AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE NUMBERECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS Bactground: Stng Mans Hybris (2) MATCHUREAR M. E DPGT023_U COMMENT: USACE MOSILE DISTRICT DPGT022 PFO Sample Point HDD Entry/Ex DPGT021_U **Breams** PEN PSS E K Additional Workspace Permanent RoW Temporary RoW 200' Survey WEETLAND CIELINEST CON MICHE ATH LIELLONGS TEEN HALLE HACCILLINY TO FAVSTANCOLLLIA, PHEBLINGE PHIOLECT INCHILLE CCELLINITY, ALL FLANKS SOUTHERN LLC. ENVIRONMENTAL CONSULTANTS Sheet 17 of 47 **TYENTHOLYM**

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS OVENITATIVE VE WETG007-E0 COMMENT: USACE NOBILE DISTRICT Mileposi HDD Entry/Ext Sample Point PEM PFO PSS EEM Streams Additional Workspace Permanent RoW Тепролу РоМ 200' Survey FRIANNES SEQUITHECARP IL IL C.
WEFILAND DELINESTRONISMEP
49-MULELIGNG TERNISME FRICTUITY TO
FRISCOCCULLA HI HELINE FRICTIECT
MEHLE COLLINY, AU. WETG006-E0 Sheet 18 of 47 SVENITHOUSEN

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS Beckground: Bing Maps Hybrid (20) Approved By: Predictions: Approved By: Prediction 2288
SWCA Project No: 2288
Dete Produced B/20020
Revision Dete Ţ MATOHUME AB DPGT010 U DPGT009 PFO WETGT003-F0 WETC033-E0 DPGT008 U DPGT007 U COMMENT: UBACE MOBILE DISTRICT WETGT002-FC Sample Point HDD Enloy/Ex WETC032-E0 DPGT006 PFO DPGT005_U Streams 5 SS E Additional Workspace Unsurveyed Areas Permanent RoW Төтралагу НоМ 200' Survey FILANNES SEQUINFRESHED IL IL .C...
WESTLAND DEBUNEATODNIEMP
ANTESLONG TERNENBULE FRONTUTY TO
FORSCOMMOULA PHEBLINE FRONTUTY TO
FORSCOMMOULA PHEBLINE FRONTUTY
NOTHILE COULNITY, AU. WEGFOO WETC031-E1 WETC031-E3 DPGT004 U W. T. S. U.S. DPGT003 PFO WETC031-E2 84-1007/07/E8W DPC039 PEM WETC010-E0 DPC040 U DPGT001 U DPGT002 PFO DPC038 U WETC009-E0 DPC037_U ENVIRONMENTAL CONSULTANTS Sheet 19 of 47 WILDHOUS ٠.

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS Background: Bing Maps Hybrid (2) **ELABINITHOTIAM** DPC036 PFO DPC035 PEM DPC034_U DPC033 U DPC031 PEM WETC008-E0 94.21.C008-F0 DPC032 PFO DPC030_U Warong Wofferend DPC029 U COMMENT: USAGE MOBILE DISTRICT WETC007-E1 WETC007-E0 DPC027 PEM DPC028 PFO 3 - ZOSOLIJA DPC026 U O Sample Point HDD Enloy/Ex DPC025 PEM WETC006-E0 DPC023 U DPC024 U Ę 88 Ē Additional Workspace Unsurveyed Areas WETC005-E0 Ретален Ном Temporary Row SOO, Survey DPC022 PEM DPC021 PFO DPC020_U IFILANINES SEQUIDITIFICESARP IL IL (C., WEITLANIODER INNERNICON BERRY ACHEM LIE FECCILLINY TOO FECCILLING HERUINE FREQUENT ACHEM SECOLUMINY ALL DPC019 U DPC018 PFO WETC004-E0 2012年第 DPC017 PEM DPC016 U 0.003-52 WETC003-E0 WETC003-E1 DPC015 U DPC014 PFO DPC013 PEM DPC012 U ENVIRONMENTAL CONSULTANTS Sheet 20 of 47 MATCHUMEAN

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. Beolground: Bing Napo Hybrid ZZEWAKOWANI DPD070 PFO DPD069_PEM (00**06**/%) WETD011-E1 DPD065 PFO WETD011-E0 DPD064 PEM DPD063 U COMMENT: USACE MOBILE DISTRICT DPD:061_U Sample Point HDD Entry/Ex DPD059 PFO Milepost WBD864B Big Creek DPD060 U HDD ENTRY 88°23'27.610" V 30°37'59.630" N WETD010-E1 of SS EEN Additional Workspace Unsurveyed Areas Permanent Row Temporary Row 200, Survey WARDOORE WETD010-E0 AGT-BALLIES-LIGENCE, TEEN-PRILIEE REVICELIITY TREE FENSECHCEGELLIAR PREBAINE FREGENERICH BACTER LIEE CCOLLINTY, ARL. MET. 0 DPD057 PFO DPD058 PFO DPD056 PEM DPD055 U HDD EXIT 88 • 23' 40.710" W 30 • 37' 52.610" N WETD010-F0 DPC089 U DPC087 PFO DPC088 U DPC090 PFO WECOOF DPC086 U ENVIRONMENTAL CONSULTANTS Sheet 22 of 47 A EMPLOYING A

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. A ENTIROUS XX nchiground: Bing Mape F e_{Alliga} DPC084 U DPC085 PEM WBC006 WETC016-E1 WETC016-E0 DPC082 PEM DPC083 U DPC081 U WETGT008-F0 Harmon Williams Rd DPGT027 PFO DPGT029 U WETGT008-E0 8 EEM 5 DPGT028 PEW Additional Workspace DPGT026 U Permanent Row Temporary RoW 200' Survey WETLAND DELINEMENT ON INCRETE ACTUMENT TO PASSO WOODLLAND HELLINE FROM HELLINEMENT TO PASSO WOODLLAND HELLINE FROM HELLINEMENT TO THE SESSION HER THE SESSION HER THE SESSION HERE. Eli Dudlan Rd THE LANGE SECTION AND THE SECTION OF M-CUNA-108 DPGT025_U Palatil otels ENVIRONMENTAL CONSULTANTS ್ಟ Sheet 23 of 47 XEMPLONIAN

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE COCESS MUSTINE DIRECTED TO CORP TO SET THE TOTAL OF CICE. ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFF FOR SAME. ANY QUESTIONS ABOUT TH Google 31.352" 195.8" 34.706" 1224 Ar 105450 12-2012-885 Comment # N30° 41' 5.603" W88° 18' 33.079" Mike Moxey Verification Point 1 ~N30° 41' 6.761" V W88° 18' 31.352" Mike Moxey Verification Point 2 W88° 13' 34.706" N30° 46' 37.021" Mike Moxey Verification Point 3 + Two Fuld dots port workslet 3.269

Field dota (rectangle polygai Assumed)

Shows about 2.224 are impact

We worksleds Schmbfel by applicant slow .267 Acres

impact

Vers good M. Morn

Moxey, Michael B SAM

From:

Eric Munscher [emunscher@swca.com] Tuesday, January 08, 2013 2:49 PM

Sent: To:

Moxey, Michael B SAM

Cc:

Tom Sankey

Subject:

RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

The proof of De Dos 3(U) I have contacted land and will verification.

WETD 009-F3 WETD 009-F2

Once I hear back from them I will let you know. My plan is to fly out on Monday and flag the wetlands Monday and Tuesday and to have you meet us for verification on Wednesday the 16th.

I will get back to you as soon as I can.

Thanks and cheers,

EΜ

Eric C. Munscher, M.S., ES3 (Scientist) Herpetologist / Ecologist Certified Gopher Tortoise Agent Principal Investigator of the NAFTRG SWCA Environmental Consultants 7255 Langtry Suite, 100 Houston, TX 77040

"And I can only believe, from somewhere life of incomprehensible loneliness awai to be again." William Stolzenburg. Whe

Sale Tryret

Jan 16

iter of the brain, that a i things were, but are never

----Original Message-----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Tuesday, January 08, 2013 2:34 PM

To: Eric Munscher Cc: Tom Sankey

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE OF REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. N. Fr S. C. S. Sectground: Bing Maps Hybrik * S*PH werenon COMMENT: USACE MOBILE DISTRICT Pord E2EM Intertidal PEM Perennial (**) PFO Intermatent (**) PS8 S Py Welenon + HDD Entry/Edt - Centarline PLAINS SOUTHCAP L.L.C.
PLAN VIEWS
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
MOBILE COUNTY, AL HDD EXIT LAT: 30"40"52.826" N LONG: 88"18"53.11" W SWCA ENVIRONMENTAL CONSULTANTS Sheer 15 of 47 **Sung**

FOIA-SAM@usace.army.mil WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	Pascagoula P.	.L AL, MS	County:	Mobile	Sampling Date:	May 28, 2012
Applicant/Owner:		Plains Southcap LLC		State: Alal	bama Sample Point:	DPC097_PFO
Investigator(s):	E. Munscher	and K. Schneider	_ Section, Township	, Range:	Sec. 20, T4	SR3W
	rrace, etc.):		Local relief (conca): <u>Concave</u> Slope	e (%): <u>00-05</u>
Subregion (LRR or MI	RA): South Atlantic and Gulf :	Slope Cash Crops, Forest, and Livestock Re	gion (P) Lart: 30.6	8506 Long	j: <u>-88.30884</u> [Datum: UTM 16N N83 USFT
Soil Map Unit Name:	<u></u>	Pamlico-Bibb complex, 0 to 1	1 percent slopes	N	IWI Classification:	None
Are climatic / hydrolog		typical for this time of year?			f no, explain in Remarks.)	
Are Vegetation	NO ,Soil NO ,	or Hydrology <u>NO</u> sigr	nificantly disturbed?	Are "Normal Circ	umstances" present? You	es <u>X</u> No
Are Vegetation	NO Soil NO ,	or Hydrology NO nati	urally problematic?	(If nee	ded, explain any answers	in Remarks.)
SUMMARY OF	FINDINGS - Attac	h site map showing	sampling poi	nt locations,	transects, import	ant features, etc.
r						· ·
Lt. drawb die Megetati	ion Dropont? You	Y No				
Hydrophytic Vegetati Hydric Soil Present?	_		ls the Samp	od Area		
Wetland Hydrology F	_		within a Wel		Yes X I	No
VYELIANO HYDIOLOGY F	resent: res_		- ***********************************	1211G1	10 3	··
Remarks:						
This point was de	atermined to be within a	wetland due to the presence	of all 3 wetland crite	ria.		
HYDROLOGY	 	······································				
Wetland hydrol	ogy Indicators:			S	Secondary Indicators (mini	mum of two required)
Primary Indicator	rs (minimum of one is re-	quired; check all that apply)		_	Surface Soil Cracks	(B6)
X Surface W		Aquatic Fau	na (B13)		Sparsely Vegetated	Concave Surface (B8)
X High Wate	• •		is (B15) (LRR U)	_	X Drainage Patterns (E	310)
Saturation	•		ulfide Odor (C1)	_	X Moss Trim Lines (B1	6)
X Water Ma			nizospheres on Living	Roots(C3)	Dry-Season Water T	able (C2)
I —	Deposits (B2)		Reduced Iron (C4)		Crayfish Burrows	
Drift Depo			Reduction in Tilled S	oils (C6)	Saturation Visible or	Aerial Imagery (C9)
Algal Mat			Surface (C7)	• • •	Geomorphic Position	(D2)
Iron Depo			ain in Remarks)	_	Shallow Aquitard (D:	· ·
******	ı Visible on Aerial Imagei		,	_	FAC-Neutral Test (D	•
ı —	ined Leaves (B9)	7 (- 7		_	Sphagnum moss (Da	•
				_		
Field Observations	:					
Surface Water Pres	ent? Yes X	No Depth (inc	ches): nput Dept			
Water Table Presen			ches): 12	1		
Saturation Present?	Yes	No X Depth (inc	ches): >20	Wetland Hydro	ology Present? Yes _	X No
(includes capillary fr						
Describe Recon	ied Data (stream gauge,	monitoring well, aerial photo	os, previous inspectio	ns), if available:		
Remarks:						
A positive indica	ition of wetland hydrology	y was observed (at least one	e primary indicator).			
}						
A positive indica	ition of wetland hydrologi	y was observed (at least two	secondary indicators	s) .		
•						
I						

VEGETATION (Five Strata) - Use scientific names of plants.

			·			
	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft.)	_% cover_	Species?	Status	Number of Dominant Species		
1. Nyssa biflora Pla M g ****	30	Yes	OBL	That Are OBL, FACW, or FAC:	6	(A)
2. Acer rubrum	10	No No	FAC	1		
3. Acer negundo Box elde		No No	FACW	Total Number of Dominant		
4. Quercus laurifolia Som Warel Onk		No	FACW	Species Across All Strata:	6	(B)
	5	No No		opecies Across Air ottala.		(0)
		NU	FACW			
6				Percent of Dominant Species		
		= Total Cover		That Are OBL, FACW, or FAC:	100%	(A/B)
50% of total cover:	27.5	20% of total cover:	11			
Sapling Stratum (Plot size: 30 ft.)				Prevalence Index Worksheet:		
1. Nyssa biflora	5	Yes	OBL	Total % Cover of:	Multiply by	:
2. Acer rubrum	10	Yes	FAC	OBL species 45	x 1 = 45	
3. Acer negundo	10	Yes	FACW	FACW species 25	x2 = 50	
4.				FAC species 20	x 3 = 60	
5.				FACU species 0	x4= 0	
				UPL species 0	x5= 0	
6		- Total Course		i ' —		— <u>"</u> ,
#00c #1.1		= Total Cover	_	Column Totals: 90	(A) <u>155</u>	(B)
	12.5	20% of total cover:	5			
Shrub Stratum (Plot size: 30 ft.)				Prevalence Index = B/A	= 1.72	
1. None Observed		. <u> </u>				
2				Hydrophytic Vegetation Indicat	ors:	
3.				1 - Rapid Test for Hydro	phytic Vegetation	
4.				X 2 - Dominance Test is >	50%	
5.				X 3 - Prevalence Index is :		
6.				Problematic Hydrophytic		, I
0		- T-t-1 Course		I Toblematic Hydrophysic	vegetation (Explain	"
		= Total Cover	_	1,		
50% of total cover.		20% of total cover:	<u> </u>	¹ Indicators of hydric soil and we		
Herb Stratum (Plot size: 30 ft.)				be present, unless disturbed or p	oblematic.	
1. Polygonum hydropiperoides will with a		Yes	OBL	Definitions of Five Vegetation S	strata:	
2. Woodwardia areolata with dun len	5	Yes	OBL	Tree - Woody plants, excluding v	woody vines,	
3				approximately 20 ft (6m) or more	in height and 3 in.	
4				(7.6 cm) or larger in diameter at t	reast height (DBH).	
5					· · · · · · · · · · · · · · · · · · ·	ļ
6				Sapling - Woody plants, excluding	g woody vines.	ì
				approximately 20 ft (6 m) or more		-
7				than 3 in. (7.6 cm) DBH.	4 4	1
8						
9				Charle Meads sloats evaluation		
10				Shrub - Woody plants, excluding	•	
11		·		approximately 3 to 20 ft (1 to 6 m) in neight.	
	10	= Total Cover				
50% of total cover.	55	20% of total cover.	2	Herb - All herbaceous (non-wood	y) plants, including	
Woody Vine Stratum (Plot size: 30 ft.)				herbaceous vines, regardless of	size, <u>and</u> woody	
1. None Observed				plants, except woody vines, less	than approximately	
2.				3 ft (1 m) in height.		
3	***********	· · · · · · · · · · · ·				
4				Woody vine - All woody vines, re	gardless of height.	
					•	
5		- Total Causa		16.d		
500 C		= Total Cover	_	Hydrophytic		
50% of total cover	; <u> </u>	20% of total cover:		Vegetation		
				Present? Yes X	No	
				<u></u>		
Remarks: (if observed, fist morphological adapta	tions below	<i>t</i>).				
A positive indication of hydrophytic vegetation wa	s abserved	(>50% of dominant	species inde	execting ORL FACW or FAC)		
7 postare measurement hydrophytic regention no	0 00001100	1- 00 % OI 00IIIIIIIII	speace mae	ACC 00 002, 111011, 01 1710).		
A constitute to alternation of boots of the state of the		(December - 1 - 4 - 1				
A positive indication of hydrophytic vegetation wa	s observed	(Prevalence Index i	is ≤ 3.00).			

Sampling Point: DPC097_PFO

SOIL Sampling Point: DPC097_PFO

Coder (motet) %. Coder (motet) %. Types 1.02 Texture Remarks. 10.12 10/18.4(2 95 10/18.5(5) 5 C M Sandy, Ciley. Flyzyr, C-Concentration, D-Depletion, RM-Reduced Matrix, MS-Masked Sand Grane. **Location, PtPora Lining, Mintdatrix, MS-Masked Sand Grane. **Location, Ms-Marked Sand Grane. **Location, PtPora Lining, Mintdatrix, MS-Masked Sand Grane. **Location, Ms-Marked Sand Carlot, Ms-Marke	Depth	Matrix				Features		ence of indicators.)	
Toyer C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains PL=Pore Lining, M=Matrix	•		 -	Color (moist)			Loc ²	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.								Sandy Clay	
Notice Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	<u> </u>								
Notice Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No					_				
ydric Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)					_				
ydric Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Notice Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No									
Notice Soils indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Stratified Layers (A5) X Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No							 		
ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	 Fyne: C≃C∈	oncentration, D=Der	oletion, RM=F	Reduced Matrix, M	 ∕IS=Maske	ed Sand Grains	² Location: P	L=Pore Lining, M=Matri	х.
Histosol (A1)									
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Piedmont Floodplein Soils (F18) (outside MLRA 150A, Piedmont Floodplein Soils (F18) (LRR P, S, Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Pepleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) Pepleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	•						.RR S, T, U)		
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Stratified Layers (A5) Stratified Layers (A6) Coganic Bodies (A6) (LRR P, T, U) Pedmont Floodplain Soils (F19) (LRR P, S, S) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Lern Muck (A9) (LRR P, T) Marl (F10) (LRR U) 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) Piedmont Floodplain Soils (F19) (MLRA 150A, 150B) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No				Thin Da	ark Surfac	e (S9) (LRR S,	T, U)	2 cm Muck (A10) (LRR S)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Seator Mucky Mineral (A7) (LRR P, T) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Redox (S5) Dark Surface (S7) Dark Surface (S7) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Redox Dark Surface (F7) Mart (F10) (LRR U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Ochric (F11) (MLRA 161) Iron-Manganese Masses (F12) (LRR 0, P, T) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Redox (A16) (MLRA 150A) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes X No	_	• • • • •						Reduced Vertic	(F18) (outside MLRA 150A,
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Fredox Dark Surface (F6) Organic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Dark Surface (S7) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Red Parent Material (TF2) Nepleted Dark Surface (F7) Red Parent Material (TF2) Nepleted Dark Surface (F7) Red Parent Material (TF2) Nepleted Dark Surface (F7) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Dark Surface (F7) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Dark Surface (F7) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Dark Surface (F7) Other (Explain in Remarks) Director (F11) (MLRA 151) Surface (F7) No wetland hydrology must be present, unless disturbed or problematic. Deta Ochric (F17) (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (If observed): Type: Depth (inches): Depth (inches): Hydric Soll Present? Yes X No				 -				Piedmont Flood	plain Soils (F19) (LRR P, S,
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Detta Ochric (F13) (MLRA 150A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks:		, ,			-			Anomalous Brig	ht Loamy Soils (F20)
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 Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, T, U) Detemption of the floodplain Soils (F19) (MLRA 149A) Anomelous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Remarks: Depleted Dark Surface (F7) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Jepleted Dark Surface (F11) (MLRA 151) Depleted Dark Surface (F12) (LRR O, P, T) Jepleted Dark Surface (F12) Marl (F10) (LRR U) Depleted Dark Surface (F12) Other (Explain in Remarks) Jepleted Dark Surface (F13) (LRR O, P, T) Jepleted Dark Surface (F13) (LRR O, P, T) Jepleted Dark Surface (F13) (LRR O, P, T) Jepleted Dark Surface (F12) Very Shallow Dark Surface (F12) Jepleted Dark Surface (F13) (LRR O, P, T) Jepleted Dark Surface (F13) (MLRA 151) Jepleted Dark Surface (F13) (MLRA 150) Jeple			P, T, U)	·				(MLRA 153B)	
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 Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Redox Depressions (F8) Very Shallow Dark Surface (F12) (LRR U) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Other (Explain in Remarks) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Other (F12) (MLRA 151) Reduced Vertic (F18) (MLRA 150A) Reduced Vertic (F18) (MLRA 150A) Reduced Vertic (F18) (MLRA 150A) Neduced Vertic (F18) (MLRA								Red Parent Mat	erial (TF2)
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) Restrictive Layer (if observed): Type: Depth (inches): Mart (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Jelled Ochric (F13) (LRR O, P, T) Jelled Ochric (F13) (LRR P, T, U) Wetland hydrology must be present, unless disturbed or problematic. Mart (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Jelled Ochric (F13) (LRR P, T, U) Wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Medicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Pedicators of hydrology must be present, unless disturbed or problematic. Medicators of hydrology must be present, unless disturbed or problematic. Pedicators of hydrology must be present, unless disturbed or problematic. Pedicators of hydrology must be present, unless disturbed or problematic. Pedicators of hydrology must be present, unless disturbed or problematic.									
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) Dark Surface (S7) (LRR P, S, T, U) Delta Ochric (F17) (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Jenthal Surface (F13) (LRR O, P, T) Jenthal Surface (F13) (LRR P, T, U) Wetland hydrology must be present, unless disturbed or problematic. Meduced Vertic (F18) (MLRA 150A) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomelous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes X No			-		•	` '			
Thick Dark Surface (A12)						•	51)		,
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Verlic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks:			v,						
Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Detta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks:			(MLRA 150A		•		•		
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes X No Remarks:		• •	-	· —			· ·	unless distur	bed or problematic.
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No			,						
Stripped Matrix (S6) Anomalous Bright Loamy Solls (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soll Present? Yes X No									
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No				Anoma	lous Brigi	ht Loamy Solls	(F20) (MLRA 14	I9A, 153C, 153D)	
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks:			. S. T. U)				` , ,		
Type: Depth (inches): Hydric Soil Present? Yes X No Remarks:			, , , ,						
Depth (inches): Hydric Soil Present? Yes X No	Restrictive	Layer (if observed) :						
Depth (inches): Hydric Soil Present? Yes X No	Type:								
Remarks:							Hydrl	c Soil Present? Yes	X No
	. ,						1		
	Remarks:								
A positive indication of hydric soil was observed.									
	A positive in	dication of hydric so	oil was observ	red.					
	·								

FOIA-SAM@usace.army.mil WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:		cagoula P.L AL, MS		County:	Mobile		Sampling Date	
Applicant/Owner:		Plains Sout	thcap LLC		_ State: _		Sample Point	
Investigator(s):	E. Munsch	ner and	K. Schneider	Section, Townsh	ip, Range:			, T4SR3W
Landform (hillslope, te				Local relief (cond			None SI	
Subregion (LRR or ML								Datum: UTM 16N N83 USFT
Soit Map Unit Name:		Troup Heidel	complex, 8 to 12	percent slopes		NWI Class	sification:	PFO6F
Are climatic / hydrolog	ic conditions o	on the site typical for th	nis time of year?	(Yes / No)	Yes	(if no, expl	ain in Remark	(\$.)
Are Vegetation	NO Soil	NO or Hydrolog	y NO signif	ficantly disturbed?				Yes X No
Are Vegetation	NO,Soil_	NO or Hydrolog	y <u>NO</u> natur	ally problematic?	(11	needed, expl	ain any answe	ers in Remarks.)
SUMMARY OF	FINDINGS	- Attach site m	an showing	sampling po	int locatio	ns. transe	ects. impo	ortant features, etc.
								·
Hydrophytic Vegetati	on Present?	Yes X	No					
Hydric Soil Present?		Yes	No X	is the Sam	oled Area			
Wetland Hydrology P	resent?	Yes	NoX	within a We	etland?	Yes_		No X
Remarks: This point was de	etermined not	to be within a wetland	due to the lack of	hydric soils and w	etland hydrolo	gy.		
HYDROLOGY								
Wetland hydrolo	ogy Indicator					Sprondan	/ Indicators /m	ninimum of two required)
1	**	 f one is required; chec	k all that anniv)				face Soil Crac	
Surface W		Tone is required, caree	Aquatic Fauna	a (B13)				ed Concave Surface (B8)
I —	r Table (A2)			(B15) (LRR U)			inage Pattem:	• •
Saturation		_		fide Odor (C1)			s Trim Lines	· · ·
Water Mar	• •			ospheres on Livin	a Roots(C3)		Season Wate	· · ·
	Deposits (B2)	_		Reduced Iron (C4)	y ()		yfish Burrows	• •
Drift Depor		_		leduction in Tilled	Soils (C6)		-	e on Aerial Imagery (C9)
l '	or Crust (B4)		Thin Muck Su		000 (00)		morphic Posi	
, –				n in Remarks)			llow Aquitard	
Iron Depos		mial Imageny (87)	Onei (Capian	it in remainsy			-Neutral Tesi	
	ined Leaves (I	rial Imagery (B7)						(D8) (LRR T, U)
vvaler-3ta	med Leaves (i	L 9)					ognom (nacc	(==) (==::: /) = /
Field Observations								
Surface Water Prese		NoX	Depth (inch	es): N/A				
Water Table Present	-	No X	· ·					
Saturation Present?	-	No X			Wetland H	lydrology Pre	sent? Yes	s No X
(includes capillary fri								
		am gauge, monitoring	well, aerial photos	, previous inspect	ions), if availat	ole:		
<u> </u>						•		
Remarks:								
No positive indic	ation of wetter	nd hydrology was obse	arved					
140 bosines aidio	AUDITO HEDDI	na nyaronogy was oos	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
}								
1								

VEGETATION (Five Strata) - Use scientific names of plants.

