FINAL WETLAND AND OTHER WATERS ASSESSMENT REPORT

I-59 DESIGN-BUILD BRIDGE WIDENING PROJECT

Pearl River and Lamar County, MS

DB/IM-9999-06(016)

106594/301,302,303

Prepared by
Chuck Walters
Environmental Division

July 31, 2013

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Executive Summary

The Mississippi Department of Transportation (MDOT) is proposing to conduct maintenance in the way of widening at eight bridge sites (4.9 A&B over Canal Street, 10.8 A&B over West Union Road, 19.1 A&B over Millard Road, 40.2 A&B over Red Creek, 47.5 A&B over Little Black Creek, 53.2 A&B over Black Creek, 58.8 A&B over Steele Road, and 66.8 A&B over US 49) as a Design/Build project on I-59 in Pearl River, Lamar, and Forrest Counties. The project is located on I-59 beginning 4.5 miles north of the Louisiana State Line and continuing to the interchange at MS 49 in Hattiesburg, Mississippi. Following completion of the project, eight bridges will be widened.

Terrain in the project area is mostly uplands and creek crossing with narrow floodplains at Red Creek, Little Black Creek, and Black Creek (USGS HUC # 03170007). The project is located in the Inner Coastal Plain (LRR P) as described by the Natural Resource Conservation Service. There are no Section 303(d) listed streams or navigable waters in the project area. The crossing at Black Creek falls outside of the designated area considered to be a Wild and Scenic River as it is located eight miles north of the De Soto National Forest.

One wetland (0.246 acres total), and three other waters (1,240 linear feet total) are found in the study corridor. Wetlands are classified as palustrine emergent, and Other waters are classified as perennial. These areas should be considered potentially jurisdictional until concurrence is given by a representative of the US Army Corps of Engineers.

Proposed work will result in **0.044 acres of wetland permanent fill and 0.22 acres of wetland temporary fill at the Red Creek Bridge Site.** Bridge construction will result in **96 additional feet of other water bridging** and **60 linear feet of temporary bridges**.

Appendix A — Location Information

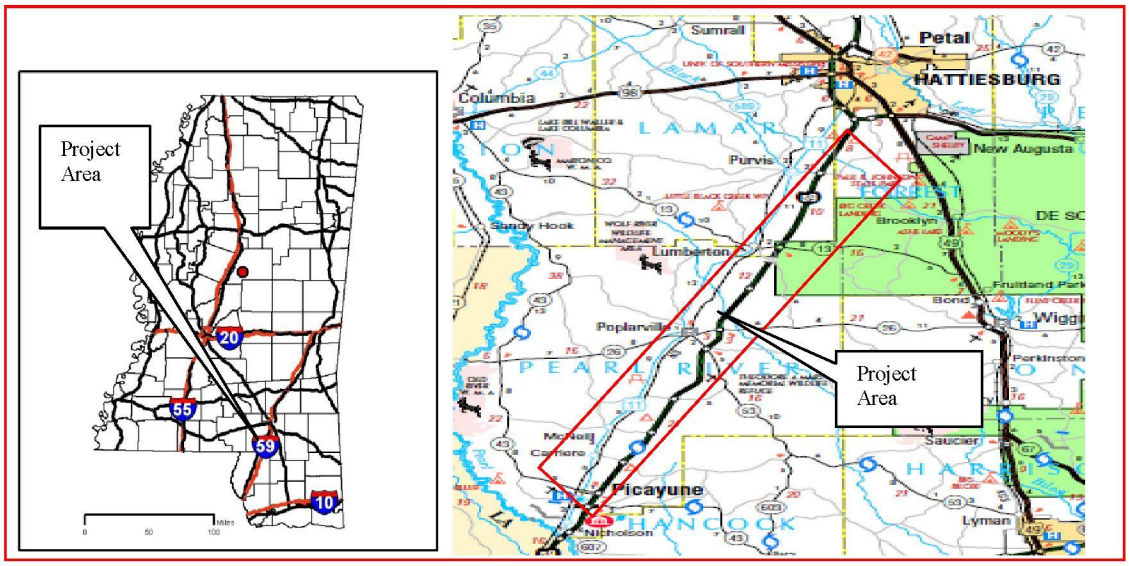


Figure 1. State and County Maps.

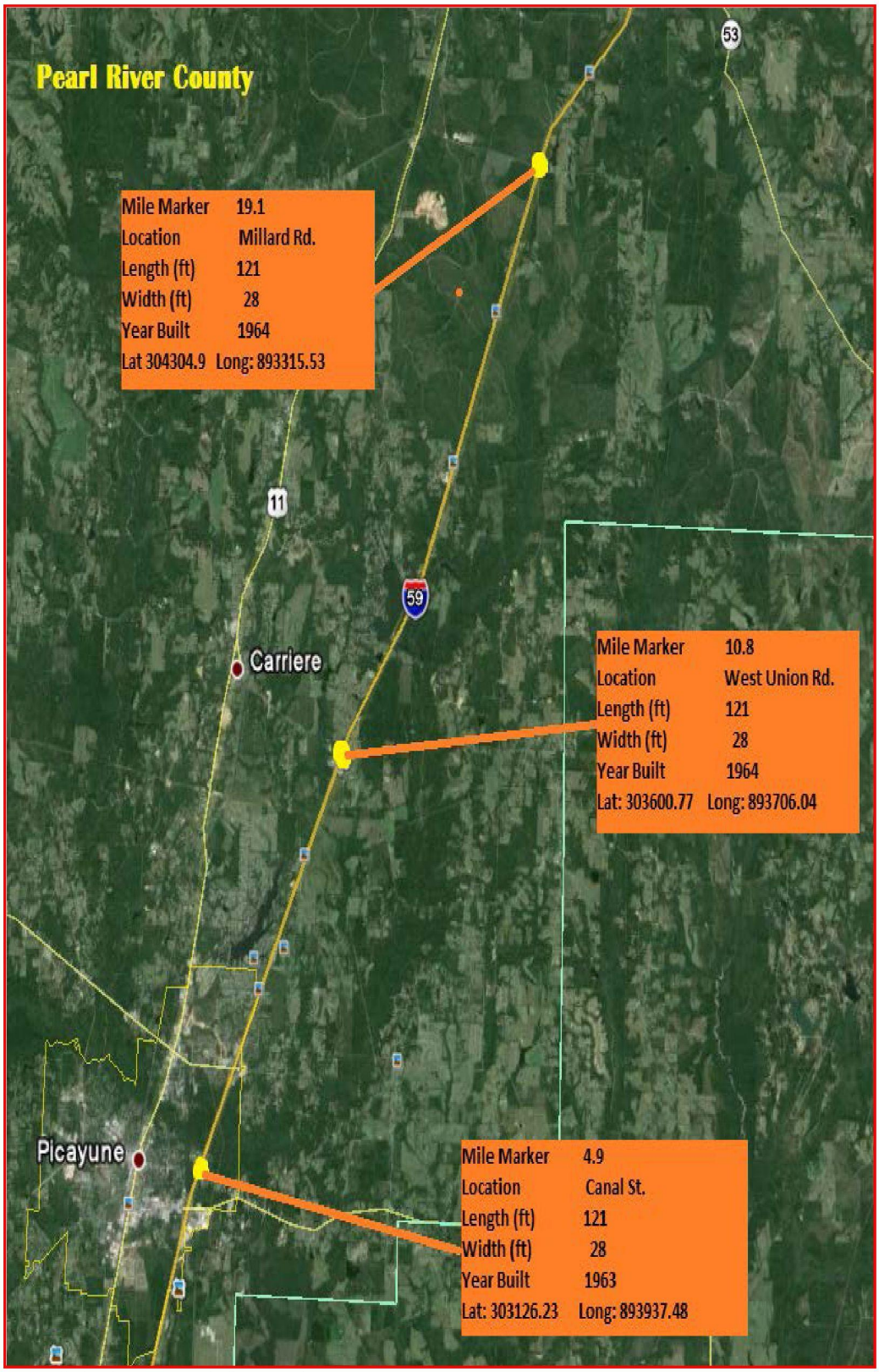


Figure 2. Aerial Photograph for project area

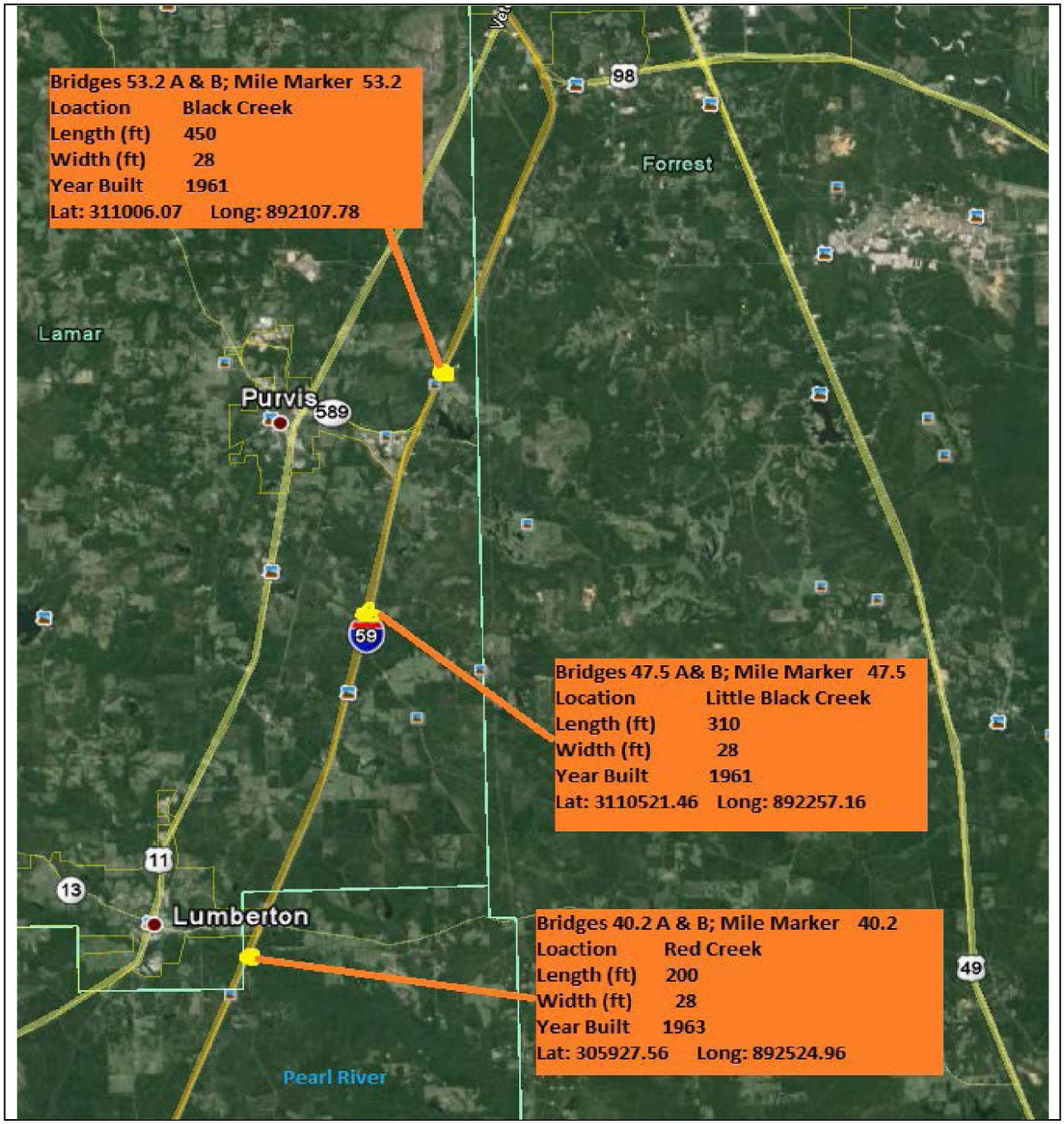


Figure 3. Aerial Photograph for Project Area

Appendix B — Table of Impacts

Table 1. Wetland Data Point Summary Table

Data Point	Wetland ID#	Site # OR Worksheet #	Latitude*	Longitude*	Approximate Station Number	Section-Township-Range	Area from ROW to ROW (Acres)	Cowardin Classification	Impact**
DP-1	W-1	1	30.99042	-89.42359	88+00	5-1S-14W	0.264	PEM	0.22 acres temporary fill 0.044 acres permanent fill

