DRAFT
ENVIRONMENTAL ASSESSMENT
FOR TENNESSEE-TOMBIGBEE WATERWAY
BARGE MOORING FACILITY
LUXAPALILA CREEK
COLUMBUS, LOWNDES COUNTY, MISSISSIPPI

Prepared By:

U.S. Army Corps of Engineers
Mobile District
Mobile, Alabama

November 2007

Table of Contents

Title **Page**

List of Tables

Title **Page**

List of Figures

Title **Page**

LIST OF APPENDICES

Appendix

DRAFT
ENVIRONMENTAL ASSESSMENT
FOR TENNESSEE-TOMBIGBEE WATERWAY
BARGE MOORING FACILITY
LUXAPALILA CREEK
COLUMBUS, LOWNDES COUNTY, MISSISSIPPI

I. **INTRODUCTION**: The project area is located near the Luxapalila Creek Park and Boat Ramp, at the convergence of the Tennessee-Tombigbee Waterway (TTW) and Luxapalila Creek, at latitude 33º 27' 34" North and longitude 88º 25' 47" West, Lowndes County, Mississippi on the western edge of Columbus city limits and south of U.S. Highway 82. Columbus, Mississippi, the county seat of Lowndes County, is located in east-central Mississippi on the TTW within the Aliceville LakeThe TTW is a navigation project constructed and maintained by the U.S. Army Corps of Engineers (Corps), and was completed in 1985. Due to work that was conducted to improve the flow of water within the stream channel of Luxapalila Creek by the Tombigbee River Valley Water Management District in the mid-1990's frequent flooding in the area has ceased (See Figure 1).

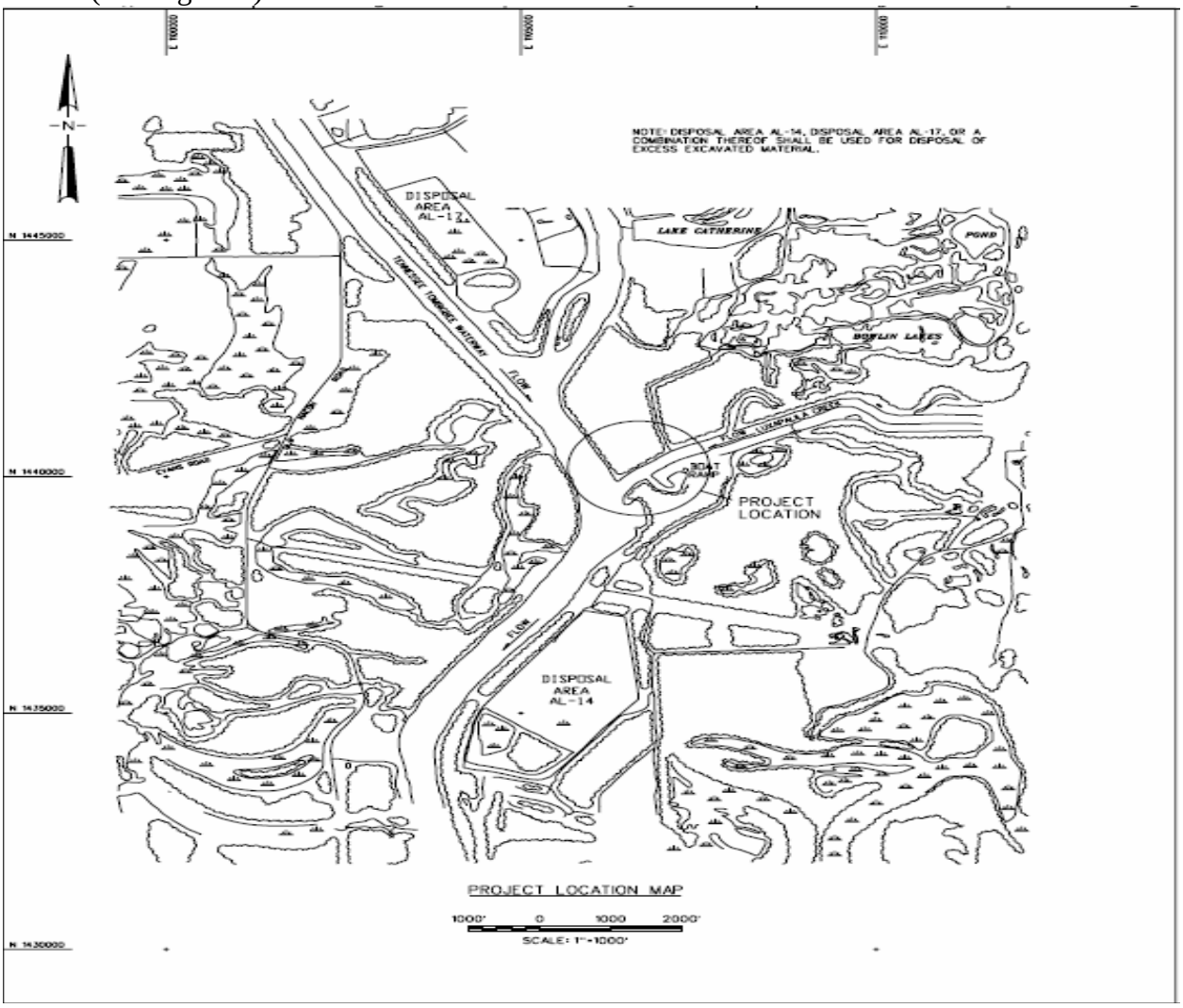


Figure 1: Project Location Map

II. **PROPOSED ACTION**: The proposed action consists of constructing a barge mooring facility at the mouth of the Luxapalila Creek, approximately five miles downstream of Stennis Lock and Dam, adjacent to river mile 329. The proposed site is northwest of the Luxapalila Park and is approximately 1,500x300 feet (See Figure 2).

This proposal involves clearing and grubbing approximately 12 acres northwest of Luxapalila Creek and requires the excavation and removal of approximately 300,000 cubic yards of material to deepen the creek in the area by 3 feet. All excavated material would be placed in existing upland disposal areas, created for construction and maintenance of the TTW. The excavation would extend to elevation 127 feet National Geodetic Vertical Datum. Approximately 6,200 cubic yards of riprap would be placed along approximately 1,200 feet of the north creek bank and approximately 140 feet on either side of the existing boat ramp for a total of 280 feet of the south creek bank to protect the new slopes.

The proposal includes the placement of six mooring dolphins. These dolphins would be constructed off three steel piles driven into the bottom and braced together to form a single mooring dolphin. Six concrete dead-men, approximately 10x10x9 feet in dimension, which would be located landward of the mooring dolphins and would be used in conjunction with steel cables to anchor the barges. Maintenance dredging will require the removal of approximately 5,000 to 10,000 cubic yards of material annually.

III. **NEED FOR PROPOSED ACTION**: The proposed action would provide safe mooring of barges during high water events. Water levels downstream of Stennis Lock and Dam fluctuate as much as 25 feet during major rain events. Most waterway users do not navigate during these types of events and prefer to moor their tows to prevent potential accidents and property damage. The proposed facility would also provide secondary benefits by providing mooring for tows waiting to be serviced by the local ports along the waterway. It also provides safe mooring for tows during emergency lock closures.

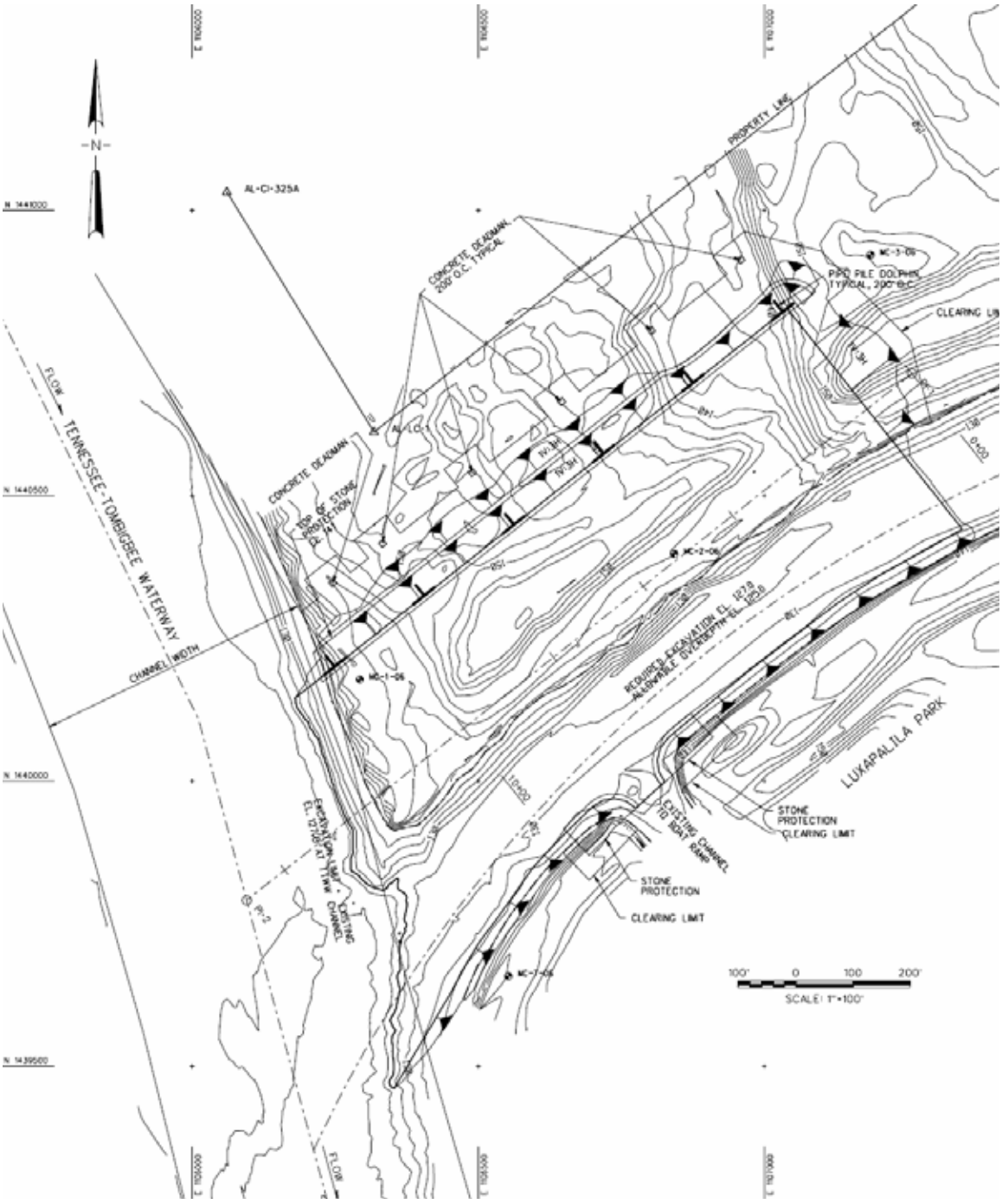


Figure 2: Site Plan

IV. **ENVIRONMENTAL RESOURCES**:

A. General

A swath of clearing has taken place along the Luxapalila Creek side of the property to provide ease of access for the maintenance of the Corps channelized flood control project. The

property is accessible by water and by trails from the adjacent property. The property consists of approximately 18 acres of wooded land and a ponded, low-lying area. This land is part of a larger parcel that is owned by the Corps. There is no evidence that homes, buildings or other improvements have existed on the property. Floodplain maps from the Federal Emergency Management Agency show that the property lies within the 100-year flood zone of the TT W. Surface elevations at the property range from 148 to 152 feet above mean sea level, as shown on the United States Geological Survey (USGS) topographic maps.

B. Climate

The Luxapalila Creek basin is located in a region that has a temperature climate with long, warm summers and short, usually mild winters. The mean annual temperature based on 92 years of record at Columbus is 64.4 °F with mean monthly temperatures ranging from 46.9 °F in January to 81.7 °F in July. A minimum of 7 °F below zero and a maximum of 113 °F have been recorded. The normal frost-free period of 8 months lasts from April to November. This area also receives an abundant rainfall which is fairly well distributed throughout the year. The mean annual rainfall is 50.72 inches of which 57 percent occurs in the winter and spring, 24 percent in the summer and 19 percent in the fall. The average annual snowfall is about 3.5 inches.

C. Air Quality

According to the Mississippi Department of Environmental Quality (MDEQ) website, Mississippi is currently designated as attainment that is meeting all ambient air quality standards. According to the MDEQ 2006 Air Quality Data Summary Report, the Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six principal air pollutants (also called criteria pollutants): Ground-Level Ozone (O3), Particulate Matter (PM), Nitrogen Dioxide (NO2), Sulfur Dioxide (SO2), Carbon Monoxide (CO), and Lead (Pb). The MDEQ monitors all of these pollutants except lead and carbon monoxide. Lead and carbon monoxide has been monitored in the past. However, because the concentrations reported were so much lower than the air quality standard, it was determined by EPA and MDEQ that it no longer needed to be monitored in Mississippi. MDEQ also monitors hazardous air pollutants. However, because there were no NAAQS for these pollutants, the monitoring data is not shown in the report.

The report looked at the reported levels of the criteria pollutants in 2006 at various monitoring sites located in Mississippi. It compares these levels to the NAAQS to determine how the state is doing in meeting these standards. Mississippi is meeting all of the NAAQS and has recently been designated attainment with the fine particulate matter (PM2.5) standards. In fact, Mississippi is one of only three states east of the Mississippi River (Florida and Vermont are the other two) that is meeting all of the standards.

D. Geology/Topography

Luxapalila Creek is near the landward edge of the Gulf Coastal Plain within the Tombigbee River Hills or Fall Line Hills Physiographic Province. The surface is generally hilly and ranges from low, smoothly rounded hills of 40 or 50 feet relief with broad intervening

valleys to hills and ridges up to 200 feet high separated by narrow valleys with steeply sloping sides.

The area is comprised of Jena-Mantachie associated soils which consist of well drained and somewhat poorly drained soils which are typically found within floodplains. The project area contains uneven topography with prominent berms running adjacent to Luxapalila Creek.

Recent-age alluvial soils occur within the coastal plain of Luxapalila Creek from the surface to an average depth of 15 feet. The Eutaw formation of Cretaceous age underlies the alluvial materials. The Eutaw is a persistent formation that crops out in an arcuate pattern extending from the northeastern corner of Mississippi southward to Columbus, where it turns and continues across the central part of Alabama in a belt up to 15 miles wide. The Eutaw dips gently to the southwest and is approximately 350 feet thick within the Luxapalila Creek area. It consists of gray, well compacted, micaceous, and glauconitic silty clay, clayey sand and sandy clay. Additionally, from aerial photographs of the general area, it is evident that there are sand and gravel deposits along with mining operations.

