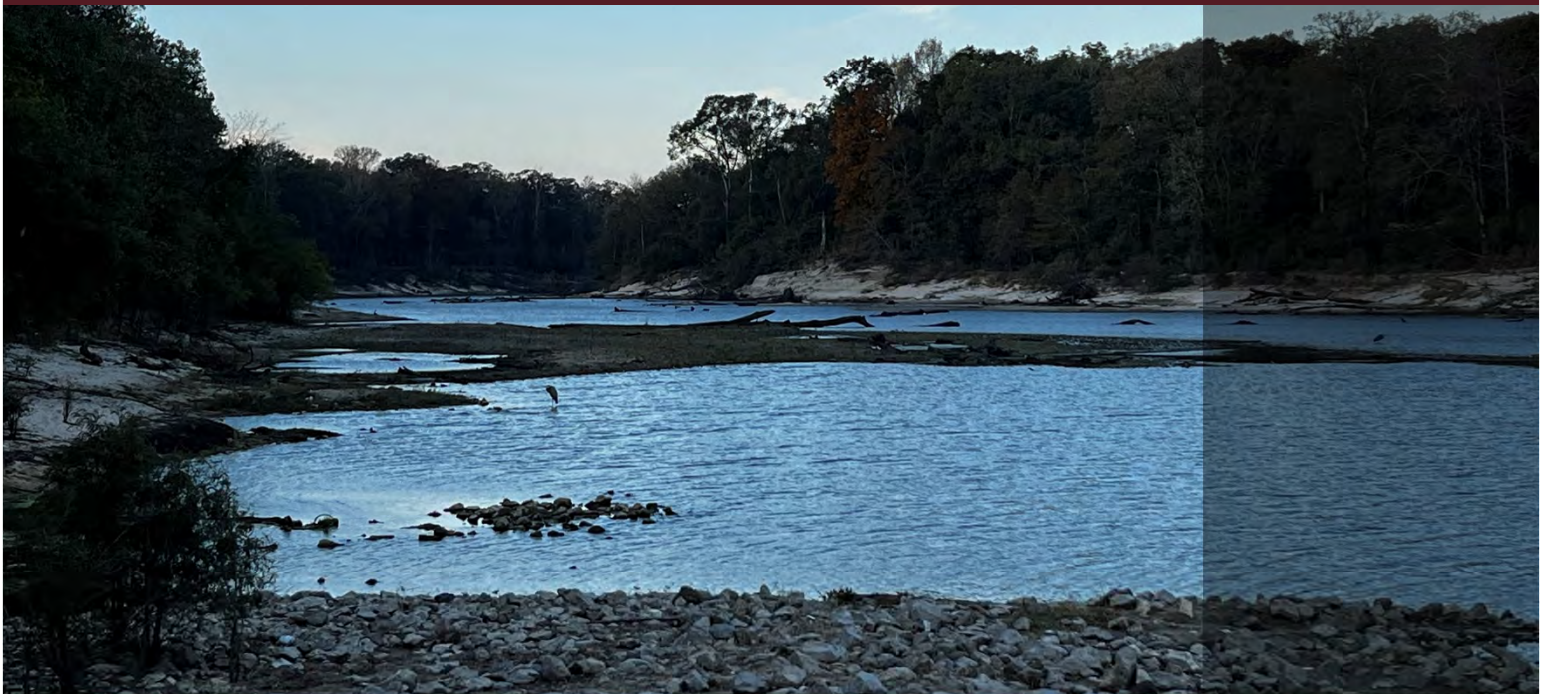
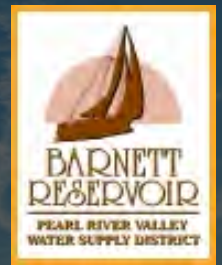


APPENDIX H HYDRAULIC ANALYSIS



Conceptual Hydraulic Bridge Recommendations

Bob Anthony Parkway



Prepared For:

Pearl River Valley Water Supply District

Project No. FBLD-6945-00(013) LPA/108635-800000
November 3, 2023



Bob Anthony Parkway

Conceptual Hydraulic Bridge Recommendations

Pearl River Valley Water Supply District

FBLD-6945-00(013) LPA/108635-800000

Hinds, Rankin, and Madison Counties, MS

Prepared by:



1076 Highland Colony Parkway, Suite 325
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11/3/2023

Garver Project No. 18027046



Engineer's Certification

I hereby certify that this Conceptual Bridge Hydraulic Recommendations for the relocation of Bob Anthony Parkway was prepared by Garver under my direct supervision for the Pearl River Water Supply District.

[Insert PE Seal Here]

Keith Quick, PE
State of Mississippi PE License 15578

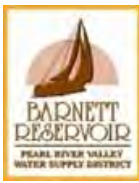


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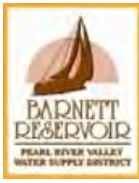


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List of Acronyms

Acronym	Definition
BFE	Base Flood Elevation
LPA	Local Public Agency
MDOT	Mississippi Department of Transportation
PRVWSD	Pearl River Valley Water Supply District
FEMA	Federal Emergency Management Agency
FIS	Flood Insurance Study
FIRM	Flood Insurance Rate Map
FHWA	Federal Highway Administration
WSEL	Water Surface Elevation
AEP	Annual Exceedance Probability
1D	One-dimensional
2D	Two-dimensional





Executive Summary

The Pearl River Valley Water Supply District (PRVWSD) received a 2020 Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grant for environmental studies and preliminary engineering needed to relocate an existing 3.1-mile segment of Bob Anthony Parkway (BAP) from the Ross Barnett Reservoir dam (Dam). The PRVWSD is the project sponsor and referred to as the Local Public Agency (LPA). The PRVWSD in cooperation with the Mississippi Department of Transportation (MDOT) and the Federal Highway Administration (FHWA), is conducting preliminary environmental and engineering studies to address safety and maintenance concerns associated with the current roadway impacts to and maintenance of the Dam. Proposed project benefits include the reduction of vibratory impacts to soils on the dam backslope, improved safety and access for the emergency dam maintenance, improved pedestrian and bicycle safety, and an enhanced resiliency and quality of life for the surrounding area.

Garver, LLC was retained by the PRVWSD to provide professional services for the purposes of acquiring National Environmental Policy Act (NEPA) clearance to relocate Bob Anthony Parkway (BAP) off the Ross Barnett Reservoir Dam. The project is located between Lake Harbor Drive and Old Fannin Road/Northshore Parkway in Hinds, Madison, and Rankin Counties. The scope of work includes the preparation of the required Environmental Assessment, field surveying, determination of the required right-of-way limits, preliminary roadway hydraulic design and preliminary bridge hydraulic design for the preparation of Phase A Right-of-Way plans in connection with the relocation of BAP. These services are provided for Project Number FBLD-6945-00(013) LPA/108635-800000 in accordance with the Preliminary Engineering Services Contract, dated December 30, 2021. This report documents the bridge hydraulic study and provides bridge hydraulic recommendations in accordance with FHWA applicable publications, MDOT standards, and National Flood Insurance Program (NFIP) and other local, state, and Federal regulations.

The project site is located within the FEMA Flood Insurance Rate Map (FIRM) panels:

- 28049C0189H, effective November 18, 2009, for Hinds County, MS and Incorporated Areas
- 28121C0065F, effective June 9, 2014, for Rankin County, MS and Incorporated Areas
- 28089C0589F, effective March 17, 2010, for Madison County, MS and Incorporated Areas

The maps indicate that the project site is Zone AE (Base Flood Elevations determined) with a regulatory floodway. Three different Flood Insurance Study (FIS) reports provide flood profiles for the 100-year annual exceedance probability (AEP) event for the Pearl River and are listed below.

- The Hinds County FIS 2804CV004A, effective November 18, 2009
- The Rankin County FIS 28121CV001B, effective June 9, 2014
- The Madison County FIS 28089CV001A, effective March 17, 2010

The two effective HEC-2 models of the Pearl River in the project vicinity and the published FIS flows are different. The HEC-2 flows are lower than the published FIS peak flows. Table ES-1 shows the comparison of flows. The FIS published flows in the Hinds County FIS were used for the 1D analysis.

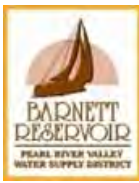


Table ES-1. Comparison of HEC-2 and FIS Published Discharges.

Document	10-yr	50-yr	100-yr	500-yr
Hinds/Rankin FIS Flows	56,800	90,000	106,000	148,000
HEC-2 Study	53,000	75,000	81,727	105,000

Garver performed hydraulic analyses of the study area to determine maximum water surface elevations (WSELs) and velocities near the proposed roadway and bridge realignments. The study area includes the Ross Barnett Reservoir and surrounding area, as well as the Pearl River and floodplain downstream of the Dam. The study area downstream of the Dam is a well-defined valley with two-dimensional (2D) flow effects arising from the outlet of the Dam. A 2D hydraulic model of the Ross Barnett Reservoir and Pearl River was developed for the limits of the detailed hydraulic study to provide accurate hydraulic data for the proposed roadway and bridge realignments. The 2D modeling also provides the opportunity for a comprehensive analysis of the interaction of the outlet structure and potential dam breaching scenarios.

One-dimensional (1D) modeling of the Pearl River downstream of the Dam was required for compliance with FEMA requirements. A 1D steady flow HEC-RAS model was used to perform a detailed floodway analysis of the study area. For this analysis, the 10-, 50-, 100-, and 500-yr flood events were selected based on FEMA and MDOT design criteria. Table ES-2 shows the effective discharges used for inflows into the 2D model and the base flood elevations (BFEs) used as the known WSELs for downstream boundary conditions.

Table ES-2. FEMA Effective Peak Discharges and Base Flood Elevations for Hinds County, MS

Recurrence Intervals	FEMA Effective Discharge (cfs)	FEMA Effective BFE (ft)
10-year	56,800	272.0
50-year	90,000	277.7
100-year	106,000	282.0
500-year	148,000	285.0

The existing conditions results were compared to the FEMA BFEs for the 100-year event at lettered cross-sections. Table ES- 3 shows the comparison differences between FEMA and the 2D model results.



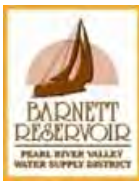


Table ES-3. 100-year Water Surface Elevation Comparison versus FEMA BFEs

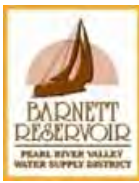
Station	FEMA Lettered XS	FEMA BFE (ft)	Ex Conds WSE (ft)	Difference
40448.1	---	287.0	286.1	-0.9
37892.1	AK	285.9	286.1	0.2
32543	AJ	285.0	285.5	0.5
29943.8	AI	284.8	285.0	0.2
22514	AH	284.2	284.4	0.2
15772.9	AG	283.7	283.7	0.0
9000.58	AC*	283.1	283.2	0.0
7529.32	AF	282.6	283.0	0.3
171.524	AE	281.9	282.1	0.2
*Rankin County, MS and Incorporated Areas FIS				

For the proposed conditions replacement structures are identical for each alternative; however, the centerline for each alternative varies slightly. The main channel bridge crossings on each alignment are identical. The proposed structure is 10 spans @ 120', 1 span @ 960' (280-400-280), and 13 spans @ 120' for a total bridge length of 3,720 feet. A proposed dual relief structure is utilized for Alternative B which has a total bridge length of 600 feet (6 spans @ 100'). Due to a portion of the proposed westbound alignment of Alternative E being along the existing westbound alignment, a single relief structure will be utilized along the eastbound lanes. This structure will also have a total bridge length of 600 feet (6 spans @ 100'). These relief bridge structures are provided not only to decrease impacts to existing wetlands but also to provide flood flow relief in the event of a breach along the west side of the existing dam. The proposed conditions WSEs were compared to the existing conditions WSEs and provided in Table ES-4.

Table ES-4. Water Surface Elevation Comparisons for the 100-year recurrence interval

Station	FEMA Lettered XS	Ex Conds WSE (ft)	Prop Alt B (ft)	Prop Alt E (ft)	Difference	
					Prop B vs. Ex Conds	Prop E vs. Ex Conds
40448.1	---	286.1	286.1	286.1	0.0	-0.1
37892.1	AK	286.1	286.0	286.0	-0.1	-0.1
32543.0	AJ	285.5	285.5	285.5	-0.1	-0.1
29943.8	AI	285.0	284.9	284.9	-0.1	-0.1
22514.0	AH	284.4	284.3	284.3	-0.1	-0.1
15772.9	AG	283.7	283.6	283.6	-0.1	-0.1
9000.6	AC*	283.2	283.1	283.1	0.0	0.0
7529.3	AF	283.0	282.9	282.9	0.0	0.0
171.5	AE	282.1	282.1	282.1	0.0	0.0
*Rankin County, MS and Incorporated Areas FIS						





The 2D analysis for the proposed 3,720' main bridge with a span arrangement of 10@120', 1@960' (280-400-280), 13@120' and 600' long relief bridge with a span arrangement of 6@100' for Alternative B does not create a rise in the 100-year WSEL when compared to the existing conditions. The 1D model geometry was developed using the 2020 dam breach model created by Mendrop Engineering Resources for PRVWSD and was updated with the surface created for the 2D model. The FIS published discharge data and WSEL profiles were used for calibration of the model results. Results can be seen in Table ES-5.

Table ES-5. 100-yr WSEL Comparison versus FEMA BFEs

Lettered XS		100-yr WSEL (ft)		100-yr WSEL (ft)	Existing minus Hinds (ft)	Existing minus Rankin (ft)
Hinds	Rankin	Hinds WSEL (ft)	Rankin WSEL (ft)	Existing Conditions WSEL (ft)		
AE	AA	281.90	282.00	281.90	0.00	-0.10
AF	AB	282.60	282.70	283.38	0.78	0.68
--	AC	--	283.10	283.60	--	0.50
AG	AD	283.70	283.80	284.22	0.52	0.42
AH	AE	284.20	284.30	284.74	0.54	0.44
AI	AF	284.80	284.90	285.32	0.52	0.42
AJ	--	285.00	--	285.56	0.56	--
AK	AG	285.90	286.00	286.08	0.18	0.08

The proposed conditions model was compared to the existing conditions, and it shows that a rise occurs at the most upstream cross section between the proposed Bob Anthony Parkway and the existing lower Spillway Road (RS 302.08). This rise does not appear to be consistent with the 2D analysis. The results can be seen in Table ES-6. Map showing the cross-section locations can be found in Appendix D.



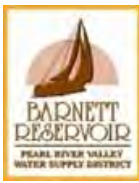
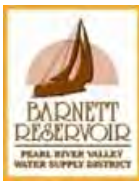


Table ES-6. WSEL Comparisons Existing vs Proposed

100-yr Results								
HEC-RAS River Station	FEMA Hinds Lettered XS	Profile	Existing		Proposed		Proposed minus Existing	
			WSEL	Velocity	WSEL	Velocity	WSEL	Velocity
			(ft)	(ft/s)	(ft)	(ft/s)	(ft)	(ft/s)
302.08	Limit of Study	100-yr	286.57	6.57	287.25	6.17	0.68	-0.40
Bridge								
302		50yr	286.53	4.32	286.53	4.32	0.00	0.00
301.8		50yr	286.25	4.94	286.25	4.94	0.00	0.00
301.72		50yr	286.09	5.06	286.09	5.06	0.00	0.00
301.62	AG	50yr	286.08	2.98	286.08	2.98	0.00	0.00
301.53		50yr	286.01	3.01	286.01	3.01	0.00	0.00
301.43		50yr	285.96	2.79	285.96	2.79	0.00	0.00
301.3		50yr	285.87	2.92	285.87	2.92	0.00	0.00
301.18		50yr	285.82	2.38	285.82	2.38	0.00	0.00
301		50yr	285.75	2.21	285.75	2.21	0.00	0.00
300.55		50yr	285.56	2.59	285.56	2.59	0.00	0.00
300.36		50yr	285.46	2.82	285.46	2.82	0.00	0.00
300.23		50yr	285.40	2.39	285.40	2.39	0.00	0.00
300.04	AF	50yr	285.32	2.14	285.32	2.14	0.00	0.00
299.25		50yr	285.04	2.36	285.04	2.36	0.00	0.00
298.97		50yr	284.91	2.37	284.91	2.37	0.00	0.00
298.62	AE	50yr	284.74	2.32	284.74	2.32	0.00	0.00
298.12		50yr	284.57	2.22	284.57	2.22	0.00	0.00
297.52		50yr	284.33	2.29	284.33	2.29	0.00	0.00
297.31	AD	50yr	284.22	2.65	284.22	2.65	0.00	0.00
296.97		50yr	284.02	2.76	284.02	2.76	0.00	0.00
296.56		50yr	283.89	1.72	283.89	1.72	0.00	0.00
296.37		50yr	283.78	2.87	283.78	2.87	0.00	0.00
296.23		50yr	283.72	2.36	283.72	2.36	0.00	0.00
296.16		50yr	283.72	1.25	283.72	1.25	0.00	0.00
295.97	AC	50yr	283.60	3.26	283.60	3.26	0.00	0.00
295.72	AB	50yr	283.38	3.22	283.38	3.22	0.00	0.00
295.33		50yr	283.04	3.52	283.04	3.52	0.00	0.00
294.86		50yr	282.59	3.54	282.59	3.54	0.00	0.00
294.6		50yr	282.37	3.28	282.37	3.28	0.00	0.00
294.12	AA	50yr	281.90	3.60	281.90	3.60	0.00	0.00





The Pearl River at Bob Anthony Parkway is a Zone AE with a regulatory floodway. The effective floodway encroachment stations for the model cross sections were determined by locating the intersection of the floodway NFHL layer along each cross section in ArcMap. The effective floodway encroachment locations were used in the existing conditions model using the effective FIS discharges. The effective floodway encroachment locations produced surcharges more than the allowable 1 foot at certain XS's. A corrected effective floodway model was developed that adjusted the encroachments for locations with surcharges greater than 1-foot. The existing conditions and proposed conditions floodway models use the corrected effective floodway encroachment locations. Tables ES-7 through ES-9 show the results of the floodway models. A map showing the location of the HEC-RAS cross-sections can be found in Appendix D.

Table ES-7. Duplicate Effective Floodway Surchage Comparison vs 100-year WSEL

FEMA Hinds Lettered XS	RAS RS	FDWY Width	FDWY Area	Mean Velocity	Feet NAVD 88		Increase
		(ft)	(sqft)	(ft/sec)	100-yr WSEL	FDWY WSEL	(ft)
AA	294.12	6395	111642	0.95	281.9	282.6	0.70
AB	295.72	9612	173493	0.8	283.38	283.94	0.56
AC	295.97	10620	178896	0.77	283.6	284.16	0.56
AD	297.31	11660	168195	0.63	284.22	285.00	0.78
AE	298.62	11142	164861	0.70	284.74	285.57	0.83
AF	300.04	9924	139935	0.76	285.32	286.31	0.99
	300.55	8648	109438	0.97	285.56	286.63	1.07
AG	301.62	10547	153468	0.79	286.08	287.31	1.23

Table ES-8. Corrected Effective Floodway vs Duplicate Effective Floodway

FEMA Hinds Lettered XS	RAS RS	FDWY Width	FDWY Area	Mean Velocity	Feet NAVD 88		Increase
		(ft)	(sqft)	(ft/sec)	100-yr WSEL	FDWY WSEL	(ft)
AA	294.12	6395	111642	0.95	281.9	282.6	0.7
AB	295.72	9612	173493	0.80	283.38	283.94	0.56
AC	295.97	10620	178896	0.77	283.6	284.16	0.56
AD	297.31	11660	168195	0.63	284.22	285	0.78
AE	298.62	12042	173924	0.66	284.74	285.56	0.82
AF	300.04	11326	158758	0.67	285.32	286.19	0.87
	300.55	10352	128055	0.83	285.56	286.47	0.91
AG	301.62	12490	161622	0.75	286.08	287.04	0.96



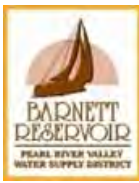


Table ES-9. Floodway WSEL Comparisons Duplicate Effective vs Corrected Effective

River Sta	Dup Effective	Corrected Effective	Difference
	W.S. Elev	W.S. Elev	
	(ft)	(ft)	
294.12	282.60	282.60	0.00
294.6	283.03	283.03	0.00
294.86	283.22	283.22	0.00
295.33	283.63	283.63	0.00
295.72	283.94	283.94	0.00
295.97	284.16	284.16	0.00
296.16	284.34	284.34	0.00
296.23	284.37	284.37	0.00
296.37	284.46	284.46	0.00
296.56	284.61	284.61	0.00
296.97	284.80	284.80	0.00
297.31	285.00	285.00	0.00
297.52	285.12	285.12	0.00
298.12	285.38	285.37	-0.01
298.62	285.57	285.56	-0.01
298.97	285.77	285.74	-0.03
299.25	285.93	285.88	-0.05
300.04	286.31	286.19	-0.12
300.23	286.41	286.28	-0.13
300.36	286.50	286.35	-0.15
300.55	286.63	286.47	-0.16
301	286.93	286.71	-0.22
301.18	287.03	286.79	-0.24
301.3	287.11	286.85	-0.26
301.43	287.21	286.94	-0.27
301.53	287.25	286.98	-0.27
301.62	287.31	287.04	-0.27
301.72	287.31	287.03	-0.28
301.8	287.44	287.17	-0.27
302	287.68	287.42	-0.26
302.08	287.72	287.45	-0.27





The 1D analysis of the floodway shows that the proposed bridge alternatives would increase the 100-yr WSEL between the proposed Bob Anthony alignment and the Ross Barnett Reservoir toe of dam. The increase in the floodway is directly attributed to the increase in 100-yr WSEL in the 1D analysis. The increase in 100-year WSEL is not consistent with the more detailed 2D analysis.

Alternative B and Alternative E proposed bridge recommendations include a main bridge with a total length of 3,720 feet with a span arrangement of 10 spans @ 120', 1 span @ 960' (280-400-280), 13 spans @ 120', and a relief bridge for with a total length of 600 feet with a span arrangement of 6 spans @ 100'.



1.0 Introduction

The Pearl River Valley Water Supply District (PRVWSD) received a 2020 Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grant for environmental studies and preliminary engineering needed to relocate an existing 3.1-mile segment of Bob Anthony Parkway (BAP) from the Ross Barnett Reservoir dam (Dam). The PRVWSD is the project sponsor and referred to as the Local Public Agency (LPA). The PRVWSD, in cooperation with the Mississippi Department of Transportation (MDOT) and the Federal Highway Administration (FHWA), are conducting preliminary environmental and engineering studies to address potential dam safety and maintenance concerns caused by the proposed roadway improvements.

1.1 Project Purpose

The purpose of the project is to address potential safety and maintenance impacts the proposed roadway improvements may have on the Dam. Proposed improvements include relocating the current roadway to reduce vibration impacts to soils on the Dam backslope, improving safety and access for routine and emergency dam maintenance, improving pedestrian and bicycle safety, and enhancing the resiliency and quality of life for the surrounding area.

1.2 Project Location

The proposed project is located southwest of the Ross Barnett Reservoir Dam in Madison, Hinds, and Rankin Counties. The Beginning of Project (BOP) is just east of the intersection with Harbor Drive in Madison County (32°24'42"N, 90°05'24"W) and extends approximately 3.1 miles to the End of Project (EOP), just east of Reservoir Park Road in Rankin County (32°23'08"N, 90°02'47"W).

1.3 Regulatory Requirements

The project is located within a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area (SFHA) Zone AE with a regulatory floodway. The FEMA Flood Insurance Rate Map (FIRM) for Hinds County, MS and Incorporated Areas where the project is located is Map Number 28049C0189H, effective November 18, 2009; and for Madison County, MS and Incorporated Areas are Map Numbers 28089C0587F, 28089C0589F revised March 17, 2010, and for Rankin County, MS and Incorporated Areas are Map Number 28121C0065F, revised June 9, 2014 and Map Number 28121C0070G, revised August 16, 2022. Copies of these FIRM panels are included in Appendix B.

2.0 Project Scope

Garver, LLC was retained by the PRVWSD to provide professional services for the purposes of acquiring National Environmental Policy Act (NEPA) clearance to relocate Bob Anthony Parkway (BAP) off the Ross Barnett Reservoir Dam between Lake Harbor Drive and Old Fannin Road/Northshore Parkway in Hinds, Madison, and Rankin Counties. The scope of work includes the preparation of the required Environmental Assessment, field surveying, determination of the required right-of-way limits, preliminary roadway hydraulic design, and preliminary bridge hydraulic design for the preparation of Phase A Right-of-Way plans in connection with the relocation of Bob Anthony Parkway. These services are provided for Project Number FBLD-6945-00(013) LPA/108635-800000 in accordance with the Preliminary Engineering



Services Contract, dated December 30, 2021. This report documents the bridge hydraulic study and provides bridge hydraulic recommendations in accordance with FHWA applicable publications, MDOT standards, and National Flood Insurance Program (NFIP) and other local, state, and Federal regulations.

3.0 Stream Stability and Geomorphic Assessment

3.1 Study Area

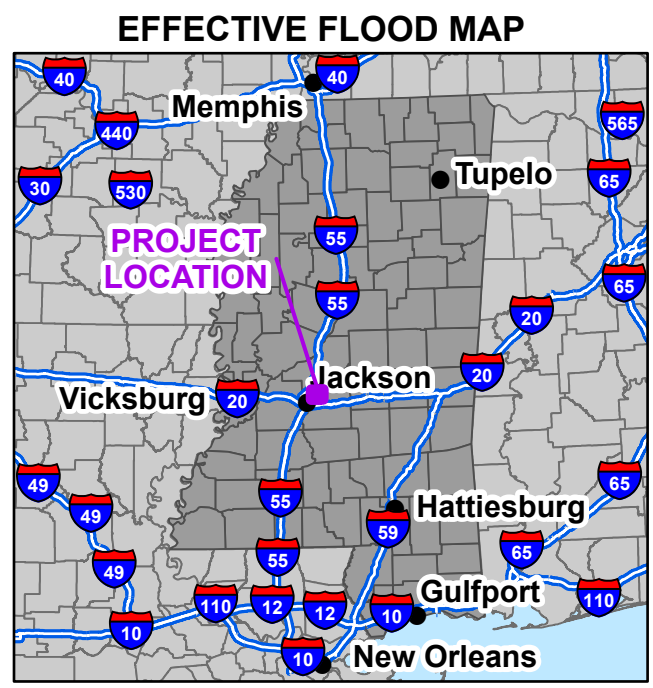
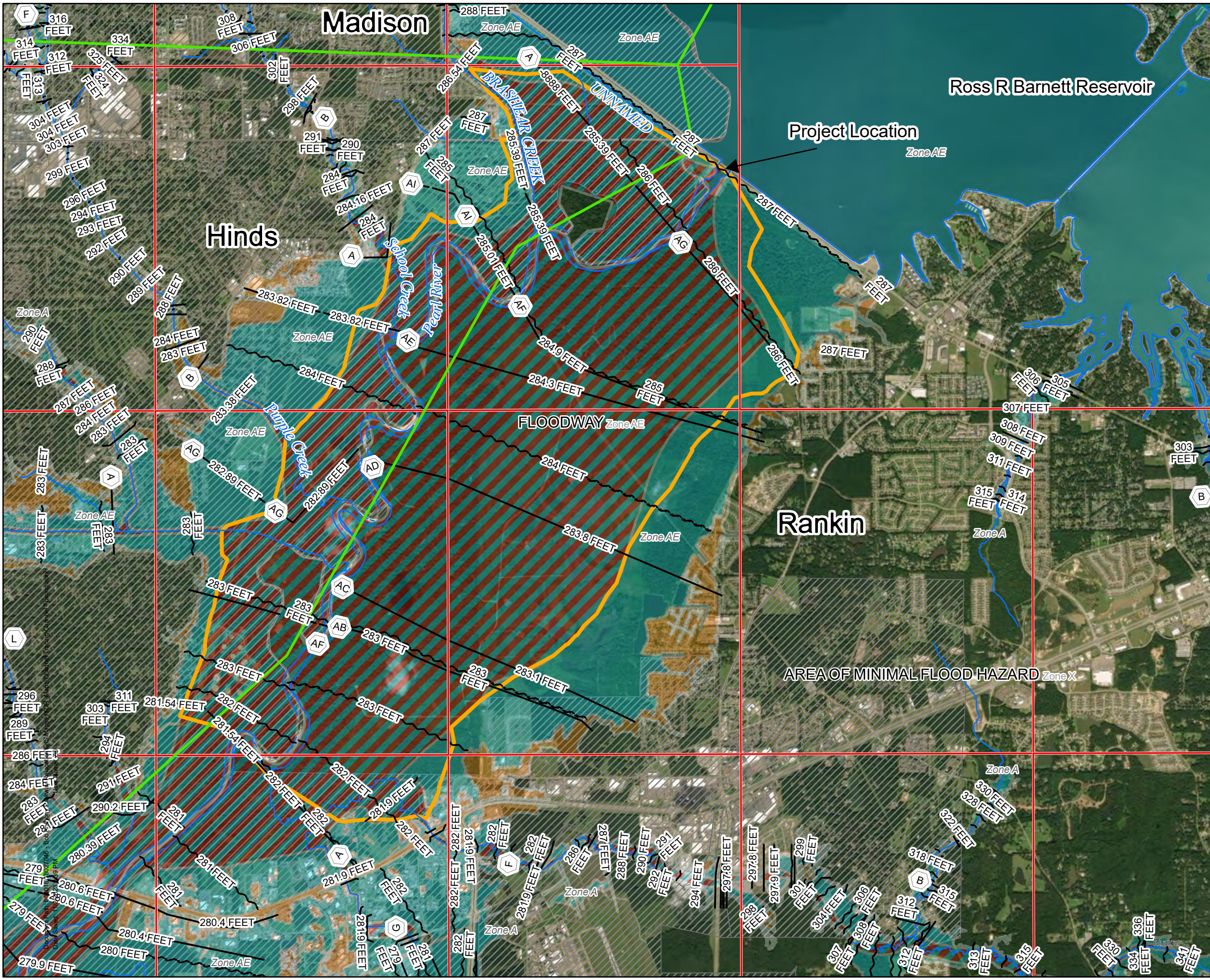
The project site is located within the FEMA Flood Insurance Rate Map (FIRM) numbers:

- 28049C0189H, effective November 18, 2009, for Hinds County, MS and Incorporated Areas
- 28121C0065F, effective June 9, 2014, for Rankin County, MS and Incorporated Areas
- 28089C0589F, effective March 17, 2010, for Madison County, MS and Incorporated Areas

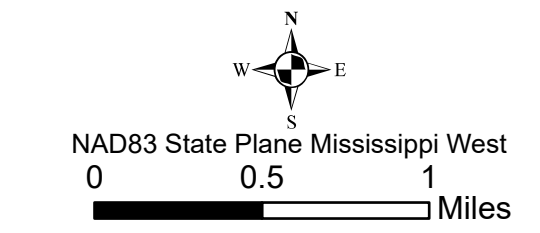
The maps indicate that the project site is Zone AE (Base Flood Elevations determined) with a regulatory floodway. Three different Flood Insurance Study (FIS) reports provide flood profiles for the 100-year AEP event for the Pearl River and are listed below.

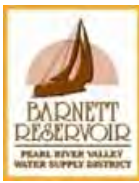
- The Hinds County FIS 2804CV004A, effective November 18, 2009
- The Rankin County FIS 28121CV001B, effective June 9, 2014
- The Madison County FIS 28089CV001A, effective March 17, 2010

The FEMA National Flood Hazard Layer (NFHL) mapping can be seen in Figure 3-1.



- Cross Sections
 - BFE
 - MS County Boundaries
 - FIRM Panels
 - Proposed Floodway Boundary
 - City Limits
- Flood Hazard Area**
- A
 - AE
 - AE, FLOODWAY
 - X, 0.2 PCT ANNUAL CHANCE FLOOD HAZARD





3.2 Site and Stream Reconnaissance

3.2.1 General Floodplain Findings

A stream reconnaissance site visit was conducted on October 31, 2023, to observe conditions and to collect pertinent information from the field to assist in evaluation of the proposed alternatives for BAP. The information obtained during the site visit pertained to the geomorphology, characteristics of the channel and floodplain, location and type of any existing scour countermeasures, and location and type of other channel modifications. The site visit encompassed the immediate vicinity of the Ross Barnett Reservoir spillway. The Pearl River just downstream of the Dam is heavily wooded in the overbanks with boat ramps and parking on immediately adjacent to the river. The Dam toe ditch is located approximately 190 feet from the lower eastbound spillway road. Both sides of the river in the immediate vicinity of the dam are lined with riprap throughout the extents of public access. The Pearl River has been channelized and riprap lined downstream of Lakeland Drive. The U.S. Army Corps of Engineers and the Rankin-Hinds Flood and Drainage District teamed to add 11 miles of levee on the Rankin County side and 2 miles of levee on the Hinds County side of the Pearl River in the vicinity of the Jackson Metropolitan area. The channelization and levee project can be seen in Figure 3-2. Figure 3-3 and Figure 3-4 show the Ross Barnett Reservoir spillway and the Pearl River channel downstream of the spillway respectively. Additional site investigation photos can be found in Appendix B.