DP- Data point- collection point for sampling data for wetland assessment
W- Wetland- areas described as wetlands
PFO- Palustrine Forested
PEM- Palustrine Emergent
PSS- Palustrine Shrub-Scrub
Station Numbers are approximate
*

Wetland Summary:	1 Total Present (acres)	Permanent Fill (acres)	Temporary Fill (acres)
Forested:	0	0	0
Shrub-Scrub:	0	0	0
Emergent:	0.264	0.044	0.22
Total	**0.264**	**0.044**	**0.22**

Table 2. Channel Assessment Table

CA #	Site #	Latitude	Longitude	Sta.	Section-Township-Range	Type	Length in Project Area (feet)	Channel Width (feet)	Name	Impact
1	1	30.99040	-89.24358	88+00	5-1S-14W	P	370	65	Red Creek	20 ft- Temp. bridge construction 32 ft- Added bridge width
2	1	31.09023	-89.38229	470+00	35-2N-14W	P	420	42	Little Black Creek	32 ft- Added bridge width 20 ft- Temp bridge construction
3	1	31.16914	-89.35168	776+00	1-2N-14W	P	450	72	Black Creek	32 ft- Added bridge width 20 ft- Temp bridge construction

CA- Channel Assessment- Channel Assessment point location
Type:
P-Perennial
I-Intermittent
E-Ephemeral
OHWM-Ordinary High Water Mark
Station numbers (Sta.) are approximate

CA Summary	Total Present (ft)	New Bridge Width Shade/ Clear (ft)	Temporary Bridge Width Shade/ clear (ft)	Culvert/ Pipe (ft)	Rip-Rap/ Armor (ft)	Relocate and Fill (ft)	New Channel with rip-rap (ft)
Perennial:	156	96	60	0	0	0	0
Total (P.I.E.)	**156**	**96**	**60**	**0**	**0**	**0**	**0**

Appendix C — Detailed Site Information

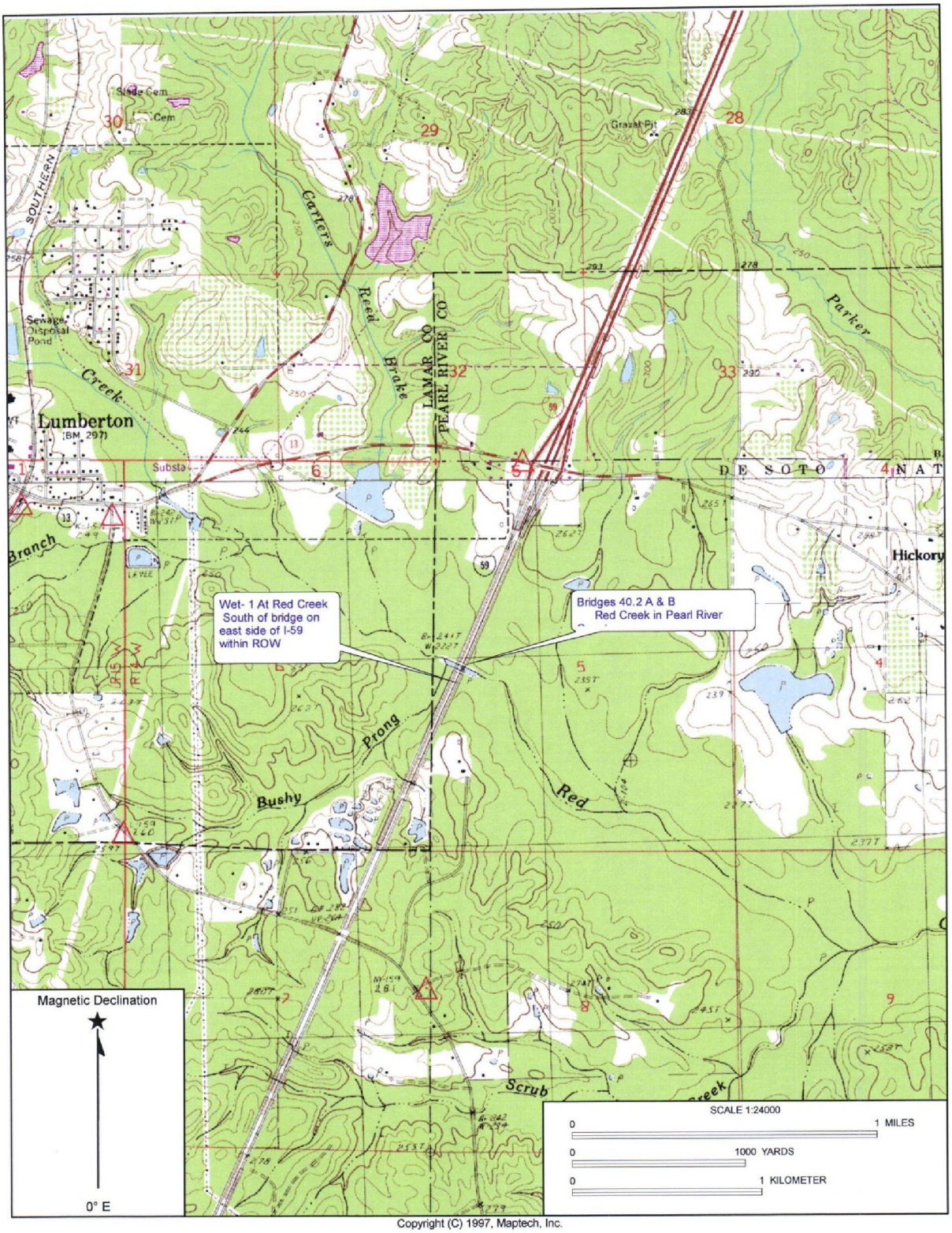
Site maps, Wetland Datasheet, Other Water Field Datasheet, Site Photographs

i.

MDOT

DB/IM-9999-06(016)/106594301
DB/IM-9999-06(016)/106594302

Improvements to Interstate 59
Red Creek
Pearl River County, Mississippi



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FIELD DATA SHEET
CHANNEL ASSESSMENT

Project: I-59 106594/301,302 Design/Build	**City/County/State:** Pearl River, MS.	
Investigator(s): Chuck Walters	**Lat:** N 30.99040 **Long:** - 089..42358	**Sample Location ID:** CA-1
Applicant/Owner: MDOT	**Date:** July 31, 2013	
Reason for Survey: Bridge Maintenance		
Comments:		
River Basin/HUC Number: 03170007	**Tributary Name (if known):** Red Creek	
Size of Watershed: 811,287 Ac.	**Nearest TNW:** Red Creek	
Size of Drainage Area: 4575 Ac.		

TRIBUTARY CHARACTER-IZATION	**Tributary subsystem:** ☐ Ephemeral ☐ Intermittent ☑ Perennial			
	Tributary flows directly into a TNW? Yes			
	Explain:			
	Distance to nearest TNW:			
	River Miles: 0 **Aerial Miles:** 0			
	Describe flow route to TNW: Red Creek			
	Tributary is (natural / artificial / manipulated): Natural			
	Explain:			
WEATHER CONDITIONS	**Current:**			
	☐	Rain(steady rain)	**Has there been heavy rain in the last 7 days?** Yes	
	☐	Showers (intermittent)		
	☑	Cloud cover 30 (%)	**Average Rainfall:** >50	
	☐	Clear/sunny		
	Air temperature: (˚F) 88			
	Comment:			
WATERSHED FEATURES	**Predominant surrounding landuse:**			
	☑	Forest	☐ Commercial	☐ Other (explain):
	☐	Field/Pasture	☐ Industrial	
	☐	Agricultural	☐ Residential	

FIELD DATA SHEET

CHANNEL ASSESSMENT

TRIBUTARY FEATURES	**Estimated reach length:** 4,455 (ft.) **Estimated channel width:** 65 (ft.) **Estimated channel depth:** >5 (ft.)	**Channelized:** No **Dam present:** No
	Estimated slope of banks: Vertical ☐ 2:1 ☑ 3:1 ☐ 4:1 ☐ Greater ☐	**Substrate:** Sand ☑ Cobble ☐ Silt ☑ Gravel ☑
TRIBUTARY CONDITION	**Tributary has** (defined bed and banks / OHWM):	
	Explain: Channel has defined bed and banks, water just below OHWM	
	Bank stability (highly eroded, sloughing banks, etc): Stable Banks	
	Riffle/Run/Pool complex:	
	There are complexes present	
FLOW CONDITIONS	**Tributary geometry** (Meandering, Relatively Straight): Meandering	
	Current flow is (discrete, confined, overland sheet flow etc.): Confined	
	Average flow events per year:	
VEGETATION	**Approximate width of riparian buffer:** (ft.) >50(ft.)	
	Dominant species present (top bank / buffer): Water Oak, Rag weed, Red Rattlebox, Bahia grass	
	Aquatic vegetation present: None	
	Comment:	

CA-1
Red Creek
Description| Looking up Gradient

CA-1
Red Creek
Description| Looking Down Gradient

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: I-59 106594/301,302 Design/Build City/County: Pearl River Sampling Date: 07/31/2013

Applicant/Owner: MDOT State: MS Sampling Point: DP-1, Wet-1

Investigator(s): C. Walters Section, Township, Range: Section 5, T1S, R14 W

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR or MLRA): LRR-P Lat: N 30.99042 Long: W -089.42359 Datum: NAD 83

Soil Map Unit Name: Smithton NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?**	**Yes ✓ No _____**
Hydric Soil Present?	Yes ✓ No _____		
Wetland Hydrology Present?	Yes ✓ No _____		

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ✓ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)
- ___ Sphagnum moss (D8) **(LRR T, U)**

Field Observations:

Surface Water Present?	Yes _____	No ✓	Depth (inches): _____
Water Table Present?	Yes ✓	No _____	Depth (inches): <1
Saturation Present? (includes capillary fringe)	Yes ✓	No _____	Depth (inches): To Surface

Wetland Hydrology Present? Yes ✓ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP-1, Wet-1

Tree Stratum (Plot size: 30 (ft.))	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus pennsylvanica	10	yes	FACW
2. Liquidambar styraciflua	10	yes	FAC
3. Quercus nigra	10	yes	FAC
4.			
5.			
6.			
7.			
8.			
	30 = Total Cover		
50% of total cover: 15	20% of total cover: 6		

Sapling/Shrub Stratum (Plot size: 30 (ft.))			
1. Ligustrum sinense	25	yes	FAC
2. Cyrilla racemiflora	25	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
50% of total cover: 25	20% of total cover: 10		

Herb Stratum (Plot size: 30 (ft.))			
1. Carex spp.	40	yes	FACW
2. Juncus effusus	30	yes	OBL
3. Polygonum punctatum	30	yes	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100 = Total Cover		
50% of total cover: 50	20% of total cover: 20		

Woody Vine Stratum (Plot size: 30 (ft.))			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
50% of total cover: 0	20% of total cover: 0		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	1	x 1 = 1
FACW species	4	x 2 = 8
FAC species	3	x 3 = 9
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	8 (A)	18 (B)

Prevalence Index = B/A = 2.25

Hydrophytic Vegetation Indicators:

- [x] 1 - Rapid Test for Hydrophytic Vegetation
- [x] 2 - Dominance Test is >50%
- [x] 3 - Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes [x] No [ ]

Remarks: (If observed, list morphological adaptations below).