				<u> </u>		
	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 30 ft.)	% cover	Species?	Status	Number of Dominant Species		
1. Quercus Nigra	15	Yes	FAC	That Are OBL, FACW, or FAC:	6	(A)
4	10					
		<u>Yes</u>	FAC	1		
3. Magnolia Grandiflora 🎧 😘 🛶	5	No	<u>FAC</u>	Total Number of Dominant		
4. Fraxinus americana	10	Yes	_FACU_	Species Across All Strata:	9	(B)
5. Cornus florida	5	No	UPL	<u> </u>		
6. Quercus laurifolia Suep dured an	5	No	FACW	Percent of Dominant Species		ĺ
a. quorous marmons		= Total Cover		That Are OBL, FACW, or FAC:	67%	(A/B)
		•		mathle obt, Thom, of the	0170	(200)
50% of total cove	er: <u>25</u>	20% of total cover:	10			
Sapling Stratum (Plot size: 30 ft.)				Prevalence Index Worksheet:		
1. Quercus Nigra	5	No	FAC	Total % Cover of:	Multiply by	:
2. Ilex opaca	10	Yes	FAC	OBL species 0	x 1 = 0	
	10		FACU	FACW species 15	x 2 = 30	
3. Fraxinus americana		Yes				—
4. Quercus laurifolia	10	Yes	FACW	FAC species75	x3 = 225	
5				FACU species 35	x4= 140	
6.				UPL species 5	x 5 = 25	
· · · · · · · · · · · · · · · · · · ·	35	= Total Cover		Column Totals: 130	(A) 420	(B)
		•	_	Coldini Foldidi.	. (1)	(-/
	er: <u>17.5</u>	20% of total cover.				
Shrub Stratum (Plot size: 30 ft.)	•			Prevalence Index = B/A	= 3.23	
1. Ilex vomitoria	15	Yes	FAC			
2. Symplocos tinctoria	15	Yes	FAC	Hydrophytic Vegetation Indicate	ors:	
		·		1 - Rapid Test for Hydro		j
3.		· 		·		i
4				X 2 - Dominance Test is >:	_	
5				3 - Prevalence Index is s	3.0	
6 .				Problematic Hydrophytic	Vegetation (Explain	٦)
	30	= Total Cover		<u> </u>		
EDRY of hotal cover		-	6	¹ Indicators of hydric soil and wei	tland budtology must	. [
50% of total cove	=1	20 % Of IOIAI WYEI.]		· }
Herb Stratum (Plot size: 30 fl.)				be present, unless disturbed or pr		
Pleridium Gleditsch	15	Yes	FACU	Definitions of Five Vegetation S	trata:	
2				Tree - Woody plants, excluding v	voody vines,	1
3.				approximately 20 ft (6m) or more	in height and 3 in.	-
	_			(7.6 cm) or larger in diameter at b	-	
4				(7.0 cm) or larger at diameter at L	reast neight (DOI).	
5				Carller Mara Academic acceleration		
6				Sapling - Woody plants, excluding	-	i
7				approximately 20 ft (6 m) or more	in height and less	
8.				than 3 in. (7.6 cm) DBH.		
9		<u> </u>		Shrub - Woody plants, excluding	wondy vines	
10.		· ———		· · · · · · · · · · · · · · · · · · ·	=	
11.		. <u> </u>		approximately 3 to 20 ft (1 to 6 m)) in neight.	
	15	= Total Cover				
50% of total cov	er. 7.5	20% of total cover:	3	Herb - All herbaceous (non-wood	y) plants, including	ļ
Woody Vine Stratum (Plot size: 30 ft.)		•		herbaceous vines, regardless of s	size, <u>and</u> woody	
				plants, except woody vines, less		
1. None Observed				1		
2.				3 ft (1 m) in height.		
3						
4.				Woody vine - All woody vines, re	gardless of height.	
5		- Total Cause		Lhidrophydia		
		= Total Cover	_	Hydrophytic		
50% of total cov	er: <u> </u>	_ 20% of total cover:		Vegetation		
				Present? Yes X	_ No	
Remarks: (if observed, list morphological adap	tations below	v).				
A positive indication of hydrophytic vegetation v	vas observed	d (>50% of dominant	t species inde	exed as OBL, FACW, or FAC).		
1						

DPC095_U

Sampling Point:

SOIL Sampling Point:

Profile Desc		to the depti	h needed to docu			onfirm the at	sence of Indicators.)	
Depth	<u>Matrix</u>				Features1		 .	ъ .
(inches)	Color (moist)	_%_	Color (moist)	<u>%</u>	Type ¹	Loc2	Texture	Remarks
0-20	10YR 6/3	100	None				Sandy Loam	
								
								
			 					
								
	ncentration, D=De					² Location:	PL=Pore Lining, M=Ma	
-	Indicators: (Appl	icable to all						olematic Hydric Soils ³ :
Histosol	(A1)				Surface (S8) (L		1 cm Muck (A	
Histic E	pipedon (A2)				æ (S9) (LRR S ,		2 cm Muck (A	• •
	istic (A3)		_		ineral (F1) (LRR	O)		c (F18) (outside MLRA 150A,B)
	n Sulfide (A4)				latrix (F2)			dplain Soils (F19) (LRR P, S, T)
	d Layers (A5)			ed Matrix				ight Loamy Soils (F20)
	Bodies (A6) (LRR			Dark Surf			(MLRA 153B)	
	icky Mineral (A7) (L				urface (F7)		Red Parent M	
	esence (A8) (LRR	•		Depression				Dark Surface (TF12)
	ick (A9) (LRR P, T)			10) (LRR			Other (Explain	in Remarks)
	d Below Dark Surfa	ce (A11)			(F11) (MLRA 1	-	g	
	ark Surface (A12)			_	Masses (F12) (of hydrophytic vegetation and rology must be present,
	rairie Redox (A16)		·		(F13) (LRR P, T	, U}	•	rbed or problematic.
	lucky Mineral (S1)	(LKK O, S)		•	7) (MLRA 151)			•
	eleyed Matrix (\$4)				(F18) (MLRA 15		.,	
	tedox (S5)				olain Soils (F19)	-	•	
	Matrix (S6)	0.7.10	Anoma	ious Brigi	τι Loamy Soils (I	rzu) (MLRA	149A, 153C, 153D)	
Dark Su	rtace (S7) (LRR P,	5, f, U)						
Restrictive I	ayer (if observed)	:						
	,	•						
Type: Depth (inc						Live I	Iric Soil Present? Yes	No X
Depth (inc						1175	inc Son Fresence Tes	
Remarks:						<u>-</u>		
No positive in	dication of hydric s	oils was obs	erved.					

ORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE OF A OFFICE HAS RECEIVED MORB PHANT (HRED (7) REDUCETS OFFICE. _{Fk}ank-Maples-Kd ackground: Bing Maps Hybric Frank Waples Rd GAENUKOIKK DPD103 PFO DPD102_U Renee Rd E DPD104 PFO COMMENT: USACE MOBILE DISTRICT DPD105_U ** *** Renee.Rd.N. HDD Entry/Exit O Sample Point 11, ♦ Milepost DPD106 U [] [] E. . 3 DPD107_PEM WETD018-ED DPD108_PFO 28 Couble Branch Additional Workspace Double Branch Temporary RoW Additional Workspa Permanent RoW DPC158_U ત્રુ≋ા⊹βંગો∏ા PLAINS SOUTHCAP L.L.C.
WETLAND DELINEATION MAP
41-MILE-LONG TEN-MILE FACILITY TO
PASCAGOULA PIPELINE PROJECT
MOBILE COUNTY, AL N≱p. DPC155 PE 14 DPC154 PEM DPC156_PFO WETC027-EU DPC151 PEM DPC153 PFO рау DPC152 PFO DPC150_U ®dM SWCA ENVIRONMENTAL CONSULTANTS Sheet 5 of 47 Hill Dr **OVENTRAIN** -Doub

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FOIA-SAM@usace.army.mil

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	Pascaoo	oula P.L AL, MS	Co	unty:	Mobile		Sampling I	Date:	June 1, 2012
Applicant/Owner:		Plains South		•	State:	Alabama	Sample P		DPC153_PFO
	E. Munscher			ction, Townshi				24, T3SR3V	v
Landform (hillstope, terrace				cal relief (conc					
Subregion (LRR or MLRA)						Long:			: UTM 16N N83 USFT
Soil Map Unit Name:	, Obtain Audition		complex, 8 to 12 per				lassification:		SS7/EM1A
Are climatic / hydrologic co	oditions on th			(es / No)			xplain in Rer		
• •		• • •	•				•	-	¥ No
		O ,or Hydrology		-				_	
Are Vegetation NO		or Hydrology		-	•		•	nswers in Re	
SUMMARY OF FIN	DINGS - A	ttach site ma	ip showing sa	mpling poi	int locatio	ns, trar	nsects, in	nportant	features, etc.
		··	<u></u>	T					
		V ¥	No						
Hydrophytic Vegetation P		Yes X	No	ls the Samp	alant Arma				
Hydric Soil Present?		Yes X	No	1 -		v.	•	Na	
Wetland Hydrology Prese	ent7	Yes X	No	within a We	:Uario r	16	25 <u>X</u>	, NO	
				1					
Remarks:									
HYDROLOGY									
Wetland hydrology	Indicators:					Second	dary Indicator	s (minimum	of two required)
Primary Indicators (m	ninimum of one	e is required; check	all that apply)				Surface Soil (
Surface Water			Aguatic Fauna (B	13)		— ,	Sparsely Veg	etated Conca	ave Surface (B8)
High Water Ta			Mari Deposits (B:	15) (LRR U)			Orainage Pat		
Saturation (A3			Hydrogen Sulfide	Odor (C1)		x	Moss Trim Li	nes (B16)	
Water Marks (Oxidized Rhizosp		Roots(C3)		Dry-Season \	Nater Table ((C2)
Sediment Dep	,		Presence of Red	-			Crayfish Burr	ows	, -
Drift Deposits	• -		Recent Iron Redu		Soils (C6)		•		al Imagery (C9)
Algat Mat or C			Thin Muck Surface		(- ,			Position (D2)	
Iron Deposits (_	Other (Explain in				Shallow Aqui		
Inundation Visi	-		_ 0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				FAC-Neutral		
Water-Stained		magary (21)						oss (D8) (LF	RR T. U)
	LCG (D0)							(- , (, ,
Field Observations:									
Surface Water Present?	Yes	NoX	Depth (inches):	N/A					
Water Table Present?	Yes	No X	Depth (inches):						
Saturation Present?	Yes		Depth (inches)		Wetland H	lydrology i	Present?	Yes X	No
(includes capillary fringe						,			
Describe Recorded I	Data (stream g	auge, monitoring v	vell, aerial photos, pr	evious inspecti	ons), if availal	ble:			
Remarks:									
A positive indication	of wetland hyd	trology was observ	ed (at least two seco	ndary indicator	5) .				
<u> </u>									
US Army Corps of Engine	ers	12.17.				Atla	antic and Gul	f Coastal Pla	in Region - Version 2.0

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VEGETATION (Five Strata) - Use scientific names of plants.

				Dominance Test workshoot:
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30_ft)	<u>% cover</u>	Species?	Status	Number of Dominant Species
1. Magnolia virginiana	20	Yes	FACW	That Are OBL, FACW, or FAC: 9 (A)
2. Acer rubrum	15	Yes	FAC	
3. Quercus lyrata	5	<u>No</u>	OBL	Total Number of Dominant
4. Liriodendron tulipifera	5	No	FACU	Species Across All Strata: 9 (B)
5. Quercus laurifolia Sung Laurel (D.g.	~ <u>!</u>	<u>No</u>	FACW	
6,				Percent of Dominant Species
	45	= Total Cover		That Are OBL, FACW, or FAC: (A/B)
50% of total cove	r: 22.5	20% of total cover:	9	
Sapling Stratum (Plot size:30_ft)				Prevalence Index Worksheet:
1. Acer rubrum	15	Yes	FAC	Total % Cover of: Multiply by:
2. Quercus laurifolia	10	Yes	FACW	OBL species 30 x 1 = 30
3. Persea palustris Susany rellary		No	FACW	FACW species 47 x 2 = 94
4.				FAC species 40 x 3 = 120
5				FACU species 5 x 4 = 20
6.				UPL species 0 x 5 = 0
·	27	= Total Cover		Column Totals: 122 (A) 254 (B)
50% of total cove		20% of total cover:	5.4	(1)
Shrub Stratum (Plot size: 30 ft.)	10.5	25 /J OI WAI GOVEL.	<u> </u>	Prevalence Index = B/A = 2.16
1. Cliftonia monophylla Rhue toti	4.5	Yes	OBL	Transpipor risun Erri Reiv
	<u>15</u>		FACW	Hydrophytic Vegetation Indicators:
2. Ilex coriacea quat quilique		162	FACTY	1
3				1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50%
4				
5				X 3 - Prevalence Index is ≤ 3.01
6				Problematic Hydrophytic Vegetation¹ (Explain)
		≖ Total Cover		
50% of total cove	r: <u>15</u>	20% of total cover.	6	Indicators of hydric soil and wetland hydrology must
Herb Stratum (Plot size: 30 ft.)				be present, unless disturbed or problematic.
1. Woodwardia areolata	5	Yes	OBL	Definitions of Five Vegetation Strata:
2. Osmunda regalis royal Fc.	5	Yes	OBL	Tree - Woody plants, excluding woody vines,
3				approximately 20 ft (6m) or more in height and 3 in.
4		<u> </u>		(7.6 cm) or larger in diameter at breast height (DBH).
5				
6				Sapling - Woody plants, excluding woody vines,
7		<u> </u>		approximately 20 ft (6 m) or more in height and less
8				than 3 in. (7.6 cm) DBH.
9				
10,				Shrub - Woody plants, excluding woody vines,
11.				approximately 3 to 20 ft (1 to 6 m) in height.
	10	= Total Cover		
50% of total cove		20% of total cover:	2	Herb - All herbaceous (non-woody) plants, including
Woody Vine Stratum (Plot size: 30 ft.)		•		herbaceous vines, regardless of size, and woody
1. Toxicodendron radicans	10	Yes	FAC	plants, except woody vines, less than approximately
2	5			3 ft (1 m) in height.
3	5			
		· —		Woody vine - All woody vines, regardless of height.
5.		<u> </u>		
	20	= Total Cover		Hydrophytic
50% of total cove		20% of total cover:	4	Vegetation
50% of Iblancase	al. <u>10</u>	20 70 01 101011 00401.		Present? Yes X No
				Tresditt Its X No
Remarks: (if observed, list morphological adapt	lations boton	<u> </u>		
Remarks: (ii observed, list morphological adapt	IAUUIIS DEIOW	7).		
A positive indication of hydrophytic vegetation w	as observed	(>50% of dominant	species inde	exed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation w	as observed	l (Prevalence Index i	\$ ≤ 3,00).	

DPC153_PFO

Sampling Point:

Sampling Point:

DPC153_PFO

SOIL

	Depth	Matrix		th needed to docu	Redox F	eatures		,	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains Thydrogen Suffice (A1) Indicators (FP) Depleted Matrix (F2) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR P, T, U) Depleted Matrix (A9) (LRR P, T, U) Depleted Dark Surface (F1) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sringed Matrix (S6) Dark Surface (S7) (LRR O, S) Selfa Ochric (F17) (MLRA 151) Thick Dark Surface (S8) (MLRA 150A) Sandy Redox (S5) Fiedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Type: Deplict (Fine (Cart M, Masked Sand Grains) Thype: (Third Masked Sand Grains) Third Nation (A2) Third Matrix (B1) Third Nation ((inches)	Color (moist)	%	Color (moist)			l oc²	Texture	Domada
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) 1-ydric Soils Indicators: (Application Indicators of Ind	0-20								Remarks
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Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Straified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Muck (A9) (LRR P, T) Mard (F10) (LRR U) Depleted Dark Surface (F7) Mard (F10) (LRR Q, T) Tom Muck (A8) (LRR P, T, U) Depleted Dark Surface (F7) Mard (F10) (LRR Q, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR Q, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (F7) Redox Dark Surface (F13) (MLRA 150A) Sandy Mucky Mineral (R1) Depleted Dark Surface (F7) Mard (F10) (LRR U) Depleted Oberic (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR Q, S) Delta Ochric (F13) (MLRA 150A) Sandy Redox (S5) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Hydric Soil Present? Yes X No Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR Q) Reduced Vertic (F18) (MLRA 150A) Mard (F10) (LRR Q, F) Pepleted Matrix (S4) Sandy Mucky Mineral (R1) Sandy Mucky Mineral (R1) Pepleted Delta Ochric (F11) (MLRA 151) Reduced Vertic (F18) Mard (F10) (LRR P, T, U) Depleted Delta Ochric (F11) (MLRA 151) Findicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Hydric Soil Present? Yes X No			. —						
Histosol (A1) Histic Epipedon (A2) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Depleted Below Burface (S8) (LRR S, T, U) Depleted Below Surface (S9) (LRR S, T, U) Depleted Below Surface (S9) (LRR O) Anomalous Bright Loamy Soils (F19) (LRR P, T) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Medic Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More (F10) (LRR U) Depleted Dark Surface (F7) Depleted Dark Surface (F7) More Presence (A8) (LRR P, T) Depleted Dark Surface (F7) More (F10) (LRR U) Depleted Dark Surface (F11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, T, U) Depleted Ochric (F18) (MLRA 150A, 150B) Stripped Matrix (S8) Dark Surface (S7) (LRR P, S, T, U) Reduced Vertic (F18) (MLRA 149A, 153C, 153D) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes X No More Presented (S1) (PR P, S, T, U)	Type: C≅Co	ncentration, D=Dep	etion, RM=	Reduced Matrix, M.	S=Maskec	Sand Grains.	² Location: F	L=Pore Lining, M=Matrix.	
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Anomalous Bright Loamy Soils (F20) Piedmont Floodplain Soils (F19) (LRR P, S, T, U) Stratified Layers (A5) Depleted Matrix (F2) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR O, S, T, U) Despeted Oberic (F18) (MLRA 150B) Sandy Redox (S5) Dark Surface (S7) (LRR O, S, T, U) Despeted Oberic (F18) (MLRA 150B) Anomalous Bright Loamy Soils (F20) (MLRA 153B) (MLRA 153B) Med (F10) (LRR U) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Piedmont Floodplain Soils (F19) (LRR O, P, T) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Despeted Oberic (F18) (MLRA 150A) Stripped Matrix (S8) Dark Surface (S7) (LRR P, S, T, U) Despeted Oberic (F18) (MLRA 150A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Despeted Natrix (S8) Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Matrix (S8) Dark Surface (S7) (LRR P, S, T, U) Despeted Matrix (S8) Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (S7) (LRR P, S, T, U) Despeted Dark Surface (F18) (MLRA 149A, 153C, 153D) Despeted Dark Surface (S7) (LRR P, S, T, U)			icable to all					Indicators for Problem	atic Hydric Soils ³ :
Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Gleyed Matrix (F3) Sandy Redox Dark Surface (F1) Surface (F7) Mark (F10) (LRR U) Depleted Dark Surface (F7) Mark (F10) (LRR U) Depleted Depleted Derive (F11) (MLRA 151) Tron-Manganese Masses (F12) (LRR 0, P, T) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Redox Dark Surface (F13) (LRR 0, P, T) Mark (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR 0, P, T) Delta Ochric (F17) (MLRA 151) Sandy Mucky Mineral (S1) (LRR 0, S) Seleged Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Redox Dark Surface (F13) (LRR 0, F, T, U) Predomont Floodplain Soils (F18) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Reduced Vertic (F18) (MLRA 149A, 153C, 153D) Redox Depted Matrix (F1) Redox Dark Surface (F13) (LRR P, T, U) Predomont Floodplain Soils (F18) (MLRA 149A, 153C, 153D) Redox Vertic (F18) (MLRA 149A, 153C, 153D) Redox Depted Matrix (F1) Redox Vertic (F18) (MLRA 149A, 153C, 153D) Redox Depted Matrix (F1) Redox Vertic (F18) (MLRA 149A, 153C, 153D) Redox Depted Matrix (F1) Redox Vertic (F18) (MLRA 149A, 153C, 153D) Redox Depted Matrix (F1) Redox Depted Matrix (F2) Redox Depted Matrix (F2) Redox Depteded Matrix (F2) Redox Depteded Matrix (F1) Redox Dept		• ,						1 cm Muck (A9) (L	RR O)
Black Histic (A3)	Histic Er	pipedon (A2)		Thin Da	rk Surface	(S9) (LRR S,	T, U)	2 cm Muck (A10) (_RR S)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) 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) Sinipped Matrix (S6) Dark Surface (S7) (LRR P, T, U) Depleted Selow Dark Surface (A11) Find Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sinipped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Reduced Vertic (F18) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Black Hi	stic (A3)		Loamy N	Aucky Min	eral (F1) (LRR	0)		
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Sorm Mucky Mineral (A7) (LRR P, T, U) Pepleted Dark Surface (F6) Muck Presence (A8) (LRR U) Sorm Muck (A8) (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) Dark Surface (S7) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Sestrictive Layer (if observed): Type: Depth (inches): Madex Surface (F1) Redox Dark Surface (F6) (MLRA 153B) Redox Dark Surface (F7) Red Parent Material (TF2) (MLRA 151B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Blow Dark Surface (A11) Depleted Blow Dark Surface (F13) (LRR O, P, T) SIndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F18) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Hydroge	п Sulfide (A4)							
Organic Bodies (A6) (LRR P, T, U) S cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A8) (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) Sandy Redox Depressions (F8) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Delta Ochric (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 150A) Sandy Redox (S5) Sinipped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Reduced Vertic (F18) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Stratified	J Layers (A5)							
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A8) (LRR P, T) Depleted Dark Surface (F7) Red Dark Surface (F7) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (F13) (MLRA 150A, 150B) Stripped Matrix (S6) Dark Surface (F7) Marl (F10) (LRR U) Depleted Dark Surface (F7) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) January (Explain in Remarks) And (F10) (LRR D, F, T) January (F10) (MLRA 151) And (F10) (MLRA 151) January (F10) (MLRA 151) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Depth (inches):			P. T. U)		·-	•			Joanny Sons (F20)
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) Dark Surface (S7) (LRR P, S, T, U) Despleted Ochric (F11) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Despleted Ochric (F17) (MLRA 150) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Mart (F10) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Piedmont Floodplain Soils (F19) (MLRA 150B) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Destrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No No				Depleted				•	
1 cm Muck (A8) (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 (S8) Dark Surface (S7) (LRR P, S, T, U) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No					•	- ()			
Thick Dark Surface (A12)						-		Other (Explain in R	emarks)
Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F18) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No			æ (ATT)					•	
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) Destrictive Layer (if observed): Type: Depth (inches): 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) Hydric Soil Present? Yes X No No									
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F18) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No							U)	wetland hydrolog	y must be present,
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Sestrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No			LRR O, S)					uniess disturbed	or problematic.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Sandy G	leyed Matrix (S4)		Reduced	Vertic (F	18) (MLRA 150	A, 150B)		
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No emarks:		, ,		Piedmon	t Floodpla	in Soils (F19)	(MLRA 149A)		
Dark Surface (S7) (LRR P, S, T, U) testrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Stripped	Matrix (\$6)		Anomalo	us Bright I	Loamy Soils (F	20) (MLRA 149	A. 153C, 153D)	
Type: Depth (inches): Hydric Soil Present? Yes X No emarks:	Dark Sur	face (S7) (LRR P, \$	5, T, U)	<u>—</u>				, , , , , , , , , , , , , , , , , , , ,	
	Depth (incl	hes):					Hydric	Soil Present? Yes	(No
		cation of hydric soil	was observe	ed.					

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	Pascagoula P.L AL, MS	County:	Mobile	Sampling Date:	hun- 4, 0040
Applicant/Owner:	Plains Southcap LLC			bama Sample Point:	
	Munscher and K. Schneider	Section, Township		Sec. 24, T	
Landform (hillslope, terrace, e					
	South Allendo and Gulf Slope Cash Crops, Forest, and Livestock	Region (P) Lat: 30.7	77722		
Soil Map Unit Name:	Troup Heidel complex, 8 to				Datum: UTM 16N N83 USFT
Are climatic / hydrologic condi	tions on the site typical for this time of year	? (Yes / No)		IWI Classification:	None
			Yes (ii	f no, explain in Remarks.)
<u> </u>	·	aturally problematic?		cumstances" present? Y	
SHMMADY OF EINDH			(ii nee	ded, explain any answers	in Remarks.)
	NGS - Attach site map showin	g sampling poi:	nt locations,	transects, impor	tant features, etc.
			 -		
Hydrophytic Vegetation Prese	ent? Yes X No				
Hydric Soil Present?	Yes X No	is the Sampi	nd Auer		
Wetland Hydrology Present?	Yes X No	within a Wet		V v	· .
		_ #101111 a FFEU	.aria r	Yes X	No
Remarks:					
This paint was data					
I his point was determined	d to be within a wetland due to the presence	e of all 3 welland criter	ia.		
1					
,					
HYDROLOGY					
Wetland hydrology Indic	ators:				
	um of one is required; check all that apply)		<u>S</u> e	econdary Indicators (minis	
Surface Water (A1)				Surface Soil Cracks	
High Water Table (/					Concave Surface (B8)
X Saturation (A3)		its (B15) (LRR U)		Drainage Patterns (B	· .
Water Marks (B1)		ulfide Odor (C1)	_	_ Moss Trim Lines (B1)	' I
Sediment Deposits		nizospheres on Living F	coots(C3)	Dry-Season Water Ta	able (C2)
Drift Deposits (B3)		Reduced Iron (C4)		Crayfish Вилоws	
Algal Mat or Crust (i	n 4)	Reduction in Tilled Soi	ıls (C6)	Saturation Visible on	
Iron Deposits (B5)		, ,	_	Geomorphic Position	(D2)
·	Other (Expla	ain in Remarks)	_	Shallow Aquitard (D3)) [
	n Aerial Imagery (B7)			FAC-Neutral Test (D8	5)
Water-Stained Leav	es (89)		_ <u>x</u>	Sphagnum moss (D8) (LRR T, U)
Field Observations:			·		
	·	ļ			
	es No X Depth (inc	· —			
	es NoX Depth (inc	·			
Saturation Present? Y (includes capillary fringe)	es X No Depth (inc	:hes):0	Wetland Hydrolo	gy Present? Yes	X No
					
Describe Recorded Data (s	stream gauge, monitoring well, aerial photo	s, previous inspections	i), if available:		
					ĺ
Remarks:					
A positive indication of					
A positive indication of wet	land hydrology was observed (at least one	primary indicator).			
					1
					Í
					-

US Army Corps of Engineers

VEGETATION (Five Strata) - Use scientific names of plants.

COLIMITON (FIVE SU	,		ļ- · · · · · · ·		Sampling Point:	DPC154_PEM
		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	30 ft. 1	% cover	Species?			
1. None Observed	/	70 00101	<u>opedesr</u>	<u>Status</u>	Number of Dominant Species	
					That Are OBL, FACW, or FAC:	5 (/
²						
3					Total Number of Dominant	
1					Species Across All Strata:	5 (8
5						
i					Percent of Dominant Species	
		0 =	Total Cover		That Are OBL, FACW, or FAC:	100% (A
	50% of total cover	: 0 :	20% of total cove	r O		100% (4
Sapling Stratum (Plot size:				·· 	Prevalence Index Worksheet:	
I. None Observed	· · · · · · · · · · · · · · · · · · ·					
2.					Total % Cover of:	Multiply by:
,	· · · · · · · · · · · · · · · · · · ·					×1 =85
· · · · · · · · · · · · · · · · · · ·					· — —	(2 =64
·					FAC species	3 =90
·					FACU species0	4= 0
l					UPL species0	(5≃ 0
			Total Cover		Column Totals: 147 (A) 239
n	50% of total cover:	2	20% of total cover	r: <u> </u>	,	
Shrub Stratum (Plot size:	30 ft.)				Prevalence Index = B/A =	1.63
None Observed					The state of the s	1.00
·					Hydrophytic Vegetation Indicators:	
· <u> </u>						
					1 - Rapid Test for Hydrophyti	
					X 2 - Dominance Test is >50%	
					X 3 - Prevalence Index is ≤ 3.0	
			_		Problematic Hydrophytic Veg	jetation1 (Explain)
	5004 64 4		Total Cover		ſ	
loch Stratum (Dist size	50% of total cover:	0 2	0% of total cover:	: <u> </u>	¹ Indicators of hydric soil and wetland	hydrology must
lerb Stratum (Plot size:					be present, unless disturbed or proble	matic.
Woodwardia virginica		15	Yes	OBL	Definitions of Five Vegetation Strate	1:
Lycopodiella alopecuroides		15	Yes	OBL	Tree - Woody plants, excluding wood	v vines
Rubus arvensis		15	Yes	FAC	approximately 20 ft (6m) or more in he	
Pluchea camphorata		20	Yes	FACW	(7.6 cm) or larger in diameter at breas	ight and 5 m.
Polygala lutea	<u></u>	10	No	FACW	(1.5 5.5) of larger in diameter at bleas	meight (DBH).
Acer rubrum		5	No	FAC	Sapling - Woody plants, excluding wo	od vina
Woodwardia areolata		5	No	OBL	approximately 20 ft (6 m) or more in he	
Symplocos tinctoria		10			than 3 in. (7.6 cm) DBH.	agni and less
Lachnocaulon anceps	 -	2	No.	FAC	mair o in. (7.6 cm) DBH.	
	 -		<u>No</u>	FACW		
	 -				Shrub - Woody plants, excluding wood	
					approximately 3 to 20 ft (1 to 6 m) in he	eight.
			Fotal Cover			
	50% of total cover: _	48.5 20	1% of total cover:	19,4	Herb - All herbaceous (non-woody) pla	ints, including
oody Vine Stratum (Plot size:	30_ft)				herbaceous vines, regardless of size, a	and woody
Smilax waiteri		50	Yes	OBL	plants, except woody vines, less than a	
					3 ft (1 m) in height.	, ,
·		·····			,	
					Woody vine - All woody vines, regardle	
					woody vine - All woody vines, regarding	ess of neight.
	- FOM - 64-1-1		otal Cover		Hydrophytic	
	50% of total cover: _	<u>25</u> 20	% of total cover:	10	Vegetation	
					Present? Yes X No	
						
Remarks: (if observed, list mo	rphological adaptatio	ns below).				
A positive indication of hydroni	Butic vecetation was	abaad (- r	DD(-F-1 : .			
A positive indication of hydropl	Aric Aederation Mas (Joservea (>5	U% of dominant	species indexe	d as OBL, FACW, or FAC).	
A position in standard services						
A positive indication of hydropt	lylic vegetation was o	bserved (Pr	evalence Index is	≤ 3.00).		

