

Claiborne and Millers Ferry Locks and Dams Fish Passage Study

Appendix A – Engineering
Hazardous, Toxic, and Radioactive Waste Report
May 2023



US Army Corps
of Engineers®

The Nature
Conservancy 

**ALABAMA RIVER FISH PASSAGE FEASIBILITY STUDY
CLAIBORNE LOCK AND DAM AND MILLERS FERRY LOCK AND DAM
TENTATIVELY SELECTED PLAN**

**HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE REPORT
APRIL 2023**

PURPOSE

The purpose of this report is to document any Hazardous, Toxic, and Radioactive Waste (HTRW) activities on land identified for the Alabama River Fish Passage Feasibility Study, for which the Tentatively Selected Plan (TSP) is to construct bypass channels around the existing dams at Claiborne Lock and Dam and Millers Ferry Lock and Dam.

This information is required in order to minimize and prevent Federal liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), to reduce any threats to project workers, and avoid costly delays associated with environmental abatement activities. The information was obtained through a review of historical maps and aerial photographs, U.S. Army Corps of Engineers (USACE) records, and a search of Federal and State Environmental databases. These screening methods were selected based on the historically rural, undeveloped location and limited construction footprint of the project. No samples were obtained to determine the presence or absence of HTRW.

It is assumed that all information assessed for this report is accurate. The validity of the obtained information was not verified.

This report is intended to reduce, but not eliminate, uncertainty regarding the existence of recognized environmental conditions in connection with the selected properties, with reasonable limits of time and cost. Professional judgment was used in collected and evaluating data, and in formulating a recommendation.

Historical and regulatory record reviews are limited by the level of data collected by the recording agency, availability of record coverage, and by data transparency. Records research was limited primarily to USACE Legacy Contamination Surveys conducted at each project location, state and Federal regulatory agency websites, and popular mapping applications.

CLAIBORNE LOCK AND DAM

SITE DESCRIPTION

The Claiborne Lock and Dam (L&D) is located on the Alabama River, at river mile 72.5, near Franklin, AL. It was constructed between 1965-1969, but prior to that the area was relatively undeveloped and remains historically rural. The facility includes recreation areas such as a Class-A campground, a few day-use areas, boat ramps, and hunting areas. Public recreation facilities were developed in 1971 and partially consolidated, closed or renovated in the early 1980s. See Appendix B for historical aerial imagery demonstrating property usage.

The proposed fish passage/bypass would be located on the right bank, beginning approximately 525 yards north of the dam and ending approximately 180 yards south of the dam. See Appendix A for the Civil Plans notating the construction boundaries of the bypass project. The entire construction project would occur on Federally-owned lands. See Appendix C for property ownership details. The area of construction is predominately forested, with some limited recreational facilities at Silver Creek Park, to include a pavilion, a restroom building, and parking.

ASSESSMENT

Based on a 2019 Legacy Contamination Survey for the facility (see Appendix E), the L&D itself includes various operational areas where hazardous materials and petroleum have been used or stored, such as a soils lab/shop building where emergency generator diesel drums are currently stored, and an old L&D shop building that is now an equipment storage yard for the recreation O&M contractor. The 2019 survey included interviews with retired L&D employees who recalled the removal of a 1000-gallon diesel tank at the former L&D Shop Building in the late 1980s. However, there is no documentation to support the existence or removal of the tank, and the interviewee had no recollection of a spill or release associated with the tank. Additionally, four underground 500-gallon butane tanks were burned-off and removed from the former location of the lock tender site homes in 2008. No spills were documented during this effort. Another retired interviewee recalled a burn site located behind the former soils lab/shop building, but could only remember items such as paper products and vegetation being burned there. No evidence was found, nor could any employees recall, that a solid waste dumping area or pit was ever located in this area. Regardless, none of these findings were located along the right bank or within the area of proposed construction for this project. Based on the information contained in the 2019 survey, the consistently undeveloped nature of the area, and the project being located solely on Federally-owned lands, a site visit was not conducted at this time.

A current review of regulatory websites, such as U.S. Environmental Protection Agency's EnviroMapper and EnviroFacts, as well as the National Response Center's database, indicated no new HTRW concerns since the 2019 survey was conducted. See Appendix D for an EnviroMapper screenshot demonstrating a lack of findings. The area searched included the Federally-owned land associated with and adjacent to the Claiborne L&D facility, with the understanding that the project area has historically remained largely undeveloped.

However, the 2019 survey did not appear to include a hazardous materials assessment of the structures located on the right bank, to include the pavilion and the restroom building. Of particular concern for these structures would be Lead-Based Paint (LBP) and Asbestos-Containing Materials (ACM). The current boundaries for this construction project encompass both the pavilion and restroom building and would require their demolition. Worker safety would require a hazardous materials assessment and sampling for LBP and ACM, if necessary, be conducted prior to the initiation of any demolition activities.

SUMMARY

In summary, evaluation of existing data, or lack thereof, identifies some conditions that need to be addressed prior to construction. Due to the age of the recreational use facilities located on the right bank, within the area of construction, there is potential of encountering lead-based paint and/or asbestos-containing material during demolition of the pavilion and restroom building. If any evidence of recognized environmental conditions is

discovered during plans and specifications or construction activities, operations should cease until an assessment is performed.

RECOMMENDATIONS

The following recommendations need to be followed in order to minimize risk to the Federal government and protect worker safety:

- Conduct a Hazardous Materials Survey of any structures planned for demolition, prior to initiation of any construction activities.
- Collect samples, as needed, from any structures planned for demolition, to be analyzed for Lead-Based Paint and Asbestos-Containing Materials.
- Conduct demolition of any structures containing LBP or ACM in accordance with all applicable Federal and State regulations, as well as USACE Environmental Manual 385-1-1.

If any recognized environmental conditions are identified during the construction of the project features, the work should cease, and the District's Environmental Engineering Section should be notified immediately to reassess the project area.

MILLERS FERRY LOCK AND DAM

SITE DESCRIPTION

The Millers Ferry Lock and Dam (L&D) is located on the Alabama River, at river mile 133.0, near Camden, AL. It was constructed between 1963-1968 as a hydroelectric dam and the powerhouse was completed in 1974. The powerhouse has a generating capacity of 90 megawatts. The L&D impounds the W.M. Dannelly Reservoir, which covers 27 square miles. Prior to construction, the surrounding area was primarily rural and agricultural or undeveloped, and remains so today. The vast majority of the operational and recreational facilities associated with the Millers Ferry L&D are located within the Alabama River channel or along the left bank. See Appendix G for historical aerial imagery demonstrating property usage.

The proposed fish passage/bypass would be located on the right bank, beginning approximately 500 yards south of State Highway 10 and 28 and ending approximately 1300 yards south of the dam, roughly parallel to the powerhouse. See Appendix F for the Civil Plans notating the construction boundaries of the bypass project. The area of construction is predominately rural, agricultural or wooded, but would impact some minor roadways. The proposed area of construction would not require the demolition of any existing structures. The northern portion of the construction project would occur on Federally-owned lands, while the southern portion would occur on lands owned by 2 separate private entities. See Appendix H for property ownership details.

ASSESSMENT

Based on a 2021 Legacy Contamination Survey for the facility (see Appendix J), the L&D itself includes various operational areas where hazardous materials and petroleum have been used or stored. A summary of the 2021 Survey findings follows:

- Millers Ferry L&D and Powerhouse, in general – Hazardous materials and/or petroleum products have not been stored or used in bulk at recreation areas, except temporarily in portable above-ground tanks (ASTs) during construction or renovations of park facilities or within sealed, electrical transformers within the parks. Upon the date of the 2021 Survey report, no transformers taken out of service from recreation sites and tested for polychlorinated biphenyls (PCBs) have shown to contain PCBs or PCB-contaminated dielectric fluid. There have been no known historical or reportable spills of petroleum products or hazardous materials in recreation areas on the project.
- Roland Cooper State Park – Historical Environmental Compliance (EC) findings showed that state personnel kept poor records on herbicide applications used on a former golf course. All old herbicides were removed from the park in 2015-2016 by the State. The park initially had gasoline and diesel ASTs onsite to supply golf cart fuel. These ASTs had poor or no secondary containment, but there is no historical documentation of spills or tank leaks onsite. The ASTs were removed from the park in 2015-2016. Currently, only small quantities, up to 5 gallons, of paint, paint thinner, fuel, chlorine tablets, and consumer cleaning products are stored onsite and small bottles of propane are purchased/exchanged to campers. Small numbers of used, non-leaking lead acid batteries and open containers of used oil were found sitting on the ground behind the warehouse, but these deficiencies were corrected and any petroleum-contaminated soil was de minimus in nature. During the 2021 Survey, there was no documentation or visual evidence of contamination, pollution or spills at the site that presented a danger to humans or the environment.
- Millers Ferry L&D Site - An onsite wastewater treatment field is on high ground above the lock. The L&D facility contains bulk petroleum, oils, and lubricants (POLs) (55 gallons or greater) in 3 locations and stores smaller amounts of POLs in several other locations. A Spill Prevention Controls and Countermeasures (SPCC) Plan for the L&D was first prepared in 1994 and has been updated and implemented since that date.
- Lock Control Building – The second floor of the building houses a 275-gallon diesel fuel day tank, which is maintained at full capacity, but has secondary containment capable of handling up to 300 gallons. The first floor houses two 175-gallon hydraulic oil reservoir tanks. The tanks are never filled to capacity and usually contain from 175 to 300 gallons of hydraulic oil. The first floor also houses a General Electric main transformer, which is the only known PCB transformer at Millers Ferry L&D site. The transformer is inspected at least quarterly and there is no documentation or visual evidence that the transformer has ever leaked dielectric fluid. Non-friable Asbestos-Containing Materials (ACM) have either been abated, encased, or currently remain in the lock control building and will remain in place until deterioration or the ACM is disturbed during renovations and properly managed.
- Spillway Gates – The 17 gates each have two gear-reduction boxes containing 27 gallons of lubricating oil per box and 1 worm-gear box containing 2.25 quarts of lubricating oil.
- Lock Structure – The steel pipes that connect the 2 hydraulic pumps with the mechanical equipment contain pressurized oil at all times.
- Lock & Dam Spill History – In 2016, up to 2 gallons of hydraulic oil leaked from a gate valve resulting in 3 large patches of oily sheen on the river. Response contractors performed cleanup operations on the same day.
- Lock Burn Pit – A large pit area was used to burn logs and driftwood debris collected from the upstream lock wall approach. No solid waste was burned in the pit. This practice ended by the early 1990s. The area where the natural debris was burned is now overgrown with trees and vegetation.

- Flammable Liquids Storage Shed – The shed contains small quantities of hydraulic oil and lubricant in containers ranging from 1-5 gallons in size. Several 1-gallon containers of paint and paint thinner and small aerosol spray cans may also be stored in the building.
- Former Sites of Lock Tender Houses – At one point, there was a concern that two 500-gallons butane underground storage tanks (USTs) might still be buried at the lock tender sites. However, no retired personnel could recall observing or using butane USTs at these sites and use of a metal detector did not lead to the discovery of any buried tanks on site.
- Old Construction Office/Shop Compound – A diesel AST of unknown size and a fuel pump were once located at the site. However, no documentation was found designating the date the AST and fuel pump were removed offsite. There are no recorded spills for this site.
- Millers Ferry Power Project – Non-friable ACM has either been abated, encased, or currently remains in or on the powerhouse and will remain in place until deterioration or the ACM is properly managed during renovations. Annual Tier II reporting is submitted for the facility due to the storage of >10,000 pound of turbine oil and >10,000 pounds of transformer oil on site. Additionally, the industrial lead-acid, wet batteries located in the powerhouse battery room are included in the Tier II reporting since the sulfuric acid in the batteries is considered an extremely hazardous material (>500 pounds). A SPCC Plan for the Power Project was first prepared in 1994 and has been updated and implemented since that date. The facility contains bulk POLs (55 gallons or greater) in 8 locations.
- Elevation 46.0 Flammable Liquids Storage Room – This room contains from 50-75 gallons of various types of paint in one-gallon containers. Routinely, there are one to six 55-gallon drums containing either degreaser, lube oil, or used oil. There are various quantities of paint thinner and lube-oil in 5-gallon containers or less.
- Elevation 46.0 Oil Storage Room – This room contains one 4500-gallon (max capacity) clean lube oil tank, one 4500-gallon (max capacity) dirty lube oil tank, two 4500-gallon (max capacity) tanks of clean transformer oil, and two 4500-gallon (max capacity) tanks of dirty transformer oil. These tanks are routinely not kept at maximum capacity storage. Two 4500-gallon tanks that once stored clean and dirty circuit breaker oil have been drained and the tanks are no longer used, but they are not considered RCRA-Empty. One to five 55-gallon drums of grease and one drum of used oil is routinely stored in the room.
- Elevation 46.0 Oil Purification Room – Several 55-gallon drums of dirty oil can be temporarily stored in this room and the oil cleaned and reclaimed for reuse using portable oil purification equipment.
- Elevation 64.0 Turbine Floor – Three 65-gallon unit turbine bearings, three 2300-gallon unit thrust bearings, and three 1750-gallon unit governor systems all containing oil are used in this location.
- Elevation 94.0 Tail Deck – One standby diesel generator containing a 502-gallon double-walled tank is located here.
- Switchyard – Currently, three 4563-gallon transformers and one 30-gallon line current transformer (CT) are the only oil-filled equipment located at the switchyard. There is no documentation that the oil in the CT has ever been tested for PCBs. All new and used transformer oil stored in oil circuit breaker (OCB) tanks or ASTs within the powerhouse never contained PCBs. However, some line metering devices and the CT removed from the switchyard were later found to contain PCB-contaminated dielectric fluid. According to an old email record, PCB transformers were replaced at the power project prior to or in the early 1990s, but quantity and year are unknown.
- Outside Warehouse – At the time of this 2021 Survey, sixty-four 55-gallon drums of new turbine oil were staged on pallets in the warehouse for a possible FY22 scheduled outage to replace the oil in turbine

bearings, thrust bearings, and governor system units inside the powerhouse. There are no documented spills for this site.