E. Socio-Economic

The City of Columbus population estimate in 2003 was 24,959 and the number of residents had decreased by 3.8% since 2000. Lowndes County population estimate in 2006 was 59,773 and the number of residents had decreased by 2.9% since 2000 (U.S. Census Bureau website, 2007).

According to the US Census Bureau website, the median household income in 1999 was approximately $27,393 while the per capita income was $16,848 during the same period. On the downside, in 1999 there were approximately 25.7% of individuals who live below the poverty level in Columbus (2007).

Ethnic and racial diversity is apparent in the City of Columbus and Lowndes County as a whole. According to the 2000 Census, there were 43.6% of individuals claiming to be white. There were 54.4 % of individuals who indicated black as their race. With 3.1% of individuals of other racial groups make up the remainder of the city's residents (U.S. Census Bureau website, 2007).

While retail sales employ the majority of people, other major employers have been and continue to be state and local governments, wholesale trade, food service sales, minority-owned firms and women-owned firms (U.S. Census Bureau, 2007). Census and economic data signify a reasonably diverse economic base with evidence of employers capable of avoiding heavy up and down swings. In addition to these employers, there are many industries such as Boeing, Weyerhaeuser, Kerr McGee, Nucor, IPSCO Steel, SeverCorr Steel and Allant that are moving into the area along the waterway which demonstrates the need for the barge mooring facilities.

F. Environmental Justice and Protection of Children

Executive Order 12898, enacted by President Clinton in 1993, requires that each Federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations. EO 13045 of April 21, 1997 requires, to the extent permitted by law and mission, identifying and assessing environmental health and safety risks to children posed by the proposed action. The Corps is responsible for ensuring that the requirements of the executive order are implemented for this proposed project. To assess compliance with the EO on Environmental Justice and Protection of Children, the following discussion includes:

- Identification of the populations that would be impacted by the various project components, including an assessment of the extent that minority or low income groups are present;

- An evaluation of whether disproportionate impacts would occur to minority or low income populations;

- An assessment of whether potential disproportionate impacts on minority or low income populations would be beneficial or adverse and;

- Identification and assessment of environmental health and safety risks posed to children in the proposed project area.

G. Plant Communities

The vegetation within the study area of Luxapalila Creek consists almost entirely of woods with a significant forest canopy. There is a relatively small ponded area in the eastern third of the property populated with cypress, tupelo and other wetland plant species. Typical water tolerate species that may be found in the area are black willow, buttonbush, lizard's tail and spike rush.

H. Wetlands

The wetland delineation was conducted on March 22, 2007 by the Corps (See Appendix A). Access to the track at the time of the review could only be accomplished by boat. The result of the wetland delineation within the boundaries of the 18.45 acre Luxapalila Creek Mooring Facility project site was one wetland area. The general area is made up of a forested wetland that is dominated by bald cypress (*Taxodium distichum*) and water tupelo (*Nyssa aquatica*) (See Figure 3).

The wetland delineation method used followed the procedures outlined in Part IV of the 1987 Corps of Engineers Wetland Delineation Manual. Sources of information utilized in this wetland delineation include US Department of Agriculture Natural Resources Conservation Service 1976 Soil Survey for Lowndes County, Mississippi, aerial photographs from Map Quest and Terra Server, the Munsell Soil Color Chart, and USGS topographic quad maps. Photographs

were taken at representative locations within the site evaluated and provide a visual image of the typical habitat present.

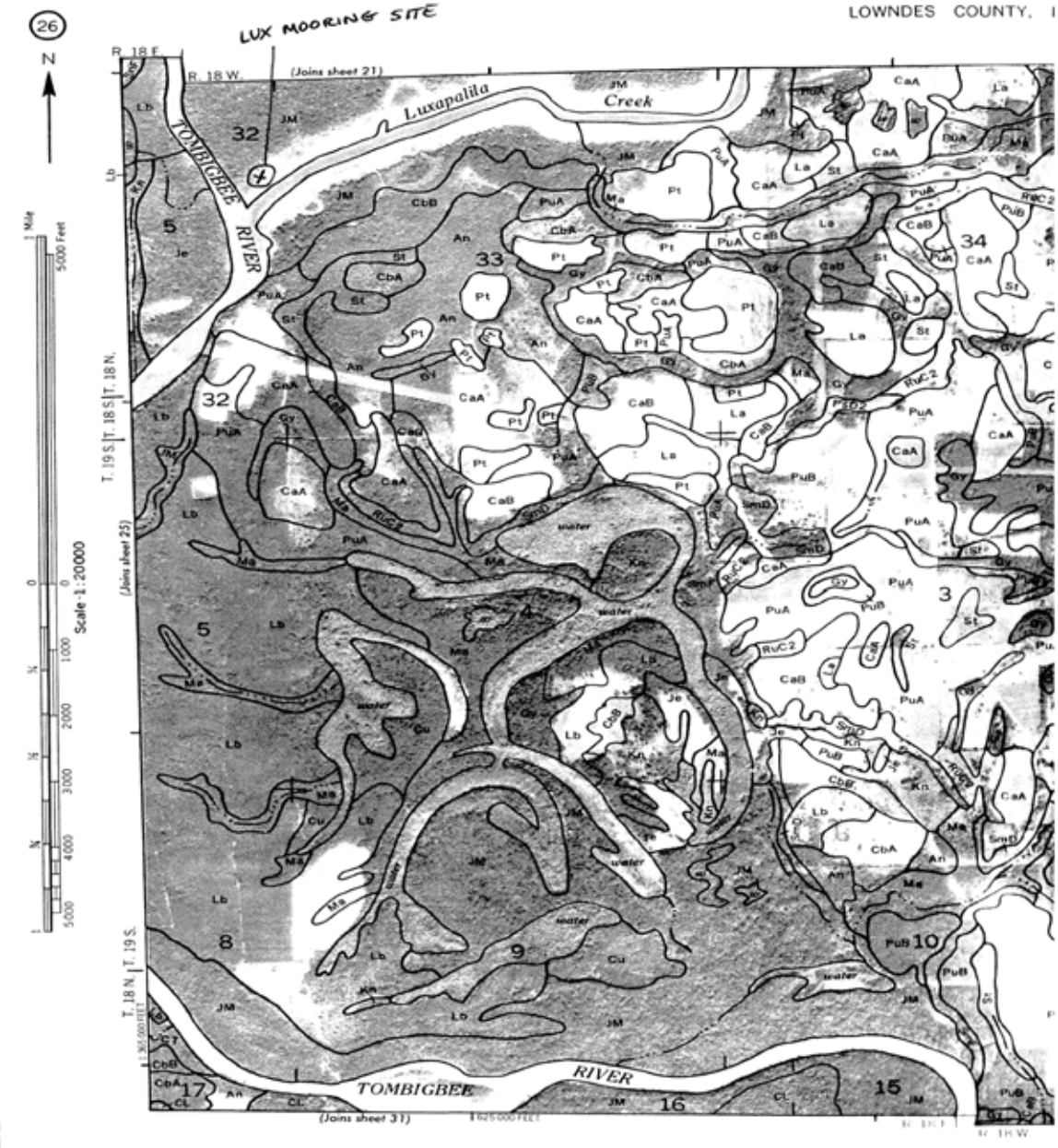


Figure 3: Wetland Map

I. Water Quality

The Luxapalila Creek from the Mississippi - Alabama State Line to Highway 50 is classified as a public water supply and as fish and wildlife from Highway 50 to its confluence with the Tombigbee River. The water quality within Luxapalila Creek is generally good and the City of Columbus uses Luxapalila Creek as its main source of potable water. Normal flow

conditions in the creek result in low turbidity levels. This is primarily due to the large amount of sand and gravel and low silt content of the stream bed.

J. Fish

Fish diversity and population levels within the study area have remained in a healthy state. Luxapalila Creek is considered to be the best tributary to Aliceville Lake in regards to fish habitat and diversity. Studies by Arner, et al (1976), Boschung (1984) and Schultz (1972 and 1981) indicate that the fish diversity within the modified portions of Luxapalila Creek is improving, while natural creeks areas have maintained a viable sport fishery. The southern walleye (*Sanders vitreus*) is still an important fish species in the creek, and Schultz (1984) states that the walleye population is improving. The Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) and the US Fish and Wildlife Service (FWS) are concerned over the future of the walleye in northeast Mississippi and attempts are being made to use walleye captured from the Luxapalila Creek to establish a stocking program for suitable streams in other areas. Other important sport fish species in the creek include the spotted bass (*Micropterus punctulatus*), bluegill (*Lepomis macrochirus*), crappie (*Pomoxis annularis*), channel catfish (*Ictalurus punctatus*) and longear sunfish (*Lepomis megalotis*). Important non-game fish species include the frecklebelly madtom (*Noturus munitus*), creek chub (*Semotilus atromaculatus*), shiners, minnows and suckers. The primary stream fishing areas are located upstream of Columbus and in the north floodplain between Steens, Mississippi and Millport, Alabama. The south floodplain between Steens and Millport contains abundant fish habitat; however, according to Boschung (1984), the fish populations in this area are not as diverse as the fish resources in the north floodplain. This is probably due to the standing water and aquatic growth conditions in the south floodplain which contributes to poor water quality.

K. Wildlife

The wildlife resources within the study area have remained in a healthy state since the preparation of the Final Environmental Impact Statement for the Tombigbee River and Tributaries, Luxapalila Creek Segment, Alabama and Mississippi, 1975. Few changes have occurred to diversity or population levels in the Columbus to Steens reach since only minor changes in land use have occurred. Small mammals, furbearers, songbirds, reptiles and amphibians remain abundant in this reach, even in the urban areas. This is primarily as a result of habitat preservation along the creek. Although land use intensification is gradually occurring in this reach, it is occurring primarily on the areas of the highest elevation, particularly when it comes to agricultural, commercial and residential developments. Therefore, frequently flooded and wetland areas remain as wildlife habitat.

L. Threatened and Endangered Species

According to the FWS, there are several federally protected mussel species that could be found, or historically were found in the project area. These include the endangered heavy pigtoe (*Pleurobema taitianum*), the endangered southern clubshell mussel (*Pleurobma decisum*), the endangered ovate clubshell mussel (*Pleurobema perovatum*), the endangered black clubshell (*Pleurobema curtum*), the threatened Alabama moccasinshell (*Medionidus acutissimus*), the

endangered southerncombshell mussel (*Epioblasma penita*) and, the threatened orange-nacre mucket (*Lampsilis perovalis*).

M. Cultural Resources

As per requirements outlined in Section 106 of the National Historic Preservation Act, the Mobile District must consider the effects of the proposed action on historic properties. Although most of the TTW has been surveyed and consulted on for cultural resources, the proposed mooring facility area had not been subject to inventory. Due to the high probability of archaeological sites in the area and in similar physiographic settings, the Corps had a Phase I cultural resource survey conducted of the project Area of Potential Effect (APE) in August 2007.

As part of the Phase I survey, a literature and background check for previously recorded cultural resource sites and surveys was conducted. This research included records maintained by the National Park Service, National Register of Historic Places, and the Mississippi Department of Archives and History (MDAH). The study found numerous sites (27) and previously conducted surveys in the general area (within two miles). However, none of the sites or studies was located in the APE. The survey report is being coordinated with the Mississippi State Historic Preservation Officer (SHPO).

N. Aesthetics

The Tombigbee River and Luxapalila Creek in the Columbus area meander through broad, flat valleys characteristic of the Coastal Plain region. The lower-lying areas along the streams are generally wooded and contain little development, other than for recreation, while higher-lying floodplain lands, to a relatively large extent, are cleared for urban and agricultural uses. In the Tombigbee River floodplain on the east bank just below the city, a body of water has been formed in an old oxbow of the river named Lake Catherine which provides fishing and from a scenic standpoint, is considered to be an asset to the area. Propst Park has been developed by the city adjacent to the Luxapalila Creek channel just upstream from U.S. Highway 82. The landscape along the lowermost reach of Luxapalila Creek below the highway is marred by numerous sand and gravel pits, some long abandoned. This substantially detracts from an otherwise rather pleasant environment.

O. Hazardous, Toxic and Radiological Waste (HTRW)

In March 2007, the Corps conducted a Phase I Environmental Site Assessment (ESA) (See Appendix B) at the project site to determine if there is existing or potential environmental contamination from either present or past releases of hazardous substances used, stored or disposed of on the property, or on adjacent properties. An interview concerning recognized environmental conditions and past uses of the project areas were conducted to identify any known or suspected areas of environmental concern within the project areas. The following person was interviewed:

Mr. Peter Grace, Corps' Columbus Resource Office: Mr. Grace has historical knowledge of the property and was present during the site reconnaissance as the representative of the owner.

He stated that he knew of no negative environmental impacts that have occurred on the property either before or after the purchase by the Mobile District Corps of Engineers in 1977.

There were no interviews with site managers, occupants, local government officials or others. There is no site manager for the property and the property is unoccupied.

V. **ALTERNATIVES TO THE PROPOSED ACTION**: Alternative 1: This alternative evaluated the proposed facility located within Columbus Pool. The location in Columbus Pool would require a channel with minimum dimensions of 125x9 feet. The actual mooring facility would require an excavated basin of 400x1,200 feet. This location would be within a high traffic recreating area and the channel would be used by non-commercial vessels. This site would also require the lockage of fleeted barges waiting to enter the port facilities downstream of Stennis Lock (See Figure 4).

Alternative 2: This alternative evaluated the proposed facility located in an excavated notch beside the channel in the Columbus Cutoff portion of the waterway. This location is located downstream of Stennis Lock and near the existing port facilities. This alternative would require extensive excavation and provides serious safety concerns due to the maneuvering of barges in or near the navigation channel, especially during flood events. At this location the excavation would encounter the Eutaw Formation which would require blasting to excavate. Blasting is not economical for this project (See Figure 4).

Alternative 3: This alternative evaluated the proposed facility located at Laws Bar in the old river channel. This location would require extensive excavation of the old river channel along with the island referred to as Laws Bar. The Eutaw Formation would likely be encountered at this location also and would require blasting. Laws Bar is a privately owned property and acquisition of the property would likely be unsuccessful based on past transactions with the owner. This location is not large enough to accommodate the required number of barges to be moored while still allowing space for barge traffic to get to the Port. The site is very challenging to navigate and maneuver during high water events (See Figure 4).

Alternative 4: This alternative evaluated the proposed facility located adjacent to the mouth of Luxapalila Creek. This location will require a substantial amount of excavation. A portion of the area has been previously excavated by the flood control project for the Luxapalila Creek. A public use area and boat ramp is located adjacent to the site. This location will provide safe mooring in a tributary to the waterway away from the navigation channel and is located downstream of Stennis Lock and Dam. This site will provide sufficient area for maneuvering tows and access to the boat ramp. Upland disposal areas for the excavated material are located near the site. This is the recommended location for the facility (See Figure 4).