Sampling Point:

DPC154_PEM

SOIL

Pepth Metrix Color (most) % Color (most) % Type Loc Tenture Renarks		ription: (Describe Matrix	to the dep	th needed to docu			onfirm the abso	ence of indicators.)	
O-20 10YR 2/1 100 None	Depth (inches)				Redox F	eatures			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion Sand Grains. Type: C=Concentration, D=Depletion for matrix, MS=Masked Sand Grains. Thiotol Call Type: (Applicable to all LRRs, unless otherwise noted.) Thin Dark Surface (S9) (LRR S, T, U) Thin Dark Surface (A12) Thin Dark Surface (F10) (LRR P, T, U) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Dark Surface (F10) (MLRA 151) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Thick Dark Surface (A12) Thick Dark Surface (A12) Thick Dark Surface (A12) Depleted Matrix (S4) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Thick Dark Surface (A12) Thin Muck (A9) (LRR O, P, T) Martiferiol (LRR O, P, T, U) Depleted Matrix (S4) Sandy Reduck (S5) Dark Surfac		Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	toc2	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils Indicators for Problematic Hydric Soils Present? Indicators for Problematic Hydric Soil Present? Indicators for Problematic Hydric Soils Present? Indicators for Problematic Hydric Soil Present? Indicators for Pr	0-20	10YR_2/1	100	None				Muck	
Hydric Solis Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Amuck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (F11) (MLRA 151) Thick Dark Surface (A11) Thick Dark Surface (A12) Coast Prainie Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Sandy Redox (S5) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 150B) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Matrix (F20) Depleted Ochric (F13) (MLRA 150B) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Mark 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Slitiped Matrix (S4) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Park Surface (S7) (LRR P, S, T, U) Present? Yes X No Permarks:									
Hydric Solis Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Amuck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (F11) (MLRA 151) Thick Dark Surface (A11) Thick Dark Surface (A12) Coast Prainie Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Sandy Redox (S5) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 150B) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Matrix (F20) Depleted Ochric (F13) (MLRA 150B) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Mark 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Slitiped Matrix (S4) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Park Surface (S7) (LRR P, S, T, U) Present? Yes X No Permarks:									
Hydric Solis Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Amuck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (F11) (MLRA 151) Thick Dark Surface (A11) Thick Dark Surface (A12) Coast Prainie Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Sandy Redox (S5) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 150B) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Matrix (F20) Depleted Ochric (F13) (MLRA 150B) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Mark 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Slitiped Matrix (S4) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Park Surface (S7) (LRR P, S, T, U) Present? Yes X No Permarks:									
Hydric Solis Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Amuck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (F11) (MLRA 151) Thick Dark Surface (A11) Thick Dark Surface (A12) Coast Prainie Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Sandy Redox (S5) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 150B) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Matrix (F20) Depleted Ochric (F13) (MLRA 150B) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Mark 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Slitiped Matrix (S4) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Park Surface (S7) (LRR P, S, T, U) Present? Yes X No Permarks:									
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Hydric Solis Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Amuck Presence (A6) (LRR P, T, U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (F11) (MLRA 151) Thick Dark Surface (A11) Thick Dark Surface (A12) Coast Prainie Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Sandy Redox (S5) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 150B) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Matrix (F20) Depleted Ochric (F13) (MLRA 150B) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 151) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (A16) (MLRA 150A) Sandy Rucky Mineral (S1) (LRR D, S) Depleted Ochric (F17) (MLRA 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Mark 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Pindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Slitiped Matrix (S4) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Park Surface (S7) (LRR P, S, T, U) Present? Yes X No Permarks:	Type: C=Co	ncentration D=Der	oletion PM-	Doduced Metric La			2		
Histosof (A1) Histosof (A2) Hi	Hydric Soils	Indicators: (Appl	icable to all	LRRs unless oth	envise no	ted)	Location, P		
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F2) Depleted Dark Surface (F6) Mucky Mineral (F1) (LRR P) Piedmont Floodplain Soils (F20) (MLRA 153B) Reduced Vertic (F18) (outside MLRA 150A Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) 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) Delta Ochnic (F17) (MLRA 151) Piedmont Floodplain Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 150A) Anomalous Bright Loamy Soils (F20) Multiplicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Anomalous Bright Loamy Soils (F10) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Firipped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)									
Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Stratified Layers (A5) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Mark (F10) (LRR U) Depleted Derive (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Dark Surface (S7) Derive (F18) (MLRA 150A) Sandy Redox (A16) (MLRA 150A) Sitripped Matrix (S6) Dark Surface (S7) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 150A) Sitripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F10) (MLRA 150A) Setrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No				rolyvalt	ie below 2	nusce (29) (F	.KK S, T, U)	1 cm Muck (A	(9) (LRR O)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Stratified Layers (A5) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F5) Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) Depleted Dark Surface (F7) Redox Depressions (F8) Perpleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (F1) (LRR U) Depleted Ochric (F17) (MLRA 151) Tron-Manganese Masses (F12) (LRR O, P, T) Depleted Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Ochric (F17) (MLRA 151) Redox Depressions (F8) Umbric Surface (F13) (LRR P, T, U) Depleted Ochric (F17) (MLRA 151) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Petrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes X No								2 cm Muck (A	10) (LRR S)
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F2) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Redox Dark Surface (F6) Muck V Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Mark (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, T, U) Detta Ochric (F13) (MLRA 150A, 150B) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F20) (MLRA 153B) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Inno-Manganese Masses (F12) (LRR O, P, T) Jandicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Settipped Matrix (S4) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Petrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Black Hi	istic (A3)		Loamy I	Mucky Mine	eral (F1) (LRR	(O)		
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR U) Depleted Dark Surface (F7) Mart (F10) (LRR U) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Redox (S5) Sandy Redox (S5) Deita Ochic (F13) (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Pestrictive Layer (If observed): Type: Depth (inches): Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Red Parent Material (TF2) Wery Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problemat	Hydroge	n Sulfide (A4)					•		
Organic Bodies (A6) (LRR P, T, U) X 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) 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) Dark Surface (S7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Jeffed Ochric (F13) (LRR O	Stratified	Lavers (A5)							
X 5 cm Mucky Mineral (A7) (LRR P, T, U) X Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Dark Surface (F1) Marl (F10) (LRR U) Depleted Dork Surface (F11) (MLRA 151) 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, T, U) Pestrictive Layer (if observed): Type: Depleted Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Iron-Manganese Masses (F12) (LRR O, P, T) Iron-Manganese Masses (F12) (LRR O, P,			3 T +10			•		Anomalous B	right Loamy Soils (F20)
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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) Peter Mart (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Iton-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, unless disturbed or problematic. Peduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Peter Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No Permarks:	X Muck Pro	esence (A8) (LRR (J)						
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) Deita Ochric (F13) (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Present Surface (S7) (LRR P, S, T, U)									. ,
Thick Dark Surface (A12)								Other (Explain	in Remarks)
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Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Delta Ochric (F18) (MLRA 150B) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Depth (inches): Umbric Surface (F13) (LRR P, T, U) Wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes X No Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes X No				lron-Mar	iganese M	asses (F12) (LRR O, P, T)	3Indicators	of hydrophytic vegetation and
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) Pestrictive Layer (if observed): Type: Depth (inches): Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes X No	Coast Pr	airie Redox (А16) (MLRA 150A					wetland by	Irology must be present
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Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No emarks:							_		,
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? YesX No									
Stripped Matrix (S6) Anomalous Bright Loarny Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No emarks:				Piedmor	it Floodplai	in Soils (F19)	(MLRA 149A)		
	Stripped	Matrix (S6)						A 153C 153D)	
estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes X No	Dark Sur	face (S7) (LRR P. S	S. T. LII		•	,		A, 1000, 100D)	
							- Hydric	Son Presenty 198	X No
		cation of hydric soil	was observe	ed.					

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site:	Pasc	agoula P.L AL, MS		County:	Mobile		Sampling Date:	June 1, 2012
Applicant/Owner:			cap LLC				Sample Point:	
Investigator(s):			(. Schneider					
		Hillslope Hillslope			icave, convex,	none):	None Slop	ne (%):10-15
	/ILRA): <u>South Atta</u>	nife and Gulf Slope Cash Crops, Fo	orest, and Livestock Regi	on (P) Lat:30	0.77693	Long:	88.23039	Datum: UTM 16N N83 USF
Soil Map Unit Name:		Troup Heidel o	omplex, 8 to 12	percent slopes			ssification:	PSS7/EM1A
Are Vegetation		the site typical for this					plain in Remarks.)	
Are Vegetation		NO ,or Hydrology	NO signif	ricantly disturbed				'esX No
-				rally problematic?			plain any answers	
SUMMARY OF	FINDINGS -	- Attach site ma	p showing	sampling po	oint location	ons, trans	sects, import	tant features, etc.
	 -				*********		-	
Hydrophytic Vegeta	ition Present?	Yes X	Nο					
Hydric Soil Present	?	Yes	No X	is the Sam	pied Area			
Wetland Hydrology	Present?	Yes	No X	within a W		Yes		No X
				['	^
Remarks:								
This								
This point was (jeterminea not to	be within a wetland du	ie to the lack of	hydric soils and w	vetland hydrolo	gy.		
HYDROLOGY								
Wetland hydrol	logy Indicators:			· · · · · · · · · · · · · · · · · · ·		Casanda		
Primary Indicate	ors (minimum of a	ne is required; check a	all that apply)					mum of two required)
	Vater (A1)		Aquatic Fauna	(B13)			rface Soil Cracks	• •
High Wat	er Table (A2)			(B15) (LRR U)				Concave Surface (B8)
Saturation			Hydrogen Sulf				iinage Patterns (B se Trim Lines (B1)	•
Water Ma	` '			ospheres on Livin	o Poste(C3)		ss Trim Lines (B1	
_ 	Deposits (B2)			educed Iron (C4)			-Season Water T	able (C2)
Drift Depo	. , ,			eduction in Tilled			yfish Burrows	
Algal Mat			Thin Muck Sur		Solis (Ce)			Aerial Imagery (C9)
Iron Depo			Other (Explain				omorphic Position	• •
	n Visible on Aeria	I Imageny (B7)	Outer (Explain)	in itematks)			allow Aquitant (D3	•
;	ained Leaves (B9)						C-Neutral Test (D:	•
		•				әрі	nagnum moss (D8) (ERK I, U)
Field Observations):				T		_	
Surface Water Pres	ent? Yes	No X	Depth (inche	es): N/A				
Water Table Presen		No X	Depth (inche	· ——				
Saturation Present?		No X	Depth (inche		Wetland H	drology Pre	eant? Voc	Na V
(includes capillary fr					***************************************	raiology ric	sent? Yes	No <u>X</u>
Describe Record	ted Data (stream	gauge, monitoring wel	II. aerial photos	previous inspecti	nne) if availah	le .		
	•	J. J.,	.,,	provious mapeous	0113), II BYBIIAD	ic.		
Remarks:								
No positive indic	ation of wetland h	nydrology was observe	d.					

Sampling Point:

DPC150_U

VEGETATION (Five Strata) - Use scientific names of plants.

					
Tree Ct (Dist.)		Absolute		Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:	30 ft.)	% cover		Status	Number of Dominant Species
1. Pinus palustris		20	Yes	FACU	That Are OBL, FACW, or FAC:6 (A)
2. Magnolia grandiflora		10	Yes	<u>FAC</u>	
3. Quercus faicata		10	<u>Yes</u>	<u>FACU</u>	Total Number of Dominant
4. Quercus laevis		5	. <u> No</u>	<u>UPL</u>	Species Across All Strata: 10 (B)
5. <u>Magnolia virginiana</u>		5	No	_ FACW	
6					Percent of Dominant Species
		50	= Total Cover		That Are OBL, FACW, or FAC:60% (A/B
	50% of total cover:	25	20% of total cover	10	
Sapling Stratum (Plot size:	30_ft)				Prevalence Index Worksheet:
1 Pinus palustris		5	Yes	<u>FACU</u>	Total % Cover of:Multiply by:
2. Quercus falcata	-	5	Yes	FACU	OBL species 10 x 1 = 10
3. Magnolia virginiana		5	Yes	FACW	FACW species 65 x 2 = 130
4.					FAC species 10 x 3 = 30
5			· · · · · · · · · · · · · · · · · · ·		FACU species 50 x 4 = 200
6					UPL species 5 x 5 = 25
		15	= Total Cover		Column Totale: 440
	50% of total cover:			3	Codulin Totals:(A)
Shrub Stratum (Plot size:	30_ft.)				Prevalence Index = B/A = 2.82
1. Pinus palustris		5	No	FACU	Prevalence Index = B/A = 2.82
2. Cyrilla racemiflora	<u> </u>	25	Yes	FACW	Hydrophytic Vegetation Indicators:
3. Lyonia lucida	· · · · · · · · · · · · · · · · · · ·	15	Yes	FACW	
4			103	TACT	1 - Rapid Test for Hydrophytic Vegetation
5.					X 2 - Dominance Test is >50%
6.					X 3 - Prevalence Index is ≤ 3.01
		45	= Total Cover		Problematic Hydrophytic Vegetation ¹ (Explain)
	50% of total cover;		-	•	1
Herb Stratum (Plot size:	30 ft.)	22.5	20% of total cover:		¹ Indicators of hydric soil and wetland hydrology must
Lyonia lucida	00 11.	45	u		be present, unless disturbed or problematic.
Woodwardia virginica		15	Yes	FACW	Definitions of Five Vegetation Strata:
3. Ptendium aquilinum		10	Yes	OBL	Tree - Woody plants, excluding woody vines,
4.		5	No	FACU	approximately 20 ft (6m) or more in height and 3 in.
					(7.6 cm) or larger in diameter at breast height (DBH).
5					
6					Sapting - Woody plants, excluding woody vines,
7					approximately 20 ft (6 m) or more in height and less
8			 .		than 3 in. (7.6 cm) DBH.
9					
0					Shrub - Woody plants, excluding woody vines,
1					approximately 3 to 20 ft (1 to 6 m) in height.
	-		= Total Cover		
	50% of total cover: _	15	20% of total cover:	6	Herb - All herbaceous (non-woody) plants, including
Woody Vine Stratum (Plot size:	30 ft)		•		herbaceous vines, regardless of size, and woody
1. None Observed	<u> </u>				plants, except woody vines, less than approximately
2					3 ft (1 m) in height.
3,					
4					Woody vine - All woody vines, regardless of height.
5					, , , , , , , , , , , , , , , , , , , ,
		0 =	Total Cover	_ -	Hydrophytic
	50% of total cover:		20% of total cover:	0	Vegetation
	-				
					Present? Yes X No
Remarks: (if observed, list mo	orphological adaptation	ins below/			<u> </u>
A positive indication of hydrop	hytic vegetation was o	observed (>50% of dominant s	pecies index	red as OBL, FACW, or FAC).
A positive indication of hydrop	hytic vegetation was o	observed (Prevalence Index is	≤ 3,00).	

Sampling Point:

DPC150_U

SOIL

Inchesis Color (mosts) S. Color (mosts) S. Type Loc Texture Remarks		Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Touture	D d
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: Indicators (A1) (LRR O) T	0-10					Туре	LOC		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. To Muck (A9) (LRR C)					 -				
hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (T12) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U) Very Shallow Dark Surface (T12) Depleted Below Dark Surface (A11) Depleted Ocntic (F11) (MLRA 151) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Very Shallow Dark Surface (T13) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Surlpped Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Dark Surface (S7) (LRR P, S, T, U) Petermore Surface (S7) (LRR P, S, T, U)	10 20		100	None	_			Sandy Loam	
hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Very Shallow Dark Surface (T12) 1 cm Muck (A9) (LRR P, T) Mart (F10) (LRR U) Very Shallow Dark Surface (T12) Depleted Below Dark Surface (A11) Depleted Ocntic (F11) (MLRA 151) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Very Shallow Dark Surface (T13) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Surlpped Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Dark Surface (S7) (LRR P, S, T, U) Petermore Surface (S7) (LRR P, S, T, U)									
hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) (MLRA 153B) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) Very Shallow Dark Surface (T12) Umbric Surface (F13) (LRR P, T, U) unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Stripped Matrix (S6) Reduced Vertic (F18) (MLRA 150A, 150B) Dark Surface (S7) (LRR P, S, T, U) Pletmont Floodplain Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes No X **More Marks**									
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estrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes NoX emarks:			S. T. UI			(/ (WEIWT 14	, 1000, 1000)	
	·						Hydri	c Soil Present? Yes _	No X

Moxey, Michael B SAM

To:

Moxey, Michael B SAM

Subject:

FW: Álabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Tuesday, January 08, 2013 2:49 PM

To: Moxey, Michael B SAM

Cc: Tom Sankey

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

I have contacted land and will have them try and gain us access to the following areas for verification.

WETC027-F0 WETC0018-F0 WETD 009-F3

WETD 009-F2

Once I hear back from them I will let you know. My plan is to fly out on Monday and flag the wetlands Monday and Tuesday and to have you meet us for verification on Wednesday the 16th.

I will get back to you as soon as I can.

Thanks and cheers,

EΜ

Eric C. Munscher, M.S., ES3 (Scientist) Herpetologist / Ecologist Certified Gopher Tortoise Agent Principal Investigator of the NAFTRG SWCA Environmental Consultants 7255 Langtry Suite, 100 Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Tuesday, January 08, 2013 2:34 PM

To: Eric Munscher Cc: Tom Sankey

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I looked and am fine with your proposed alternative sites. My can arrange my schedule so that I can be available anytime the next two weeks.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Tuesday, January 08, 2013 2:08 PM

To: Moxey, Michael B SAM

Cc: Tom Sankey

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

We appreciate your work to push this project permit along.

As for the verification location. I see no issues with WETC017-F0 or WETD009-F2 and F3. There is an issue with WETGT008-F0 in that it has been an access issue tract. Would WETC027-F0 off of Schillinger Road or WETC0018-F0 off of Novatan Road work better for you? If so I will contact our land agents to gain access to these properties. When would be a good time for this verification to take place? I can fly out to Mobile Monday the 14th and stay out there until Thursday the 17th. That would give me time to flag the wetlands in question and then meet with you to verify each one. Please let me know as soon as you can what days would work best for you so I can plan with land and flights.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Tuesday, January 08, 2013 1:45 PM

To: Jeremy Rabalais

Cc: Eric Munscher; Tom Sankey; Chuck Fontenot

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Good afternoon,

I have submitted completed the upload worksheets and submitted them to our computer folks to upload. I have completed the mitigation tables and impact tables which will be attached to the permit. I think the next priority should be a field verification of jd and the wetland delineations.

I recommend looking at a sub-sample of sites for the JD and delineation verification. I recommend the following adjacent polygons be flagged and GP points provided for the flags so that we verify the wetland delineation verifications (2 for each permit application). I can then follow-up with the preliminary JD and wetland delineation verification letters for each project.

Alabama (off Eli Dudley Road) WET GT008-FO WET CO17-FO

Mississippi (off Lily Orchard Road) WETD 009-F3 WETD 009-F2

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

Moxey, Michael B SAM

From:

Jeremy Rabalais [jrabalais@swca.com]

Sent:

Thursday, January 03, 2013 3:04 PM Moxey, Michael B SAM; Eric Munscher

Cc:

Tom Sankey; Chuck Fontenot

Subject:

RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mike,

Myself and Chuck Fontenot have been reviewing the isolated features discussed below, and believe that they were wrongly categorized under the waters type category. We would like to discuss our options with you before we make any changes just to be sure we are taking the correct steps. Please give us a call at your earliest convenience at 225-715-1181 (this is Chuck Fontenot's cell phone). We look forward to speaking with you and clearing this up.

Thanks for your time,

Jeremy Rabalais

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Thursday, January 03, 2013 10:26 AM To: Moxey, Michael B SAM; Eric Munscher

Cc: Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I am working on the Alabama component today. Let me know about the isolated wetlands concern. I will address the temporary wetland impacts that do not require mitigation in the conditions of the permit and attach the aquatic resource worksheet to the permit to identify and reference these areas.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----From: Moxey, Michael B SAM

Sent: Wednesday, January 02, 2013 3:59 PM

To: 'Eric Munscher'

Moxey, Michael B SAM

From:

Moxey, Michael B SAM

Sent:

Friday, January 04, 2013 8:59 AM

To:

Rumbley, Pauline B. Contractor; Moxey, Michael B SAM

Subject:

FW: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Attachments:

01032013 SHP to USACE Mobile.zip

Classification: UNCLASSIFIED

Caveats: NONE

Pauline,

I have placed the Aquatic Resource upload worksheet, impact upload worksheet, and mitigation upload worksheet on the m-drive under Alabama portion of pipeline project SAM-2012-885-MBM. The attached shape files for both the Alabama and Mississippi (SAM-2012-1165-MBM) portions of the pipeline project.

Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----

From: Jeremy Rabalais [mailto:jrabalais@swca.com]

Sent: Thursday, January 03, 2013 4:28 PM

To: Moxey, Michael B SAM

Cc: Eric Munscher; Tom Sankey; Chuck Fontenot

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mike,

Attached are the updated shapefiles and upload sheets. We removed the one pond, and categorized the other as a stream per our phone conversation earlier. I also reviewed the shapefiles and upload sheets for the Mississippi data, and did not find any discrepancies with the feature count. One possible answer is that the row count in excel starts with 1, while the count in ArcGIS starts with 0. If it is still a problem with the new data, please have your GIS tech give me a call (225-229-0862) and we can troubleshoot the issue.

Thanks again

Jeremy

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Thursday, January 03, 2013 10:26 AM To: Moxey, Michael B SAM; Eric Munscher

Cc: Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I am working on the Alabama component today. Let me know about the isolated wetlands concern. I will address the temporary wetland impacts that do not require mitigation in the conditions of the permit and attach the aquatic resource worksheet to the permit to identify and reference these areas.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----From: Moxey, Michael B SAM

Sent: Wednesday, January 02, 2013 3:59 PM

To: 'Eric Munscher'

Cc: Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Thanks for sending the updated information. The number of aquatic resource entries now matches the number of impact entries for both permits, and the number of entries for the mitigation worksheets equals the number of entries on the Corps mitigation worksheet. I spoke with one of our more experienced pipeline people and she stated she prefers to see the temporary impacts requiring a permit but no mitigation also listed, so that all the worksheets have the same number of entries. If this is an issue, I am thinking an alternative is that I identify these no mitigation required sites in the permit conditions for each nationwide permit.

After looking at the data, I noticed that the data sent in your below e-mail reflects impacts to 2 isolated aquatic resources in Alabama (both aquatic resource and impact worksheets). Please note that a JD determination that a wetland is isolated requires extensive documentation and coordination with EPA on these determinations. Just want to confirm before I start creating the justification packages to send to EPA.

Thanks, Mike USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Thursday, December 20, 2012 10:40 AM

To: Moxey, Michael B SAM

Cc: Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey,

We have completed the afore listed items. We hope that these final editions will be able to help you close out this permit application. Please let us know if you have any questions or need anything else from us.

Have a great holiday and we look forward to hearing back from you.

Cheers,

EΜ

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the NAFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Thursday, December 20, 2012 8:28 AM To: Eric Munscher; Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Thanks Eric,

That sounds real good. Should help with the QA/QC the data and allow these projects to move forward quickly.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Wednesday, December 19, 2012 2:32 PM

To: Moxey, Michael B SAM; Tom Sankey; Jeremy Rabalais

Subject: RE: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Mr. Moxey.

After reading your email, we want to talk about our understanding of what's needed.

Items 1 -3: You are requesting that any wetland or waterbody within our workspaces that are not being impacted (the waterbodies being HDD'd) be removed from the delineations' Aquatic Resource upload sheet. By doing this, we will have the same feature count as the Impacts upload sheet.

Item 4: We did not do a Mitigation upload sheet, as it was our understanding that the Mobile Corps Pipeline Data Worksheet was in lieu of a Mitigation Upload. This is not a problem, we can transfer the data from the Pipeline Data Worksheet into the Mitigation format, and transmit it.

Please let us know if these are the appropriate actions needed.

Thanks and cheers,

EM.

Eric C. Munscher, M.S., ES3 (Scientist) Herpetologist / Ecologist Certified Gopher Tortoise Agent Principal Investigator of the NAFTRG SWCA Environmental Consultants 7255 Langtry Suite, 100 Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Wednesday, December 19, 2012 10:44 AM

To: Moxey, Michael B SAM; Tom Sankey; Eric Munscher; Jeremy Rabalais

Subject: Alabama Plains 41-mile pipeline, SAM-2012-0885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Good morning everyone:

As an update sine our December 6, 2012 conference call. Since I can expect to have the Alabama agency clearances for the Alabama Plains 41-mile pipeline soonest, SAM-2012-0885-MBM, I am making an effort to complete this action first. I received the December 2012 CD with the shape files, waters upload worksheet, impacts worksheet, and COE template for mitigation.