- **Flammable Liquids Storage Building** – This building contains approximately 25 gallons of various types of paint containers and contains one partially filled 55-gallon drum of used oil and one partially filled 55-gallon drum of waste paint. The powerhouse is typically registered with the Alabama Department of Environmental Management (ADEM) as a Very Small Quantity Generator (VSQG) of hazardous waste. At the time of this 2021 Survey, there were plans to profile and dispose of any remaining product in the building in FY22, prior to demolition of the building.
- **Power Project Spill History** – In 2011, a small spill incident resulted in an estimated 5-10 gallons of transformer oil spraying out of the top of a transformer and onto the rock and soil below. Cleanup and proper disposal occurred. The transformer oil did not contain PCBs and no leaked oil reached drainage or water surface areas. In 2012, four replaced line metering devices and a CT were found improperly stored on wooden rails in the gated warehouse yard. The units were sweating dielectric fluid and a small amount of oil soil was observed under the units. The CT and all but 1 of the metering units were found to contain PCB-contaminated fluid. The amount was determined to not be a reportable quantity. Environmental response contractors removed the transformers, the contaminated wooded rails, and the contaminated soil and had the transformers properly cleaned and decommissioned. In 2015, the plant had a small spill incident resulting in the release of approximately 1 gallon of hydraulic fluid into the Alabama River. The leak was stopped and the sheen was cleaned from the River.
- **Millers Ferry NRM Office & Warehouse** – No bulk hazardous materials or petroleum products are stored in the office building. Non-friable ACM has either been abated, encased, or currently remains in the office building and will remain in place until deterioration or proper removal or management prior to renovations. A small utility building in the fenced warehouse compound contains 1-5 gallons of flammable liquids (paints, gasoline) and 1-gallon containers of herbicides. The NRM office currently has an ADEM-approved 5-year pesticide NPDES permit. There is no documentation of spills at the warehouse site.
- **Old Construction Disposal Site & Catfish Pond and Waterfowl Impoundments** – A retired employee recalled that in the mid-1980s, a maintenance crew buried a few 55-gallon drums containing unknown product in the old disposal area. During this 2021 Survey, no documentation or visual evidence was found of a solid waste pit, stressed vegetation, or contaminated soil. No drums were uncovered during the construction of the waterfowl impoundments in the 1990s.
- **Millers Ferry O&M Contractor Compound** – The grounds maintenance crew currently has a small flammable safety cabinet onsite. There is no history of recorded spills for this site.

Ultimately, the 2021 Survey and Assessment determination was that no Legacy Contamination was identified on the Millers Ferry Lock and Dam, Powerhouse – W.M. Dannelly Reservoir Project.

A current review of regulatory websites, such as U.S. Environmental Protection Agency's EnviroMapper and EnviroFacts, as well as the National Response Center's database, indicated no new HTRW concerns since the 2021 survey was conducted. See Appendix I for screenshots of the EnviroMapper findings with regards to the facility having an NPDES permit and its status as a RCRA Small Quantity Generator of hazardous waste. The area searched included the Federally-owned land associated with and adjacent to the Millers Ferry L&D and powerhouse facility, as well as the privately owned land on the west bank that is planned to be within the construction boundaries of this bypass project.

SUMMARY

In summary, the 2021 Legacy Contamination Survey determined that no legacy contamination was identified at Millers Ferry L&D and powerhouse. All areas assessed during the survey were located within the river channel or on the eastern side of the Alabama River. The proposed bypass channel is located on the western side of the River and not impacted by the stored hazardous materials and POLs, nor remaining ACM, located at the facilities within the River and along the east bank. The western side of the River has historically been and remains primarily rural, agricultural, wooded and/or undeveloped land. Structures located along the western side of the River are on private property and are not anticipated to be demolished or otherwise impacted by the proposed construction activities for the bypass channel. Therefore, there are no recognized environmental conditions associated with the planned construction project.

RECOMMENDATIONS

If any recognized environmental conditions are identified during the construction of the project features, the work should cease, and the District's Environmental Engineering Section should be notified immediately to reassess the project area.

