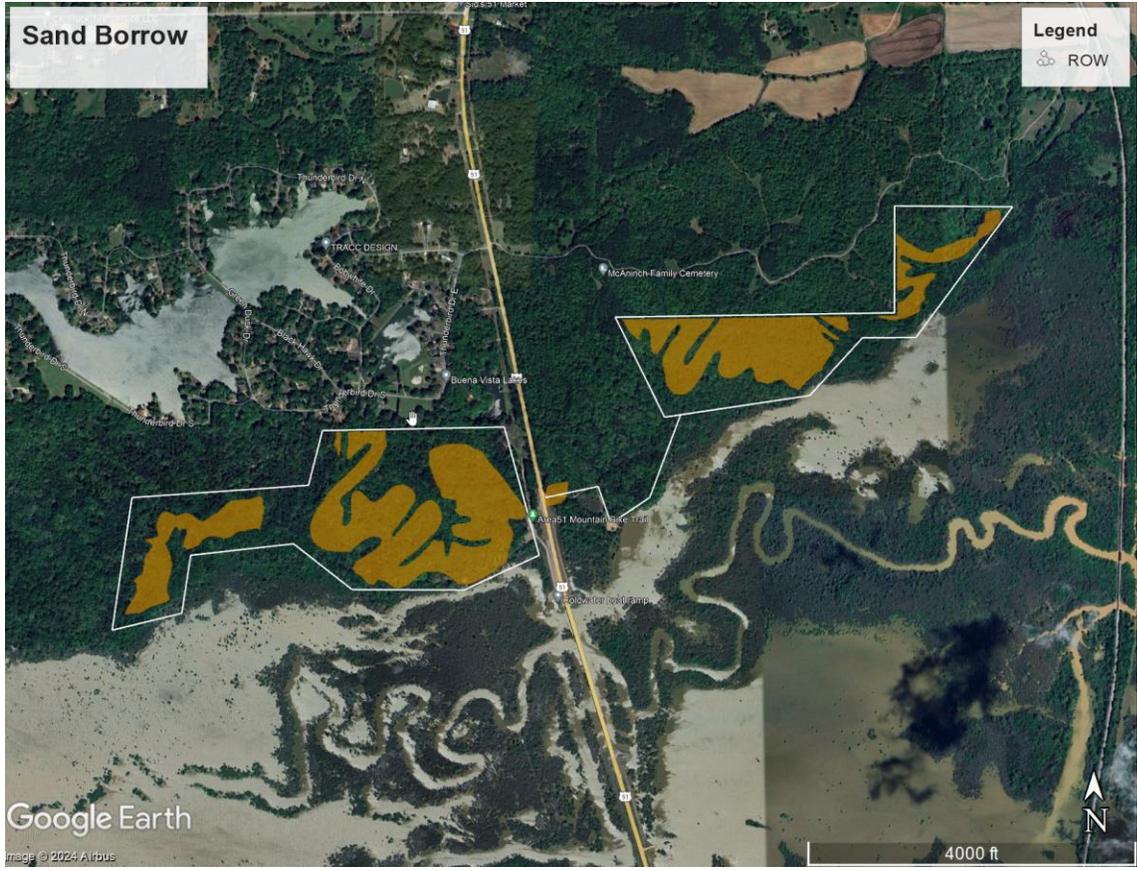
The following conclusions are based on, or are reasonably ascertainable from, published information and field observations.

The environmental programs and underground storage tanks identified by the EPA's databases are not believed to be an HTRW concern.

Due to the results of the site reconnaissance, environmental records search and the ROW areas being located mostly on federal property, It is believed that no HTRW concerns will be encountered on this project.

It is assumed that prior to construction activity any solid waste shall be removed by **the contractor** and properly disposed of according to local state and federal regulations.

Site	TRI	NPDES	RCRA	Air Emissions	UST	Facility Name
West Clay Borrow	N/A	N/A	N/A	N/A	N/A	
East Clay Borrow	N/A	N/A	N/A	N/A	N/A	
Sand Borrow	N/A	X	N/A	N/A	N/A	NPDES(2) - Desoto/ Tate county MDOT, L and A contracting Company
New Outlet Channel	N/A	X	N/A	N/A	X	NPDES(2) – USACE North Abutment Recreation Area, USACE South Abutment Recreation Area  UST – USACE Vicksburg Arkabutla Lake



# East Clay Borrow

**Legend**  
🔗 ROW



Google Earth

Image © 2024 Airbus

3000 ft

# West Clay Borrow and New Outlet Channel

Legend  
ROW