After reviewing the information on the CD, I have the following follow-up comments our discussions:

- 1. It would seem that since our evaluation is based on aquatic resources with impacts from trenching and conversion that require a 404 permit, that all the Alabama mass upload worksheets (aquatic resources, impacts, and mitigation provided in October 30 e-mail) would have the same data entries.
- 2. Alabama Aquatic Resource Upload Worksheet: The December 2012 aquatic resource upload worksheet reflects isolated waters (POW shown as isolated). The worksheet is protected so I cannot edit any information. An Aquatic Resource Upload Worksheet will be provided that reflects only aquatic resources with impacts requiring a Corps permit (trenching and/or conversions) and not aquatic resources subject to directional drilling without 404 impacts. The copy provided is protected so I can correct this.
- 3. Alabama Impact Upload Worksheet: The December 2012 impact upload worksheet reflects isolated waters (ponds) and a different number of entries than the aquatic resource upload worksheet. The worksheet is protected so I cannot edit any information. An impact Upload Worksheet is needed that reflects only aquatic resources with impacts requiring a Corps permit (trenching and/or conversions) and not aquatic resources subject to directional drilling without a 404 regulated action. The copy provided is protected so I can correct this.
- 4. Alabama Mitigation Upload Worksheet: There are two mitigation worksheets, the mass upload worksheet and the Corps Regulatory mitigation worksheet. You provided the Corps Regulatory worksheet. I will need a mass upload mitigation worksheet (provided in October 30 e-mail) that reflects the same number of entries as the aquatic resource and impact mass upload worksheets, however they would reflect no mitigation/self mitigating for entries for temporary impacts to the PEM and stream crossings. Both the mitigation mass upload worksheet and also the Corps mitigation worksheet should reflect the same number of entries.
- 5. I will complete the NWP and JD mass upload worksheets.
- 6. The same information format will be required for the Mississippi permit.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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Classification: UNCLASSIFIED

Caveats: NONE

Moxey, Michael B SAM

From: Sent: Eric Munscher [emunscher@swca.com] Wednesday, January 02, 2013 10:00 AM

To:

Moxey, Michael B SAM

Cc:

Tom Sankey

Subject: Attachments: FW: Plains Southcap - Tortoises plains southcap usfws.PDF

Mr. Moxey,

I was not sure if I sent this email to you or not. This is confirmation from the USFWS concerning our gopher tortoise plans. Please see the attachment from David Felder.

Please let me know if you have any questions.

Thanks and cheers,

EΜ

From: David Felder [mailto:david_felder@fws.gov]

Sent: Friday, December 21, 2012 9:40 AM

To: Eric Munscher

Cc: Tom Sankey; Matthew Hinderliter; Bruce Porter

Subject: RE: Plains Southcap - Tortoises

Eric and Tom,

See attachment. Our color copier is down today, so I had to send a black and white version. Hard copy in the mail today.

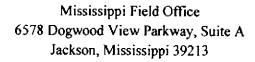
Let me know if you have any questions.

Bruce and Matt, if you have any additional questions or recommendations for this project, please forward to Eric or Tom.



United States Department of the Interior

FISH AND WILDLIFE SERVICE



December 21, 2012



Mr. Thomas Sankey SWCA Environmental Consultants 7255 Langtry, Suite 100 Houston, Texas 77040

Dear Mr. Sankey:

The Fish and Wildlife Service (Service) has received your letter dated November 14, 2012 regarding the proposed Plains Southcap, LLC Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project in Jackson County, Mississippi and Mobile County, Alabama. The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter crude oil pipeline from the Plains Southcap Ten-Mile Crude Oil Facility in Mobile County, Alabama to the Chevron Pascagoula Refinery in Jackson County, Mississippi. The Service has reviewed the information and offers the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Your office performed threatened and endangered species reviews for all species potentially found within the action area, and conducted field surveys for all areas that contained potential habitat for such species. Your initial determination is that the proposed project would have either no effect on federally listed species because suitable habitat for these species was not present, or, if suitable habitat was present, avoidance measures such as horizontal directional drilling (HDD) would be used to avoid such habitat (i.e. drilling under the Escatwapa River).

In addition, approximately 277 gopher tortoise burrows (burrows) were found in or near the proposed pipeline project, comprising approximately 19 gopher tortoise colonies (colonies). Plains Southcap proposes to completely avoid potential impacts to gopher tortoises by use of HDD and silt screen fencing near burrows. Specifically, Plains Southcap proposes to use HDD under all colonies that are within the proposed pipeline right-of-way (ROW), and will install heavy reinforced silt fencing between construction activities and burrows near the proposed ROW. Also, for all tree clearing activities within colony areas, Plains Southcap will flag all burrows and hand clear trees and vegetation near burrows. Finally, certified gopher tortoise

biologists will monitor all such activities near colonies and inspect silt screen fencing during project construction.

Provided that the proposed project incorporates all avoidance and minimization measures outlined in your report, the Service has determined that the proposed Plains Southcap project is unlikely to result in take of federally listed threatened or endangered species. As an additional protective measure, we do however recommend that all abandoned burrows (that have not naturally collapsed) within the proposed pipeline ROW be scoped and excavated via backhoe before burrow collapse. Finally, please notify this office if federally listed species are encountered during construction activities, or if potential impacts to listed species are revealed that were not previously considered.

Although the bald eagle is no longer protected under the ESA, it continues to be protected under the Bald and Golden Eagle Protection Act (BGEPA). We concur with your recommendation to resurvey the proposed pipeline ROW during the 2013 bald eagle breeding season. If active nests are found near the proposed project, we recommend you follow the National Bald Eagle Management (NBEM) Guidelines in order to minimize potential project impacts to bald eagles. A copy of the NBEM Guidelines is available at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

The Service appreciates the opportunity to provide technical assistance on the Plains Southcap Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project. If you have any questions, please contact David Felder of our office, telephone: (601) 321-1131.

Sincerely

for Stephen M. Ricks Field Supervisor

MS Field Office

Thanks again to everyone for their assistance regarding the review of this project.

David

David Felder

Fish and Wildlife Biologist

US Fish and Wildlife Service

6578 Dogwood View Parkway, Suite A

Jackson, MS 39213

david_felder@fws.gov

(601) 321-1131 office

(601) 720-6458 mobile

(601) 965-4340 fax

From: Eric Munscher [mailto:emunscher@swca.com] Sent: Wednesday, December 05, 2012 10:46 AM

To: David Felder Cc: Tom Sankey

Subject: RE: Plains Southcap - Tortoises

David,

We appreciate your quick response to our request for reviewing the report. Here are some answers to your questions.

1. You use the term pods. Is the pod polygon the same as the colony definition (2 or more active/inactive burrows within 600 feet of each other)?

- 1.) Ray Ashton coined the term "Pod" in his book The Natural History and Management of the Gopher Tortoise (Gopherus polyphemus), 2008. The terms Pod and Colony basically mean the same thing. Ashton described a "Pod" as being a group of tortoises living and foraging in close proximity to one another. While he treated the term "Colony" as groups of "Pods" in connected tortoise habitat. I was lucky enough to take the last Florida gopher tortoise certification class taught by Mr. Ashton before he passed away. To be honest, I largely use the term "Pod" instead of "Colony" out of respect to Ray Ashton. In regards to this project, I believe either of the terms would suffice.
- 2. What's the minimum distance the HDD will be under an active burrow? Did you factor in a buffer distance from the mouth of the burrow since the actual tortoise chamber may be some distance away from the opening?
- 2.) Yes we did factor that in. We mapped burrow entrance angle to ROW as well as distance of each burrow entrance to the construction corridor. Bruce Porter originally determined that we should maintain a 25-foot buffer around all active burrows in order to protect the animals. This is based upon his experience that the maximum burrow lengths are ~25 feet. In turn, we have proposed to HDD in areas where there are active burrow entrances within 30 feet of the edge of the construction corridor. We believe that we have also provided you with cross-sections of the proposed HDDs, which show the horizontal setback of the HDD entry and exit points, as well as the depth that we will be drilling. Please let me know if these have not been included in the packet we sent to you. In addition, we are proposing to scope some of the burrows in questions, as discussed in Item 3 below.
- 3. You are only HDD's under active burrows. Does this mean you will collapse inactive/abandoned burrows? If so, will you scope just before collapse, excavate all burrows, etc? The State of MS generally requires inactive/abandoned burrows be scoped, then completely excavated with backhoe since they have found there can be a 5-10% error rate when scoping.
- 3.) At present, we are proposing to HDD under 11 "Pods" that include burrows of various conditions, but each one of the 11 Pods includes at least some active burrows, hence the need to HDD. I would agree that we should scope burrows that are within the construction corridor and the 30-foot buffer; however, I'm not so sure of the need to scope the burrows within the vicinity of the HDDs. Our client has no intention of collapsing burrows. To us the purpose of scoping, is to determine if the burrow extends into the construction ROW and/or verify that the burrows do not extend into the construction corridor. If the burrow does not extend into the construction ROW, the area will be conventionally trenched. Let's discuss this further. Tom and I will be calling you today to discuss.
- 4. For colonies where HDD will be used, what types of activities will occur above ground? Will there be land clearing by Plains Southcap? Will access roads be created through these areas, etc?

- 4.) Plains intends on using low pressure equipment and hand clearing in the HDD areas. A certified gopher tortoise agent will be on hand during these clearing activities and will flag all burrows to assure tortoise burrow safety. Plains Southcap, LLC will install reinforced silt fencing along GT Pod locations where HDDs are not occurring. Florida certified gopher tortoise agents will be present during the construction phase at all of the Pod locations. No new access roads will be built in these areas. Existing property roads will be used.
- I also did a quick review of your determination of effects for the other species found in Jackson and Mobile Counties. Your effects determination looks accurate and I did not see any specific issues or concerns. There is one newly designated critical habitat unit for the dusky gopher frog near the project near Helena, MS, however, the pipeline appear to be just outside the boundaries.
- 5.) Thanks for the feedback.

Incidentally, Tom and I have developed the attached graphic that we believe illustrates all 7 possible scenarios regarding GT burrows along the project corridor. Let's discuss on our phone call.

Thanks,

Eric

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the NAFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

From: David Felder [mailto:david_felder@fws.gov]

Sent: Friday, November 30, 2012 2:48 PM

To: Eric Munscher

Subject: Plains Southcap - Tortoises

Eric,

Please forward to Tom as well, I could not find his email.

I have reviewed the documents related to the Plains Southcap as well as started the coordination with Bruce Porter and Matt Hinderliter (the gopher tortoise species lead). We may eventually need to all get together on a conf call to discuss, but let's address a few more issues first.

A couple of initial questions/issue to clarify.

- 1. You use the term pods. Is the pod polygon the same as the colony definition (2 or more active/inactive burrows within 600 feet of each other)?
- 2. What's the minimum distance the HDD will be under an active burrow? Did you factor in a buffer distance from the mouth of the burrow since the actual tortoise chamber may be some distance away from the opening?
- 3. You are only HDD's under active burrows. Does this mean you will collapse inactive/abandoned burrows? If so, will you scope just before collapse, excavate all burrows, etc? The State of MS generally requires inactive/abandoned burrows be scoped, then completely excavated with backhoe since they have found there can be a 5-10% error rate when scoping.
- 4. For colonies where HDD will be used, what types of activities will occur above ground? Will there be land clearing by Plains Southcap? Will access roads be created through these areas, etc?
- I also did a quick review of your determination of effects for the other species found in Jackson and Mobile Counties. Your effects determination looks accurate and I did not see any specific issues or concerns. There is one newly designated critical habitat unit for the dusky gopher frog near the project near Helena, MS, however, the pipeline appear to be just outside the boundaries.

T	ha	nl	ΚS
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David

David Felder

Fish and Wildlife Biologist

US Fish and Wildlife Service

6578 Dogwood View Parkway, Suite A

Jackson, MS 39213

david_felder@fws.gov

(601) 321-1131 office

(601) 720-6458 mobile

(601) 965-4340 fax

FOIA-SAM@usace.army.mil

Miles

AL

SWCA ENVIRONMENTAL CONSULTANTS

DEC 1 0 2012

MEMORANDUM

pe

To:

Michael B. Moxey, U.S. Army Corps of Engineers, Mobile District

From:

R. Thomas Sankey, PWS, CSE - SWCA Houston

Date:

December 7, 2012

Re:

Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project

Projected Wetland Mitigation Costs

Mobile County, Alabama and Jackson County, Mississippi

The following memo details our response to the conference call on 12-06-12. All of the criteria listed below has either been attached in hard copy format or loaded on the accompanying flash drive. The items listed below are what was discussed to complete this permit application. All previous files that are not a part of this package should be ignored.

- a.) Impact forms will recognize single and complete projects that require 404 or Section 10 permit. Directional drilling areas with no wetland or stream impacts will not be included in this list. Response: The impact data sheet has been updated to include only those areas that require 404 or section 10 actions. All HDD sites with no impact areas have been removed. The impact worksheet could not be printed out due to being a protected document. The worksheet can be found on the accompanying flash drive.
- b.) Mitigation forms will correlate with the impact form. Directional drilling with no wetland impacts will not be included in this list. **Response:** The mitigation form has been updated. The mitigation form is congruent with the impacts worksheet. All impacts to PSS and PFO wetlands are addressed.
- c.) The Aquatic Resource form will recognize waters of the U.S. in the federal permit area that have wetlands and streams impacts. Directional drilling area with no 404 or Section 10 impacts will be listed. Response: The aquatic resources table includes all wetlands and waterbodies that were delineated across the entire project that are associated with the federal permit area.
- d.) JD form will recognize each waters of the U.S. with wetland or stream impacts, or Section 10 crossings. The list will not provide duplicate listing of the same water because of multiple crossings of the same larger wetland or stream system.

 Response: As discussed during our conference call 12-06-12, this would be taken care of in house by the USACE.
- e.) Wetland delineation. You stated that Pauline has been provided shape files to minimize GPS data in files. We will reference this is the delineation verification



MEMORANDUM

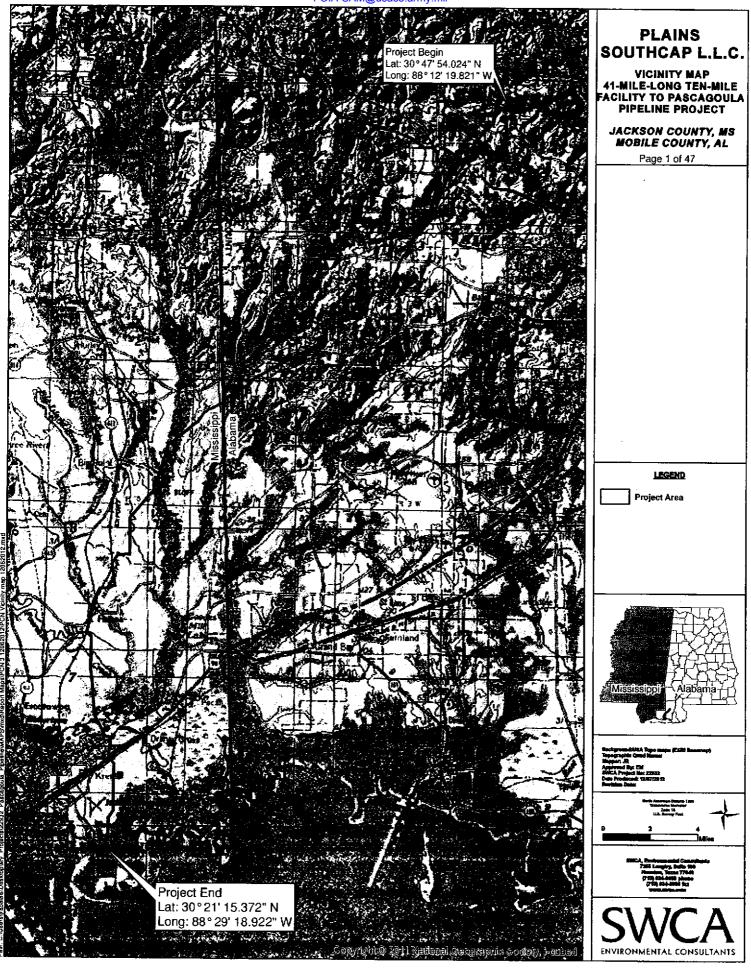
letter. We still need to identify 3 wetland sites that have been flagged and GPS points provided to confirm wetland delineation. **Response:** Updated boundary points and data point GIS shapefiles can be found in the accompanying flash drive. We will select three easily accessed areas for verification shortly.

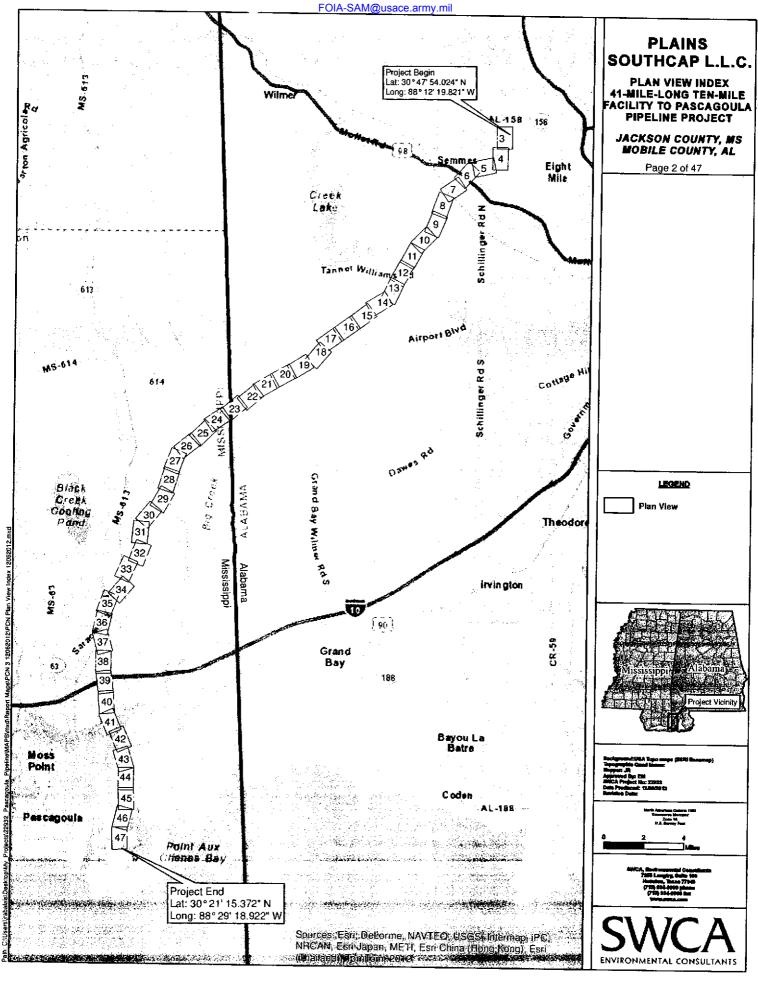
- f.) The location of the Section 10 water crossings have not changed. The information provided contains the correct sites and GPS locations. I will coordinate this with our Federal Navigation Section for approval. Response: As discussed in our conference call the required cross sections for the two Section 10 crossings have already been supplied.
- g.) The SHPO and USFWS clearance letters are expected next week. Response: We will send USFWS and SHPO clearance letters upon receipt.

SWCA ENVIRONMENTAL CONSULTANTS

MEMORANDUM

ATTACHMENT 1 WETLAND IMPACT AREA MAPS







MEMORANDUM

ATTACHMENT 2 WETLAND MITIGATION WORKSHEET

0.478572 AL	0.160976 AL	0.405415.41	0.058633 AI	0.072762.41	0.351985 Al	0.132482 AL	0.258601 AL	0.123279 AL	0.01004.4	0.20203 AL	0.442258 Ai	0.262207 AI	0.058248 AL	0.074059 AI	0.10728.41	0.021878 AL	0.177821 At	25.919464
0.451582	0.143938	0.360787	0.052225	0.06596	0.27934R	0.108946	0.203386	0.097405	0.01004	0.180053	0.383187	0.250813	0.058248	0.066808	0.094658	0.0093	0.155501	Ы
0	0	0				0	0	0	C		0	0	0	0		· c	0	0.355317
0.02699	0.017038	0.044628	_	_	_			0.025874		0.022865				0.007251	0			22.3759 3.188251
0.451582	0,143938	0.360787	0.052225	0.06596	0.279348	0.108946	0.203386	0.097405	0.01004	0,180053	0.383187	0.250813	0.058248	0.066808	0.094658	0.0093	0.155501	22.3759
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.710633
0.107958	0.068151	0.178512	0.02563	0.027208	0.290548	0.094147	0.220859	0.103494	0	0.091458	0.236285	0.047576	0	0.029003	0.050487	0.05031	0.089279	12.752992
-88,335898	-88.335932	-88.338313	-88.348479	-88.349284	-88.320745	-88.319832	-88.324302	-88.323499	-88.327194	-88.221778	-88.220932	-88.359536	-88.359067	-88.354202	-88.352158	-88.333484	-88.405534	H
30.663931	30.662869	30.660551	30.655679	30,655299	30.677576	30.678151	30.67536	30.675858	30.673648	30,776802	30.776798	30.650392	30.650659	30.652932	30.65391	30.66956	30.625219	
PFO	PFO	PFO	PFO	PFO	PFO	PFO	PFO											
Wettand	Wetland	Wetfand	Wetland	Wetland	Wetland	Wetland	Wetland	Wetland	Wetland	GRAND TOTAL								
Lower Big Creek	Chickasaw Creek		Lower Big Creek	Lower Big Creek	Lower Big Creek	WETGT003-F0 Lower Big Creek	WETGT007-FD Lower Big Creek	WETGT008-FO Lower Big Creek										
WETE002-F4	WETE002-F5	WETE003-F1	WETE004-F0	WETE005-F0	WETE006-F0	WETE006-F1	WETE007-F0	WETE007-F1	WETE008-F0	WETE009-F0	WETE009-F1	WETGT001-F0	WETGT001-F1	WETGT002-FD	WETGT003-F0	WETGT007-F0	WETGT008-F0	



MEMORANDUM

ATTACHMENT 3 AQUATIC RESOURCES WORKSHEET

WBC001	58/	PIVEDING	4004	Tave oracio	780				
WBC002	22	RIVERINE	AREA	0.004222 ACRF	MAN.	30.640624	-88.379596	Lower Big Creek	PERENNIAL STREAM
WBC003	RS	RIVERINE	AREA		RPW	30 642293	-88 365703 Wolf Branch	Work of Creek	PERENNIAL STREAM
WBCDD6	22	RIVERINE	AREA	0.005754 ACRE	RPW	30 628713	- RE 30043	Most Bia Grant	PERENNIAL STREAM
WBC007	RS	RIVERINE	AREA		RPW	\$0.629394	-88 3981R1	Lower Bld Creek	DESCRIPTION OF THE PROPERTY OF
WBC008	RS	RIVERINE	AREA	0.022986 ACRE	RPW	30.68827	1010CCCC	28 304 753 Lower Sig Crook	TENENNIAL SINEAM
WBC010A	RE	RIVERINE	AREA	0.043084 ACRE	NRPW	30.733458	-88.26559210	-88.2655921Upper Big Creek	FPHEMERAL CTREAM
WBC010B	84	RIVERINE	AREA	0,015876 ACRE	RPW	30.691137	-88.302385 L	-88.302385 Lower Big Creek	INTERMITTENT STREAM
WBC011	RS	RIVERINE	AREA	0,035078 ACRE	RPW	30.740104	-88.259529 U	259529 Upper Big Creek	PERENNIAL STREAM
WBC012	POW	DEPRESS	AREA	0.104763 ACRE	ISOLATE	30.76374	244969	Chickasaw Creek	PERENNIAL POND
WECTION	S	RIVERINE	ARG	0.044981 ACRE	RPW	706977.0E	-88.226959	Double Branch	PERENNIAL STREAM
WBDOOMB	- Se	PINEBINE	ANTA	0.042289 ACRE	ISOUATE	30.631695	-88.394076	-88.394076 Lower Big Creek	PERENNIAL POND
WBD005	184	RIVERINE	AREA	0.15000# ACRE	KPW	30.631961	-88.393524 B	ilg Creek	PERENNIAL STREAM
WBD006	185	RIVERINE	AREA	0.019378 ACRF	RPW	FEGGET OF	-88.388521	Lower Big Creek	INTERMITTENT STREAM
WBD007	P5	RIVERINE	AREA		RPW	30.724527	-88.1/5245 U 197777 99.	Upper Big Creek	PERENNIAL STREAM
WBD008	POW	OEPRESS	AREA	0.041643 ACRE	ISOLATE	30 253264		Section Clean	PERCINIAL STREAM
WBD009A	85	DEPRESS	AREA		RPW	30.753563	-88 254378	Copper big Creek	PEKENNIAL PUND
WBD009C	75	RIVERINE	AREA	0.0094 ACRE	нрум	30.755021		Upper Big Creek	PERENNIA STREAM
WBD010	MO.	DEPRESS	AREA	004851	ISOLATE	30.759883	-88,251439	-88.251439 Upper Big Greek	PERENNIAL POND
WBDUII	2.3	RIVERINE	AREA		RPW	30.776807	-88.221516 C	-88.221516 Chickasaw Creek	PERENNIAL STREAM
WEDOS	20	KIVEKINE	AREA		RPW	30.663047	11226588-	-88.335927[Lower Big Creek	PERENNIAL STREAM
WB5005	1 22	RIVERINE	7000	O ODETEC ACEC	APPEN COLOR	30.678024		Lower Big Creek	PERENNIAL STREAM
WBG009	POW	DEPRESS	AREA	0.007442 ACRF	ISO ATE	1099170c		Chickasaw Creek	INTERMITTENT STREAM
WBG010	. 22	RIVERINE	AREA	0.004736 ACRE	RPW	andar The	C0414 00	Chickasaw Creek	PERENNIAL POND
WBGT001		RIVERINE	AREA	0,015191 ACRE	RPW	30.650631		Opper oil Creek	INTERMITIENT STREAM
WBGT004	22	RIVERINE	AREA	0.033945 ACRE	RPW	30.669564		Lower Rio Creek	DEBCAMIAL CTOCARA
WBGT005	R6	RIVERINE	AREA	0.014838 ACRE	NRPW	30.672949	-88.328152 Pierce Creek	ierce Creek	EPHEMERAL STREAM
WBGT006	2	RIVERINE	AREA	0.016016 ACRE	RPW	30.673082	-88,327988 Pierce Creek	ierce Creek	PERENNIAL STREAM
WETC001-E0	PEM	RIVERINE	AREA		NRPWW	30.639632	-88.382044 LC	Lower Big Creek	Wetland
WE !COOT-FU	0.4	RIVERINE	AREA		NRPWW	30.639643	-88.381798 Lc	Lower 8ig Creek	Wetland
WE JUDG-FU	0.0	RIVERINE	AREA		RPWWO	30.640664	-88.379493 Lo	-88.379493 Lower Big Creek	Wetland
WETCOOL-F1	2 2	RIVERINE	AREA	0.036891 ACRE	RPWWD	30.640625	-88.379648 Lo	-88.379648 Lower Big Creek	Wetland
WETC003-E1	PFM	RIVERINE	AREA	0.05/314 ACHE	RPWWD	30.643331	-88.374401 Lc	-88.374401 Lower Big Creek	Wetland
WETC003-F0	034	RIVERINE	AREA	0.007858 ACRE	RPMAND	30.643484	-88.37409 Lo	Lower Big Creek	Wetland
WETCO03-F1	PFO	RIVERINE	AREA	0.057838 ACRE	RPWWD	30.643325		Lower Rio Creek	Wetland
WETC003-F2	PFO	RIVERINE	AREA	0.025146 ACRE	RPWWD	30.643421		Lower Big Creek	Wetland
WETCOOK-ED	PEM	RIVERINE	AREA	0.007426 ACRE	NRPWW	30.645238	_	Lower Big Creek	Wetland
WETCHOS EA	2	RIVERINE	AREA	0.074719 ACRE	NRPWW	30,645192	\rightarrow	Lower Big Creek	Wetland
ETC005-F0	PEO	RIVERINE	AREA	0.014024 ACRE	NRPWAW	30.645855		Lower Big Creek	Wetland
WETC007-E0	EM	RIVERINE	ABEA	0.035464 ALKE	NHWW	30.645775	-88.369154 Lc	Lower Big Creek	Wetland
WETC007-F0	D.F.	RIVERINE	AREA		RPWWID	30,047323	-88.366144 Lo	Lower Big Creek	Wetland
WETC007-F1	PFO	RIVERINE	AREA	0.044066 ACRE	RPWWD	30.647291	-88 365738 10	-88 365738 Lower Rig Creek	Wetland
WETC008-E0	PEM	RIVERINE	AREA	0.063127 ACRE	NRPWW	30.648467		wer Big Creek	Wetland
WETC008-FG	0.1	RIVERINE	AREA	0.414089 ACRE	NRPWW	30.648341	-88.363802 Lo	Lower Big Creek	Wetland
WEILDUS-ED	E C	RIVERINE	AREA	0.002801 ACRE	NRPWW	30.648986		Lower Big Creek	Wetland
WETCO10-E0	MEN.	RIVERINE	AREA	0.07015 ACRE	NRPWW	30.648922		Lower Big Creek	Wetland
WETC017-F0	PFO	RIVERINE	AREA		RPWWO	30.649601	-88.361227:Lo	Lower Big Creak	Wetland
WETC017-F1	PFO	RIVERINE	AREA	0.209903 ACRE	RPWWD	30.629481		Lower Big Creek	Wetland
WETC018-F0	PFO	RIVERINE	AREA	0.267358 ACRE	NRPWW	30.684997	-88.308881 Lo	Lower Big Creek	Wetland
WETC019-E0	PEM	RIVERINE	AREA	0.255359 ACRE	RPWWD	30.687801		wer Big Creek	Wetland
WETCO19-F7		RIVERINE	AREA	0.340338 ACRE	RPWWD	30.689985		Lower Big Creek	Wetland
WETC019-F0	Cid	RIVERINE	ANEA	1 21507 ACRE	Krwwu	30.691306		Lower Big Creek	Wertand
WETC019-F1	PFO	RIVERINE	AREA	1.508762 ACRE	RPWWD	30.687637	-88.305382 Lo	Lower Big Creek	Wetland
WETC019-F2	9.60	RIVERINE	AREA	0.107212 ACRE	RPWWD	30.691151	+-	Lower Big Creek	Wetland
WETC020A-E0	PEM	SLOPE	AREA	0.023114 ACRE	NRPWW	30.692302	-	Lower Big Creek	Wetland
WETCOZOB-E:	PEM	DEPRESS	AREA		NRPWW	30 700187	-88.289855 Lo	Lower Big Craek	Wetland
WETC021-F1	PEN	SLOPE	AREA		NRPWW	30.692282		Lower Big Creek	Wetland
F10021-E0	PEO	PINERINE	ANEA	0.38585 ACRE	NRPWW	30.734652	-88.264206 Up	Upper Big Creek	Wetland
WETC021-F1	PFO	RIVERINE	AREA	D.380244 ACRE	NBWWW	30.732676	-88.266663 Upper Big Creek	pper Big Creek	Wetland
WETC021-F2	PFO	RIVERINE	AREA	490466	NRPWW	30.736527	-88.255U33 Upper Big Creek	per dig Creek	Wetland
WETC022-F0	PFO	RIVERINE	AREA	0.078867 ACRE	RPWWD	30 739801	-88 259596 Hoper Bir Crash		DIPLOMA
	-							Der die Creek	Weland