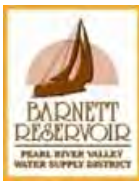
Figure 3-2. Pearl River Levee and Channelization Project Before and After.



Figure 3-3. Looking North at the Ross Barnett Reservoir Spillway from right (west) channel bank



Figure 3-4. Looking South at the Pearl River Channel from right (west) channel bank



3.2.2 Previous Flood History

There have been four flood events on the Pearl River since 1961 that have exceeded the 25-year discharges. These are summarized in Table 3-1 below.

Table 3-1. Estimated peak discharge for the Pearl River at US 80

Year	Peak Flow (cfs)	Comparable Recurrence Interval
1961	66,100	2% < 25-year; 16% < 50-year; 28% < 100-year; and 46% < 500-year
1979	128,000	4% > 500-year
1983	79,500	1% > 50-year; 13% < 100-year; and 35% < 500-year
2020	77,300	2% < 50-year; 15% < 100-year; and 37% < 500-year

3.2.3 Rapid Assessment of Channel Stability

Section 5.4 of FHWA HEC-20 presents a method for rapid assessment of channel stability. This method is recommended for bridge scour assessment because it can be completed quickly, it does not require extensive training, it is based on sound indicators, and it meets the needs of the bridge engineering community. In this method, the analyst selects a rating for each of a set of 13 indicators that can be observed from field investigation, aerial photographs, and other available data. In all cases, lower indicator ratings denote more stable channel conditions. The indicator ratings are summed to produce a total score for the channel, and this total is then used to categorize the relative stability of the channel (Excellent, Good, Fair, or Poor) depending on the general stream type. The score ranges for different categories and stream types are summarized in the table below, reproduced here from FHWA HEC-20 Table 5.6.

Table 5.6. Overall Scores for Three Classifications of Channels.			
Category	Score, R		
	Pool-Riffle, Plane-Bed, Dune-Ripple, and Engineered Channels	Cascade and Step-Pool Channels	Braided Channels
Excellent	$R < 49$	$R < 41$	N/A
Good	$49 \leq R < 85$	$41 \leq R < 70$	$R < 94$
Fair	$85 \leq R < 120$	$70 \leq R < 98$	$94 \leq R < 129$
Poor	$120 \leq R$	$98 \leq R$	$129 \leq R$

The rapid channel stability assessment methodology was employed for the Pearl River study reach. A value was assigned to each of the 13 indicators as shown in Table 3-2, and the total score was 99. Pearl River falls in the “Pool-Riffle, Plane-Bed, Dune-Ripple, and Engineered Channels” and has an overall score of 99 is categorized as “Fair” in terms of channel stability.



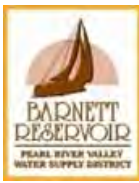


Table 3-2. Rapid Assessment of Channel Stability

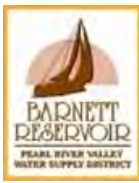
Stability Indicator	Score
1. Watershed and floodplain activity and characteristics	4
2. Flow habit	8
3. Channel pattern	6
4. Entrenchment / channel confinement	5
5. Bed material	8
6. Bar development	10
7. Obstructions	7
8. Bank soil texture and coherence	10
9. Average bank slope angle	10
10. Vegetative or engineered bank protection	10
11. Bank cutting	8
12. Mass wasting or bank failure	5
13. Upstream distance to bridge from meander impact point and alignment	8
TOTAL SCORE, R	99

Subsets of the rapid channel stability assessment indicators can be classified as pertaining to the channel's vertical stability (indicators 4-6) or lateral stability (indicators 8-13). The maximum (worst) vertical stability rating is 23 and the maximum lateral stability rating is 51. The sum of the individual ratings for these categories are normalized by the maximum (worst) possible rating to calculate the vertical and lateral fractions of channel instability. This value can provide insight into the potential for vertical and lateral instability, as higher fractional values represent greater potential for instability. Comparing the fractional values can also indicate whether vertical or lateral instability is dominant. The vertical and lateral fractions calculated for the Pearl River study reach are shown in Table 3-3. These values will be discussed in subsequent sections.

Table 3-3. Rapid Channel Stability Assessment of Lateral and Vertical Stability

Lateral and Vertical Stability				
Stream	Lateral Total	Vertical Total	Lateral Fraction	Vertical Fraction
Pearl River	51	23	0.71	0.64





3.3 Qualitative Geomorphic Assessment

3.3.1 Stream Characteristics

3.3.1.1 Stream Size

Using terrain data combined from survey and LiDAR, the average bank-to-bank stream width was determined to be 202.6 ft. Because this value is between 100-500 ft, the stream is characterized as medium. Table 3-4 shows the data used for the determination of stream width.

Table 3-4. Average Channel Width and Channel Invert from Terrain Data

Location along Stream	Max Channel Width (ft)	Channel Invert Elevation (ft NAVD88)
½ Mile downstream of Ross Barnett Reservoir	316.9	252.49
Upstream at Lakeland Dr	308.0	250.39
Upstream of I-55 North	207.5	240.22
Upstream of Old Brandon Rd	167.7	239.93
Upstream of US 80	227.6	230.60
Upstream of I-20/I-55	328.8	226.23
1 mile Downstream of I-20/I-55	161.9	238.35
Average Channel Width (ft)	202.6	

Note: The USGS discharge measurements show a minimum bed elevation of 230-ft at US 80 and the USGS ground penetrating radar from 1992 shows a minimum bed elevation of 220-ft at I-20.

3.3.2 Land Use Trends

The Pearl River watershed is generally rural and predominantly forested. The land use within the watershed and changes over time were evaluated at two different scales. The macro-scale analysis used available GIS data to examine land uses within the entire Pearl River watershed upstream of Lakeland Drive. The micro-scale analysis used available aerial photographs in the vicinity of BAP to examine land uses in the immediate project area.

3.3.2.1 Macro-Scale Land Use Changes

An analysis of land use in the Pearl River watershed was conducted based on the National Land Cover Database (NLCD) developed by the Multi-Resolution Land Characteristics Consortium (MRLC), which is a group of federal agencies that produce land cover information for the United States. Starting in 2001, the MRLC started updating the NLCD every 5 years. The 2016 data can be compared to 2011, 2006 and 2001 data to determine changes in land use over time. Any NLCD data prior to 2001 (e.g., NLCD 1992) cannot be compared directly with later data due to differences in classification methodology.





To perform the NLCD analysis for the Pearl River watershed upstream and downstream of the proposed Bob Anthony Parkway, the NLCD 2001 to 2019 Land Cover Change Index was downloaded and clipped to the Pearl River Watershed downstream of the Ross Barnett Reservoir. The resolution and data of the original NLCD rasters were not altered by the clipping process, so the clipped rasters retained the original 30-meter resolution. The clipped raster boundary is a pixelated representation of the watershed boundary. This allows calculations to be performed based on the number of pixels of a specific category within the watershed. The percentage of a given land use within the watershed can be computed as a ratio of the total number of pixels, and the area of a given land use can be calculated based on the 30-meter square pixel size.

Several of the NLDC land use categories are unique to Alaska or very high elevations in the Rocky Mountains, so there were 9 relevant land use change categories in the Pearl River watershed plus a “No Change” category. These land use categories are listed in with the percent change in the land use within the watershed boundary. Table 3-5 shows the land use changes that have occurred.

Table 3-5. NLCD 2001 to 2019 Land Use Change Comparison

Land Change Type	Count	% Change
No Change	296226	84.94%
Water Change	1961	0.56%
Urban Change	28689	8.23%
Wetland Within Class Change	11539	3.31%
Herbaceous Wetland Change	573	0.16%
Agriculture Within Class Change	10	0.00%
Cultivated Crop Change	13	0.00%
Hay/Pasture Change	4594	1.32%
Barren Change	173	0.05%
Forest Change	4946	1.42%
Woody Wetland Change	16	0.01%

The largest land use changes over the period from 2001 to 2016 have been an 8.2% increase in Urban, a 3.3% increase in Wetland within Class Change.

Another 30-meter resolution raster NLCD product available from the MRLC is the percent impervious. The integer cell values of this raster range from 0 to 100, representing the percent impervious. As previously described, the percent impervious rasters were clipped to the Pearl River watershed boundary upstream of Bridge Nos. 46.4A&B without affecting the data. Then a percentage of the watershed associated with each percent impervious was calculated based on the raster cell counts. These results were collapsed into quartiles of percent impervious. The results of the analysis are shown in Table 3-6.



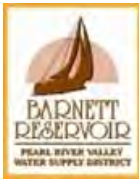


Table 3-6. NLCD Percent Impervious Comparison

Percent Impervious (Quartiles)	% of Watershed			
	2001 NLCD	2006 NLCD	2013 NLCD	2019 NLCD
0% - 25%	67.68%	64.58%	62.72%	61.68%
26% - 50%	14.82%	15.68%	16.02%	16.06%
51% - 75%	10.66%	12.11%	13.11%	13.76%
76% - 100%	6.84%	7.62%	8.15%	8.50%

3.3.3 Micro-Scale Land Use Changes

Land use changes in the vicinity of BAP and the Pearl River downstream were evaluated based on available aerial photographs. The most significant changes that have occurred in the vicinity of the proposed BAP realignment and bridges were the construction of the Ross Barnett Reservoir, boat ramps, and parking lots.

3.3.4 Overall Stream Stability

Section 4.5.3 of FHWA HEC-20 provides general guidance for qualitative assessment of overall stream stability. Several observed Pearl River channel factors indicate a potential for channel instability in the study reach, including a meandering planform, bank erosion, aggradation/degradation. HEC-20 Figure 4-2 provides information on classification of channel types and can be seen in Figure 3-5. Based on this figure, Pearl River is a Type 3b stream due to the meandering channel pattern, mixed sediment loads, and alternating bars in the study reach. The qualitative assessment based on these characteristics would indicate the channel should be moderately stable.



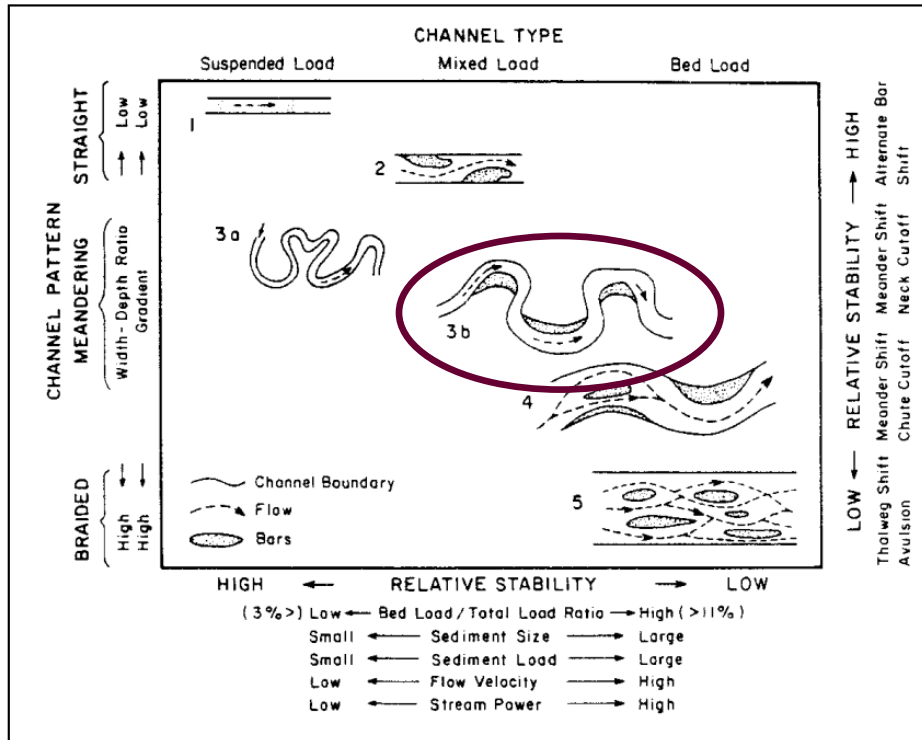


Figure 3-5. Classification of Channel Types (FHWA HEC 20 Figure 4.2)

3.3.5 Lateral Stream Stability

As shown in Table 3-3, the rapid channel stability assessment lateral stability fraction is 0.71 indicative of significant lateral instability.

3.3.5.1 Aerial Photography Lateral Migration Analysis

Aerial photographs from the period 1960 to 2023 were reviewed to assess the lateral migration of the Pearl River channel over time. The aerial photographs are shown in Appendix C. The channel banklines were digitized from each photograph. The photographic lateral stability analysis was performed for the period from 1960 and 2023, as shown in Appendix C.

In general, the photographic lateral stability analysis shows that the stream alignment has seen migration of the channel banks and stream widening through the study area over the last 35 years. Some of the bends show evidence of outward and/or down-valley migration. Some of the differences in channel tracings may be attributed to slight differences caused by manual georeferencing of the aerial photographs, varying water levels of the Pearl River, and resolution clarity.



3.3.6 Vertical Stream Stability

As shown Table 3-3, the rapid channel stability assessment vertical stability fraction is 0.64, which indicates moderate vertical instability.

3.3.7 Previous Channel Scour at Ross Barnett Spillway

The Pearl River just downstream of Spillway Road experienced riprap displacement and bank scour during an event in 2023, as shown in Figure 3-6 and Figure 3-7. Specific details will be provided as acquired in future phases of analysis.



Figure 3-6. Scour on Madison County side (west) channel bank on July 10, 2023



Figure 3-7. Repair in progress on Rankin County side (east) channel bank on October 6, 2023.

3.3.8 Channel Response to Change

Field reconnaissance, research of aerial photography and topographic maps, and qualitative analysis have indicated that the Pearl River channel through the study area is relatively stable upstream of BAP due its proximity to the Ross Barnett Reservoir principal spillway. The Pearl River becomes more unstable downstream of the BAP crossing toward Lakeland Drive. The channelization, armoring, and levees downstream of Lakeland Drive have stabilized the Pearl River from Lakeland Drive to I-55 North.

4.0 Hydrologic Analyses

4.1 FEMA FIS Hydrology

The two effective HEC-2 models of the Pearl River in the project vicinity and the published FIS flows are different. The HEC-2 flows are lower than the published FIS peak flows. Table 4-1 shows the comparison of flows. The FIS published flows in the Hinds County FIS were used for the 1D analysis.

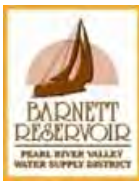


Table 4-1. Comparison of FIS and HEC-2 Published Discharges.

Document	10-yr	50-yr	100-yr	500-yr
Hinds/Rankin FIS Flows	56,800	90,000	106,000	148,000
HEC-2 Study	53,000	75,000	81,727	105,000

4.2 USGS Stream Gage 248600

Analyses of existing USGS stream gage data on the Pearl River were conducted for the US Highway 80 gage (02486000) at Jackson, MS. The Jackson gage is located at the US 80 crossing. The U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center, Statistical Software Package (HEC-SSP), version 2.1.1 was used to conduct the analyses. HEC-SSP is designed to perform statistical analyses of hydrologic data and contains six (6) statistical analysis components. Annual peak discharges for the 121-year period of record from 1900 to 2020 were analyzed using the Flow Frequency Bulletin 17B Analysis. This analysis was performed to estimate peak discharges for magnitude-frequencies less than the 2-year or 50% AEP. The results of the analysis are provided in Table 4-2.

A flow duration analysis was used to analyze daily flow data for the period of record to evaluate the percent of time that flows are equaled or exceeded on the Pearl River. Output from the analysis is included in Appendix D. The estimated discharges from the HEC-SSP analysis compare well to the USGS flows. Figure 4-1 and Figure 4-2 show the magnitude and frequency of annual floods and the duration of flows for the Pearl River.

Table 4-2. Estimated peak discharge for the Pearl River at US 80

Recurrence Interval (year)	Annual Exceedance Probability (%)	USGS (cfs)	HEC-SSP (cfs)	FEMA (cfs)
1	99.9	---	7,389	---
1.1	90.9	---	15,107	---
1.25	80.0	---	18,766	---
1.5	66.67	---	22,608	---
2	50.0	27,900	27,634	---
5	20.0	42,300	41,576	---
10	10.0	52,800	51,920	56,800
25	4.0	67,400	66,243	---
50	2.0	79,000	77,819	90,000
100	1.0	91,300	90,174	106,000
200	0.5	104,000	103,408	---
500	0.2	123,000	122,402	148,000



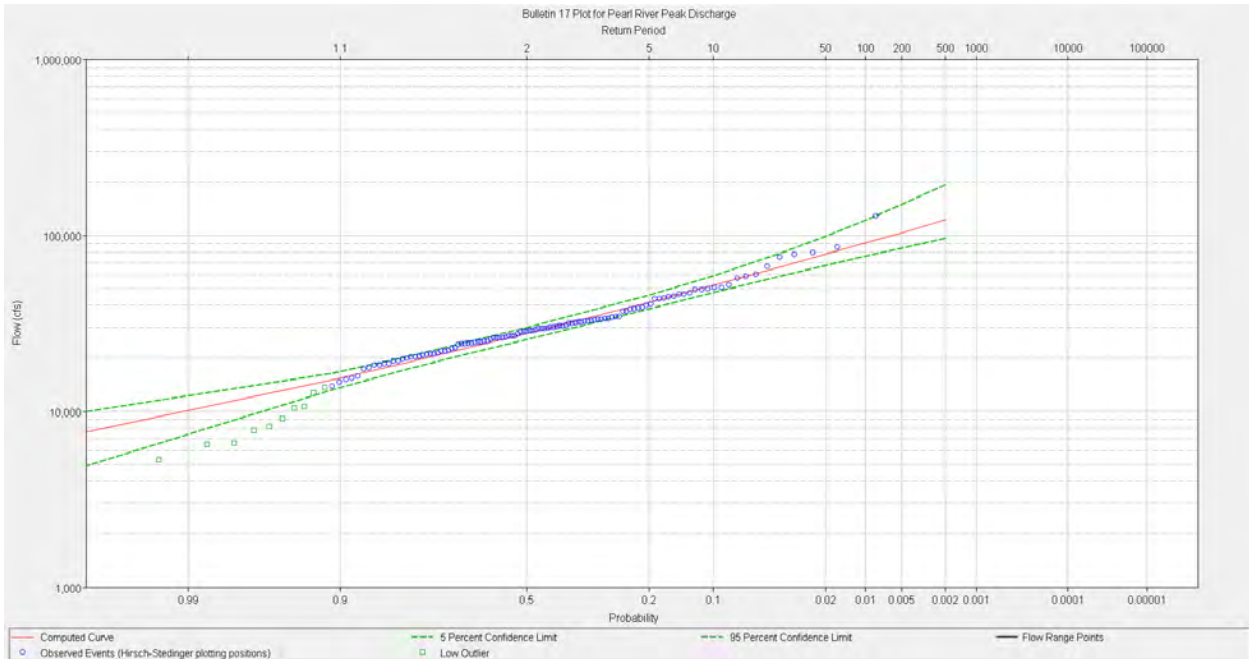
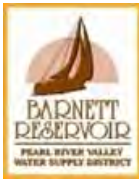


Figure 4-1. Magnitude and Frequency of Annual Floods, Pearl River at Jackson, MS

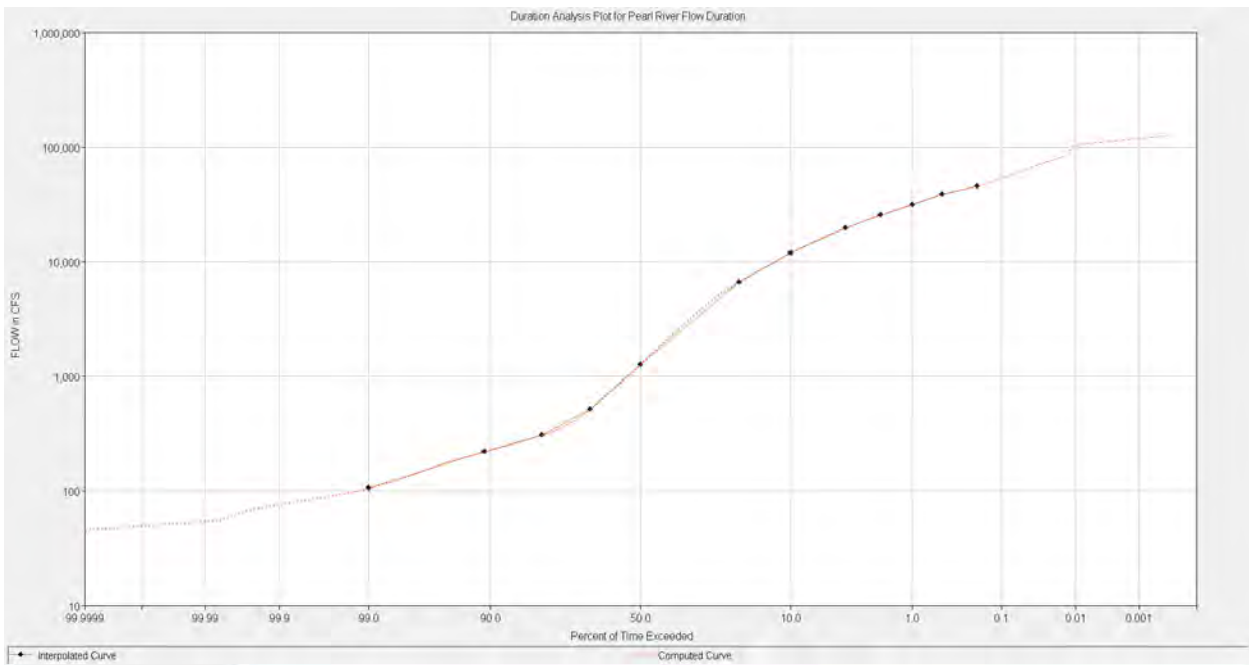


Figure 4-2. Flow Duration, Pearl River at US 80 at Jackson, MS





5.0 Hydraulic Analyses

Garver performed hydraulic analyses of the study area to determine maximum water surface elevations (WSEs) and velocities near the proposed roadway and bridge realignments. The study area includes the Ross Barnett Reservoir and surrounding area, as well as the Pearl River and floodplain downstream of the Dam. The study area downstream of the Dam is a well-defined valley with two-dimensional (2D) flow effects arising from the outlet of the Dam. A 2D hydraulic model of the Ross Barnett Reservoir and Pearl River was developed for the limits of the detailed hydraulic study to provide accurate hydraulic data for the proposed roadway and bridge realignments. The 2D modeling also provides the opportunity for a comprehensive analysis of the interaction of the outlet structure and potential dam breaching scenarios.

One-dimensional (1D) modeling of the Pearl River, downstream of the Dam, is also required for compliance with FEMA requirements. A 1D steady flow HEC-RAS model was used to perform a detailed floodway analysis of the study area. For this analysis, the 10-, 50-, 100-, and 500-yr flood events were selected based on FEMA and MDOT design criteria.

5.1 Land Use and Roughness Coefficients

Manning's n values were determined based on land use classified from aerial imagery and the site visit to the project area. A combination of recent aerial imagery sources was used to determine the land uses. The main imagery sources were the World Imagery basemap, available from ESRI in ArcGIS and SMS, and Google Earth/Google Maps imagery, dated November 17, 2020. The aerial imagery was supplemented by field reconnaissance performed by Garver. General land use types assigned to the project area are depicted in Figure 5-1. These values were used to calibrate the model to the FEMA base flood WSEL.



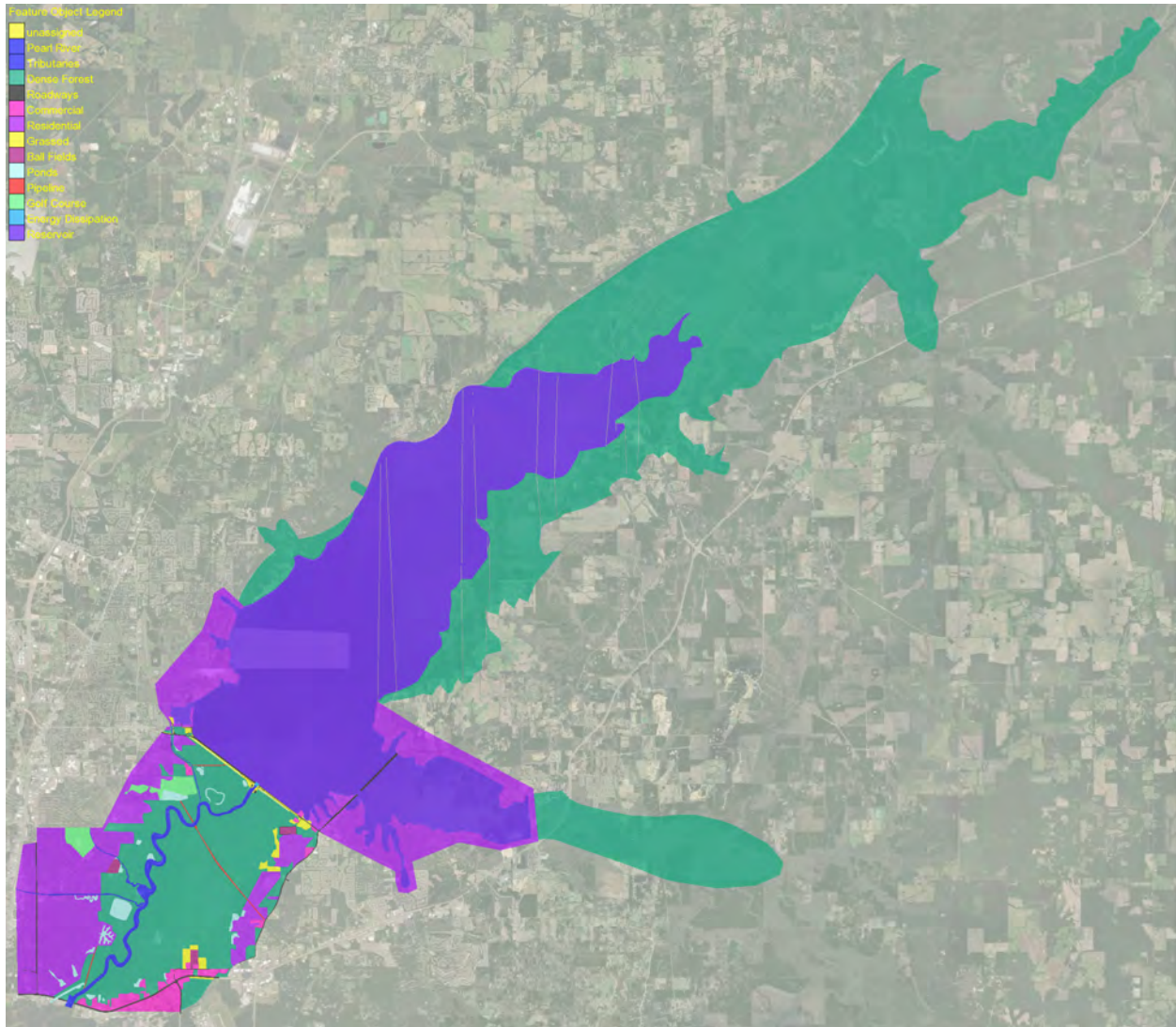


Figure 5-1. Study Area Land Uses

Manning's n values were assigned to the land use types based on aerial imagery. The assigned values are listed below in Table 5-1.

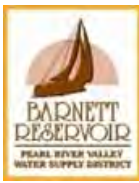


Table 5-1. Land Use Types and Manning's n Values

Land Use Type	Manning's N Value
unassigned	0.02
Pearl River	0.055
Tributaries	0.05
Dense Forest	0.25
Roadways	0.02
Commercial	0.075
Residential	0.065
Grassed	0.045
Ball Fields	0.035
Ponds	0.03
Pipeline	0.06
Golf Course	0.035
Energy Dissipation	0.05
Reservoir	0.02

The Manning's n values listed in Table 5-1 were developed for use in the 2D hydraulic model, which is a large-scale model with continuous representation of the topography and land use. These values were adjusted to calibrate the model to within 0.50 feet to FEMA base flood elevations (BFEs). Manning's n values in the 1D hydraulic model were generally similar but adjusted on a site-specific basis as required for discrete, smaller-scale models.

The existing conditions land uses were modified slightly for proposed conditions to represent changed land uses. For example, the proposed roadway embankment was changed to "roadway and grassed areas" land use. For these modifications, no new land use categories were introduced, and no Manning's n values associated with land uses were changed.

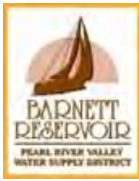
5.2 Terrain Data

Digital elevation models (DEMs) were created for existing and proposed conditions. The DEMs were used in both the 1D and 2D hydraulic modeling. This section briefly describes the creation of the three DEMs used in the hydraulic modeling. All DEMs were processed as 1-meter rasters, which provide sufficient resolution for an accurate representation of terrain features with manageable file sizes. Typical raster DEM file sizes were about 0.5 GB.

5.2.1 Existing Conditions

The lidar data files covering the project area were examined in GIS and compared against traditional survey measurements from the hydraulic survey. The lidar surface and survey elevations compared favorably. The lidar study area appears to have been flown during a period of low water below the Dam because the channel banks were lidar-visible.





One limitation of lidar is its inability to penetrate the water surface to obtain bathymetry. Therefore, a hydraulic survey was performed to collect current and accurate data along the river and below the water surface. The hydraulic survey included drone survey for a swath of approximately 1,000 feet along the dam and downstream of the dam. In addition, traditional survey cross-sections were collected at locations along the Pearl River to define channel bathymetry. The existing conditions terrain was developed by merging the ground-filtered lidar with the hydraulic survey data. The provided drone survey was merged with the lidar data files first and the channel cross-sections were used to burn in the existing channel geometry. Figure 5-2 illustrates the existing conditions DEM.

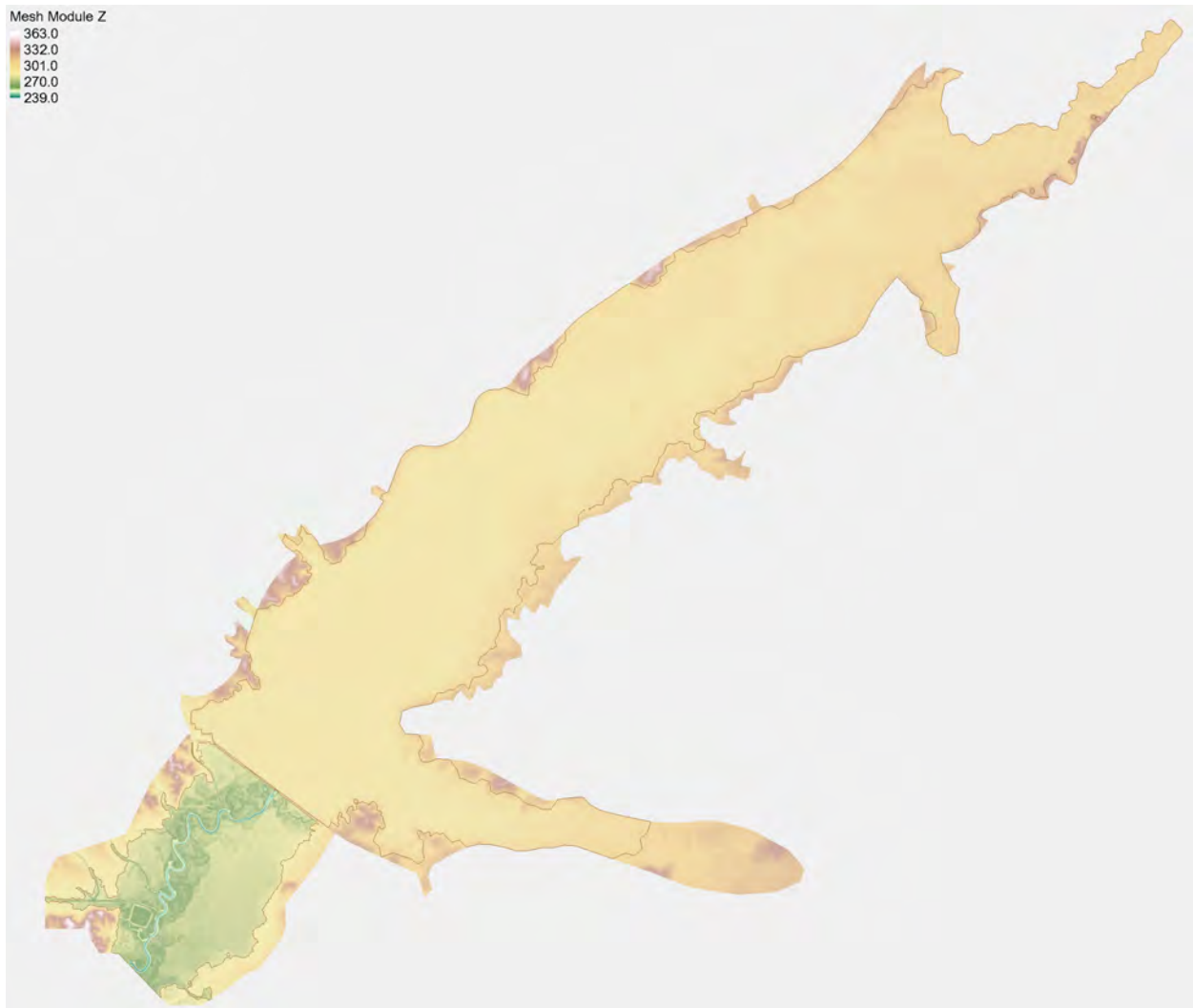


Figure 5-2. Existing Conditions DEM



5.3 Two-dimensional Hydraulic Model Development

The 2D hydraulic model of the Ross Barnett Reservoir and Pearl River floodplain was created using SMS and was run in SRH-2D. As is typical for hydraulic design projects, the existing conditions model was created and executed first. Next, the existing conditions model was modified to convert it to the proposed alternative conditions model, which represents the proposed alternative roadway alignments. Results for existing and proposed alternative conditions were compared to evaluate the effects of the proposed roadway alignments.