APPENDIX A

CLAIBORNE L&D BYPASS CHANNEL – GENERAL SITE OVERVIEW PLAN

APPENDIX B

CLAIBORNE L&D - HISTORICAL AERIAL IMAGERY



Claiborne L&D - 2020



Claiborne L&D, Focus Area - 2020



Claiborne L&D, Pavilion and Restroom - 2020



Claiborne L&D Pavilion



Claiborne L&D Restroom



Claiborne L&D - 2016



Claiborne L&D - 2006



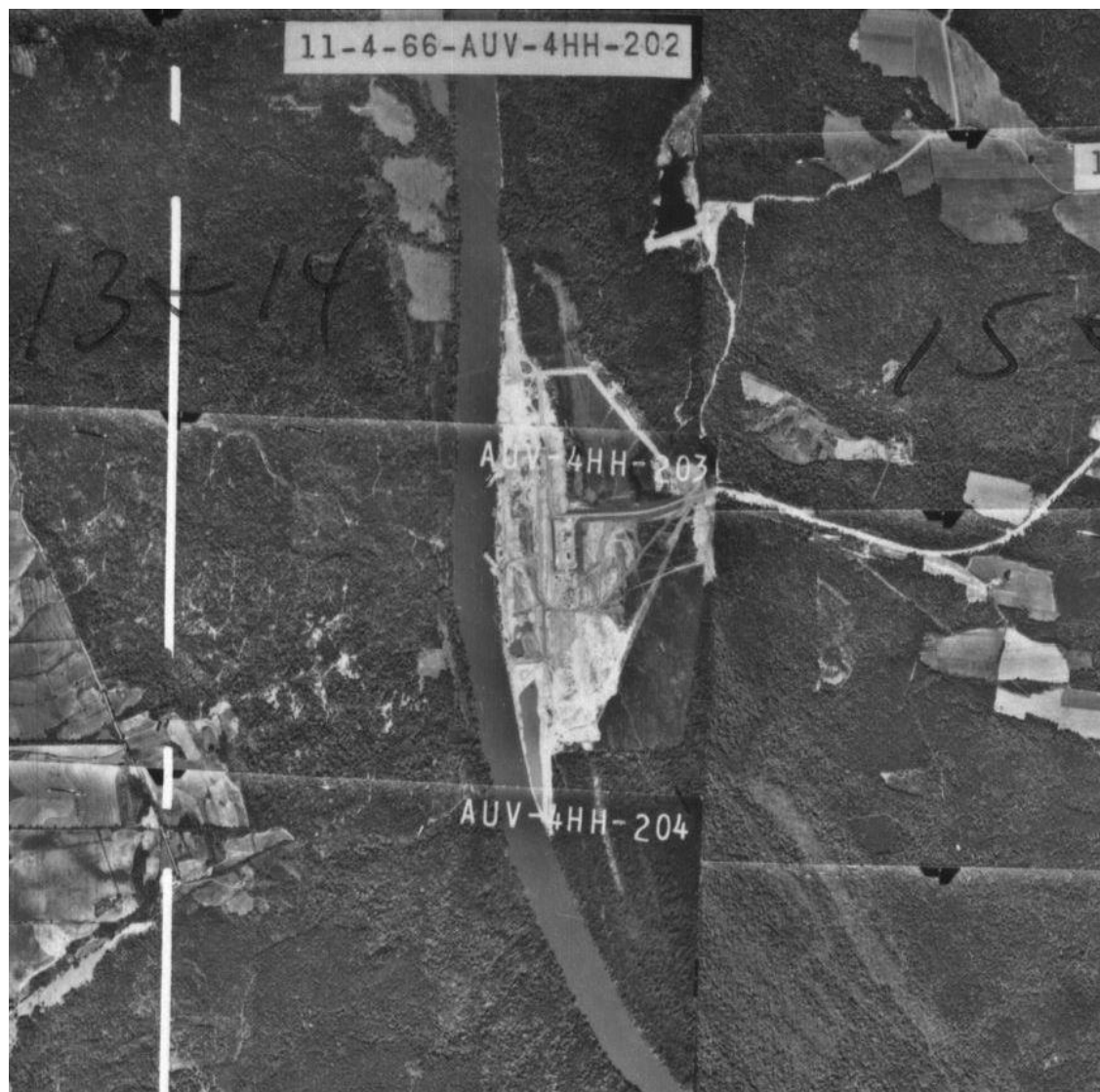
Claiborne L&D - 1992



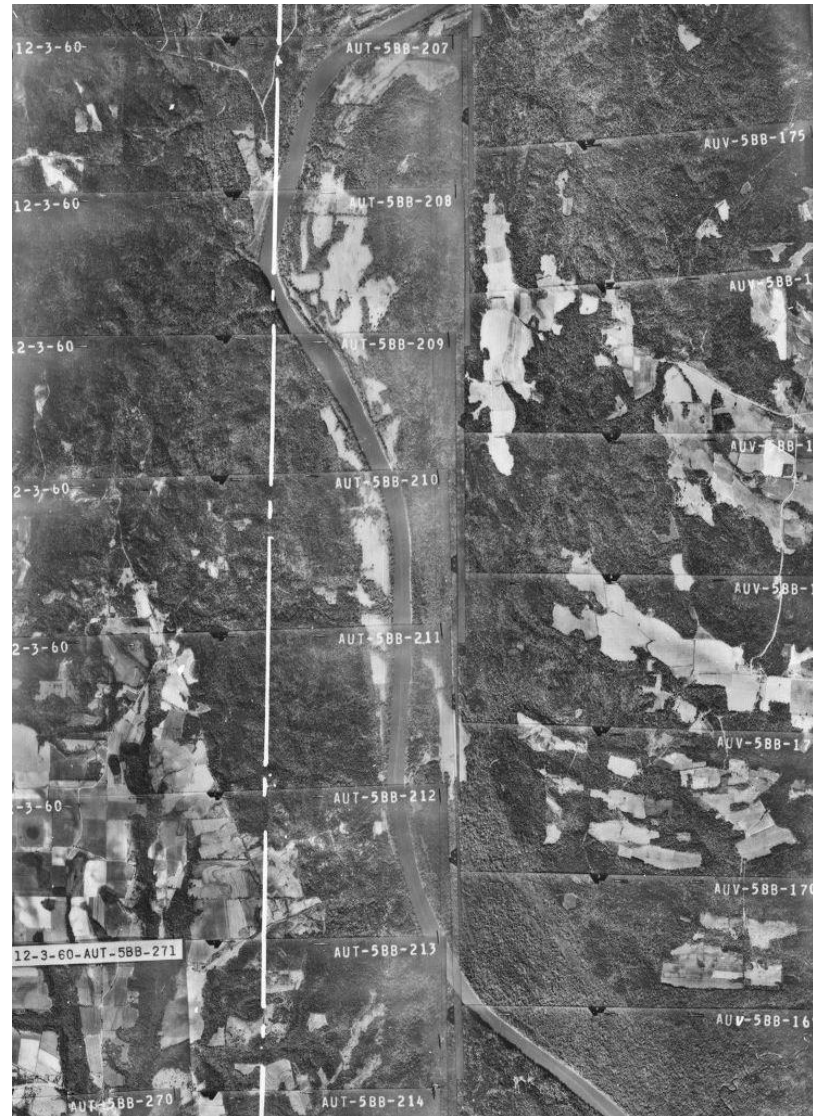
Claiborne L&D - 1974



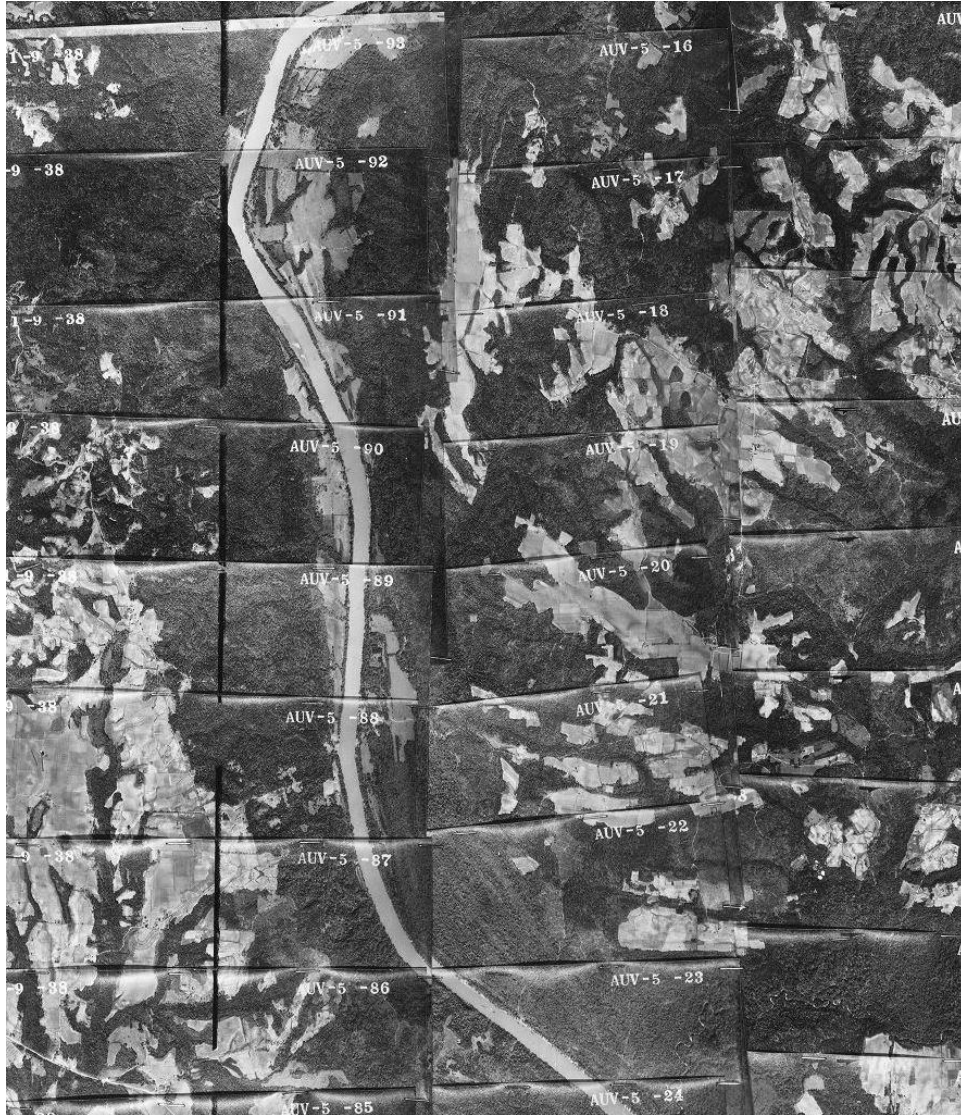
Claiborne L&D, Focused - 1974



Claiborne - 1966



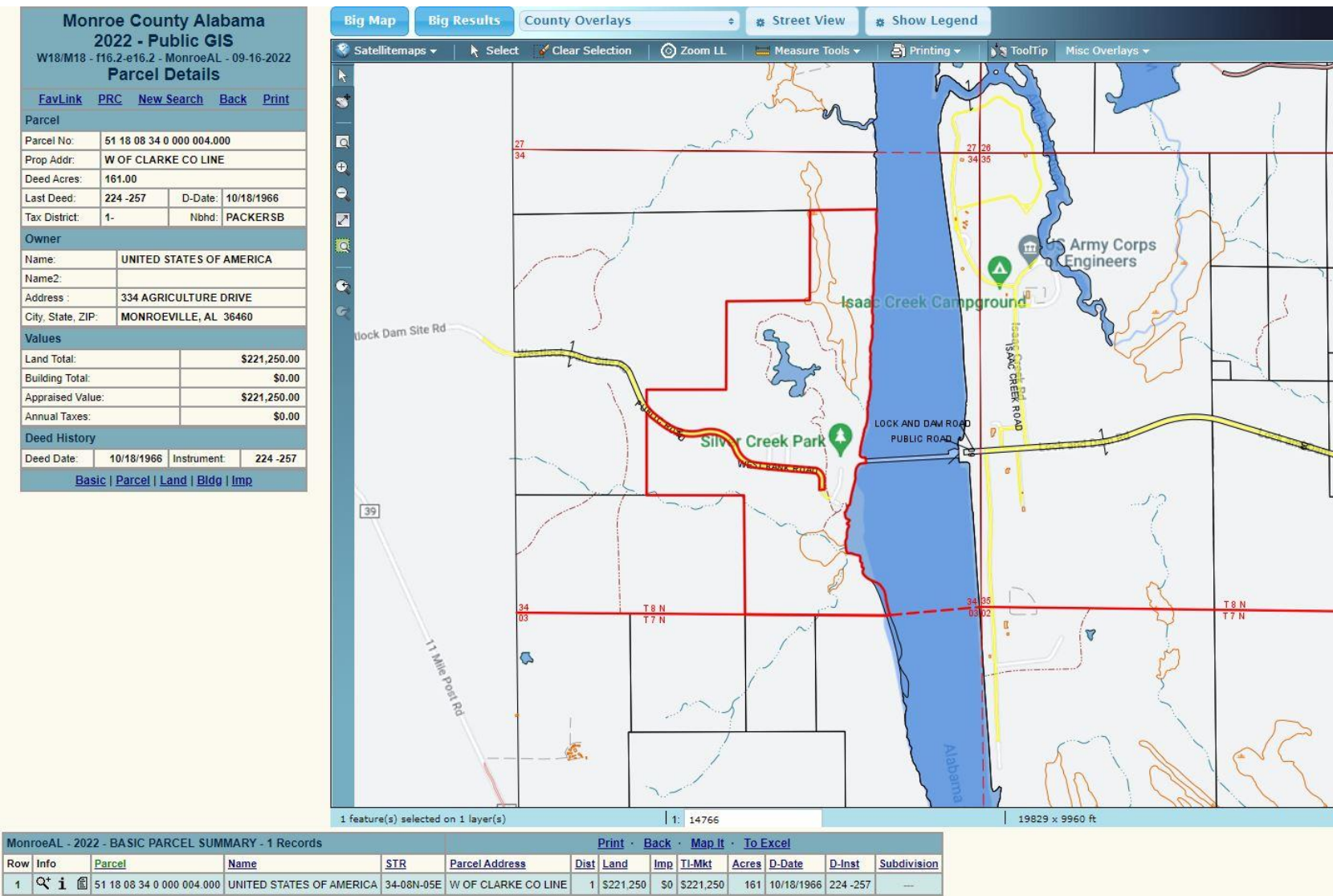
Claiborne L&D - 1960



Claiborne L&D - 1938

APPENDIX C

CLAIBORNE L&D – PROPERTY OWNERSHIP



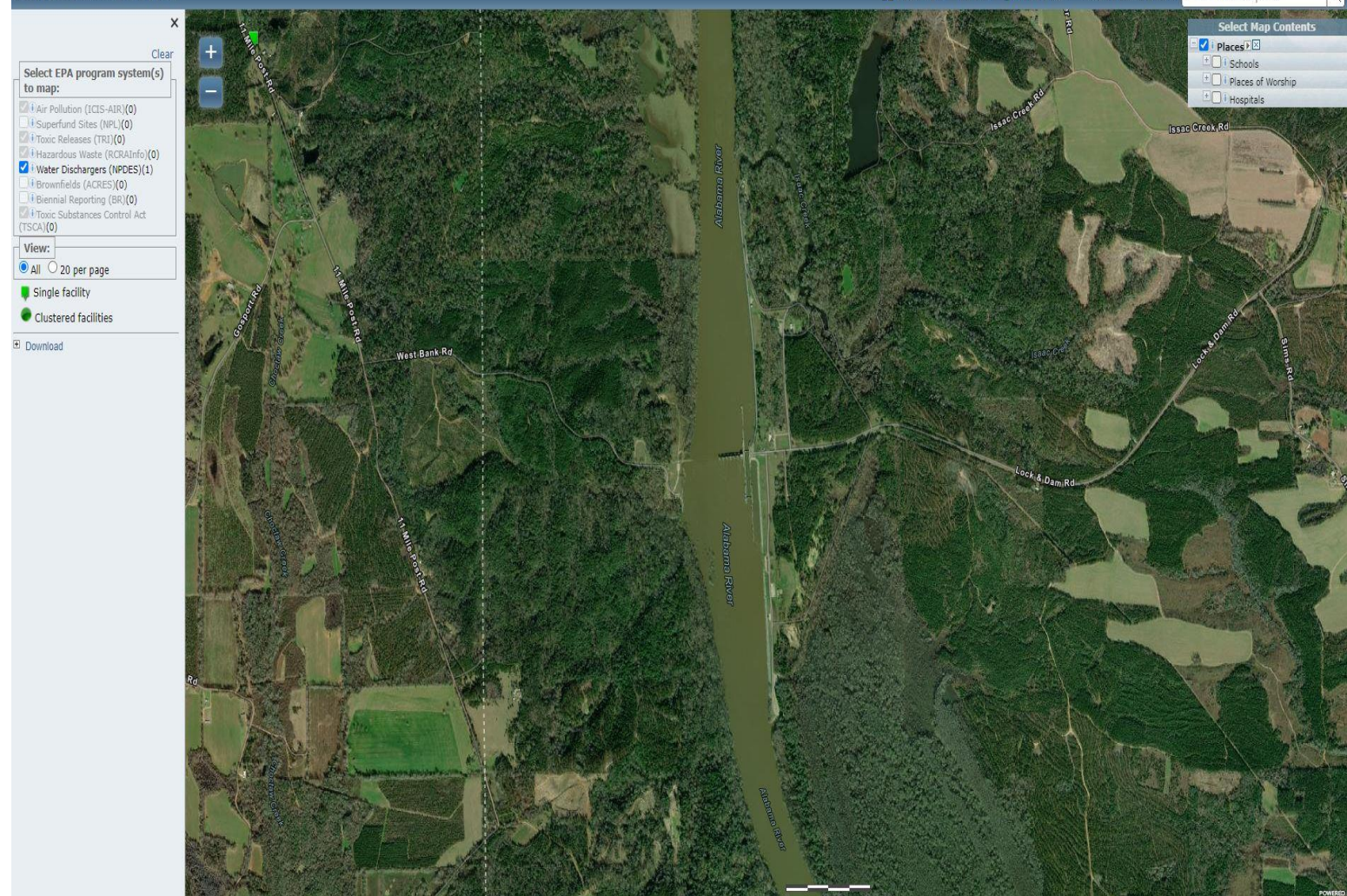
Claiborne L&D – Land Ownership (featured property outlined in red)

APPENDIX D

CLAIBORNE L&D – ENVIRONMENTAL DATABASE FINDINGS

Search Place: Claiborne Lock and Dam

Basemap Tools More Data Search Envirofacts Find address or place



Claiborne L&D – EnviroMapper, Lack of Findings

APPENDIX E

CLAIBORNE L&D – 2019 LEGACY CONTAMINATION SURVEY

Legacy Contamination Questionnaire (Version: 08 August 2011)

The primary purpose of this questionnaire is to assess legacy contamination concerns at USACE-owned property in response to AAA Report # A-2007-0245-FFE, 28 Sep 2007.

PART I: LEGACY CONTAMINATION ASSESSMENT

Date(s) of Assessment: 1 MAY 2018 – 13 MAR 2019

Project: *Claiborne Lock, Dam & Lake: Originally, 1 of 3 separately funded project areas located on the Alabama River and historically documented in OMBIL & CPTrack as a separate project. It is now funded under one large project known as the Alabama-Coosa Rivers Project or Alabama River Lakes Project (ARL). The current navigation project was authorized in 1945. Its 9'X 200' wide channel extends from the mouth of the Alabama River to Montgomery, AL (~289 NM). Claiborne Lock and dam (L&D) was constructed between 1965 and 1969. Claiborne L&D impounds Claiborne Lake. The lake extends north for about 54 river miles through Clarke, Monroe, and Wilcox Counties. When full the impoundment water surface area is 5,930 acres with 204 miles of shoreline. This includes 4,144 acres in the old river and creek channels. Public recreation facilities were developed on Claiborne Lake in 1971. During the early 1980s a consolidation/closure program was implemented. This program resulted in closing some of the public use areas and using their inventory of facilities to renovate selected areas as separate campgrounds and day use parks.*

Area Assessed (complete separate questionnaires for each area evaluated): *Same as above.*

Assessor(s) name and contact information: *Janalie Graham, BWT/AL-Coosa Project ECC, 101 21st Avenue, Tuscaloosa, AL 35401; 205-752-3571*

Responsible District and District POC for site being assessed, and contact information: *Eric Haskell, Mobile District ECC, 109 St. Joseph St., Mobile, AL 36602; 251-694-3712*

Individuals interviewed. Provide names, titles or job responsibilities, and contact information (address, phone number, email address): *Contact information for retired employees can be obtained through the Project Mgmt. Office, Tuscaloosa, AL; 205-752-3571.*

- 1) Danny Hensley, USACE, Operations Project Manager (OPM) (Retired)*
- 2) Anthony Perkins, USACE, OPM (former Navigation Section, Chief);
anthony.c.perkins@usace.army.mil, 205-752-3571*
- 3) David Turberville, USACE, Claiborne L&D Supervisor;
david.r.turberville@usace.army.mil, 334-872-9525*
- 4) Ronnie Dewise, USACE, Lock Operator (Retired) (former COE maintenance personnel)*
- 5) Louie Smith, USACE, Welder; (former maintenance personnel); 205-752-3571*
- 6) Ike Lyon, USACE, Alabama River Lakes Site Manager (Retired)*
- 7) Frank McIntosh, USACE, AL River Lakes Site Manager;
henry.f.mcintosh@usace.army.mil, 334-872-9554.*
- 8) Roger Barlow, East O&M (Contractor), Project Manager (Retired)*
- 9) Brooks Ferguson, R&D Maintenance Services (Contractor); 205-758-3774*

1. Is there a reasonable suspicion of the presence of CERCLA hazardous substances (listed in 40 CFR 302.4) or pollutants or contaminants requiring a response under CERCLA, or of petroleum in amounts that could be a danger to humans or the environment?

☐ Yes

☒ No



(If no, Skip 2-9 and complete # 7)

Basis for conclusion: *Surrounding area is historically rural and was relatively undeveloped before construction of the Claiborne L&D. Portions of the project fall within the floodplain of the Alabama River. Claiborne L&D was completed in 1969. Recreation areas within this project area include one Class-A campground, a few day-use areas, boat ramps, and hunting areas. The only operational areas on the project where hazardous materials and petroleum were used and/or stored include the L&D site, a soils lab/shop building which is now used for emergency generator diesel drum storage on rare occasions (hurricanes, flooding, etc.), an old L&D shop building which later was used as a ranger station and is now an equipment storage yard for the recreation O&M contractor. According to retired Lock Operator Ronnie Dewise who was also a former USACE maintenance worker, there was an underground, 1000 gal, diesel tank dug up by the USACE maintenance crew in the late 1980's at the former L&D Shop Building (no tank documentation found). Mr. Dewise was on the crew who dug up and removed the tank from the site. He did not recall that the tank showed evidence of leaking upon removal. Four (4) underground, 500-gal butane tanks were burned-off and removed from what was once the location of the lock tender site homes in 2008. There are no documented historical spills for this project. A retired employee stated that a burn site was once located behind the soils lab/shop building, but he only recalled items such as paper, cardboard, and dead native vegetation such as limbs and leaves being burned on the site. There was no evidence found and no employees recalled that a solid waste dumping area or pit was ever located on this project.*

Note: Spills which were immediately cleaned up and areas where hazardous materials were merely used, not disposed, do not constitute a reasonable basis for suspecting contamination. Known historic release of hazardous substance or disposal of hazardous substance, based on written records, historic photographs, or personnel interview statements constitute a reasonable basis for concern.

2. Is area of suspected contamination owned by USACE?

- ☐ Yes
- ☐ No

3. Type of contaminant suspected (check all that apply)

CERCLA hazardous substance

- ☐ RCRA hazardous waste
- ☐ TSCA regulated PCB
- ☐ Petroleum
- ☐ Other _____
- ☐ Unknown

4. If contamination is suspected at only a portion of the USACE-owned property, describe the specific portion of concern (This will limit area requiring PA/SI if reported to Federal Facilities Docket):

5. Have regulators been involved in any way (e.g., notification)?

- ☐ No (Provide detail below)

Yes. (Provide any available references (agency involved, POC at that agency, report information, if relevant, memo reference, etc.)