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SOIL Sampling Point: DP-1, Wet-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/1	100					SL	
5-12	10YR 5/1	70	10YR 5/6	30	D	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) **(MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A,B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- ___ Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☑ No ☐

Remarks:

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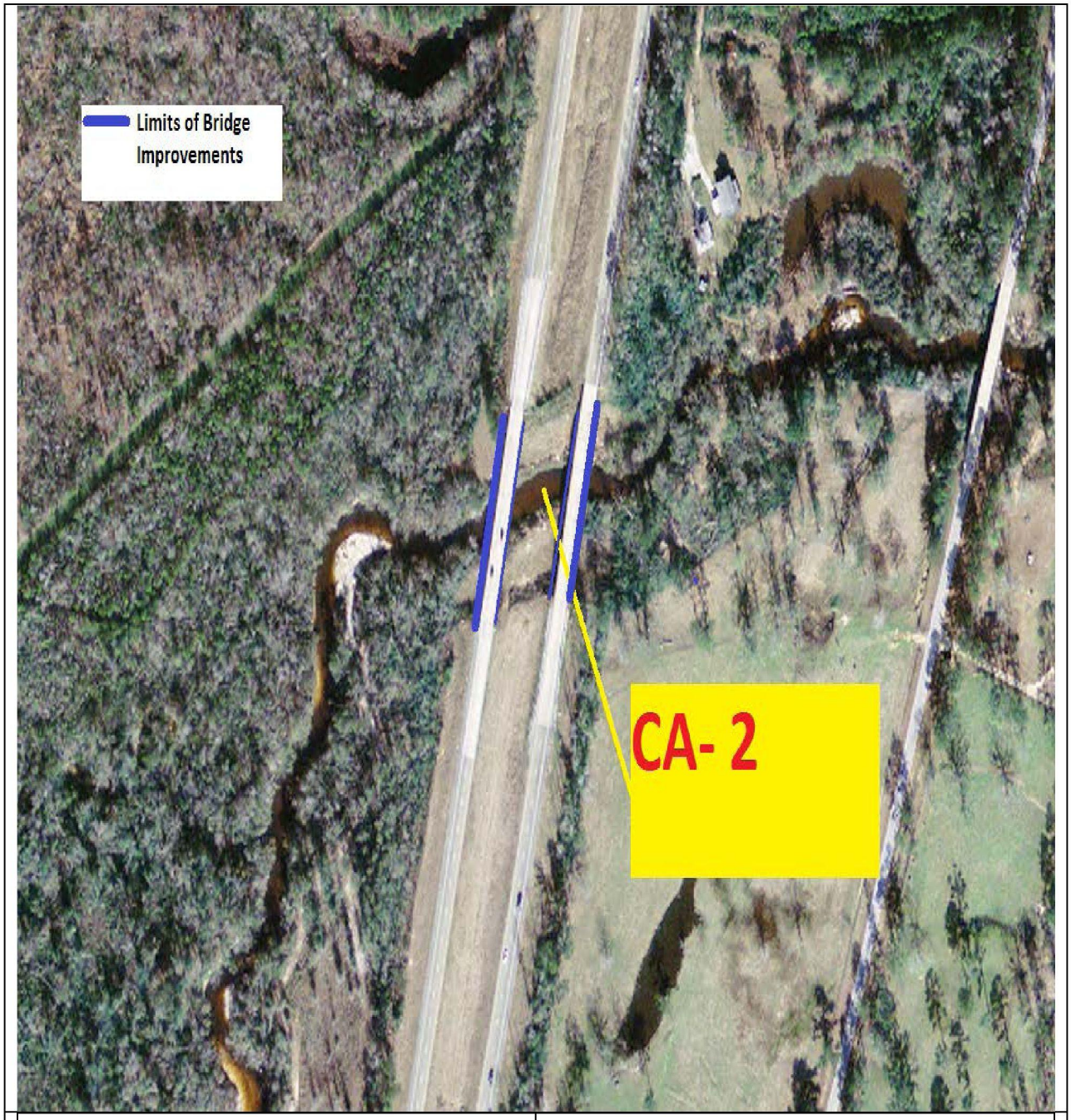
DP-1, Wet-1
Palustrine Emergent

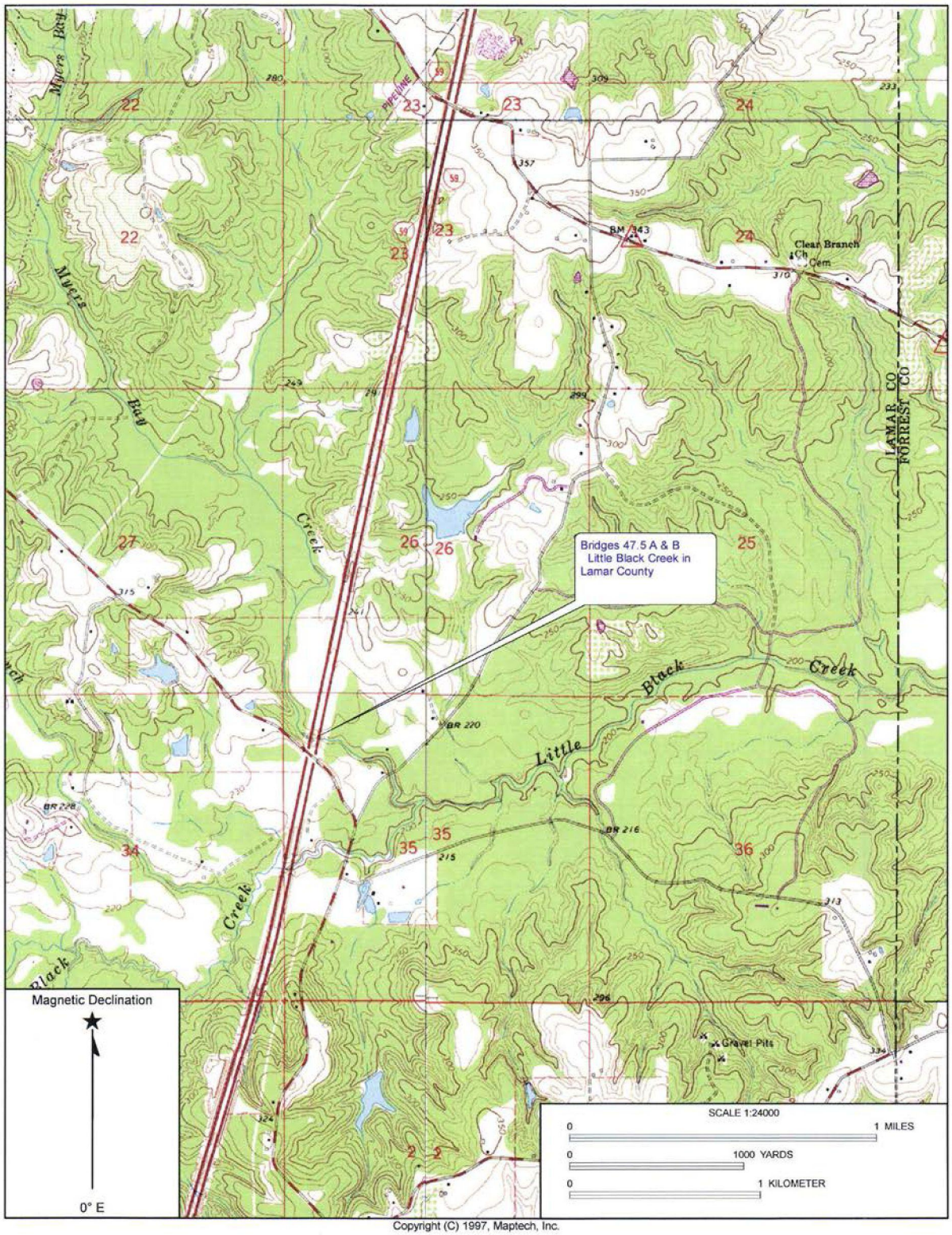
Description| Looking north from Data Point , east side of I-59, and south of Red Creek.



MDOT

DB/IM-9999-06(016)/106594301
DB/IM-9999-06(016)/106594302

Improvements to Interstate 59
Little Black Creek
Lamar County, Mississippi


Bridges 47.5 A & B
Little Black Creek in
Lamar County
Little Black Creek
Black Creek
Myers Bay
Clean Branch Ch
Cem
LAMAR CO
FORREST CO
PIPELINE
BR 220
BR 216
BR 228
Gravel Pits
Magnetic Declination
0° E
SCALE 1:24000
0
1 MILES
0
1000 YARDS
0
1 KILOMETER
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FIELD DATA SHEET
CHANNEL ASSESSMENT

Project: I-59 106594/301,302 Design/Build	**City/County/State:** Lamar, MS.	
Investigator(s): Chuck Walters	**Lat:** N 31.09023 **Long:** - 089.38229	**Sample Location ID:** CA-2
Applicant/Owner: MDOT	**Date:** July 31, 2013	
Reason for Survey: Bridge Maintenance		
Comments:		

River Basin/HUC Number: 03170007	**Tributary Name (if known):** Little Black Creek
Size of Watershed: 811,287 Ac.	**Nearest TNW:** Black Creek
Size of Drainage Area: 7,147 Ac.	

TRIBUTARY CHARACTER-IZATION	**Tributary subsystem:** ☐ Ephemeral ☐ Intermittent ☑ Perennial
	Tributary flows directly into a TNW? Yes
	Explain:
	Distance to nearest TNW:
	River Miles: 6.63 **Aerial Miles:** 5
	Describe flow route to TNW: Red Creek
	Tributary is (natural / artificial / manipulated): Natural
	Explain:

WEATHER CONDITIONS	**Current:**		
	☐	Rain(steady rain)	**Has there been heavy rain in the last 7 days?** Yes
	☐	Showers (intermittent)	
	☑	Cloud cover 30 (%)	**Average Rainfall:** >50
	☐	Clear/sunny	
	Air temperature: (˚F) 88		
	Comment:		

WATERSHED FEATURES	**Predominant surrounding landuse:**					
	☑	Forest	☐	Commercial	☐	Other (explain):
	☐	Field/Pasture	☐	Industrial		
	☐	Agricultural	☐	Residential		