Alternative 5: With the No Action Alternative, the potential for safety hazards would not be corrected. The National Environmental Policy Act (NEPA) regulations require the evaluation of the no action alternative to address the future without project conditions. This alternative would only increase the potential for property damage and the environment due to fluctuations of the river from 25 feet rain events. Additionally, the no action alternative would not satisfy the purpose and need for a barge mooring facility in this area.

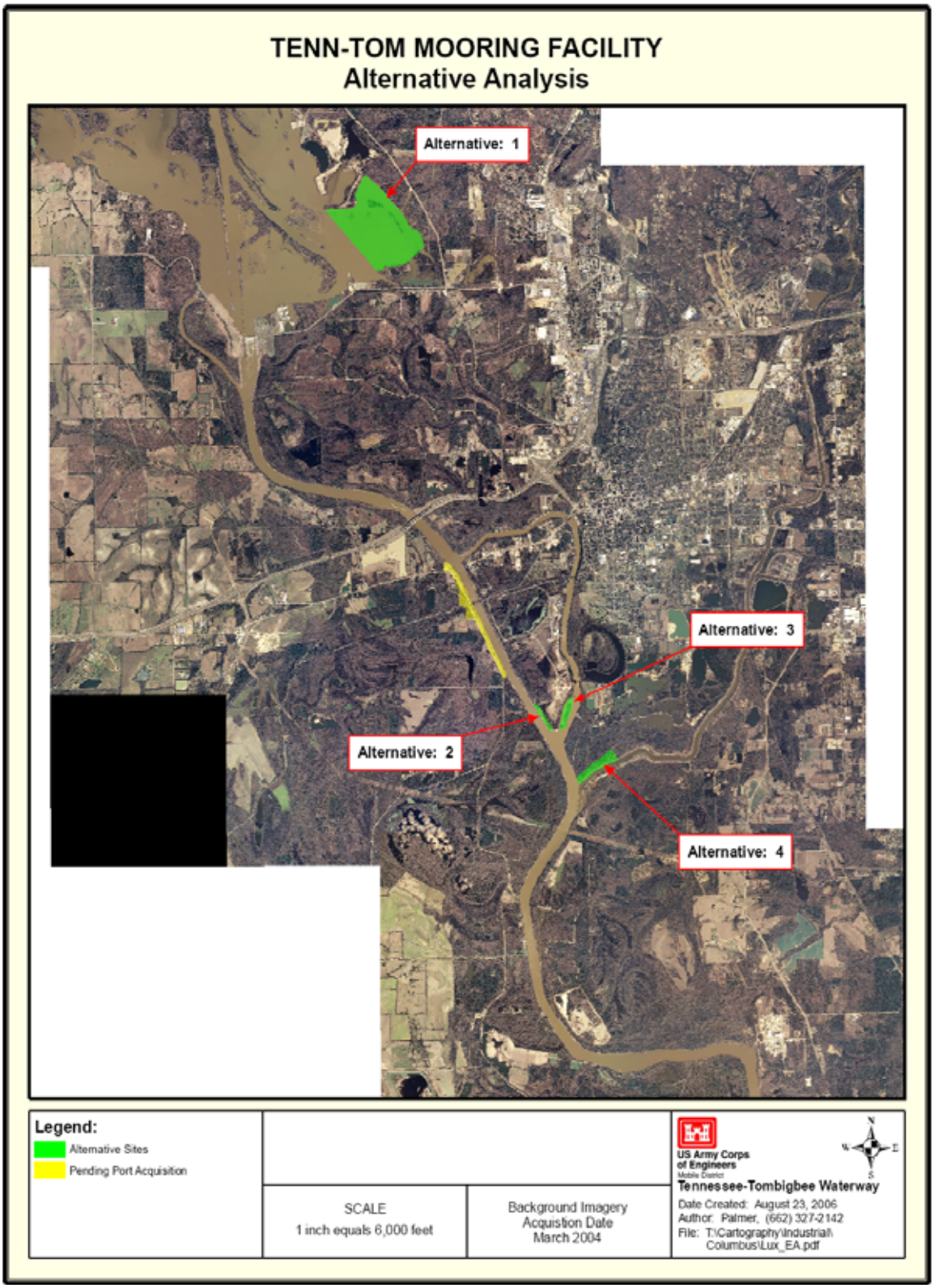


Figure 4: Alternative Sites Map

VI. **POTENTIAL ENVIRONMENTAL IMPACTS ON PROJECT RESOURCES**:

A. Climate

Due to the nature of the proposed action, there would be no impacts to climate.

B. Air Quality

During the construction period, emissions from construction vehicles are expected to increase because of the activity associated with construction of the project. The increase in emissions would be extremely small relative to the areas air quality. Upon completion of the work, ambient air quality in the immediate vicinity of the project would be restored to pre-project conditions.

Furthermore, the proposed project area is within an "air quality attainment" area as defined in the Clean Air Act (CAA) of 1990. As such, this action is exempt from the need to prepare an air conformity determination as mandated by the CAA. Based on this information, it is extremely unlikely that the proposed action would have an adverse impact on air quality.

C. Socio-Economic

Due to major rain events, along the TTW, the Luxapalila Creek site would be beneficial to the community. Many who are navigating in this area when a major rain event occurs, use the proposed site location to tie up there boats and tows. The placement of the barge mooring facility would prevent accidents and property damage and/or loss. Additionally, the construction would provide job opportunities for the local community as well as the surrounding areas.

D. Environmental Justice and Protection of Children

Due to major rain events, water levels downstream of Stennis Lock and Dam fluctuate as much as 25 feet. Most waterway users do not navigate during these types of events and prefer to moor their tows to prevent potential accidents and property damage. The construction of the barge mooring facility would have positive impacts to the proposed project area because there would be safe mooring and serve as a service to the community.

If there are any potential health and safety risks due to construction, the construction contractors would implement all safety and security measures required by local, state, and federal laws and regulations.

No disproportionate adverse impacts would be generated on minority or low-income populations in the area. Also the proposed project would not pose any adverse environmental health or safety risks to children.

E. Plant Communities

Clearing and grubbing vegetation of the lands as proposed would have long-term detrimental impacts on wildlife. By clearing and grubbing the vegetation there would be a loss of habitat in the proposed project area that could be a critical source of cover and food. However, there is the potential for the wildlife to relocate to the similar surrounding habitat.

F. Wetlands

Those wetlands included in the Corps regulatory program are referred to as jurisdictional wetlands. The wetland functions include retention of flood waters, stabilization of runoff, reduction of runoff, biomass production, creation of natural firebreaks, improvement of water quality, provision of habitat for numerous game and non-game wildlife species, and serving as a buffer between upland and aquatic habitats. While most of these functions are intangible, wetlands do provide many tangible values, such as flood protection, hunter/trapper use, and timber production. With the continual decrease in wetland acreage nationwide, statewide, and in the project area of Luxapalila Creek, the remaining wetlands take on more value since they are scarce resources.

Based on the wetland delineation that was conducted on March 22, 2007 by the Corps, the existing conditions at the project area, approximately 1.63 acres of jurisdictional wetlands are located within the proposed project area. To mitigate for the loss of wetlands, the Corps proposes to utilize White Slough which was purchased in 2004 under the Water Resources Development Act (WRDA) 2000 for wildlife mitigation off the Cut-off of the TTW and is part of the reserve land and available for mitigation needs on the TTW. White Slough consists of 76 acres of prime bald cypress and tupelo gum habitat and is in close proximity to the proposed project. The Corps office in Columbus would work with Regulatory Division personnel to assure that the wetlands are mitigated in accordance with established policies.

G. Water Quality

The primary water quality impact during construction results from sediment, excavation and dredging that is removed from the construction site, transported to local surface watercourses, and then dispersed or deposited. Turbidity and suspended sediments increases would be localized and temporary. Construction activities may temporarily increase non-point source pollutant loads, primarily sediments, in surface runoff entering the Luxapalila Creek and the TTW.

All construction of the proposed barge mooring facility would use fine mesh silt fences (effective and structurally sound) and all best management practices (BMP's) established by the State of Mississippi would be employed to ensure that sediment laden runoff and siltation would not enter the waterways. Also, BMP's would be employed during dredging operations at the mooring site, as well as at the designated upland disposal areas.

H. Fish

Due to the location of the barge mooring facility at the mouth of the Luxapalila Creek, there is the possibility that fish and benthic species would be affected by the proposed project. If

they are impacted it would be temporary. In a letter from the Mississippi Department of Wildlife, Fisheries and Parks (MDFWP), dated March 6, 2007, stated that the habitat for the southern walleye could be adversely affected by the proposed channel excavation and any headcutting or stream bed instability that results. In response, a letter was sent to the MDWFP dated August 16, 2007, that stated the Corps would avoid and/or minimize any impacts to all sport fish, especially the southern walleye concerning of the health of the population of southern walleye during their spawning period of January through April.

I. Wildlife

During construction, it is expected that wildlife within the immediate vicinity of the work area would be displaced as a result of increased noise and human activity and the loss of approximately 12 acres to wildlife mitigation lands. However, the Water Resources Development Act (WRDA) of 2000 (Public Law 106-541) authorized the removal of land from the TTW Wildlife Mitigation Program as necessary for the operation of the project provided that at least an equal acreage of replacement lands has already been acquired.

Section 301 of WRDA 2000 authorizes the purchase of lands to be used to replace those removed from the TTW Wildlife Mitigation Program. Appendix D of the Standard Operating Procedure specifies that the Corps would aim to avoid reducing the reserve of replacement lands by more than 25%. Removing 12 acres by clearing and grubbing would not reduce the reserve by more than 25%. According to the Corps Columbus Office, there is currently 267.31 acres that have been removed from the mitigation lands and 508.21 acres have been added to the reserve of replacement lands.

J. Threatened and Endangered Species

The Corps has concluded that the proposed action would not adversely affect federally protected mussel species because the proposed area consists of impounded and channelized waters, and therefore suitable habitat is not present for these species. In a letter dated August 14, 2007, the FWS concurs that the proposed barge mooring facility is not likely to adversely affect federally listed species.

K. Cultural Resources

The Phase I cultural resources survey, including subsurface testing and screening was conducted on August 21 and 22, 2007. The project area was found to be extremely disturbed and contained evidence of channel cutting and fill disposal from work in the 1960's and 1970's. The cultural resources study found no cultural resource sites within the APE.

Effects determinations are the responsibility of the lead Federal agency. The Corps has considered the nature of the undertaking and the presence of properties that may posses the qualities of integrity and meet at least one of the criteria necessary to be considered eligible for inclusion in the National Register of Historic Places. Based on the background study and Phase I survey, no historic properties are located within the APE. Therefore, the Corps has determined no historic properties affected by the proposed mooring facility construction work as per 36 CFR

800.4(d) (1). The results of the survey and effects determination have been forwarded to the Mississippi State Historic Preservation Officer (SHPO) for review and comment and the SHPO concurs that there are no historic sites located within the proposed project area.

L. Aesthetics

During construction of the project, the Luxapalila creek banks might be visible that otherwise would not. However, immediately after construction, the creek banks and general construction area would have placement of riprap to reduce erosion and to ensure that the pre-project aesthetics are restored. Therefore, the impacts to aesthetics would be minor, short-term and insignificant.

M. Hazardous, Toxic and Radiological Waste (HTRW)

Based on the information gathered during the Environmental Site Assessment (ESA), the property has been owned by the Laws family for decades prior to Corps purchase and had been used primarily for hunting and recreation. It was purchased by the Corps by Special Warranty Deed in November of 1977. The Corps has not made any improvements or alterations to the property since that time to present.

The TTW forms a boundary west of the site and the Luxapalila Creek borders the south. As stated, the Corps also owns the parcel adjacent to this parcel. Based on areas with similar hydrologic conditions the assumed direction of groundwater flow (especially shallow groundwater) in the area of the property would be toward the river (i.e., south-southeast).

Although a fence separates the north property boundary, the adjacent private land is indistinguishable in appearance and characteristics from the target property itself. Adjacent land is also wooded and has what appears to be ATV trails and evidence of wildlife habitation. No recognized environmental conditions or concerns were discovered in any of the database searches for the adjacent properties and no were identified for the target property or the surrounding properties.

The Corps' Environmental Professional concludes that no recognized environmental condition (as defined in American Society of Testing and Materials ASTM E 1527 - 05) exists on the target property. The information collected during the course of the investigation revealed no finding or circumstance would warrant further investigation of the target property.

Phase I Environmental Site Assessment in compliance with the scope and limitations of ASTM practice E 1527 at the property located adjacent to and northeast of the confluence of the Tennessee-Tombigbee Waterway and Luxapalila Creek, near the southern city limits of Columbus, Mississippi. Any exceptions to, or deletions from, this practice are described in Section 2.4 of the ESA. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

N. Recreation

Recreation within the Luxapalila Creek Park would be temporarily impacted during construction of the project along the creek bank where the boat ramp is located. However, the park has been affected by vandalism which has caused a decline in public use. Additionally, there may be some adverse impacts on local boat recreation during construction but it would be localized and temporary. After the barge mooring facility is completed there should be no impacts on recreation.

VII. **COORDINATION**: As required by the National Environmental Policy Act, the Corps is coordinating this project with various local, state and Federal agencies. During the early stages of development, the US Fish and Wildlife Service, Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Environmental Quality and Mississippi State Historic Preservation Officer, were solicited (EA Appendix C, Coordination Letters) for their comments and/or concerns regarding this proposed project. Agency responses are located in EA Appendix D. Final coordination is ongoing.

Coordination with the general public has been accomplished by making the Draft EA and 404(b)(1) Evaluation Report available through means of a public notice being placed on the Corps website and mailing to interested parties. The notice was published November 5, 2007 and informed the interested parties that a 15-day comment period would begin on the date of publication. Interested parties were further advised that they can obtain a copy of the draft documents by calling or e-mailing the request to the Corps contact person identified in the public notice as well as downloading from the Corps, Mobile District web site: http://www.sam.usace.army.mil/pd/Pd1.htm

VIII. **SUMMARY**: As demonstrated in the previous sections, the proposed barge mooring facility at the mouth of Luxapalila Creek would not permanently nor adversely affect construction site resources. In fact, it is expected that the proposed construction of the mooring facility would assist in preventing potential accidents and property damage during the next flood event. **Table 1** provides a consolidated view (matrix) of the anticipated impacts associated with the proposed preferred plan.