11777	27		5	0.644040 MUNE	LINWW I	30,742557	20,22,00	Copper Sig Creek		
WETC022-50	PSS	RIVERINE	AREA	0.143046 ACRE	RPWWD	30.739814	-88.259674		Wetland	
WETC022-51	PSS	RIVERINE	AREA	0.62931 ACRE	RPWWD	30.741335	-88.259191		Wetland	
WETC024-E0	PEN	RIVERINE	AREA	1.136951 ACRE	NRPWW	30.769293	-88.23972		Wetland	
WETC025-F0	PFO	RIVERINE	AREA	0.095886 ACRE	NRPWW	30.771939	-88.237645		Wetland	
WETC026-F0	0 <u>F</u>	RIVERINE	AREA	0.700075 ACRE	NRPWW	30.776143	-88.233465		Wetland	
WETC027-F0	PFO	RIVERINE	AREA	2.253568 ACRE	RPWWD	30.7769	-88.22828	Chickasaw Creek	Wetland	
WETC029-E0	Z.	RIVERINE	AREA	0.042034 ACRE	NRPWW	30.679921	-88,317179	-88.317179 Lower Biz Creek	Wetland	
WETC029-F0	PFO	RIVERINE	AREA	0.121S51 ACRE	NRPWW	30.679802	-88.317167	Lower Big Creek	Wetland	
WETC031-E1	PER	RIVERINE	AREA	0.034789 ACRE	RPWWD	30,650433	-88.359644		Wetland	
WETCO31-E3	PEM	RIVERINE	AREA	0.022483 ACRE	RPWWO	30.650666			Wetland	
WETC032-E0	Æ	RIVERINE	AREA		NRPWW	30.653021	-88 354738	Lower Big Creek	Watland	-
WETC033-E0	PEM	RIVERINE	AREA		NRPWAY	30 654017	CC1626 88.		7 - 17 - 17 - 17 - 17 - 17 - 17 - 17 -	
WETD010-ED	PFM	RIVERINE	ARFA	1 35378 ACRE	CANAMOR	00 001000	2/17/10/00	LOWER OIL CREW	Metiand	,
WETDOIG.E.	DEN	DIVEDING	ADEA	201000000000000000000000000000000000000	0.000	95010000	-06.344639	Lower Big Lifes	Wetland	i
TAXOTO CO			1	מיטלים ארשי	288	30,63,27/3	-88.393147	Lower Big Creek	Wetland	!
ANGIDOTO-CO	CALL	KIVEKINE	AKEA	1.753925 ACRE	RPWWD	30.631112	-88.394995	Lower Big Creek	Wetland	
WEIDUIGHI	2	RIVERINE	AREA	0.567402 ACRE	RPWWD	30.632271	-88,392922	Lower Big Creek	Wetland	
WETD011-E2	EM	RIVERINE	AREA	0.195032 ACRE	RPWWD	30.636861	-88.387627	Lower Big Creek	Wetland	i
WETD011-F0	PFO	RIVERINE	AREA	1.410562 ACRE	RPWWD	30,634884	-88.388651		Method	
WETD011-F1	Q.	RIVERINE	AREA	1.768511 ACRE	RPWWD	30.636848	.88 387315	Louis Ria Creak	Part (and)	
WETD012A-E0	E	RIVERINE	AREA	0.054217 ACRE	RPWWD	TOPCCT OF	-88 275331	Locar Bin Creak	Out of the last	
WETD012A-E1	2	RIVERINE	ARFA	0.001832 ACRE	RPMANN	TAGGET OF	175171		numana.	,
WETDOIONER	DCNA	DIVEDINE	4064	0.000169 0000	nrwwD nrwwD	30,72347	-88.2/51/1		Wetland	
WETTOOLS IN	E .	KIVERINE	ANCA	0.00b/bs ACRE	RPWWD	30.724217	-88.274585	Upper Big Creek	Wetland	
WEIGUIZA-E4	FEM	KIVEKINE	AREA	0.000592 ACRE	RPWWD	30,724529	-88.274214	Upper Big Creek	Wetland	
WEID012A-65	PEM	RIVERINE	AREA	0.56923 ACRE	RPWWD	30.724696	-88.274156	Upper Big Creek	Wetland	
WETD012A-F0	E	RIVERINE	AREA	0.002773 ACRE	RPWWD	777227.08	-88.275275	Upper Big Creek	Wetland	
WETD012A-F1	9	RIVERINE	AREA	0.175164 ACRE	RPWWD	30.722693	-8B.275419		Wetland	
WETD012A-F2	PFO	RIVERINE	AREA	0.057857 ACRE	RPWWD	30.723003	-88.275313	Upper Big Creek	Wetland	: }
WETD012A-F3	윤	RIVERINE	AREA	1.017483 ACRE	RPWWO	30.723719	-88.274775	Upper Rip Creek	Westand	
WETD012B-F0	PF0	RIVERINE	AREA	1.96307 ACRE	RPWWN	30,727321	-88 272573	Upper Ble Creek	Wetland	
WETD013-E0	PEM	RIVERINE	AREA	0.030492 ACRE	RPWWD	P96625 UE	-88 754545	Hoper Blo Creek	Les de la constante de la cons	
WETD013-E1	PEM	RIVERINE	AREA	1 0.004389 ACRF	BPWAWD	ïř	-84 252572		2000	
WETD013-E2	PEM	RIVERINE	AREA	0.003509 ACRF	RPWAMD	30 755001	2 (0CC2:00	Se orașio I innor Dir Comb	MACCONING TO SECOND	
WETD013-F0	PFO	RIVERINE	AREA	4.31402 ACRE	RPUVAN	30 74 800	99 200300	Opport of Creek	Welland	1
WETD013-F1	PFO	RIVERINE	ARFA	0 313557 ACRE	RDIAGAIL	30.752388	00.25.050	Orper oil Cean	Dueilaw	
WETD013-F2	PFO	RIVERINE	IAREA	n 987067 ACRE	Spanam	3075705	C#C#C7:00-	Opport of Creek	wetland	-
WETD013-F4	24	RIVERINE	AREA		RPMAN	30.755.05	90 10373		Wetland	
WETD014-F0	PFO	RIVERINE	AREA	0.168743 ACRF	RPWWN	1212721P	152575 88	Topos Big Crook	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
WETDOIS-E0	PEM	RIVERINE	AREA	0.021362 ACRE	NRPWW	30 783939		Chickagass Creek	Wetland	-
WETD015-F0	P.F.	RIVERINE	AREA	0.654706 ACRE	NRPWW	30 283868	-88 210145	Chickson Creek	Averiand Averiand	
WETD018-F0	PFO.	RIVERINE	AREA	0.148192 ACRE	RPWWN	807377 DE			District Control of the Control of t	
WETE001-F0	- P6	RIVERINE	AREA	0.34813 ACRE	RPWW	30 667368			Western Marchen	ļ
WETE002-F0	240	RIVERINE	AREA	0.215872 ACRE	RPWW	30 665197				
WETE002-F4	950	RIVERINE	AREA	0.559541 ACRF	RPWW	20 553031	00030000	Come Dis Create	Disciona	
WETE002-65	PFO	RIVERINE	AREA	0.212089.4086	WWW.	TOECOO'NE	000000000	Lower big Creek	Wetland	
WETE003-E0	PEA	RIVERINE	AREA	D 013038 ACRE	BPWW	20 SEOROS	ACCIOCANA	Court Did Creek	Metiand	
WETE003-F1	č	RIVERINE	ARFA		8 DWAY	20,000,00	2000000		DIPLIAN	
WETEODA-ED	N.	RIVERINE	ARFA		NBDAAA	100000.00 442533 06	-00.338313	Lower big Creek	Wetiand	
WETE004-E0	DEC.	RIVERINE	AREA	0.077955 ACBE	NDDWAAA	30.656.70	-00.348388	-00.340300 LOWEI BIG L'REK	Wettand	
WETEROSEED	200	BILICOINIC	2000	0.000.000	NID CALADA	6/9669/06	6/104/3	-66.3484/9 Lower big Creek	Wetland	
WETENDS ON	030	DIVERNIE	2000	THE PARTY OF THE P	AAAA AAAA	30,65543	-88.349239	-88.349.239 Lower Big Ureek	Wetland	-
WETEOOR	220	DIVEDIME	2000	O'COSTEM	NECTOR	30.655299	88.349784	-88.349284 Lower Big Creek	Wetland	
WETEOOGET	DEM	DIVERNIE	2000	0,3230/3 ACRE	Nrwwid Southern	30.677653		Lower Big Creek	Wetland	1
WETEOOR ED		DINCOLLIC	5 5 5	O.LIVIDO ACRO	Arwwy.	30.6/8751	-88.31987	Lower Sig Creek	Wetland	
A/GTGOOD C1		ON CONTROL	4964	O SESSES HURE	nrwwu	30.5/75/6	-88.320/45	-88.320/45 Lower Big Creek	Wetland	
WELEOOF EA	2 2	DUDGEL	AUCH	U.ZUSUSS ALRE	Krwwi	30 6/8151		Lower Big Creek	Wetland	1
WETEOOT ED		DEFRESS	AREA	U.328927 ACRE	Krwwi	30.675604		Lower Big Creek	Wetland	
STATE OF THE STATE	2 2	DEPARESS	ANC.	0.4.24.245 ACRE	Krwwn	30.67536		Lower Big Creek	Wetland	
WE LEUDY IT I	2 2	DEPRESS	AHEA	U.ZOOJ ACKE	RPWWN	30.675858		Lower Big Creek	Wetland	
WEI EUG-EU	L C	DEPRESS	RNEA	U.01858 ACRE	KPWWN	30.673687		Lower Big Creek	Wetland	
WE EXCEPT	2 6	DEPRESS	AHEN	U.O.IOO4 ACRE	Krwwn	30.673648		Lower Big Creek	Wetland	
WETENOO ET	2 2	RIVERNIVE	AUG.	O.27.131 ACRE	KPWWD	30.776802		Chickasaw Creek	Wetland	ļ
WETCHOOL SO	2 3	AIVENING	4400		KPWWD	30.776798	-88 220932	Chickasaw Creek	Wetland	
WETSTOOL ST	2 2	DAGGINE	AKEA.	0.298389 AURE	KPWWD	30,650392		Lower Big Creek	Wetland	
WETGTOOLEG	220	DIVEDIME	ANEX		KPWWD	30.650659	-88.359067	Lower Big Creek	Wetland	
WEIGHOUZ-FU	2 2	RIVERINE	AREA	0.095811 ACK	NKPWW	30.652932	-88.354202	-88.354202 Lower Big Creek	Wetland	
WELGEBUS-FU	2 8	HIVERINE	AREA S	D.145145 ACK	NKPWW	30.65391	-88.352158	-88.352158 Lower Big Creek	Wetland	-
WE161007-F0	24	RIVERINE	AREA	D.DS961 ACRE	RPWWD	30.66956	-88.333484	-88.333484 Lower Big Creek	747-77	
	:								WELIGIK	

WBADD1	84	RIVERINE	AHEA	0.039736 ACRF	2			De Anna Changas Date Palestaniani Contra	
	RS	RIVERINE	AREA	0.046252 ACRE	RPW	30,441719	-88.495206	-88.495206 Little Black Creek	PERENNIA) STREAM
		RIVERINE	AREA	0.011978 ACRE	NRPW	30.453436	-88.496383	-88.496383 Black Creek-Escatawna River	EPHEMERAL STREAM
WBAOOH	75	RIVERINE	AREA	0.064011 ACRE	RPW	30.480699	-88 49895	-88.49896 Black Creek-Escatawna River	PERENNIAL STREAM
WBA005	52	RIVERINE	AREA	0.02999 ACRE	RPW	30.495628	-88.497727	Black Creek-Escatawna River	PERENNIAL STREAM
WBADOS	R5	RIVERINE	AREA	0.010762 ACRE	RPW	30.500403	-88.496309		PERENNIAL STREAM
WBA007	285	RIVERINE	AREA	0.02544 ACRE	RPW	30.541568	-88.471532	Black Creek-Escatawpa River	PERENNIAL STREAM
WBB001	25	RIVERINE	AREA	0.273699 ACRE	RPW	30.600429			PERENNIAL STREAM
WBB004	7.5	RIVERINE	AREA	0.004877 ACRE	NRPW	30.578568	-88.452057		INTERMITTENT STREAM
WBB005	2	RIVERINE	AREA	0.005997 ACRE	NRPW	30.578407	-88.452127	Rocky Creek-Escatawpa River	INTERMITTENT STREAM
WBB006	4.2	RIVERINE	AREA	0.00335 ACRE	NRPW	30.578301	-88.452151	-88.452151 Rocky Creek-Escatawpa River	INTERMITTENT STREAM
WBB007	RS	RIVERINE	AREA		RPW	30.578181	-88.452197	Rocky Creek-Escatawpa River	PERENNIAL STREAM
WBC004	R6	RIVERINE	AREA	0.005642 ACRE	NRPW	30.502095	-88.495605	88.495605 Black Creek-Escatawpa River	EPHEMERAL STREAM
WBC005	ຂ	RIVERINE	AREA	0.18916 ACRE	RPW	30.529825	-88.473622	-88,473622 Black Creek-Escatawpa River	PERENNIAL STREAM
WECDIS	R4	RIVERINE	AREA		RPW	30.598849	-88.442347	Rocky Creek-Escatawpa River	INTERMITTENT STREAM
Wabboot -	RB	THINERINE	ANG.		WKFW	30,408922			EPHEMERAL STREAM
Wabboos Wabboos	2 3	RIVERINE	Aper		RPW	30.417539	-88.482813	Black Creek-Escatawpa River	PERENNIAL STREAM
WBDOOdA		RIVERINE	ARCA	0.012823 ACRE	KPW	30.546504	-88.471538	-88.471538 Black Creek-Escatawpa River	INTERMITTENT STREAM
WBG003	POW	DEPRESS	AREA		ISOLATE	30 464351	DETECTOR BE.	199 ADTATO DISCRICTER FOR THE BILLY	DEPENDING BOARD
WBG006	- RS	RIVERINE	AREA		RPW	30.498222	-88 496989	Slack Creek	PERENNIAL FOND
WBG007	E2	RIVERINE	AREA	0,306914 ACRE	TNW	30.421556	-		PERFNNIAL STREAM
WBG008	E2	RIVERINE	AREA	0.03972 ACRE	RPW	30.428796		-	PERENNIAL STREAM
WBG011	RS	RIVERINE	AREA	0.020695 ACRE	RPW	30.355996	-88.487114		PERENNIAL STREAM
WBG012	RS	RIVERINE	AREA		RPW	30.355345			PERENNIAL STREAM
WETA002-E0	DEM	MINSORLFLT	AREA	0.020132 ACRE	TNWW	30.355914	-88.483128	Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETA002-FU	PFO	MINSOILFLT	AREA	2.971802 ACRE	TNWW	30.35954	-88.483321	-88.483321 Pt Aux Chenes Bay-Mississippi Sound	Wetland
WEI AUGZ-50	2 5	MINSOILFL	ANEA	0.904027 ACHE	INWW	30.356455	-88.483245		Wetland
WETAOD3-EU	PER	MAINSOILEL!	4004	O.134430 ACRE	NAMM	30,369475			Wetland
WETAOD3-FD	9	MINSOILFIT	AREA	3 973211 ACRE	Thistac	30.387883	-86.48018#-		Wetland
WETA003-F1	PFO	MINSOIFIT	ARFA	0.027871 ACRE	TNWM	OUTOOCOC		Private Bay-Wississippi Sound	Wetland
WETA003-F2	OF.	MINSOILFLT	AREA	2.61661 ACRE	TNWW	30.376162	-88 480005	Pt Aux Change Back Mississippi Sound	Wellend
WETA003-F3	52	MINSOILFLT	AREA	2.995657 ACRE	RPWWN	30,381341	-88.480093	-88 480093 Pt Aux Chenes Bav-Mississhoi Sound	Werland
WETA003-F4	Pro	MINSOILFLT	AREA	0.077068 ACRE	RPWWN	30.384325	-88.48026	-88.48026 Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETA003-F5	Pf .	MINSOILFLT	AREA	2.025548 ACRE	RPWWN	30.38626	-88.480261 F	Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETA003-F6	96	MINSOILFLT	AREA	2.811363 ACRE	RPWWN	30.391311			Wetland
WEIAUU3-F/	2 2	MINSOILFU	AREA		RPWWN	30.397463	\$		Wetland
WETADOS ED	PEN .	MINSOILE	AREA	0 928868 ACRE	RPSACACA	30.3/1/	-88.481/36	Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETA005-F0	PFO	MINSOILFLT	AREA	0.816381 ACRF	BPWWN	30.4024.50		Private pay-Mississippi Sound	Wetland
WETADDS-F1	PF0	MINSOILFUT	AREA		RPWWN	30.401163	480189		Wetland
WETA005-F2	0.4	MINSORFLT	AREA		RPWWN	30,402914		PtAux	Wetland
WETA005-F3	PFO	MINSOLFLT	AREA		RPWWN	30.404657	-88.481776 F	Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETADOS-ED	PEM	MINSOLECT	AREA		RPWWN	30.405758	482866	Pt Aux Chenes Bay-Mississippi Sound	Wetland
WETADOG-FO	0 3	MINSOLFIT	AREA		RPWWN	30.405726		Pt Aux Chenes Bay-Mississippi Sound	Wetland
WELMOUY-EU	2 SS	DK6SOUPU RAIMCOURT	AKEA	0.480153 ACRE	RPWWN	30.431844	8.49427	Black Greak-Escatawpa River	Wetland
WETAGOS-FO	254	INTEREST	AREA	0.389019 ACRC	KPWWN	30.431225		Black Creek-Escatawpa River	Wetland
WETA008-F0	PFO	DEPRESS		0.114998	NRPWW	20,432405	88 494449	Black Creek-Escatawpa River Black Creek-Ferratawns Diser	Wetland
WETA009-E0	PEM	ORGSOLFLT	AREA	0.725599	NRPWW	30.435953			Werland
WETA010-E0	PEM	RIVERINE	AREA		RPWWD	30.440285		Black Creek-Escatawpa River	Wetland
WETA010-E1	PEN	RIVERINE	AREA	0.056191 ACRE	RPWWD	30.442042	-88.495287 E	Black Creek-Escatawpa River	Wetland
WELAUIO-FO	2		AREA		RPWWN	30.439109	88.49493	-88.49493 Black Creek-Escatawpa River	Wetland
WE FAULUSE WETANIO ST	200	RIVERINE	AREA	O.OGSES ACRE	RPWWD	30.441587	-88.495169	-88.495169 Black Creek-Escatawpa River	Wetland
WETA011-E0	EM L	DEPRESS	ABEA	0.009/39 ACRE	NROWN	30.442305	-88.49524 E	Black Creek-Escatawpa River	Wetland
WETA011-F0	PFO	DEPRESS	AREA	0.183765 ACRE	NRPWW	30.444657			Wetland
WETAG12-EO	PEM	RIVERINE	AREA	0.396934 ACRE	NRPWW	30,445744	-88.4955ZB		Wetland
WETA013-E0	PEM	RIVERINE	AREA		NRPWW	30.447735		Black Creek-Escatawpa River	Wetland
WELAU13-FU	2 8	KIVEKINE	AREA		NRPWW	30,447669	~	Black Creek-Escatawpa River	Wetland
WETA015-F0	PFO	MINSOLCE	ABEA	0.210332.ACRE	NAPAAA	30.45/139	2 2	Black Creek-Escatawpa River	Wetland
WETA016-E0	M-EW	MINSOILFLT	AREA		NRPWW	30.459757	497489	Black Creek-Escatawna River	Wetland
WETA016-F0	PFO	MINSOILFLT	AREA	0,235135 ACRE	NRPWW	30.459863	5	Black Creek-Escatawpa River	Wetland
WETA017-E0	₽£M	RIVERINE	AREA	0.095.255 ACRE	NRPWW	30.46169	-88.497469 B	Black Creek-Escatawpa River	Wetland
WETA017-F0	PFO	RIVERINE	AREA	0.364629 ACRE	MRPWW	30.462052	-88.497486 B	Black Creek-Escatawpa River	Wetland
DA-KTOOL:			::::				*********		