6. Is it suspected that parties other than USACE contributed to the contamination?

Yes. List party

- ☐ No
- ☐ Unknown



7. Comment Block (Record any other pertinent information not captured above):

Sources reviewed for this Survey:

OMBIL – Environmental Compliance data

CPTrack – Environmental Compliance data

Claiborne Lock and Dam Operation & Maintenance Manual (June 1973)

Claiborne L&D SPCC Plan: Spill History documentation

Alabama River Lakes Master Plan (October 1993)

USACE and O&M Contractor employees (currently employed or retired)

Current and historical aerial photos and some historical L&D site photos

Project files

EPA-Envirofacts database: <https://www3.epa.gov/enviro/index.html>

ADEM-UST Regulatory Sites & UST Incident Sites e-Maps Portal databases:

<http://adem.alabama.gov/emaps.cnt>

ADEM-UST Release Incident List:

<http://www.adem.alabama.gov/programs/water/ustcorrective.cnt>

8. Obtain Operations Project Manager (OPM) acknowledgment of ERGO assessment finding.



APPENDIX F

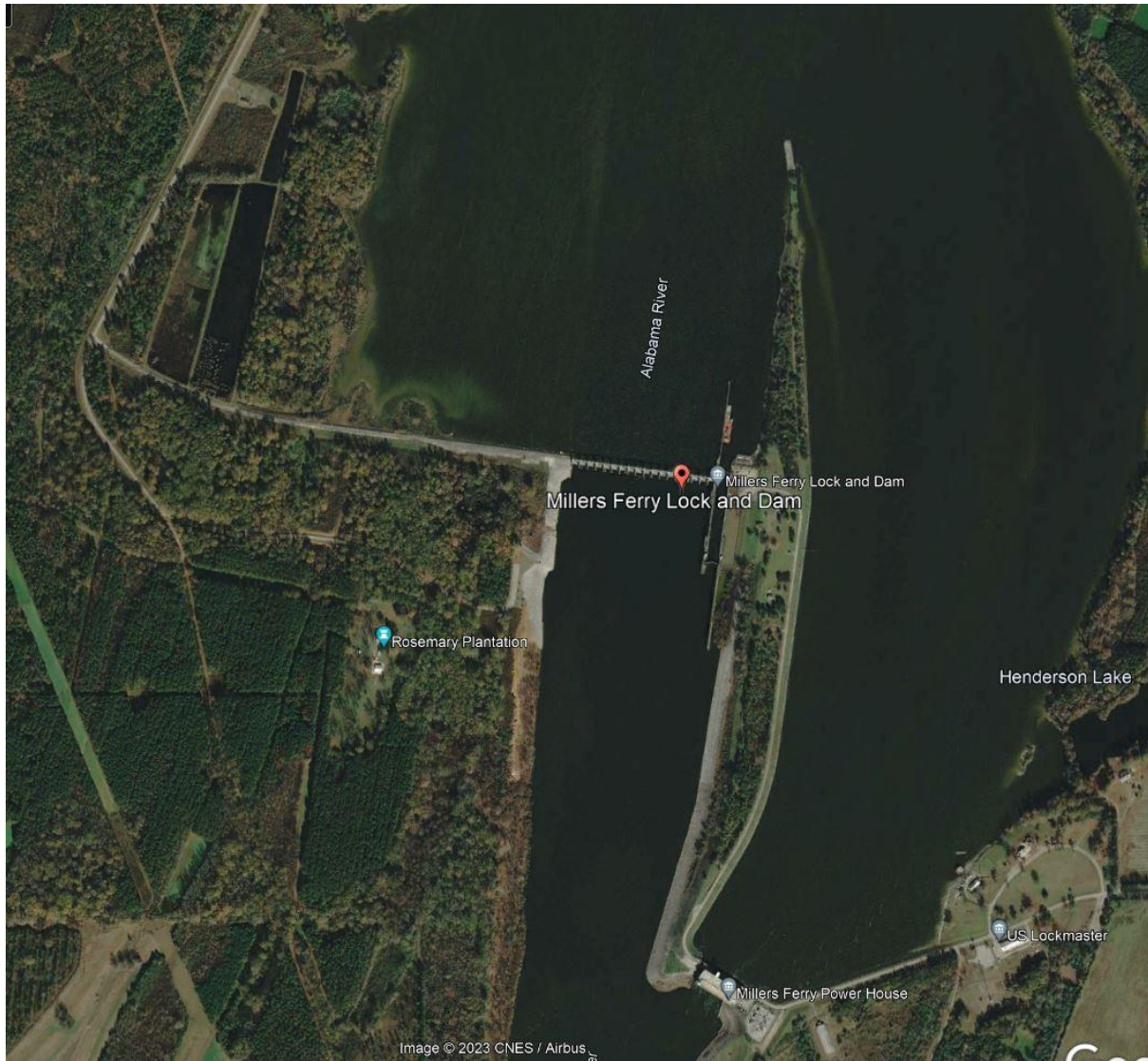
MILLERS FERRY L&D BYPASS CHANNEL – GENERAL SITE OVERVIEW PLAN

APPENDIX G

MILLERS FERRY L&D - HISTORICAL AERIAL IMAGERY



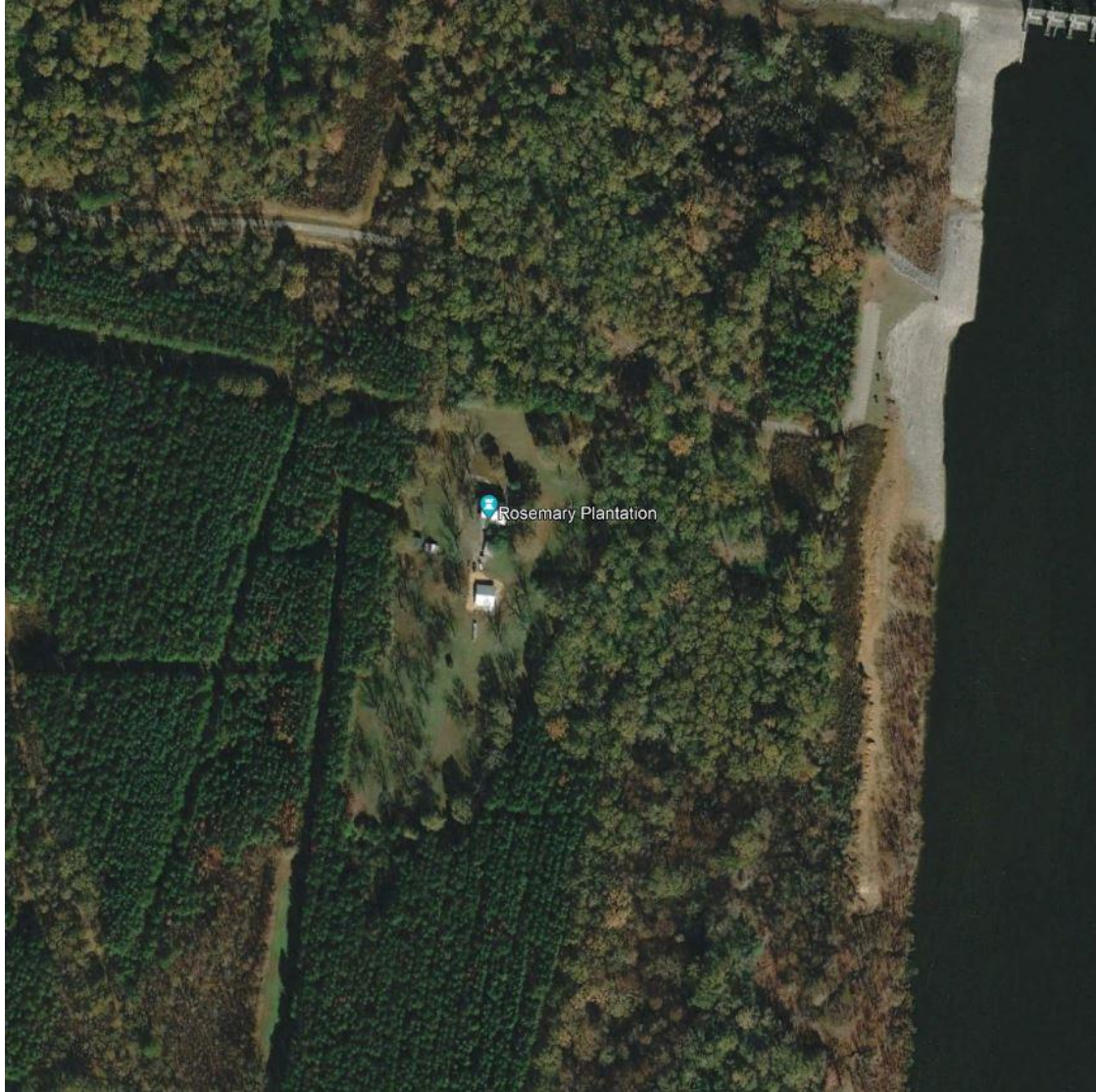
Millers Ferry L&D - 2019



Millers Ferry L&D, Focused - 2019



Millers Ferry L&D, Structures Outside of Construction Footprint



Millers Ferry L&D, Structures Outside of Construction Footprint



Millers Ferry L&D - 2011



Millers Ferry L&D - 2006



Millers Ferry L&D - 1998



Millers Ferry L&D - 1974



Millers Ferry L&D - 1965



Millers Ferry L&D - 1959



Millers Ferry L&D - 1955



Millers Ferry L&D - 1950

APPENDIX H

MILLERS FERRY L&D – PROPERTY OWNERSHIP

Wilcox County Alabama

2022 - Public GIS

W18/M18 - f16.2-e16.2 - WilcoxAL - 09-19-2022

Parcel Details

[FavLink](#) [PRC](#) [New Search](#) [Back](#) [Print](#)

Parcel

Parcel No: 66 08 03 07 0 000 003.010

Prop Addr:

Deed Acres: 132.00

Last Deed: -

D-Date: 09/20/2007

Tax District: 1-COUNTY

Nbhd: 9999

Owner

Name:

UNITED STATES OF AMERICA

Name2:

Address :

GENERAL DELIVERY

City, State, ZIP:

CAMDEN, AL 36726

Values

Land Total:

\$0.00

Building Total:

\$0.00

Appraised Value:

\$0.00

Annual Taxes:

\$0.00

Deed History

Deed Date:

09/20/2007

Instrument:

-

[Basic](#) | [Parcel](#) | [Land](#) | [Bldg](#) | [Imp](#)