5.3.1 2D Model Domain

The first step in the 2D model development was to determine the model domain, or the spatial extent of the model area. The model domain should be large enough so that the boundary conditions applied to the model are far enough away from the area of interest so that any anomalies which may be caused by the boundary conditions will not influence model results in the area of interest. This can occur because model results such as flow distributions, velocities, and water surface elevations at the boundary conditions may be inaccurate. Placing the model boundaries farther away from the area of interest enables irregularities to be worked out by the model away from the area of interest.

The 2D model downstream extent was set at FEMA Lettered Cross-Section "AE" for Hinds County and "AA" for Rankin County. These lettered cross-sections are approximately 4.7 miles downstream of the Dam. The 2D model upstream extent was established at the upper limits of the Ross Barnett Reservoir, approximately 12.7 miles upstream of the Dam. The Ross Barnett Reservoir was built for drinking water supply and recreational use and is not a flood control reservoir. Therefore, its storage was not included within the model since the normal daily pool does not drastically change (+/-1 ft). These model extents allowed adequate distance for the model to establish flow patterns through the dam outlet. The lateral extents for the model domain were set wide enough at the edges of the valley to prevent the calculated water surface from being in contact with the model boundary. This prevents artificial confinement of the water surface caused by inadequate model domain. The model domain is shown in Figure 5-3.



Figure 5-3. 2D Model Domain

5.3.2 2D Model Boundary Conditions

The SRH-2D software, being unsteady-flow modeling software by design, was executed in a quasi-steady state mode, i.e., constant boundary conditions are set, and the model is run long enough to reach a steady-state-like condition. Ideally, the boundary condition locations should be placed where the flow is predominantly one-dimensional. Due to valley and floodplain conditions in the project area, this criterion was satisfied by the selected boundary condition locations.

The Pearl River inflow boundary (INLET-Q boundary in SRH-2D terminology) was established at the upstream extent of the model in the part of the valley most likely to contain the floodplain flows. The Pearl River peak discharges were determined from the FEMA FIS as described in Section 4.1. Similarly, the outflow stage boundary (EXIT-H boundary in SRH-2D terminology) was established at the downstream end of the model covering the extent of the valley most likely to contain the Pearl River floodplain flows. The



WSELs for this boundary condition were obtained from the effective FEMA FIS for Hinds County, MS and Incorporated Areas at lettered cross-section “AE” of the FIS. The boundary conditions for Pearl River are summarized in Table 5-2.

Table 5-2. FEMA Effective Peak Discharges and Base Flood Elevations for Hinds County, MS

Recurrence Intervals	FEMA Effective Discharge (cfs)	FEMA Effective BFE (ft)
10-year	56,800	272.0
50-year	90,000	277.7
100-year	106,000	282.0
500-year	148,000	285.0

5.3.3 2D Model Mesh Development

The 2D model mesh is critically important to model accuracy since it is the basis for the hydraulic calculations. The mesh must represent key physical features that affect the hydraulics without introducing numerical errors from its configuration. The mesh development followed FHWA guidance on presentation of channels, embankments, drainage structures, and significant topographic features. SMS mesh quality guidelines were monitored to help identify any mesh configuration issues that might cause model instability or convergence problems. Meshes developed for this project include more detail and smaller elements within the area of interest, and less detail and larger elements farther away from the areas of interest. Experience has shown that better model results can usually be obtained from a carefully constructed mesh with fewer elements than poorly constructed mesh with many elements. To manage model simulation times, one of the mesh development goals for this project was to limit the number of mesh elements to less than 100,000.

Separate meshes were developed for proposed alternative conditions. With a bridge over Pearl River downstream of the Dam on a new alignment, it was necessary for the proposed alternative conditions mesh configuration to be considerably different from the existing conditions mesh within the limits of the proposed roadway embankment. The proposed alternative conditions mesh has more elements than the existing conditions mesh. The number of elements in the meshes developed for this project are listed in Table 5-3. The primary difference in the number of elements between existing and proposed alternative conditions is the smaller elements necessary around the existing and proposed alternative bridge substructures. Visualizations of the meshes are included in Appendix D.



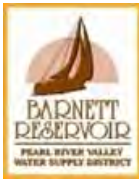


Table 5-3. Mesh Element Counts

Mesh Name	Element Count
Existing Conditions	74,732
Proposed B Alt.	64,876
Proposed E Alt.	59,331

5.3.4 Monitor Lines and Points

For all simulations, SRH-2D monitor lines were placed throughout the model domain to check flow continuity and model stability in real time during the simulations. The monitor lines were also used to obtain calculated flow at desired locations, such as through bridge openings, and over embankments. Monitor points were placed at strategic locations, such as the upstream and downstream limits of the model and upstream and downstream of hydraulic structures. The real-time plots during model simulations are an indication of model convergence, stability, and progression toward steady-state conditions.

5.3.5 2D Model Representation of Existing Structures

The primary focus of the 2D hydraulic modeling is the existing Ross Barnett Reservoir outlet structure and the existing bridges along the eastbound and westbound lanes of Spillway Road. The Ross Barnett Reservoir outlet structure contains an ogee weir at the upstream extent of the outlet works and 10 bays of sluice gates. These gates and their lake level operations were not represented in the simulations and the walls of the gates were represented as holes in the mesh. All gates were assumed to be fully open during the entire simulation for all simulations.

The existing westbound bridge substructure along Spillway Road are set within the vertical walls of the sluice gate bays. The existing eastbound bridge substructure for the along Spillway Road are set within the existing outlet structure concrete apron on pile foundations and/or within the outlet structure training walls. As-built plans for the Ross Barnet Reservoir outlet structure and Spillway Road eastbound bridge are in Appendix B. Figure 5-4 illustrates the mesh representation of the spillway outlet structure and existing bridge substructures.





Figure 5-4. Mesh Representation of Ross Barnett Reservoir Spillway Structures

5.3.6 2D Model Representation of Proposed Roadway Alignments

Two proposed roadway alignments were used in the analysis of proposed alternative conditions. These roadway alignments are noted at Proposed B and Proposed E. For both alternatives, SMS stamping features were used to develop the proposed roadway embankments. Top of road elevations were assumed and proposed typical sections were used to determine the width of the proposed embankments. For each alternative, various stamping features were combined for an overall proposed alternative embankment then they were exported to geotiff's and combined with the existing conditions DEM. Attempts were made in setting the top of road elevations to where the proposed roadway would not be overtopped during the 100-year event. Proposed roadway surfaces had not been developed at the point in the project and will be updated in future submittals. Figure 5-5 and

Figure 5-6 shows a mesh representation for each proposed alternative alignment.

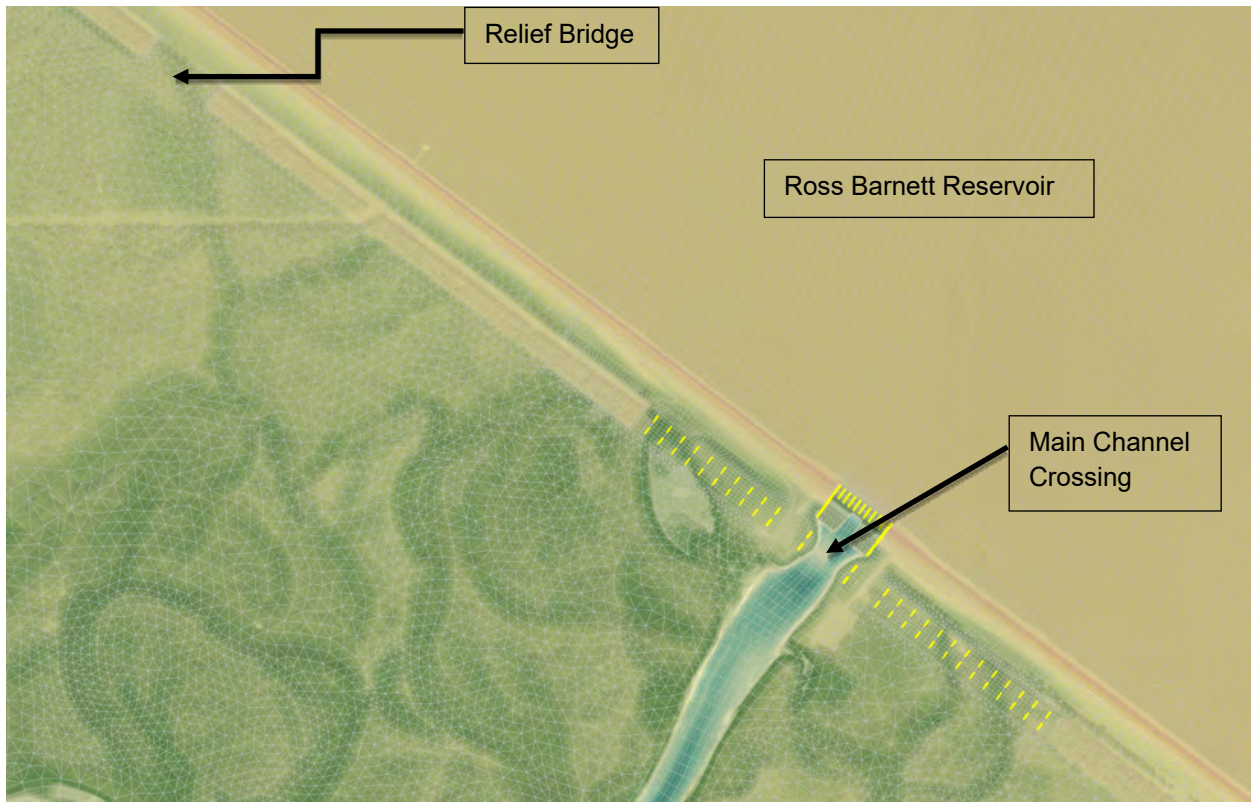
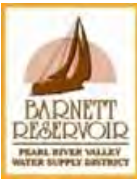


Figure 5-5. Proposed B Alternative Mesh Representation

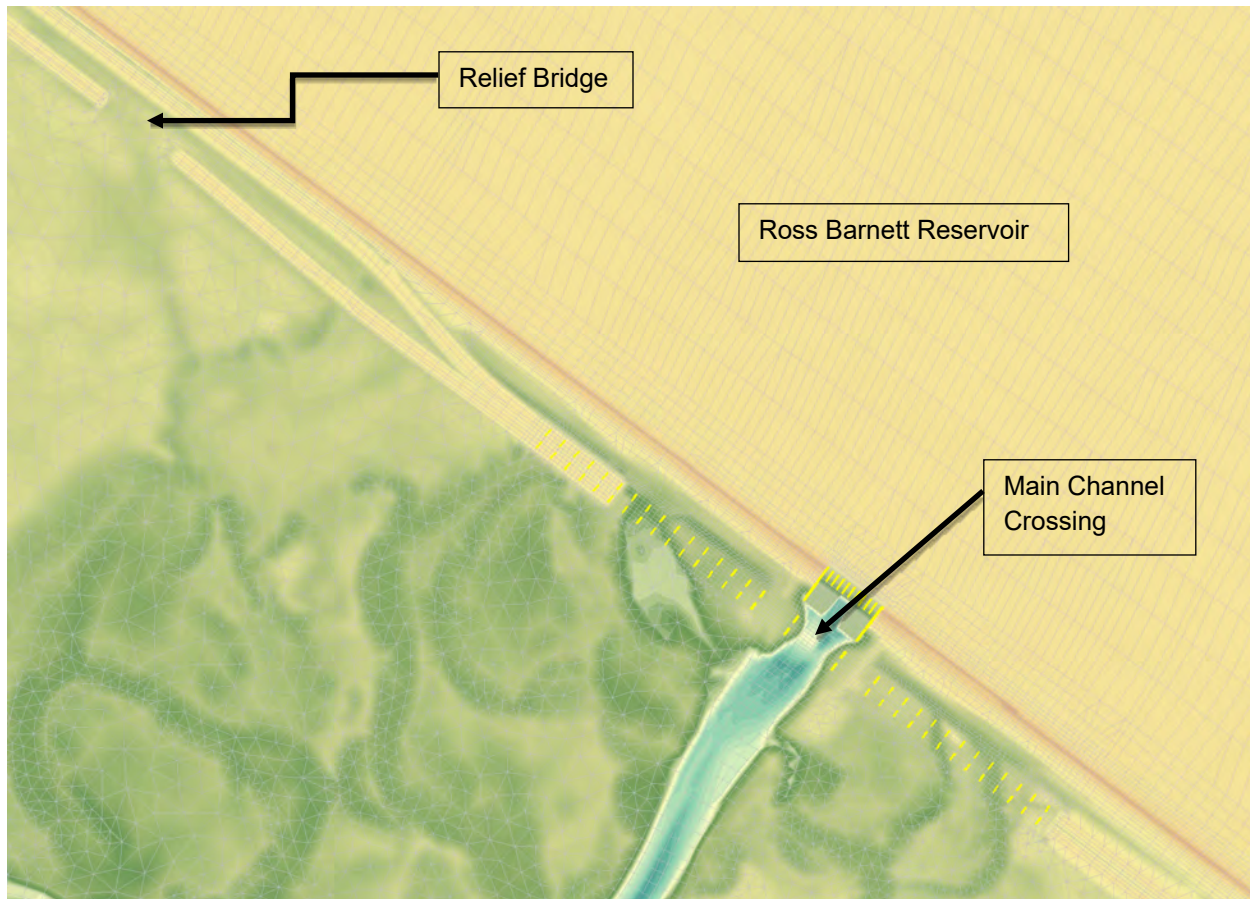
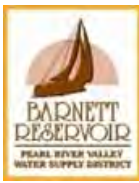
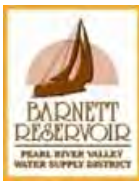


Figure 5-6. Proposed E Alternative Mesh Representation

5.3.7 Model Results

Existing conditions simulations were run first in the 2D model. Starting from dry initial conditions, preliminary simulations indicated that 144 hours was a sufficient simulation duration to reach steady state. A 5-second timestep was used. 2D hydraulic models produce voluminous output data which is usually best analyzed visually and dynamically within the post-processing software. A selection of static visualizations is included in Appendix D, including velocity magnitude contours and vectors, depth contours, and water surface elevation contours.

It can be challenging to analyze and compare results from a 2D hydraulic model effectively. A common comparison technique is to calculate the difference in spatial model results between two simulations representing different conditions (e.g., existing and proposed alternative conditions). Often existing and proposed condition simulations are executed on different model meshes, which requires the results from one mesh to be interpolated to the other to calculate the difference. The interpolation causes minor variations in values compared to the original dataset. Even between spatial datasets that are functionally identical, it is common for small nonzero differences (both positive and negative) to be calculated. A true "zero" difference between spatial datasets from 2D model output is practically impossible. It is important



to avoid the tendency to over-analyze small differences in datasets, and instead focus on differences that are consistent, significant, and attributable to physical features (not numerical phenomena). It can be helpful to compare tabular averages and time-series plots of results at discrete locations in addition to spatial comparisons.

To enable tabular comparisons between model simulations, including comparisons of 1D and 2D models, average WSEL and velocity magnitude values were extracted from the 2D model at floodplain cross sections. These average values allow direct comparisons between the 1D and 2D models. The FEMA lettered cross-sections were used as 1D model cross sections and stream channel alignments were imported into SMS as GIS shapefiles and converted to SMS map features. This ensured that the model extraction locations matched with the 1D FEMA model cross sections.

5.3.7.1 Existing Conditions Model Results

The existing conditions results were compared to the FEMA BFEs for the 100-year event at lettered cross-sections. Table 5-4 shows the comparison differences between FEMA and the 2D model results.

Table 5-4. 100-year Water Surface Elevation Comparison versus FEMA BFEs

Station	FEMA Lettered XS	FEMA BFE (ft)	Ex Conds WSE (ft)	Difference
40448.1	---	287.0	286.1	-0.9
37892.1	AK	285.9	286.1	0.2
32543	AJ	285.0	285.5	0.5
29943.8	AI	284.8	285.0	0.2
22514	AH	284.2	284.4	0.2
15772.9	AG	283.7	283.7	0.0
9000.58	AC*	283.1	283.2	0.0
7529.32	AF	282.6	283.0	0.3
171.524	AE	281.9	282.1	0.2
*Rankin County, MS and Incorporated Areas FIS				

5.3.8 Proposed Replacement Structures

The proposed conditions replacement structures are identical for each alternative, however, the centerline for each alternative varies slightly. Figure 5-7 and Figure 5-8 illustrate the proposed alignments. The main channel bridge crossings on each alignment are identical. The proposed structure is 10 spans @ 120', 1 span @ 960' (280-400-280), and 13 spans @ 120' for a total bridge length of 3,720 feet. A dual proposed relief structure is utilized for Alternative B which has a proposed structure of 6 spans @ 100' for a total bridge length of 600 feet. Due to a portion of the proposed westbound alignment of Alternative E being along the existing westbound alignment, a single relief structure will be utilized along the eastbound lanes. This structure will also have a proposed relief structure of 6 spans @ 100' for a total bridge length of 600 feet. These relief bridge structures are provided not only to decrease impacts to existing wetlands but also to provide flood flow relief if a breach occurred along the west side of the existing dam.



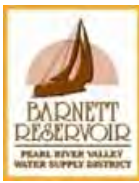


Figure 5-7. Alternative B Alignment



Figure 5-8. Alternative E Alignment

5.3.8.1 Proposed Conditions Model Results

The proposed conditions WSEs were compared to the existing conditions WSEs. Table 5-5 through Table 5-7 show the water surface elevation comparisons for the 50-, 100-, and 500-year recurrence interval events.



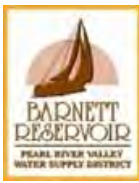


Table 5-5. Water Surface Elevation Comparisons for the 50-year recurrence interval

Station	FEMA Lettered XS	Ex Conds WSE (ft)	Prop Alt B (ft)	Prop Alt E (ft)	Difference	
					Prop B vs. Ex Conds	Prop E vs. Ex Conds
40448.1	---	284.0	284.0	283.9	-0.1	-0.1
37892.1	AK	284.0	283.8	283.8	-0.1	-0.2
32543.0	AJ	283.3	283.2	283.2	-0.1	-0.1
29943.8	AI	282.6	282.5	282.5	-0.1	-0.1
22514.0	AH	281.7	281.6	281.6	-0.1	-0.1
15772.9	AG	280.7	280.6	280.6	-0.1	-0.1
9000.6	AC*	279.9	279.8	279.8	-0.1	-0.1
7529.3	AF	279.6	279.5	279.5	-0.1	-0.1
171.5	AE	277.8	277.8	277.8	0.0	0.0

*Rankin County, MS and Incorporated Areas FIS

Table 5-6. Water Surface Elevation Comparisons for the 100-year recurrence interval

Station	FEMA Lettered XS	Ex Conds WSE (ft)	Prop Alt B (ft)	Prop Alt E (ft)	Difference	
					Prop B vs. Ex Conds	Prop E vs. Ex Conds
40448.1	---	286.1	286.1	286.1	0.0	-0.1
37892.1	AK	286.1	286.0	286.0	-0.1	-0.1
32543.0	AJ	285.5	285.5	285.5	-0.1	-0.1
29943.8	AI	285.0	284.9	284.9	-0.1	-0.1
22514.0	AH	284.4	284.3	284.3	-0.1	-0.1
15772.9	AG	283.7	283.6	283.6	-0.1	-0.1
9000.6	AC*	283.2	283.1	283.1	0.0	0.0
7529.3	AF	283.0	282.9	282.9	0.0	0.0
171.5	AE	282.1	282.1	282.1	0.0	0.0

*Rankin County, MS and Incorporated Areas FIS



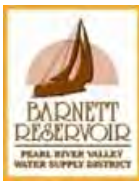


Table 5-7. Water Surface Elevation Comparisons for the 500-year recurrence interval

Station	FEMA Lettered XS	Ex Conds WSE (ft)	Prop Alt B (ft)	Prop Alt E (ft)	Difference	
					Prop B vs. Ex Conds	Prop E vs. Ex Conds
40448.1	---	289.2	289.3	289.3	0.1	0.0
37892.1	AK	289.2	289.1	289.1	-0.1	-0.1
32543.0	AJ	288.6	288.5	288.5	-0.1	-0.1
29943.8	AI	288.1	288.0	288.0	-0.1	-0.1
22514.0	AH	287.5	287.4	287.4	-0.1	-0.1
15772.9	AG	286.8	286.7	286.7	0.0	0.0
9000.6	AC*	286.2	286.2	286.2	0.0	0.0
7529.3	AF	286.0	286.0	286.0	0.0	0.0
171.5	AE	285.1	285.1	285.1	0.0	0.0
*Rankin County, MS and Incorporated Areas FIS						

5.4 One-dimensional Hydraulic Model Development

5.4.1 Model Geometry

The 2020 dam breach model developed by Mendrop Engineering Resources for the PVRSWD was used as a base model for creating the 1D model. The model extents extend from the Ross Barnett Reservoir to Hinds County FEMA Lettered XS AA/ Rankin County FEMA Lettered XS AE. Locations of the HEC-RAS cross-sections can be seen in Figure 5-9.



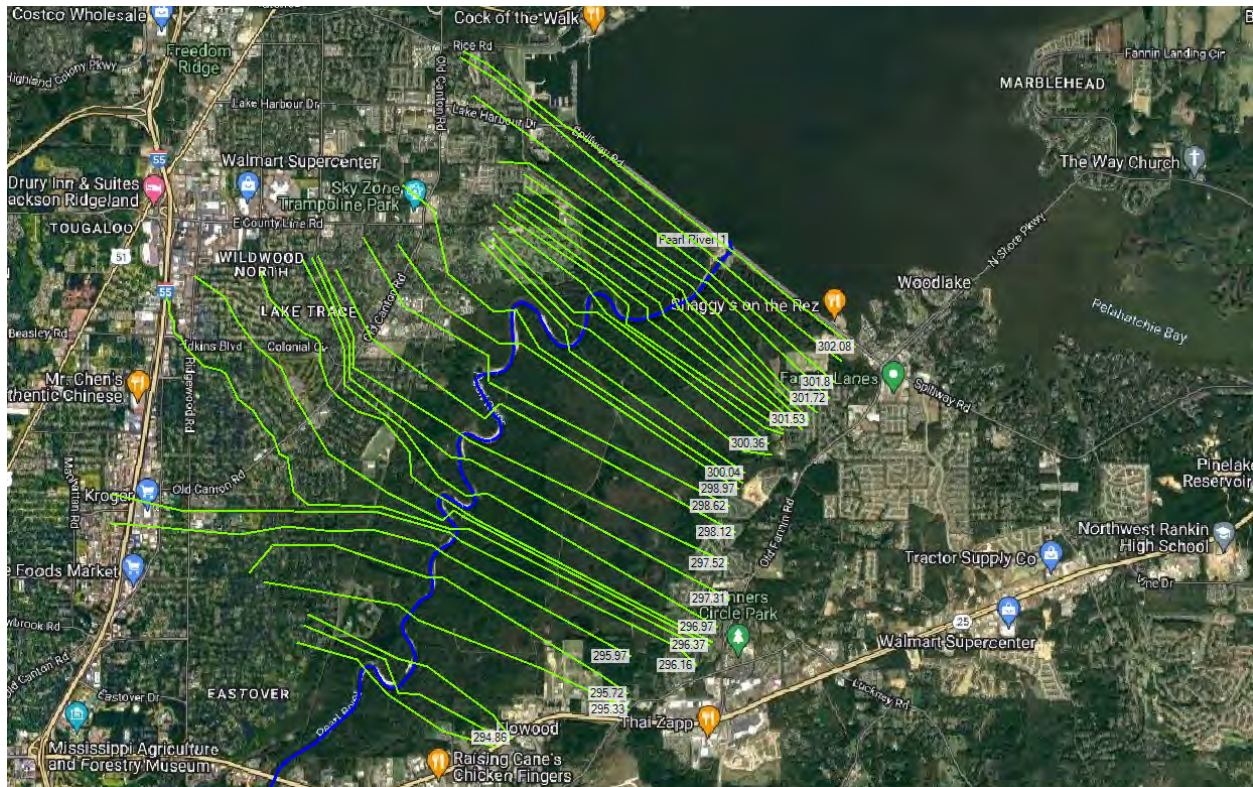
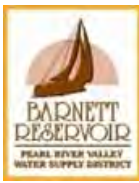


Figure 5-9. Location of HEC-RAS Cross-Sections

5.4.1.1 Duplicate Effective Model

The effective model is a HEC-2 model. The original HEC-2 study is dated August 1977, and was restudied in September of 1989. Per FEMA guidelines it was not recreated, and the HEC-2 model will serve as the duplicate effective model. The printout of the results was used for comparison to the FIS published data for WSEL and discharges. The original HEC-2 model flows were not consistent with the FIS data and can be found in Appendix B.

5.4.1.2 Existing Conditions Model

The existing conditions model was developed from the spillway of Ross Barnett Reservoir to Lakeland Drive approximately 8 miles downstream. The geometry was updated with the surface of the merged lidar, survey, and bathymetric data collected for the project. Ineffective areas were placed in areas shown to be channel and oxbow remnants that will not convey water in the floodplain direction of flow. The FIS published discharge data and WSEL profiles were used for calibration of the model results. Results can be seen in Table 5-8.





Table 5-8. 100-yr WSEL Comparison versus FEMA BFEs

Lettered XS		100-yr WSEL (ft)		100-yr WSEL (ft)	Corrected Effective minus Hinds (ft)	Corrected Effective minus Rankin (ft)
Hinds	Rankin	Hinds WSEL (ft)	Rankin WSEL (ft)	Existing Conditions WSEL (ft)		
AE	AA	281.90	282.00	281.90	0.00	-0.10
AF	AB	282.60	282.70	283.38	0.78	0.68
--	AC	--	283.10	283.60	--	0.50
AG	AD	283.70	283.80	284.22	0.52	0.42
AH	AE	284.20	284.30	284.74	0.54	0.44
AI	AF	284.80	284.90	285.32	0.52	0.42
AJ	--	285.00	--	285.56	0.56	--
AK	AG	285.90	286.00	286.08	0.18	0.08

5.4.1.3 Proposed Conditions Model

The proposed conditions model was developed by copying the existing conditions model and inserting the proposed Alternative B bridges and embankment into the model. Alternative B was inserted since it was the worst-case scenario between Alternative B and Alternative E. As discussed in Section 5.3, the proposed main bridge is identical for both Alternative B and E. The only difference between Alternative B and Alternative E is the additional roadway embankment and additional lane on Alternative B relief bridge on the right (west) overbank. The removal of the additional lane on the relief bridge would not have any impact on the 1D model since only a single bridge width can be entered for a bridge. The proposed main bridge for Alternative B and E has a total length of 3,720 feet with a span arrangement of 10 spans @ 120', 1 span @ 960' (280-400-280), 13 spans @ 120'. The relief bridge for Alternative B and E has a total length of 600' and a span arrangement of 6 spans @ 100'.

5.4.2 1-D Model Results

The proposed Alternative B bridges show only a rise in the 100-yr WSEL at the most upstream cross section due to the embankment being just downstream or the toe of the Ross Barnett Reservoir dam. The ineffective flow areas of the existing condition model were used in the proposed model due to the upstream constriction of the Ross Barnett Reservoir spillway outlet structure. The model results can be found in Table 5-9 through Table 5-11.



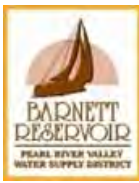


Table 5-9. 50-yr WSEL Comparison Existing vs Proposed Alternative B

50-yr Results								
HEC-RAS River Station	FEMA Hinds Lettered XS	Profile	Existing		Proposed		Proposed minus Existing	
			W.S. Elev	Vel Chnl	W.S. Elev	Vel Chnl	W.S. Elev	Vel Chnl
			(ft)	(ft/s)	(ft)	(ft/s)	(ft)	(ft/s)
302.08	Limit of Study	50-yr	284.27	5.96	284.88	5.62	0.61	-0.34
Bridge								
302		50yr	284.21	3.96	284.21	3.96	0.00	0.00
301.8		50yr	283.93	4.64	283.93	4.64	0.00	0.00
301.72		50yr	283.77	4.82	283.77	4.82	0.00	0.00
301.62	AG	50yr	283.72	3.27	283.72	3.27	0.00	0.00
301.53		50yr	283.63	3.24	283.63	3.24	0.00	0.00
301.43		50yr	283.56	2.99	283.56	2.99	0.00	0.00
301.3		50yr	283.44	3.25	283.44	3.25	0.00	0.00
301.18		50yr	283.38	2.56	283.38	2.56	0.00	0.00
301		50yr	283.29	2.31	283.29	2.31	0.00	0.00
300.55		50yr	282.93	3.60	282.93	3.60	0.00	0.00
300.36		50yr	282.73	3.89	282.73	3.89	0.00	0.00
300.23		50yr	282.67	2.67	282.67	2.67	0.00	0.00
300.04	AF	50yr	282.55	2.36	282.55	2.36	0.00	0.00
299.25		50yr	282.14	2.76	282.14	2.76	0.00	0.00
298.97		50yr	281.96	2.73	281.96	2.73	0.00	0.00
298.62	AE	50yr	281.70	2.68	281.70	2.68	0.00	0.00
298.12		50yr	281.41	2.67	281.41	2.67	0.00	0.00
297.52		50yr	280.99	2.88	280.99	2.88	0.00	0.00
297.31	AD	50yr	280.81	3.20	280.81	3.20	0.00	0.00
296.97		50yr	280.50	3.24	280.50	3.24	0.00	0.00
296.56		50yr	280.30	1.95	280.30	1.95	0.00	0.00
296.37		50yr	280.09	3.58	280.09	3.58	0.00	0.00
296.23		50yr	279.95	3.37	279.95	3.37	0.00	0.00
296.16		50yr	279.93	2.52	279.93	2.52	0.00	0.00
295.97	AC	50yr	279.69	3.68	279.69	3.68	0.00	0.00
295.72	AB	50yr	279.40	3.48	279.40	3.48	0.00	0.00
295.33		50yr	278.93	3.79	278.93	3.79	0.00	0.00
294.86		50yr	278.20	4.26	278.20	4.26	0.00	0.00
294.6		50yr	277.87	3.64	277.87	3.64	0.00	0.00
294.12	AA	50yr	277.10	4.29	277.10	4.29	0.00	0.00



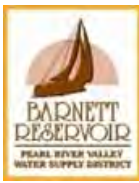


Table 5-10. 100-yr WSEL Comparison Existing vs Proposed Alternative B

100-yr Results								
HEC-RAS River Station	FEMA Hinds Lettered XS	Profile	Existing		Proposed		Proposed minus Existing	
			WSEL	Velocity	WSEL	Velocity	WSEL	Velocity
			(ft)	(ft/s)	(ft)	(ft/s)	(ft)	(ft/s)
302.08	Limit of Study	100-yr	286.57	6.57	287.25	6.17	0.68	-0.40
Bridge								
302		100-yr	286.53	4.32	286.53	4.32	0.00	0.00
301.8		100-yr	286.25	4.94	286.25	4.94	0.00	0.00
301.72		100-yr	286.09	5.06	286.09	5.06	0.00	0.00
301.62	AG	100-yr	286.08	2.98	286.08	2.98	0.00	0.00
301.53		100-yr	286.01	3.01	286.01	3.01	0.00	0.00
301.43		100-yr	285.96	2.79	285.96	2.79	0.00	0.00
301.3		100-yr	285.87	2.92	285.87	2.92	0.00	0.00
301.18		100-yr	285.82	2.38	285.82	2.38	0.00	0.00
301		100-yr	285.75	2.21	285.75	2.21	0.00	0.00
300.55		100-yr	285.56	2.59	285.56	2.59	0.00	0.00
300.36		100-yr	285.46	2.82	285.46	2.82	0.00	0.00
300.23		100-yr	285.40	2.39	285.40	2.39	0.00	0.00
300.04	AF	100-yr	285.32	2.14	285.32	2.14	0.00	0.00
299.25		100-yr	285.04	2.36	285.04	2.36	0.00	0.00
298.97		100-yr	284.91	2.37	284.91	2.37	0.00	0.00
298.62	AE	100-yr	284.74	2.32	284.74	2.32	0.00	0.00
298.12		100-yr	284.57	2.22	284.57	2.22	0.00	0.00
297.52		100-yr	284.33	2.29	284.33	2.29	0.00	0.00
297.31	AD	100-yr	284.22	2.65	284.22	2.65	0.00	0.00
296.97		100-yr	284.02	2.76	284.02	2.76	0.00	0.00
296.56		100-yr	283.89	1.72	283.89	1.72	0.00	0.00
296.37		100-yr	283.78	2.87	283.78	2.87	0.00	0.00
296.23		100-yr	283.72	2.36	283.72	2.36	0.00	0.00
296.16		100-yr	283.72	1.25	283.72	1.25	0.00	0.00
295.97	AC	100-yr	283.60	3.26	283.60	3.26	0.00	0.00
295.72	AB	100-yr	283.38	3.22	283.38	3.22	0.00	0.00
295.33		100-yr	283.04	3.52	283.04	3.52	0.00	0.00
294.86		100-yr	282.59	3.54	282.59	3.54	0.00	0.00
294.6		100-yr	282.37	3.28	282.37	3.28	0.00	0.00
294.12	AA	100-yr	281.90	3.60	281.90	3.60	0.00	0.00



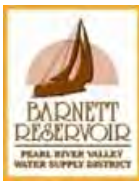


Table 5-11. 500-yr WSEL Comparison Existing vs Proposed Alternative B

500-yr Results								
HEC-RAS River Station	FEMA Hinds Lettered XS	Profile	Existing		Proposed		Proposed minus Existing	
			WSEL	Velocity	WSEL	Velocity	WSEL	Velocity
			(ft)	(ft/s)	(ft)	(ft/s)	(ft)	(ft/s)
302.08	Limit of Study	500-yr	289.94	8.37	291.60	7.68	1.66	-0.69
Bridge								
302		500-yr	289.92	5.47	289.92	5.47	0.00	0.00
301.8		500-yr	289.57	6.04	289.57	6.04	0.00	0.00
301.72		500-yr	289.38	6.09	289.38	6.09	0.00	0.00
301.62	AG	500-yr	289.42	3.11	289.42	3.11	0.00	0.00
301.53		500-yr	289.35	3.16	289.35	3.16	0.00	0.00
301.43		500-yr	289.30	2.96	289.30	2.96	0.00	0.00
301.3		500-yr	289.22	2.99	289.22	2.99	0.00	0.00
301.18		500-yr	289.16	2.55	289.16	2.55	0.00	0.00
301		500-yr	289.09	2.35	289.09	2.35	0.00	0.00
300.55		500-yr	288.90	2.77	288.90	2.77	0.00	0.00
300.36		500-yr	288.81	2.91	288.81	2.91	0.00	0.00
300.23		500-yr	288.75	2.54	288.75	2.54	0.00	0.00
300.04	AF	500-yr	288.66	2.29	288.66	2.29	0.00	0.00
299.25		500-yr	288.39	2.44	288.39	2.44	0.00	0.00
298.97		500-yr	288.27	2.50	288.27	2.50	0.00	0.00
298.62	AE	500-yr	288.10	2.51	288.10	2.51	0.00	0.00
298.12		500-yr	287.92	2.31	287.92	2.31	0.00	0.00
297.52		500-yr	287.70	2.37	287.70	2.37	0.00	0.00
297.31	AD	500-yr	287.59	2.83	287.59	2.83	0.00	0.00
296.97		500-yr	287.39	2.99	287.39	2.99	0.00	0.00
296.56		500-yr	287.23	1.99	287.23	1.99	0.00	0.00
296.37		500-yr	287.12	3.05	287.12	3.05	0.00	0.00
296.23		500-yr	287.06	2.54	287.06	2.54	0.00	0.00
296.16		500-yr	287.06	1.51	287.06	1.51	0.00	0.00
295.97	AC	500-yr	286.93	3.47	286.93	3.47	0.00	0.00
295.72	AB	500-yr	286.69	3.57	286.69	3.57	0.00	0.00
295.33		500-yr	286.33	3.84	286.33	3.84	0.00	0.00
294.86		500-yr	285.82	4.00	285.82	4.00	0.00	0.00
294.6		500-yr	285.56	3.84	285.56	3.84	0.00	0.00
294.12	AA	500-yr	284.90	4.62	284.90	4.62	0.00	0.00





5.5 Floodway Model Analysis

The Pearl River at BAP is a Zone AE with a regulatory floodway. The effective floodway encroachment stations for the model cross sections were determined by locating the intersection of the floodway NFHL layer along each cross section in ArcMap. The effective floodway encroachment locations were used in the existing conditions model using the effective FIS discharges. The effective floodway encroachment locations produced surcharges more than the allowable 1 foot at certain XS's. A corrected effective floodway model was developed that adjusted the encroachments for locations with surcharges greater than 1-foot. The existing conditions and proposed conditions floodway models use the corrected effective floodway encroachment locations. Table 5-12 through Table 5-14 show the various floodway surcharge and water surface elevation comparisons. The HEC-RAS outputs for the floodway analysis can be found in Appendix D.