WETA019-F0								201100		
WETA020-E0	PEM	RIVERINE	AREA	0.0/948/ A	ACHE	NRPWW	30.473183.	-88,43/439	-88,497439 Black Creek-Escatawpa River	Wetland
WETA020-F0	PFO	RIVERINE	AREA	0.499755 A	ACRE	NRPWW	30.472718	-88.497456	-88.497456 Black Creek-Escatawpa River	Wetland
WETA021-F0	PFO .	RIVERINE	AREA	0.369242 ACRE	CRE	RPWWO	30.481021	-88.499277	-88.499277 Black Creek-Escatawpa River	Wetland
WETA022-E0	PEM	DEPRESS	AREA	0.176541 4	CRE	NRPWW	30.490198	-88.49857	-88.49857 Black Creek-Escatawpa River	Wetland
WETA022-E1	PEM	DEPRESS	AREA	0.80707 A	ACRE	NAPWW	30,491761	-88.498159	-88.498159 Black Creek-Escatawpa River	Wetland
WETA022-FO	윤	DEPRESS	AREA	2.250672 A	ACRE	NRPWW	30,48817	-88.49911	-88.49911 Black Creek-Escatawpa River	Wetland
WETA022-F1	2	DEPRESS	AREA	0.511197 A	ACRE	NRPWW	30,490734	-88,498419	-88,498419 Black Creek-Escatawpa River	Wetland
WETA022-50	PSS	DEPRESS	AREA	0.154254 A	ACRE	NRPWW	30,48846	-88.499033	-88.499033 Black Creek-Escatawpa River	Wetland
WETA023-F0	PFO	RIVERINE	AREA	0.272844 ACRE	KCRE	RPWWD	30.494282	-88.498115	-88.498115 Black Creak-Escatawpa River	Wetland
WETA023-F1	PFO	RIVERINE	AREA	0.517442 A	ACRE	RPWWD	30.495018	-88.497904	-88.497904 Black Creek-Escatawpa River	Wetland
WETA024-F0	윮	RIVERINE	AREA	0.101816 ACRE	CRE	RPWWD	30,497525	-88,49718	-88.49718 Black Creek-Escatawpa River	Wetland
WETA024-F1	MEO.	RIVERINE	AREA	0.225167 ACRE	CRE	RPWWD	30.49793	-88.497067	Black Creek-Escatawoa River	Wetland
WETA024-F2	PFO	RIVERINE	AREA	0.234651 ACRE	CRE	RPWWD	30.498524	-88 4969		Wettand
WETA024-F3	PFO	RIVERINE	AREA	0.025082 A	ACRE	RPWWD	30.498875	-88 496858	-XX 496858 Black Creek-Forstaume Bluer	Mottand
WETADOS-FO	Cia	MINSOILEIT	ABEA	3 277273 A	ACRE	NBBrand	30.533446	99 A71AAE	SO A71446 Black Creek Exestences Black	Mathana
WETANJES	S S S	RNFRING	ABEA	A 487077 A	ACRE	DENOMIN	20000000	96 471496	Black Cook Contractions Black	DUP THE STATE OF
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T LOCAL TO		DAN CHARLE	ANG.		ACPE.	Nrwww.	20.344/49	4707/4/00	DISCK CREK-ESCATAWDA KIVER	Wetland
72-50	LE IN	RIVERNING	ANCA	A C2C262.V	יראנ	MRPWW	30.582393			Wetland
WE I BOUS-FU	2	XIVENINE	AREA		ACKE	NRPWW	30.582502	-88.45055	Rocky Creek-Escatawpa River	Wetland
WE BOOK-FO	2 2	RIVERINE	AREA		ACRE	RPWWD	30.576724	-88.452742	Rocky Creek-Escatawpa River	Wetland
WETB004-F1	Q.	RIVERINE	AREA	0.049036 A	ACRE	RPWWD	30.578248	-88.452185	Rocky Creek-Escatawpa River	Wetland
WET8004-F2	PFO	RIVERINE	AREA	0.03734 A	ACRE	RPWWD	30.578351	-88.452137	Rocky Creek-Escatawpa River	Wetland
WET8004-F3	PF0	RIVERINE	AREA	0.06832 A	ACRE	NRPWW	30.578483	-88.452087	Rocky Creek-Escatawpa River	Wetland
WETB004-F4	PFO	RIVERINE	AREA	0.086014 A	ACRE	NRPWW	30.57863			Wetland
WETB005-E0	FPEM	RIVERINE	AREA		ACRE	NRPWW	STEZE OF			Meetand
WETB005-S0	PSS	RIVERINE	ARFA	0.400S04 A	ACRE	NRPWW	202525 OF		Borby Creek-Escatawas Rivor	Wetterd
		DIVEGINE	ADEA		ACOS	NO 004.04	acotto oc	700000	Court of the Court	Dispinate in the second
WET0007 E0	2 4	Dividonia			5 8	and a superior	20.72.70.00	40,40404		Wetland
	L L	RIVENING	ANCA	V.01309/	ACAC.	WAN WAN	30.370067	777556-88-	ROCKY Creek-cscatswpa River	Wesland
WE BUOK SU	Ĉ.	RIVERINE	A 445		AUR	NKPWW	30.569482	-88.454925	Rocky Creek-Escatawpa River	Wetland
WETBOOK-LO	DEM.	RIVERINE	AREA		ACRE	RPWWN	30.602683	-86.436931	Rocky Creek-Escatawpa River	Wetland
WET8008-F0	PFO	RIVERINE	AREA		ACRE	RPWWD	E59E09.0E	-88.435373	Rocky Creek-Escatawpa River	Wetland
WETB009-E0	PEM	DEPRESS	AREA	0.025485 A	ACRE	NRPWW	30.614783	.88.422012		Wetland
WET8009-F0	Pro	DEPRESS	AREA	0.526511 A	ACRE	NRPWW	30.614325	-88.42225	Lower Big Creek	Wetland
WETC011-50	PSS	MINSOLFLT	AREA		ACRE	NRPWW	30.502156	-88.495592	Black Creek-Escalawna River	Werland
WETC011-51	S.	MINSOLFLT	AREA		ACRE	NRPWW	SQ.50592	88.493337	Black Creek-Ecotowoo River	Werland
WETC011-52	250	MINSOILFLT	AREA		ACRE	NAPAW	30 50881			Motion
WETC012-FD	Mid	MINSOILEIT	AREA	A MAGAMA	47.F	NAPWAW	30 517607	-RR 482751	Black Crastavan Cines	Mothred
WETO012.50	200	T 13 II SAINS	AREA	A 113781 A	ACBE	NBDAAAA	20 010040	ALCADAGO	Olach Charle Freedom of the	West and
WETCO13A-FO	Mid	DEPRESS	AREA		ACRE	NRPWAW	30 525140	ACOCOA SO.		Michigan
WETCO134-EO	030	DCDBCCC	ABEA		YCOC	NEOSAAA	910000	120004 00	OCADOTA DIEL CACA COMPANIA	N. Carlotte
WETCOTOO FA	2	The state of the s	5 5			AAA JUL	0.000000	T/6704'00-	Diack Lieek-Escalawpa River	Wettand
	A CA	MINSOILF	5		121	WAY WAY	90.526788	-88.481/29	-86.461 / 29 Black Creek-Escatawpa River	Wetland
WEIC0138-50		MINSOILFLT	AREA		ACRE	NRPWW	30.527758	-88.48114	-88,48114 Black Creek-Escatawpa River	Wetland
WETC014-E0	PEM	DEPRESS	AREA	0.0445B1 A	ACRE	NRPWW	30.529116	-88.478395	-88.478395 Black Creek-Escatawpa River	Wetland
WETC015-E0	PEM	DEPRESS	AREA	0.104281 A	ACRE	RPWWD	30.529608	-88.474354	Black Creek-Escatawpa River	Wetland
WETC015-E1	PEM	DEPRESS	AREA		ACRE	RPW/WD	30.529658	-88.473651	Black Crook-Fecatawna River	Wetland
WETCO15-F0	PFO	DEPRESS	AREA		ACRE	RPWAVID	30.529738		Black Crook-Ecratawas Bluer	Method
WETCO15_C1	000	DEDBEGG	ADCA.	4 30000	30.00	Separation of the separation o	E10000000		Digital Circumstance of the Control	CHETTAN
Table of the control	2	Der Nead	ANCA	W CONTROL	1	NAMP.	719675.05	4/4133	Black Lreek-Escatawpa River	Wetland
na	FEW	KIVEKINE	AKEA	0.106415 4	ACRE	MRPWW	30.588061		Rocky Creek-Escatawpa River	Wetland
WETCD28-F0	5	RIVERINE	AREA		ACRE	NRPWW	30.587937	-88.448587	Rocky Creek-Escatawpa River	Wetland
WETC030-E0	PEM	RIVERINE	AREA	1.483488 A	ACRE	RPWWD	30.5956		Rocky Creek-Escatawpa River	Wetland
WETC030-E1	₽E≪	RIVERINE	AREA	0.006358 Av	ACRE	RPWWD	30.598805	-88.442462	Rocky Creek-Escatawoa River	Wetland
WETC030-E2		RIVERINE	AREA		ACRE	RPWWD	30 599076	441593	Bocky Croek-Feratawns River	Metland
WETC030-F0	PFO	RIVERINE			ACRE	RPWWD	980705 06	445847	Rocky Creek-Eccatowne River	Methody
WETCOROLEI	050	PINEBINE	ABEA		VCPE	BENADALD	30 50800		order Court Court of the Court	7 11 - 11
METCOSOLES		DIVEDING	4004	57.7	100	Change	00606000	777	nocky Creek Excelented Nivel	Mecialia
7		RIVERNING	Suc		ACAE.	NrwwD	715665.05	-88.441345	KOCKY Creek-Escatawpa Kiver	Wetland
WE I DUDI - EU	L L L	KIVEKINE	AHEA		ACKE	NKPWW	30.409222	-88.483729	Black Creek-Escatawpa River	Wetland
WETD001-F0	PFO	RIVERINE	AREA		ACRE	NRPWW	30.409188	-88,483596	Black Creek-Escatawpa River	Wetland
WETD003-F0	750	ORGSOILFLT	AREA	2.109928 Au	ACRE	RPWWN	30.415524	-83.4828	Black Creek-Escatawpa River	Wetland
WETD004-F0	9£0	ORGSOILFLT	AREA	3.874672 A	ACRE	TNWW	30.419177		Black Creek-Escatawpa River	Wetland
WETD005-F0	<u>8</u>	RIVERINE	AREA		ACRE	NRPWW	30.544245		Black Creek-Fsratawoa River	Wetland
WETDOOG-FO		RIVERINE	ARFA		ACRE	RPWWO	FU 546177		Black Crook Secretarions Ottor	Paris Paris
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WETOOCES		OWOOME	ADEA	40000	100	Circumo	CALCULATION OF		District Carataway Nives	Welland
		CARCOLLEG		10000	אַרענ	CAMANA	30.346639		Black Creek-Escarawba River	wetland
WE1000/-+0	2	MINSMILLI	2		AUKE	KPWWD	30.549764	-88.471767	Black Creek-Escatawpa River	Wetland
WETD008-E0	PEM	MINSOILFLT	AREA		ACRE	RPWWN	30.552386	-88.471209	Black Creek-Escatawpa River	Wetland
W£TD008-F0	PFO	MINSOILFLT	AREA		ACRE	RPWWN	30.551834			Wetland
WETD008-50	ĸ	MINSOILFLT	AREA		ACRE	RPWWN	30.552008	-88,471431	Black Creek-Escatawpa River	Wettand
WETDO09-FO	2	T IJ IIOSNIPA	AREA		38.	NEDWAN	20 55217	BR ACTES	Books Creek Erretman Biner	Marking
22-6	2 2	MINSOLFU	AKER	0.832893 A	32	NHATOW	30.556217	120/04/99	-88.46759 ROCKY Creek-Escatawpa River	Wetland
WETD009-E1	CALLA			* 00000					i	
	NEW N	MINSOILFU	AREA	0.09838 A	ACRE	NRPWW	30.561872	-88.46224	-88.46224 Rocky Creek-Escatawpa River	Wetland

VETD009-F1	O.P.	MINSOLFLT	AREA	0.693853 ACRE	NRPWW	30.559647	-88.464199 Rocky Creek-Escatawpa River	Wetland
VETD009-F2	OHO	MINSOILFLT	AREA	0.094534 ACRE	NRPWW	30.563393	-88.46065 Rocky Creek-Escatawpa River	Wetland
VET0009-F3	요	MINSOILFLT	AREA	0.242171 ACRE	NRPWW	30,564215	-88.459867 Rocky Creek-Escatawpa River	Wetland
VETD009-S0	ĸ	MINSOILFLT	AREA	1.826189 ACRE	NRPWW	30.557914	-88.465834 Rocky Creek-Escatawpa River	Wetland
VETD009-51	PSS	MINSOILFLT	AREA	2.238561 ACRE	NRPWW	30.561906	-88.462055 Rocky Creek-Escatawpa River	Wetland
VETD009-52	PSS	MINSOILFLT	AREA	0.489641 ACRE	NRPWW	30.563761	-88.460295 Rocky Creek-Escatawpa River	Wetland
VETG001-E0	EZEM	ORGSOILFLT	AREA	4.992487 ACRE	TNWW	30,425325	-88.490205, Black Creek-Escatawpa River	Wetland
VETG002-E0	EZEM	ORGSOILFLT	AREA	1.513801 ACRE	RPWWD	30.429894	-88.493077 Black Creek-Escatawpa River	Wetland
/ETG005-E0	PEM	MINSOILFLT	AREA	0.062469 ACRE	RPWWD	30.355411	-88.488546 Pt Aux Chenes Bay-Mississippi Sound	Wetland
	PEM	MINSOILFLT	AREA	_		30.355136	-88.488547 Pt Aux Chenes Bay-Mississippi Sound	Wetland
		MINSOILFLT	AREA	0.039566 ACRE	RPWWD	30.354811	-88.488548 Pt Aux Chenes Bay-Mississippi Sound	Wetland
VETG005-50	SS.	MINSOILFLT	AREA	0.826683 ACRE	TNWW	30.355988	-88.484306 Pt Aux Chenes Bay-Mississippi Sound	Wetland
VETG005-51	SS.	MINSOILFLT	AREA	0.972171 ACRE	RPWWD	30,355993	-88.4862 Pt Aux Chenes Bay-Mississippi Sound	Wetland
VETG005-S3	255	MINSOILFLT	AREA	1,218603 ACRE	RPWWO	30.35589	-88,488086 Pt Aux Chenes Bay-Mississippi Sound	Wetland

R5 RIVER	RIVERINE	AREA	0.002628 ACRE	RPW	30.640624	-88.3795	Mark Big Creek	PERFUNIAL STREAM
	RIVERINE	AREA	0.004222 ACRE	RPW	30.64333		Lower Big Creek	PERENNIAL STREAM
\neg	RIVERINE	AREA	0.024403 ACRE	нрм	30.647292			PERENNIAL STREAM
Т	RIVERINE	AREA	0.005754 ACRE	RPW	30.628713	i	Lower Big Creek	PERENNIAL STREAM
Ţ	DIVERNITE	ANEA	מישיבים שרעני	WAL	30.629394	-88.398181	Lower 8/g Creek	PERENNIAL STREAM
Т	RIVERINE	ARFA	O DARAGRA ACRE	NRPUC	20,58682	00 30000	IDWer big Lifest	PERENNIAL STREAM
	RIVERINE	AREA	0.015876 ACRE	RPW	30 691137	28 TO 1985	Copper Rio Creek	INTERNITION CTOCAN
,	RIVERINE	AREA	0.035078 ACRE	RPW	30.740104	-88.259529	Upper Big Creek	PERENNIAL STREAM
	DEPRESS	AREA	0.104763 ACRE	ISOLATE	30.76374	-88.244969	Chickasaw Creek	PERENNIAL POND
Ţ	RIVERINE	AREA	0.044981 ACRE	RPW	30.776907	-88.226959	Double Branch	PERENNIAL STREAM
Ţ	DEPRESS	AREA	0.042289 ACRE	ISOLATE	30.631695	-88.394076	Lower Big Creek	PERENNIAL POND
T	DIVERINE	ADEA	O COSCOS ACRE	Krw	30.631961	-825EE RR	Big Creek	PERENNIAL STREAM
Ī	RIVERINE	AREA	0.019378 ACRE	RPW	TC9CC4 OF	98.386521	LLower Big Creek	DEDERMITTENT STREAM
-	RIVERINE	AREA	0.066024 ACRE	RPW	30.724474	-88 2742R1	Hamilton Creek	DEBENNIAL STREAM
	DEPRESS	AREA	0.041643 ACRE	ISOLATE	30.753264	25449	Upper Big Creek	PERENNIAL POND
	DEPRESS	AREA	D.D18636 ACRE	RPW	30.753563	254378	Upper Big Creek	PERENNIAL STREAM
	RIVERINE	AREA	0.0094 ACRE	RPW	30.755021	-88.253749	Upper Big Creek	PERENNIAL STREAM
Ţ	DEPIKESS	AREA	0.004851 ACRE	ISOLATE	30.759883	251435	Upper Big Creek	PERENNIAL POND
1	RIVERING	AREA	O MARCIZ ACRE	KPW	30.776807	221516	Chickasaw Creek	PERENNIAL STREAM
Ţ	RIVERING	AREA	0.004002 ACRE	A Day	30.663047	176655.33	Lower big creek	PERENNIAL STREAM
	DIVERNITE	ADEA	O'OLLEGO ACRE	W. W.	30.678024	-88.320093	Lower 84g Creek	PERENNIAL STREAM
Ī	DEBOTCE	April	O CONTAIN ACE	NPW 1504 ATE	30.794917	88.210341	Chickasaw Creek	INTERMITTENT STREAM
	RIVERINE	AREA	O COOLTRE ACRE	TI SOCI	30.7 00 a	90.249689	Chicksow Creek	PERENNIAL POND
T	BIVERINE	APEA	0.004/30 ACAE	ANA	30.713949	-58.27/182	Upper Big Creek	INTERMITTENT STREAM
Ī	RIVERINE	AREA	0.033945 ACRE	a a a a a a a a a a a a a a a a a a a	30 660664	20032500	Lower big Creek	INTERMITTENT STREAM
	RIVERINE	AREA	0.014838 ACRF	NRPW	OPOCTA OF	49 278157	Diegra Creek	COLCLASOA: CTDCAAA
	RIVERINE	AREA	0.016016 ACRE	RPW	30 67308	-88 37748R	Planta Creek	DEDERMINI CTREAM
	RIVERINE	AREA	0.001738 ACRE	NRPWW	30.639632	-88.382044	-88.382044 Lower Big Creek	Wetland
	RIVERINE	AREA	0.252142 ACRE	NRPWW	30.639643	-88.381798	-88.381798 Lower Biz Creek	Wetland
	RIVERINE	AREA	0.114467 ACRE	RPWWD	30.640664	-88.379493	-88.379493 Lower Big Creek	Wetland
	RIVERINE	AREA	D.D36891 ACRE	RPWWO	30.640625	-88.379648	88.379648 Lower Blg Creek	Wetland
	RIVERINE	AREA	0.057314 ACRE	RPWWD	30.643331	-88.374401	Lower Big Creek	Wetland
1	RIVERINE	AREA	U.UU/b9b ALKE	KPWWU	30.643484	-88.37409		Wetland
Ī	SIVERINE	ANEA	G.0006/ ALRE	RPWWU	30.643202	-88.374253		Wetland
	CVERNE	AREA	0.05/838 ACRE	KPWWD	30.643325	-88.374285		Wetland
	NYCHMC	ADEA	O COZASE ACRE	Krwwi	30.643421			Wetland
T	NICONIC	ADEA	0.007428 ACRE	WANTE	30.645238	-88.370468	-	Wetland
	AIVERING	ANCA	0.074/19 ACRE	AKPWW	30.645192	-88.3704	Lower Big Creek	Wetland
	NEDINE	A05A	0.014024 ACRE	NAPWW.	30.645855	-88.369152	Lower Big Creek	Wetland
	WENINE	ADDEA	O'COSTON ACAE	NKPWW	30.645/75	-88.369154	Lower Big Creek	Wetland
1	DYEMINE	ANCA	O COUNTY ACRE	M.M.A.X	30.647323	-88.366144	Lower Big Creek	Wetland
Ī	MACHINE	A POLY		Krwwo	30.647194	-88.366056	Lower Big Creek	Wetland
	NEDINE	APEA	0.044000 ACAE	Chamber of the Chambe	30.647.291	-88.365738	Lower Big Creek	Wetland
	NEGRINE	ADEA	0.003127 ACNE	MINISTRA	30.6484b7	-88.363/34	Cower Big Creek	Wetland
	DIVEDINE	4000	0.002003 4005	NAY WE WE	30.048341	-68.36380Z	Lower Big Creek	Wetland
	IN CRIME	ADEA		MIDDIGA	30.648986	-88.3626/1	Lower Big Creek	Wetland
	RIVERINE	ADEA	O DEDGE ACEC	NEDSTOR	30.048922	-88.36255	Lower Big Creek	Wetland
	SIVERINE	6864	0 536339 ACRE	Dough	30.59001	777196'99-	Lower dig Creek	Wetland
	NEBINE	AREA	200003	DELACATION	470670°C	-60.396635	LOWer dig Creek	Wetland
	NVERINE	ARFA	0.267458 ACRE	Managa	104679.00	-06.396009	Lower Big Creek	Wettand
7	RIVERINE	ARFA	0.207.330 MCRE	POWING	VERNOS OC	-55.305551	Lower Big Creek	Wetland
†= 	NVERINE	ARFA	O SANSSE AFEE	Operation	TOG / BO'OC	-00.303373	cower one creek	Wetland
	RIVERINE	AREA	0.032184 ACRE	Distraction of the control of the co	00000000	36506	Lower big Creek	Wetland
Ī	RIVERINE	ARFA	1 21507 ACBE	Carriada	PUCTED OF	197705-99-	LOWER 55 Creek	Wetland
Ī	UVERINE	AREA	1 608762 ACRE	SPWAND	30,690,637	2012000	LOWER ON CREEK	Wetland
 -	RIVERINE	ARFA	0.107212 ACRE	RPWWD	30,691151	88 303043	Lower big creek	Welland
ľ	OPF	ARFA	073114	NRPAGA	10116006	69.302287	Lower big creek	Wetland
-	PEPRESS	AREA		NAPAW	20026000 7200100		Lower big treex	Wetland
	OPE	ARFA	0.02627 AFRE	NBPAAA	30,503,003	AK1500 00	cower big creek	Wettand
-	IIVERINE	AREA		NRPWW	20220000	98 3643DE		Wetland
	IVERINE	AREA	D 224849 ACRF	NBPWW	20727.05			Wedana
	IVERINE	ARFA	D 3R0344 AFRE	NBPACAC	30 (328/8	500002.00		Wetland
	IVERINE	AREA	3 AGOAGE ACRE	NPDIGNA	30 735573		Upper big treek	Wetland
	RIVERINE	AREA	0.078867 ACRF	RPUCKU	30 230801	56107'00.	opper big creek	Wetland
	IVERINE	AREA	0.721791 ACRE	RPWWN	20174102	9003C 00	Opper oil creek	wetland
-	IVERINE	AREA	0.222628 ACRE	RPWWD	30 747567	-88 25918A	Upper Dig Creek	Melland
-	WEDINE				1000			
		AHEA	0.143046 ACRE	RPWWD	DIRPET OF	19674	Howar Rig Creak	Markland