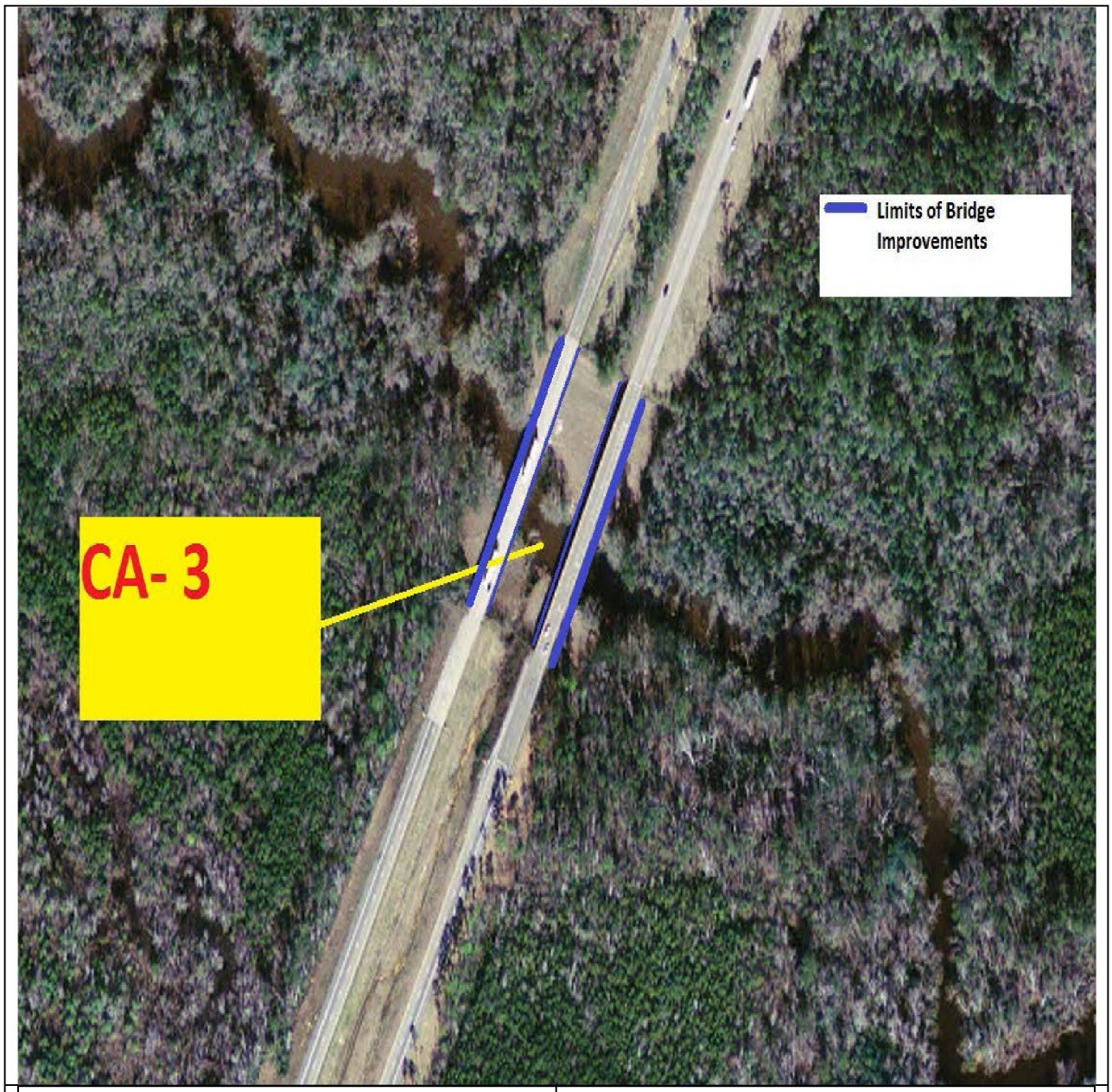
FIELD DATA SHEET

CHANNEL ASSESSMENT

TRIBUTARY FEATURES	**Estimated reach length:** 3,676 (ft.) **Estimated channel width:** 42 (ft.) **Estimated channel depth:** 1.5 (ft.)	**Channelized:** No **Dam present:** No
	Estimated slope of banks: Vertical ☐ 2:1 ☑ 3:1 ☐ 4:1 ☐ Greater ☐	**Substrate:** Sand ☑ Cobble ☐ Silt ☑ Gravel ☑
TRIBUTARY CONDITION	**Tributary has** (defined bed and banks / OHWM):	
	Explain: Channel has defined bed and banks, water just below OHWM	
	Bank stability (highly eroded, sloughing banks, etc): Stable Banks	
	Riffle/Run/Pool complex:	
	There are complexes present	
FLOW CONDITIONS	**Tributary geometry** (Meandering, Relatively Straight): Meandering	
	Current flow is (discrete, confined, overland sheet flow etc.): Confined	
	Average flow events per year:	
VEGETATION	**Approximate width of riparian buffer:** (ft.) >50(ft.)	
	Dominant species present (top bank / buffer): White Titi, Johnsongrass, Ragweed, Red Maple, Bahia grass	
	Aquatic vegetation present: None	
	Comment:	

CA-2
Little Black Creek
Description| Looking Up Gradient

CA-2
Little Black Creek
Description| Looking Down Gradient



MDOT

DB/IM-9999-06(016)/106594301
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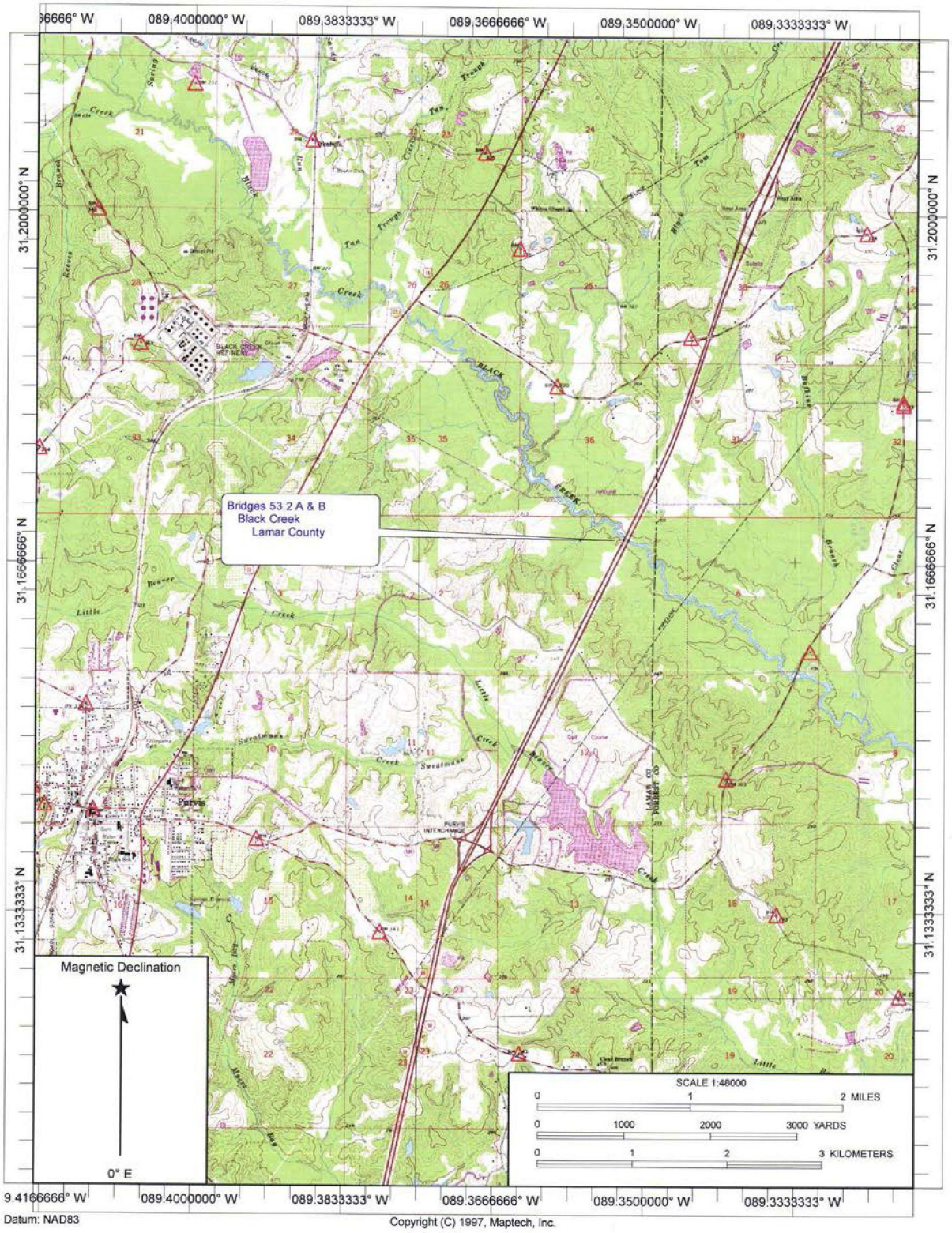
Improvements to Interstate 59
Black Creek
Lamar County, Mississippi


Bridges 53.2 A & B
Black Creek
Lamar County
Magnetic Declination
0° E
SCALE 1:48000
0 1 2 MILES
0 1000 2000 3000 YARDS
0 1 2 3 KILOMETERS
089.4000000° W
089.3833333° W
089.3666666° W
089.3500000° W
089.3333333° W
31.2000000° N
31.1666666° N
31.1333333° N
Datum: NAD83
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FIELD DATA SHEET
CHANNEL ASSESSMENT

Project: I-59 106594/301,302 Design/Build	**City/County/State:** Lamar, MS.	
Investigator(s): Chuck Walters	**Lat:** N 31.16914 **Long:** - 089.35168	**Sample Location ID:** CA-3
Applicant/Owner: MDOT	**Date:** July 31, 2013	
Reason for Survey: Bridge Maintenance		
Comments:		

River Basin/HUC Number: 03170007	**Tributary Name (if known):** Black Creek
Size of Watershed: 811,287 Ac.	**Nearest TNW:** Black Creek
Size of Drainage Area: 25,090 Ac.	

TRIBUTARY CHARACTER-IZATION	**Tributary subsystem:** ☐ Ephemeral ☐ Intermittent ☑ Perennial
	Tributary flows directly into a TNW? Yes
	Explain:
	Distance to nearest TNW:
	River Miles: 0 **Aerial Miles:** 0
	Describe flow route to TNW: Red Creek
	Tributary is (natural / artificial / manipulated): Natural
	Explain:

WEATHER CONDITIONS	**Current:**		
	☐	Rain(steady rain)	**Has there been heavy rain in the last 7 days?** Yes
	☐	Showers (intermittent)	
	☑	Cloud cover 30 (%)	**Average Rainfall:** >50
	☐	Clear/sunny	
	Air temperature: (˚F) 88		
	Comment:		

WATERSHED FEATURES	**Predominant surrounding landuse:**					
	☑	Forest	☐	Commercial	☐	Other (explain):
	☐	Field/Pasture	☐	Industrial		
	☐	Agricultural	☐	Residential		

FIELD DATA SHEET

CHANNEL ASSESSMENT

TRIBUTARY FEATURES	**Estimated reach length:** 13,20((ft.) **Estimated channel width:** 72 (ft.) **Estimated channel depth:** >6 (ft.)	**Channelized:** No **Dam present:** No
	Estimated slope of banks: Vertical ☐ 2:1 ☑ 3:1 ☐ 4:1 ☐ Greater ☐	**Substrate:** Sand ☑ Cobble ☐ Silt ☑ Gravel ☑
TRIBUTARY CONDITION	**Tributary has** (defined bed and banks / OHWM):	
	Explain: Channel has defined bed and banks, water just below OHWM	
	Bank stability (highly eroded, sloughing banks, etc): Stable Banks	
	Riffle/Run/Pool complex:	
	There are complexes present	
FLOW CONDITIONS	**Tributary geometry** (Meandering, Relatively Straight): Meandering	
	Current flow is (discrete, confined, overland sheet flow etc.): Confined	
	Average flow events per year:	
VEGETATION	**Approximate width of riparian buffer:** (ft.) >50(ft.)	
	Dominant species present (top bank / buffer): White Titi, Switchcane, Water Oak, and Green Briar	
	Aquatic vegetation present: None	
	Comment:	