Big Map

Big Results

County Overlays

Street View

Show Legend

SatelliteMaps

Select

Clear Selection

Zoom LL

Measure Tools

Printing

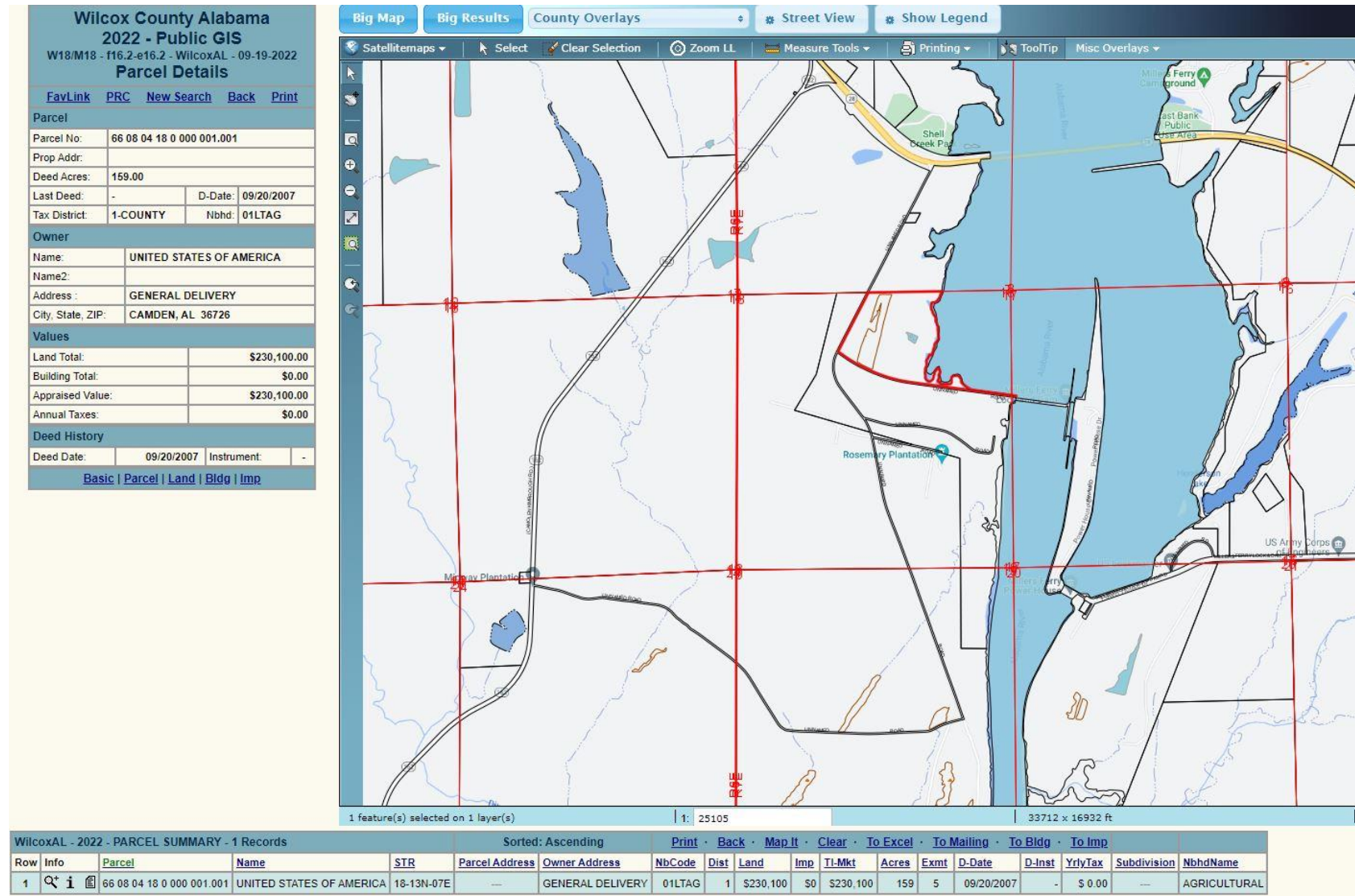
ToolTip

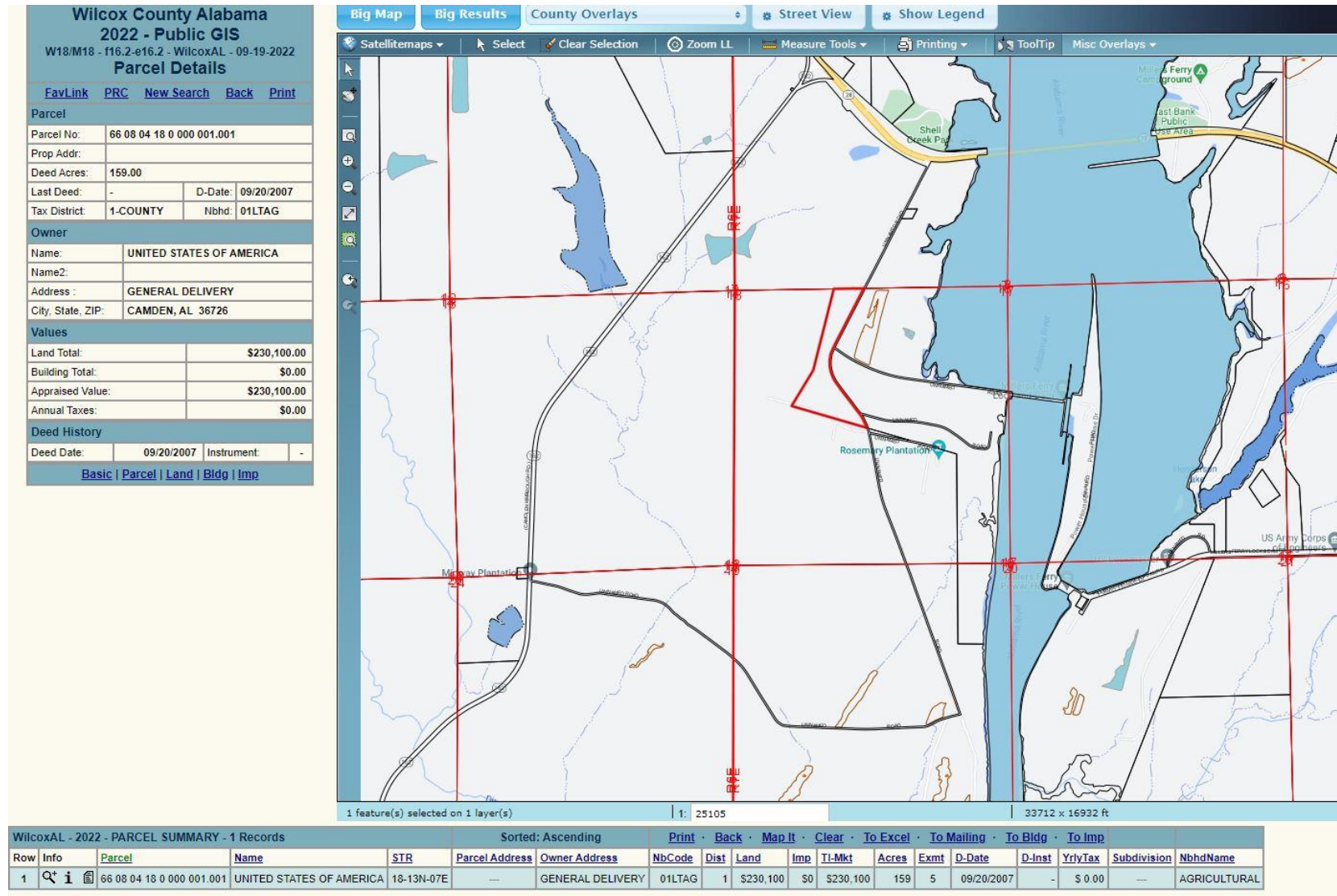
Misc Overlays

1 feature(s) selected on 1 layer(s) | 1: 25105 | 33712 x 16932 ft

WilcoxAL - 2022 - PARCEL SUMMARY - 1 Records				Sorted: Ascending				Print · Back · Map It · Clear · To Excel · To Mailing · To Bldg · To Imp										
Row	Info	Parcel	Name	STR	Parcel Address	Owner Address	NbCode	Dist	Land	Imp	TL-Mkt	Acres	Exmt	D-Date	D-Inst	YrlyTax	Subdivision	NbhdName
1		66 08 03 07 0 000 003.010	UNITED STATES OF AMERICA	07-13N-07E	---	GENERAL DELIVERY	9999	1	\$0	\$0	\$0	132	5	09/20/2007	-	\$ 0.00	---	9999

Millers Ferry L&D – Land Ownership, Record 1





Wilcox County Alabama

2022 - Public GIS

W18/M18 - T16.2-e16.2 - WilcoxAL - 09-19-2022

Parcel Details

[FavLink](#)
[PRC](#)
[New Search](#)
[Back](#)
[Print](#)

Parcel

Parcel No:

66 08 04 19 0 000 002.001

Prop Addr:

Deed Acres:

18.00

Last Deed:

-

D-Date:

09/20/2007

Tax District:

1-COUNTY

Nbhd:

9999

Owner

Name:

USA CORP OF ENGINEERS

Name2:

Address :

GENERAL DELIVERY

City, State, ZIP:

MILLERS FERRY, AL 36760

Values

Land Total:

\$30,100.00

Building Total:

\$0.00

Appraised Value:

\$30,100.00

Annual Taxes:

\$0.00

Deed History

Deed Date:

09/20/2007

Instrument:

-

[Basic](#)
[Parcel](#)
[Land](#)
[Bldg](#)
[Imp](#)

Big Map

Big Results

County Overlays

Street View

Show Legend

Satellitemaps

Select

Clear Selection

Zoom LL

Measure Tools

Printing

ToolTip

Misc Overlays

1 feature(s) selected on 1 layer(s)

1: 25105

33712 x 16932 ft

WilcoxAL - 2022 - PARCEL SUMMARY - 1 Records

Sorted: Ascending

[Print](#)
[Back](#)
[Map It](#)
[Clear](#)
[To Excel](#)
[To Mailing](#)
[To Bldg](#)
[To Imp](#)

Row	Info	Parcel	Name	STR	Parcel Address	Owner Address	NbCode	Dist	Land	Imp	TL-Mkt	Acres	Exmt	D-Date	D-Inst	YrlyTax	Subdivision	NbhdName
1		66 08 04 19 0 000 002.001	USA CORP OF ENGINEERS	19-13N-07E	---	GENERAL DELIVERY	9999	1	\$30,100	\$0	\$30,100	18	5	09/20/2007	-	\$ 0.00	---	9999

Millers Ferry L&D – Land Ownership, Record 5

Wilcox County Alabama

2022 - Public GIS

W18/M18 - T16.2-e16.2 - WilcoxAL - 09-19-2022

Parcel Details

[FavLink](#)
[PRC](#)
[New Search](#)
[Back](#)
[Print](#)

Parcel

Parcel No:

66 08 04 18 0 000 001.000

Prop Addr:

Deed Acres:

397.00

Last Deed:

8W -340

D-Date:

10/14/1989

Tax District:

1-COUNTY

Nbhd:

STE

Owner

Name:

JONES BROCKWAY JACKSON

Name2:

Address :

25 PATTON PLACE

City, State, ZIP:

TUSCALOOSA, AL 35404

Values

Land Total:

\$673,800.00

Building Total:

\$228,540.00

Appraised Value:

\$902,340.00

Annual Taxes:

\$1,695.30

Payment History

Tax Year	Date Paid	Amount Paid
2022	01-25-2023	\$1,695.30
2021	01-04-2022	\$1,555.62

Building

Bldg No	Use Type	Yr Built	Base Area	TAA Area	Story
MH1	MISCIMP	0	0	0	0.0
1	111	1850	2834	5196	2.0

Bldg Appendages

App No	Code	Area	Adj-Area
Building 1			
1	OP2	560	112
2	WD2	560	112
3	SP4	322	129
4	OP2	270	54
5	SP5	155	78
6	P1	660	66
99	+2	1811	1811

Misc Improvements

Code	Desc	Sq Ft	Cond	Value
------	------	-------	------	-------

Big Map

Big Results

County Overlays

Street View

Show Legend

Satellitemaps

Select

Clear Selection

Zoom LL

Measure Tools

Printing

ToolTip

Misc Overlays

1 feature(s) selected on 1 layer(s)

1: 25105

33712 x 16932 ft

WilcoxAL - 2022 - PARCEL SUMMARY - 1 Records

Sorted: Ascending

[Print](#)
[Back](#)
[Map It](#)
[Clear](#)
[To Excel](#)
[To Mailing](#)
[To Bldg](#)
[To Imp](#)

Row	Info	Parcel	Name	STR	Parcel Address	Owner Address	NbCode	Dist	Land	Imp	TI-Mkt	Acres	Exmt	D-Date	D-Inst	YrlyTax	Subdivision	NbhdName
1		66 08 04 18 0 000 001.000	JONES BROCKWAY JACKSON	18-13N-07E	---	25 PATTON PLACE	STE	1	\$673.800	\$228.540	\$902.340	397	0	10/14/1989	8W -340	\$ 1,695.30	---	---

Millers Ferry L&D – Land Ownership, Record 6

Wilcox County Alabama

2022 - Public GIS

W18/M18 - f16.2-e16.2 - WilcoxAL - 09-19-2022

Parcel Details

FavLink

PRC

New Search

Back

Print

Parcel

Parcel No:

66 08 04 18 0 000 001.000

Prop Addr:

Deed Acres:

397.00

Last Deed:

8W -340

D-Date:

10/14/1989

Tax District:

1-COUNTY

Nbhd:

STE

Owner

Name:

JONES BROCKWAY JACKSON

Name2:

Address :

25 PATTON PLACE

City, State, ZIP:

TUSCALOOSA, AL 35404

Values

Land Total:

\$673,800.00

Building Total:

\$228,540.00

Appraised Value:

\$902,340.00

Annual Taxes:

\$1,695.30

Payment History

Tax Year	Date Paid	Amount Paid
2022	01-25-2023	\$1,695.30
2021	01-04-2022	\$1,555.62

Building

Bldg No	Use Type	Yr Built	Base Area	TAA Area	Story
M11	MISCIMP	0	0	0	0.0
1	111	1850	2834	5196	2.0

Bldg Appendages

App No	Code	Area	Adj-Area
Building 1			
1	OP2	560	112
2	WD2	560	112
3	SP4	322	129
4	OP2	270	54
5	SP5	155	78
6	P1	660	66
99	+2	1811	1811

Misc Improvements

Code	Desc	Sq Ft	Cond	Value
------	------	-------	------	-------

Big Map

Big Results

County Overlays

Street View

Show Legend

Satellitemaps

Select

Clear Selection

Zoom LL

Measure Tools

Printing

ToolTip

Misc Overlays

Parcel: 66-08-04-18-0-000-001.000
Name: JONES BROCKWAY JACKSON
Name:
Address-Phy:
Address-Mail: 25 PATTON PLACE
Address-Mail:
STR 18-13N-07E

1 feature(s) selected on 1 layer(s)