Table 5-12. Duplicate Effective Floodway Surcharge Comparison vs 100-year WSEL

FEMA Hinds Lettered XS	RAS RS	FDWY Width	FDWY Area	Mean Velocity	Feet NAVD 88		Increase
		(ft)	(sqft)	(ft/sec)	100-yr WSEL	FDWY WSEL	(ft)
AA	294.12	6395	111642	0.95	281.9	282.6	0.70
AB	295.72	9612	173493	0.8	283.38	283.94	0.56
AC	295.97	10620	178896	0.77	283.6	284.16	0.56
AD	297.31	11660	168195	0.63	284.22	285.00	0.78
AE	298.62	11142	164861	0.70	284.74	285.57	0.83
AF	300.04	9924	139935	0.76	285.32	286.31	0.99
	300.55	8648	109438	0.97	285.56	286.63	1.07
AG	301.62	10547	153468	0.79	286.08	287.31	1.23





Table 5-13. Corrected Effective Floodway vs Duplicate Effective Floodway

FEMA Hinds Lettered XS	RAS RS	FDWY Width	FDWY Area	Mean Velocity	Feet NAVD 88		Increase
		(ft)	(sqft)	(ft/sec)	100-yr WSEL	FDWY WSEL	(ft)
AA	294.12	6395	111642	0.95	281.9	282.6	0.7
AB	295.72	9612	173493	0.80	283.38	283.94	0.56
AC	295.97	10620	178896	0.77	283.6	284.16	0.56
AD	297.31	11660	168195	0.63	284.22	285	0.78
AE	298.62	12042	173924	0.66	284.74	285.56	0.82
AF	300.04	11326	158758	0.67	285.32	286.19	0.87
	300.55	10352	128055	0.83	285.56	286.47	0.91
AG	301.62	12490	161622	0.75	286.08	287.04	0.96



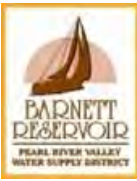
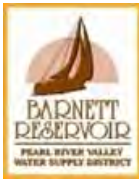


Table 5-14. Floodway WSEL Comparisons Duplicate Effective vs Corrected Effective

River Sta	Dup Effective	Corrected Effective	Difference
	W.S. Elev	W.S. Elev	
	(ft)	(ft)	
294.12	282.60	282.60	0.00
294.6	283.03	283.03	0.00
294.86	283.22	283.22	0.00
295.33	283.63	283.63	0.00
295.72	283.94	283.94	0.00
295.97	284.16	284.16	0.00
296.16	284.34	284.34	0.00
296.23	284.37	284.37	0.00
296.37	284.46	284.46	0.00
296.56	284.61	284.61	0.00
296.97	284.80	284.80	0.00
297.31	285.00	285.00	0.00
297.52	285.12	285.12	0.00
298.12	285.38	285.37	-0.01
298.62	285.57	285.56	-0.01
298.97	285.77	285.74	-0.03
299.25	285.93	285.88	-0.05
300.04	286.31	286.19	-0.12
300.23	286.41	286.28	-0.13
300.36	286.50	286.35	-0.15
300.55	286.63	286.47	-0.16
301	286.93	286.71	-0.22
301.18	287.03	286.79	-0.24
301.3	287.11	286.85	-0.26
301.43	287.21	286.94	-0.27
301.53	287.25	286.98	-0.27
301.62	287.31	287.04	-0.27
301.72	287.31	287.03	-0.28
301.8	287.44	287.17	-0.27
302	287.68	287.42	-0.26
302.08	287.72	287.45	-0.27





6.0 Summary

6.1 Hydraulic Analysis Results

The 2D analysis for the proposed 3,720' main bridge with a span arrangement of 10 spans @ 120', 1 span @ 960' (280-400-280), 13 spans @ 120' and 600' long relief bridge with a span arrangement of 6 spans @ 100' for Alternative B does not create a rise in the 100-year WSEL when compared to the existing conditions.

The 1D analysis of the floodway shows that the proposed bridge alternatives would increase the 100-yr WSEL between the proposed Bob Anthony alignment and the Ross Barnett Reservoir toe of dam. The increase in the floodway is directly attributed to the increase in 100-yr WSEL in the 1D analysis. The increase in 100-year WSEL is not consistent with the more detailed 2D analysis.

6.2 Bridge Design Recommendations

The Alternative B and Alternative E proposed bridge recommendations include a main bridge with a total length of 3,720' with a span arrangement of 10 spans @ 120', 1 span @ 960' (280-400-280), 13 spans @ 120', and a 600' long relief bridge for with a span arrangement of 6 spans @ 100'. Plans and recommendations can be found in Appendix G.



APPENDIX I
PRELIMINARY BIOLOGICAL ASSESSMENT



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340

January 16, 2024

IN REPLY REFER TO:
2024-0026861

Ms. Lauren McWhorter
Pickering Firm, Inc.
2001 Airport Road, Suite 201
Flowood, MS 39232

Dear Ms. McWhorter:

The Fish and Wildlife Service (Service) has received your correspondence dated January 15, 2024, agreeing to implement the recommendations that we provided in the Services' consultation response letter dated December 16, 2023, to minimize impacts to federally listed species for the relocation of the Bob Anthony Parkway Project in Rankin and Madison Counties, Mississippi. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Recommendations include following best management practices for erosion control as outlined at the link below to minimize impacts to the gulf sturgeon, ringed map turtle and Louisiana pigtoe.: <https://www.fws.gov/project/recommended-best-management-practices-mining-operations-alabama>.

It is also recommended that debris be removed that may enter the river channel and attempts should be made to work from shore.

As a best management practice, the Service recommends that any tree removal activities that occur for the proposed project take place in the non-maternity/non-breeding season (which is September 1 – May 14) to minimize impacts to the northern long-eared bat and migratory birds. Nesting sites for Canada geese should be avoided and surveys for eagle nests should be conducted with our office contacted if any are observed.

Due to your commitment to implement these recommendations, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect federally listed species.

If you have any questions, please contact Alison McCartney in our office at: (601) 455-8780, or via email: alison_mccartney@fws.gov or visit our website at <http://www.fws.gov/mississippiES/>.

Sincerely,
JAMES
AUSTIN

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James Austin
Field Supervisor
Mississippi Field Office

**PRELIMINARY BIOLOGICAL ASSESSMENT
BOB ANTHONY PARKWAY RELOCATION PROJECT
Pearl River Valley Water Supply District**

LOCATION:

LOWER PEARL RIVER, MADISON, RANKIN, AND HINDS COUNTIES, MISSISSIPPI

PREPARED BY:

**Lauren McWhorter
Pickering Firm, Inc.
2001 Airport Road, Suite 201
Flowood, Mississippi 39232**

PHONE NUMBER: (601) 956-3663

Introduction

The purpose of this preliminary biological assessment (BA) is to review the proposed Bob Anthony Parkway Relocation Project (project) in sufficient detail to determine whether the proposed action may affect any threatened, endangered, proposed, or sensitive species. This BA was prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536(c)), and follows the standards established in the National Environmental Policy Act (NEPA). A Threatened and Endangered species list was obtained from the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website. A Site Map is included in **Appendix A**, and the IPaC Species list is included in **Appendix B**.

The species considered in this document are:

Threatened (T), Endangered (E), Proposed Threatened (PT), or Proposed Endangered (PE) Species

- Northern Long-eared Bat (*Myotis septentrionalis*) **E**
- Alligator Snapping Turtle (*Macrochelys temminckii*) **PT**
- Ringed Map Turtle (*Graptemys oculifera*) **T**
- Gulf Sturgeon (*Acipenser oxyrinchus (=oxyrhyinchus) desotoi*) **T**
- Louisiana pigtoe (*Pluerobema riddellii*) **PT**

Candidate (C) and Future Listings

- Monarch Butterfly (*Danaus plexippus*) **C**

- Pearl River Map Turtle (*Graptemys pearlensis*). In a letter dated March 23, 2020, USFWS stated the ongoing effort to petition for listing this species under the ESA in 2021. As of the submittal of this BA, this species has not been listed as a candidate. However, this species is still included in this BA due to the potential of this species being listed in the future. A copy of this USFWS letter can be found in **Appendix C**.

Critical Habitat

- Habitat of Gulf Sturgeon (*Acipenser oxyrinchus (=oxyrhyinchus) desotoi*) **FINAL**

Consultation to Date

The USFWS was initially contacted via letter dated February 27, 2020, regarding the possible presence of federally listed threatened or endangered species and/or their habitat within the project area. The USFWS stated in a letter, dated March 23, 2020, “Due to the scope and location of the proposed project, we recommend the applicant or their federally designated representative prepare a biological assessment to determine if the proposed project will affect the wood stork, ringed map turtle, and Gulf sturgeon and its critical habitat.” The letter further states, “We request to be a participating agency (as defined in 23 U.S.C. 139(d)) throughout the planning process as it pertains to maintaining and developing future recreational opportunities on the Pearl River.” This letter is included as **Appendix C**.

USFWS personnel, along with other relevant resource agencies officials, were invited by the Mississippi Department of Transportation (MDOT) to attend agency meetings in order to comment on the various alternatives and the project’s purpose and need. Along with the agency officials, these meetings were attended by representatives from the Pearl River Valley Water Supply District (PRVWSD), MDOT, the Federal Highway Administration (FHWA), and local government along with Garver, Pickering, and relevant sub-consultants. A total of three agency meetings were held by MDOT to involve relevant resource agencies. The first was an in-person meeting at the MDOT Environmental Division conference room on July 5, 2022. The second agency meeting was held at the MDOT RWD conference room on May 18, 2023. The third agency meeting was held virtually via Microsoft Teams on September 25, 2023.

Since the 2020 letter, the Northern Long-eared bat has been reclassified from threatened to endangered, the wood stork has been delisted, the alligator snapping turtle has been listed as proposed threatened, and the monarch butterfly has been made a candidate species.

Due to these changes, USFWS was contacted via email on December 6, 2023, regarding the current recommendations on vulnerable species. Their response letter, dated December 14, 2023, listed out four federally listed species, including the gulf sturgeon,

the ringed map turtle, the northern long-eared bat, and the Louisiana pigtoe. The letter continues by discussing several recommendations which could reduce the impact to these species. The recommendations include the use of erosion and sedimentation precautions to minimize the impact to the gulf sturgeon, ringed map turtle, and the Louisiana pigtoe, and any tree removal activities be restricted to non-maternity/non-breeding season (from September 1 to May 14) to minimize any impacts to the northern long-eared bat and any birds protected under the Migratory Bird Treaty Act. This letter is included in **Appendix C**.

Pickering responded to this letter via email on January 15, 2024, stating the implementation of these recommendations were agreeable and initiating the informal biological assessment process. In a response letter dated January 16, 2024, USFWS stated “Due to your commitment to implement these recommendations, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect federally listed species.” This letter is included in **Appendix C**.

Description of the Proposed Action

The PRVWSD has proposed the Bob Anthony Parkway Relocation Project (project), an east/west multimodal corridor to be located south of the dam of the Ross Barnett Reservoir in Madison, Rankin, and Hinds Counties, Mississippi. Seven alternatives (one No Action and six Action Alternatives) were considered during the preliminary engineering phase of the proposed project. However, due to various engineering constraints, environmental impacts, and lack of accomplishing the project’s purpose and need, four Build Alternatives were eliminated. Therefore, the No Action Alternative (Alternative A) and two Action Alternatives (Alternative B & E2) were carried forward for additional study. Ultimately, Alternative B was determined to be the preferred alternative.

Alternative B would construct four 12-foot-wide lanes divided by a raised median with 6-foot inside shoulders and 10-foot outside shoulders. The eastbound lanes would include an offramp on both sides of the spillway to provide access to recreational areas. This alignment begins on Lake Harbour Drive just to the east of Harbor Drive. Both the eastbound and westbound lanes veer north at the start of the existing toe ditch before turning south and crossing back over the toe ditch. The alignment, staying parallel to the existing roadway just south of the toe ditch, crosses the Pearl River approximately 350 feet downstream of the spillway gates. The total length of the four-lane bridge would be approximately 4,000 feet, which includes the additional spans over other stream channels and wetlands. Alternative B continues east parallel to the Dam (approximately 4,500 feet) before tying back into the existing roadway east of the emergency spillway. The total length of this alternative is approximately 3.54 miles. The bridge bents are planned to be driven into the Pearl River’s banks opposed to directly within the channel to decrease the chance of negative impacts to water flow, sedimentation, and existing populations of the threatened and endangered species. An additional bridge area is planned along the western portion of the alignment. This additional bridge is approximately 600 feet and

was designed to span a wetland area and allow for hydraulic relief during times of seasonal flooding. Alternative B would allow for future expansion to a six-lane facility if it is determined to be needed in the future. A photographic log of the study area is included as **Appendix D**.

Species Accounts

Northern Long-eared Bat (*Myotis septentrionalis*)

As the name suggests, the northern long-eared bat is distinguished by its large ears. During winter, these bats hibernate in caves and mines. During the spring, summer, and fall months, these bats roost underneath bark in live and dead mature trees. The predominant threat to this species is white-nose syndrome, a fungal disease which grows along the nasals of the bats. This disease causes the bat to awake and become active during winter months and, in turn, causes the bats to burn off fat reserves needed for survival. In 2022, white-nose syndrome was confirmed in Mississippi for the first time. An individual tri-colored bat with visible fungus was captured from a culvert in Montgomery County, Mississippi. In order to protect this species, the Northern Long-eared Bat final 4(d) rule was published in the Federal Registers in January of 2016.

In Mississippi, three recorded captures of the northern long-eared bat exist in Tishomingo, Sharkey, and Wilkinson Counties. Historically, Tripoli Chalk Mine near Iuka, Tishomingo County, Mississippi was used as a summer site for this species. However, the popularity of this mine has led to many human visitors and, as a result, has been heavily vandalized. At this time, none of these captured bats presented any signs of white-nose syndrome.

Alligator Snapping Turtle (*Macochelys temminckii*)

In November of 2021, the USFWS proposed the alligator snapping turtle to be included as a threatened species under the Endangered Species Act of 1973. These turtles are among the largest freshwater turtles in the southeastern United States. Sexual maturity of this species is 11-21 years for males and 13-21 years for females. The long maturation period makes this species vulnerable to overharvesting for use in the pet trade and food industries. Other threats include habitat degradation and by-catch mortality.

In Mississippi, the preferred habitat of these large freshwater turtles is deep, slow-moving waters of rivers, streams, lakes, and backwoods swamps. A recent survey (Pearson et al., 2023) studied the distribution patterns of the alligator snapping turtle in Mississippi. The results of this survey recorded the highest concentration of documented individuals in the Big Black River and lowest concentration in the Tombigbee River system. Currently, recreational harvest of this species continues in Mississippi. According to the Mississippi

Department of Wildlife, Fisheries, and Parks (MDWFP) regulations, one alligator snapping turtle with a minimum of a 24-inch carapace can be harvested per person per license year.

Ringed Map Turtle (*Graptemys oculifera*) and Pearl River Map Turtle (*Graptemys pearlensis*)

The ringed map turtle and Pearl River map turtle are endemic to the Pearl River watershed of Mississippi and Louisiana. Segments of the Pearl River with moderate to fast currents, basking logs, and sandbanks for nesting are optimal habitat for these turtles. Two known populations of the ringed map turtle have been reported along the Pearl River. One population inhabits the Upper Pearl River, just north of the Reservoir, while the other inhabits the Lower Pearl River near Lakeland Drive (US Highway 25). The Pearl River map turtle has been observed in various rivers within the Pearl River basin. The nesting season of the ringed map turtles occurs between mid-May to Mid-July, and the average clutch size is three eggs. The nesting season of the Pearl River map turtle occurs between April to August, and the average clutch size is six eggs.

The land around the lower reaches of the Pearl River have become developed and urbanized areas, which have impacted to both species of map turtles. The decline of water quality within their habitat is also a major threat to these turtles. Other impacts include modified habitat, dam construction, excess sedimentation, river channel erosion, and loss of basking or nesting habitat.

Gulf Sturgeon (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*)

The Gulf sturgeon is a subspecies of the Atlantic Sturgeon (*Acipenser oxyrinchus*). Adults are capable of reaching up to 200 pounds and eight feet long with some reports of individuals as large as 14 feet long. This species is anadromous, spending the fall and winter months in the saltwater environment of the Mississippi Sound and migrating into freshwater rivers in the spring and summer months to spawn. The temperature of the water stimulates the migration of this fish. The ideal spawning habitat of the Gulf sturgeon include areas with running water over cobble bars. Known spawning areas have been reported in the lower reaches of the Pearl and Pascagoula River systems.

The Gulf sturgeon was listed as a threatened species in 1991. The decline of this species can be attributed to multiple factors including overexploitation of the adults for the solicitation of caviar, blockage of migration routes, and deterioration of water quality in freshwater and brackish habitats. Within the Pearl River, three barriers limit the adults from reaching the upper reaches of the Pearl River. The Ross Barnett Reservoir's dam is a full obstruction to northern migration. The Pools Bluff sill and the Bogue Chitto sill are low-head dams, which make an impassable barrier in low water conditions. However, adults have been periodically reported north of these barriers. In the spring of 2021, an individual adult Gulf sturgeon was detected at LeFleur's Bluff State Park in Jackson,

approximately 10 river miles downstream of the study area. Before this record, the last confirmed Gulf sturgeon sighting within this area was in 1996.

Louisiana Pigtoe (*Pluerobema riddellii*)

The Louisiana Pigtoe is a medium-sized freshwater mussel. In March 2023, this species was proposed to be listed as threatened wherever found. In Mississippi, this mussel has been reported with the Pearl River system. The ideal habitat for this mussel species includes medium to large rivers and streams with constant flowing water, low contamination, stable sediments, access to appropriate fish hosts and high habitat connectivity. The decline of this species includes water quality degeneration, altered hydrology, fine sediment accumulation, habitat fragmentation, direct mortality, and invasive species.

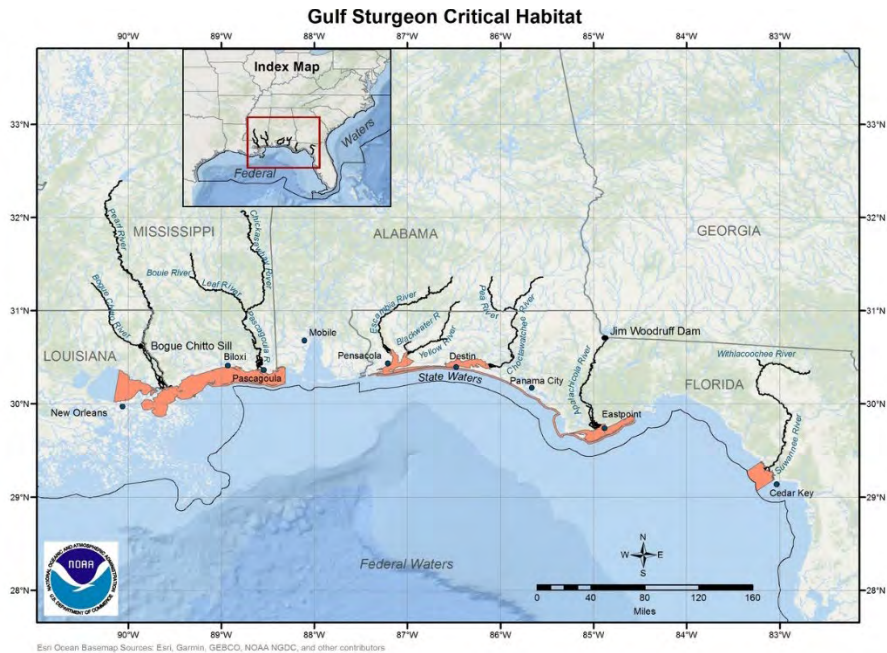
Monarch Butterfly (*Danaus plexippus*)

In 2020, the monarch butterfly was submitted as a candidate for listing under the Endangered Species Act. These butterflies are well known for their long-distance seasonal migrations, which spans the entire continent of North America. Adult butterflies lay their eggs on their obligate host plant, milkweed (genus *Asclepias*). In turn, this plant also serves as the only food source for the monarch caterpillar. Therefore, any reduction of milkweed populations along the migration route has a direct impact on the monarch butterfly populations.

Mississippi, especially the Gulf Coastal region, provides breeding habitat as well as stopping ground for those individual migrating to Mexico. Habitat loss and degradation is the main driver of the decline in monarch butterfly populations.

Critical Habitat Status

The USFWS and the National Marine Fisheries Service worked collectively to designate the spawning habitat of the Gulf sturgeon to be a critical habitat as this habitat is vital in the conservation of current and future generations of Gulf sturgeons. The Final Rule was published on March 19, 2003 and became effective on April 18, 2003. The Rule detailed fourteen (14) geographic areas with critical habitat for the Gulf sturgeon. Among these areas are the Gulf of Mexico Rivers, including the Pearl River.



(NOAA, 2022)

Existing Environment

The study area is situated within a freshwater forested wetland ecosystem within the Mississippi Valley Loess Plains ecoregion in Central Mississippi. The Pearl River is a major feature within the study area. Because the Ross Barnett Reservoir's dam is located directly north of the study area, water flow within the study area has been modified. Several ponds, lakes, and pools, both man-made and natural, are also present within the study area. Despite the level of human influence in the vicinity, the forested wetlands surrounding the river have remained largely natural. The riparian buffer was observed to reach to the banks of the Pearl River. The plant communities are dominated by sycamore (*Platanus occidentalis*), sweet gum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), bald cypress (*Taxodium distichum*), water hickory (*Carya aquatica*), overcup oak (*Quercus lyrata*), and Chinese tallow (*Triadica sebifera*).

Effects

Impacts Analysis of Northern Long-eared Bat

The Pearl River and surrounding wooded area have mature trees, which could be suitable summer habitat. However, no known roosting areas have been reported within this area. As a part of this assessment, the Northern Long-eared Bat Rangewide Determination Key was completed on the iPaC website. After inputting the project information, this key determined the proposed project would have "No Effect" for the Northern long-eared

bat. The consistency letter produced by this determination key is included as **Appendix D**.

Impact Analysis of Alligator Snapping Turtle

Isolated wetland habitat was recorded within the project area during the wetland delineation. These areas are considered suitable habitat for the alligator snapping turtle. However, these turtles are more likely found in and around the main stem of the Pearl River. The preferred alternative crosses the river approximately 350 feet downstream of the dam's gate. Therefore, due to the high velocity of water flow in that area, the presence of individuals is unlikely. A pond located west of the Pearl River would be the most suitable habitat for this turtle within the project area. This portion of the proposed roadway is designed to be bridged and run directly north of this pond. Therefore, the shape and size of the pond will not be impacted by the proposed project. Still some individuals within this area may be impacted during construction. However, these impacts would be temporary in nature and the long-term ability of the alligator snapping turtle to use this pond would not be impacted.

Impact Analysis to Ringed Map Turtle and Pearl River Map Turtle

The large metropolitan area of Jackson, Mississippi, has impacted the riverine habitat of the ringed and Pearl River map turtles. Potential impacts of the proposed project to these turtles include changes to the water column and water flow by the addition of a river crossing downstream of the existing dam. However, the bridge design addresses this concern by restricting bents to the banks of the Pearl River. Therefore, there should not be any long-term effects to stream flow due to the project. Construction disturbance may cause excess sedimentation downstream and water flow disruption, but this disturbance would be temporary in nature and would return to normal levels once construction is concluded. Bank erosion and sedimentation can also be reduced by implementing applicable Best Management Practices (BMPs) during construction.

Impact Analysis to Gulf Sturgeon

Individual Gulf sturgeons are unlikely to inhabit the study area, as the last documented individual caught within the study area was in the mid-1980s. The Pool Bluff sill and Bogue Chitto sill have created barriers for migration, but can be passed during times of high-water flow. In the spring of 2021, an individual adult Gulf sturgeon was detected at LeFleur's Bluff State Park in Jackson, approximately 10 river miles downstream of the study area. This is the closest documented individual to the study area in nearly 40 years. The main concern regarding the Gulf sturgeon would be modification of spawning habitat and decline of water quality. The substrate found within the study area was a mix of sand, silt, and clay with highly turbid water due to the mixing from the dam. Additionally, any

impacts to the water quality as a result of construction disturbance would be temporary and mitigated by the implementation of applicable erosion control BMPs.

Impact Analysis of the Louisiana Pigtoe

Historically, the Louisiana Pigtoe has been reported within the Pearl River, however, not within the proposed project's study area. The portion of the Pearl River within the study area has high sedimentation levels, which causes the substrate to be unstable. Like the other aquatic species discussed in the BA, the potential concerns impacting this mussel include changes to the water column and water flow by the addition of a river crossing downstream of the existing dam. However, the bridge design addresses this concern by restricting bents to the banks of the Pearl River. Therefore, there should not be any long-term effects to stream flow due to the project. Construction disturbance may cause excess sedimentation downstream and water flow disruption, but this disturbance would be temporary in nature and would return to normal levels once construction is concluded. Bank erosion and sedimentation can also be reduced by implementing applicable BMPs during construction.

Impact Analysis of Monarch Butterfly

Monarch butterflies were not observed within the project area. During the wetland delineation, milkweed was not reported within the wetland areas. However, it is likely milkweed grows within the study area since this species prefers moist, medium to wet clay soils. Therefore, monarch butterflies may use this area during the springs and summer months. Therefore, this project may impact individuals of this species. However, the proposed project should not impact the monarch butterfly population as a whole.

Analysis of Alternative Actions

A No Build Alternative is being studied in conjunction with the Build Alternative. The No Build Alternative would involve taking no action to address the concerns with the Dam. In this scenario, the facility would remain in its current configuration. Selection of the No Build Alternative would not meet the stated purpose and need, but would avoid both impacts to natural and social environments and major state and federal expenditure.

Conclusion and Determination of Effects

Based on the information presented in this BA, we have determined that if proper engineering and construction practices are followed, the proposed project "May affect, but is not likely to adversely affect" the threatened or endangered species (the Gulf sturgeon, the alligator snapping turtle, the ringed map turtle, the Pearl River map turtle, the Louisiana pigtoe and monarch butterfly) and critical habitat discussed in this BA. The design of the bridge crossing spanning from bank-to-bank with no bents being placed

within the channel of the Pearl River will minimize the impacts to the existing riverine habitat. Construction activities may cause increased sedimentation flowing downstream. However, this impact should be temporary and should not cause long-term impacts. The monitoring of the construction area and the implementation of BMPs should be maintained throughout construction. The addition of the proposed roadway will also not inhibit the monarch butterfly's ability to use the study area as feeding grounds and is not anticipated to affect the overall population of this species.

We have determined that this project "May affect, but is not likely to adversely affect" the critical habitat for the Gulf sturgeon. Within the Pearl River, the sediment underlying the study area is dominated by silt and clay. No spawning habitat for the sturgeon was observed during site visits. The construction of the proposed project should not impede the Gulf sturgeon's ability to inhabit this area or cause any long-term effects to the existing habitat.

Literature Cited

- Bemis, W.E. & B. Kynard. 1997. Sturgeon rivers: an introduction to acipenseriform biogeography and life history. *Environmental Biology of Fishes*, 48: 167-183.
- Brogdon, J.N. 2022. Characterizing Habitat Suitability for Gulf Sturgeon (*Acipenser oxyrinchus desotoi*) in Southern Louisiana. *LSU Master's Theses*. 5650.
- ECOS, U.S. Fish and Wildlife Service. 2022. "Alligator snapping turtle (*Macrochelys temminckii*)."
<https://ecos.fws.gov/ecp/species/4658>
- ECOS, U.S. Fish and Wildlife Service. 2022. "Gulf sturgeon (*Acipenser oxyrinchus (=oxrhynchus) desotoi*)."
<https://ecos.fws.gov/ecp/species/651>
- ECOS, U.S. Fish and Wildlife Service. 2023. "Louisiana Pigtoe (*Pleurobema riddelli*)."
<https://ecos.fws.gov/ecp/species/10233>
- ECOS, U.S. Fish and Wildlife Service. 2023. "Monarch butterfly (*Danaus plexippus*)."
<https://ecos.fws.gov/ecp/species/9743>
- ECOS, U.S. Fish and Wildlife Service. 2023. "Northern Long-Eared Bat (*Myotis septentrionalis*)."
<https://ecos.fws.gov/ecp/species/9045>
- ECOS, U.S. Fish and Wildlife Service. 2022. "Ringed map turtle (*Graptemys oculifera*)."
<https://ecos.fws.gov/ecp/species/2664>
- Ennen, J.R., J.E. Lovich, B.R. Kreiser, W. Selman, and C.P. Qualls. 2010. Genetic and Morphological Variation Between Populations of the Pascagoula Map Turtle (*Graptemys gibbonsi*) in the Pearl and Pascagoula Rivers with the Description of a New Species (*Graptemys pearlensis*). *Chelonian Conservation and Biology*, 9(1): 98-113.
- Fisheries, NOAA. "Gulf Sturgeon." NOAA, www.fisheries.noaa.gov/species/gulf-sturgeon.
- Jones, R.L. and W. Selman. 2009. *Graptemys oculifera* (Baur 1890) – Ringed Map Turtle, Ringed Sawback. *Chelonian Research Monographs*, 5(33): 1-8.
- Pearson, L., L. Haralson, G. Berry, G. Brown, and C. Qualls. 2023. Distribution Patterns and Factors Influencing Relative Abundance of the Alligator Snapping Turtle (*Macrochelys temminckii*) in Mississippi. *Southeastern Naturalist*, 22(12): 138-156.
- Rogillio, H.E., R.T. Ruth, E.H. Behrens, C.N. Doolittle, W.J. Granger, and J.P. Kirk. 2007. Gulf Sturgeon Movements in the Pearl River Drainage and the Mississippi Sound. *North American Journal of Fisheries Management*, 27:89-95.