Table 1 Environmental Consequences Matrix

Proposed Action----> Project Resource(s)	**Construction of Barge Mooring Facility at Luxapalila Creek**
Climate	NI
Air Quality	TI
Geology/Topography	TI
Socioeconomic	BI
Environmental Justice/Protection of Children	NI
Plant Communities	AI
Wetlands	AI
Water Quality	TI
Fish	TI
Wildlife	AI
Threatened/Endangered Species	NI
Cultural Resources	NI
Aesthetics	TI
Hazardous/Toxic Materials	NI
Recreation	TI

NI=No Impact **BI**=Beneficial Impact **TI**=Temporary Impact **AI=**Adverse Impact

VIII. **REFERENCES:**

Mississippi Department of Environmental Quality, Air Quality Planning and Emission Standards. September 10, 2007. URL: http://www.deq.state.ms.us/MDEQ.nsf/page/Air_AirQualityPlanningandEmissionStandards?OpenDocument

Mississippi Department of Environmental Quality, 2006 Air Quality Data Summary Report. September 10, 2007. URL: http://www.deq.state.ms.us/MDEQ.nsf/pdf/Air_MDEQ2006AirQualityDataSummary/$File/2006%20Air%20Quality%20Data%20Summary%20v2.pdf?OpenElement

Mississippi Department of Wildlife, Fisheries and Parks, 6 March 2007, Letter to Mr. Kenneth Bradley, U.S. Army Corps of Engineers District, Mobile.

RabbySmith, Steven, 2007, Draft Report: Phase I Cultural Resources Survey of the Luxapalila Creek Mooring Facility Tract Lowndes County, Mississippi, performed for Brockington and Associates, Contractor for the U.S. Army Engineer District, Mobile under Contract Number W91278-07-P-0357.

U.S. Army Corps of Engineers, Mobile District, 1974. Final Environmental Assessment, Tombigbee River and Tributaries, Luxapalila Creek Segment, Alabama and Mississippi.

U.S. Army Corps of Engineers, Mobile District, 1991. Tombigbee River and Tributaries, Mississippi and Alabama, Summary of General Design Studies and Final Supplement to the Environmental Impact Statement, Luxapalila Creek, Mississippi and Alabama.

U.S. Army Corps of Engineers, Mobile District, 2007. Environmental Site Assessment Report for the Columbus Mooring Facility Property, Columbus, Mississippi.

U.S. Army Corps of Engineers, Mobile District, 2007. Wetland Delineation Report for the Luxapalila Mooring Facility.

U.S. Census Bureau. State and County Quick Facts. September 25, 2007. URL: http://quickfacts.census.gov/qfd/states/28/28087.html

U.S. Census Bureau. State and County Quick Facts. September 25, 2007. URL: http://quickfacts.census.gov/qfd/states/28/2815380.html

U.S. Fish and Wildlife Service, 2 March 2007. Letter to Mr. Kenneth Bradley, U.S. Army Corps of Engineers, Mobile District.

U.S. Fish and Wildlife Service, 14 August 2007. Letter to Mr. Kenneth Bradley, U.S. Army Corps of Engineers, Mobile District.

APPENDIX A
COORDINATION LETTERS

January 22, 2007

Inland Environment Team
Planning and Environmental Division

Dr. Sam Polles, Executive Director
Mississippi Department of Wildlife, Fisheries and Parks
1505 Eastover Drive
Jackson, Mississippi 39211-6374

Dear Dr. Polles:

The U.S. Army Corps of Engineers, Mobile District is requesting your comments and/or recommendations on the proposed design, alternatives, and threatened and endangered species concerns for the Tennessee-Tombigbee Waterway (TTW) Mooring Facility Luxapalila Creek located in Columbus, Lowndes County, Mississippi (Figure 1).

The proposed project would provide safe mooring of barges during high water events. Water levels downstream of Stennis Lock and Dam fluctuate as much as 25 feet during major rain events. Most waterway users do not navigate during these type events and prefer to moor their tows to prevent potential accidents and property damage. The proposed facility would also provide secondary benefits by providing mooring for tows waiting to be serviced by the local ports along the waterway. It also provides safe mooring for tows during emergency lock closures.

Initially there were four alternatives proposed for this project and Alternative 4 was determined to be the best for the proposed project. Alternative 4 will require constructing a barge mooring facility at the mouth of the Luxapalila Creek. This site is approximately five miles downstream of the Stennis Lock & Dam, and adjacent to river mile 329. The site is also to the North West of the Luxapalila Park. The dimension of the project site is approximately 1500x300 feet.

The proposed project will involve clearing and grubbing of approximately 12 acres to the North West of the Luxapalila Creek. The project will require the excavation and removal of approximately 300,000 cubic yards, which will include deepening the creek in this area by 3 feet. All excavated material will be placed in existing upland disposal areas. The excavation will extend to elevation 127 feet National Geodetic Vertical Datum. It will also require the placement of 6,200 cubic yards of riprap to protect the new slopes.

The proposed project will include the placement of six mooring dolphins. These dolphins will be constructed of three steel piles driven into the bottom and braced together to form a single mooring dolphin. We will also construct six concrete dead-men, which will be located landward of the mooring dolphins. These dead-men will be constructed of concrete and will have dimensions of approximately 10x10x9 feet. These dead-men will be used in conjunction with steel cables to anchor the barges.

A portion of the area has been previously excavated by the flood control project for the Luxapalila Creek. A public use area and boat ramp is located adjacent to the site. This location will provide safe mooring in a tributary to the waterway away from the navigation channel and is located downstream of Stennis Lock and Dam. This site will provide sufficient area for maneuvering tows and access to the boat ramp. Upland disposal areas for the excavated material are located near the site. This is the recommended location for the facility.

There were three other alternatives discussed for the proposed project. These alternatives are listed below (see Figure 2):

Alternative 1: This alternative evaluates the proposed facility located within Columbus Pool. The location in Columbus Pool would require a channel with minimum dimensions of 125 feet by 9 feet The actual mooring facility would require an excavated basin of 400 feet by 1200 feet. This location will be within a high traffic recreating area and the channel would be used by non-commercial vessels. This site will also require the lockage of fleeted barges waiting to enter the port facilities downstream of Stennis Lock and Dam.

Alternative 2: This alternative evaluated the proposed facility located in an excavated notch beside the channel in the Columbus Cutoff portion of the waterway. This area is located downstream of Stennis Lock and Dam and near the existing port facilities. This alternative will require extensive excavation and provides serious safety concerns due to the maneuvering of barges in or near the navigation channel, especially during flood events. At this location the excavation would encounter the Eutaw Formation which would require blasting to excavate. Blasting is not economical for this project.

Alternative 3: This alternative evaluated the proposed facility located at Laws Bar in the old river channel. This location will require extensive excavation of the old river channel along with the island referred to as Laws Bar. The Eutaw Formation will likely be encountered at this location also and would require blasting. Laws Bar is a privately owned property and trying to acquire the property will likely be unsuccessful based on past transactions with the owner. This location is not large enough to accommodate the required number of barges to be moored while still allowing space for barge traffic to get to the port. This site is very challenging to navigate and maneuver during high water events.

Additionally, the proposed project area is described as TTW Mitigation Lands. The Water Resources Development Act (WRDA) of 2000 (Public Law 106-541) authorized the removal of land from the Mitigation Program as necessary for the operation of the project provided that at least an equal acreage of replacement lands has already been acquired. The process for doing this was defined in the *Standard Operating Procedure for Implementation of Section 301 of the Water Resources Development Act of 2000 (Public Law 106-541)*. That document was written by the Mobile District and approved by the U.S. Fish and Wildlife Service, the Mississippi Department of Wildlife, Fisheries and Parks, and the Alabama Department of Conservation and Natural Resources.

Section 301 of WRDA 2000 authorizes the purchase of lands to be used to replace those removed from the Mitigation Program. Appendix D of the Standard Operating Procedure specifies that the Mobile District will aim to avoid reducing the reserve of replacement lands by more than 25 percent. Removing 12 acres by clearing and grubbing would not reduce the reserve by this amount; therefore, no additional mitigation would be required because of this action.

Approximately 300,000 yards of excavated material will be deposited in upland disposal areas (Figure 3). The TTW Wildlife Mitigation Feasibility Study, Alabama and Mississippi, dated 1983, predicted that 4,538 acres of disposal areas would be maintained in an early stage of succession through repeated disposal use and through certain modifications to increase the capacity of the sites. It is not expected that additional mitigation will be required for this action.

We request your agency review the enclosed information and provide us your comments and/or recommendations on this subject by February 23, 2007. Please contact Ms. Velma Diaz by email at velma.f.diaz@sam.usace.army.mil or by telephone at 251-690-2025 for additional information.

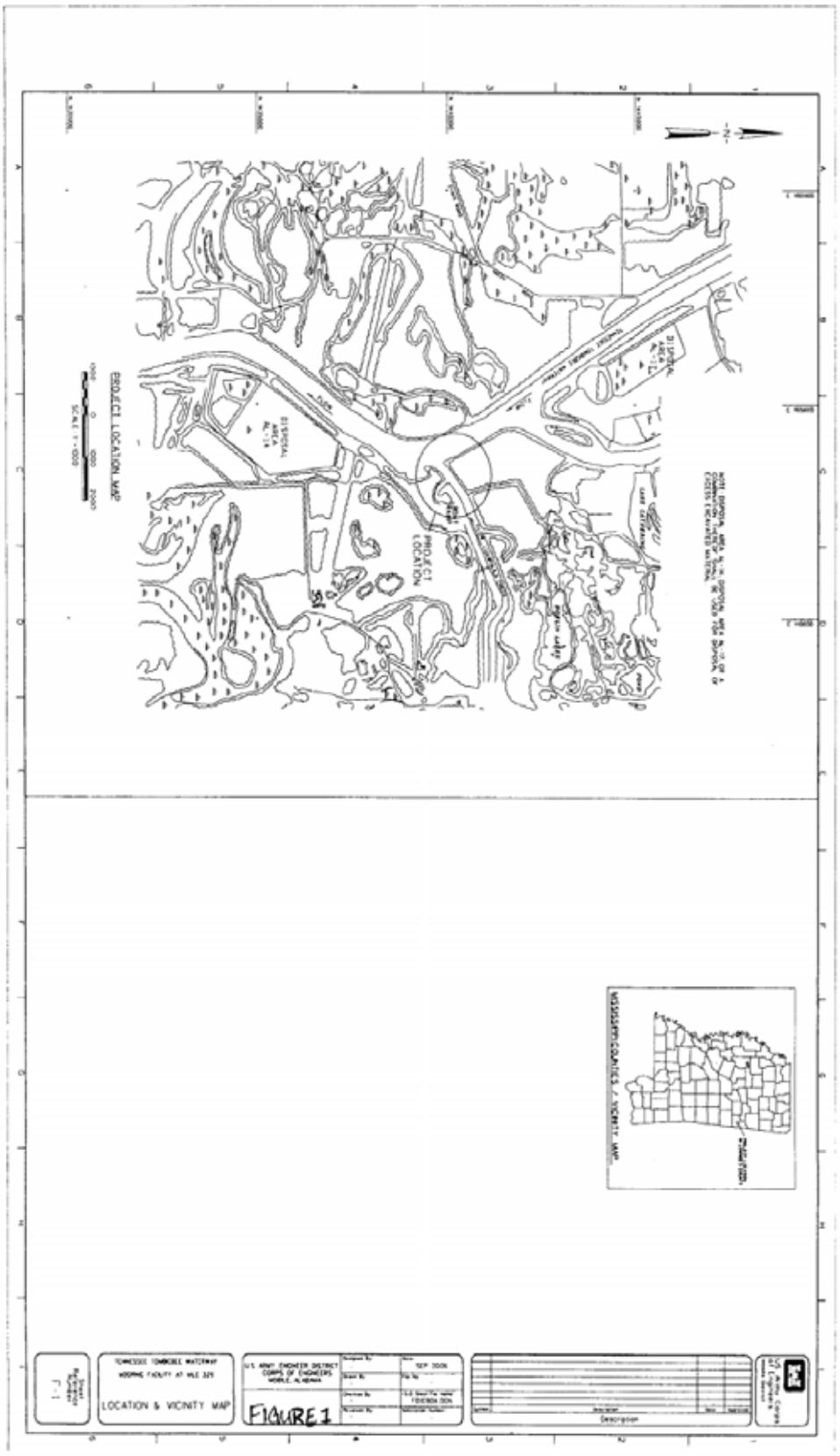
Sincerely,

Kenneth P. Bradley
Chief, Environment and Resources
Branch

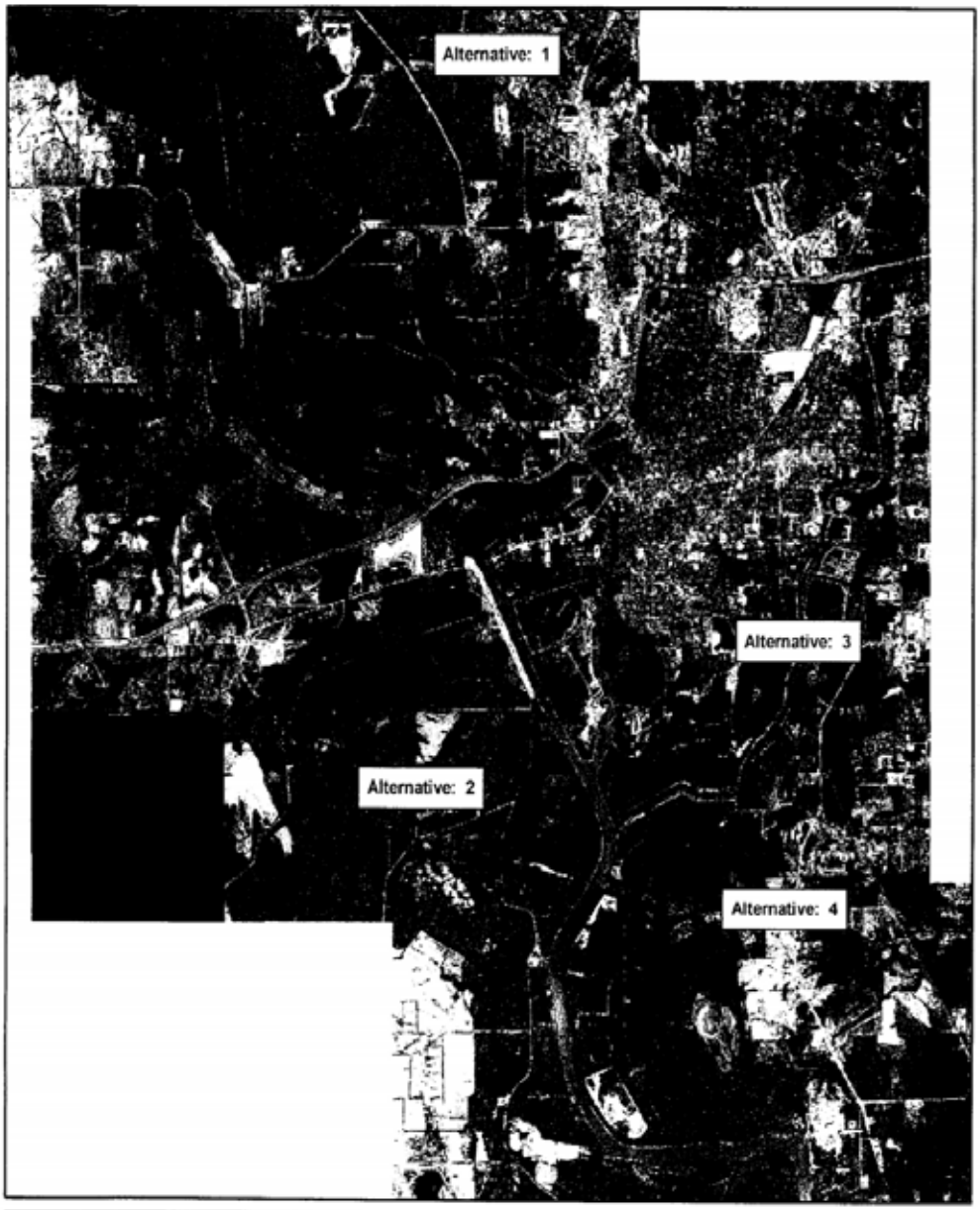
Enclosures

This same letter went to:

Mr. Ray Aycock, Field Supervisor
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213


PROJECT LOCATION MAP
PROJECT LOCATION
LOCATION & VICINITY MAP
FIGURE 1

TENN-TOM MOORING FACILITY
Alternative Analysis



Legend:
Alternative Sites
Pending Port Acquisition

FIGURE 2

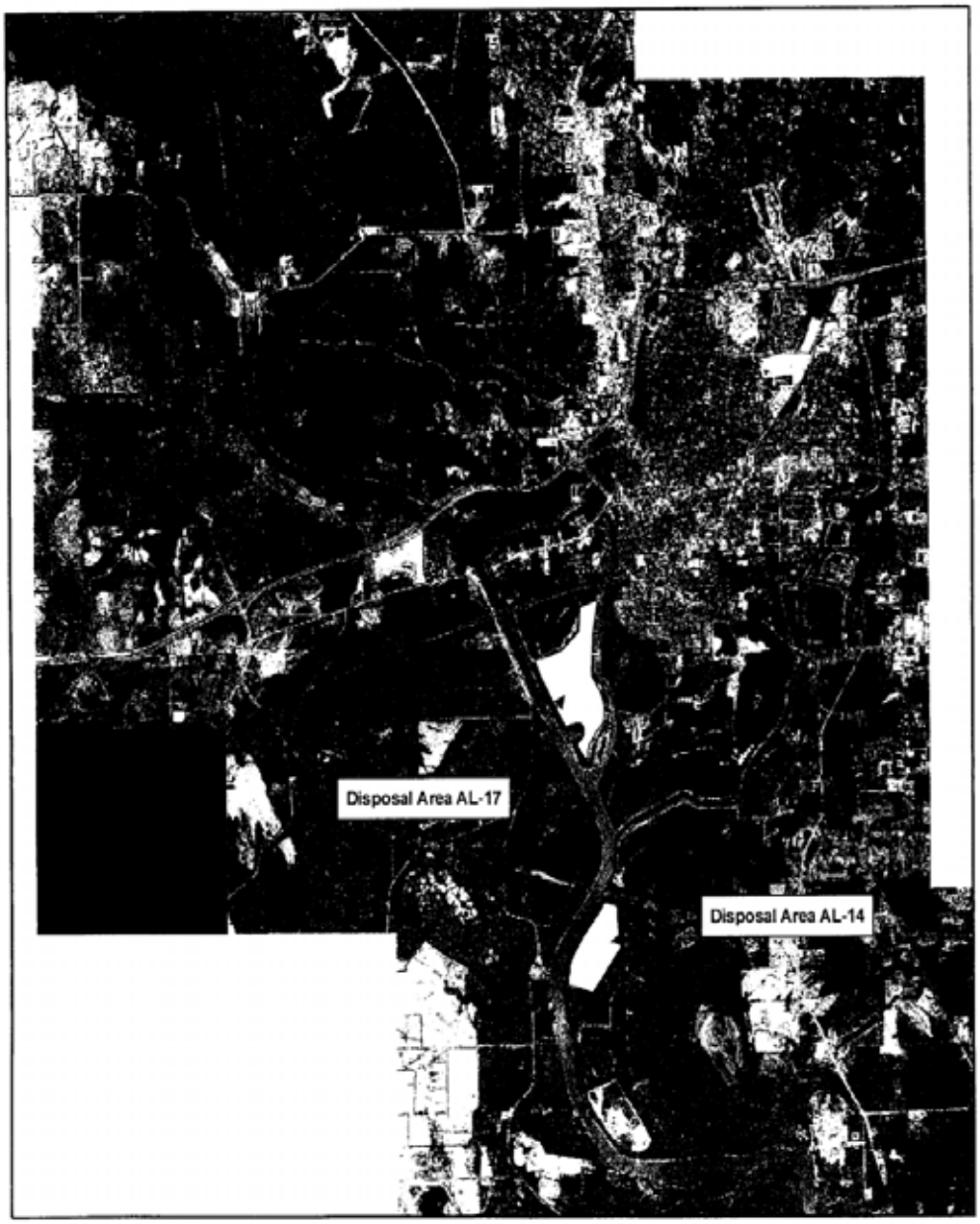
SCALE
1 inch equals 6,000 feet

Background Imagery
Acquisition Date
March 2004

US Army Corps of Engineers
Mobile District
Tennessee-Tombigbee Waterway

Date Created: August 23, 2006
Author: Palmer, (662) 327-2142
File: T:\Cartography\Industrial\Columbus\Lux_EA.pdf

TENN-TOM MOORING FACILITY
Disposal Area Sites



Legend:

Disposal Area Sites

FIGURE 3

SCALE
1 inch equals 6,000 feet

Background Imagery
Acquisition Date
March 2004

US Army Corps of Engineers
Mobile District

Tennessee-Tombigbee Waterway

Date Created: August 23, 2006
Author: Palmer, (662) 327-2142
File: T:\Cartography\Industrial\Columbus\Lux_EA.pdf

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

August 16, 2007

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Mr. Dennis Riecke, Environmental Coordinator
Mississippi Department of Wildlife, Fisheries and Parks
1505 Eastover Drive
Jackson, Mississippi 39211-6374

Dear Mr. Riecke:

This letter is in reference to the March 6, 2007 comment letter we received from you which addressed several comments and concerns made in regard to the integrity of the channel of the lower Luxapalila Creek, to the health of the population of southern walleye that live in the creek and to the loss of mitigation lands that will result from land clearing and grubbing operations that will take place.

Your concern in relation to the integrity of the channel of the lower Luxapalila Creek has been addressed in a memorandum from our U.S. Army Corps of Engineers (Corps), Coastal, Hydrology and Hydraulics Section to our Environment and Resources Branch. The memorandum states that the construction site falls within a reach encompassing the confluence of the Tennessee-Tombigbee River and the Luxapalila Creek, and continuing upstream to approximate mile 6 on Luxapalila Creek. Backwater effects from the Aliceville pool provide hydraulic control of the Luxapalila Creek within this reach. Erosion forces associated with peak Luxapalila Creek discharges are reduced by the backwater affects. Grade control structures located upstream of the construction site at mile 6 provide additional protection from head cutting. Dredging records for the Tennessee-Tombigbee River indicate shoaling and deposition routinely occur within the reach. Therefore, after review of this information and other pertinent data, it is our determination that minimal channel instability will occur as a result of Corps construction activities at this site. To minimize impacts, it is recommended that all Corps activities associated with construction be coordinated with the Mississippi Wildlife, Fisheries and Parks Department.

In regard to the other concerns, we will avoid and/or minimize any impacts to the southern walleye during their spawning period of January through April. Additionally, the loss of mitigation lands would not exceed the 25% replacement lands threshold. Currently, 267.31 acres have been removed from the mitigation lands and 508.21 acres have been added to the reserve of replacement lands.

Thank you for reviewing our proposed project and providing your comments and concerns on the proposed project. Based on the responses we have provided to your comments and concerns, we respectfully request your office provide us with a letter of concurrence on the proposed plan. It would be greatly appreciated if you could provide response within two weeks of receipt of this letter. If additional information is needed, please contact Ms. Velma Diaz at (251) 690-2025 or email velma.f.diaz@sam.usace.army.mil.

Sincerely,

Michael J. Eubanks,
Acting Chief, Environment and Resources Branch

APPENDIX B
AGENCY AND GENERAL PUBLIC COMMENTS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Jackson Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

March 2, 2007

Mr. Kenneth Bradley
Planning and Environmental Division
U.S. Army Corp of Engineers
Post Office Box 2288
Mobile, Alabama, 36628-0001

Dear Mr. Bradley:

The U S. Fish and Wildlife Service (Service) has reviewed your letter dated January 23, 2007, regarding the proposed design and alternatives for the Tennessee-Tombigbee Waterway Mooring Facility at Luxapalila Creek in Lowndes County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

There are several federally protected mussel species that could be found, or historically were found in the project area. The endangered heavy pigtoe mussel (*Pleurobema taitianum*), the endangered southern clubshell mussel (*Pleurobema decisum*), the endangered ovate clubshell mussel (*Pleurobema perovatum*), the endangered black clubshell mussel (*Pleurobema curtum*), the threatened Alabama moccasinshell *(Medionidus acutissimus)*, the endangered southern combshell mussel (*Epioblasma penita*), and the threatened orange-nacre mucket (*Lampsilis perovalis*) require clean, swiftly moving waters with pools and riffles. Work activities that increase sedimentation and water turbidity could have adverse impacts on these species.

If you have any questions or comments, please feel free to contact this office, telephone: (601) 321-1139.

Sincerely,

David Felder
Fish and Wildlife Biologist

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

August 14, 2007

Mr. Kenneth Bradley
Planning and Environmental Division
U.S. Army Corp of Engineers
Post Office Box 2288
Mobile, Alabama, 36628-0001

Dear Mr. Bradley:

The U.S. Fish and Wildlife Service (Service) has reviewed the proposed design and alternatives for the Tennessee-Tombigbee Waterway Mooring Facility at Luxapalila Creek in Lowndes County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

In an electronic mail dated August 10, 2007, your office determined that the proposed project would not adversely affect federally protected mussel species because the proposed project area consists of impounded and channelized waters, and therefore suitable habitat is not present for these species.

Based on this information, the Service concurs with your determination that the proposed mooring facility is not likely to adversely affect federally listed species. This concludes informal section 7 consultation.

If you have any questions or comments, please feel free to contact this office, telephone: (601) 321-1139.

Sincerely,

David Felder
Fish and Wildlife Biologist

MISSISSIPPI

DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

SAM POLLES, Ph.D.
Executive Director

March 6, 2007

Kenneth P. Bradley
Inland Environmental Team
Mobile District Corps of Engineers
P.O. Box 2288
Mobile, AL 36628-0001

Re: Barge Mooring Facility, Tennessee Tombigbee Waterway
Luxapalila Creek, Lowndes Co., Ms. Notice letter of January 23, 2007

Dear Mr. Bradley:

Comments:

The concerns of the Mississippi Department of Wildlife, Fisheries and Parks about the above referenced project are directed to the integrity of the channel of lower Luxapalila Creek, to the health of the population of southern walleye that live in the creek, and to the loss of mitigation lands that will result from land clearing and grubbing operations that will take place.

Channel Integrity on Luxapalila Creek

The preferred alternative for the mooring site could affect the slope of the channel of Luxapalila Creek and thus affect the channel's integrity. The channel bed in the work area at the Creek's mouth will be deepened by three feet, possibly resulting in a change in the slope of the Creek's bed. A knickpoint in the bed can be caused by excavation such as that planned for this project at the mouth of the Creek. Between the city of Columbus and the mouth of the Creek, several grade control structures have been built. These may slow, stop or attenuate any headcutting that begins as a result of this channel work.

Disposal of spoil material produced by the channel excavation operations do not seem to raise any conflicts as there seems to be adequate land available on which to deposit spoil.

1505 Eastover Drive • Jackson, Mississippi 39211-6374 • (601) 432-2400

Southern walleye Habitat Issues

Habitat for the Southern walleye could be aversely affected by the proposed channel excavation and any headcutting or stream bed instability that results. The Southern walleye, *Sander vitreus,* (Mitchill, 1818) has historically existed in Luxapalila Creek and in other Tombigbee tributaries and has persisted since Tenn-Tom development. A naturally occurring remnant population has over time been augmented with hatchery reared fish released in those tributaries. The fish remain in some of the least altered stream habitats of the various Tombigbee tributaries after the channelization for the Tenn-Tom waterway. There have been recent catches of walleye in Luxapalila in the tailwaters of the grade control structures mentioned earlier. The fish congregate at these cross channel impediments on annual upstream spawning runs from January through April. While these fish are not threatened or endangered or otherwise protected, the presence of this relatively uncommon fish should be taken into consideration before the commencement of any project that may further alter their stream habitat. Channel work such as the excavation planned in this project should be avoided during January through April when the walleye are moving upstream to spawn.

The walleye orients to bottom structure such as gravel bars, and hard ledges especially seeking these benthic habitats for spawning. Any channel alteration that initiates headcutting and associated channel instability would tend to cover or blanket the walleye's preferred gravel bars and hard benthic structures with sand, silt and other alluvial material. Schramm et. al. (2001) submitted a report to the Mobile District regarding the movement, spawning and recruitment of the Gulf Coast Walleye in Luxapallila Creek.

Loss of Mitigation Lands

The loss of previously secured mitigation lands through the clearing and grubbing of 12 acres at the mooring site is a final issue raised by the project. There is some confusion presented in the discussion of whether or not there is a legal requirement to replace lost mitigation lands. The way it is explained, Appendix D of the Standard Operating Procedure gives Mobile Corps District a way to avoid mitigation if the loss of acreage (12 acres in this case) is less than 25% of the reserve of replacement lands. Earlier in the discussion it is clearly stated that the same statute provides that lands removed from the mitigation program must be balanced by the earlier acquisition of equal acreage.

Since your letter did not state how many acres of replacement lands had been previously acquired and how many acres of land had been removed previously from "the reserve of replacement lands" we cannot determine whether the removal of 12 acres mitigation lands for this project will cause the cumulative loss of reserve replacement lands to exceed the 25% threshold. This threshold would be exceeded if the total amount of replacement lands is 48 acres or less.

Sincerely

Dennis Riecke
Environmental Coordinator
Mississippi Department of Wildlife, Fisheries and Parks

dr

enclosure

cc: file

Literature Cited

Schramm, H.L., Jr., J.R. Davis, L.E. Miranda, S.W. Raborn, D.W. Simons, and T. Will. 2001. Movement, spawning, and recruitment of Gulf Coast Walleye and status fo the fish community in Luxapallila Creek, Mississippi. Report submitted to the US Army Corps of Engineers, Mobile District.