1: 25105

33712 x 16932 ft

WilcoxAL - 2022 - PARCEL SUMMARY - 1 Records

Sorted: Ascending

Print

Back

Map It

Clear

To Excel

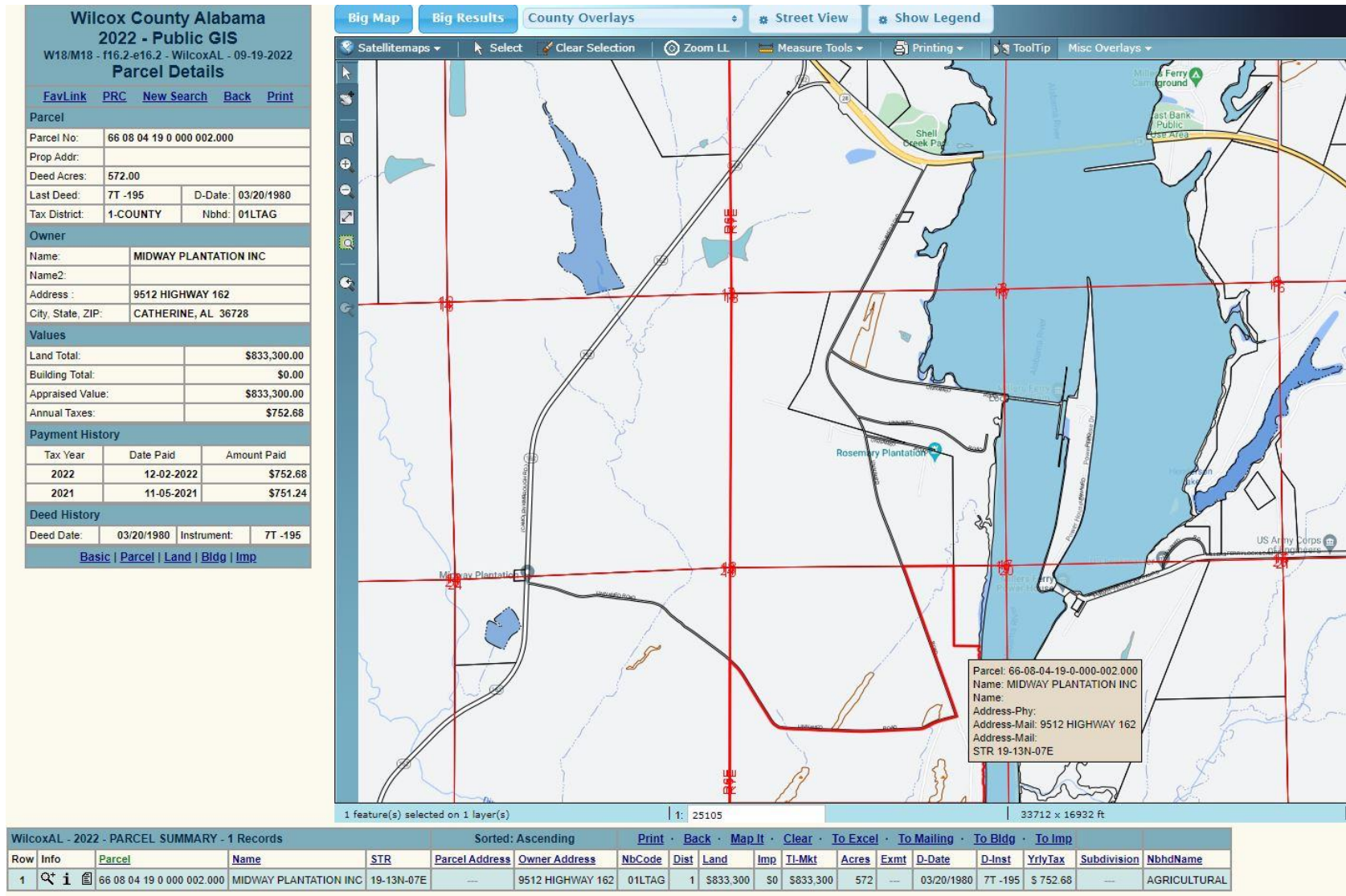
To Mailing

To Bldg

To Imp

Row	Info	Parcel	Name	STR	Parcel Address	Owner Address	NbCode	Dist	Land	Imp	TL-Mkt	Acres	Exmt	D-Date	D-Inst	YrlyTax	Subdivision	NbhdName
1		66 08 04 18 0 000 001.000	JONES BROCKWAY JACKSON	18-13N-07E	---	25 PATTON PLACE	STE	1	\$673.800	\$228,540	\$902,340	397	0	10/14/1989	8W -340	\$ 1,695.30	---	---

Millers Ferry L&D – Land Ownership, Record 7



APPENDIX I

MILLERS FERRY L&D – ENVIRONMENTAL DATABASE FINDINGS



Millers Ferry L&D – EnviroMapper Findings (noted by green flags)

FACILITY NAME (1)	MILLERS FERRY POWERHOUSE	NPDES	ALG360019
STREET 1	1606 POWERHOUSE ROAD	SIC CODE	4911 = Electric Services
CITY		MAJOR / MINOR	
COUNTY NAME	Wilcox	TYPE OF OWNERSHIP	Federal Facility (U.S. Government)
STATE	AL	ACTIVITY STATUS	Effective
ZIP CODE	36726	INACTIVE DATE	
REGION	Region 4	TYPE OF PERMIT ISSUED	General Permit Covered Facility
LATITUDE	32.090522	ORIGINAL PERMIT ISSUE DATE	05-MAY-1998
LONGITUDE	-87.397131	PERMIT ISSUED DATE	11-JAN-2021
LAT/LON CODE OF ACCURACY	50	PERMIT EXPIRED DATE	31-JAN-2026
LAT/LON METHOD	Unknown		
LAT/LON SCALE		USGS HYDRO BASIN CODE	
LAT/LON DATUM		FLOW	
RECEIVING WATERS		FEDERAL GRANT IND	
PRETREATMENT CODE		SLUDGE CLASS FAC IND	FEDERAL
MAILING NAME		SLUDGE RELATED PERMIT NUM	
MAILING STREET (1)		ANNUAL DRY SLUDGE PROD	
MAILING STREET (2)			
MAILING CITY			
MAILING STATE			
MAILING ZIP CODE			
COGNIZANT OFFICIAL		COGNIZANT OFFICIAL TEL	

This facility has permits to discharge the following chemical/substances through the points (pipes) listed in the table below:

PARAMETER CODE	PARAMETER DESCRIPTION	NUMBER OF DISCHARGE POINTS
	pH	5
	Solids, total suspended	5
	Oil & Grease	2
	Oil and grease visual	9
	Flow, in conduit or thru treatment plant	8
	Oil and grease	3
	Annual Certification Statement	1

Additional Information can be obtained from Water Discharge Permit Information Search.

Millers Ferry L&D – Database Information for NPDES Permit Status

HANDLER ID:	ALR000034462
--------------------	--------------

LIST OF NAICS CODES AND DESCRIPTIONS

<u>NAICS CODE</u>	<u>NAICS DESCRIPTION</u>
221111	HYDROELECTRIC POWER GENERATION

HANDLER / FACILITY CLASSIFICATION Unspecified Universe for the facility listed above.

<u>HANDLER TYPE</u>
Small Quantity Generator

No PROCESS INFORMATION is available for the facility listed above.

Additional Information can be obtained from Resource Conservation and Recovery Information [RCRAInfo](#) Search.

APPENDIX J

MILLERS FERRY L&D – 2021 LEGACY CONTAMINATION SURVEY

Legacy Contamination Questionnaire (Version: 08 August 2011)

The primary purpose of this questionnaire is to assess legacy contamination concerns at USACE-owned property in response to AAA Report # A-2007-0245-FFE, 28 Sep 2007.

PART I: LEGACY CONTAMINATION ASSESSMENT

Date(s) of Assessment: 19 SEP 2019 – 30 SEP 2021

Project: Millers Ferry Lock and Dam, Powerhouse – W.M. Dannelly Reservoir: Originally 1 of 3 separately funded run-of-the-river impoundments located on the Alabama River and historically documented in OMBIL & CPTrack as a separate project. It is now funded under one large project known as the Alabama-Coosa Rivers Project and, also referred to as the Alabama River Lakes Project.

The original project for the improvement of the Alabama River was authorized by Congress on 18 June 1878 to provide for a navigation channel 4' deep X 200' wide from the Alabama River mouth to Wetumpka, AL, a distance 331 miles, and was modified on 13 July 1892 to provide a 6' channel. Subsequent acts approved in 1905 and 1910 provided for a channel 4' deep at low water from the mouth to Wetumpka with the use of contracting dikes and dredging. This project was 62% complete in 1942, the last year that any new work was performed.

The current navigation project was authorized by the River and Harbor Act of March 2, 1945. Its 9' deep X 200' wide channel extends from the mouth of the Alabama River to N of Montgomery, AL (~305 river miles) and up the Coosa River (~12 river miles) to Wetumpka. Construction began in 1963 and was completed in 1972. Work included dredging, creating training dikes, removing rock, regulating flow, snagging, constructing a cutoff, and building 3 locks and dams (L&Ds) and 2 power projects. Millers Ferry L&D located at river mile (RM) 133.0 was the first of the L&D sites to be constructed on the Alabama River between 1963 and 1968. Claiborne L&D located downstream at river mile 72.5 was constructed between 1965 and 1969 and the R.F. Henry L&D located upstream at river mile 236.2 was constructed between 1966 and 1972. Today, the Alabama-Coosa navigation channel is considered a "low-use" waterway system. All commercial traffic must schedule an appointment for lockage when operators are not on duty, and recreational vessels will only be locked through when locks are manned. The operating purposes of the project include navigation and hydropower. Several other project purposes have been added through general authorizations including water quality, recreation, and fish and wildlife conservation and mitigation.

The Millers Ferry L&D, Powerhouse Project is ~10 miles NW of Camden, AL, and 30 miles SW of Selma, AL. The project consists of a concrete gravity-type dam with a gated spillway, supplemented by earth dikes, a navigation lock and control station, and a 90-megawatt (mw) power plant. The L&D includes earthen dikes, a gated spillway with 17 tainter gates each 35' high and 50' wide, and a lock in the river channel with inside chamber dimensions of 84 by 600 feet and a maximum lift of 48 feet. The lock is located between the spillway and a dike island separating the powerhouse from the lock and spillway. Construction of the power project began in 1963 and was completed in 1974. The powerhouse is located ~0.6 mile downstream from the spillway on the left descending bank of the river adjoining a switchyard and parking area. A 24 feet wide debris spillway is constructed adjacent to the powerhouse to facilitate the passing of trash



that accumulates at the powerhouse. The entire powerhouse including the intake section is 320 feet long and 168.5 feet wide. The powerhouse is a reinforced concrete building containing three generation bays and one erection bay, each 80' wide. The generation units consist of fixed-blade propeller turbines, rated at 34,000 horsepower (hp) each with a net head of 35.5 feet, connected to vertical shaft generators rated at 30,000 kilowatts (kw). Rewinding of the generators was completed in 1998 which resulted in a capacity increase from 75 to 90 mw. The switchyard is located on the east side of the powerhouse which is the left bank of the river. The principal structure in the switchyard is the main take-off structure for the outgoing lines. There are other structures for busses, disconnecting switches and potential transformers.

The lake created by Millers Ferry L&D is designated as the William "Bill" Dannelly Reservoir and was named after Wilcox County Probate Judge William "Bill" Dannelly who was an active supporter of river development and credited with leading the modernization of the Alabama and Coosa Rivers. Dividing Alabama's Black Belt Prairie and falling within Wilcox and Dallas Counties, the reservoir encompasses 105 miles of the Alabama River and boasts an area of about 27 square miles and a shoreline of 556 miles. Dannelly Reservoir offers such activities as fishing, boating, water-skiing and hunting. The reservoir features 17 parks that are well-facilitated for visitors. Conveniences at the parks include beaches, campgrounds, picnic areas, trails and boat launching ramps. Since construction of the first park in 1975, annual attendance figures have reached over 2 million. Due to a very healthy American Alligator population in West Central Alabama, the State of Alabama Department of Conservation and Natural Resources (ALDCNR) hosts an annual alligator hunt. The Stokes World Record alligator was killed in a creek upstream of the Millers Ferry L&D in 2014. The record alligator at 15'9" long and 1011.5 pounds is currently on loan by the Stokes family and displayed in the Millers Ferry Resource Office near the power plant and lock and dam. Additionally, due to excellent bass fishing in the region growing B.A.S.S. sponsored and other fishing tournaments are growing in number on Dannelly Reservoir.

Area Assessed (complete separate questionnaires for each area evaluated): *Same as above.*

Assessor(s) name and contact information: *Janalie Graham, BWT/AL-Coosa Project ECC, 101 21st Avenue, Tuscaloosa, AL 35401; 205-752-3571*

Responsible District and District POC for site being assessed, and contact information: *Eric Haskell, Mobile District ECC, 109 St. Joseph St., Mobile, AL 36602; 251-694-3712*

Individuals interviewed. Provide names, titles or job responsibilities, and contact information (address, phone number, email address):

1) Anthony Perkins, USACE, Operations Project Manager (former Navigation Manager); anthony.c.perkins@usace.army.mil, 205-752-3571

2) David Turberville, USACE, Lock Supervisor; david.r.turberville@usace.army.mil, 334-872-9525

3) Jodi Conner, USACE, Power Project Manager, jodi.p.conner@usace.army.mil, 334-682-4655 Ext. 265

4) Louie Smith, USACE, Welder, (former COE maintenance personnel), louie.h.smith@usace.army.mil, 205-752-3571

5) Grant Gray, USACE, CE Tech, (former COE Maintenance personnel) (Retired)



- 6) Frank McIntosh, USACE, Alabama River Lakes Site Manager;
henry.f.mcintosh@usace.army.mil, 334-872-9554
- 7) Jason Haynes, USACE, Millers Ferry Resource Office Manager;
jason.l.haynes@usace.army.mil, 334-682-4244
- 8) Brooks Ferguson, R&D Maintenance Services (Contractor), Project Manager; 205-758-3774
- 9) Kevin McCauley, USACE, Realty Specialist; charles.k.mccauley@usace.army.mil, 205-752-3571

Individuals interviewed about the project area during previous and similar environmental assessments and surveys:

Contact information for retired employees can be obtained through the Project Mgmt. Office, Tuscaloosa, AL; 205-752-3571.

- 1) Danny Hensley, USACE, Operations Project Manager, (Retired)
- 2) Thomas Branum, USACE, Lock Supervisor, (Retired)
- 3) Tommy Cox, USACE, Power Plant Electrician (Retired)
- 4) Ronnie Dewise, USACE, Lock Operator (former COE maintenance personnel)
(Retired)
- 5) Ike Lyon, USACE, Alabama River Lakes Site Manager (Retired)
- 6) Roger Barlow, East O&M (Contractor), Project Manager (Retired)

1. Is there a reasonable suspicion of the presence of CERCLA hazardous substances (listed in 40 CFR 302.4) or pollutants or contaminants requiring a response under CERCLA, or of petroleum in amounts that could be a danger to humans or the environment?

☐ Yes

☒ No

(If no, Skip 2-9 and complete # 7)

Basis for conclusion:

Most of the Millers Ferry L&D and Powerhouse, Dannelly Reservoir Project falls within rural, agricultural, and woodland areas of west-central Alabama and within the floodplain of the Alabama River, with a section flowing through Historic Selma, AL. Water Use Classifications on Dannelly Reservoir from Millers Ferry L&D to Six Mile Creek is Swimming (S) and Fish & Wildlife (F&W) and from Six Mile Creek to R.F. Henry L&D is F&W. There are no 303(d) impaired waters listed on the Alabama River/Dannelly Reservoir; although, some creeks flowing into Dannelly Reservoir are impaired due to siltation, pathogens (E. coli), nutrients, and metals (Mercury) due to pasture grazing, agriculture, aquaculture, onsite sewage treatment and atmospheric deposition. Hazardous materials and/or petroleum products have not been stored or used in bulk at recreation areas, except temporarily in portable above-ground tanks (ASTs) during construction or renovations of park facilities or within sealed, electrical transformers within the parks. Upon the date of this report, neither pad-mounted transformers nor pole-mounted transformers that have been taken out of service from recreation sites and tested for polychlorinated biphenyls (PCBs) have shown to contain PCBs or PCB-contaminated dielectric fluid. There have been no known historical or reportable spills of petroleum products or hazardous materials in recreation areas on the project.