Selman, W. and H. Smith. 2017. Diamonds in the Rough: Status of Two Imperiled Graptemys Species (*Graptemys oculifera* and *G. pearlensis*) in the Pearl River of Jackson, MS – Year 1.

Selman, W. and R.L. Jones. 2017. Population Structure, Status, and Conservation of Two Graptemys Species from the Pearl River, Mississippi. *Journal of Herpetology*, 51(1):27-36.

U.S. Fish and Wildlife Service. 2021. Species status assessment report for the Pearl River Map Turtle (*Graptemys pearlensis*), Version 1.1. April 2021. Atlanta, GA.

U.S. Fish and Wildlife Service. 2022. Species status assessment report for two freshwater mussels: Louisiana Pigtoe (*Pleurobema riddellii*) and Texas Heelsplitter (*Potamilus amphichaenus*). Version 1.2. February 2022. Arlington, Texas.

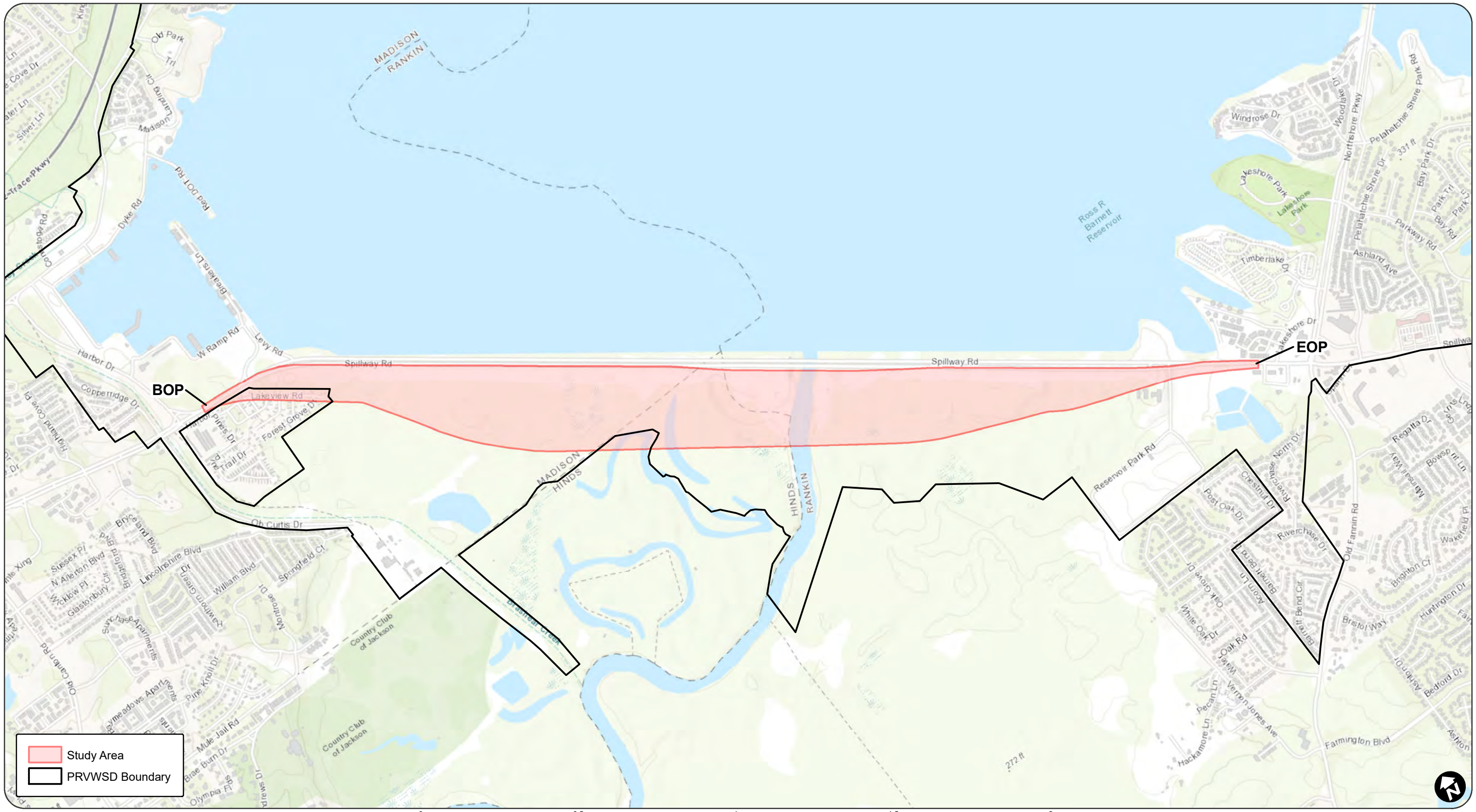
White-Nose Syndrome Response Team. 2022. “White-nose Syndrome Detected in Mississippi” <https://www.whitenosesyndrome.org/press-release/white-nose-syndrome-detected-in-mississippi-2>

List of Contributors

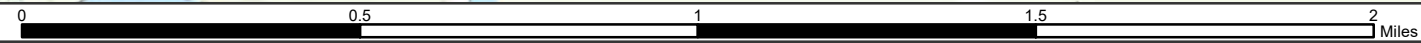
Lauren McWhorter
Wilson Harper

APPENDICES

APPENDIX A
SITE MAP



Study Area
 PRVWSD Boundary



SITE & VICINITY MAP

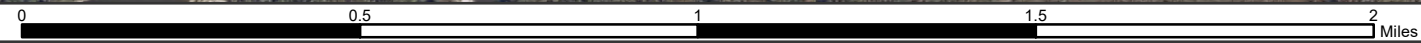
Bob Anthony Parkway Relocation Project
Hinds, Madison, and Rankin Counties, Mississippi



Pickering
 2001 Airport Road, Suite 201
 Flowood, Mississippi 39232
 601.956.3663



Study Area
 PRVWSD Boundary



SITE & VICINITY MAP

Bob Anthony Parkway Relocation Project
 Hinds, Madison, and Rankin Counties, Mississippi



Pickering
 2001 Airport Road, Suite 201
 Flowood, Mississippi 39232
 601.956.3663

APPENDIX B
IPAC Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900 Fax: (601) 965-4340

In Reply Refer To:
Project Code: 2024-0023440
Project Name: Bob Anthony Parkway Relocation Project

December 06, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. Please email consultation requests to MSFOSection7Consultation@fws.gov.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Mississippi Ecological Services Field Office

6578 Dogwood View Parkway, Suite A

Jackson, MS 39213-7856

(601) 965-4900

PROJECT SUMMARY

Project Code: 2024-0023440

Project Name: Bob Anthony Parkway Relocation Project

Project Type: Road/Hwy - New Construction

Project Description: The relocation of the Bob Anthony Parkway off the Ross Barnett Dam.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.39753075,-90.0672183674341,14z>



Counties: Hinds , Madison , and Rankin counties, Mississippi

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XSQSTFR43RCQVFPBTVMQUMYRM/documents/generated/7127.pdf	Endangered

REPTILES

NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XSQSTFR43RCQVFPBTVMQUMYRM/documents/generated/7127.pdf	Proposed Threatened
Ringed Map Turtle <i>Graptemys oculifera</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2664 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XSQSTFR43RCQVFPBTVMQUMYRM/documents/generated/7127.pdf	Threatened

FISHES

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> There is final critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/651 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XSQSTFR43RCQVFPBIVMQUMYRM/documents/generated/7127.pdf	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/XSQSTFR43RCQVFPBIVMQUMYRM/documents/generated/7127.pdf	Candidate

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Gulf Sturgeon <i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i> https://ecos.fws.gov/ecp/species/651#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Bald and Golden Eagle Protection Act](#) of 1940.

2. The [Migratory Birds Treaty Act](#) of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Bald Eagle
Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

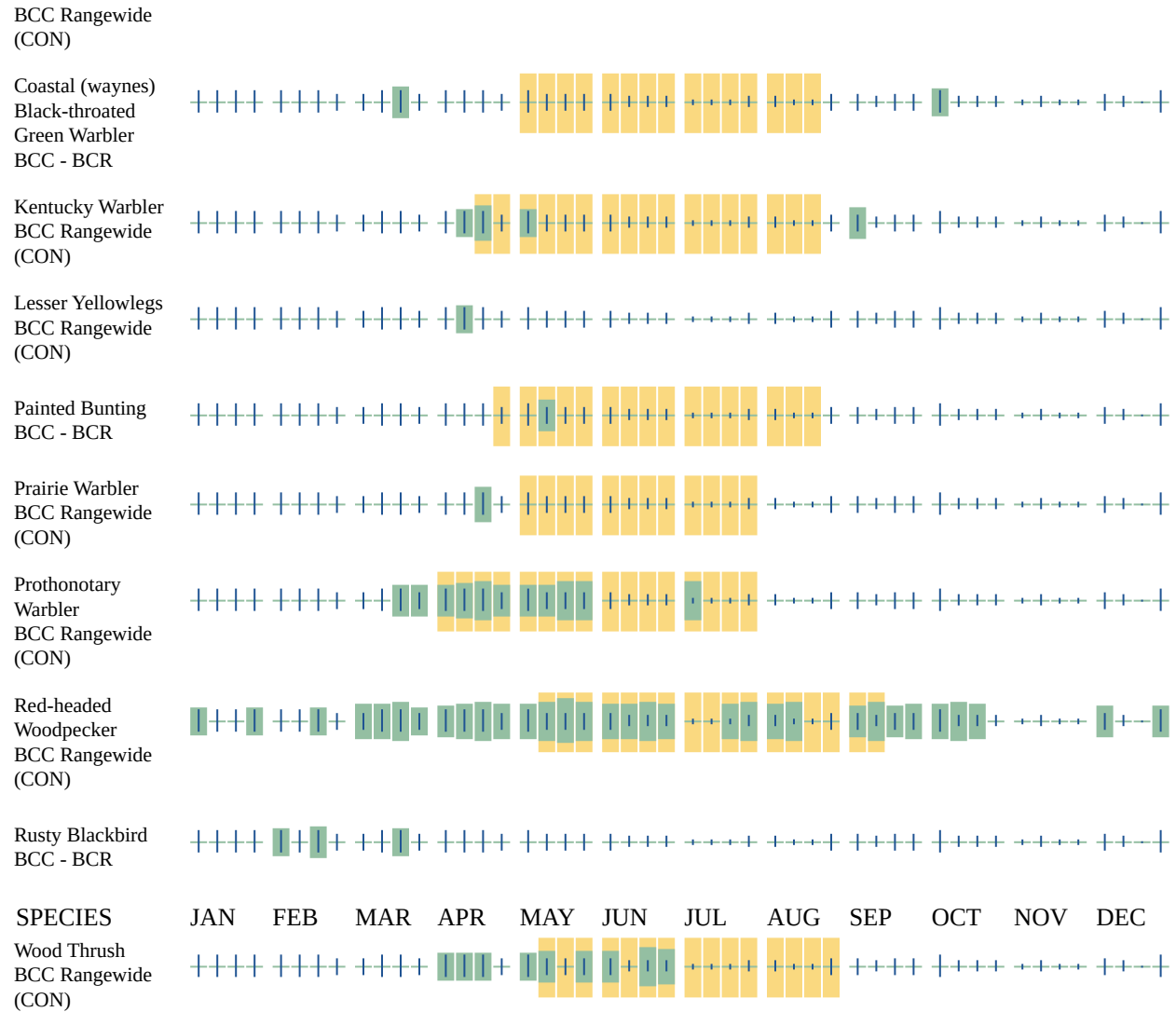
Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel <i>Falco sparverius paulus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
<p>Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427</p>	Breeds Mar 1 to Jul 15
<p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p>	Breeds Mar 15 to Aug 25
<p>Coastal (waynes) Black-throated Green Warbler <i>Setophaga virens waynei</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11879</p>	Breeds May 1 to Aug 15
<p>Kentucky Warbler <i>Oporornis formosus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443</p>	Breeds Apr 20 to Aug 20
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Painted Bunting <i>Passerina ciris</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9511</p>	Breeds Apr 25 to Aug 15
<p>Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513</p>	Breeds May 1 to Jul 31
<p>Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439</p>	Breeds Apr 1 to Jul 31
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398</p>	Breeds May 10 to Sep 10
<p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478</p>	Breeds elsewhere



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

IPAC USER CONTACT INFORMATION

Agency: Pickering Firm
Name: Lauren McWhorter
Address: 2001 Airport Road, Suite 201
City: Flowood
State: MS
Zip: 39232
Email: lmcwhorter@pickeringfirm.com
Phone: 6019563663

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

APPENDIX C
USFWS Consultation Letters



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340

March 23, 2020

IN REPLY REFER TO:
2020-I-460

Ms. Lauren McWhorter
Pickering Firm, Inc.
2001 Airport Rd., Suite 201
Flowood, Mississippi 39232

Dear Ms. McWhorter:

The Fish and Wildlife Service (Service) has reviewed the information in your correspondence dated February 27, 2020, regarding Bob Anthony Parkway Relocation Project, in Hinds, Madison, and Rankin Counties, 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.).

According to the letter you submitted, the proposed project would construct a four-lane raised roadway across the Pearl River parallel to the existing road and downstream of the Ross Barnett Reservoir. The proposed project is within the range of the species identified by IPAC; the threatened northern long-eared bat (*Myotis septentrionalis*), the threatened Gulf sturgeon (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) and its designated critical habitat, the threatened ringed map turtle (*Graptemys oculifera*), and the threatened wood stork (*Mycteria americana*). Take of northern long-eared bats is exempt from ESA prohibitions under certain conditions; see additional species information below for instructions to complete consultation for this species. The Service will be making a 12-month finding on a petition to list the Pearl River map turtle (*Graptemys pearlensis*) under the ESA in early 2021; a species whose range is within the proposed project area. If listing is warranted, we intend to proceed with a concurrent proposed listing rule and proposed critical habitat designation. If construction of the proposed project is not completed by then, additional coordination with our office will be needed. Due to the scope and location of the proposed project, we recommend the applicant or their federally designated representative prepare a biological assessment to determine if the proposed project will affect the wood stork, ringed map turtle, and Gulf sturgeon and its critical habitat. You can refer to this online template (<https://www.fws.gov/endangered/esa-library/pdf/Attachment-4.pdf>) for preparing the biological assessment. Please note there is a great deal of flexibility for biological assessments, and the template is not a requirement. This website contains some additional

helpful information https://www.fws.gov/midwest/endangered/section7/ba_guide.html. Please reach out if you have any questions.

The area where the proposed roadway will be constructed may impact an area that provides an excellent opportunity for recreational fisheries. The Service identifies recreational fishing as an essential mechanism for connecting people with nature, which ultimately helps our agency's conservation mission. We request to be a participating agency (as defined in 23 U.S.C. 139(d)) throughout the planning process as it pertains to maintaining and developing future recreational opportunities on the Pearl River.

Northern Long-eared Bat

The northern long-eared bat (*Myotis septentrionalis*) (NLEB) was listed as threatened on May 4th, 2015. A final 4(d) rule was published in 2016 exempting incidental take of otherwise legal actions related to tree clearing, except when tree removal occurs within a hibernacula site or when tree removal activities: 1) occur within a quarter-mile of a known hibernacula; or 2) cut or destroy known occupied maternity roost trees, or any other trees within 150 feet of that maternity roost tree during the pup-rearing season (June 1–July 31). Currently, there are no known maternity roost trees in the state of Mississippi and one known hibernaculum located in Tishomingo County near Pickwick Lake.

Any project requiring tree clearing “may affect” the NLEB. We encourage the lead federal agency or its designated non-federal representative to rely upon the findings of the 2016 programmatic biological opinion for the final 4(d) rule to fulfill their project-specific Section 7 responsibilities. To evaluate the impacts of the proposed project on NLEB you may submit this project online using the Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>). Here you will be able to navigate the NLEB determination key and receive an automated verification letter for your records. If this is a non-federal activity, then incidental take from tree removal is not prohibited and no permits or further coordination is required with the Service.

Gulf Sturgeon

The threatened Atlantic sturgeon, Gulf subspecies (*Acipenser oxyrinchus (=oxyrhynchus) desotoi*) is found in the coastal rivers of the northeastern Gulf of Mexico generally from Lake Pontchartrain in Louisiana to the Suwanee River in Florida. Critical habitat has been designated for the species in Mississippi to include portions of the Bogue Chitto, Bouie, Chickasawhay, Leaf, Pascagoula and Pearl Rivers and the Gulf of Mexico. Gulf sturgeons are primitive, anadromous fish that annually migrate from the Gulf of Mexico into freshwater streams to spawn. Subadults and adults spend eight to nine months each year in rivers. Adult and subadult holding areas have been identified in the Pascagoula River. The decline of the Gulf sturgeon is primarily due to limited access to riverine migration routes and historic spawning areas, habitat modification, and water quality degradation.

Ringed Map Turtle


The threatened ringed map turtle (*Graptemys oculifera*) is found in the Pearl River. It prefers river stretches with moderate currents, abundant basking sites, and sand bars for nesting. Stream modification in the Pearl River for flood control and urban development has significantly contributed to the decline of the species. Threats to this species include removing forested habitat along the river banks (source of the deadwood used for basking) and/or removing instream deadwood used for basking and foraging (commonly referred to as desnagging). Water quality degradation has also posed a serious problem for the turtle.

Wood Stork

Wood storks (*Mycteria americana*) are large, long-legged wading birds, about 50 inches tall, with a wingspan of 60-65 inches. The plumage is white except for black primaries and secondaries and a short black tail. The head and neck are largely unfeathered and dark gray in color. Two distinct populations of wood storks occur in the United States. One population breeds in Florida, Georgia, and South Carolina, and is federally protected (threatened). The other population breeds from Mexico to northern Argentina and is not federally protected. Wood storks from each of these populations occur seasonally in Mississippi during the non-breeding season (May-October) and are not distinguishable from one another. The major threat to this species is a reduction in food base (primarily small fish) due to habitat loss, modification, and fragmentation. Typical foraging sites include freshwater marshes, swales, ponds, hardwood and cypress swamps, narrow tidal creeks or shallow tidal pools, and artificial wetlands (such as stock ponds; shallow, seasonally flooded roadside or agricultural ditches; and impoundments).

If you have any questions, please contact Amy Carson in our office, telephone: (601) 321-1130, or visit our website at <http://www.fws.gov/mississippiES/>.

Sincerely,


Stephen M. Ricks
Field Supervisor
Mississippi Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340

December 14, 2023

IN REPLY REFER TO:
2024-0026861

Ms. Lauren McWhorter
Pickering Firm, Inc.
2001 Airport Road, Suite 201
Flowood, MS 39232

Dear Ms. McWhorter:

The Fish and Wildlife Service (Service) has received your correspondence dated December 6, 2023, regarding the proposed relocation of the Bob Anthony Parkway in Rankin and Madison Counties, Mississippi. A consultation response letter for this project was initially signed on March 23, 2020. Due to the amount of time that has passed, this consultation response letter will provide an updated opinion from the Service. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The proposed project is within the range of the federally listed gulf sturgeon (*Acipenser oxyrinchus desotoi*), ringed map turtle (*Graptemys oculifera*), northern long-eared bat (*Myotis septentrionalis*), and Louisiana pigtoe (*Pluerobema riddellii*) (proposed threatened).

Precautions should be taken to prevent erosion and sedimentation into the Pearl River to minimize impacts to the gulf sturgeon, ringed map turtle and Louisiana pigtoe. Removal of vegetation often results in erosion of sediments which may be transported via rainwater runoff and deposited into surrounding waterways. Sedimentation poses a threat to aquatic ecosystems by altering available substrates and habitats for aquatic organisms. Debris should be removed that enters the river channel and attempts should be made to work from shore. The Service recommends following best management practices for erosion control: <https://www.fws.gov/project/recommended-best-management-practices-mining-operations-alabama>.

The proposed project falls within the range of the federally listed northern long-eared bat (*Myotis septentrionalis*) (NLEB) with suitable habitat present. The NLEB was reclassified as endangered on November 30, 2022, and the Final Rule went into effect on March 31, 2023. Projects implemented between March 31, 2023, and April 1, 2024, will fall under the interim guidance framework developed by the Service. For additional information on the interim guidance framework and tools available to stakeholders, please visit the NLEB website at: <https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>

To evaluate the impacts of future proposed projects on the NLEB, you may submit this project online using the IPaC Website. Here you will be able to navigate the interim NLEB effects determination key and receive an automated verification letter for your records.

As a best management practice, the Service recommends that any tree removal activities that occur for the proposed project take place in the non-maternity season (which is September 1 – May 14) to minimize impacts to the NLEB.

The project area is a high use area for wading birds, gulls, waterfowl, and neotropical migrants. Alternative B avoids the major rookery habitats that are further down-stream, so this alternative would be preferred from a bird standpoint. To avoid impacts under the Migratory Bird Treaty Act, the Service recommends that all tree clearing occur during the non-breeding season (which is Sept. 1 – May 15). Canada geese have been found nesting in the rip/rap and grassy areas around the spillway parking area, so nesting sites will need to be avoided. Bald eagles use this area as well, so surveys for eagle nests should be conducted and our office contacted if any are observed.

If you have any questions, please contact Alison McCartney in our office at: (601) 455-8780, or via email: alison_mccartney@fws.gov or visit our website at <http://www.fws.gov/mississippiES/>.

Sincerely,
JAMES
AUSTIN

Digitally signed by
JAMES AUSTIN
Date: 2023.12.19
11:09:22 -06'00'

James Austin
Field Supervisor
Mississippi Field Office



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
Phone: (601)965-4900 Fax: (601)965-4340

January 16, 2024

IN REPLY REFER TO:
2024-0026861

Ms. Lauren McWhorter
Pickering Firm, Inc.
2001 Airport Road, Suite 201
Flowood, MS 39232

Dear Ms. McWhorter:

The Fish and Wildlife Service (Service) has received your correspondence dated January 15, 2024, agreeing to implement the recommendations that we provided in the Services' consultation response letter dated December 16, 2023, to minimize impacts to federally listed species for the relocation of the Bob Anthony Parkway Project in Rankin and Madison Counties, Mississippi. Our comments are provided in accordance with the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Recommendations include following best management practices for erosion control as outlined at the link below to minimize impacts to the gulf sturgeon, ringed map turtle and Louisiana pigtoe.: <https://www.fws.gov/project/recommended-best-management-practices-mining-operations-alabama>.

It is also recommended that debris be removed that may enter the river channel and attempts should be made to work from shore.

As a best management practice, the Service recommends that any tree removal activities that occur for the proposed project take place in the non-maternity/non-breeding season (which is September 1 – May 14) to minimize impacts to the northern long-eared bat and migratory birds. Nesting sites for Canada geese should be avoided and surveys for eagle nests should be conducted with our office contacted if any are observed.

Due to your commitment to implement these recommendations, the Service concurs with your determination that the proposed project may affect, but is not likely to adversely affect federally listed species.

If you have any questions, please contact Alison McCartney in our office at: (601) 455-8780, or via email: alison_mccartney@fws.gov or visit our website at <http://www.fws.gov/mississippiES/>.

Sincerely,
JAMES
AUSTIN

Digitally signed by JAMES
AUSTIN
Date: 2024.01.22 10:34:22
-06'00'

James Austin
Field Supervisor
Mississippi Field Office

APPENDIX D
Photography Log



A view of the Ross Barnett Reservoir Dam north of the study area.



A view of the Pearl River downstream of the Ross Barnett Reservoir Dam.



The sediment within this part of the Pearl River is sandy silt with patches of clay throughout.



In addition to the main stem of the Pearl River, several permanent and ephemeral pools and creeks are found throughout the study area.



A view of a wetland habitat within the study area.



A view of an upland habitat along the banks of the Pearl River.

APPENDIX E
Northern Long-eared Bat Rangewide Determination Key
Consistency Letter



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900 Fax: (601) 965-4340

In Reply Refer To:
Project code: 2024-0023440
Project Name: Bob Anthony Parkway Relocation Project

December 06, 2023

Federal Nexus: yes
Federal Action Agency (if applicable): Federal Highway Administration

Subject: Record of project representative's no effect determination for 'Bob Anthony Parkway Relocation Project'

Dear Lauren McWhorter:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on December 06, 2023, for 'Bob Anthony Parkway Relocation Project' (here forward, Project). This project has been assigned Project Code 2024-0023440 and all future correspondence should clearly reference this number. **Please carefully review this letter.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.***

Determination for the Northern Long-Eared Bat

Based upon your IPaC submission and a standing analysis, your project has reached the determination of "No Effect" on the northern long-eared bat. To make a no effect determination, the full scope of the proposed project implementation (action) should not have any effects (either positive or negative), to a federally listed species or designated critical habitat. Effects of the action are all consequences to listed species or critical habitat that are caused by the proposed

action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (See § 402.17).

Under Section 7 of the ESA, if a federal action agency makes a no effect determination, no consultation with the Service is required (ESA §7). If a proposed Federal action may affect a listed species or designated critical habitat, formal consultation is required except when the Service concurs, in writing, that a proposed action "is not likely to adversely affect" listed species or designated critical habitat [50 CFR §402.02, 50 CFR§402.13].

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened
- Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Ringed Map Turtle *Graptemys oculifera* Threatened

Critical Habitats:

- Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi* Threatened

You may coordinate with our Office to determine whether the Action may affect the animal species listed above and, if so, how they may be affected.

Next Steps

Based upon your IPaC submission, your project has reached the determination of “No Effect” on the northern long-eared bat. If there are no updates on listed species, no further consultation/coordination for this project is required with respect to the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place to ensure compliance with the Act.

If you have any questions regarding this letter or need further assistance, please contact the Mississippi Ecological Services Field Office and reference Project Code 2024-0023440 associated with this Project.

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Bob Anthony Parkway Relocation Project

2. Description

The following description was provided for the project 'Bob Anthony Parkway Relocation Project':

The relocation of the Bob Anthony Parkway off the Ross Barnett Dam.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.39753075,-90.0672183674341,14z>



DETERMINATION KEY RESULT

Based on the information you provided, you have determined that the Proposed Action will have no effect on the Endangered northern long-eared bat (*Myotis septentrionalis*). Therefore, no consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required for those species.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. The action area does not overlap with an area for which U.S. Fish and Wildlife Service currently has data to support the presumption that the northern long-eared bat is present. Are you aware of other data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed NLEB acoustic detections. Data on captures, roost tree use, and acoustic detections should post-date the year when white-nose syndrome was detected in the relevant state. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

Note: For federal actions, answer 'yes' if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

Yes

6. FHWA, FRA, and FTA have completed a range-wide programmatic consultation for transportation- related actions within the range of the Indiana bat and northern long-eared bat.

Does your proposed action fall within the scope of this programmatic consultation?

Note: If you have **previously consulted** on your proposed action with the Service under the NLEB 4dRule, answer 'no' to this question and proceed with using this key. If you have **not yet consulted** with the Service on your proposed action and are unsure whether your proposed action falls within the scope of the FHWA, FRA, FTA range-wide programmatic consultation, please select "Yes" and use the FHWA, FRA, FTA Assisted Determination Key in IPaC to determine if the programmatic consultation is applicable to your action. Return to this key and answer 'no' to this question if it is not.

No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

10. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

Note: Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

PROJECT QUESTIONNAIRE

Will all project activities be completed by April 1, 2024?

No

IPAC USER CONTACT INFORMATION

Agency: Pickering Firm
Name: Lauren McWhorter
Address: 2001 Airport Road, Suite 201
City: Flowood
State: MS
Zip: 39232
Email: lmcwhorter@pickeringfirm.com
Phone: 6019563663

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

APPENDIX J
MS-SHPO LETTER

May 24, 2023

Mr. Adam Johnson
MDOT, Environmental Division
Post Office Box 1850
Jackson, Mississippi 39125-1850

RE: Additional Information for the Cultural Resources Survey for the Bob Anthony Parkway Relocation, (MDOT) MDAH Project Log #05-105-23 (04-124-23), Hinds, Madison and Rankin Counties

Dear Mr. Johnson:

We have reviewed the March, 2023, cultural resources survey by C. Andrew Buchner, Principal Investigator, received on May 16, 2023, 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 sites 22Md770-771, 22Md775 and 22Ra672-673 are ineligible for listing in the National Register of Historic Places. We concur that the NRHP eligibility status of site 22Md772 is unknown. We concur that the site 22Md680 mound complex is eligible for listing in the NRHP. We also concur that the structures within the Harbor Pines Mobile Home Community are not eligible for listing and the Harbor Pines Mobile Home Community is not eligible for listing as a historic district. It is our determination that the project would have No Adverse Effect to any resources and no resources eligible for listing in the NRHP are likely to be affected. As such, we have no reservations with the undertaking.

There remains the possibility that unrecorded cultural resources may be encountered in or adjacent to this surveyed area. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments

Please provide a copy of this letter to Mr. Buchner. If you need further information, please contact us at (601) 576-6940.

Sincerely,



Hal Bell
Review and Compliance Officer

FOR: Katie Blount
State Historic Preservation Officer

Brad White
Executive Director

P. O. Box 1850
Jackson, MS 39215-1850
Telephone (601) 359-7249
FAX (601) 359-7050
GoMDOT.com



Brian D. Ratliff
Deputy Executive Director/Chief Engineer
Lisa M. Hancock
Deputy Executive Director/Administration
Charles R. Carr
Director, Office of Intermodal Planning

April 19, 2023

Mr. Hal Bell
Review and Compliance Officer
Mississippi Department of Archives and History
P.O. Box 571
Jackson, Mississippi 39205-0571

Re: Cultural Resources Survey for the Bob Anthony Parkway Relocation,
MDOT Project No. FBLD-6945-00(013)/108635-799000,
Hinds, Madison, and Rankin Counties.

Dear Mr. Bell:

Attached is a copy of the March 2023 cultural resources survey report of the area of potential effect for the above referenced undertaking prepared by Commonwealth Heritage Group archaeologists. The proposed Pear River Valley Water Supply District project would provide for the relocation of the Bob Anthony Parkway (Spillway Road) just south of its present location at the Ross Barnett Reservoir in Hinds, Madison, and Rankin Counties. Archaeological Site 22Md680 mound complex is considered eligible for the NRHP under criterion D. The APE has been shifted to the north to avoid impacting the site. Based on this investigation it is our conclusion that no listed or eligible National Register of Historic Places properties are within the area of potential effect. I request your concurrence with our determination and look forward to your written response.

Federal regulations require previously undetected cultural resources discovered during construction be evaluated by Environmental Division personnel and appropriate mitigation, if required, be conducted prior to proceeding with any part of the project which would have an effect upon the resources.

Sincerely,

Adam Johnson
Environmental Division Director

for
//

Attachment

APPENDIX K
EDR RADIUS MAP REPORT

PRVWSD - Bob Anthony Parkway
Spillway Road
Brandon, MS 39047

Inquiry Number: 5975203.7s
February 19, 2020

EDR Area / Corridor Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

SUBJECT PROPERTY INFORMATION

ADDRESS

SPILLWAY ROAD
BRANDON, MS 39047

TARGET PROPERTY SEARCH RESULTS

The Target Property was identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

A review of the LUST list, as provided by EDR, and dated 09/23/2019 has revealed that there is 1 LUST site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<i>MINI MART</i> Status Code: Closed Facility Status: Active Facility Id: 10005	<i>1075 LAKE HARBOUR DR</i>	<i>A3 / 2</i>	<i>26</i>

State and tribal registered storage tank lists

UST: Underground Storage Tanks

A review of the UST list, as provided by EDR, and dated 09/23/2019 has revealed that there is 1 UST site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<i>MINI MART</i> Tank Status: Currently In Use Facility Status: Active	<i>1075 LAKE HARBOUR DR</i>	<i>A3 / 2</i>	<i>26</i>

EXECUTIVE SUMMARY

Facility Id: 10005

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

FINDS: Facility Index System/Facility Registry System

A review of the FINDS list, as provided by EDR, and dated 08/12/2019 has revealed that there are 6 FINDS sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
W L BURLE ENGINEERS Registry ID: 110041959734	1075 LAKE HARBOUR DR	A7 / 2	31
RAPIDS WATER PARK Registry ID: 110044444394	1808 SPILLWAY ROAD	B8 / 9	31
RAPIDS ON THE RESERV Registry ID: 110044646023	1808 SPILLWAY ROAD	B10 / 9	32
OLD PENN S RESTAURAN Registry ID: 110044736916	101 VILLAGE SQUARE C	11 / 9	32
BANKPLUS Registry ID: 110044719800	1841 SPILLWAY ROAD	12 / 9	33
<i>MID SOUTH REFINERY A</i> Registry ID: 110003997952	<i>310 OLD FANNIN ROAD</i>	<i>13 / 9</i>	<i>33</i>

ECHO: Enforcement & Compliance History Information

A review of the ECHO list, as provided by EDR, and dated 10/06/2019 has revealed that there is 1 ECHO site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<i>MID SOUTH REFINERY A</i> Registry ID: 110003997952	<i>310 OLD FANNIN ROAD</i>	<i>13 / 9</i>	<i>33</i>

ASBESTOS: Asbestos Project Listing

A review of the ASBESTOS list, as provided by EDR, and dated 10/11/2019 has revealed that there is 1 ASBESTOS site within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
RAPIDS ON THE RESERV AI ID: 37052	1808 SPILLWAY ROAD	B9 / 9	32

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

A review of the RGA LUST list, as provided by EDR, has revealed that there are 5 RGA LUST sites within the requested target property.