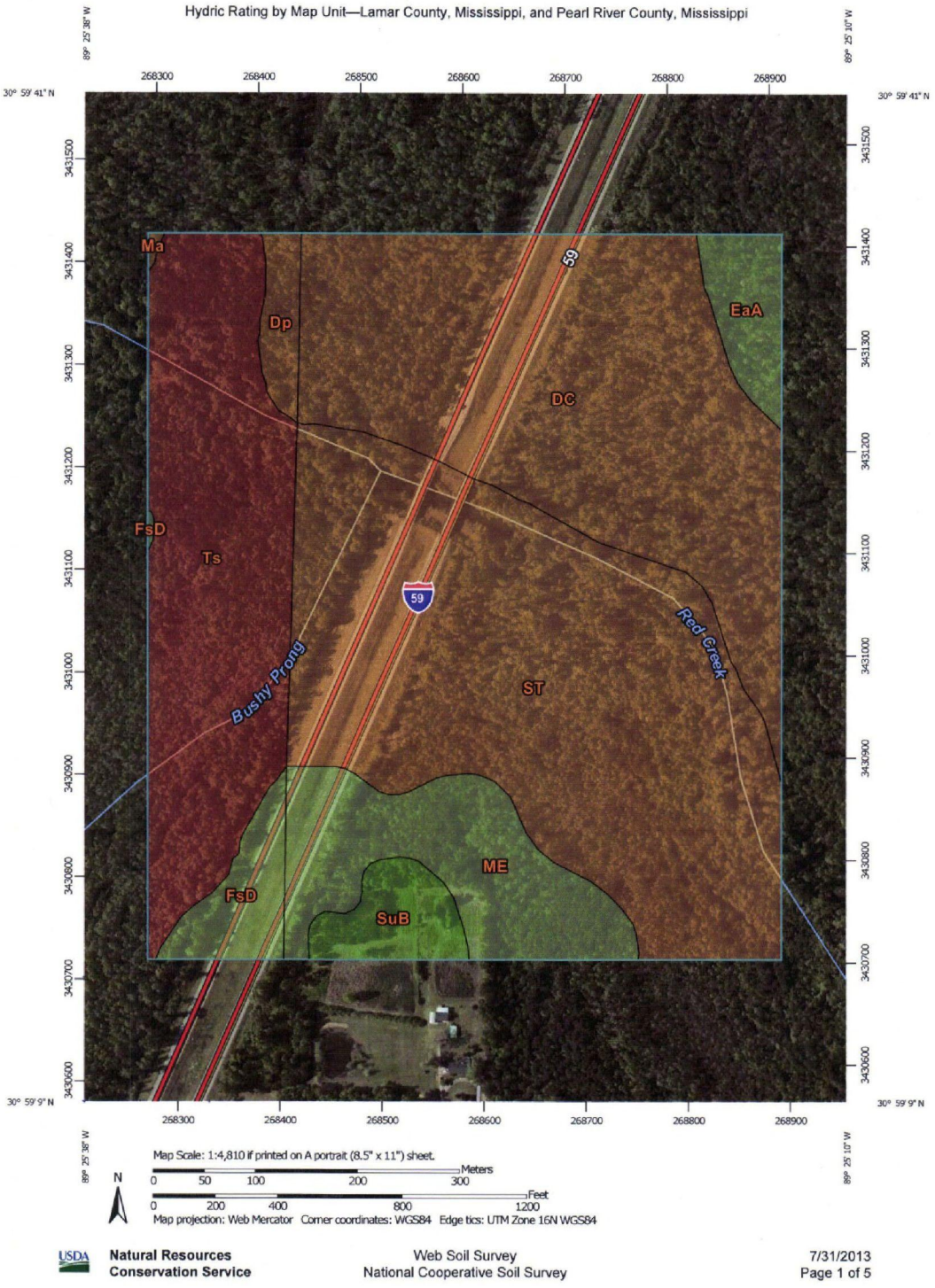
CA-3
Black Creek
Description| Looking Up Gradient

CA-3
Black Creek
Description| Looking Down Gradient

Appendix D — Background Information

USDA NRCS Web Soil Survey

USFWS Nation Wetland Inventory Map



USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

7/31/2013
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Soil Rating Lines

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Soil Rating Points

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lamar County, Mississippi
Survey Area Data: Version 6, Jul 7, 2010

Soil Survey Area: Pearl River County, Mississippi
Survey Area Data: Version 9, Aug 7, 2008

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 22, 2010—Jun 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Lamar County, Mississippi (MS073)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Dp	Dorovan and Pamlico mucks (dorovan and croatan)	99	1.5	1.4%
FsD	Freestone, Susquehanna, and Prentiss soils, 5 to 12 percent slopes (freest, susquehanna and prentiss)	2	2.9	2.6%
Ma	Mashulaville fine sandy loam	95	0.1	0.1%
Ts	Trebloc and Osier soils	100	20.3	18.6%
Subtotals for Soil Survey Area			**24.8**	**22.7%**
Totals for Area of Interest			**109.1**	**100.0%**

Hydric Rating by Map Unit— Summary by Map Unit — Pearl River County, Mississippi (MS109)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
DC	Dorovan-Croatan association	84	30.5	28.0%
EaA	Escambia fine sandy loam, 0 to 2 percent slopes	3	2.7	2.5%
ME	Malbis-Susquehanna-Saucier association sloping	3	9.6	8.8%
ST	Smithton association frequently flooded	95	38.7	35.5%
SuB	Susquehanna loam, 2 to 5 percent slopes	0	2.8	2.5%
Subtotals for Soil Survey Area			**84.3**	**77.3%**
Totals for Area of Interest			**109.1**	**100.0%**

Hydric Rating by Map Unit—Lamar County, Mississippi
89° 23' 5" W
89° 22' 49" W
31° 5' 31" N
31° 5' 13" N
272540
272600
272660
272720
272780
272840
272900
3442230
3442170
3442110
3442050
3441990
3441930
3441870
3441810
3441750
3441690
Tr
PnA
Lt
Ts
Little Black Creek
Lt
Ma
MIC
Map Scale: 1:2,680 if printed on A portrait (8.5" x 11") sheet.
Meters
0 35 70 140 210
Feet
0 100 200 400 600
N
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84
USDA
Natural Resources
Conservation Service
Web Soil Survey
National Cooperative Soil Survey
8/6/2013
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Soil Rating Lines

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Soil Rating Points

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lamar County, Mississippi
Survey Area Data: Version 6, Jul 7, 2010

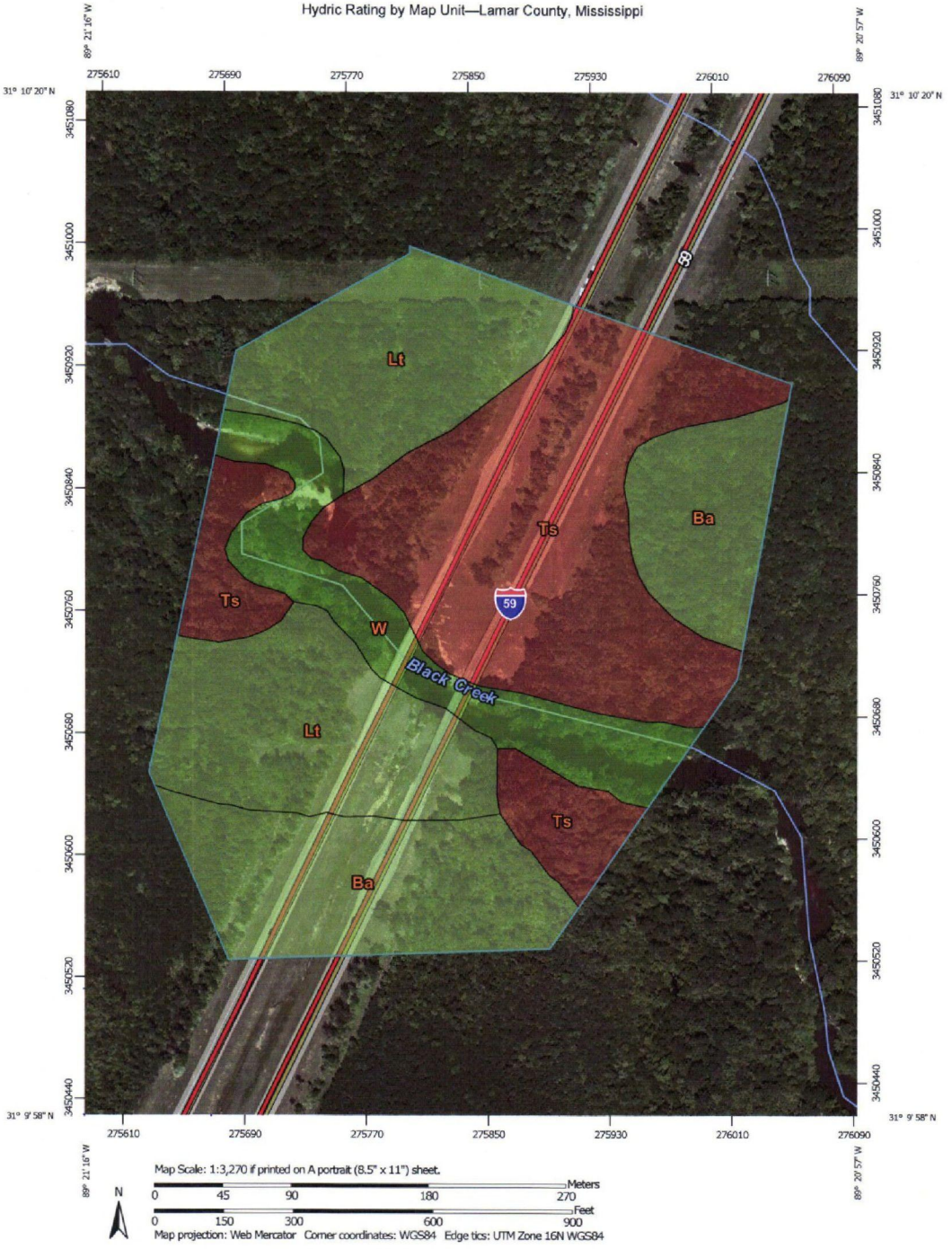
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 22, 2010—May 6, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Lamar County, Mississippi (MS073)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Lt	Latonia fine sandy loam	2	9.4	32.8%
Ma	Mashulaville fine sandy loam	95	3.2	11.1%
MIC	McLaurin-Lucy association, rolling	2	0.0	0.0%
PnA	Prentiss fine sandy loam, 0 to 2 percent slopes	5	7.9	27.5%
Tr	Trebloc silt loam	90	0.3	1.2%
Ts	Trebloc and Osier soils	100	7.8	27.4%
Totals for Area of Interest			**28.6**	**100.0%**



USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

8/6/2013
Page 1 of 5

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
- Not rated or not available

Soil Rating Lines

- Hydric (100%)
- Predominantly hydric (66 to 99%)
- Partially hydric (33 to 65%)
- Predominantly nonhydric (1 to 32%)
- Nonhydric (0%)
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Soil Rating Points