USACE and Outgrant operated areas on the project where hazardous materials and petroleum products were historically used and/or currently being stored include the following:

(Outgrant) Roland Cooper State Park, Camden, AL – The 236-acre state park was established on land leased from USACE and was named Bridgeport State Park following the construction of Millers Ferry L&D in 1969. The name was changed to its present name in the 1970s to honor William Roland Cooper, a politician from Camden who served in the Alabama Senate. It was one of several Alabama state parks that was closed in 2015 following state budget cuts. The State re-opened the park in September 2016 under a management agreement with a private contracting company, RRM-CLM Services. Park facilities include a boat ramp, picnic shelter, shower houses, cabins and RV campsites, a maintenance shop warehouse, a small, flammable/chemical liquids storage building, and a permitted (NPDES) sewage treatment plant. Prior to 2015, the stated operated a 9-hole golf course with a pro-shop residential dwelling onsite, but upon new private management operations in 2016 the golf course and pro-shop was closed. The State plans to demolish the pro-shop dwelling upon coordination with USACE in ~2022 and return the golf-course acreage to USACE. The Millers Ferry Resource Management Office plans to revert the old golf course acreage into wildlife food plots and a handicap hunting area. A gated and locked wellhouse is within the park but the well is no longer used since potable water is provided by the county. Additionally, an abandoned toilet building is located on the golf course and a decision has not been made by CESAM-RE if they will require the State to remove this building prior to the acreage being returned to USACE. Historical environmental compliance (EC) findings from OMBIL showed that state personnel kept poor records on herbicide applications used on the golf course acreage. From 2005 to 2015 the Project ECC observed a small supply of various brands and types of 1-gallon containers of herbicides stored onsite, but maintenance staff always stated those older herbicides had been left prior to their employment and that only “Round-up” herbicide was used on the golf course. All these old herbicides were removed from the park in 2015-2016 by the State. The park initially had 2 gasoline and 1 diesel AST onsite which supplied fuel for heavy equipment and for golf carts. These ASTs either had no secondary containment or poor/faulty secondary containment; however, there was no historical documentation of spills or tank leaks onsite. These ASTs were removed from the park in 2015-2016 period. Today, only small quantities of a few ounces to 1-5 gallons of paint, paint thinner, fuel, chlorine tablets, and consumer cleaning products are stored onsite and small bottles of propane are purchased/exchanged to campers. Prior to 2005, state maintenance personnel conducted equipment oil changes on a wooden oil-changing rack built on the side of a hill behind the maintenance shop warehouse. An OMBIL finding was the concrete slab below the rack had an open drain and there was evidence of petroleum contamination in the soil around the slab. This led to the staff plugging the drain. Due to the age of the wooden rack, staff quit using the rack around 2005. Other EC findings were small numbers of used, non-leaking lead acid batteries and open containers of used oil found sitting in soil behind the warehouse which were corrected upon notifications of annual EC assessment findings. Any of the petroleum soil contamination around the maintenance area was de minimus. While conducting this survey, there was no documentation or visual evidence of contamination, pollution or spills at the site that presented a danger to humans or the environment.



(USACE) Millers Ferry Lock and Dam Site, Millers Ferry, AL – The L&D is located on the Alabama River at navigation mile 133.0, approximately one mile below the Lee Long Bridge, which carries State Highway 10 and 28 over the river, and approximately 10 miles northwest of Camden, AL. The L&D facility began operations in 1968. The L&D area was closed to public access after September 11, 2001. Today, due to a “low-use” waterway classification, only 2 lock operators are stationed at the site 10 hours a day, 4 days a week. The spillway tainter gates can be operated by the lock staff, or remotely operated by Millers Ferry powerhouse operators or by Jones Bluff powerhouse operators, upstream. Both the lock and powerhouse personnel have shared SPCC and operational responsibility over the spillway. Initially, water to the L&D, a public restroom, 2 lock tender houses, and a small metal shop building was from a well on the earth-diked peninsula between the powerhouse and the lock site. The well has long since been decommissioned and potable water is supplied by water lines from the Wilcox County Water Authority. An onsite wastewater treatment field is on high ground above the lock. The L&D facility contains bulk petroleum, oils, and lubricants (POLs) (55-gallons or greater) in 3 locations and stores smaller amounts of POLs in several other locations. A SPCC Plan for the L&D was first prepared 28 September 1994 and has been updated and implemented since that date.

Lock Control Building:

All power to the lock control building is supplied by hydropower. Back-up emergency power for the lock is supplied by an emergency generator located on the tail-deck of the Millers Ferry Powerhouse. Additionally, a 275-gallon diesel fuel day tank located on the second floor of the lock building provides fuel for an older emergency generator. This tank is filled manually by transfer from either 55-gallon drums or from floating plant. The tank is maintained at full capacity. The tank has secondary containment capable of handling up to 300 gallons. This tank as well as the older emergency generator is used as a back-up if the powerhouse emergency generator fails.

There are two 175-gallon oil reservoir tanks located on the first floor that supply oil to the hydraulic pumps that operate the lock equipment. Tanks are filled manually by pumping oil from a 5-gallon container into the reservoirs. Tanks are connected through piping and oil levels remain the same in each tank. Tanks are filled once levels reach the halfway mark, which is indicated by a glass window gage. Tanks are never filled to capacity and usually contain from 175 to 300 gallons of hydraulic oil.

A (4160V) General Electric (GE) main transformer is located on the first floor and is the only known PCB transformer still located at federal facilities on the Alabama River Lakes Project. A 1993 lab analysis found filed at the powerhouse showed that the transformer has a PCB Level of 819,491 ppm, Aroclor 1242. A GE manufacturing plate on the transformer states the unit contains 85 gallons of PYRANOL which was the GE trade name for their PCB product. A retired lock supervisor stated he believed the transformer fluid had been drained and replaced years before, but no documentation has been found to confirm the transformer fluid replacement. The PCB transformer was registered with the EPA in December 2009 upon discovery during an annual environmental compliance (EC) assessment. In accordance with EPA regulations, the lock operators at Millers Ferry Lock must inspect the PCB main transformer at least quarterly during the year and these inspections are documented on a PCB Inspection Record. There is no documentation or visual evidence that the transformer has ever leaked dielectric fluid.



Non-friable asbestos containing materials (ACM) have either been abated, encased, or currently remain in the lock control building and will remain in place until deterioration or the ACM is disturbed during renovations.

Spillway Gates:

The seventeen 35' X 50' spillway tainter gates are electronically controlled, however each gate has two triple gear-reduction boxes that contain 27-gallons of lube oil per box and each gate has one worm-gear box containing 2.25 quarts of lubricating oil.

Lock Structure:

The lock miter gates and tainter valves are operated by a hydraulic system consisting of the 2 hydraulic pumps in the lock control building, hydraulic cylinders located on the lock walls, and connecting seamless steel pipes. The steel pipes that connect the hydraulic pumps with the mechanical equipment contain pressurized oil at all time. The pipes run the length of the lock wall on the left side of the lock structure. They are located internally within the wall structure in the gallery. They connect with the equipment on the right side of the lock by crossing through the concrete walls and floor of the lock chamber and the upper miter gates.

Lock & Dam Spill History:

On 15 November 2016 at 1130 hours, approximately three large patches of oil sheen were observed by lock operators below the lock and dam after a lockage. The lock operators discovered the riverside, lower gate valve had a small leak and when the lower gate was opened during the lockage, oily water was flushed from the valve pit and discharged into the river. It is estimated up to 2 gallons of hydraulic oil leaked from the gate valve into the valve pit. A NW wind kept the oil sheen against the lock short wall and dam. O&M contract vessels and crews deployed sorbent booms and pads and cleanup operations were completed before dark on the same day; NRC Incident Report # 1164168.

Lock Burn Pit:

According to a retired lock operator and former USACE maintenance personnel, the staff use to collect natural debris (logs and driftwood) that collected in the upstream lock wall approach and would burn the debris in a large pit area on the upstream point area of the diked peninsula. They stated that no solid waste was burned in the pit. This practice was ended by the early 1990s and all the natural debris is, now, either hauled by truck and taken to a large natural debris field located on federal property to the SE of the powerhouse or the natural debris is snagged by USACE floating plant and placed on an undeveloped federal property tract on the right descending bank ~1 river mile downstream of the Millers Ferry Spillway. The area where the natural debris was burned has, now, all grown over in trees and vegetation.

Flammable Liquids Storage Shed:

An 8' x10' metal storage building is located on the lock access road, approximately 1800 feet from the lock structure and is included in a gated compound with the old L&D shop



building. The shed contains small quantities of hydraulic oil and lubricant in containers ranging in size from 1 – 5 gallons. Additionally, several 1-gallon containers of paint and paint thinner and small aerosol spray cans may be stored in the building. One to two 55-gal drums of diesel were stored in the building as back-up fuel for the lock emergency generator in the mid-2000s, but the site stopped storing the drums when the L&D back-up power was placed on the powerhouse emergency generator.

Old L&D Shop Building:

Next to the Flammable Liquids Storage Shed is a 20' x 40' old shop building that was utilized by USACE maintenance staff prior to the 1990s when all lock and dam maintenance duties were turned over to an O&M contractor. Currently, the building is being used for the storage of lock supplies, a large spill kit, and bulk supply of spill absorbents. Compressed gas bottles for welding were being stored at this site by the welder that is still on current USACE staff, but the compressed gas bottles were relocated to a shop building on the BW&T Waterway around 2015.

Former Sites of Lock Tender Houses:

Former sites of 2 lock tender houses are located between the old L&D shop building and the lock on the diked peninsula. According to records, these houses were abandoned and no longer used by 1990, so asbestos cement siding was abated off the houses and the Camden VFD was given permission to burn the houses down in training exercises with the remaining debris hauled offsite. In 2008, long-forgotten 500-gal butane USTs were discovered at each lock tender home site at R.F. Henry L&D and Claiborne L&D on the Alabama River and at that time residual gas was flared off the USTs and they were dug up and scraped. A concern was that two 500-gal butane USTs might still be in the ground at the lock tender sites at Millers Ferry, especially since construction specifications listed butane USTs for these sites. However, no retired lock operator or lock supervisor personnel could recall observing or using butane USTs at these sites since the homes could be heated by electricity from the hydropower plant. A metal detector was used in 2008 to scan the old lock tender house sites, but no tanks were discovered buried onsite. These old home sites have now been grown over by trees and vegetation.

(USACE) Old Construction Office/Shop Compound, Millers Ferry, AL – A gated compound containing an old metal office/shop building, well-house, and old steel pressurized air tanks, and pre-cast concrete AST tank piers is located on the West bank of the Alabama River just NE of the Millers Ferry Spillway. This site was used during construction on the L&D and powerhouse and is, now, just used for the temporary storage of mowing and heavy equipment by the Recreation O&M contractor. A diesel AST (size unknown) and fuel pump was once located at the site based on construction drawings and visual evidence at the site. No documentation was found designating the date the AST and fuel pump were removed offsite. There are no recordable spills for this site. A grass airstrip was located adjacent to and between the compound and the river. The airstrip is shown on construction drawings and apparently was used during construction of the L&D and powerhouse. A similar grass airstrip was used on the BW&T Waterway as a vector control site for storage, mixing and loading pesticides on an airplane for conducting aerial spraying for mosquitoes, which at the time (1964-1980) was a funded USACE mission. Old file documents prepared by CESAM and the BWT Project on the vector control program never identify the Millers Ferry airstrip as being used for the vector control



program nor is the site identified in later pesticide soil and ground water investigations conducted by CESAM. The Millers Ferry airstrip property was all converted into waterfowl impoundments in the 1990s.

(USACE) Millers Ferry Power Project, Millers Ferry, AL – The power project came online in 1970. The public has not been granted access to the powerhouse area since September 11, 2001; however, a public fishing pier is available just downstream of the powerhouse tail-deck and turbine discharge area. The power project site consists of a powerhouse with intake and tail-deck structures, a trash gate spillway, switchyard, 2 old well houses, 1 warehouse, and a flammable liquids storage building. The wells have long since been decommissioned and potable water is supplied by water lines from the Wilcox County Water Authority. The powerhouse is operated 24 hours a day, seven days a week. The plant is operated remotely at times by operators stationed upstream at the Jones Bluff Power Project. The facility may be unmanned for periods of up to 63 hours. The powerhouse consists of 6 floor elevations. Non-friable ACM have either been abated, encased, or currently remain in or on the powerhouse and will remain in place until deterioration or the ACM is disturbed during renovations. Annual Tier II reporting is submitted for the facility due to the storage of >10,000 pounds of turbine oil and >10,000 pounds of transformer oil on site. Additionally, the industrial lead-acid, wet batteries located in the powerhouse battery room are included in the Tier II reporting since the sulfuric acid in the batteries is considered an extremely hazardous material (>500 pounds). A SPCC Plan for the Power Project was first prepared 28 September 1994 and has been updated and implemented since that date. The facility contains bulk POLs (55-gallons or greater) in 8 locations.

Elevation 46.0 – Flammable Liquids Storage Room:

Room contains from 50-75 gallons of various type paint in one-gallon containers. Routinely, there are one to six 55-gallon drums either containing degreaser, lube oil, or used oil. There are various quantities of paint thinner and lube-oil in 5-gallon containers or less. A complete inventory sheet is maintained outside of the storage room door.

Elevation 46.0 – Oil Storage Room:

One 4500-gallon (maximum capacity) clean lube oil tank, one 4500 gallon (maximum capacity) dirty lube oil tank. Routinely, these tanks are not kept at maximum capacity storage.

Two 4500-gallon (maximum capacity) tanks of clean transformer oil, and two 4500-gallon (maximum capacity) tanks of dirty transformer oil. Routinely, these tanks are not kept at maximum capacity storage. Currently, 1 of the 2 clean transformer oil tanks is empty and the 2 dirty transformer oil tanks are both empty.

Two 4500-gallon tanks that once stored clean and dirty circuit breaker oil have been drained and the OCB oil tanks are no longer used. These tanks are not considered RCRA- Empty.

One to five (5) 55-gallon drums of Velox grease and one drum of used oil is routinely stored in the room.