<u>Site</u>	<u>Address</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
DYNAMIC MINUTE MART Facility ID: 10005	1075 LAKE HARBOR DRI	A1 / 2	26
ZNP INC DBA MINI MAR Facility ID: 10005	1075 LAKE HARBOUR DR	A2 / 2	26
ONE STOP MINI MART Facility ID: 10005	1075 LAKE HARBOUR DR	A4 / 2	30
DYNAMIC MINUTE MART Facility ID: 10005	1075 LAKE HARBOR DRI	A5 / 2	30
MINI MART Facility ID: 10005	1075 LAKE HARBOUR DR	A6 / 2	31

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Page Numbers and Map Identifications refer to the EDR Area/Corridor Report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

A review of the LUST list, as provided by EDR, and dated 09/23/2019 has revealed that there are 2 LUST sites within approximately 0.5 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
<i>SPILLWAY CHEVRON</i> Status Code: Closed Facility Status: Active Facility Id: 10341	<i>1861 SPILLWAY ROAD</i>	<i>ESE 0 - 1/8 (0.052 mi.)</i>	<i>C15 / 9</i>	<i>34</i>
<i>POLK'S DRUGS-SPILLWA</i> Status Code: Closed	<i>1866 SPILLWAY ROAD</i>	<i>SE 0 - 1/8 (0.106 mi.)</i>	<i>D16 / 9</i>	<i>39</i>

EXECUTIVE SUMMARY

Facility Status: Active
Facility Id: 5084

State and tribal registered storage tank lists

UST: Underground Storage Tanks

A review of the UST list, as provided by EDR, and dated 09/23/2019 has revealed that there are 5 UST sites within approximately 0.25 miles of the requested target property.

<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
SPILLWAY CHEVRON Tank Status: Permanently Out of Use Tank Status: Currently In Use Facility Status: Active Facility Id: 10341	1861 SPILLWAY ROAD	ESE 0 - 1/8 (0.052 mi.)	C15 / 9	34
POLK'S DRUGS-SPILLWA Tank Status: Permanently Out of Use Tank Status: Currently In Use Facility Status: Active Facility Id: 5084	1866 SPILLWAY ROAD	SE 0 - 1/8 (0.106 mi.)	D16 / 9	39
OLD FANNIN SHELL Tank Status: Currently In Use Facility Status: Active Facility Id: 13152	1126 OLD FANNIN ROAD	SSW 0 - 1/8 (0.118 mi.)	18 / 9	42
MAIN HARBOR MARINA Tank Status: Permanently Out of Use Facility Status: Inactive Facility Id: 10730	HARBOR DRIVE	SW 1/8 - 1/4 (0.174 mi.)	19 / 2	44
BST NORTH RANKIN CEN Tank Status: Permanently Out of Use Facility Status: Inactive Facility Id: 9261	200 SPILLWAY ROAD	ESE 1/8 - 1/4 (0.211 mi.)	20 / 6	45

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR Exclusive Historical Auto Stations

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the requested target property.

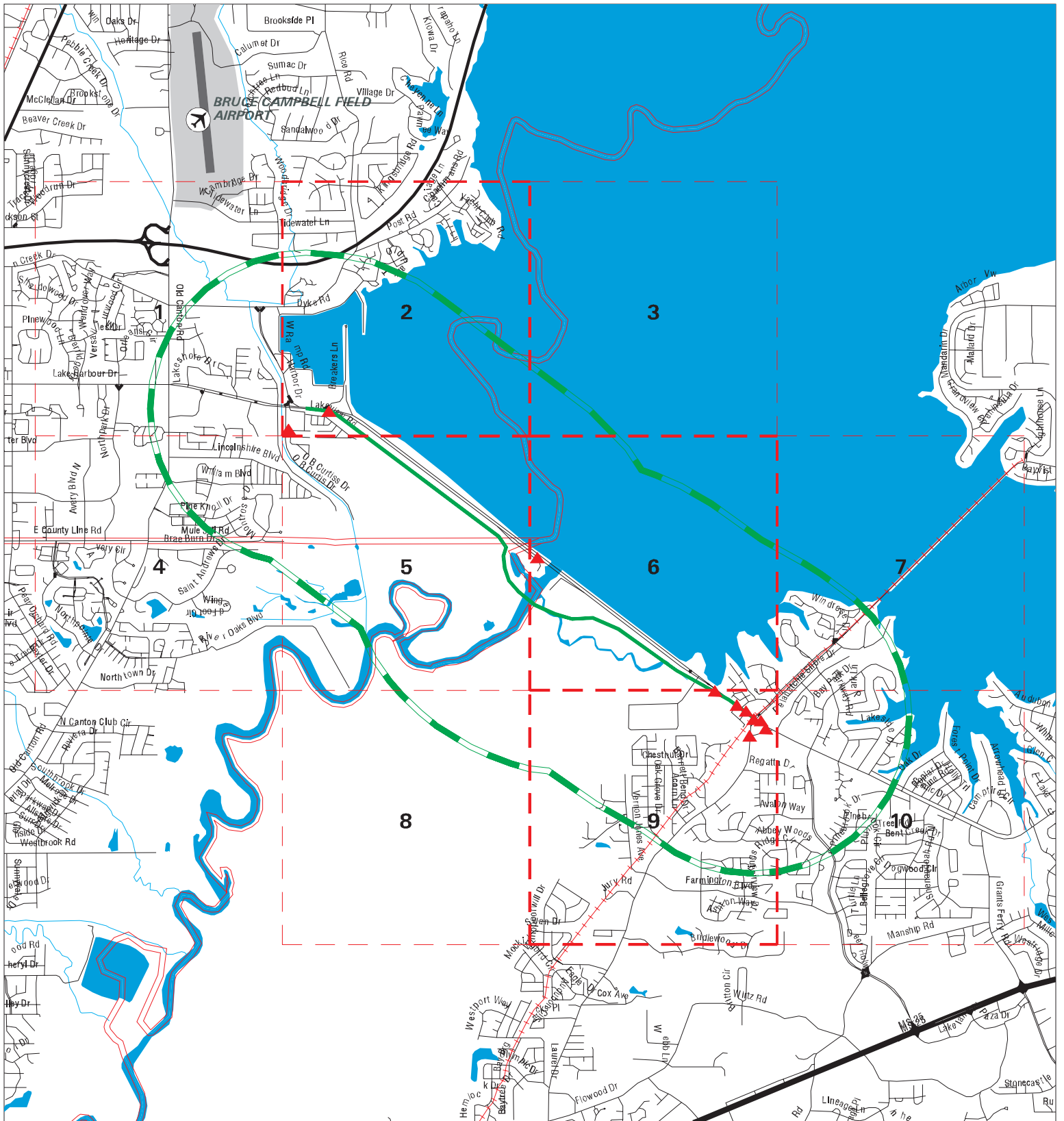
<u>Site</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID / Focus Map(s)</u>	<u>Page</u>
CHEVRON GAS STATIONS	1861 SPILLWAY RD	ESE 0 - 1/8 (0.052 mi.)	C14 / 9	34
POLKS CRSSGTES DISC	1866 SPILLWAY RD	SE 0 - 1/8 (0.106 mi.)	D17 / 9	42

MAPPED SITES SUMMARY

Target Property:
 SPILLWAY ROAD
 BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 2	DYNAMIC MINUTE MART	1075 LAKE HARBOR DRI	RGA LUST	TP
A2 / 2	ZNP INC DBA MINI MAR	1075 LAKE HARBOUR DR	RGA LUST	TP
A3 / 2	MINI MART	1075 LAKE HARBOUR DR	LUST, UST	TP
A4 / 2	ONE STOP MINI MART	1075 LAKE HARBOUR DR	RGA LUST	TP
A5 / 2	DYNAMIC MINUTE MART	1075 LAKE HARBOR DRI	RGA LUST	TP
A6 / 2	MINI MART	1075 LAKE HARBOUR DR	RGA LUST	TP
A7 / 2	W L BURLE ENGINEERS	1075 LAKE HARBOUR DR	FINDS	TP
B8 / 9	RAPIDS WATER PARK	1808 SPILLWAY ROAD	FINDS	TP
B9 / 9	RAPIDS ON THE RESERV	1808 SPILLWAY ROAD	ASBESTOS	TP
B10 / 9	RAPIDS ON THE RESERV	1808 SPILLWAY ROAD	FINDS	TP
11 / 9	OLD PENN S RESTAURAN	101 VILLAGE SQUARE C	FINDS	TP
12 / 9	BANKPLUS	1841 SPILLWAY ROAD	FINDS	TP
13 / 9	MID SOUTH REFINERY A	310 OLD FANNIN ROAD	FINDS, ECHO	TP
C14 / 9	CHEVRON GAS STATIONS	1861 SPILLWAY RD	EDR Hist Auto	274 0.052 ESE
C15 / 9	SPILLWAY CHEVRON	1861 SPILLWAY ROAD	LUST, UST	274 0.052 ESE
D16 / 9	POLK'S DRUGS-SPILLWA	1866 SPILLWAY ROAD	LUST, UST	562 0.106 SE
D17 / 9	POLKS CRSSGTES DISC	1866 SPILLWAY RD	EDR Hist Auto	562 0.106 SE
18 / 9	OLD FANNIN SHELL	1126 OLD FANNIN ROAD	UST	623 0.118 SSW
19 / 2	MAIN HARBOR MARINA	HARBOR DRIVE	UST	917 0.174 SW
20 / 6	BST NORTH RANKIN CEN	200 SPILLWAY ROAD	UST	1116 0.211 ESE

Key Map - 5975203.7s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- Focus Map - Sites
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

4:07 PM

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>STANDARD ENVIRONMENTAL RECORDS</u>								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
DEBRIS	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500	1	2	0	0	NR	NR	3
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250	1	3	2	NR	NR	NR	6
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<u>ADDITIONAL ENVIRONMENTAL RECORDS</u>								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
SWRCY	0.500		0	0	0	NR	NR	0
SWTIRE	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	6	NR	NR	NR	NR	NR	6
ECHO	TP	1	NR	NR	NR	NR	NR	1
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP	1	NR	NR	NR	NR	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PERMITS	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
RGA LUST	TP	5	NR	NR	NR	NR	NR	5
- Totals --		15	7	2	0	0	0	24

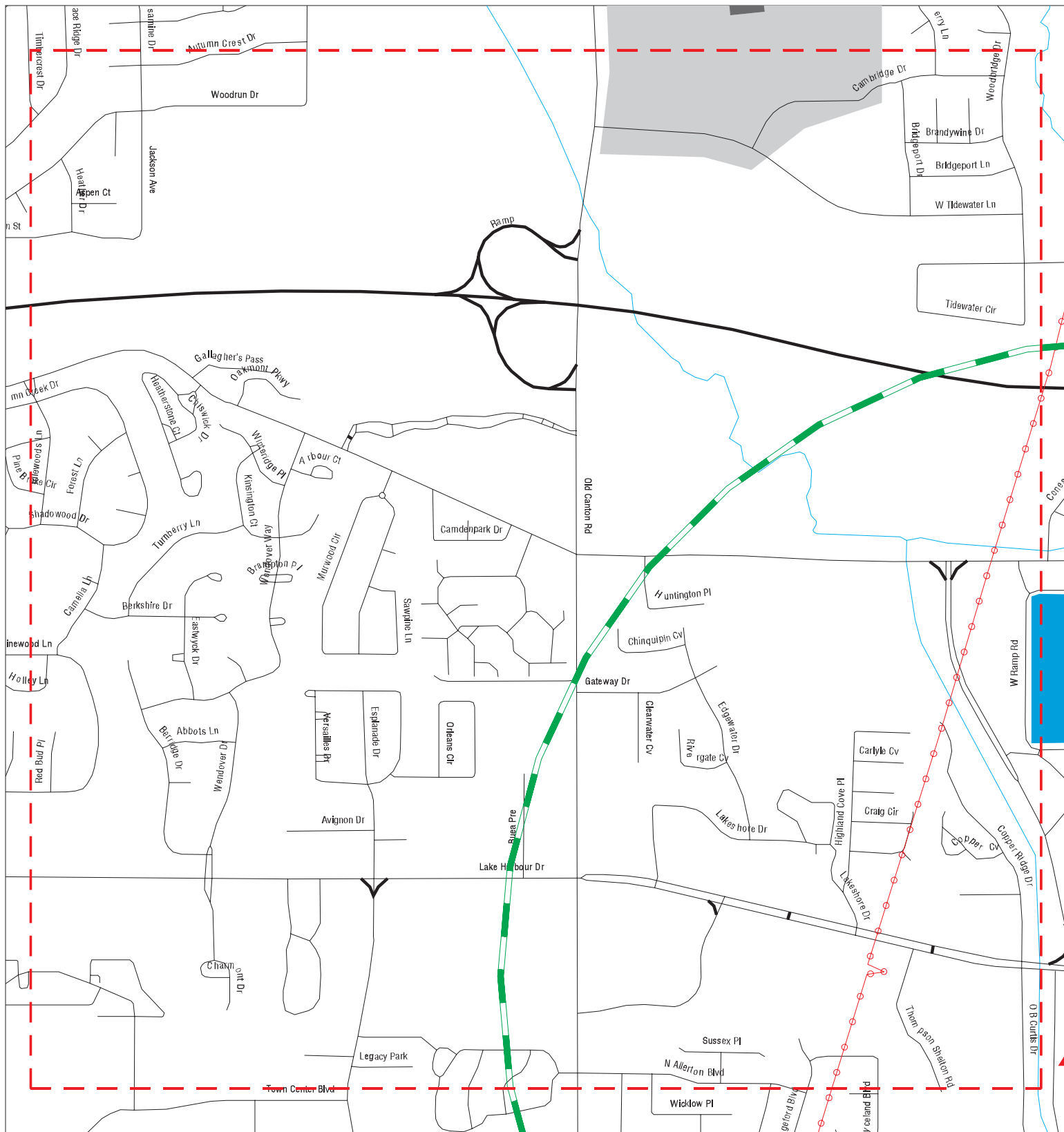
NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Focus Map - 1 - 5975203.7s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ⚡ Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

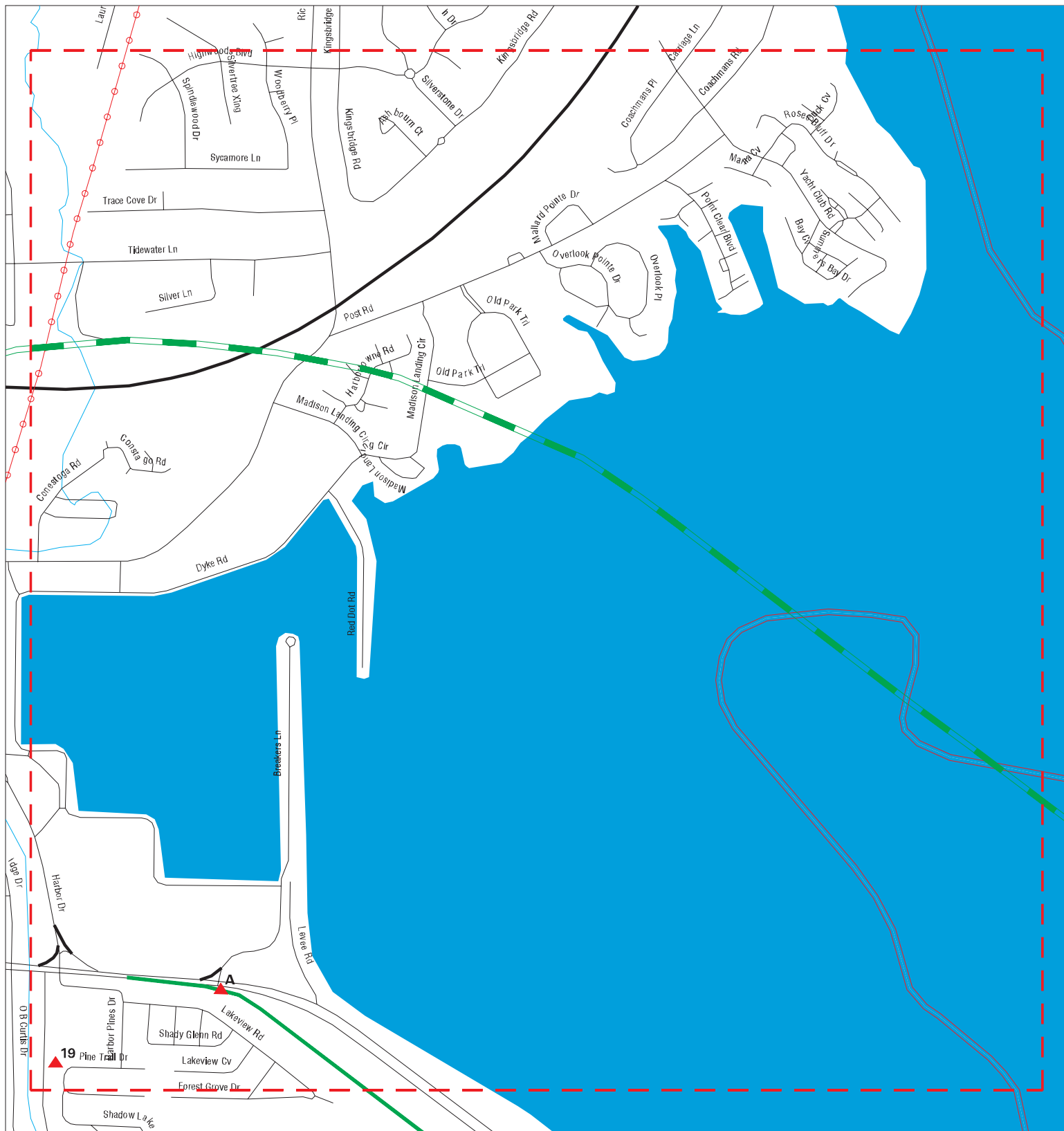
MAPPED SITES SUMMARY - FOCUS MAP 1

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

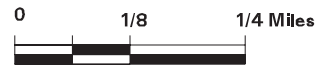
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 2 - 5975203.7s



- ▲ Sites
- ▲ Target Property
- ▲ Search Buffer
- ▲ Focus Map - No Sites
- Focus Map - Sites
- Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



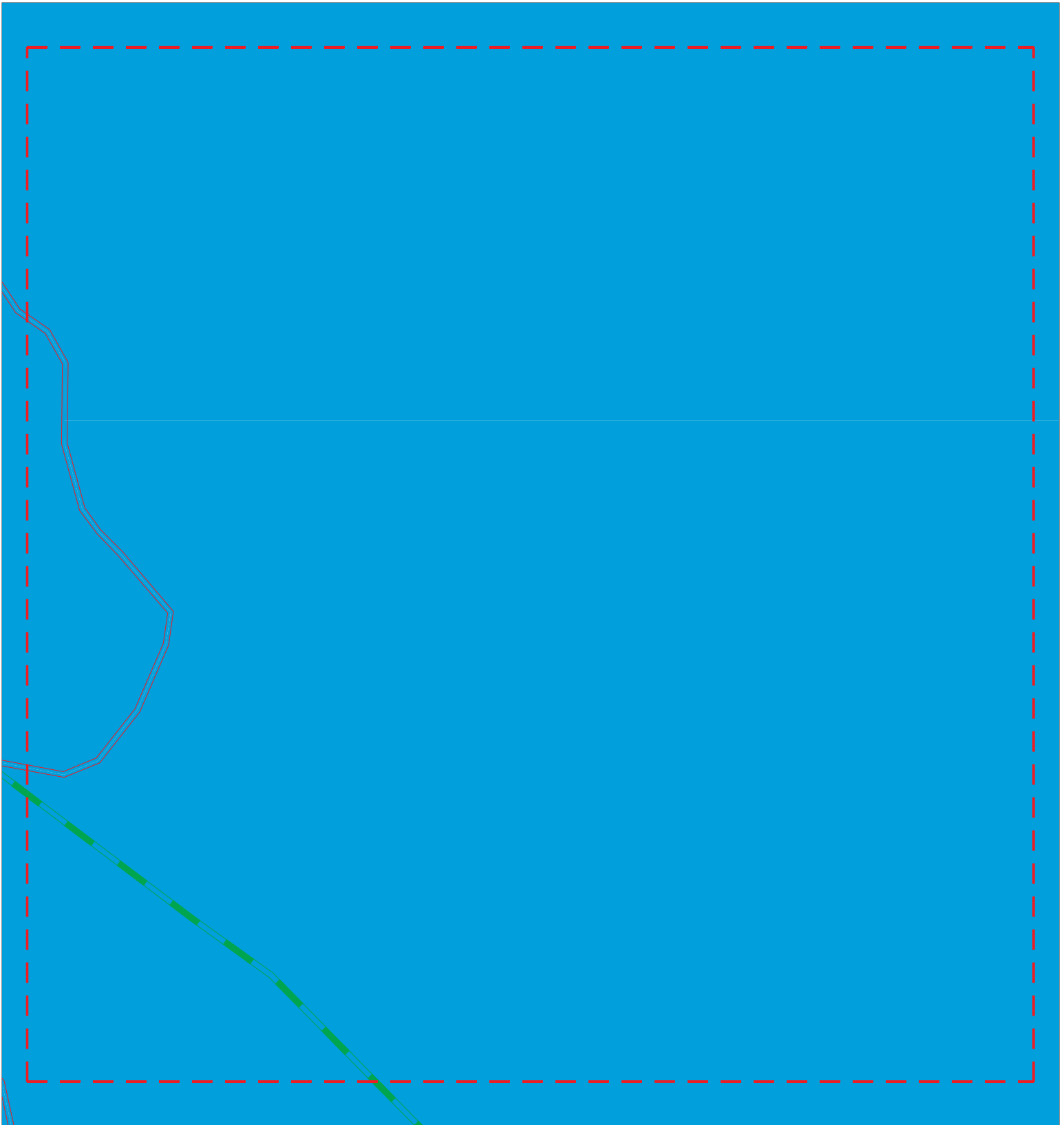
<p>SITE NAME: PRVWSD - Bob Anthony Parkway ADDRESS: Spillway Road CITY/STATE: Brandon MS ZIP: 39047</p>	<p>CLIENT: Pickering Firm Inc CONTACT: Wilson Harper INQUIRY #: 5975203.7s DATE: 02/19/20</p>
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MAPPED SITES SUMMARY - FOCUS MAP 2

Target Property:
 SPILLWAY ROAD
 BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
A1 / 2	DYNAMIC MINUTE MART	1075 LAKE HARBOR DRI	RGA LUST	TP
A2 / 2	ZNP INC DBA MINI MAR	1075 LAKE HARBOUR DR	RGA LUST	TP
A3 / 2	MINI MART	1075 LAKE HARBOUR DR	LUST, UST	TP
A4 / 2	ONE STOP MINI MART	1075 LAKE HARBOUR DR	RGA LUST	TP
A5 / 2	DYNAMIC MINUTE MART	1075 LAKE HARBOR DRI	RGA LUST	TP
A6 / 2	MINI MART	1075 LAKE HARBOUR DR	RGA LUST	TP
A7 / 2	W L BURLE ENGINEERS	1075 LAKE HARBOUR DR	FINDS	TP
19 / 2	MAIN HARBOR MARINA	HARBOR DRIVE	UST	917 0.174 SW

Focus Map - 3 - 5975203.7s



- Sites
- Focus Map - Sites
- Indian Reservations BIA
- Target Property
- Power Line
- Search Buffer
- National Priority List Sites
- Focus Map - No Sites
- Dept. Defense Sites



SITE NAME: PRVWSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

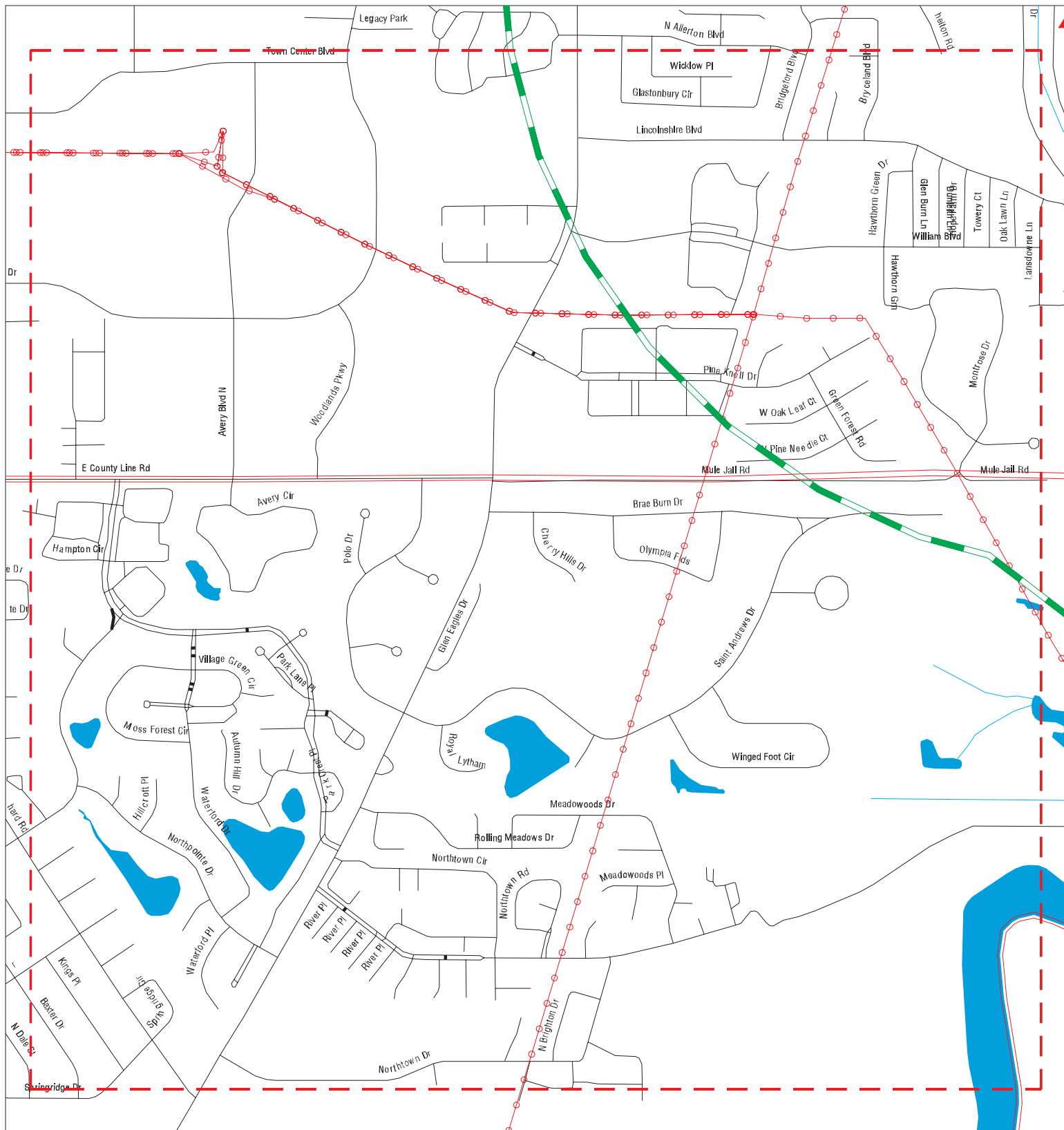
MAPPED SITES SUMMARY - FOCUS MAP 3

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 4 - 5975203.7s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ⚡ Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
 ADDRESS: Spillway Road
 CITY/STATE: Brandon MS
 ZIP: 39047

CLIENT: Pickering Firm Inc
 CONTACT: Wilson Harper
 INQUIRY #: 5975203.7s
 DATE: 02/19/20

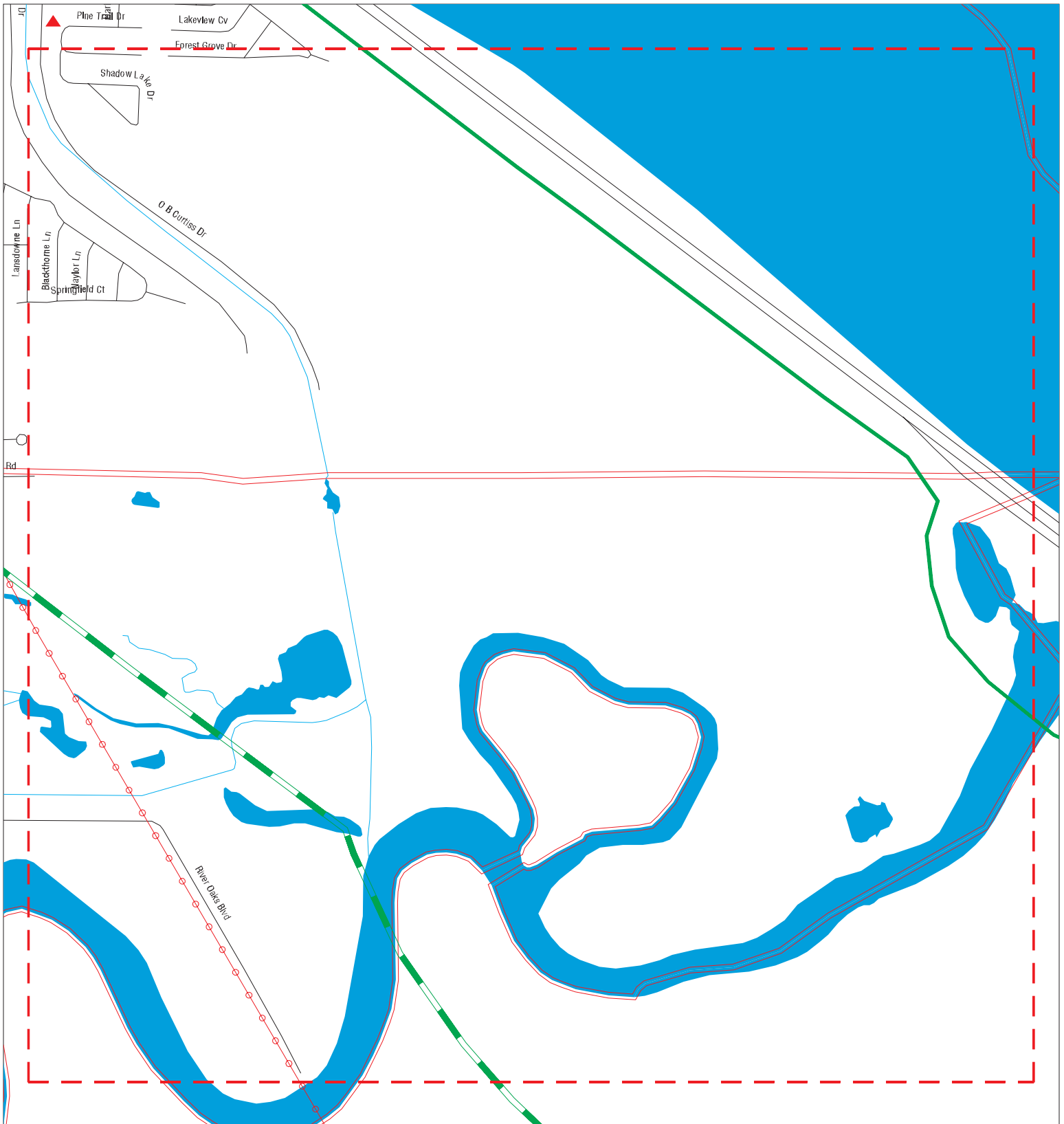
MAPPED SITES SUMMARY - FOCUS MAP 4








Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

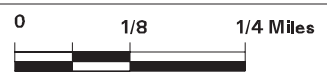
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

Focus Map - 5 - 5975203.7s



	Sites		Focus Map - Sites		Indian Reservations BIA
	Target Property		Power Line		National Priority List Sites
	Search Buffer		Dept. Defense Sites		
	Focus Map - No Sites				