U:\WPDOCS\Enviorn_07\Luxapilala Creek letter March 2007 (f).wpd

MISSISSIPPI

DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

SAM POLLES, Ph.D.
Executive Director

March 6, 2007

Michael J. Eubanks
Environment and Resources Branch
Mobile District Corps of Engineers
P.O. Box 2288
Mobile, AL 36628-0001

Re: Barge Mooring Facility, Tennessee Tombigbee Waterway
Luxapalila Creek, Lowndes Co., MS

Dear Mr. Eubanks:

This letter is in reference to your letter dated August 16, 2007 responding to the concerns of the Mississippi Department of Wildlife, Fisheries and Parks regarding the above referenced project. Your letter has adequately addressed all of our environmental concerns that we provided to you in our letter dated March 6, 2007.

We concur that the proposed project will have not have a significant impact on the channel integrity of the lower Luxapalila Creek or the health of the southern walleye that inhabit this area.

Thank you for addressing our concerns.

Sincerely

Dennis Riecke
Environmental Coordinator
Mississippi Department of Wildlife, Fisheries and Parks

dr

cc: file

C:\Documents and Settings\Dennis Riecke\My Documents\WPDOCS\Environ_07\Luxapilala Creek letter August 2007 (f).wpd

1505 Eastover Drive • Jackson, Mississippi 39211-6374 • (601) 432-2400

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

September 25, 2007

REPLY TO
ATTENTION OF

Inland Environment Team
Planning and Environmental Division

Mr. H.T. Holmes
State Historic Preservation Officer
Attention: Mr. Jim Woodrick, Section 106
Review and Compliance
Mississippi Department of Archives & History
Post Office Box 571
Jackson, Mississippi 39205-0571

Dear Mr. Holmes:

The U.S. Army Corps of Engineers, Mobile District is proposing to construct a barge mooring facility at the mouth of the Luxapallila Creek, Lowndes County, Mississippi. The mooring facility would service the needs of the Tennessee-Tombigbee Waterway (TTW) and provide safe mooring for barges during high water events.

As per requirements outlined in Section 106 of the National Historic Preservation Act, the Mobile District must consider the effects of the proposed action on historic properties. Although most of the TTW has been surveyed and consulted on for cultural resources, the proposed mooring facility area has not been subject to inventory for historic properties. Due to the high probability of archaeological sites in the area and in similar physiographic settings, the Mobile District recommended a Phase I cultural resource survey be conducted of the project area of potential effect (APE). The results of the survey are provided in the enclosed draft report entitled: "*Phase I Cultural Resources Survey of the Luxapallila Creek Mooring Facility Tract, Lowndes County, Mississippi.*" The report is provided for your review and comments.

The cultural resources study found no cultural resource sites within the APE. Based on the results of the study, the Mobile District has determined no historic properties affected by the proposed construction of the Luxapallila Creek Mooring Facility as per 36 CFR 800.4(d)(1).

I. Description of the Undertaking – The proposed undertaking consists of construction of a barge mooring facility at the mouth of the Luxapallila Creek, Lowndes County, Mississippi. The proposed construction site is approximately five miles downstream of the John C. Stennis Lock and Dam, and is adjacent to river mile 329. The project would require the excavation and removal of approximately 300,000 cubic yards of fill and the placement of 6,200 cubic yards of riprap to protect the shoreline. Six mooring "dolphins" and six concrete "dead-men" would be placed for anchoring the barges. The project dimensions are defined as being 1500 feet by 300 feet. However, the APE is defined to include a total area of 18.5 acres. This is necessary to

ensure that all construction activities including staging areas are considered. Figure 1 of the enclosed report provides the project location on portion of the Columbus South 7.5 minute USGS quadrangle (1986). All dredged material will be placed within the project APE or within previously approved dredge disposal areas.

II. Methodology and Reporting – A literature and background check for previously recorded cultural resource sites and surveys was made of the project area by Mr. Steven RabbySmith, Brockington & Associates, on August 20, 2007. This research included records maintained by the National Park Service, National Register of Historic Places, and the Mississippi Department of Archives and History. The study found numerous sites (27) and previously conducted surveys in the general area (within two miles). However, none of the sites or studies was located in the project APE.

A Phase I pedestrian survey was carried out by Mr. RabbySmith on August 21 and 22, 2007. The area was found to be extremely disturbed and contained evidence of channel cutting and fill disposal from work in the 1960's and 1970's.

III. Resources Identified and Evaluated (Significance Criteria Considered) - The background research and previous field surveys located no historic properties within the project APE.

IV. Effects Determination and Compliance Decision – Effects determinations are the responsibility of the lead federal agency. The Mobile District has considered the nature of the undertaking and the presence of properties that may posses the qualities of integrity and meet at least one of the criteria necessary to be considered eligible for inclusion in the National Register of Historic Places. Based on the background study and Phase I fieldwork, no historic properties are located within the project APE. Therefore, the Mobile District has determined no historic properties affected by the proposed mooring facility construction work as per 36 CFR 800.4(d)(1).

The Mobile District asks that you concur with our finding of no historic properties affected by the proposed action as per 36 CFR 800.4(d)(1). If you have questions or require further information, please contact Mr. Joe Giliberti at (251) 694-4114 or via email at joseph.a.giliberti@sam.usace.army.mil.

Sincerely,

Michael J. Eubanks
Acting Chief, Environment and Resources Branch

MISSISSIPPI Department of
MDAH
ARCHIVES & HISTORY

PO Box 571, Jackson, MS 39205-0571
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
H. T. Holmes, Director

October 24, 2007

Mr. Michael Eubanks
Acting Chief, Environment and Resources Branch
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

RE: Phase I Cultural Resource Survey of the Luxapallila Creek Mooring Facility Tract, MDAH Project Log #10-019-07, Lowndes County

Dear Mr. Eubanks:

We have reviewed the September 2007 cultural resources survey report by Steven L. RabbySmith, Principal Investigator, received on October 1, 2007, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, we concur that no known cultural resources listed in or eligible for listing in the National Register of Historic Places will be affected. Therefore, we have no reservations with the project.

There remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

If you need further information, please let us know.

Sincerely,

Jim Woodrick
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

c: Clearinghouse for Federal Programs

APPENDIX C
PUBLIC NOTICE

APPENDIX D
WETLAND DELINEATION REPORT

Wetland Delineation Report

For

The Luxapalila Mooring Facility

March 22, 2007

Conducted by:

Mr. Nicholas Baggett

Columbus Field Office Project Manager
Mobile District Regulatory Division
US Army Corps of Engineers
Waterway Management Center
3606 West Plymouth Road

Columbus, Mississippi 39701
662-327-2142

Introduction

This report describes the results of a wetland delineation within the boundaries of the 18.45 acre Luxapalila Creek Mooring Facility project site. The project area is located near the Luxapalila Creek Park and Boat Ramp, at the convergence of the Tennessee-Tombigbee Waterway and Luxapalila Creek, at latitude 33º 27' 34" North and longitude 88º 25' 47" West, Lowndes County, Mississippi. The project area contains uneven topography with prominent berms running adjacent to Luxapalila Creek. The area is comprised of Jena-Mantachie associated soils which consist of well drained and somewhat poorly drained soils which are typically found within floodplains. Due to work that was conducted to improve the flow of water within the stream channel of Luxapalila Creek by the Tombigbee River Valley Water Management District in the mid-1990's, frequent flooding in the area has ceased. Access to the track at the time of the review could only be accomplished by boat. The wetland delineation was conducted on March 22, 2007 by Mr. Nicholas Baggett, Columbus Field Office Project Manager, Mobile District Regulatory Division, US Army Corps of Engineers.

Methodology

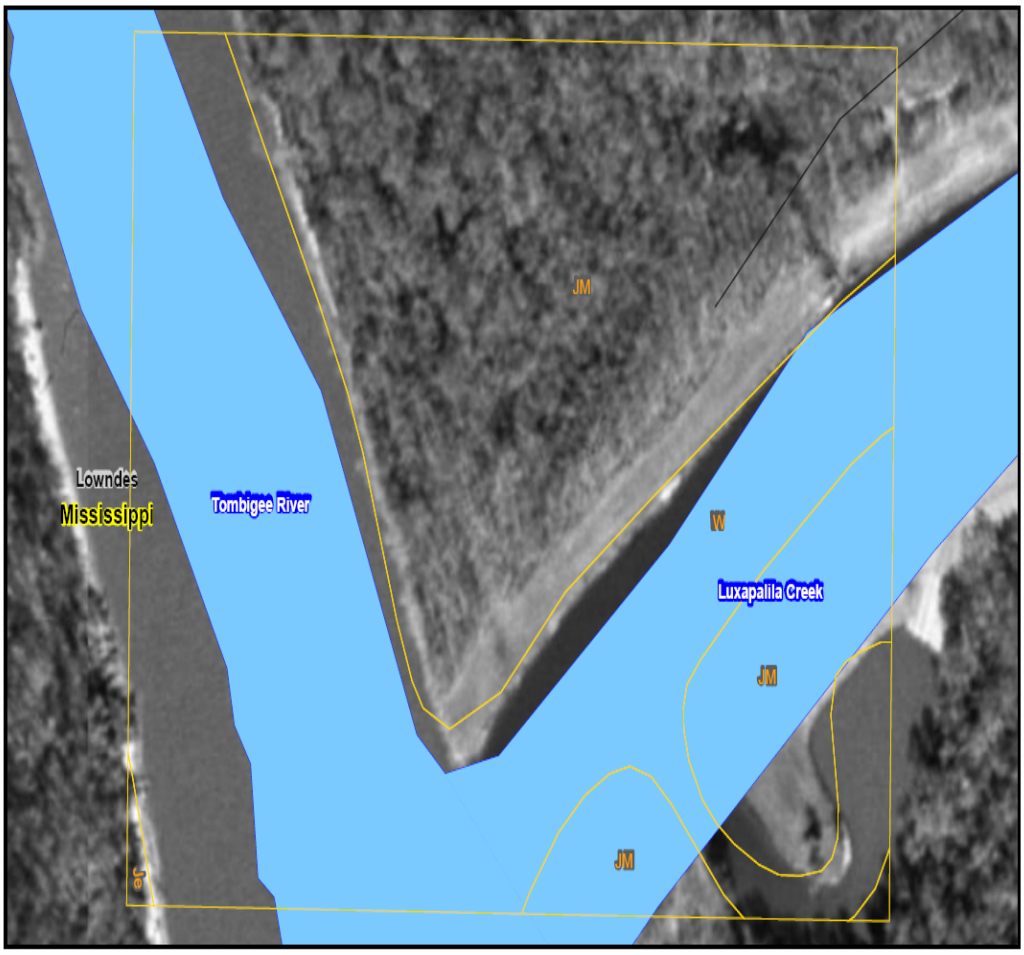
The wetland delineation method used followed the procedures outlined in Part IV of the 1987 Corps of Engineers Wetland Delineation Manual. Sources of information utilized in this wetland delineation include US Department of Agriculture Natural Resources Conservation Service 1976 Soil Survey for Lowndes County, Mississippi, aerial photographs from Map Quest and Terra Server, the Munsell Soil Color Chart, and US Geological Survey topographic quad maps. Photographs were taken at representative locations within the site evaluated and provide a visual image of the typical habitat present.

Summary

One wetland area was found within the project site. The area is made up of a forested wetland that is dominated by bald cypress (Taxodium distichum) and water tupelo (Nyssa aquatica). Using a Munsell Soil Color Chart, the soils of the wetland area indicate a matrix color (moist) of 10 YR 5/2 with a mottling color of 10YR 5/6. Standing water was noted within the subject area during the site visit. To determine the area of wetlands on-site, a Trimble GeoXT sub-meter GPS was used. Information gathered from this GPS unit was incorporated into a map which shows the approximate location of the wetlands within the project area. Based on the existing conditions at the project area, approximately 1.63 acres of jurisdictional wetlands are located within the proposed project area.

SOIL SURVEY OF LOWNDES COUNTY, MISSISSIPPI

Luxapalila Creek Mooring Facility



Meters
0 25 50 100

Feet
0 50 100 200 300 400

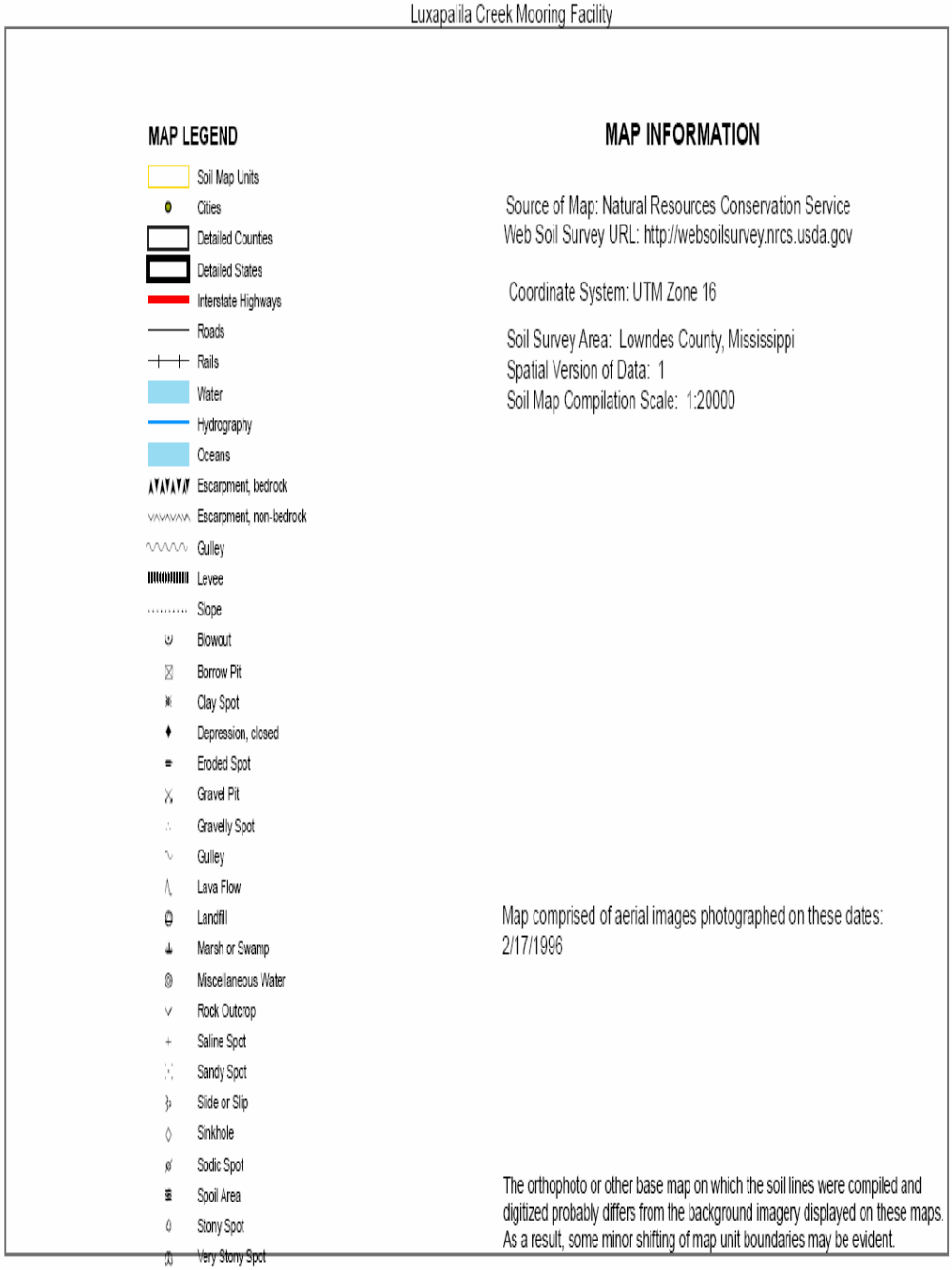
USDA Natural Resources Conservation Service