- Hydric (100%)
- Predominantly hydric (66 to 99%)
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Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lamar County, Mississippi
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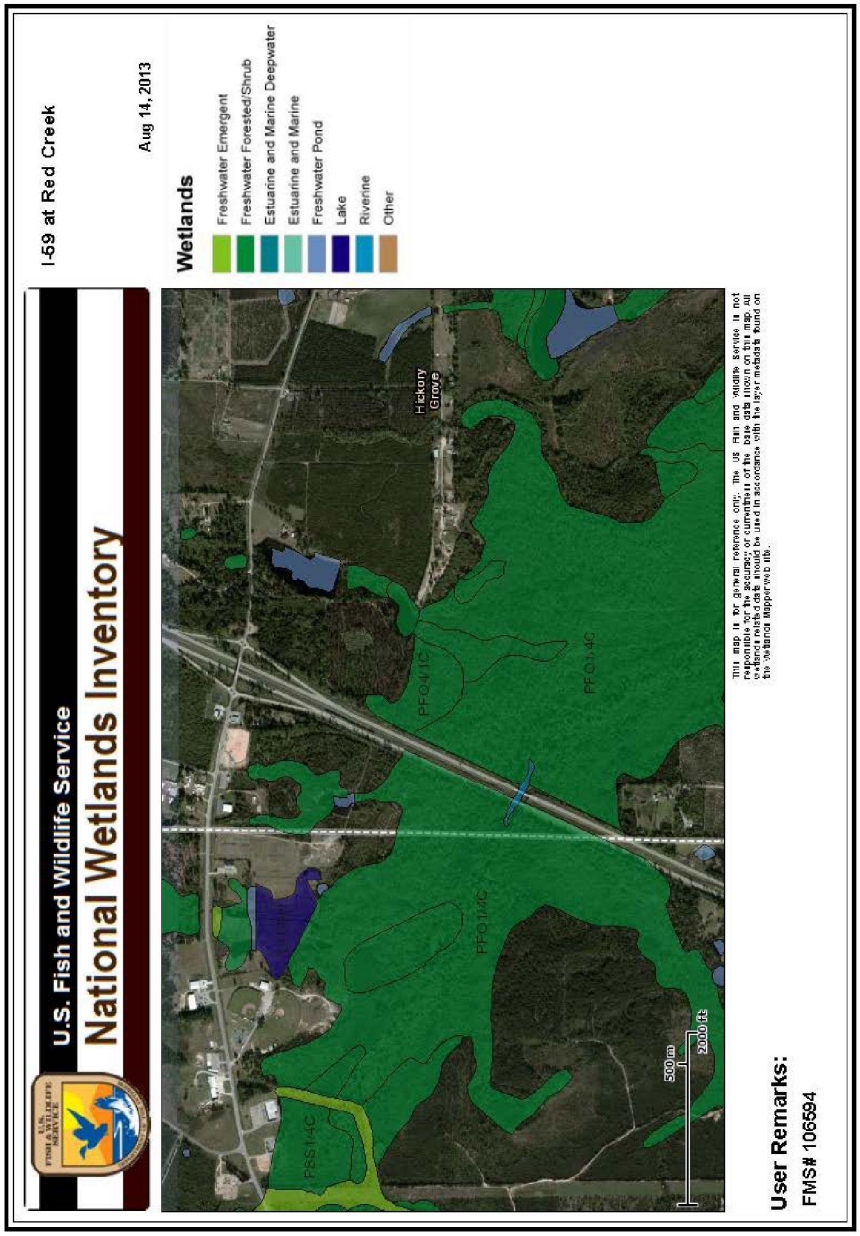
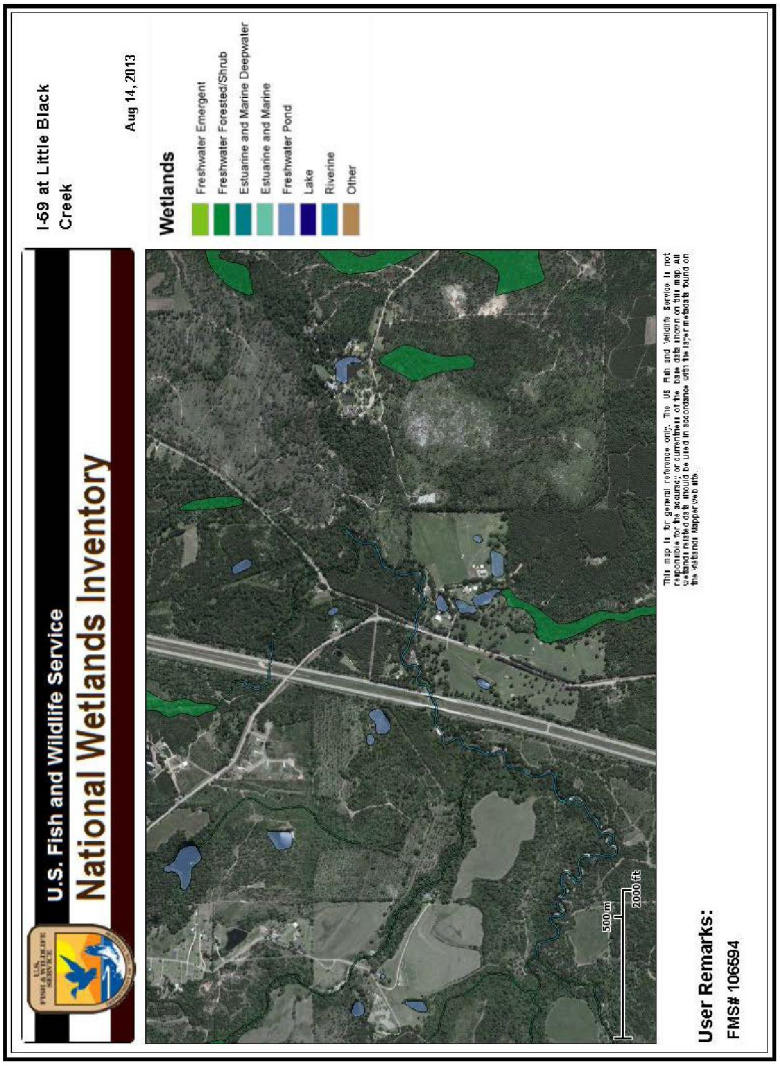
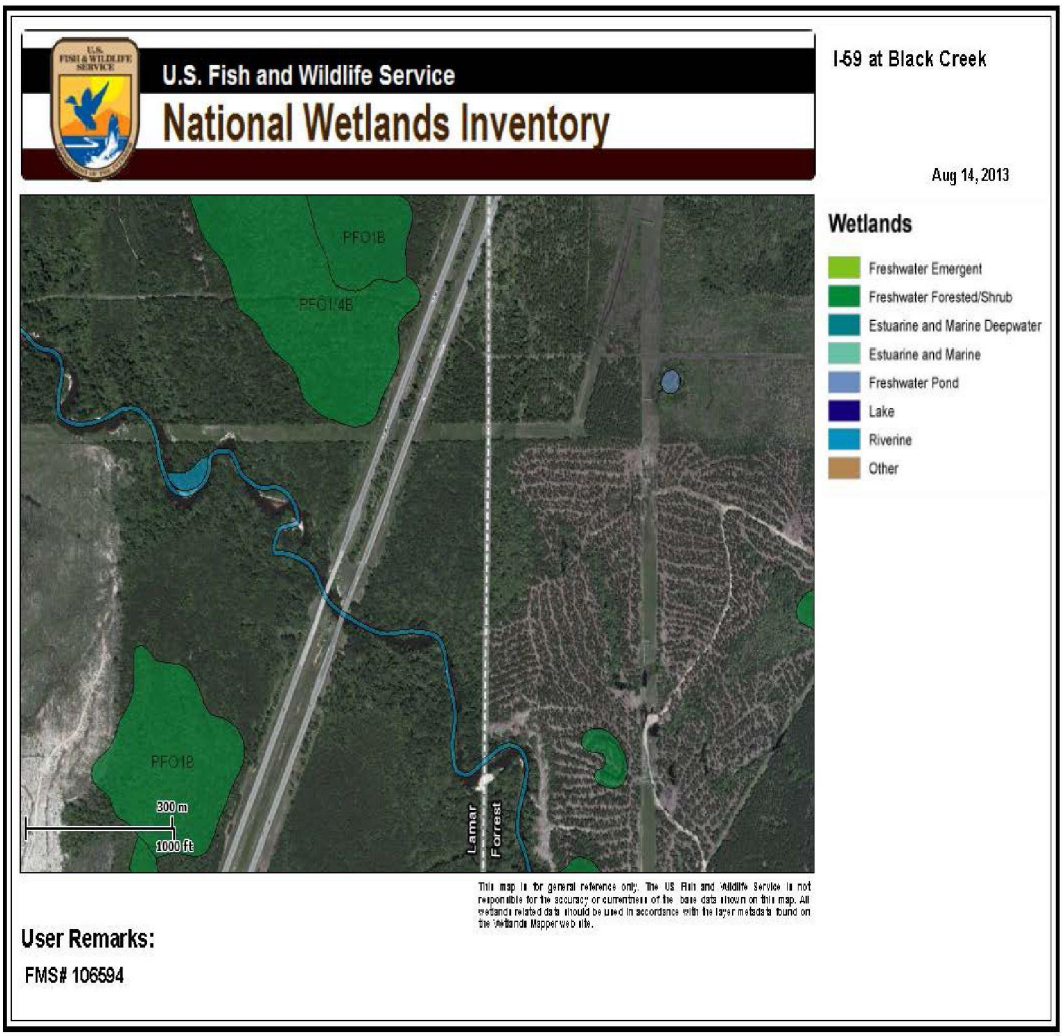
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Hydric Rating by Map Unit— Summary by Map Unit — Lamar County, Mississippi (MS073)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
Ba	Basin fine sandy loam	5	8.2	23.0%
Lt	Latonia fine sandy loam	2	10.2	28.6%
Ts	Trebloc and Osier soils	100	13.3	37.1%
W	Water	0	4.0	11.3%
Totals for Area of Interest			**35.8**	**100.0%**


U.S. Fish and Wildlife Service
National Wetlands Inventory
I-59 at Red Creek
Aug 14, 2013
Wetlands
Freshwater Emergent
Freshwater Forested/Shrub
Estuarine and Marine Deepwater
Estuarine and Marine
Freshwater Pond
Lake
Riverine
Other
Hickory Grove
PFO1/4C
PFO1/4C
PFO1/4C
PSS1/4C
500 m
2000 ft
User Remarks:
FMS# 106594


U.S. Fish and Wildlife Service
National Wetlands Inventory
I-59 at Little Black Creek
Aug 14, 2013
Wetlands
Freshwater Emergent
Freshwater Forested/Shrub
Estuarine and Marine Deepwater
Estuarine and Marine
Freshwater Pond
Lake
Riverine
Other
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currency of the data shown on this map. All wetland boundaries or delineations should be verified in accordance with the Corps of Engineers Manual on the National Mapping Program.
500 m
2000 ft
User Remarks:
FMS# 106694


U.S. Fish and Wildlife Service
National Wetlands Inventory
I-59 at Black Creek
Aug 14, 2013
Wetlands
Freshwater Emergent
Freshwater Forested/Shrub
Estuarine and Marine Deepwater
Estuarine and Marine
Freshwater Pond
Lake
Riverine
Other
PFO1B
PFO1/4B
PFO1B
300 m
1000 ft
Lamar
Forrest
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.
User Remarks:
FMS# 106594

Appendix E — Rainfall Data

Wets Tables

Local Recorded Weather

```
 1 6.30  2.70 11.96  1.50  2.20 16.77  7.32  5.13  6.47 M2.00  5.15  3.45 70.95
 2
----------
```

WETS Station : POPLARVILLE EXP STN, MS7128 Creation Date: 09/06/2002
Latitude: 3051 Longitude: 08933 Elevation: 310
State FIPS/County(FIPS): 28109 County Name: Pearl River
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.) avg daily max	avg daily min	avg	Precipitation (Inches) avg	30% chance will have less than	more than	avg # of days w/.1 or more	avg total snow fall
January	61.0	39.6	50.3	6.06	4.06	7.26	8	0.1
February	64.8	42.2	53.5	5.72	3.73	6.88	6	0.1
March	71.6	48.8	60.2	6.56	4.93	7.66	7	0.2
April	77.6	54.7	66.1	5.43	3.09	6.61	5	0.0
May	84.5	63.0	73.8	5.55	3.17	6.75	6	0.0
June	90.1	68.9	79.5	4.50	2.91	5.41	7	0.0
July	91.6	71.1	81.3	6.56	4.53	7.81	9	0.0
August	91.6	70.7	81.2	5.11	3.57	6.07	8	0.0
September	87.6	66.4	77.0	4.24	2.36	5.16	6	0.0
October	79.8	55.8	67.8	3.42	1.71	4.24	4	0.0
November	70.4	47.9	59.2	4.75	3.27	5.66	6	0.0
December	63.2	41.8	52.5	5.18	3.71	6.12	7	0.0
Annual	-----	-----	-----	------	56.66	67.40	--	----
Average	77.8	55.9	66.9	------	------	------	--	----
Total	-----	-----	-----	63.08	------	------	79	0.3