SITE NAME: PRVWSD - Bob Anthony Parkway ADDRESS: Spillway Road CITY/STATE: Brandon MS ZIP: 39047	CLIENT: Pickering Firm Inc CONTACT: Wilson Harper INQUIRY #: 5975203.7s DATE: 02/19/20
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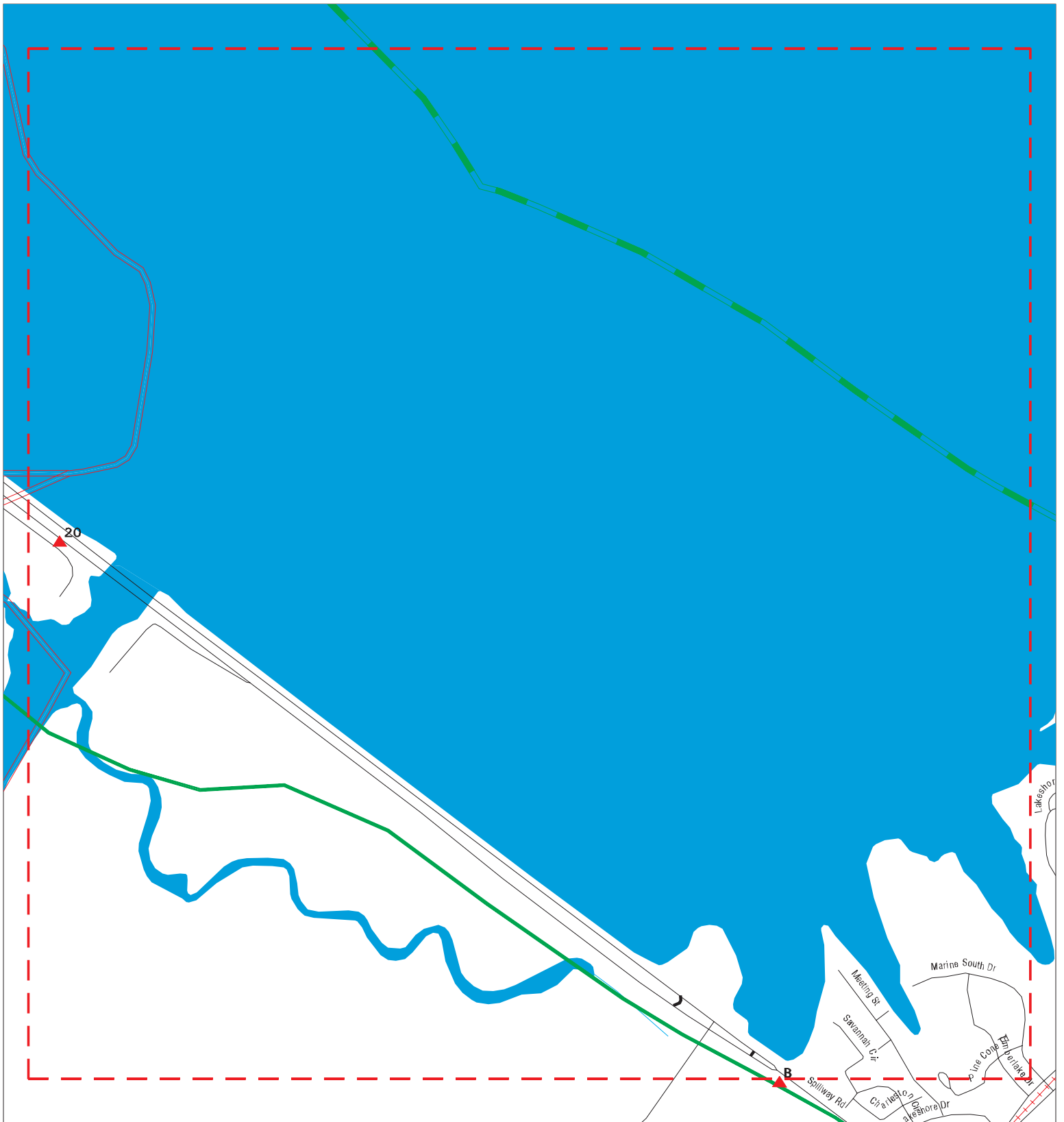
MAPPED SITES SUMMARY - FOCUS MAP 5

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Focus Map - 6 - 5975203.7s



- ▲ Sites
- ▬ Target Property
- ▭ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ⚡ Power Line
- ▭ National Priority List Sites
- ▭ Dept. Defense Sites
- ▭ Indian Reservations BIA



SITE NAME: PRVSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

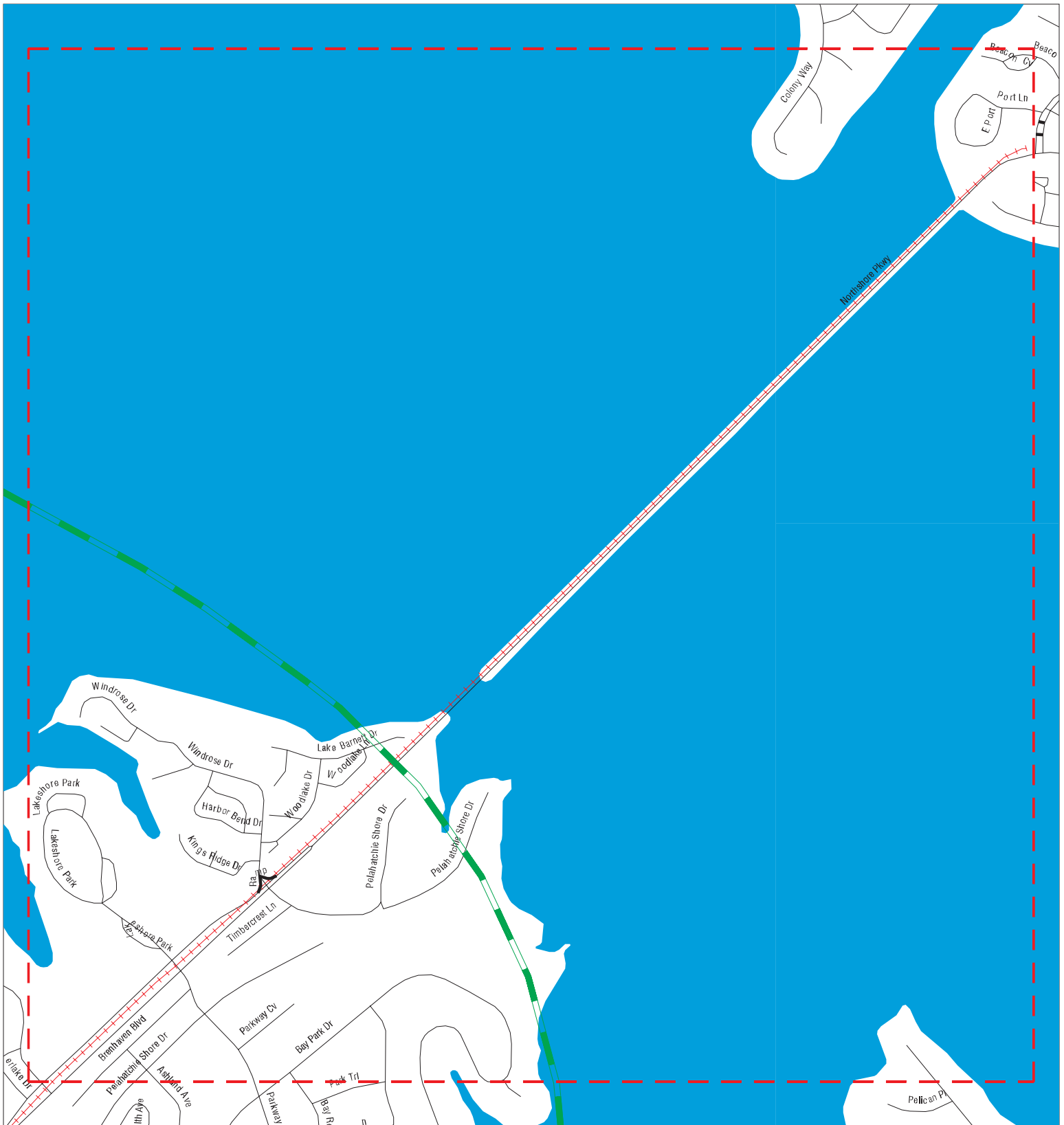
CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

MAPPED SITES SUMMARY - FOCUS MAP 6

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
20 / 6	BST NORTH RANKIN CEN	200 SPILLWAY ROAD	UST	1116 0.211 ESE

Focus Map - 7 - 5975203.7s



- ▲ Sites
- ▲ Target Property
- ▲ Search Buffer
- ▲ Focus Map - No Sites
- ▲ Focus Map - Sites
- ▲ Power Line
- ▲ National Priority List Sites
- ▲ Dept. Defense Sites
- ▲ Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

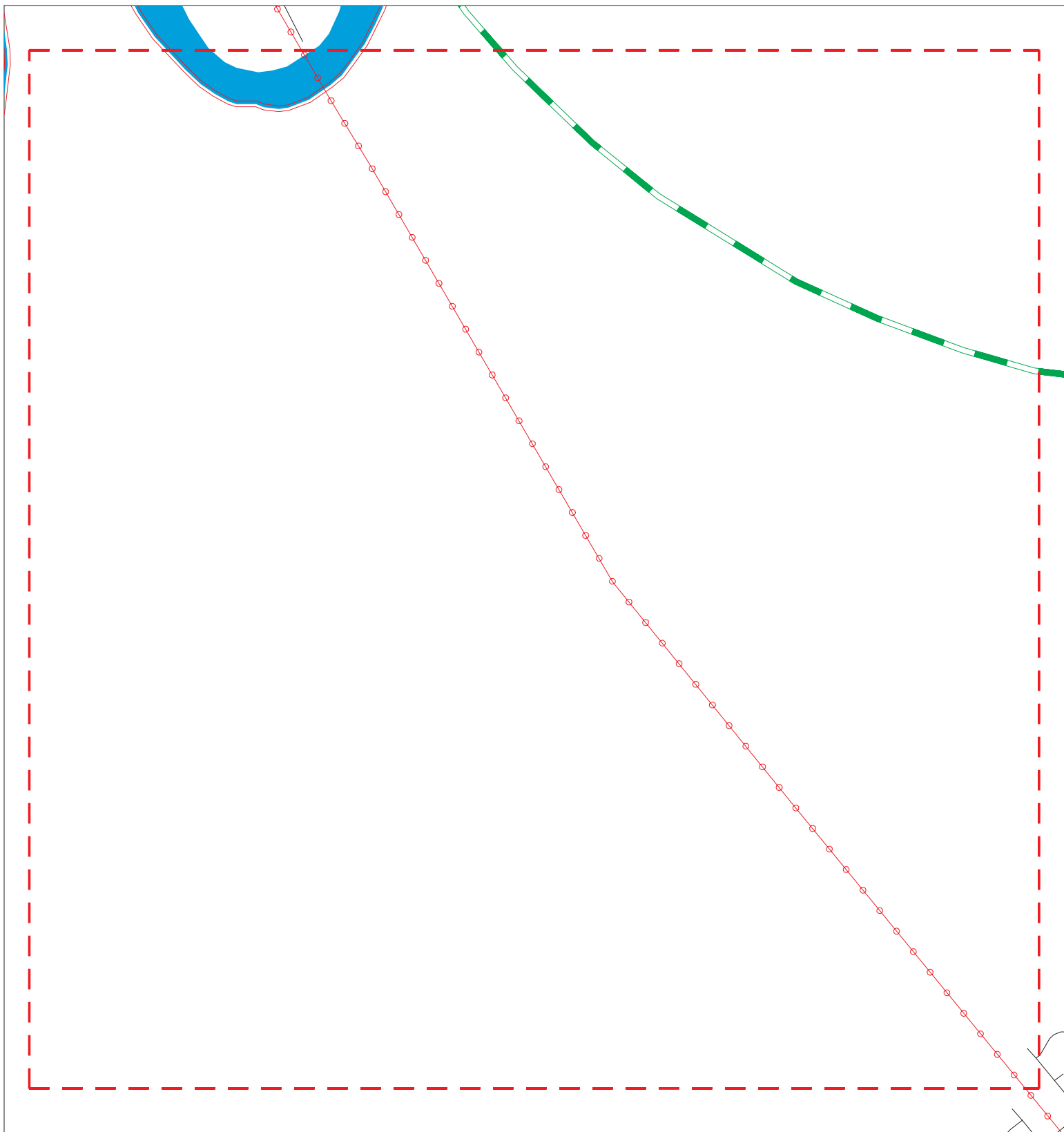
MAPPED SITES SUMMARY - FOCUS MAP 7

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

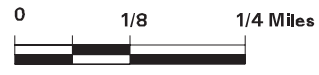
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Focus Map - 8 - 5975203.7s



- ▲ Sites
- ▲ Target Property
- ▲ Search Buffer
- ▲ Focus Map - No Sites
- ▲ Focus Map - Sites
- ▲ Power Line
- ▲ National Priority List Sites
- ▲ Dept. Defense Sites
- ▲ Indian Reservations BIA



<p>SITE NAME: PRVSD - Bob Anthony Parkway ADDRESS: Spillway Road CITY/STATE: Brandon MS ZIP: 39047</p>	<p>CLIENT: Pickering Firm Inc CONTACT: Wilson Harper INQUIRY #: 5975203.7s DATE: 02/19/20</p>
---	--

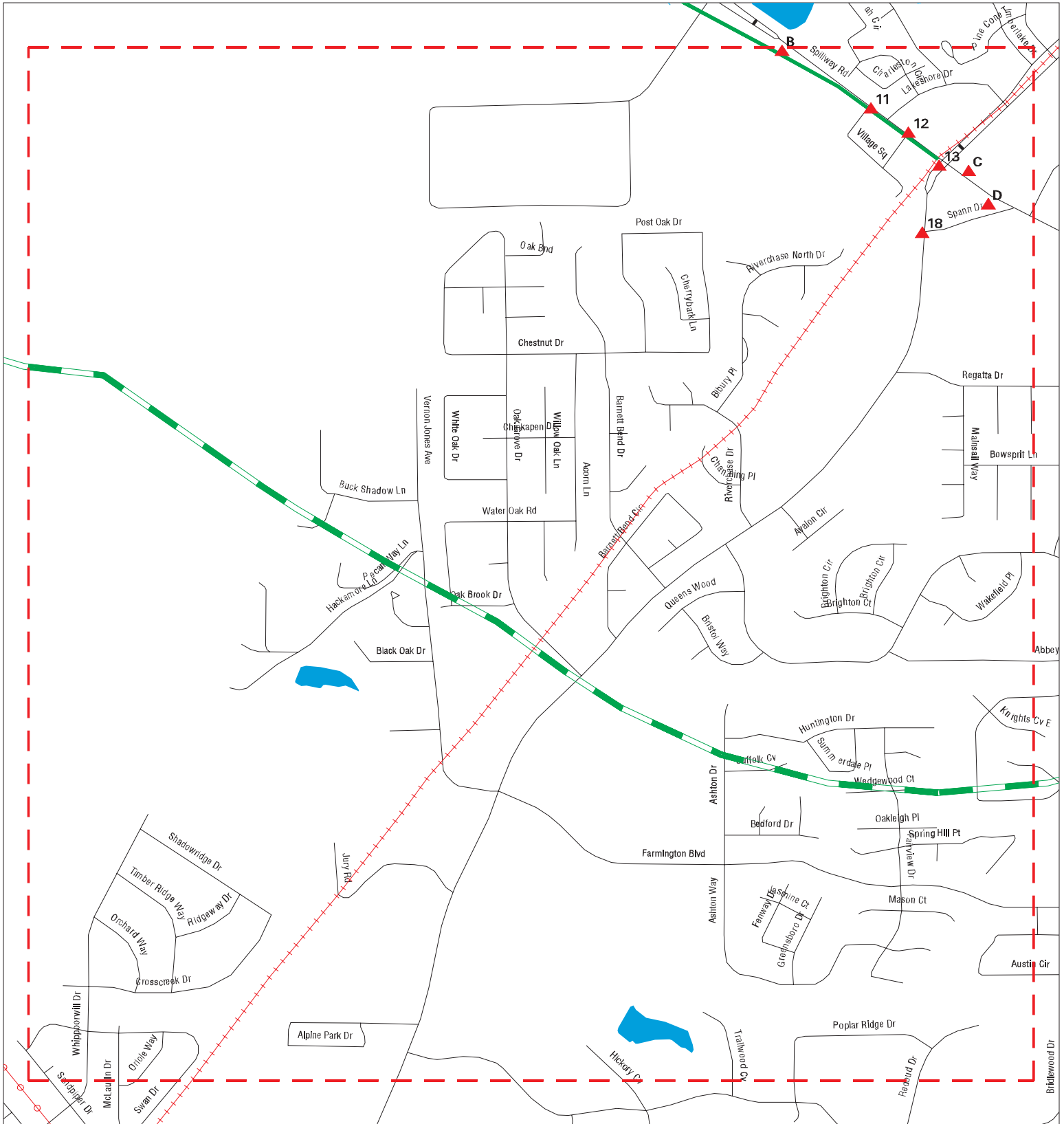
MAPPED SITES SUMMARY - FOCUS MAP 8

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

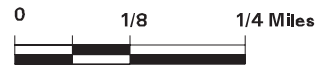
MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
-----------------------	-----------	---------	-------------------	-------------------------------

NO MAPPED SITES FOUND

Focus Map - 9 - 5975203.7s



- ▲ Sites
- ▬ Target Property
- ▬ Search Buffer
- ▬ Focus Map - No Sites
- ▬ Focus Map - Sites
- ▬ Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
 ADDRESS: Spillway Road
 CITY/STATE: Brandon MS
 ZIP: 39047

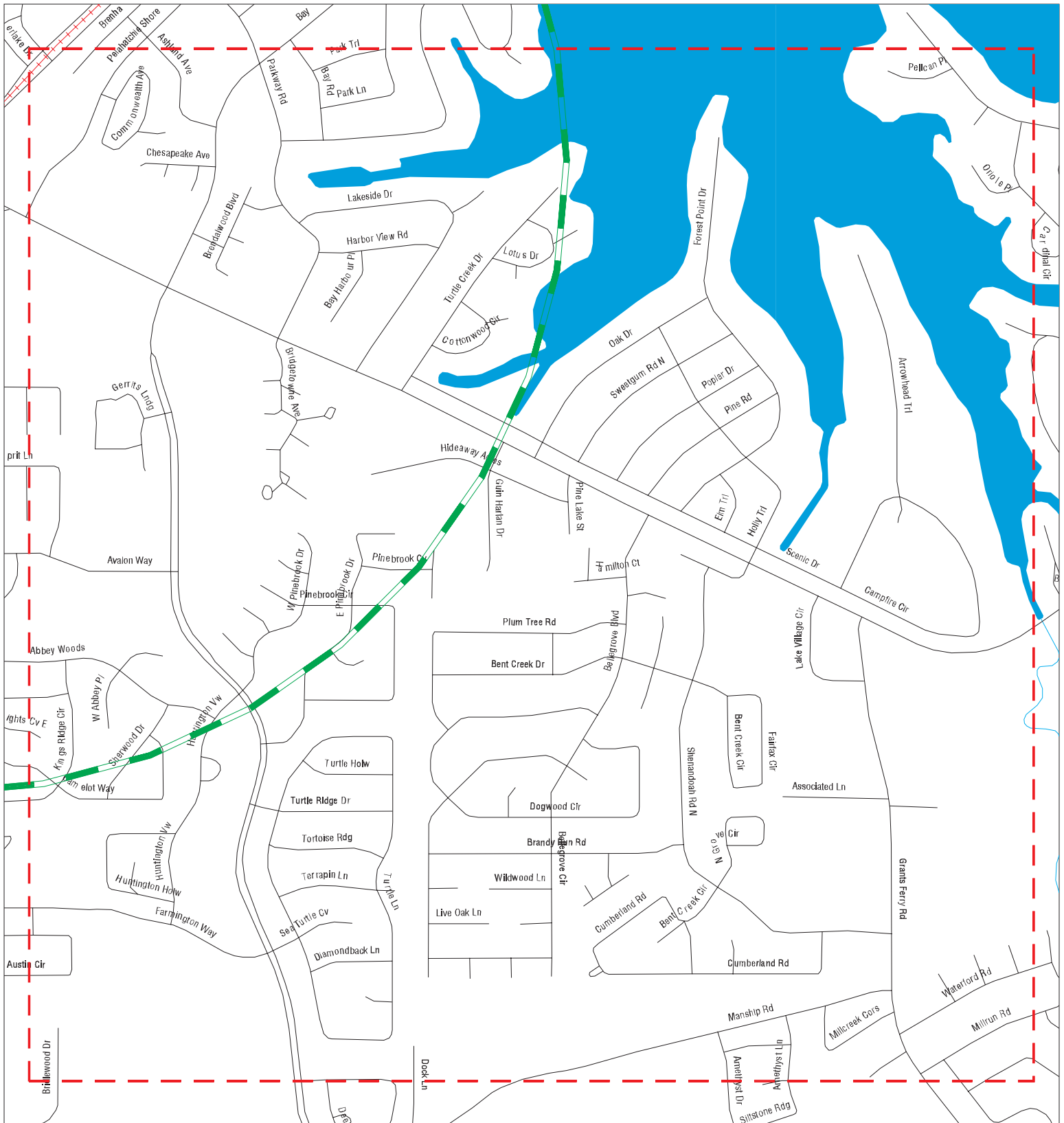
CLIENT: Pickering Firm Inc
 CONTACT: Wilson Harper
 INQUIRY #: 5975203.7s
 DATE: 02/19/20

MAPPED SITES SUMMARY - FOCUS MAP 9

Target Property:
 SPILLWAY ROAD
 BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
B8 / 9	RAPIDS WATER PARK	1808 SPILLWAY ROAD	FINDS	TP
B9 / 9	RAPIDS ON THE RESERV	1808 SPILLWAY ROAD	ASBESTOS	TP
B10 / 9	RAPIDS ON THE RESERV	1808 SPILLWAY ROAD	FINDS	TP
11 / 9	OLD PENN S RESTAURAN	101 VILLAGE SQUARE C	FINDS	TP
12 / 9	BANKPLUS	1841 SPILLWAY ROAD	FINDS	TP
13 / 9	MID SOUTH REFINERY A	310 OLD FANNIN ROAD	FINDS, ECHO	TP
C14 / 9	CHEVRON GAS STATIONS	1861 SPILLWAY RD	EDR Hist Auto	274 0.052 ESE
C15 / 9	SPILLWAY CHEVRON	1861 SPILLWAY ROAD	LUST, UST	274 0.052 ESE
D16 / 9	POLK'S DRUGS-SPILLWA	1866 SPILLWAY ROAD	LUST, UST	562 0.106 SE
D17 / 9	POLKS CRSSGTES DISC	1866 SPILLWAY RD	EDR Hist Auto	562 0.106 SE
18 / 9	OLD FANNIN SHELL	1126 OLD FANNIN ROAD	UST	623 0.118 SSW

Focus Map - 10 - 5975203.7s



- ▲ Sites
- Target Property
- Search Buffer
- Focus Map - No Sites
- Focus Map - Sites
- Power Line
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA



SITE NAME: PRVWSD - Bob Anthony Parkway
ADDRESS: Spillway Road
CITY/STATE: Brandon MS
ZIP: 39047

CLIENT: Pickering Firm Inc
CONTACT: Wilson Harper
INQUIRY #: 5975203.7s
DATE: 02/19/20

MAPPED SITES SUMMARY - FOCUS MAP 10

Target Property:
SPILLWAY ROAD
BRANDON, MS 39047

MAP ID / FOCUS MAP	SITE NAME	ADDRESS	DATABASE ACRONYMS	DIST (ft. & mi.) DIRECTION
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NO MAPPED SITES FOUND

MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

A1 **DYNAMIC MINUTE MART #312**
Target **1075 LAKE HARBOR DRIVE**
Property **RIDGELAND, MS**

RGA LUST **S116269590**
 N/A

Site 1 of 7 in cluster A

Actual: RGA LUST:
280 ft. 1999 DYNAMIC MINUTE MART #312 1075 LAKE HARBOR DRIVE
Focus Map: 1998 DYNAMIC MINUTE MART #312 1075 LAKE HARBOR DRIVE
2 1997 DYNAMIC MINUTE MART #312 1075 LAKE HARBOR DRIVE
 1996 DYNAMIC MINUTE MART #312 1075 LAKE HARBOR DRIVE

A2 **ZNP INC DBA MINI MART**
Target **1075 LAKE HARBOUR DRIVE**
Property **RIDGELAND, MS**

RGA LUST **S116274918**
 N/A

Site 2 of 7 in cluster A

Actual: RGA LUST:
280 ft. 2008 ZNP INC DBA MINI MART 1075 LAKE HARBOUR DRIVE
Focus Map: 2007 ZNP INC DBA MINI MART 1075 LAKE HARBOUR DRIVE
2 2006 ZNP INC DBA MINI MART 1075 LAKE HARBOUR DRIVE

A3 **MINI MART**
Target **1075 LAKE HARBOUR DRIVE**
Property **RIDGELAND, MS 39157**

LUST **U003773503**
UST **N/A**

Site 3 of 7 in cluster A

Actual: LUST:
280 ft. Name: MINI MART
Focus Map: Address: 1075 LAKE HARBOUR DRIVE
2 City,State,Zip: RIDGELAND, MS 39157
 Facility Id: 10005
 Facility Satus: Active
 Lust Status: Closed
 AIID: 26862
 Event #: 1
 Project Manager: Lynn Chambers
 Date Of Report: 05/31/1990
 Trust Fund Status: STFS
 Confirmed On: 05/31/1990
 NFA Date: 08/10/1999

Name: MINI MART
 Address: 1075 LAKE HARBOUR DRIVE
 City,State,Zip: RIDGELAND, MS 39157
 Facility Id: 10005
 Facility Satus: Active
 Lust Status: Closed
 AIID: 26862
 Event #: 2
 Project Manager: Martha Martin
 Date Of Report: 11/01/1999
 Trust Fund Status: EUD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MINI MART (Continued)

U003773503

Confirmed On: Not reported
NFA Date: 03/17/2000

Name: MINI MART
Address: 1075 LAKE HARBOUR DRIVE
City,State,Zip: RIDGELAND, MS 39157
Facility Id: 10005
Facility Satus: Active
Lust Status: Closed
AIID: 26862
Event #: 3
Project Manager: Robert Huckaby
Date Of Report: 02/09/2001
Trust Fund Status: EUD
Confirmed On: 02/09/2001
NFA Date: 07/23/2001

Name: MINI MART
Address: 1075 LAKE HARBOUR DRIVE
City,State,Zip: RIDGELAND, MS 39157
Facility Id: 10005
Facility Satus: Active
Lust Status: Closed
AIID: 26862
Event #: 4
Project Manager: Robert Huckaby
Date Of Report: 11/26/2001
Trust Fund Status: EUD
Confirmed On: Not reported
NFA Date: 12/20/2001

Name: MINI MART
Address: 1075 LAKE HARBOUR DRIVE
City,State,Zip: RIDGELAND, MS 39157
Facility Id: 10005
Facility Satus: Active
Lust Status: Closed
AIID: 26862
Event #: 5
Project Manager: Robert Huckaby
Date Of Report: 07/19/2002
Trust Fund Status: STFS
Confirmed On: 07/15/2002
NFA Date: 12/31/2002

Name: MINI MART
Address: 1075 LAKE HARBOUR DRIVE
City,State,Zip: RIDGELAND, MS 39157
Facility Id: 10005
Facility Satus: Active
Lust Status: Closed
AIID: 26862
Event #: 6
Project Manager: Charka Fair
Date Of Report: 04/01/2009
Trust Fund Status: STFS
Confirmed On: 04/01/2009

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MINI MART (Continued)

U003773503

NFA Date: 09/16/2011

UST:

Name: Mini Mart
Address: 1075 Lake Harbour Drive
City: Ridgeland
Facility ID: 10005
Facility Status: Active
Latitude: 32 24' 42.2600"
Longitude: 90 5' 42.4600"
Permanently Out of Use Tanks: 0
Active Tanks: 4
AIID: 26862
Owner Name: Rupinder Jitkaur Singh
Owner Address: 1075 Lake Harbour Drive
Owner Tele: (601)956-3581

Tank:

Tank No: 1
Tank ID: 25455
Tank Status: Currently In Use
Tank Capacity: 10000
Date Installed: 06/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Fiberglass Reinforced Plastic
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 1
Tank Id: 25455
Pipe Id: 1
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Tank:

Tank No: 2
Tank ID: 25456
Tank Status: Currently In Use
Tank Capacity: 10000
Date Installed: 06/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MINI MART (Continued)

U003773503

Date Removed: Not reported
Close Type: Not reported
Tank Material: Fiberglass Reinforced Plastic
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 2
Tank Id: 25456
Pipe Id: 2
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Tank:

Tank No: 3
Tank ID: 25457
Tank Status: Currently In Use
Tank Capacity: 10000
Date Installed: 06/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Fiberglass Reinforced Plastic
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 3
Tank Id: 25457
Pipe Id: 3
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Tank:

Tank No: 4
Tank ID: 25458
Tank Status: Currently In Use
Tank Capacity: 4000
Date Installed: 06/01/1988

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

MINI MART (Continued)

U003773503

Substance: Diesel
 Reported Release: Yes
 Close Type: Not reported
 Date Removed: Not reported
 Close Type: Not reported
 Tank Material: Fiberglass Reinforced Plastic
 2nd Containmnt: None
 Tank Lead Detection: Groundwater/Vapor Monitoring
 Overfill Protection: Yes
 Spill Prevention: Yes

Pipe:
 Tank No: 4
 Tank Id: 25458
 Pipe Id: 4
 Pipe Status: Currently In Use
 Type Of Closure: Not reported
 Pipe Material Construction: Fiberglass Reinforced Plastic
 Secondary Pipe Material: None
 Piping Type: Pressurized
 Pipe Leak Detection: Groundwater/Vapor Monitoring

A4 **ONE STOP MINI MART**
Target **1075 LAKE HARBOUR DRIVE**
Property **RIDGELAND, MS**

RGA LUST **S116272487**
N/A

Site 4 of 7 in cluster A

Actual: RGA LUST:
280 ft. 2010 ONE STOP MINI MART 1075 LAKE HARBOUR DRIVE
Focus Map: 2009 ONE STOP MINI MART 1075 LAKE HARBOUR DRIVE
2

A5 **DYNAMIC MINUTE MART (FFP #312)**
Target **1075 LAKE HARBOR DRIVE**
Property **RIDGELAND, MS**

RGA LUST **S116269593**
N/A

Site 5 of 7 in cluster A

Actual: RGA LUST:
280 ft. 2005 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE
Focus Map: 2004 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE
2 2003 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE
 2002 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE
 2001 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE
 2000 DYNAMIC MINUTE MART (FFP #312) 1075 LAKE HARBOR DRIVE

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

A6	MINI MART	RGA LUST	S116272044
Target	1075 LAKE HARBOUR DRIVE		N/A
Property	RIDGELAND, MS		

Site 6 of 7 in cluster A

Actual:	RGA LUST:				
280 ft.		2012	MINI MART	1075 LAKE HARBOUR DRIVE	
Focus Map:		2011	MINI MART	1075 LAKE HARBOUR DRIVE	
2					

A7	W L BURLE ENGINEERS PA, ONE STOP MINI MART	FINDS	1014779629
Target	1075 LAKE HARBOUR DRIVE		N/A
Property	RIDGELAND, MS 39157		

Site 7 of 7 in cluster A

Actual:	FINDS:				
280 ft.					
Focus Map:	Registry ID:		110041959734		
2					

Environmental Interest/Information System
MS-ENSITE (Mississippi - Tools For Environmental Management And Protection Organizations). Mississippi Department of Environmental Quality (MDEQ) Office of Pollution Control's (OPC) maintains enSite. It is the electronic Environmental Site Information System that that regulates compliance assurance, permitting, activity tracking, and maintenance of a single agency interest-link to definition master file.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B8	RAPIDS WATER PARK	FINDS	1016041326
Target	1808 SPILLWAY ROAD		N/A
Property	BRANDON, MS 39047		

Site 1 of 3 in cluster B

Actual:	FINDS:				
298 ft.					
Focus Map:	Registry ID:		110044444394		
9					

Environmental Interest/Information System
MS-ENSITE (Mississippi - Tools For Environmental Management And Protection Organizations). Mississippi Department of Environmental Quality (MDEQ) Office of Pollution Control's (OPC) maintains enSite. It is the electronic Environmental Site Information System that that regulates compliance assurance, permitting, activity tracking, and maintenance of a single agency interest-link to definition master file.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLD PENN S RESTAURANT BUILDING (Continued)

1016043347

regulates compliance assurance, permitting, activity tracking, and maintenance of a single agency interest-link to definition master file.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

12 **BANKPLUS**
Target **1841 SPILLWAY ROAD**
Property **BRANDON, MS 39047**

FINDS **1016032341**
 N/A

FINDS:

Actual: Registry ID: 110044719800
320 ft.

Focus Map: Environmental Interest/Information System
9 MS-ENSITE (Mississippi - Tools For Environmental Management And Protection Organizations). Mississippi Department of Environmental Quality (MDEQ) Office of Pollution Control's (OPC) maintains enSite. It is the electronic Environmental Site Information System that that regulates compliance assurance, permitting, activity tracking, and maintenance of a single agency interest-link to definition master file.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

13 **MID SOUTH REFINERY AND SMELTING INC**
Target **310 OLD FANNIN ROAD**
Property **BRANDON, MS 39042**

FINDS **1016669577**
ECHO **N/A**

FINDS:

Actual: Registry ID: 110003997952
319 ft.