Web Soil Survey 1.1
National Cooperative Soil Survey

5/7/2007
Page 1 of 3

SOIL SURVEY OF LOWNDES COUNTY, MISSISSIPPI

Luxapalila Creek Mooring Facility



Map Unit Legend Summary

Lowndes County, Mississippi

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Je	Jena loam	0.1	0.3
JM	Jena-Mantachie association	21.3	52.3
W	Water	19.3	47.4

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: Luxapalila Mooring Facility Applicant/Owner: USACE, Mobile District Investigator: Nicholas Baggett	Date: 3/22/2007 County: Lowndes State: Mississippi
Do Normal Circumstances exist on the site? Yes Is the site significantly disturbed (Atypical Situation)? No Is the area a potential Problem Area? No (If needed, explain on reverse.)	Community ID: NA Transect ID: NA Plot ID: 1

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Taxodium distichum	tree	OBL	9. ____	____	NI
2. Nyssa aquatica	tree	OBL	10. ____	____	NI
3. Acer saccharinum	tree	FACW	11. ____	____	NI
4. Betula nigra	tree	FACW	12. ____	____	NI
5. Platanus occidentalis	tree	FACW	13. ____	____	NI
6. Carex gravi Carey	grass	FACW	14. ____	____	NI
7. Acer saccharinum	schrub	FACW	15. ____	____	NI
8. ____	____	NI	16. ____	____	NI

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 100%

Remarks: ____

HYDROLOGY

☒ Recorded Data (Describe in Remarks):
- ☐ Stream, Lake, or Tide Gauge
- ☒ Aerial Photographs
- ☐ Other

☐ No Recorded Data Available

Field Observations:

Depth of Surface Water: 2-6(in.)

Depth to Free Water in Pit: 10 (in.)

Depth to Saturated Soil: 16 (in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ☒ Inundated
- ☒ Saturated in Upper 12 Inches
- ☒ Water Marks
- ☒ Drift Lines
- ☒ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ☒ Oxidized Root Channels in Upper 12 Inches
- ☒ Water-Stained Leaves
- ☒ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (Explain in Remarks)

Remarks: ____

SOILS

Map Unit Name
(Series and Phase): Jena-Mantachie

Drainage Class: PD
Field Observations
Confirm Mapped Type? Yes

Taxonomy (Subgroup): ____

Profile Description:

Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Contrast	Texture, Concretions, Structure, etc.
0-16	____	10 YR, 5/2	10YR5/6	common/distinct	silty loam
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Hydric Soil Indicators:

- ☐ Histosol
- ☐ Histic Epipedon
- ☐ Sulfidic Odor
- ☐ Aquic Moisture Regime
- ☐ Reducing Conditions
- ☒ Gleyed or Low-Chroma Colors
- ☐ Concretions
- ☐ High Organic Content in Surface Layer in Sandy Soils
- ☐ Organic Streaking in Sandy Soils
- ☒ Listed on Local Hydric Soils List
- ☒ Listed on National Hydric Soils List
- ☐ Other (Explain in Remarks)

Remarks: 2"-6" of standing water in winter/spring

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes
Wetland Hydrology Present? Yes
Hydric Soils Present? Yes

Is this Sampling Point Within a Wetland? Yes

Remarks: ____

SOIL SURVEY OF

LOWNDES COUNTY, MISSISSIPPI

Lowndes County Soil & Water
Conservation District
2282 Martin Luther King Jr. Drive
Suite 1
Columbus, MS 39705

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Mississippi Agricultural and Forestry Experime


LUX MOORING SITE
LOWNDES COUNTY, I
26
N
R. 18 E.
R. 18 W.
(Joins sheet 21)
Luxapalila Creek
TOMBIGBEE RIVER
T. 19 S.
T. 18 S.
T. 18 N.
(Joins sheet 25)
Scale 1:20000
Mile
5000 Feet
(Joins sheet 31)
TOMBIGBEE RIVER
water

areas, this flooding damages crops. With good management, row crops can be grown every year. Proper row arrangement and field ditches are needed to remove excess surface water. The addition of crop residue helps prevent crusting and packing.

This soil has good potential for eastern cottonwood, green ash, sweetgum, and sycamore. Seedling mortality and wetness are severe limitations.

Potential is poor for urban uses because of very high shrink-swell potential and the flood hazard.

This soil is in capability subclass IIw and woodland suitability group 1w6.

Gu—Guyton silt loam. This is a poorly drained soil on flats and in depressions. Slopes range from 0 to 2 percent.

Typically, the surface layer is grayish brown silt loam about 6 inches thick. The subsurface layer, to a depth of 18 inches, is light brownish gray silt loam that has brownish mottles. The upper part of the subsoil, to a depth of 42 inches, is gray silty clay loam that has yellowish brown mottles and tongues of light brownish gray silt loam. The lower part to a depth of 75 inches is gray and light brownish gray silt loam that has yellowish brown mottles and tongues of grayish silt.

This soil is strongly acid or very strongly acid. Permeability is slow, and available water capacity is high. Runoff is slow, and water ponds in some areas. The erosion hazard is slight.

Included with this soil in mapping are small areas of Paden and Pheba soils.

Most of the acreage of this soil is in hardwood timber. A few areas are used for pasture or hay.

Potential is poor for most commonly grown crops. Yields are usually low because of wetness. The soil has good potential for pasture.

This soil has good potential for loblolly pine, sweetgum, green ash, southern red oak, and water oak. Wetness is a severe limitation to equipment use in managing and harvesting the tree crop, but this limitation can be overcome by using special equipment and by logging during drier seasons.

Potential is poor for most urban uses because of flooding and wetness.

This soil is in capability subclass IIIw and woodland suitability group 2w9.

Gy—Guyton silt loam, low terrace. This is a poorly drained soil on broad flats and stream terraces. Slopes range from 0 to 2 percent.

Typically, the surface layer is dark grayish brown silt loam about 4 inches thick. The subsurface layer is light brownish gray silt loam to a depth of about 10 inches. The subsoil to a depth of 80 inches is grayish brown clay loam and sandy clay loam mottled in shades of brown and yellow.

This soil is strongly acid or very strongly acid throughout. Permeability is slow, and available water capacity is high. Runoff is very slow, and the erosion hazard is slight. This soil is subject to flooding for brief periods except in protected areas.

Included with this soil in mapping are small areas of Rosella and Steens soils.

Most of the acreage of this soil is woodland, but some areas are used for crops and pasture.

Potential is fair for row crops and pasture, but high yields can be obtained. Where crops are grown, such management practices as returning crop residue to the soil, row arrangement, and field ditches to remove excess surface water are needed. Good management for pasture includes proper stocking, controlled grazing, and weed and brush control.

This soil has good potential for loblolly pine, sweetgum, water oak, and willow oak. Wetness is the main limitation in managing and harvesting the tree crop, but this limitation can be partially overcome by using special equipment and by logging during the drier seasons.

Potential is poor for most urban uses because of flooding and wetness.

This soil is in capability subclass IIIw and woodland suitability group 2w9.

Je—Jena loam. This is a well drained soil on flood plains. Slopes range from 0 to 2 percent.

Typically, the surface layer is dark brown loam about 5 inches thick. The upper part of the subsoil is dark brown and dark yellowish brown silt loam and loam to a depth of about 26 inches. The lower part, to a depth of about 45 inches, is dark yellowish brown and yellowish brown loam mottled in shades of gray and brown. It is underlain to a depth of 60 inches by loam mottled in shades of brown and gray.

This soil is strongly acid or very strongly acid. Permeability is moderate, and available water capacity is high. Runoff is slow, and the erosion hazard is slight.

Included with this soil in mapping are small areas of Kinston, Mantachie, and Nugent soils.

About half of the acreage of this soil is cultivated or used for pasture. The rest is woodland.

Potential is good for cotton, corn, soybeans, small grain, truck crops, and pasture plants. With good management, row crops can be grown every year. This soil is subject to occasional flooding for brief periods. Some areas are flooded more frequently, but not during the growing season. Row arrangement and field ditches are needed to remove excess surface water.

This soil has good potential for loblolly pine, sweetgum, water oak, and white oak. There are no significant limitations to woodland use and management.

Potential is poor for most urban uses because of the flood hazard.

This soil is in capability subclass IIw and woodland suitability group 1o7.

JM—Jena-Mantachie association. This association consists of well drained and somewhat poorly drained soils on flood plains. These flood plains are as wide as 1 mile and have oxbow lakes and old stream channels.

Slopes range from 0 to 2 percent. Areas range from about 160 to 800 acres. The topography consists of ridges and swales with relief of as much as 10 feet. The composition of this unit varies among mapped areas, but mapping was controlled well enough for the expected use of the soils.

Jena soils make up about 45 percent of the unit, and Mantachie soils, about 20 percent. Included soils make up the remaining 35 percent.

The well drained Jena soils generally occur on the higher elevations and along stream channels. Typically, the surface layer is dark brown loam about 5 inches thick. The upper part of the subsoil is dark brown and dark yellowish brown silt loam and loam to a depth of about 26 inches. The lower part, to a depth of about 45 inches, is dark yellowish brown and yellowish brown loam mottled in shades of gray and brown. It is underlain to a depth of 60 inches by loam mottled in shades of brown and gray.

Jena soils are strongly acid or very strongly acid. Permeability is moderate, and available water capacity is high. Runoff is medium, and the erosion hazard is slight.

The somewhat poorly drained Mantachie soils occur on slightly lower elevations than Jena soils. Typically, the surface layer is dark brown loam about 8 inches thick. The upper part of the subsoil is mottled yellowish brown, gray, and dark brown loam to a depth of about 18 inches. The lower part to a depth of 60 inches is light brownish gray loam mottled in shades of brown and red. This is underlain to a depth of 72 inches by gray clay loam mottled in shades of brown.

Mantachie soils are strongly acid or very strongly acid. Permeability is moderate, and available water capacity is high. Runoff is slow, and water ponds in low areas. The erosion hazard is slight.

Included with these soils in mapping are small areas of soils that are under water the year round and small areas of soils that are less acid than Jena and Mantachie soils.

Most of the acreage of these soils is in hardwood forest. Because these areas are flooded several times each year, they have poor potential as cropland.

These soils have good potential for loblolly pine, sweetgum, yellow-poplar, and cherrybark oak. Wetness is a limitation to equipment use in managing and harvesting the tree crop, but this limitation can be overcome by using special equipment and by logging during drier seasons.

Potential is poor for most urban uses because of wetness and the flood hazard.

These soils are in capability subclass Vw and woodland suitability group 1w9.

Kn—Kinston loam. This is a poorly drained, alluvial soil on flood plains. Slopes range from 0 to 2 percent.

Typically, the surface layer is dark grayish brown loam about 7 inches thick. It has dark yellowish brown mottles. The subsoil to a depth of about 65 inches is light brownish gray loam mottled in shades of brown.

This soil is strongly acid or very strongly acid. Permeability is moderate, and available water capacity is high. Runoff is slow, and some areas are ponded. This soil is subject to frequent flooding. The erosion hazard is slight.

Included with this soil in mapping are small areas of Mantachie soils and small areas of soils that have a more clayey subsoil.

Most of the acreage of this soil is in hardwood timber. A few cleared areas are used for pasture and hay.

Because of the severe flood hazard and the high water table, this soil has poor potential as cropland.

This soil has good potential for loblolly pine, sweetgum, white oak, cherrybark oak, and eastern cottonwood. The use of equipment in managing and harvesting tree crops is limited by wetness. The limitation can be overcome by using special equipment and by logging during the drier seasons. Another management concern is high seedling mortality rate.

Potential is poor for urban uses because of wetness and the flood hazard.

This soil is in capability subclass Vw and woodland suitability group 1w9.

KpA—Kipling silty clay loam, 0 to 2 percent slopes. This is a somewhat poorly drained soil on broad flats.

Typically, the surface layer is dark yellowish brown silty clay loam about 5 inches thick. The subsoil, to a depth of 48 inches, is clay mottled in shades of brown, gray, and red. This is underlain to a depth of 81 inches by mottled brownish and grayish clay and silty clay.

This soil is medium acid to very strongly acid in the upper part of the subsoil and strongly acid to moderately alkaline in the lower part. Permeability is very slow, and available water capacity is high. Runoff is slow, and the erosion hazard is slight. This soil shrinks and cracks during dry periods.

Included with this soil in mapping are small areas of Brooksville, Demopolis, and Vaiden soils. Also included are a few areas in which the surface layer has been thinned by sheet erosion and a few areas of shallow rills.

Most of the acreage of this soil is cultivated or used for pasture. The rest is scattered patches of woodland.

Potential is fair for cotton, corn, soybeans, small grain, and pasture plants. Control of surface water is a concern. Seedbed preparation and tillage are difficult because of wetness and the clayey texture of the surface layer. With good management, row crops can be grown every year. Row arrangement and field ditches are needed to remove excess surface water. Soil tilth can be improved by plowing late in fall and by adding crop residue to the soil.

This soil has good potential for loblolly pine, cherrybark oak, sweetgum, water oak, and white oak. Clayey texture and wetness are the main limitations to woodland use and management.