Elevation 46.0 – Oil Purification Room:

Several 55-gallon drums of dirty oil can be temporarily located in this room and the oil cleaned and reclaimed for reuse using portable oil purification equipment.

Elevation 64.0 – Turbine Floor:

Three 65-gallon unit turbine bearings, three 2300-gallon unit thrust bearings, and three 1750-gallon unit governor systems all containing oil.

Elevation 94.0 – Tail-deck:

One standby diesel generator containing a 502-gallon double-walled tank. Generator is enclosed in metal cover. The tank is filled manually by transfer from a vendor tanker truck. Area underneath the generator drains directly onto the tail-deck surface and into a nearby drain which leads directly to the river. This drain is covered during fueling. Originally, two 4160V pad-mounted, station power transformers, PCB-contaminated (171-183 ppm) were located on the tail-deck. These transformers were replaced in 2010 with two 143-gallon transformers with closed oil reservoirs (no transfer of oil) and they contain biodegradable insulating dielectric fluid made from vegetable oil. These two transformers are unprotected from the weather and there is no secondary containment.

Switchyard:

Currently, three 4563-gallon transformers and one 30-gallon line current transformer (CT) are the only oil-filled equipment located in the Switchyard. Four metering devices were replaced with SF6 gas-filled breakers in 2006. There is no documentation that the oil in the 1 remaining CT has ever been tested for PCBs. The Switchyard is unprotected from the weather. It is partially surfaced with crushed stone and hydrocarbon detection secondary-containment mats are located under the transformers. Non-contaminated stormwater can drain through the hydrocarbon detection filtering mats and directly to the river.

Originally, three 4953-gallon transformers were in the switchyard and the yard had no secondary containment. These 3 transformers were replaced in 2018. Additionally, nine 580-gallon oil circuit breaker (OCB) tanks were emptied and removed from the yard and four 130-gallon line metering devices and one 30-gallon CT was removed in 2006. All new and used transformer oil stored in OCB tanks or ASTs within the powerhouse never contained PCBs. However, some line metering devices and the CT removed from the switchyard was later found to contain PCB-contaminated dielectric fluid. According to an old email record, PCB transformers were replaced at the power project prior to or in the early 90's, but how many or exactly what year was not stated.

Outside Warehouse:

A 10,000 Sq. Ft. metal warehouse located in a gated compound outside the powerhouse complex typically stores spare parts for the power plant and equipment. Currently, sixty-four 55-gallon drums of new turbine oil are sitting on pallets in the warehouse for a possible FY22 scheduled-outage where oil will be replaced in turbine bearings, thrust bearings, and governor system units inside the powerhouse. A 280-gallon, double-walled diesel AST with fuel pump was once located in the warehouse yard for fueling tractors and



mowing equipment, however when it was no longer needed, the tank was donated to the Bankhead L&D on the BW&T Waterway in West Alabama to be used as a replacement emergency generator tank and the fuel pump was scraped. There are no documented spills for this site.

Flammable Liquids Storage Building:

A 16' x 32' concrete storage building is located behind the warehouse, which is approximately 600' from the powerhouse. It contains ~25 gallons of various type paint containers and contains one partially filled 55-gallon drum of used oil and one partially filled 55-gallon of waste paint. The powerhouse is typically registered with the State of Alabama (ADEM) as a VSQG of hazardous waste. The storage building has developed roof and foundation issues, so plans are to profile and dispose of remaining product in the building in FY22 before demolition of the building.

Power Project Spill History:

During an annual EC assessment, four 130-gallon line metering devices and a 30-gallon CT taken out of service were found improperly stored sitting on wood rails in the gated warehouse yard. The units were sweating dielectric fluid and a small amount of oily soil was observed under the units. The dielectric fluid was tested for PCBs and 3 of the 4 metering units and the 1 CT was found to contain PCB-contaminated fluid. It was determined that an RQ was not spilled onsite. An environmental response contractor removed the transformers, the contaminated wood rails and contaminated soil and had the transformers properly cleaned and decommissioned, 24 May 2012.

On 14 May 2015, the plant had a small spill incident when hydraulic fluid leaked from a damaged hose and sump located within the overhead, head-deck crane. Most of the estimated 5-gallon spill was contained on the concrete and walled head-deck, but it is estimated that approximately 1 gallon of hydraulic fluid hit the head-deck wall and spilled over into the Alabama River creating a light rainbow sheen. The leak was stopped and sorbent socks, pads were deployed on the head-deck and sorbent booms and pads were deployed in the river.

On 17 May 2011, the plant had a small spill incident while powerhouse personnel were in the process of replacing a high-voltage, B-phase bushing on the main power transformer #3 in the switchyard. It is estimated that 5-10 gallons of transformer oil sprayed out the top of the transformer leaking onto the bushing, transformer unit, and dripping onto the ground. The leak was stopped, the bushing and transformer wiped down, and the crew removed all petroleum contaminated rock and soil from the switchyard for proper disposal. The transformer oil did not contain PCBs and no leaked oil reached drainage or water surface areas.

(USACE) Millers Ferry NRM Office & Warehouse, Millers Ferry, AL – No bulk hazardous materials or petroleum products are stored in the office building. Non-friable ACM have either been abated, encased, or currently remain in the office building and will remain in place until deterioration or the ACM is disturbed during renovations. A large metal warehouse onsite is used by the NRM staff for storage of equipment, patrol boats, etc. In the warehouse fenced-compound, small utility buildings include 1-5 gallons of flammable liquids (paints, gasoline) and 1-gallon containers of herbicides used by the permitted O&M contractor to treat invasive aquatic weeds. Additionally, a subcontractor is used every few



years when funding is available to conduct aerial spraying by helicopter of invasive aquatics. The NRM office currently has a state-approved 5-YR pesticide NPDES permit. An old file document listed a 1000-gallon gasoline UST registered with the State of Alabama and in use at the NRM Office area in 1986. No documentation was found about the exact location of the UST or a date of removal. The Alabama River Lakes Site Office has documentation showing that a similar 1000-gal gasoline UST with fuel pump was removed by contract in April 1989 at the R.F. Henry L&D shop/warehouse site and according to retired lock operator and former USACE maintenance worker, Ronnie Dewise, he was on a work crew during this same timeframe which dug up a 1000-gallon gasoline UST at the Claiborne L&D shop/warehouse. So, an assumption has been made that the Millers Ferry NRM Office site 1000-gallon gasoline UST was dug up and removed during the same time, as well. The warehouse compound had a diesel AST on site within secondary containment used for fueling of heavy equipment, but the empty AST was not needed or used for many years and was disposed of in 2008. There is no documentation of spills at the warehouse site.

(USACE) Old Construction Disposal Site & Catfish Pond and Waterfowl Impoundments Area, Millers Ferry, AL - Property to the SW of the NRM office area and E and S of the powerhouse was formerly agricultural land prior to acquisition and was used for the disposal for soil during construction of the powerhouse and powerhouse channel cut. Today, the disposal site has been significantly altered and includes a microwave tower site, high tension power line right-a-ways, a catfish pond, woodlands, wildlife food plots, seasonal-flooded waterfowl impoundments, and a large natural debris pile area where for many years USACE maintenance and recreation O&M contractor personnel have hauled and dumped natural debris (logs, driftwood, tree-trimmings). A retired USACE employee, who wishes to remain anonymous, informed me that many years ago (~mid-1980s) while working on the Alabama River Lakes Project, they were tasked to join a USACE maintenance crew to help bury a few 55-gallon drums (less than a pickup truck bed full) containing unknown product in the old disposal area. The anonymous employee could not recall the exact location of where the drums were buried. This incident matches stories from some retired and current employees who claim that drums of unused paint thinner and containers of paint were also buried on federal property at 2 locations on the BWT Waterway prior to the maintenance mission being turned over to O&M contractors and prior to the establishment of the project environmental compliance coordinator program in the early 1990s. During this survey in a review of historical aerial photos and conducting visual site assessments, no evidence was found of a solid waste pit, stressed vegetation, or contaminated soil on the land tract. Some areas on the land tract were not accessible due to thick vegetation growth and wetlands. According to Millers Ferry Resource Office Manager Jason Haynes, no drums were found or dug up during the construction of the waterfowl impoundments in the 1990s. He recalled that only an old road culvert was dug up and assumed it probably had been used during construction of the L&D and powerhouse. Since this incident took place ~36 years ago, the small amount of product that was buried would more and likely have long deteriorated and would not create a legacy contamination issue for the site.

(USACE) Millers Ferry O&M Contractor Compound, Millers Ferry, AL – The compound is just W and adjacent to the Millers Ferry Resource Office and includes an old boat house and a small warehouse used by the mowing and recreation area cleaning crews. The warehouse historically contained small containers of cleaning supplies, a flammable liquids safety cabinet and 5-gallon flammable liquid safety cans; however, the warehouse was gutted internally by fire (suspect arson) in 2018. The mowing crew, now, has a small



flammable safety cabinet onsite in the outdoor, pole shed portion of the warehouse and tractors and mowing equipment are parked in the gated compound. There is no history of recorded spills for this site.

(USACE) Alabama River Lakes O&M Compound – Bethel Branch just SE of Selma, AL – This site was once a former USCG Cutter Station on the Alabama River and is now a maintenance compound for the O&M contractor (EAST O&M, Inc) that performs O&M work for the Recreation Program. The site includes an administration building a small carpentry shop with storage, pole shed for heavy equipment and vessel storage, small equipment repair shop, small pesticide storage building, and a small equipment and supply warehouse. Hazardous materials or petroleum products onsite typically include 1–5-gallon containers of fuel, paint related products, herbicides, consumer cleaning chemicals, non-toxic degreasers, motor oil and grease and a few compressed gas cylinders. Also, there is a bulk used oil AST in secondary containment onsite. No documentation was found on USCG operations on the site. An old wooden dock and Cutter vessel basin still exists onsite. ADEM records show no registered USTs or a leaking UST incident at the site. Much of the property falls within the floodway of the adjacent Alabama River. From the late 1980s to 2007, a bulk gasoline AST and diesel AST in secondary containment with fuel pump was located on the site and used for fueling equipment and vehicles. However, the tanks became obsolete when the project began using GSA vehicles and government commercial gas cards were provided for vehicles and equipment. The ASTs were pumped out and remained unused for years until 2007 when the ASTs were scrapped. Although, a few OMBIL and CPTrack findings for this O&M compound site recorded small hydraulic fluid leaks from heavy equipment onsite that were immediately abated and housekeeping issues with abandoned equipment and scrap materials not being properly managed, no contamination concerns were identified for the site and there was no history of recorded spills on the site.

Based on the findings of this survey & assessment, Legacy Contamination was not identified on the Millers Ferry Lock and Dam, Powerhouse – W.M. Dannelly Reservoir Project.

Note: Spills which were immediately cleaned up and areas where hazardous materials were merely used, not disposed, do not constitute a reasonable basis for suspecting contamination. Known historic release of hazardous substance or disposal of hazardous substance, based on written records, historic photographs, or personnel interview statements constitute a reasonable basis for concern.

2. Is area of suspected contamination owned by USACE?

☐ Yes

☐ No

3. Type of contaminant suspected (check all that apply)

CERCLA hazardous substance

☐ RCRA hazardous waste

☐ TSCA regulated PCB

☐ Petroleum

☐ Other _____

☐ Unknown



4. If contamination is suspected at only a portion of the USACE-owned property, describe the specific portion of concern (This will limit area requiring PA/SI if reported to Federal Facilities Docket):

5. Have regulators been involved in any way (*e.g.*, notification)?

☐ No (Provide detail below)

Yes. (Provide any available references (agency involved, POC at that agency, report information, if relevant, memo reference, etc.)

6. Is it suspected that parties other than USACE contributed to the contamination?

Yes. List party

☐ No

☐ Unknown

7. Comment Block (Record any other pertinent information not captured above):

Sources reviewed for this Survey:

1. OMBIL – Environmental Compliance data
2. CPTrack – Environmental Compliance data
3. Alabama-Coosa-Tallapoosa River Basin Water Control Manual, Final Appendix G, Robert F. Henry Lock and Dam and R.E. “Bob” Woodruff Lake, Alabama River, Alabama (September 1974; Revised May 2015)
4. Alabama River Lakes Master Plan (October 1993)
5. Final Supplement to the Environmental Impact Statement, Alabama-Coosa Rivers, Alabama and Georgia (Operations and Maintenance) (September 1987)
6. William “Bill” Dannelly Reservoir, Alabama, Historic Properties Management Plan (July 1994)
7. Millers Ferry Lock and Dam, Operation & Maintenance Manual (September 1972)
8. Millers Ferry L&D SPCC Plan & Spill History documentation
9. Millers Ferry Power Plant, Operation and Maintenance Manual (Volume 1 of 2)
10. Millers Ferry Power Project SPCC Plan & Spill History documentation
11. USACE and O&M Contractor employees (currently employed or retired)
12. Current and historical aerial photos and some historical L&D site & construction photos
13. Millers Ferry Resource Office, Alabama River Lakes Site Office, Millers Ferry & BWT Project files
14. ADEM-UST Regulatory Sites & UST Incident Sites e-Maps Portal databases: <http://adem.alabama.gov/emaps.cnt>
15. ADEM-UST Release Incident List: <http://www.adem.alabama.gov/programs/water/ustcorrective.cnt>
16. USCG National Response Center (NRC) database: <http://www.rtk.net/erns/search.php>
17. EPA-Envirofacts database: <https://www3.epa.gov/enviro/index.html>
18. EPA’s Cleanups in My Community search tool: <https://www.epa.gov/cleanups/cleanups-my-community>
19. EPA Enforcement Compliance History Online (ECHO) database: <https://echo.epa.gov>
20. ADEM GIS Inspector for Brownfields database: <https://aldem.maps.arcgis.com/apps/webappviewer/index.html?id=98f83967881e4ac28331edf31dc89674>



8. Obtain Operations Project Manager (OPM) acknowledgment of ERGO assessment finding.

I reviewed the Legacy Contamination Assessment and Concur with the finding.

*Anthony C. Perkins
Operations Project Manager
BW&T/AL-Coosa Project*