Focus Map: Environmental Interest/Information System
9 MS-ENSITE (Mississippi - Tools For Environmental Management And Protection Organizations). Mississippi Department of Environmental Quality (MDEQ) Office of Pollution Control's (OPC) maintains enSite. It is the electronic Environmental Site Information System that that regulates compliance assurance, permitting, activity tracking, and maintenance of a single agency interest-link to definition master file.
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

[Click this hyperlink](#) while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
 Envid: 1016669577
 Registry ID: 110003997952

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MID SOUTH REFINERY AND SMELTING INC (Continued)

1016669577

DFR URL: <http://echo.epa.gov/detailed-facility-report?fid=110003997952>

C14
ESE
< 1/8
0.052 mi.
274 ft.

CHEVRON GAS STATIONS
1861 SPILLWAY RD
BRANDON, MS 39047
Site 1 of 2 in cluster C

EDR Hist Auto 1015756283
N/A

Actual: EDR Hist Auto
321 ft.

Focus Map:
9

Year:	Name:	Type:
1995	SPILLWAY CHEVRON	Convenience Stores
1996	BRADFORD CHEVRON	Gasoline Service Stations
1997	BRADFORD CHEVRON	Gasoline Service Stations
1998	BRADFORD CHEVRON	Gasoline Service Stations
1998	BRADFORD SPILLWAY CHEVRON	Gasoline Service Stations
1999	BRADFORD SPILLWAY CHEVRON	Gasoline Service Stations
1999	BRADFORD CHEVRON	Gasoline Service Stations
2000	BRADFORD SPILLWAY	GASOLINE STATIONS
2000	CHEVRON GAS STATIONS	GASOLINE STATIONS
2000	BRADFORD SPILLWAY CHEVRON	Gasoline Service Stations

C15
ESE
< 1/8
0.052 mi.
274 ft.

SPILLWAY CHEVRON
1861 SPILLWAY ROAD
BRANDON, MS 39042
Site 2 of 2 in cluster C

LUST U003773793
UST N/A

Actual: LUST:
321 ft.

Focus Map:
9

Name:	SPILLWAY CHEVRON
Address:	1861 SPILLWAY ROAD
City,State,Zip:	BRANDON, MS 39042
Facility Id:	10341
Facility Satus:	Active
Lust Status:	Closed
AIID:	24460
Event #:	1
Project Manager:	Joseph Curro
Date Of Report:	03/30/1998
Trust Fund Status:	STFS
Confirmed On:	03/27/1998
NFA Date:	09/16/1998
Name:	SPILLWAY CHEVRON
Address:	1861 SPILLWAY ROAD
City,State,Zip:	BRANDON, MS 39042
Facility Id:	10341
Facility Satus:	Active
Lust Status:	Closed
AIID:	24460
Event #:	2
Project Manager:	Joseph Curro
Date Of Report:	11/13/2001
Trust Fund Status:	STFS
Confirmed On:	10/09/2001
NFA Date:	04/02/2002

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPILLWAY CHEVRON (Continued)

U003773793

Name: SPILLWAY CHEVRON
Address: 1861 SPILLWAY ROAD
City,State,Zip: BRANDON, MS 39042
Facility Id: 10341
Facility Status: Active
Lust Status: Closed
AIIID: 24460
Event #: 3
Project Manager: Joseph Curro
Date Of Report: 09/21/2011
Trust Fund Status: EUD
Confirmed On: 09/21/2011
NFA Date: 09/28/2012

UST:

Name: Spillway Chevron
Address: 1861 Spillway Road
City: Brandon
Facility ID: 10341
Facility Status: Active
Latitude: 32 22' 59.2600"
Longitude: 90 2' 27.9200"
Permanently Out of Use Tanks: 4
Active Tanks: 3
AIIID: 24460
Owner Name: Sumrall Oil Services Inc
Owner Address: PO Box 525
Owner Tele: (601)764-2135

Tank:

Tank No: 1
Tank ID: 26302
Tank Status: Permanently Out of Use
Tank Capacity: 12000
Date Installed: 01/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Closed
Date Removed: 10/07/2001
Close Type: 10/09/2001
Tank Material: Epoxy Coated Steel
2nd Containmnt: Cathodically Protected
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 1
Tank Id: 26302
Pipe Id: 1
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPILLWAY CHEVRON (Continued)

U003773793

Tank:

Tank No: 2
Tank ID: 26303
Tank Status: Permanently Out of Use
Tank Capacity: 12000
Date Installed: 01/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Closed
Date Removed: 10/07/2001
Close Type: 10/09/2001
Tank Material: Epoxy Coated Steel
2nd Containmnt: Cathodically Protected
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 2
Tank Id: 26303
Pipe Id: 2
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Tank:

Tank No: 3
Tank ID: 26304
Tank Status: Permanently Out of Use
Tank Capacity: 12000
Date Installed: 01/01/1988
Substance: Gasoline
Reported Release: Yes
Close Type: Closed
Date Removed: 10/07/2001
Close Type: 10/09/2001
Tank Material: Epoxy Coated Steel
2nd Containmnt: Cathodically Protected
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 3
Tank Id: 26304
Pipe Id: 3
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Groundwater/Vapor Monitoring

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPILLWAY CHEVRON (Continued)

U003773793

Tank:

Tank No: 4
Tank ID: 26305
Tank Status: Permanently Out of Use
Tank Capacity: 500
Date Installed: 01/01/1987
Substance: Used Oil
Reported Release: Yes
Close Type: Closed
Date Removed: 04/01/1995
Close Type: 10/06/1996
Tank Material: Asphalt Coated or Bare Steel
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: No
Spill Prevention: No

Tank:

Tank No: 5
Tank ID: 26306
Tank Status: Currently In Use
Tank Capacity: 15000
Date Installed: 06/28/2002
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 5
Tank Id: 26306
Pipe Id: 5
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Flexible Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Line Tightness Testing

Tank:

Tank No: 6
Tank ID: 26307
Tank Status: Currently In Use
Tank Capacity: 15000
Date Installed: 06/28/2002
Substance: Gasoline
Reported Release: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPILLWAY CHEVRON (Continued)

U003773793

Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)
2nd Containmnt: None
Tank Lead Detection: Groundwater/Vapor Monitoring
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:

Tank No: 6
Tank Id: 26307
Pipe Id: 6
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Flexible Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Line Tightness Testing

Tank:

Tank No: 7
Tank ID: 32355
Tank Status: Currently In Use
Tank Capacity: 8000/4000
Date Installed: 07/14/2017
Substance: Gasoline, Diesel
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)
2nd Containmnt: Double-Walled
Tank Lead Detection: Visual Interstitial Monitoring
Overfill Protection: No
Spill Prevention: No

Pipe:

Tank No: 7
Tank Id: 32355
Pipe Id: 7
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Flexible Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Visual Interstitial Monitoring

Tank No: 7
Tank Id: 32355
Pipe Id: 8
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Flexible Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SPILLWAY CHEVRON (Continued)

U003773793

Pipe Leak Detection: Visual Interstitial Monitoring

D16
SE
< 1/8
0.106 mi.
562 ft.

POLK'S DRUGS-SPILLWAY
1866 SPILLWAY ROAD
BRANDON, MS 39042
Site 1 of 2 in cluster D

LUST **U004221778**
UST **N/A**

Actual:
319 ft.

LUST:
Name: POLK'S DRUGS-SPILLWAY
Address: 1866 SPILLWAY ROAD
City,State,Zip: BRANDON, MS 39042
Facility Id: 5084
Facility Status: Active
Lust Status: Closed
AIIID: 24408
Event #: 1
Project Manager: Martha Martin
Date Of Report: 01/22/1991
Trust Fund Status: NTFE
Confirmed On: 01/22/1991
NFA Date: 12/16/1991

Focus Map:
9

UST:
Name: Polk's Drugs-Spillway
Address: 1866 Spillway Road
City: Brandon
Facility ID: 5084
Facility Status: Active
Latitude: 32 22' 55.5300"
Longitude: 90 2' 27.4900"
Permanently Out of Use Tanks: 2
Active Tanks: 3
AIIID: 24408
Owner Name: Fair Oil Company
Owner Address: PO Box 826
Owner Tele: (662)773-7181

Tank:
Tank No: 1
Tank ID: 12710
Tank Status: Permanently Out of Use
Tank Capacity: 8000
Date Installed: 01/01/1976
Substance: Gasoline
Reported Release: Yes
Close Type: Closed
Date Removed: 09/25/1991
Close Type: 09/26/1991
Tank Material: Asphalt Coated or Bare Steel
2nd Containmnt: None
Tank Lead Detection: N/A
Overfill Protection: No
Spill Prevention: No

Pipe:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POLK'S DRUGS-SPILLWAY (Continued)

U004221778

Tank No: 1
Tank Id: 12710
Pipe Id: 1
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Bare/Galvanized Steel
Secondary Pipe Material: None
Piping Type: N/A
Pipe Leak Detection: Not Listed

Tank:

Tank No: 2
Tank ID: 12711
Tank Status: Permanently Out of Use
Tank Capacity: 8000
Date Installed: 01/01/1976
Substance: Gasoline
Reported Release: Yes
Close Type: Closed
Date Removed: 09/26/1991
Close Type: 09/26/1991
Tank Material: Asphalt Coated or Bare Steel
2nd Containmnt: None
Tank Lead Detection: N/A
Overfill Protection: No
Spill Prevention: No

Pipe:

Tank No: 2
Tank Id: 12711
Pipe Id: 2
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Bare/Galvanized Steel
Secondary Pipe Material: None
Piping Type: N/A
Pipe Leak Detection: Not Listed

Tank:

Tank No: 3
Tank ID: 12712
Tank Status: Currently In Use
Tank Capacity: 10000
Date Installed: 12/23/1991
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Epoxy Coated Steel
2nd Containmnt: Cathodically Protected
Tank Lead Detection: Automatic Tank Gauging
Overfill Protection: Yes

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POLK'S DRUGS-SPILLWAY (Continued)

U004221778

Spill Prevention: Yes

Pipe:
Tank No: 3
Tank Id: 12712
Pipe Id: 3
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Line Tightness Testing

Tank:
Tank No: 4
Tank ID: 12713
Tank Status: Currently In Use
Tank Capacity: 10000
Date Installed: 12/23/1991
Substance: Gasoline
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Epoxy Coated Steel
2nd Containmnt: Cathodically Protected
Tank Lead Detection: Automatic Tank Gauging
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:
Tank No: 4
Tank Id: 12713
Pipe Id: 4
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Line Tightness Testing

Tank:
Tank No: 5
Tank ID: 12714
Tank Status: Currently In Use
Tank Capacity: 7000
Date Installed: 04/25/2006
Substance: Diesel
Reported Release: Yes
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

POLK'S DRUGS-SPILLWAY (Continued)

U004221778

2nd Containmnt: None
Tank Lead Detection: Automatic Tank Gauging
Overfill Protection: Yes
Spill Prevention: Yes

Pipe:
Tank No: 5
Tank Id: 12714
Pipe Id: 5
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Fiberglass Reinforced Plastic
Secondary Pipe Material: None
Piping Type: Pressurized
Pipe Leak Detection: Line Tightness Testing

**D17
SE
< 1/8
0.106 mi.
562 ft.**

**POLKS CRSSGTES DISC DRUGS INC
1866 SPILLWAY RD
BRANDON, MS 39047**

**EDR Hist Auto 1021209361
N/A**

Site 2 of 2 in cluster D

**Actual: EDR Hist Auto
319 ft.**

**Focus Map:
9**

Year:	Name:	Type:
2006	POLKS CROSSGATE DISC DRUGS	Drug Stores And Proprietary Stores, NEC
2007	POLKS CROSSGATE DISC DRUGS	Drug Stores And Proprietary Stores, NEC
2008	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2009	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2010	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2011	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2012	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2013	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC
2014	POLKS CRSSGTES DISC DRUGS INC	Drug Stores And Proprietary Stores, NEC

**18
SSW
< 1/8
0.118 mi.
623 ft.**

**OLD FANNIN SHELL
1126 OLD FANNIN ROAD
BRANDON, MS 39047**

**UST U004275593
N/A**

**Actual: UST:
309 ft.**

Name:	Old Fannin Shell
Address:	1126 Old Fannin Road
City:	Brandon
Facility ID:	13152
Facility Status:	Active
Latitude:	32 22' 45.0000"
Longitude:	90 2' 35.0000"
Permanently Out of Use Tanks:	0
Active Tanks:	2
AIID:	72586
Owner Name:	Gurpreet Singh
Owner Address:	1126 Old Fannin Road
Owner Tele:	(601)572-5757

**Focus Map:
9**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLD FANNIN SHELL (Continued)

U004275593

Tank:

Tank No: 1
Tank ID: 32390
Tank Status: Currently In Use
Tank Capacity: 12000
Date Installed: 06/01/2018
Substance: Gasoline
Reported Release: Not reported
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)
2nd Containmnt: Double-Walled
Tank Lead Detection: Visual Interstitial Monitoring
Overfill Protection: No
Spill Prevention: No

Pipe:

Tank No: 1
Tank Id: 32390
Pipe Id: 1
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Semi-Rigid Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Visual Interstitial Monitoring

Tank:

Tank No: 2
Tank ID: 32391
Tank Status: Currently In Use
Tank Capacity: 4000/4000
Date Installed: 06/01/2018
Substance: Gasoline, Gasoline
Reported Release: Not reported
Close Type: Not reported
Date Removed: Not reported
Close Type: Not reported
Tank Material: Composite (Steel w/ FRP)
2nd Containmnt: Double-Walled
Tank Lead Detection: Visual Interstitial Monitoring
Overfill Protection: No
Spill Prevention: No

Pipe:

Tank No: 2
Tank Id: 32391
Pipe Id: 2
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Semi-Rigid Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Visual Interstitial Monitoring

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

OLD FANNIN SHELL (Continued)

U004275593

Tank No: 2
Tank Id: 32391
Pipe Id: 3
Pipe Status: Currently In Use
Type Of Closure: Not reported
Pipe Material Construction: Semi-Rigid Plastic
Secondary Pipe Material: Double-Walled
Piping Type: Pressurized
Pipe Leak Detection: Visual Interstitial Monitoring

19
SW
1/8-1/4
0.174 mi.
917 ft.

MAIN HARBOR MARINA
HARBOR DRIVE
MADISON, MS 39110

UST U003774143
N/A

Actual:
288 ft.
Focus Map:
2

UST:
Name: Main Harbor Marina
Address: Harbor Drive
City: Madison
Facility ID: 10730
Facility Status: Inactive
Latitude: 32 24' 45.8500"
Longitude: 90 5' 35.6100"
Permanently Out of Use Tanks: 2
Active Tanks: 0
AIID: 31581
Owner Name: Main Harbor Inc
Owner Address: PO Box 987
Owner Tele: (601)856-6562

Tank:
Tank No: 1
Tank ID: 27216
Tank Status: Permanently Out of Use
Tank Capacity: 6000
Date Installed: 01/01/1965
Substance: Gasoline
Reported Release: Not reported
Close Type: Closed
Date Removed: 11/22/1989
Close Type: 11/22/1989
Tank Material: Asphalt Coated or Bare Steel
2nd Containmnt: None
Tank Lead Detection: N/A
Overfill Protection: No
Spill Prevention: No

Pipe:
Tank No: 1
Tank Id: 27216
Pipe Id: 1
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Bare/Galvanized Steel
Secondary Pipe Material: None
Piping Type: N/A

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MAIN HARBOR MARINA (Continued)

U003774143

Pipe Leak Detection: Not Listed

Tank:

Tank No: 2
Tank ID: 27217
Tank Status: Permanently Out of Use
Tank Capacity: 6000
Date Installed: 01/01/1965
Substance: Gasoline
Reported Release: Not reported
Close Type: Closed
Date Removed: 11/19/1989
Close Type: 11/19/1989
Tank Material: Asphalt Coated or Bare Steel
2nd Containmnt: None
Tank Lead Detection: N/A
Overfill Protection: No
Spill Prevention: No

Pipe:

Tank No: 2
Tank Id: 27217
Pipe Id: 2
Pipe Status: Permanently Out of Use
Type Of Closure: Closed
Pipe Material Construction: Bare/Galvanized Steel
Secondary Pipe Material: None
Piping Type: N/A
Pipe Leak Detection: Not Listed

**20
ESE
1/8-1/4
0.211 mi.
1116 ft.**

**BST NORTH RANKIN CENTRAL OFFICE
200 SPILLWAY ROAD
BRANDON, MS 39042**

**UST U001302408
N/A**

**Actual:
282 ft.
Focus Map:
6**

UST:
Name: Bst North Rankin Central Office
Address: 200 Spillway Road
City: Brandon
Facility ID: 9261
Facility Status: Inactive
Latitude: 32 22' 25.0000"
Longitude: 90 1' 18.0000"
Permanently Out of Use Tanks: 1
Active Tanks: 0
AIIID: 34664
Owner Name: Bellsouth Telecommunications
Owner Address: EH&S 308 S Akard Street
Owner Tele: (904)259-9921

Tank:

Tank No: 1
Tank ID: 23511

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BST NORTH RANKIN CENTRAL OFFICE (Continued)

U001302408

Tank Status:	Permanently Out of Use
Tank Capacity:	1000
Date Installed:	01/01/1985
Substance:	Kerosene
Reported Release:	Not reported
Close Type:	Closed
Date Removed:	11/14/1994
Close Type:	11/14/1994
Tank Material:	Asphalt Coated or Bare Steel
2nd Containmnt:	None
Tank Lead Detection:	Deferred
Overfill Protection:	No
Spill Prevention:	No
Pipe:	
Tank No:	1
Tank Id:	23511
Pipe Id:	1
Pipe Status:	Permanently Out of Use
Type Of Closure:	Closed
Pipe Material Construction:	Copper
Secondary Pipe Material:	None
Piping Type:	N/A
Pipe Leak Detection:	Deferred

Count: 4 records

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BRANDON	2017178959		OLD FANNIN RD/FLOWOOD DR		ERNS
BRANDON	1014633172	ON SITE FUEL SERVICE	1089 A OLD FANNIN ROAD	39047	ICIS, FINDS, ECHO
BRANDON	S123680214	COMMUNITY PLACE NURSING HOME	SPILLWAY ROAD	39047	PERMITS
RIDGELAND	1016042130	LOWDER CONSTRUCTION COMPANY INC	SPILLWAY ROAD	39157	FINDS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: N/A
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 02/05/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: N/A
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 02/05/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: N/A
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/05/2019
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/27/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/05/2020	Telephone: 800-424-9346
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 02/05/2020
Number of Days to Update: 9	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/16/2019	Source: EPA
Date Data Arrived at EDR: 12/16/2019	Telephone: 800-424-9346
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (404) 562-8651
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (404) 562-8651
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (404) 562-8651
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (404) 562-8651
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 11/04/2019	Source: Department of the Navy
Date Data Arrived at EDR: 11/13/2019	Telephone: 843-820-7326
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 02/10/2020
Number of Days to Update: 76	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/22/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/22/2019	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 11/22/2019
Number of Days to Update: 67	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/22/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/22/2019	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 11/22/2019
Number of Days to Update: 67	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/09/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 14

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: CERCLA/Uncontrolled Sites File List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/07/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/22/2019
Number of Days to Update: 59

Source: Department of Environmental Quality
Telephone: 601-961-5666
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Landfills

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 06/28/2018
Number of Days to Update: 36

Source: Department of Environmental Quality
Telephone: 601-961-5082
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

DEBRIS: Debris Site Locations Listing

A listing of Hurricane Katrina debris disposal site locations. Not all of these sites were approved or utilized. Please note that the list includes a number of different types of sites including vegetative debris burn, chip, staging and disposal sites as well as structural debris staging and disposal sites.

Date of Government Version: 06/17/2008
Date Data Arrived at EDR: 06/17/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 44

Source: Department of Environmental Quality
Telephone: 601-961-5726
Last EDR Contact: 02/18/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Varies

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/23/2019
Date Data Arrived at EDR: 09/25/2019
Date Made Active in Reports: 11/25/2019
Number of Days to Update: 61

Source: Department of Environmental Quality
Telephone: 601-961-5058
Last EDR Contact: 12/19/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-8677
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3372
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 01/24/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/01/2019	Source: EPA Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-6597
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/01/2019	Source: EPA, Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-7439
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6271
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/15/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/17/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 12/16/2019
Number of Days to Update: 55	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 08/27/2019	Source: FEMA
Date Data Arrived at EDR: 08/28/2019	Telephone: 202-646-5797
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 01/21/2020
Number of Days to Update: 75	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Varies

UST: Underground Storage Tanks

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/23/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/25/2019	Telephone: 601-961-5058
Date Made Active in Reports: 11/22/2019	Last EDR Contact: 12/19/2019
Number of Days to Update: 58	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks

Aboveground storage tanks regulated by the Department of Agriculture & Commerce. The tanks contents will be gasoline, diesel, racing fuel or kerosene.

Date of Government Version: 08/21/2019	Source: Department of Agriculture & Commerce
Date Data Arrived at EDR: 09/12/2019	Telephone: 601-359-1101
Date Made Active in Reports: 11/18/2019	Last EDR Contact: 02/18/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 06/01/2020
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 7
Date Data Arrived at EDR: 12/04/2019	Telephone: 913-551-7003
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA Region 5
Date Data Arrived at EDR: 12/04/2019	Telephone: 312-886-6136
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/11/2019	Source: EPA Region 10
Date Data Arrived at EDR: 12/04/2019	Telephone: 206-553-2857
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/03/2019	Source: EPA Region 8
Date Data Arrived at EDR: 12/04/2019	Telephone: 303-312-6137
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 72	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/02/2019	Source: EPA Region 6
Date Data Arrived at EDR: 12/04/2019	Telephone: 214-665-7591
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2019	Source: EPA Region 9
Date Data Arrived at EDR: 07/29/2019	Telephone: 415-972-3368
Date Made Active in Reports: 10/17/2019	Last EDR Contact: 01/24/2020
Number of Days to Update: 80	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/10/2019	Source: EPA Region 4
Date Data Arrived at EDR: 12/05/2019	Telephone: 404-562-9424
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 67	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/01/2019	Source: EPA, Region 1
Date Data Arrived at EDR: 12/04/2019	Telephone: 617-918-1313
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 01/24/2020
Number of Days to Update: 68	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal institutional control / engineering control registries

ENG CONTROLS: Sites with Engineering Controls

Sites included on the CERCLA/Uncontrolled Sites File List that have Engineering Controls. Engineering Controls encompass a variety of engineered remedies to contain and/or reduce contamination, and/or physical barriers intended to limit access to property. ECs include fences, signs, guards, landfill caps, provision of potable water, slurry walls, sheet pile (vertical caps), pumping and treatment of groundwater, monitoring wells, and vapor extraction systems

Date of Government Version: 08/07/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/24/2019	Telephone: 601-961-5666
Date Made Active in Reports: 11/22/2019	Last EDR Contact: 12/23/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

INST CONTROL: Sites with Institutional Controls

Sites included on the CERCLA/Uncontrolled Sites File List that have Institutional Controls. Institutional Controls are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land or resource use

Date of Government Version: 08/07/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/24/2019	Telephone: 601-961-5666
Date Made Active in Reports: 11/22/2019	Last EDR Contact: 12/23/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Evaluation Program Sites

The Voluntary Evaluation Program allows accepted parties the opportunity to participate in a program that will expedite the evaluation of the site information.

Date of Government Version: 08/07/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/24/2019	Telephone: 601-961-5063
Date Made Active in Reports: 11/22/2019	Last EDR Contact: 12/23/2019
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/17/2019
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Uncontrolled Sites List

A listing of sites from the Uncontrolled Sites List that are currently in the Mississippi Brownfields Program (which means that they are pursuing liability protection and paying for MDEQ oversight costs).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/07/2019
Date Data Arrived at EDR: 09/24/2019
Date Made Active in Reports: 11/22/2019
Number of Days to Update: 59

Source: Department of Environmental Quality
Telephone: 601-961-5666
Last EDR Contact: 12/23/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/03/2019
Date Data Arrived at EDR: 06/04/2019
Date Made Active in Reports: 08/26/2019
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 03/30/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Mississippi Recycling Directory

A listing of recycling facilities.

Date of Government Version: 08/29/2018
Date Data Arrived at EDR: 11/19/2018
Date Made Active in Reports: 12/19/2018
Number of Days to Update: 30

Source: Department of Environmental Quality
Telephone: 601-961-5005
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

SWTIRE: Commercial Waste Tire Haulers

A listing of commercial waste tire haulers.

Date of Government Version: 11/11/2019
Date Data Arrived at EDR: 11/13/2019
Date Made Active in Reports: 01/21/2020
Number of Days to Update: 69

Source: Department of Environmental Quality
Telephone: 601-961-5726
Last EDR Contact: 02/03/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/27/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/17/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 06/11/2019
Date Data Arrived at EDR: 06/13/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/20/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/05/2019	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 12/06/2019	Telephone: 202-366-4555
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 12/06/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/16/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/16/2019	Telephone: (404) 562-8651
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/16/2019
Number of Days to Update: 4	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 11/12/2019	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 11/19/2019	Telephone: 202-528-4285
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 11/19/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/10/2020
Number of Days to Update: 62	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 01/09/2020
Number of Days to Update: 574	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 02/13/2020
Number of Days to Update: 63	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/23/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/24/2019	Telephone: 202-566-1917
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/19/2019
Number of Days to Update: 87	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/03/2020
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/08/2018	Telephone: 703-308-4044
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 02/07/2020
Number of Days to Update: 73	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016	Source: EPA
Date Data Arrived at EDR: 06/21/2017	Telephone: 202-260-5521
Date Made Active in Reports: 01/05/2018	Last EDR Contact: 12/20/2019
Number of Days to Update: 198	Next Scheduled EDR Contact: 03/30/2020
	Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 11/16/2018
Date Made Active in Reports: 11/21/2019
Number of Days to Update: 370

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 06/01/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 10/23/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 84

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/24/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/25/2019
Date Data Arrived at EDR: 05/02/2019
Date Made Active in Reports: 05/23/2019
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/21/2020
Next Scheduled EDR Contact: 05/04/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 01/30/2020	Source: EPA
Date Data Arrived at EDR: 02/06/2020	Telephone: 202-564-6023
Date Made Active in Reports: 02/14/2020	Last EDR Contact: 02/06/2020
Number of Days to Update: 8	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019	Source: EPA
Date Data Arrived at EDR: 10/11/2019	Telephone: 202-566-0500
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 01/10/2020
Number of Days to Update: 70	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/23/2016	Telephone: 202-564-2501
Date Made Active in Reports: 02/10/2017	Last EDR Contact: 01/06/2020
Number of Days to Update: 79	Next Scheduled EDR Contact: 04/20/2020
	Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 10/25/2019	Telephone: 301-415-7169
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 01/21/2020
Number of Days to Update: 82	Next Scheduled EDR Contact: 05/04/2020
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018	Source: Department of Energy
Date Data Arrived at EDR: 12/04/2019	Telephone: 202-586-8719
Date Made Active in Reports: 01/15/2020	Last EDR Contact: 12/04/2019
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/05/2019	Telephone: N/A
Date Made Active in Reports: 11/11/2019	Last EDR Contact: 11/25/2019
Number of Days to Update: 251	Next Scheduled EDR Contact: 03/16/2020
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 02/07/2020
Number of Days to Update: 96	Next Scheduled EDR Contact: 05/18/2020
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2019	Telephone: 202-343-9775
Date Made Active in Reports: 09/23/2019	Last EDR Contact: 12/20/2019
Number of Days to Update: 84	Next Scheduled EDR Contact: 04/13/2020
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/01/2019
Date Data Arrived at EDR: 10/29/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 78

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/28/2020
Next Scheduled EDR Contact: 05/11/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2019
Date Data Arrived at EDR: 10/09/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 72

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/06/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/16/2019
Next Scheduled EDR Contact: 04/06/2020
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/31/2020
Next Scheduled EDR Contact: 05/18/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/15/2019
Next Scheduled EDR Contact: 03/02/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 02/14/2020
Number of Days to Update: 9

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/05/2020
Next Scheduled EDR Contact: 04/13/2020
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/06/2019
Date Data Arrived at EDR: 11/25/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 64

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/25/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/03/2019
Date Data Arrived at EDR: 12/03/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 56

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 12/02/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/22/2019
Next Scheduled EDR Contact: 03/09/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2019
Date Data Arrived at EDR: 09/10/2019
Date Made Active in Reports: 10/17/2019
Number of Days to Update: 37

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/23/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/12/2019
Date Data Arrived at EDR: 09/04/2019
Date Made Active in Reports: 12/03/2019
Number of Days to Update: 90

Source: EPA
Telephone: (404) 562-9900
Last EDR Contact: 12/04/2019
Next Scheduled EDR Contact: 03/16/2020
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/06/2019
Date Data Arrived at EDR: 10/08/2019
Date Made Active in Reports: 01/02/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 01/07/2020
Next Scheduled EDR Contact: 04/20/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/26/2018	Telephone: 202-564-0527
Date Made Active in Reports: 10/05/2018	Last EDR Contact: 11/20/2019
Number of Days to Update: 71	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2017	Source: Department of Defense
Date Data Arrived at EDR: 01/17/2019	Telephone: 703-704-1564
Date Made Active in Reports: 04/01/2019	Last EDR Contact: 01/13/2020
Number of Days to Update: 74	Next Scheduled EDR Contact: 04/27/2020
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/18/2019	Source: EPA
Date Data Arrived at EDR: 11/19/2019	Telephone: 800-385-6164
Date Made Active in Reports: 01/28/2020	Last EDR Contact: 11/19/2019
Number of Days to Update: 70	Next Scheduled EDR Contact: 03/02/2020
	Data Release Frequency: Quarterly

AIRS: Air Quality Information Listing

Air emissions information.

Date of Government Version: 10/11/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/15/2019	Telephone: 601-961-5276
Date Made Active in Reports: 12/20/2019	Last EDR Contact: 12/17/2019
Number of Days to Update: 66	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Annually

ASBESTOS: Asbestos Project Listing

A listing of Air Division Asbestos Branch projects.

Date of Government Version: 10/11/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/15/2019	Telephone: 601-961-5611
Date Made Active in Reports: 12/19/2019	Last EDR Contact: 12/17/2019
Number of Days to Update: 65	Next Scheduled EDR Contact: 04/06/2020
	Data Release Frequency: Varies

DRYCLEANERS: Drycleaner Facilities Listing

A listing of drycleaner facilities.

Date of Government Version: 03/04/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 03/15/2019	Telephone: 601-961-5670
Date Made Active in Reports: 06/14/2019	Last EDR Contact: 02/10/2020
Number of Days to Update: 91	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

NPDES: Industrial & Municipal NPDES Facilities

Water discharge permit data.

Date of Government Version: 10/11/2019	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/15/2019	Telephone: 601-961-5666
Date Made Active in Reports: 12/19/2019	Last EDR Contact: 01/16/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PERMITS: Environmental Site Information System Listing

The purpose of this system is to support the permitting and compliance activities of the Office of Pollution Control. Regulatory programs that are supported by this database are the Surface Water National Pollutant Discharge Elimination System (NPDES) Program; the Air Title V, Construction and Operating Programs; and the Solid and Hazardous Waste Programs.

Date of Government Version: 10/11/2019	Source: The Office of Pollution Control
Date Data Arrived at EDR: 10/15/2019	Telephone: 601-961-5670
Date Made Active in Reports: 12/19/2019	Last EDR Contact: 01/16/2020
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/25/2020
	Data Release Frequency: Varies

UIC: UIC Information

A listing of underground injection control wells.

Date of Government Version: 12/03/2019	Source: State Oil & Gas Board
Date Data Arrived at EDR: 12/03/2019	Telephone: 601-576-4923
Date Made Active in Reports: 02/05/2020	Last EDR Contact: 02/18/2020
Number of Days to Update: 64	Next Scheduled EDR Contact: 06/01/2020
	Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System

Mineral Resources Data System

Date of Government Version: 04/06/2018	Source: USGS
Date Data Arrived at EDR: 10/21/2019	Telephone: 703-648-6533
Date Made Active in Reports: 10/24/2019	Last EDR Contact: 11/22/2019
Number of Days to Update: 3	Next Scheduled EDR Contact: 03/09/2020
	Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Mississippi.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 191

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Mississippi.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/20/2014
Number of Days to Update: 203

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Mississippi.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/01/2019	Telephone: 518-402-8651
Date Made Active in Reports: 06/21/2019	Last EDR Contact: 01/31/2020
Number of Days to Update: 51	Next Scheduled EDR Contact: 05/11/2020
	Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/19/2019	Telephone: 717-783-8990
Date Made Active in Reports: 09/10/2019	Last EDR Contact: 01/14/2020
Number of Days to Update: 53	Next Scheduled EDR Contact: 04/07/2020
	Data Release Frequency: Annually

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Listing

Source: Department of Health

Telephone: 601-576-7613

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: US Fish & Wildlife Service

Telephone: 703-358-2171

STREET AND ADDRESS INFORMATION

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