GROWING SEASON DATES

Probability	Temperature: 24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *	1/31 to 12/27 331 days	2/19 to 12/ 7 292 days	3/ 6 to 11/22 261 days
70 percent *	1/21 to ----- 351 days	2/12 to 12/14 305 days	3/ 1 to 11/27 273 days

* Percent chance of the growing season occurring between the Beginning and Ending dates.

total 1930-2002 prcp

Station : MS7128, POPLARVILLE EXP STN
------- Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
30	5.89	M4.00	M3.53	0.81	4.00	0.75	2.61	7.22	8.29	2.03	8.20	2.28	49.61
31	5.01	3.37	4.39	1.78	9.23	4.09	14.49	7.78	2.00	1.81	5.11	8.37	67.43
32	7.95	5.79	2.24	3.92	M8.57	1.73	6.91	7.00	7.14	5.24	3.62	6.60	66.71
33	2.84	7.04	8.54	10.59	5.31	5.42	7.35	5.12	1.25	0.20	1.07	1.43	56.16
34	5.43	6.05	5.23	3.72	3.79	4.13	5.05	6.02	4.51	3.35	8.54	5.19	61.01
35	4.08	7.48	7.92	6.54	7.74	7.39	9.08	4.48	4.42	1.82	3.01	8.20	72.16
36	10.54	6.15	2.06	6.91	3.33	0.92	5.06	4.36	3.92	0.81	2.50	7.14	53.70
37	7.73	2.76	7.99	6.70	3.47	8.09	1.75	8.15	2.23	8.94	3.25	3.26	64.32
38	4.10	3.17	6.24	6.30	1.29	M2.53	M4.18	2.88	3.14	0.42	4.53	4.62	43.40
39	4.06	6.37	3.62	2.84	6.19	7.53	11.60	6.18	2.61	2.28	0.40	2.70	56.38
40	3.15	11.26	4.17	8.45	1.60	10.15	7.14	3.37	2.38	0.45	3.36	10.29	65.77
41	4.88	3.41	4.30	3.11	1.63	6.67	5.18	6.74	5.16	3.42	3.20	8.26	55.96
42	4.21	6.94	6.35	M2.69	5.20	6.18	6.56	13.05	4.79	3.35	1.30	7.06	67.68
43	2.54	2.16	14.68	3.12	2.31	5.12	1.92	4.82	11.15	1.28	5.51	4.25	58.86
44	6.65	3.46	11.15	5.62	6.34	2.86	3.29	5.65	4.08	1.60	9.33	3.39	63.42
45	4.31	5.31	3.56	5.29	4.09	4.68	7.48	3.52	5.00	4.73	3.77	8.04	59.78
46	4.68	4.71	12.55	3.76	12.49	5.41	11.28	8.75	4.17	0.63	4.66	2.85	75.94
47	9.31	0.91	12.31	10.74	7.29	4.42	1.69	6.19	10.77	1.67	11.23	6.15	82.68
48	4.65	3.09	11.02	4.38	2.82	0.87	6.93	2.41	8.05	1.62	14.74	7.07	67.65
49	3.32	5.25	8.29	7.63	6.93	10.99	M7.88	6.94	6.67	3.07	0.46	4.69	72.12
50	3.79	4.98	9.14	4.95	2.64	4.78	9.35	6.33	M1.71	1.84	2.39	6.44	58.34
51	3.84	3.40	10.78	4.91	0.16	6.80	9.02	4.99	M8.53	2.15	2.38	4.83	61.79
52	3.20	7.41	2.67	5.04	7.28	1.32	6.23	4.34	5.21	0.00	5.60	7.80	56.10
53	2.62	8.80	6.13	7.37	4.06	4.58	10.43	7.71	0.21	0.00	7.00	15.97	74.88
54	1.95	1.97	3.36	3.38	1.13	4.81	9.78	0.55	2.49	3.47	3.09	4.46	40.44
55	5.22	5.36	0.47	7.08	5.30	1.51	5.77	5.17	2.15	1.53	2.72	2.34	44.62
56	3.24	5.35	5.40	1.64	2.08	8.96	6.39	6.36	4.90	2.62	2.05	5.23	54.22
57	2.08	2.99	4.46	5.33	2.09	4.35	1.88	4.54	15.35	2.11	7.55	4.22	56.95
58	5.02	2.68	7.16	4.83	11.63	5.59	11.79	5.74	7.27	1.01	1.04	1.91	65.67
59	4.36	7.59	5.09	5.49	12.01	7.06	7.16	M2.72	4.45	8.71	3.45	3.53	71.62
60	M4.11	6.02	6.08	3.58	3.28	2.13	4.71	8.03	2.95	4.68	1.82	4.49	51.88
61	5.54	11.20	10.43	2.74	5.62	11.81	5.12	6.01	7.04	0.85	10.74	20.16	97.26
62	5.80	2.93	5.29	4.98	1.79	6.61	2.63	3.17	1.16	4.89	2.43	4.53	46.21
63	5.09	4.45	2.64	0.52	3.43	1.53	5.66	6.19	2.93	0.21	2.92	5.62	41.19
64	5.99	4.36	6.72	8.81	4.84	7.37	8.82	5.67	4.38	4.90	3.80	7.51	73.17
65	6.66	7.12	3.53	1.30	1.06	2.36	7.73	7.22	4.92	1.05	3.74	3.84	50.53
66	10.08	14.32	3.17	5.86	3.53	5.86	7.69	7.93	3.70	2.68	3.37	4.31	72.50
67	5.45	5.10	1.97	4.96	5.00	2.26	5.82	4.54	2.67	3.63	0.83	11.51	53.74
68	3.27	2.57	4.59	3.38	1.85	5.79	5.32	3.69	4.32	3.53	5.24	7.77	51.32
69	3.51	3.87	6.76	5.77	4.16	0.66	9.58	9.32	3.04	2.19	1.50	4.49	54.85
70	2.92	4.02	6.52	1.53	3.89	4.51	2.76	7.60	2.00	7.56	2.24	6.37	51.92
71	2.67	7.58	3.96	1.12	3.05	4.56	4.80	7.11	9.65	2.76	3.11	9.23	59.60
72	7.59	4.47	6.06	1.84	13.73	3.23	6.14	5.17	2.70	1.84	6.17	10.31	69.25
73	2.68	4.35	9.27	9.18	5.21	3.52	5.42	7.71	10.80	3.81	5.81	10.10	77.86
74	8.04	4.25	7.66	9.99	5.42	3.02	3.18	4.50	7.31	0.98	5.91	3.95	64.21
75	6.40	1.57	9.57	8.39	6.11	7.44	9.68	7.46	6.49	5.12	2.38	2.93	73.54
76	2.77	4.89	4.39	1.98	4.10	3.73	7.26	4.61	3.30	M5.69	5.89	5.21	53.82
77	6.28	3.16	7.81	5.32	2.98	1.31	8.06	8.11	8.40	2.89	5.15	3.34	62.81
78	7.69	2.51	2.73	4.23	7.42	9.45	5.83	6.50	3.99	0.00	4.25	4.03	58.63
79	6.12	9.62	M3.71	13.75	7.21	0.78	11.14	4.62	5.55	1.58	4.89	4.28	73.25
80	4.28	2.73	M13.79	14.18	15.06	2.51	5.41	1.14	3.64	6.71	3.72	0.79	73.96
81	0.86	M12.87	5.15	1.88	2.36	3.91	6.20	3.46	2.57		2.13	4.96	46.35

82	3.96	9.16	6.05	4.03	1.17	4.51	9.08	6.87	2.52	3.72	3.77	7.71	62.55
83	5.85	9.29	11.34	12.48	5.10	6.57	1.70	4.42	5.63	1.63	5.60	7.93	77.54
84	4.38	7.58	4.12	3.06	6.80	4.43	6.37	8.55	2.01	5.33	4.65	4.54	61.82
85	5.40	5.82	5.04	4.37	2.44	2.22	7.73	7.24	4.74	13.37	1.76	4.50	64.63
86	2.71	2.67	3.43	2.30	7.24	2.54	1.91	4.67	4.89	3.81	9.26	5.25	50.68
87	7.16	9.41	5.73	1.52	4.94	4.30	3.10	6.80	0.70	0.17	6.09	4.78	54.70
88		9.99	9.62	4.05	1.67	1.13	10.46	7.98	7.86	3.26	3.59	5.18	64.79
89	4.63	2.87	7.66	4.27	6.38	10.77	M8.95		2.61	1.32	8.20	9.22	66.88
90	7.08	10.26	6.19	3.11	7.25	4.23	3.76	2.13	0.83	2.21	3.32	2.64	53.01
91	12.01	4.69	6.13	9.14	11.15	7.21	6.10	3.50	2.91	1.72	3.01	2.99	70.56
92	9.67	6.13	5.34	4.55	1.78	4.37	8.59	6.86	3.91	1.12	9.38	6.84	68.54
93	12.69	3.27	M5.28	5.25	7.06	M8.51	13.37	3.46	0.75	5.41	2.47	3.49	71.01
94	4.18	3.40	4.59	5.72	5.74	6.60	8.21	1.11	1.14	6.63	3.81	4.27	55.40
95	7.23	6.15	10.71	7.22	7.32	2.33	6.23	6.04	1.27	2.64	4.69	5.81	67.64
96	5.86	4.54	6.49	4.69	0.76	5.87	4.57	4.44	3.49	4.48	1.87	6.26	53.32
97	7.02	8.59	3.98	8.00	10.24	6.39	10.23	5.98	1.07	4.46	7.50	3.59	77.05
98	14.64	6.74	9.12	4.59	0.76	1.67	7.15	1.59	10.13	0.82	4.19	2.53	63.93
99	3.38	2.12	9.42	0.64	3.18	7.18	5.11	2.90	3.24	4.98	0.74	4.82	47.71
0	2.59	1.00	2.51	2.10	2.83	4.58	1.07	3.30	2.97	0.63	9.22	3.88	36.68
1	3.80	4.27	10.82	1.70	2.26	16.10	8.34	5.20	3.54	5.15	4.02	3.59	68.79
2													

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WETS Station : PURVIS, MS7220
Latitude: 3109 Longitude: 08924 Elevation: 380
State FIPS/County(FIPS): 28073 County Name: Lamar
Start yr. - 1971 End yr. - 2000

Month	Temperature (Degrees F.) avg daily max	avg daily min	avg	Precipitation (Inches) avg	30% chance will have less than	more than	avg # of days w/.1 or more	avg total snow fall
January	-----	-----	-----	6.73	4.58	8.03	8	0.2
February	-----	-----	-----	5.21	3.42	6.25	6	0.0
March	-----	-----	-----	6.31	4.88	7.30	7	0.0
April	-----	-----	-----	5.66	3.23	6.89	5	0.0
May	-----	-----	-----	5.69	3.50	6.89	6	0.0
June	-----	-----	-----	4.32	2.68	5.22	7	0.0
July	-----	-----	-----	5.75	4.02	6.83	8	0.0
August	-----	-----	-----	4.61	3.00	5.55	6	0.0
September	-----	-----	-----	4.18	2.17	5.10	5	0.0
October	-----	-----	-----	4.02	1.69	4.96	3	0.0
November	-----	-----	-----	5.42	3.72	6.45	6	0.0
December	-----	-----	-----	4.96	3.52	5.87	6	0.0
Annual	-----	-----	-----	------	53.28	66.38	--	----
Average	0.0	0.0	0.0	------	------	------	--	----
Total	-----	-----	-----	62.85	------	------	73	0.2