WETCO25-60 PPO RI WETCO20-60 RI WETCO20-60	RIVERINE RIV	AREA AREA	0.07888 ACRE 0.070071 ACRE 0.033789 ACRE 0.033789 ACRE 0.033789 ACRE 0.0322813 ACRE 0.0322813 ACRE 0.0322813 ACRE 0.032813 ACRE 0.032813 ACRE 0.032813 ACRE 0.032813 ACRE 0.032813 ACRE 0.032813 ACRE 0.032813 ACRE 0.03832 ACRE 0.003323 ACRE 0.000313 ACRE	RPWWW	30.77939 30.77643 30.77692 30.653927 30.653027 30.653027 30.653027 30.63127 30.63127 30.63127 30.63127 30.72290		88.2334645 Chrickasaw Creek 88.232465 Chrickasaw Creek -88.232465 Chrickasaw Creek -88.317179 Lower Big Creek -88.337170 Lower Big Creek -88.3394195 Lower Big Creek -88.359412 Lower Big Creek -88.359412 Lower Big Creek -88.359412 Lower Big Creek -88.359412 Lower Big Creek -88.359413 Lower Big Creek -88.359413 Lower Big Creek -88.359413 Lower Big Creek -88.35931 Lower Big Creek -88.37531 Loper Big Creek -88.375413 Loper Big Creek -88.375413 Loper Big Creek -88.275413 Loper Big Creek	Wetland
PPO	VERINE	AREA AREA	0.00075 ACRE 0.042034 ACRE 0.042034 ACRE 0.034789 ACRE 0.022483 ACRE 0.02245 ACRE 0.02245 ACRE 0.02245 ACRE 0.02245 ACRE 0.02245 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.056741 ACRE	REWWW RPWWW	30.77613 30.679501 30.679501 30.650645 30.650645 30.633021 30.633021 30.633021 30.632273 30.632273 30.632273 30.632273 30.632209 30.72290		Chickasaw Creek Chickasaw Creek Lower Big Creek	Weeland
10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VERINE	AREA AREA	2.253568 JACRE 0.03239 JACRE 0.03239 JACRE 0.03239 JACRE 0.03239 JACRE 0.03239 JACRE 0.025045 JACRE 0.0557407 JACRE 0.0557407 JACRE 0.15503 JACRE 0.055721 JACRE 0.05572 JACRE 0.05572 JAC	RPWAWO RP	90,769 90,67991, 90,67991, 90,63043 90,630401 90,630401 90,630401 90,630401 90,630401 90,730401		Chickgraw Creek Lower Big Creek Lower	Wetland
PEN	VERINE VERNE	AREA	0.042034 ACRE 0.0342034 ACRE 0.034789 ACRE 0.034789 ACRE 0.034789 ACRE 0.037893 ACRE 0.025275 ACRE 0.025275 ACRE 0.025273 ACRE 0.025273 ACRE 0.025273 ACRE 0.0567302 ACRE 0.0567303 ACRE 0.005332 ACRE 0.005332 ACRE 0.005332 ACRE 0.005332 ACRE 0.005332 ACRE 0.005733 ACRE 0.006273 ACRE 0.006289 ACRE 0.006389 ACRE 0.006389 ACRE 0.006389 ACRE 0.006389 ACRE	NREWWW REWWW REWW REW RE	90 6.9931 90 6.504807 90 6.504807 90 6.50401 90 6.30121 90 6.31217 90 6.31217 90 6.31217 90 7.22907 90 7.22907		Lower Big Creek Loper Big Creek	Wetland
PEN PEN	VERINE VERNE	AAREA AAREA	0.037551 JACRE 0.03789 JACRE 0.03789 JACRE 0.032843 JACRE 0.032843 JACRE 0.25276 JACRE 0.25276 JACRE 0.25736 JACRE 0.25736 JACRE 0.25736 JACRE 0.25736 JACRE 0.05673 JACRE 0.000537 JACRE	REWAWD	90 673607 90 650433 90 650433 90 653021 90 631213 90 63271 90 63271 90 63271 90 72290 90 72290 9		Lower Big Creek Lower Big Cree	Wetland
PEN PEN	VERNIE	AREA AREA	0.034789 ACRE 0.017855 ACRE 0.017855 ACRE 0.017855 ACRE 0.025276 ACRE 0.032645 ACRE 0.035202 ACRE 0.057302 ACRE 0.057302 ACRE 0.057302 ACRE 0.057302 ACRE 0.055302 ACRE	RPWWUD NRPWWW NRPWWW RPWWWD RPWWD RPWD RP	30 650433 30 653067 30 6531338 30 631338 30 632271 30 632271 30 632271 30 632271 30 722407 30 72		Lower Big Creek	Wetland
PEM PEM	VERNAE VOERNAE	ANESA	0.022483 ACRE 0.017565 ACRE 0.017565 ACRE 0.025716 ACRE 0.025276 ACRE 0.025276 ACRE 0.156261 ACRE 0.156261 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.0567402 ACRE 0.05672 ACRE 0.05673 ACRE	REWWUD NREWWW NREWWW REWWWD	30.65066 30.653021 30.653021 30.653221 30.632271 30.632271 30.632271 30.632271 30.722907		Lower Big Creek Loper Big Creek	Wetland
PEN	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.017955 ACRE 0.02276 ACRE 0.022564 ACRE 1.0523945 ACRE 0.0567402 ACRE 1.156851 ACRE 1.156851 ACRE 0.005421 ACRE 0.005421 ACRE 0.005421 ACRE 0.005421 ACRE 0.00573 ACRE 0.005773 ACRE 0.005787 ACRE 0.005787 ACRE 0.005580 ACRE 0.005580 ACRE	REWAND	30,653,017 30,653,017 30,631,17 30,631,17 30,632,17 30,636,11 30,636,11 30,732,17 30,732,17 30,732,17 30,732,17 30,732,17 30,732,17 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18 30,732,18		Lower Big Creek Loper Big Creek	Wetland
1	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.209922 ACRE 0.22265 ACRE 0.022645 ACRE 0.135932 ACRE 0.135032 ACRE 0.135032 ACRE 0.135032 ACRE 0.005421 ACRE 0.005421 ACRE 0.005422 ACRE 0.005724 ACRE 0.005724 ACRE 0.175164 ACRE 0.00273 ACRE 0.00273 ACRE 0.00273 ACRE 0.00273 ACRE 0.00273 ACRE 0.00273 ACRE	RPWWD RPWD RP	30.654017 30.631338 30.63271 30.63271 30.63284 30.63284 30.63284 30.72290 30.72290 30.72290 30.72693 3		Lower Bg Creek Upper Bg Creek	Wetland
PEM	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.25276 ACRE 1.753325 ACRE 0.567402 ACRE 0.156732 ACRE 1.1568611 ACRE 0.003132 ACRE 0.000313 ACRE 0.000313 ACRE 0.000513 ACRE 0.000513 ACRE 0.000513 ACRE 0.000573 ACRE 0.1002773 ACRE 0.1002773 ACRE 0.1002773 ACRE 0.1002783 ACRE 0.1002883 ACRE 0.0003889 ACRE 0.0003899 ACRE	RPWWD	90 631338 90 632173 90 632173 90 632173 90 632173 90 632173 90 772290 90 772290 90 77269 90 77269		Lower Big Creek Loper Big Creek	Wetland
PEN PEN	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.022645 ACRE 0.1550325 ACRE 0.195032 ACRE 114103523 ACRE 0.0054211 ACRE 0.0054211 ACRE 0.005523 ACRE 0.005523 ACRE 0.005773 ACRE 0.005773 ACRE 0.0175164 ACRE 0.0175164 ACRE 0.056323 ACRE 0.005773 ACRE 0.056323 ACRE	RPWWUD	90.692773 90.639273 90.636861 90.636861 90.636861 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72297 90.72299 90.72299 90.72299 90.72299 90.72299 90.72299 90.72299		Lower Bg Creek Upper Bg Creek	Wetland
9 70 70 70 70 70 70 70 70 70 70 70 70 70	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	1.753925 ACRE 0.557402: ACRE 1.410557 ACRE 1.610551 ACRE 0.005421 ACRE 0.005421 ACRE 0.005765 ACRE 0.005732 ACRE 0.005733 ACRE 0.005733 ACRE 0.005733 ACRE 0.15554 ACRE 0.105733 ACRE 0.105735 ACRE 0.105733 ACRE 0.005733 ACRE 0.005733 ACRE 0.006733 ACRE	RPWAVD	30,63271 30,63281 30,63884 30,63884 30,72390 30,		Lower Big Creek Upper Big Creek	Wetland
100	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.567402 ACRE 1.1105503 ACRE 1.110560 ACRE 1.768611 ACRE 0.0054217 ACRE 0.0005421 ACRE 0.0005421 ACRE 0.0005421 ACRE 0.000573 ACRE 0.005773 ACRE 0.0157827 ACRE 1.046489 ACRE 0.004389 ACRE 0.004389 ACRE	RPWWD	30.632717 30.636861 30.636848 30.722907 30.722907 30.722907 30.726293 30.726293 30.726393 30.726		Lower Big Creek Upper Big Creek	Wetland
2 2 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.195092 ACRE 114.05657 ACRE 117.66671 ACRE 0.0054217 ACRE 0.0005723 ACRE 0.000572 ACRE 0.000272 ACRE 0.0175164 ACRE	RPWWD	30,536861 30,536861 30,722907 30,72297 30,724217 30,724217 30,724217 30,724217 30,724217 30,724217 30,722712 30,723212 30,723221 30,723212 30,723212 30,723221 30,723221 30,723221		Lower Big Creek Lower Big Creek Lower Big Creek Lower Big Creek Upper Big Creek	Wetland
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	1.410.55.7 ACRE 0.0054.21 ACRE 0.0054.21 ACRE 0.00051.22 ACRE 0.00051.23 ACRE 0.00051.23 ACRE 0.00071.3 ACRE 0.00571.3 ACRE 0.00571.3 ACRE 0.017.34 ACRE 0.017.35.64 ACRE 0.017.35.64 ACRE 0.0027.32 ACRE 0.00391.32 ACRE 0.00391.32 ACRE 0.004389 ACRE 0.004389 ACRE	RPWWD	30,534894 30,725497 30,725497 30,725497 30,724593 30,724593 30,725493 30,725		Lover Fig. Creek Lover Fig. Creek Lover Fig. Creek Upper Fig. Creek	Wetland Wetl
PEO	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	1.788611 ACRE 0.0054217 ACRE 0.0001832 ACRE 0.000573 ACRE 0.0002773 ACRE 0.002773 ACRE 0.0157827 ACRE 0.0157827 ACRE 0.0157827 ACRE 0.0167883 ACRE 0.004889 ACRE 0.004889 ACRE	RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD RPWWD	30.555484 30.722907 30.722907 30.722907 30.722290 30.722707 30.72250 30.722707 30.72250 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270 30.72270		Louve Fig. Creek Upper Big. Creek	Wetland
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.054217 ACRE 0.005182 ACRE 0.00576 ACRE 0.00576 ACRE 0.005718 ACRE 0.175164 ACRE 0.175164 ACRE 0.0175164 ACRE 1.96207 ACRE 1.96207 ACRE 0.034389 ACRE	REWAVID	30,722907 30,722947 30,722947 30,724217 30,724217 30,724217 30,724217 30,72209 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309		Upper Big Creek	Wetland Wetl
1	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.0003332] AGRE 0.0003332] AGRE 0.0003323 [AGRE 0.0002773 AGRE 0.002773 AGRE 0.002773 AGRE 0.002733 AGRE 0.0039392] AGRE 0.0043893 [AGRE 0.004389] AGRE 0.0043893 [AGRE 0.004389] AGRE	REWAND	90,722907 90,722407 90,724508 90,724508 90,725077 90,72509 9		Upper Big Creek	Wetland
2 2 3 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.005458 ACRE 0.000593 ACRE 0.000273 ACRE 0.0173164 ACRE 0.0173164 ACRE 0.0173164 ACRE 0.017489 ACRE 1.96307 ACRE 0.004389 ACRE	REWAND	30.72457 30.72457 30.72459 30.72503 30.72503 30.72503 30.72504 30.72594 30.72594 30.72594 30.72594 30.72594 30.72594		Upper Fig Creek	Wetland
2	VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.0005/68 AARE 0.0005/73 AGRE 0.000273 AGRE 0.175164 AGRE 0.1017483 AGRE 1.0017483 AGRE 0.0039492 AGRE 0.004389 AGRE	RPWWD	30,746.27 30,746.26 30,726.59 30,726.59 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09 30,725.09		Upper Big Creek	Wetland Wetl
2	YERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.005923 ACRE 0.002773 ACRE 0.002773 ACRE 0.01057827 ACRE 1.017883 ACRE 1.030492 ACRE 0.004389 ACRE 0.004389 ACRE	RPWWO RPWWO RPWWO RPWWO RPWWN RPWWN RPWWN RPWWN RPWWN	30,72459 30,72659 30,722777 30,72269 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309 30,72309		Upper Big Creek	Wetland
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.002773 ACRE 0.0173164 ACRE 0.0173164 ACRE 1.017483 ACRE 1.96307 ACRE 0.036492 ACRE 0.006439 ACRE	RPWWO RPWWD RPWWD RPWWD RPWWN RPWWD RPWWD	30.72656 30.72276 30.72263 30.72263 30.72324 30.73234 30.73234 30.732691 30.732691 30.732691 30.732691		Upper Big Creek	Wetland
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	VYERINE VYERNE	AREA AREA AREA AREA AREA AREA AREA AREA	0.002773 ACRE 0.175164 ACRE 0.057857 ACRE 1.017483 ACRE 0.030492 ACRE 0.004389 ACRE	REWAND REWAND REWAND REWANN REWANN REWANN REWAND	30,72277 30,72508 30,72508 30,72508 30,72528 30,72528 30,75289 30,7589 30,7589 30,7589		Upper Big Creek	Wetland
P P P P P P P P P P P P P P P P P P P	VERNE	AREA AREA AREA AREA AREA AREA AREA AREA	0.175164 ACRE 0.057857 ACRE 1.01743 ACRE 1.96307 ACRE 0.030492 ACRE 0.004389 ACRE	REWAND REWAND REWAND REWAND REWAND	30.72569 30.72309 30.723219 30.752564 30.752964 30.785991 78267 17.88857		Upper Big Creek	Wetland Wetland Wetland Wetland Wetland Wetland Wetland Wetland
70 FFO FFO FFO FFO FFO FFO FFO FFO FFO FF	VERINE	AREA AREA AREA AREA AREA AREA AREA AREA	0.057857 ACRE 1.017883 ACRE 1.9500 ACRE 0.004389 ACRE 0.004389 ACRE	RPWWD RPWWD RPWWD RPWWD	30.723003 30.723319 30.72332 30.752919 30.755919 31.7555091		Upper Big Creek	Wetland Wetland Wetland Wetland Wetland Wetland
9 PFO	VERINE	AREA AREA AREA AREA AREA AREA AREA	1,017483 ACRE 1,96307 ACRE 0,030492 ACRE 0,004389 ACRE	RPWWD RPWWN RPWWD RPWWD	30.72319 30.72324 30.75994 30.75991 30.75691 30.75691	-88.275313	Upper Big Creek Upper Big Creek Upper Big Creek Upper Big Creek	Wetland Wetland Wetland Watland
0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	VERINE VVERINE VVERINE VERINE VERINE VERINE	AREA AREA AREA AREA AREA AREA	1.96307 ACRE 0.030492 ACRE 0.004389 ACRE 0.003509 ACRE	RPWWN RPWWD RPWWD	30.727321 30.72964 30.759691 30.756919 31.74899	-88.274775	Upper Big Creek Upper Big Creek Upper Big Creek	Wetland Wetland Wetland
PEM PEM PEM PEM PEM PEM PEM PEM PEM PEM	VERINE VERINE VERINE VERINE VERINE VERINE	AREA AREA AREA AREA AREA	0.004389 ACRE 0.004389 ACRE	RPWWD	30.752964 30.754919 30.755091	-88,272523	Upper Big Creak Upper Big Creek	Wetland
M M M M M M M M M M M M M M M M M M M	VERINE VERINE VERINE VERINE VERINE	AREA AREA AREA AREA	0.004389 ACRE 0.003509 ACRE	RPWWD	30.754919	-88.254545	Upper 81g Creek	Wetland
▼ 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VERINE VERINE VERINE VERINE	AREA AREA AREA	0.003509 ACRE		30.755091		Cape of Coop	Watland
O	VERINE VERINE VERINE	AREA		RPWWD	30 74899	L	Unner Blo Creek	
	VERINE VERINE VERINE	AREA	4.31402 ACRE	RPWWN		APE 25 KB.	-88 256396 Unner Blø Creak	Motion
O O O W O O O O O O O O O O O O O O O O	VERINE	-	0.313557 ACRE	RPWWD	30 753 288	-RR 254549	-RR 254549 (Japer Rig Creek	Wottand
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	VERINE	ANGA	0.212089 AUR	Krww	30.06,869	-88.335932	Lower Big Creek	Wettand
ALC:	KIVERINE	AREA	U.U.SUSB ACKE	KPWW	30.660803	-88.338028	Lower Big Creek	Wetland
	RIVERINE	AREA	D.539299 ACRE	RPWW	30.660551	-88.338313	Lower Big Creek	Wetland
×34	RIVERINE	AREA	0.005009 ACRE	NRPWW	30.655737	-88.348586	Lower Big Creek	Wetland
	RIVERINE	AREA	0.077855 ACRE	NRPWW	30.655679	-88.348479	Lower Blg Greek	Wetland
	RIVERINE	AREA	0.000476 ACRE	NRPWW	30.65543	-88,349239		Wetland
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	RIVERINE	AREA	0.203093 ACRE	RPWWD	30.678151	Ì	Lower Big Creek	Wetland
PEM	DEPRESS	AREA	0.328927 ACRE	RPWWN	30.675604	-88.324089	-88.324089 Lower Big Creek	Wetland
O.	DEPRESS	AREA	0.424245 ACRE	RPWWN	30.67536	-88.324302	Lower Big Creek	Wetland
PFO	DEPRESS	AREA		RPWWN	30.675858	-88.323499	Lower Big Creek	Wetland
PEM	DEPRESS	AREA	0.01858 ACRE	RPWWM	30.673687	-88.327211	Lower Big Creek	Wetland
WETE008-F0 PFO DEI	DEPRESS	AREA	0.01004 ACRE	RPWWN	30.673648	-88 377194	-88 327194 Lawer Big Freek	Wetland
PFO	RIVERINE	AREA	0.27151 ACRE	RPWWD	30,776802	-88.221778	Chickasaw Creek	Wettand
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	RIVERINE	AREA		RPWWD	30.650392			Mothand
034	RIVERINE	AREA	0.058248 ACRE	RPWWD	30.650659	-88 359067		Wating
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250	MINE TO SERVICE	A DUCK	TACCO'O	D. W. W. W.	30.60936	-88.353484	Lower Big Creek	Wetland

WBC001		Work	River/Stream	No
WBC003	Wolf Branch	Work	River/Stream	N _o
WBC006		Work	River/Stream	No
WBC007		Work	River/Stream	No
WBC008		Work	River/Stream	No
WBC010A		Work	River/Stream	No
WBC010B		Work	River/Stream	No
WBC011		Work	River/Stream	No
WBC012		Work	Pond	No
WBC112A	Double Branch	Work	River/Stream	No
WBD005		Work	River/Stream	No
WBD006		Work	River/Stream	No
WBD007	Hamilton Creek	Work	River/Stream	No
WBD008		Work	Pond	No
WBD009A		Work	River/Stream	No
WBD009C		Work	River/Stream	No
WBD011	Red Creek	Work	River/Stream	No
WBE002		Work	River/Stream	No
WBE005		Work	River/Stream	No
WBG005		Work	River/Stream	No
WBG010		Work	River/Stream	N _o
WBGT001		Work	River/Stream	N _o
WBGT004		Work	River/Stream	No
WETC001-E0		Work	Non-Tidal Wetland	N _O
WETC001-F0		Conversion of waters type (fores Non-Tidal Wetland	fores Non-Tidal Wetland	No
WETC002-F0		Conversion of waters type (fore: Non-Tidal Wetland	fores Non-Tidal Wetland	No
WETC002-F1		Conversion of waters type (fores Non-Tidal Wetland	fores Non-Tidal Wetland	No
WETC003-E0		Work	Non-Tidal Wetland	No
WETC003-E1		Work	Non-Tidal Wetland	No
WETC003-F0		Conversion of waters type (fores Non-Tidal Wetland	(fores Non-Tidal Wetland	No
WETC003-F1		Conversion of waters type (fores Non-Tidal Wetland	(fores Non-Tidal Wetland	No
WETC003-F2		Conversion of waters type (fores Non-Tidal Wetland	(fores Non-Tidal Wetland	No
WETC004-E0		Work	Non-Tidal Wetland	No

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WETC005-E0	Work Non-Tidal Wetland N	8 8
WETC005-F0	Conversion of waters type (fores Non-Tidal Wetland N	No
WETC007-E0	Work Non-Tidal Wetland N	N _o
WETC007-F0	Conversion of waters type (fores Non-Tidal Wetland N	No No
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WETC008-E0	Work Non-Tidal Wetland N	No No
WETC008-F0	Conversion of waters type (fores Non-Tidal Wetland N	N _o
WETC009-E0	Work Non-Tidal Wetland N	No
WETC009-F0	Conversion of waters type (fores Non-Tidal Wetland N	No
WETC010-E0	Work Non-Tidal Wetland N	No
WETC017-F0	Conversion of waters type (fores Non-Tidal Wetland	No No
WETC017-F1	Conversion of waters type (fores Non-Tidal Wetland	No No
WETC018-F0	Conversion of waters type (fores Non-Tidal Wetland	N _o
WETC019-E0	Work Non-Tidal Wetland N	No No
WETC019-E1	Work Non-Tidal Wetland N	No
WETC019-E2	Work Non-Tidal Wetland N	No No
WETC019-F0	Conversion of waters type (fores Non-Tidal Wetland N	No
WETC019-F1	Conversion of waters type (fores Non-Tidal Wetland N	No No
WETC019-F2	Conversion of waters type (fores Non-Tidal Wetland	No
WETC020A-E0	Work Non-Tidal Wetland N	No No
WETC020B-E1	Work Non-Tidal Wetland N	No
WETC0208-F0	Conversion of waters type (fores Non-Tidal Wetland N	No No
WETC021-E1	Work Non-Tidal Wetland N	No No
WETC021-F0	Conversion of waters type (fores Non-Tidal Wetland N	No No
WETC021-F1	Conversion of waters type (fores Non-Tidal Wetland N	No No
WETC021-F2	Conversion of waters type (fores Non-Tidal Wetland	No No
WETC022-F0	Conversion of waters type (fores Non-Tidal Wetland N	No No
WETC022-F1	Conversion of waters type (fores Non-Tidal Wetland	No No
WETC022-F2	Conversion of waters type (fores Non-Tidal Wetland	Νo
WETC022-50	Conversion of waters type (fores Non-Tidal Wetland	No
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WETC024-E0		N _o
WETC025-F0	Conversion of waters type (fores Non-Tidal Wetland N	N _o

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5-F0 Conversion of waters type (fore: Non-Tidal Wetland		1-F0 Conversion of waters type (fores Non-Tidal Wetland		2-F4 Conversion of waters type (fores Non-Tidal Wetland			3-F1 Conversion of waters type (fores Non-Tidal Wetland	4-E0 Work Non-Tidal Wetland	4-F0 Conversion of waters type (fores Non-Tidal Wetland	5-E0 Work Non-Tidal Wetland	5-F0 Conversion of waters type (fore: Non-Tidal Wetland	6-E0 Work Non-Tidal Wetland	6-E1 Work Non-Tidal Wetland	6-F0 Conversion of waters type (fore: Non-Tidal Wetland	6-F1 Conversion of waters type (fores Non-Tidal Wetland	7-E0 Work Non-Tidal Wetland	7-F0 Conversion of waters type (fores Non-Tidal Wetland	7-F1 Conversion of waters type (fores Non-Tidal Wetland	8-E0 Work Non-Tidal Wetland	8-F0 Conversion of waters type (fores Non-Tidal Wetland	9-F0 Conversion of waters type (fores Non-Tidal Wetland	9-F1 Conversion of waters type (fores Non-Tidal Wetland	101-F0 Conversion of waters type (fores Non-Tidal Wetland	101-F1 Conversion of waters type (fores Non-Tidal Wetland	102-F0 Conversion of waters type (fores Non-Tidal Wetland	103-F0 Conversion of waters type (fores Non-Tidal Wetland		08-F0 Conversion of waters type (fore: Non-Tidal Wetland
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Initially Proposed Area P	0.002628	0.024403	0.005754	0.005283	0.022986	0.043084	0.015876	0.035078	0.104763	0.044981	0.005538	0.019378	0.066024	0.041643	0.018636	0.0094	0.009817	0.004602	0.011986	0.006166	0.004736	0.015191	0.033945	0.001738	0.252142	0.114467	0.036891	0.057314	0.007696	0.00067	0.057838	0.025146	0.007426
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Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Removal	Remova	Removal	Removal	Removal	Removal
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0 700075	2.253568	0.042034	0.121551	0.034789	0.022483	0.017855	0.009027	0.25276	0.022645	1.753925	0.567402	0.195032	1.410562	1.768611	0.054217	0.001832	0.006768	0.000592	0.56923	0.002773	0.175164	0.057857	1.017483	1.96307	0.030492	0.004389	0.003509	4.31402	0.313557	0.987067	0.11449	0.168743	0.021362
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0.654706	0.148192	0.34813	0.215872	0.559541	0.212089	0.013038	0.539299	0.005009	0.077855	0.000476	0.093168	0.323679	0.117766	0.569895	0.203093	0.328927	0.424245	0.2009	0.01858	0.01004	0.27151	0.619472	0.298389	0.058248	0.095811	0.145145	0.05961	0.24478
0.654706	0.148192	0.34813	0.215872	0.559541	0.212089	0.013038	0.539299	0.005009	0.077855	0.000476	0.093168	0.323679	0.117766	0.569895	0.203093	0.328927	0.424245	0.2009	0.01858	0.01004	0.27151	0.619472	0.298389	0.058248	0.095811	0.145145	0.05961	0.24478
Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temporary	Temnorary

Moxey, Michael B SAM

From: Moxey, Michael B SAM

Sent: Thursday, December 06, 2012 1:43 PM

To: 'Tom Sankey'; Eric Munscher; Jeremy Rabalais

Cc: Rumbley, Pauline B. Contractor

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Tom, Eric, and Jeremy:

I just want to follow-up with a summary of our call this morning. The project will be authorized using NWP 12's.

- 1. To minimize confusion on editions of information, new Corp template mass download forms would be provided for:
- a. Impact forms will recognize single and complete projects that require 404 or Section 10 permit. Directional drilling areas with no wetland or stream impacts will not be included in this list.
- b. Mitigation forms will correlate with the impact form. Directional drilling with no wetland impacts will not be included in this list.
- c. The Aquatic Resource form will recognize waters of the U.S. in the federal permit area that have wetlands and streams impacts. Directional drilling area with no 404 or Section 10 impacts will be listed.
- d. JD form will recognize each waters of the U.S. with wetland or stream impacts, or Section 10 crossings. The list will not provide duplicate listing of the same water because of multiple crossings of the same larger wetland or stream system.
- e. Wetland delineation. You stated that Pauline has been provided shape files to minimize GPS data in files. We will reference this is the delineation verification letter. We still need to identify 3 wetland sites that have been flagged and GPS points provided to confirm wetland delineation.
- f. The location of the Section 10 water crossings have not changed. The information provided contains the correct sites and GPS locations. I will coordinate this with our Federal Navigation Section for approval.
- g. The SHPO and USFWS clearance letters are expected next week.

Let me know if I missed something.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Wednesday, November 28, 2012 10:41 AM

To: Eric Munscher

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Thanks for the quick response. I spoke with Jeremy this morning and he informed me that the information and field data we currently have has been updated and replaced. It is my understanding the corrected information will be provided to us in the near future.

Jeremy mentioned that the previous data reflected all wetlands and streams within the 200-foot corridor that your firm traditionally surveys for the applicant. I mentioned that our evaluation is limited to our federal permit areas, which are wetlands and streams in the 75-foot wide pipeline corridor that will subject to regulated impacts (ditching and clearing), and any actions requiring a Section 10 permit. Please note that directional drilling where there are no impacts to 404 wetlands or streams (complete avoidance) is a non-regulated activity. This is important the provided data and worksheets address only regulated actions in federal permit areas that requiring a permit by our program.

I look forward to receiving the most current information and data so that we may continue with our evaluation.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED

Caveats: NONE

Moxey, Michael B SAM

From:

Moxey, Michael B SAM

Sent:

Monday, December 03, 2012 3:09 PM

To: Cc: 'Tom Sankey' Eric Munscher

Subject:

RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Tom,

Thanks for the information, the name without the 41-mile descriptor or reference permit numbers threw me. Could you verify that each wetland ID entry is a single and complete linear project per the NWP program definition? Assuming they are, we now have the defined project requiring permits. It is only these 150 or so "single and complete" projects with impacts that would be reflected in the download worksheets to be provided. Could you provide this document and the other waters download worksheets where they reflect only the 150 or so projects with impacts that require permits. This should allow us to proceed forward with our evaluation.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message-----

From: Tom Sankey [mailto:tsankey@swca.com] Sent: Monday, December 03, 2012 2:42 PM

To: Moxey, Michael B SAM

Cc: Eric Munscher

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Mike:

That is the mitigation memo and worksheet for the existing project we have been working on... Plains Southcap, LLC's Ten-Mile, Alabama Facility to Pascagoula Refinery project Action IDs SAM-2012-01165-MBM and SAM-2012-00885-MBM.

Thanks, Tom

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Monday, December 03, 2012 2:06 PM To: Moxey, Michael B SAM; Tom Sankey

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

I received a bound document providing aerial images for a 10-mile pipeline from Mobile to Pascagoula, and a mitigation worksheet. Could you update me whether a PCN or permit application has been submitted to the Corps.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE



MEMORANDUM

To:

Michael B. Moxey, U.S. Army Corps of Engineers, Mobile District

From:

R. Thomas Sankey, PWS, CSE - SWCA Houston

Date:

November 29, 2012

Re:

Ten-Mile Facility to Chevron Pascagoula Crude Oil Pipeline Project

Projected Wetland Mitigation Costs

Mobile County, Alabama and Jackson County, Mississippi

The following memo details the results of our evaluation of expected wetland mitigation costs for Plains All American's Ten-Mile Facility to Pascagoula Crude Oil Pipeline (project). The project area begins at the Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula refinery approximately one mile from the Gulf of Mexico.

Based on analysis of the impact areas in our field survey mapping (Attachment 1), as well as an assumed 50-foot-wide construction corridor and a 25-foot temporary corridor, the project would impact the following wetland types and acreages: estuarine emergent (6.51 ac); palustrine emergent (PEM) (20.7 ac); palustrine scrub-shrub (PSS) (27.4ac), and palustrine forested (PFO) (97.6 ac). Of these categories, only the PSS and PFO wetlands will likely require mitigation. These wetland types total approximately 125.0 acres of impacts.

In our recent pipeline permitting experience with the USACE, the Mobile District has required compensatory mitigation for permanent impacts only. Conversion of PFO and PSS wetlands to permanently maintained PEM wetlands would require a 1:0.25 to 1:1 replacement ratio based off of the distance from centerline of the proposed ROW see attached USACE compensation sheet (Attachment 2). Detailed wetland mitigation calculations as per Mobile District guidance are included in (Attachment 3).

We proposed purchasing approximately 64.2 credits of bottomland hardwood wetland and 10.5 credits of pine savannah along the proposed ROW through both states.