APPENDIX E
ENVIRONMENTAL SITE ASSESSMENT

ENVIRONMENTAL SITE ASSESSMENT REPORT
FOR THE
COLUMBUS MOORING FACILITY PROPERTY
COLUMBUS, MISSISSIPPI

MARCH 2007

Prepared by:
U.S. Army Corps of Engineers, Mobile District
Environmental and HTRW Section

TABLE OF CONTENTS

16 APPENDICES

ACRONYMS AND ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
DoD	Department of Defense
DOE	United States Department of Energy
DOT	Department of Transportation
EDR	Environmental Data Resources, Inc.
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning & Community Right to Know Act
ERNS	Emergency Response Notification System
FEMA	Federal Emergency Management Administration
FIFRA	Federal Insecticide, Fungicide, & Rodenticide Act
FUDS	Formerly Used Defense Site
HMIRS	Hazardous Materials Information Reporting System
LAST	leaking aboveground storage tank
LQG	Large Quantity Generator
LUST	leaking underground storage tank
MSHA	United States Department of Labor, Mine Safety & Health Administration
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NFRAP	no further remedial actions planned
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NRC	Nuclear Regulatory Commission
NWI	National Wetlands Inventory
ODI	open dump inventory
^{o}F	degrees Fahrenheit
PADS	PCB Activity Database System
PCB	Polychlorinated biphenyl
pCi/L	picoCuries per Liter
RAATS	RCRA Administrative Action Tracking System
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act
SCS	Soil Conservation Service

Acronyms and Abbreviations (Continued)

SQG	small quantity generator
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substance Control Act
TSDF	treatment, storage, or disposal facility
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank

1 SUMMARY

The HTRW/Environmental Support Section of the United States Army Corps of Engineers (USACE), Mobile District (the District) has completed an Environmental Site Assessment (ESA) for a parcel of property currently owned by the District and designated as the site for a proposed mooring facility for the City of Columbus, MS (the property). This ESA was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM, 2005). This ESA Report was prepared to identify past or present recognized environmental conditions as defined in the ASTM, and to present an overview of the current and historical uses, and environmental setting of the property. This Assessment includes the surrounding area.

Recognized environmental conditions, as defined in the ASTM, means the presence or likely presence of any hazardous substances or petroleum products on a property that that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property, or into the ground, groundwater, or surface water of the property. The term includes hazardous substance or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not include a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be de minimis are not recognized environmental conditions.

There were no recognized environmental conditions or de minimis encountered or discovered during the execution of this Environmental Site Assessment.

2 INTRODUCTION

The overall goal of the ESA is to determine the environmental condition of the property. In this process any data gaps that could lead to an incomplete assessment of the property are identified.

2.1 PURPOSE

The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, on bona fide prospective purchaser limitations on CERCLA liability; that is the practice constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. 9601(35)(B). This ESA Report was prepared to identify past or present recognized environmental conditions, as defined in ASTM E 1527-05, and to present an overview of the current and historical uses, and environmental setting of the property and the surrounding area.

2.2 DETAILED SCOPE OF SERVICES

This ESA was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM, 2005). The approach outlined in this standard practice involved a site visit that included a visual inspection of the condition of the parcel and adjacent area; a detailed search and review of available records and an interview with the property owner and/or occupants. Research of the potential use of hazardous substances used on the property, and a review of Federal and state databases on release of hazardous substances and various other environmental data concerning the parcel and adjacent areas was also conducted. Property tax files or similar resources documenting the past uses of the parcel were reviewed in addition to a review of historic aerial photographs to aid in documenting past uses of the parcel. Interviews with persons knowledgeable about the activities carried out on the property were completed as well as identification of possible ongoing response actions that have been taken at or adjacent to the parcel. The potential presence of sources of contamination at the parcel, or at adjacent areas which could migrate to the parcel in question was investigated.

2.3 SIGNIFICANT ASSUMPTIONS

There were no significant assumptions.

2.4 LIMITATIONS AND EXCEPTIONS

This ESA does not address requirements of any state or local laws or any federal laws other than all appropriate inquiry provisions. Users are cautioned that federal, state and any local laws may impose environmental assessment obligations that are beyond the scope of this ESA. No intrusive sampling or testing was conducted on the property.

2.5 SPECIAL TERMS AND CONDITIONS

There are no special terms or conditions.

2.6 USER RELIANCE

The user was relied upon for a walk through of the property and for any knowledge they may have concerning the history of the property.

3 SITE DESCRIPTION

3.1 LOCATION LEGAL DESCRIPTION

The property is located on the western edge of the Columbus city limits and north of U. S. Highway 45 alongside the Tennessee-Tombigbee Waterway. Columbus, Mississippi, the county seat of Lowndes County, is located in east-central Mississippi on the Tennessee-Tombigbee Waterway. The property is directly across from Luxapalilla Creek Park and boat launching area. The property has no address since it is a completely wooded property and not known to have ever been a residential property. The coordinates for this site are: Latitude (North): 33.458500 – 33 27’ 30.6” and Longitude (West) 88.432600 – 88 25’ 57.4”.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

A swath of clearing has taken place along the Luxapalilla Creek side of the property to provide ease of access The property is accessible by water and by trails from the adjacent property. The property consists of approximately 18 acres of wooded land and a ponded, low-lying area. This property is part of a larger parcel that is also owned by the District. There is no evidence that homes, buildings or other improvements have existed on the property. Floodplain maps from the Federal Emergency Management Agency show that the property lies within the 100-year flood zone of the Tennessee-Tombigbee Waterway. Surface elevations at the property range from 148 to 152 feet above mean sea level, as shown on United States Geological Survey topographic maps.

3.3 CURRENT USE OF THE PROPERTY

. There is no evidence that homes, buildings or other improvements have existed on the property. The Mobile District (who has owned the property for the past 29 years) has not made any improvements or alterations to the property since that time to present. Approximately .25 acres in the central portion of the site has standing water populated by some large cypress as well as other trees and a number of cypress knees as well. While none of the records searched indicate that this site is a designated wetland, such a determination may need to be considered. There is evidence of wildlife habitation throughout the property.

3.4 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE

Neither past not present owners has made any improvements on the site. What appeared to be ATV (all-terrain vehicles) trails were observed, however. These appear to have been established by reuse rather than by any mechanical means. There are no man made structures or improvements on this site.

3.5 CURRENT USES OF ADJOINING PROPERTY

The appearance and condition of the adjoining property is indistinguishable from the target property. The adjoining property is also wooded, the trails that have been noted on the target property run continuously on the adjoining properties along with evidence of wildlife habitation. Hunting activities may have also may occurred on the adjoining property.

4 USER PROVIDED INFORMATION

4.1 TITLE RECORDS

The title of the property was obtained from Mr. Nick Baggett of the Columbus Resource Office.

4.2 ENVIRONMENTAL LIENS AND USE LIMITATIONS

According to information obtained from the records section of the Lowndes County Courthouse, there are no environmental liens or activity and use limitations attached to this property.

4.3 SPECIALIZED KNOWLEDGE

Mr. Peter Grace of the Columbus Resource Office has historical knowledge of the property and was present during the site reconnaissance. He stated that he knew of no negative environmental impacts that have occurred on the property either before or after the purchase by the Mobile District Corps of Engineers 1n 1977. There is no evidence that the use of ATVs has had any negative impact on the property.

4.4 COMMOMLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

It has been ascertained and is commonly known that this property has been in the possession of a single family (the Laws) for more than 70 years prior to the purchase by

the Mobile District in 1977. No additional title search beyond that time was conducted. It has also been ascertained that this property has never been a residential site and was a part of vast historical land holdings of the Laws family in this region.

4.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Since no recognized environmental conditions have been noted on this property, it is not believed that that there is any valuation reduction related to environmental issues.

4.6 OWNER, PROPERTY MANAGER AND OCCUPANT INFORMATION

The current owner is the U. S. Army Corps of Engineers. The property is located within the USCOE Columbus Resource Office and is managed by that office. Mr. Peter Grace of the Columbus Resource Office has historical knowledge of the property and was present as the owners' representative during the site reconnaissance. He stated that he knew of no negative environmental impacts that have occurred on the property either before or after the purchase by the Mobile District Corps of Engineers 1n 1977. The property has remained in the current general condition since that time.

4.7 REASON FOR PERFORMING PHASE I ENVIRONMENTAL SITE ASSESSMENT

The reason for performing this Environmental Site Assessment is to determine the environmental condition of the target property prior to beginning construction of a mooring (watercraft securing) facility for the City of Columbus, Mississippi.

The general reason for conducting an ESA Report is to identify past or present environmental issues and to present an overview of the current and historical uses, and environmental setting of the property and the surrounding area.

4.8 OTHER

There is no other user provided information.

5 RECORDS REVIEW

5.1 STANDARD ENVIRONMENTAL RECORDS SOURCES

Environmental Data Resources, Inc. (EDR) of Milford, Connecticut was tasked with conducting an internet database search of all Federal, state, and local records for the property and for properties within a 1-mile radius.

A list of all data records searched and a table of the results of that search is located on Page GR-1 of the Environmental Data Resources Report. This report is in located in Appendix 16.5.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

Property records were reviewed at the Lowndes county Courthouse to determine if any environmental liens or use limitation were recorded against the property. None were found.

5.3 PHYSICAL SETTING SOURCE

Information for the physical setting was obtained primarily from the site visit and walk through. A review of census data was done to determine the population of the area. This information was obtained from the U. S. Census site on the internet which refers to Columbus as one of Mississippi's bigger cities. The population of Columbus is 24,425.

The USGS topographic map depicting the physical setting of the target property is located on Page A-7 of the Environmental Data Resources Report. This report is located in Appendix 16.5.

5.4 HISTORICAL USE INFORMATION ON THE PROPERTY

To determine historical use, records were reviewed at the Lowndes County Courthouse to determine the presence of environmental liens or other special limitations attached to the property.

Historical aerial photographs were reviewed and are presented in Appendix 16.4. These photographs revealed no information of concern.

While historical USGS topographic maps are useful for property evaluation, none were available for this report.

Discussions were also held with Mr. Peter Grace and Mr. Nick Baggett of the Columbus Resource Office concerning their knowledge of the historical use of the property and the information gained from that conversation is presented in the Interview Section at Appendix 16.6.

5.5 HISTORICAL USE INFORMATION ON ADJOINING PROPERTIES

The target property is a portion of a larger parcel that is also owned by the Mobile District Corps of Engineers. The entire parcel was purchased in 1977 and includes the parcel that is the subject of this report. The records reviewed for the adjoining properties are identical to the records reviewed for the target property.

6 SITE RECONNAISANCE

6.1 METHODOLOGY AND LIMITING CONDITIONS

Interviews were conducted with representatives of the current landowner (the District) prior to a physical walk-through of the property was conducted. A walk through of the title search was commenced from the eastern property boundary. The length of the property was walked to observe site conditions and the state of the vegetation. The purpose of the walk through was also to observe for the presence of debris, waste material or any indication of contamination.

There were no limiting conditions encountered or observed during the site reconnaissance.

6.2 GENERAL SITE SETTING

The property has been wooded land as far back as records could be found. Prior to the purchase of the Property by Mobile District, it was acquired by the Laws family in the first half of the 1900s and it has subsequently been kept in the family and passed on to successive generations through execution of will documents. Currently the property (roughly 18 acres) is wooded with a significant forest canopy. There is a relatively small ponded area in the eastern third of the property. The pond is populated with cypress and other wetland plant species. It appears that all-terrain vehicles may have been in use on the property since there are trails present that appear to have been created by their frequent use on the site.

6.3 EXTERIOR OBSERVATIONS

The property is bounded on two sides by water. The southern boundary has a swath about thirty feet wide that has been cleared. The remainder of the boundaries is wooded. The property is directly across from Luxapalilla Creek Park and boat launching area. The property has no address since it is a completely wooded property and not known to have ever been a residential property. The property is accessible by water and by trails from the adjacent property.

6.4 INTERIOR OBSERVATIONS

There were no structures on the property therefore there are no interior observations to report.

7 INTERVIEWS

7.1 INTERVIEW WITH OWNER

Mr. Peter Grace of the Columbus Resource Office has historical knowledge of the property and was present during the site reconnaissance as the representative of the owner. He stated that he knew of no negative environmental impacts that have occurred

on the property either before or after the purchase by the Mobile District Corps of Engineers 1n 1977.

7.2 INTERVIEW WITH SITE MANAGER

There is no site manager for this property.

7.3 INTERVIEW WITH OCCUPANTS

This property is unoccupied.

7.4 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

No local government officials were interviewed.

7.5 INTERVIEWS WITH OTHERS

No other entities were interviewed.

8 FINDINGS

Based on the information gathered during the ESA, the property has been owned by the Laws family for decades and has been used primarily for hunting and recreation. It was purchased by the Mobile District by Special Warranty Deed in November of 1977. The District has not made any improvements or alterations to the property since that time to present. Approximately .25 acres in the central portion of the site has standing water populated by some large cypress as well as other trees and a number of cypress knees as well. While none of the records searched indicate that this site is a designated wetland, such a determination may need to be considered. There is evidence of wildlife habitation throughout the property.

The Tennessee-Tombigbee Waterway forms the boundary west of the site and the Luxapalilla Creek borders the south. As stated, the District also owns the property adjacent to this parcel. Based on areas with similar hydrologic conditions the assumed direction of groundwater flow

(especially shallow groundwater) in the area of the property would be toward the river (i.e., south-southeast).

Although a fence separates the north property boundary, the adjacent land is indistinguishable in appearance and characteristics from the target property itself. Adjacent land is also wooded and has what appear to be ATV trails and evidence of wildlife habitation. No recognized environmental conditions or concerns were discovered in any of the database searches for the adjacent properties and no were identified for the target property or the surrounding properties.

9 OPINION

It is the Environmental Professional's opinion that no recognized environmental condition (as defined in ASTM E 1527 – 05) exists on the target property. The information collected during the course of the investigation revealed no finding or circumstance would warrant further investigation of the target property.

10 CONCLUSIONS

A Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM practice E 1527 at the property located adjacent to and northeast of the confluence of the Tennessee-Tombigbee Waterway and Luxapalilla Creek, near the southern city limits of Columbus, Mississippi. Any exceptions to, or deletions from, this practice are described in Section 2.4 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.

11 DEVIATIONS

There were no deviations from this standard practice.

12 ADDITIONAL SERVICES

No additional services were requested or offered to be included in the development of this Environmental Site Assessment.

13 REFERENCES

ASTM (American Standard for Testing and Materials). *Standard Practice for Conducting Environmental Baseline Surveys.* ASTM Method D-6008-96 (Reapproved 2005).

EDR (Environmental Data Resources, Inc.). *The EDR Radius Map with GeoCheck* (July 2006).

EPA (U.S. Environmental Protection Agency). *EPA Map of Radon Zones*, EPA website. [http://www.epa.gov/radon/zonemap/alabama.htm]

14 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

CERTIFICATION OF
FINAL ENVIRONMENTAL BASELINE SURVEY
MARCH 2007
FOR THE COLUMBUS MOORING FACILITY SITE
COLUMBUS, MISSISSIPPI

I hereby certify that the property conditions stated in this report are based on a thorough review of available record and visual inspections as noted, and are true and correct, to the best of my knowledge and belief.

Terry L. Williams, Preparer **Date**

I have reviewed the preparers' methodology and report, and concur with the methodology and findings to best of my knowledge and belief.

William L. Woodall
Chief, HTRW/Environmental Support Section **Date**

Paula L. Feldmeier, Office of Counsel **Date**

15 QUALIFICATION OF ENVIRONMENTAL PROFESSIONAL

I, Terry L. Williams, with over twenty years of relevant experience conducting environmental site assessments and environmental investigation throughout the United States, Puerto Rico and Iraq; declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312 and 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 all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.