GROWING SEASON DATES

Probability	Temperature: 24 F or higher	28 F or higher	32 F or higher
	Beginning and Ending Dates Growing Season Length		
50 percent *	---------- ------	---------- ------	---------- ------
70 percent *	---------- ------	---------- ------	---------- ------

* Percent chance of the growing season occurring between the Beginning and Ending dates.

total 1948-2002 prcp

Station : MS7220, PURVIS
------- Unit = inches

yr	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	annl
48	M4.87	2.26	M12.89	3.08	2.31	2.83	4.00	2.04	8.55	1.54			44.37
49	3.57	M3.67	13.19	6.22	4.53	8.58	10.12	2.38	6.17	3.03	0.30	4.16	65.92
50	6.57	6.43	7.56	2.88	3.70	2.75	6.72	6.70	2.09	2.86	0.88	4.32	53.46
51	3.96	5.07	11.12	2.86	M0.22		M2.41	1.78	4.46	2.54	2.39	4.54	41.35
52	2.02	6.69	7.27	7.33	M5.64	1.74	7.16	M5.43	2.59	0.00	3.68	M6.34	55.89
53	4.00	7.68	3.64	11.43	5.00	5.65	8.74	6.01	0.30		M4.53	M16.87	73.85
54	1.66	2.27	4.46	7.28	3.69	2.39	6.75	0.79	1.43	3.28	1.77	3.20	38.97
55	5.51	4.61	0.90	5.27	3.49	1.52	5.00	6.85	2.56	2.34	3.55	1.40	43.00
56	2.73	7.18	7.54	3.39	2.22	5.11	6.33	4.66	3.87	6.15	1.09	5.60	55.87
57	2.03	2.91	4.05	7.21	3.94	5.31	3.44	2.96	13.27	3.51	8.08	3.08	59.79
58	4.55	5.06	6.12	4.65	6.76	4.47	8.69	5.21	6.18	1.51	1.85	2.12	57.17
59	5.26	6.91	3.40	9.38	6.13	12.63	10.44	2.56	4.35	8.62	3.07	2.95	75.70
60	3.58	5.80	2.26	M3.78	10.34	1.03	6.79	10.33	3.16	2.43	0.91	2.48	52.89
61	8.17	20.47	11.60	M2.64	4.38	9.01	5.02	5.06	7.72	3.44	10.53	12.07	100.1
62	8.59	1.44	3.65	7.04	1.63	10.07	2.54	5.17	1.70	2.67	3.43	3.30	51.23
63	4.41	2.92	2.64	0.54	1.25	3.79	8.98	1.99	0.58	0.08	3.49	4.69	35.36
64	6.71	3.79	10.33	7.51	3.82	4.96	6.08	5.11	3.72	3.87	4.28	7.09	67.27
65	5.93	6.61	4.83	0.98	0.55	5.39	5.74	8.90	4.45	1.61	4.11	5.56	54.66
66	7.86	14.78	2.37	5.31	3.48	2.49	6.85	5.58	7.58	2.13	4.43	2.96	65.82
67	3.55	4.09	2.59	4.70	7.12	2.68	5.41	6.89	2.23	3.40	1.29	10.41	54.36
68	2.86	2.75	3.79	3.90	2.37	5.80	3.90	5.16	2.16	0.78	6.30	8.38	48.15
69	2.35	M3.59	6.30	6.53	4.10	3.76	8.79	10.00	1.20	1.46	1.86	5.53	55.47
70	3.76	3.99	M6.16	M2.00	4.74	6.55	2.55	8.49	3.23	7.19	3.88	8.05	60.59
71	2.89	7.55	7.84	1.96	8.01	5.01	9.44	7.22	7.14	0.43	3.19	11.98	72.66
72	9.52	4.02	8.48	2.53	9.98	2.62	3.91	2.47	2.27	2.88	7.01	8.89	64.58
73	3.53	2.96	10.94	8.73	5.45	3.89	3.38	3.31	7.11	2.33	6.67	7.99	66.29
74	7.09	5.63	8.30	9.66	5.80	6.03	6.40	8.75	8.48	4.52	6.11	3.12	79.89
75	8.37	2.93	7.58	6.45		4.57	5.66	7.48	5.20	7.04	1.85	3.78	60.91
76	4.02	4.36	4.17	1.60	6.31	1.30	5.04	1.35	3.30	4.88	4.86	5.88	47.07
77	6.18	2.55	7.69	6.47	1.83	3.87	6.86	5.63	6.52	4.93	7.35	3.79	63.67
78	M3.18	M2.88	3.26	3.64	10.68	8.52	6.12	4.08	2.44	0.00	5.25	3.17	53.22
79	11.54	9.43	6.04	12.56	3.14	0.76	14.46	7.07	7.90	1.05	7.52	3.21	84.68
80	5.85	2.17	13.45	11.40	9.45	0.79	6.06	3.39	3.06	4.27	3.97	0.79	64.65
81	0.90	8.35	6.54	1.69	5.90	M5.85	M2.06	4.67	2.90	1.57	1.31	6.43	48.17
82	5.34	9.12	2.75	5.66	3.19	1.80	3.18	3.94	0.59	1.26	5.39	7.63	49.85
83	5.39	6.79	6.58	18.61	1.92	4.13	1.88	6.02	4.03	2.50	6.28	8.20	72.33
84	3.59	8.21	3.18	5.52	4.38	2.49	4.93	7.78	0.88	8.85	4.41	2.82	57.04
85	4.28	7.54	5.12	3.00	1.42	M3.53	3.87	11.30	4.07	10.42	1.79	4.18	60.52
86	3.67	2.83	2.83	1.72	8.33	3.21	5.20	3.77	1.65	4.87	11.36	5.57	55.01
87	8.88	8.29	6.87	1.37	4.38	2.76	7.13	9.65	1.94	0.12	4.80		56.19
88								2.99	11.74	6.75	6.86	3.54	31.88
89	4.67	1.58	7.04	3.05	8.27	10.48	8.23	1.14	4.10	1.15	12.27	8.26	70.24
90	11.27	9.95	6.63	2.73	8.75	8.17	3.61	1.48	1.58	1.30	3.90	4.26	63.63
91	10.25	6.60	6.24	7.54	12.09	5.95	6.47	2.95	7.10	12.07	3.72	2.57	83.55
92	11.41	6.89	5.78	3.03	1.92	6.73	2.78	3.63	M3.43	0.85	8.05	M5.15	59.65
93	11.87	2.77	6.56	5.82	6.55	M4.60	M8.69	4.09	1.65	6.48	3.20	4.47	66.75
94	5.20	3.05	4.95	9.11	3.09	5.05	5.37	2.26	3.06	M9.12	3.48	4.14	57.88
95	6.30	4.26	8.96	5.75	8.61	1.62	M6.24	3.98	0.39	3.50	6.86	5.20	61.67
96	4.66	5.20	6.12	4.14	1.92	2.69	3.25	7.18	4.13	7.00	2.20	3.45	51.94
97	7.55	6.05	2.92	8.27	10.21	8.10	7.69	1.28	0.47	3.05	6.62	4.32	66.53
98	13.72	6.23	6.36	7.58	3.43	2.73	4.68	3.06	11.90	0.45	3.83	3.45	67.42
99	7.64	2.03	4.74	1.00	3.24	3.32	9.48	3.69	3.09	5.37	2.47	4.87	50.94
0	2.80	0.80	4.95	3.61	1.16	5.34	0.97	2.77	3.24	1.51	9.87	2.74	39.76

« Previous Month | « 2012 | July 2013 | 2014 » | Next Month »

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Actual: 87 | 65 Precip: 0.00 Average: 91 | 71 Precip: 0.18	2 Actual: 88 | 65 Precip: T Average: 91 | 71 Precip: 0.19	3 Actual: 86 | 71 Precip: T Average: 92 | 71 Precip: 0.19	4 Actual: 89 | 72 Precip: 0.03 Average: 92 | 71 Precip: 0.19	5 Actual: 80 | 70 Precip: T Average: 92 | 71 Precip: 0.19	6 Actual: 82 | 71 Precip: 0.81 Average: 92 | 71 Precip: 0.20
7 Actual: 83 | 72 Precip: 0.36 Average: 92 | 71 Precip: 0.21	8 Actual: 92 | 70 Precip: 0.00 Average: 92 | 72 Precip: 0.21	9 Actual: 90 | 71 Precip: T Average: 92 | 72 Precip: 0.20	10 Actual: 90 | 74 Precip: 1.32 Average: 92 | 72 Precip: 0.20	11 Actual: 83 | 70 Precip: 0.18 Average: 92 | 72 Precip: 0.20	12 Actual: 92 | 70 Precip: 0.36 Average: 92 | 72 Precip: 0.19	13 Actual: 91 | 70 Precip: 0.05 Average: 92 | 72 Precip: 0.19
14 Actual: 89 | 69 Precip: 0.01 Average: 92 | 72 Precip: 0.19	15 Actual: 89 | 69 Precip: T Average: 92 | 72 Precip: 0.16	16 Actual: 88 | 71 Precip: 0.31 Average: 92 | 72 Precip: 0.18	17 Actual: 92 | 69 Precip: 0.00 Average: 92 | 72 Precip: 0.18	18 Actual: 92 | 70 Precip: 0.53 Average: 92 | 72 Precip: 0.17	19 Actual: 89 | 70 Precip: 0.00 Average: 92 | 72 Precip: 0.17	20 Actual: 91 | 70 Precip: 0.00 Average: 92 | 72 Precip: 0.16
21 Actual: 87 | 74 Precip: 0.03 Average: 92 | 72 Precip: 0.15	22 Actual: 89 | 73 Precip: 0.64 Average: 92 | 72 Precip: 0.15	23 Actual: 92 | 74 Precip: 0.00 Average: 92 | 72 Precip: 0.15	24 Actual: 89 | 74 Precip: 0.17 Average: 92 | 72 Precip: 0.14	25 Actual: 90 | 71 Precip: 0.00 Average: 92 | 72 Precip: 0.15	26 Actual: 90 | 67 Precip: 0.00 Average: 92 | 72 Precip: 0.14	27 Actual: 82 | 71 Precip: 1.05 Average: 93 | 72 Precip: 0.15
28 Actual: 87 | 73 Precip: 0.00 Average: 93 | 72 Precip: 0.15	29 Actual: 93 | 73 Precip: 0.00 Average: 93 | 72 Precip: 0.16	30 Actual: 93 | 74 Precip: 0.00 Average: 93 | 72 Precip: 0.15	31 Actual: 92 | 77 Precip: T Average: 93 | 72 Precip: 0.15			

Month Precipitation - Actual month total: **5.85** Normal month total: **5.39**

Calendar Key

Sunny Clear | Cloudy Partly Sunny | Mostly Sunny Partly Cloudy | Cloudy | Rain | Snow

Hail Flurries | Thunderstorms | Hazy Fog | Sleet | '?' denotes 'chance of' | Unknown

Actual: 90 | 58
Precip: 0.00
Average: 71 | 53
Precip: 0.03

Data Category
Condition
High Temp.
Lo Temp.
Precip. (in inches)
Daily Avg. Temp.
Temps in °F
-60 -30 0 30 60 90 120

Powered by Weather Underground, Inc.

http://printer.wunderground.com/history/airport/KHBG/2013/7/31/MonthlyHistory.html?p... 8/14/2013