ATTACHMENT 1
Wetland Impact Area Maps

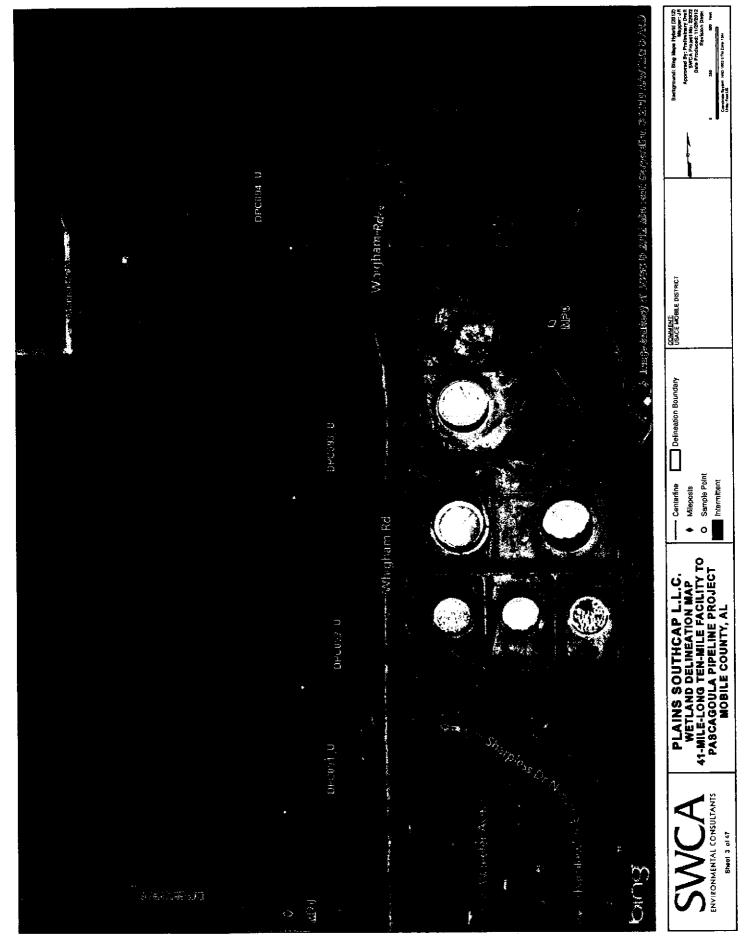
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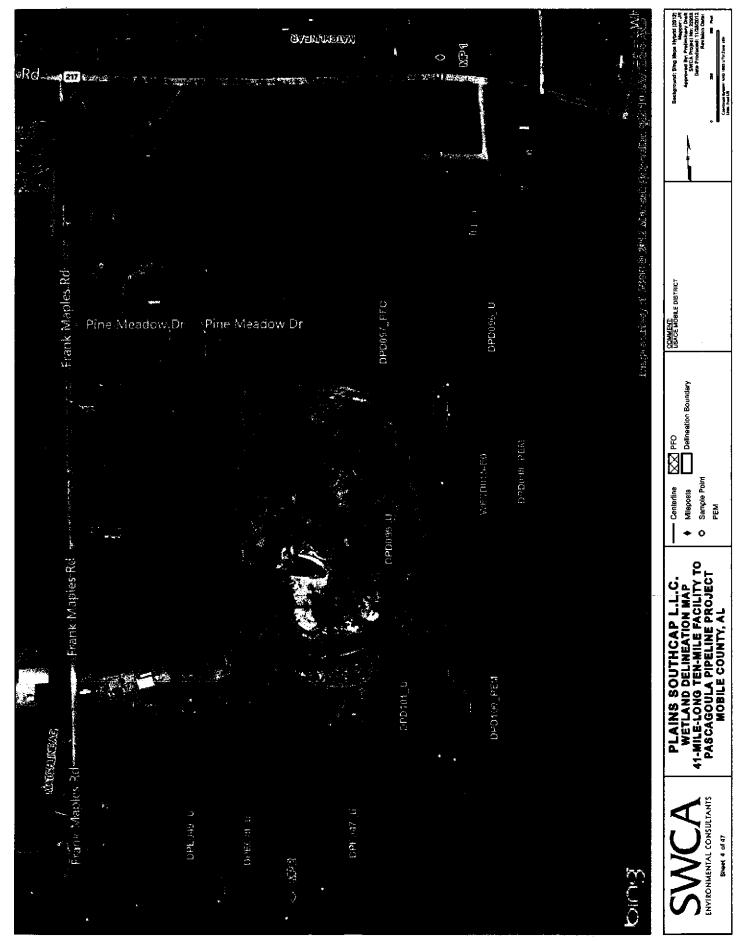
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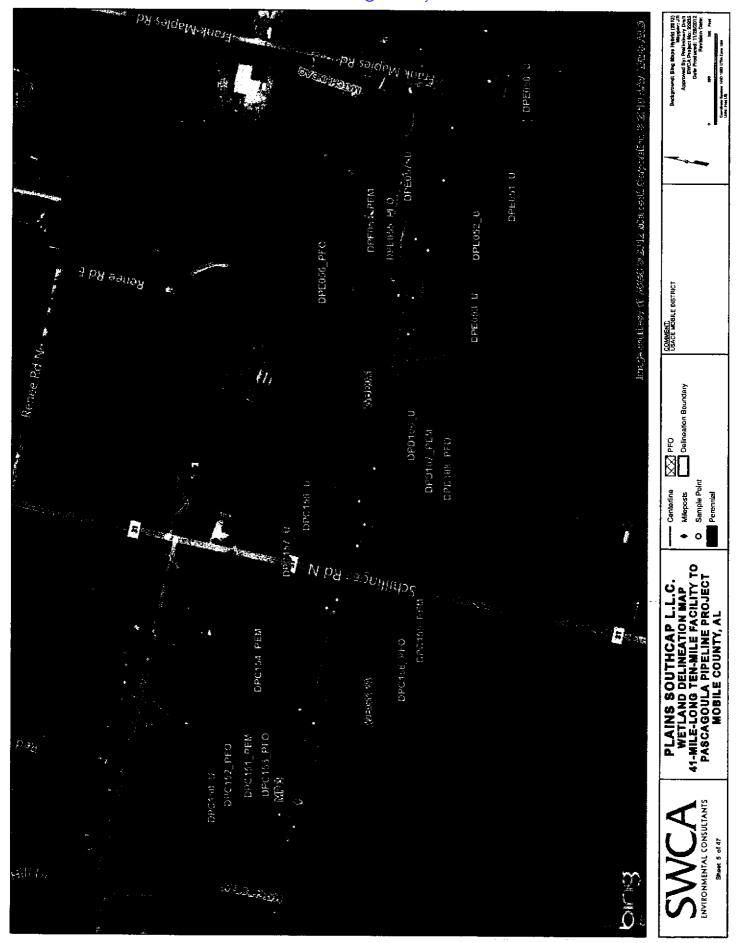
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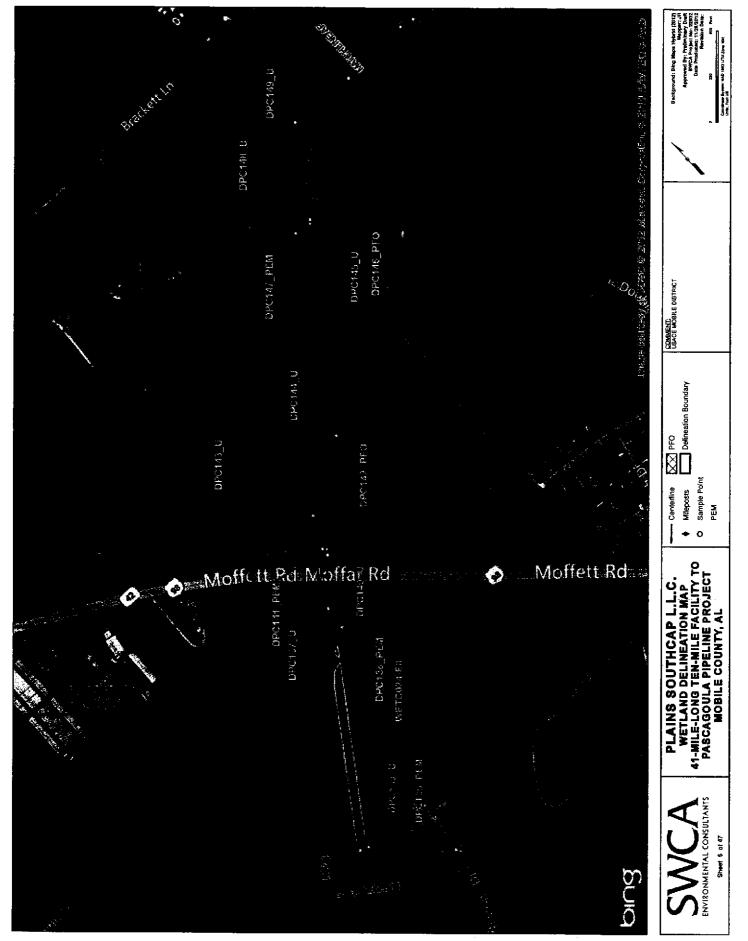
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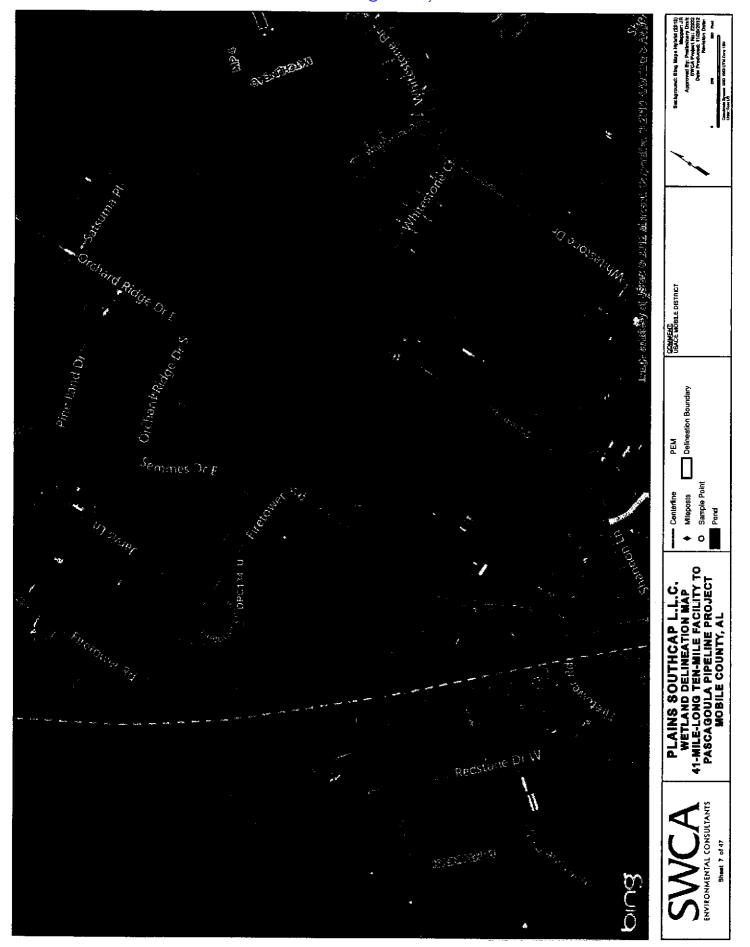
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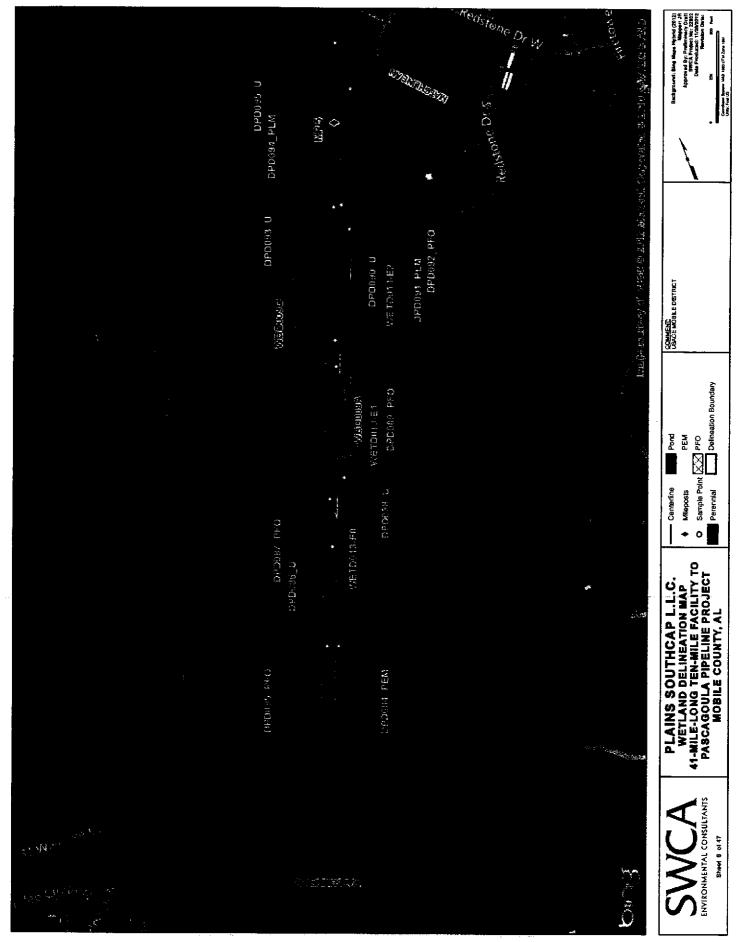


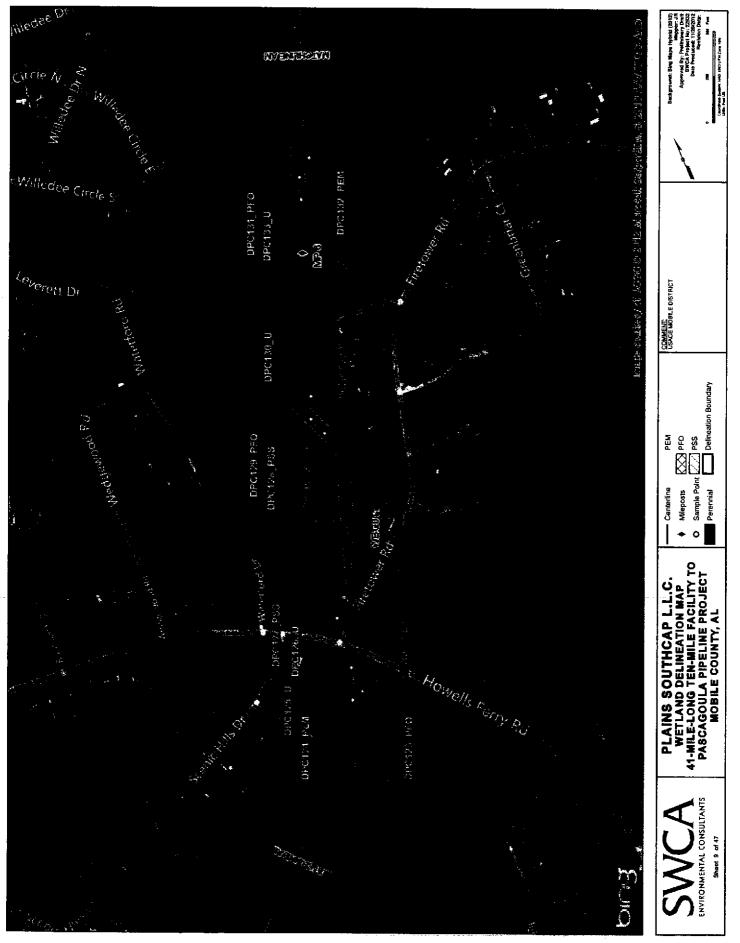


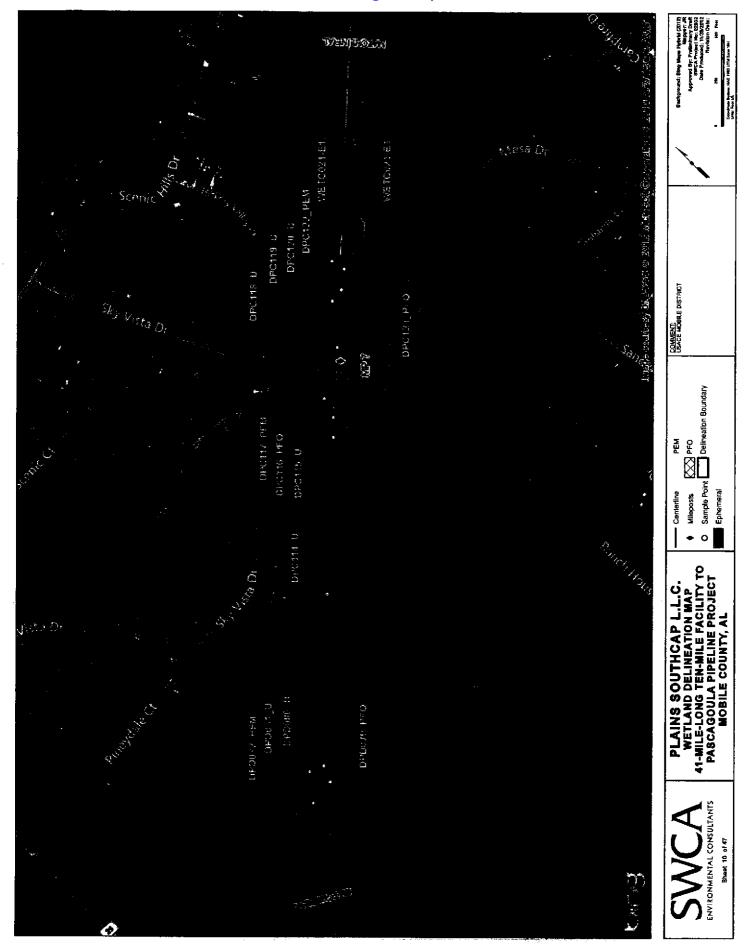


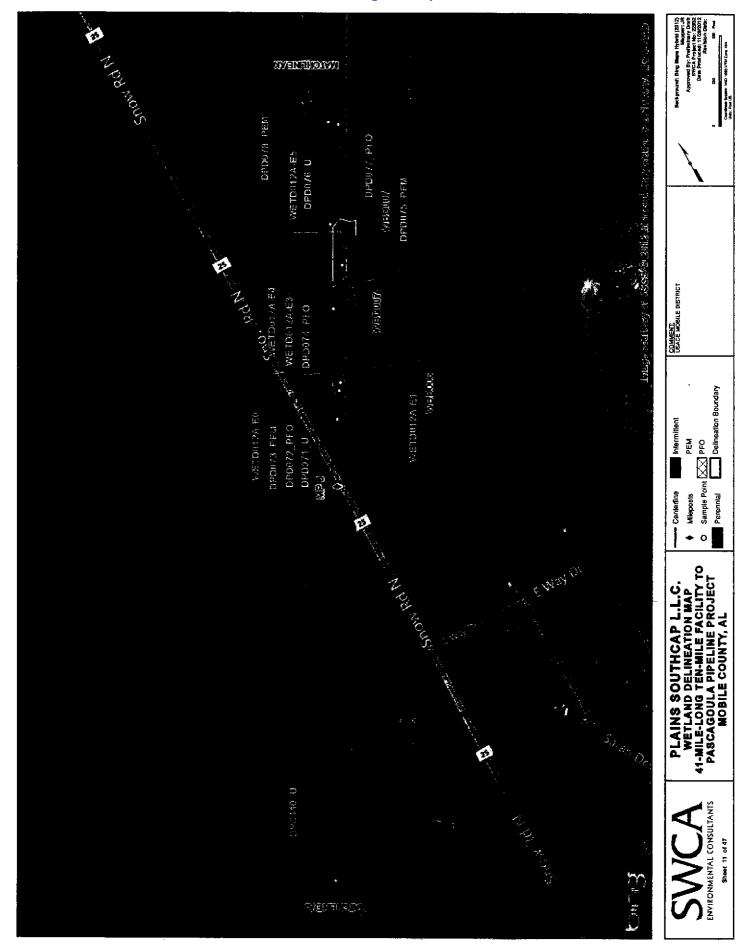


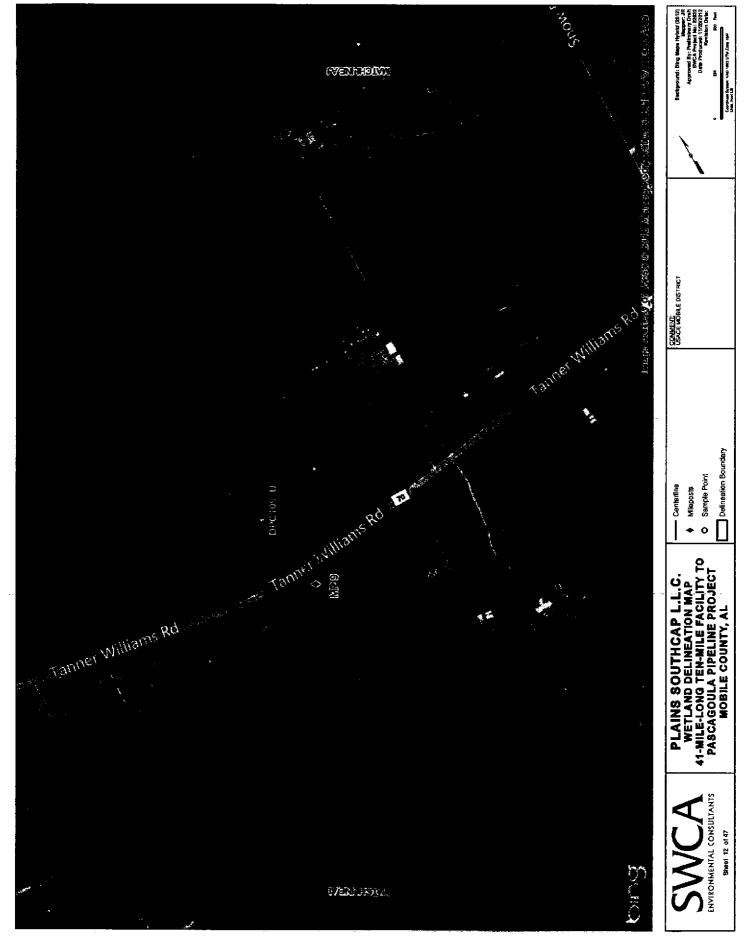


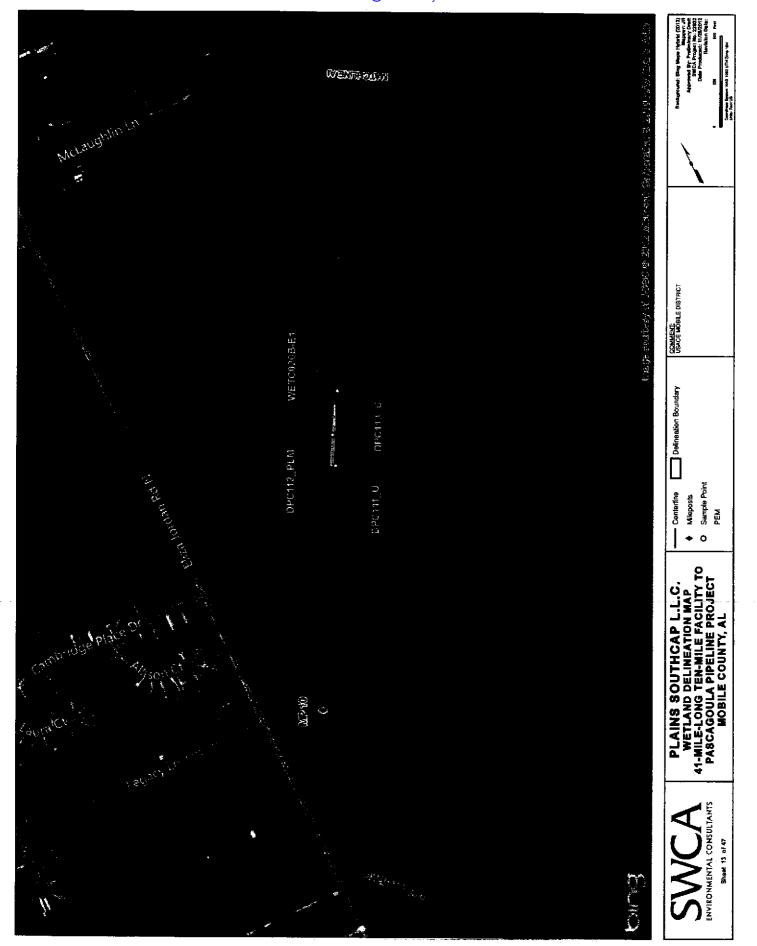


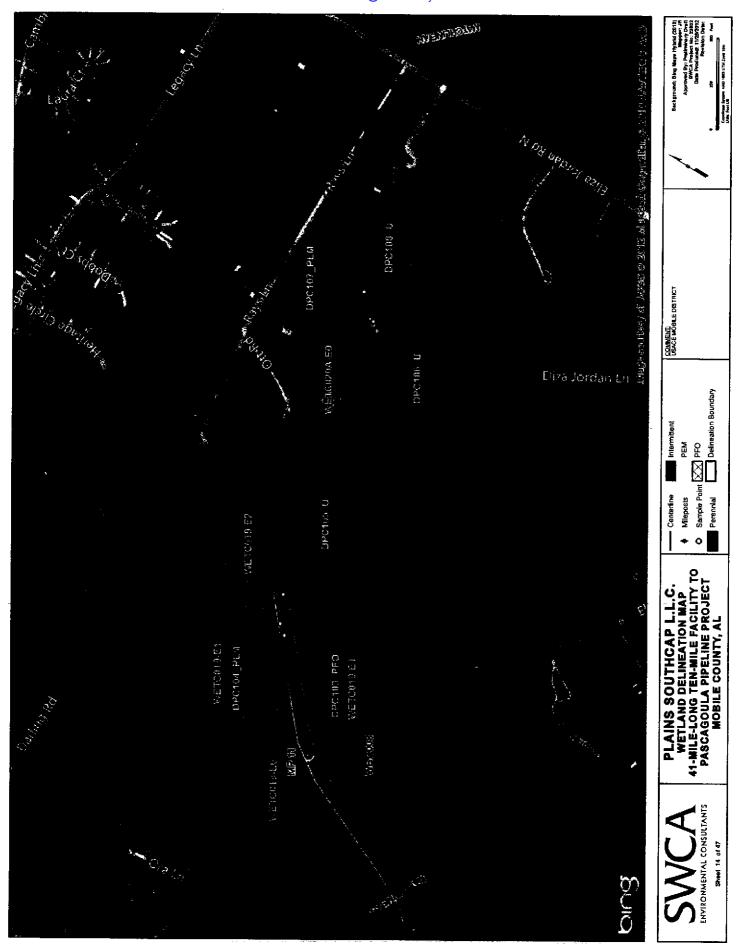


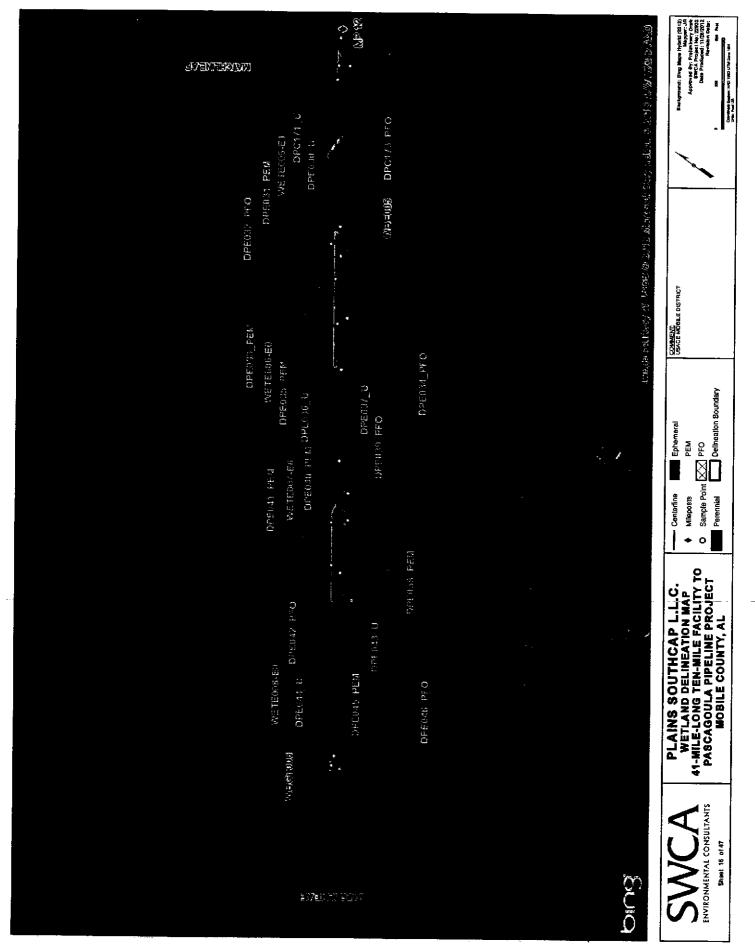


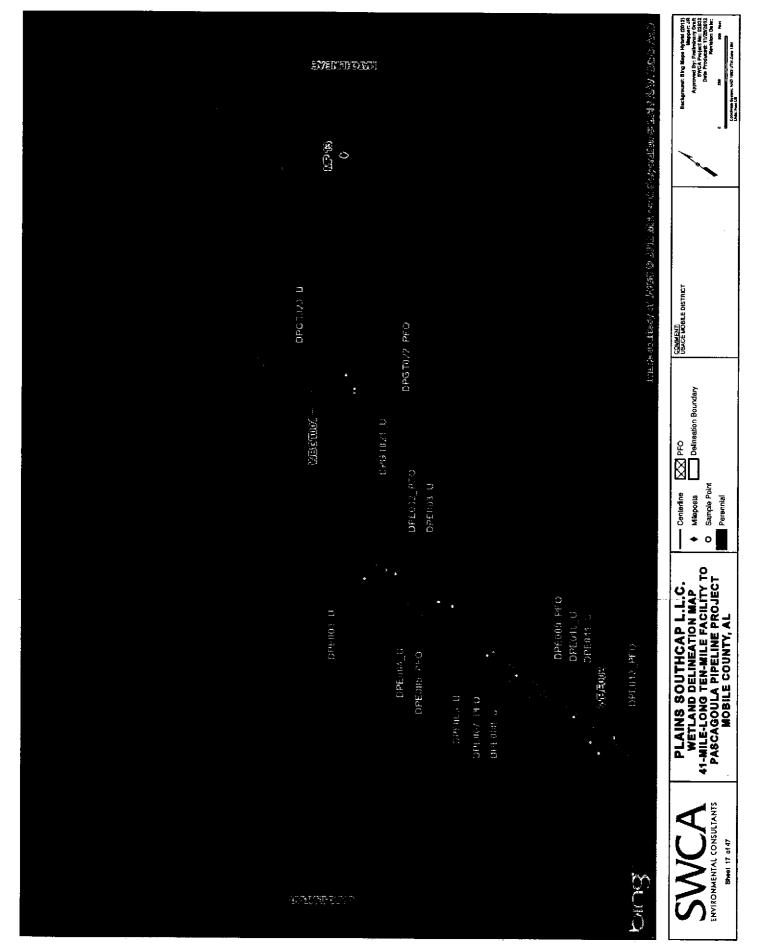


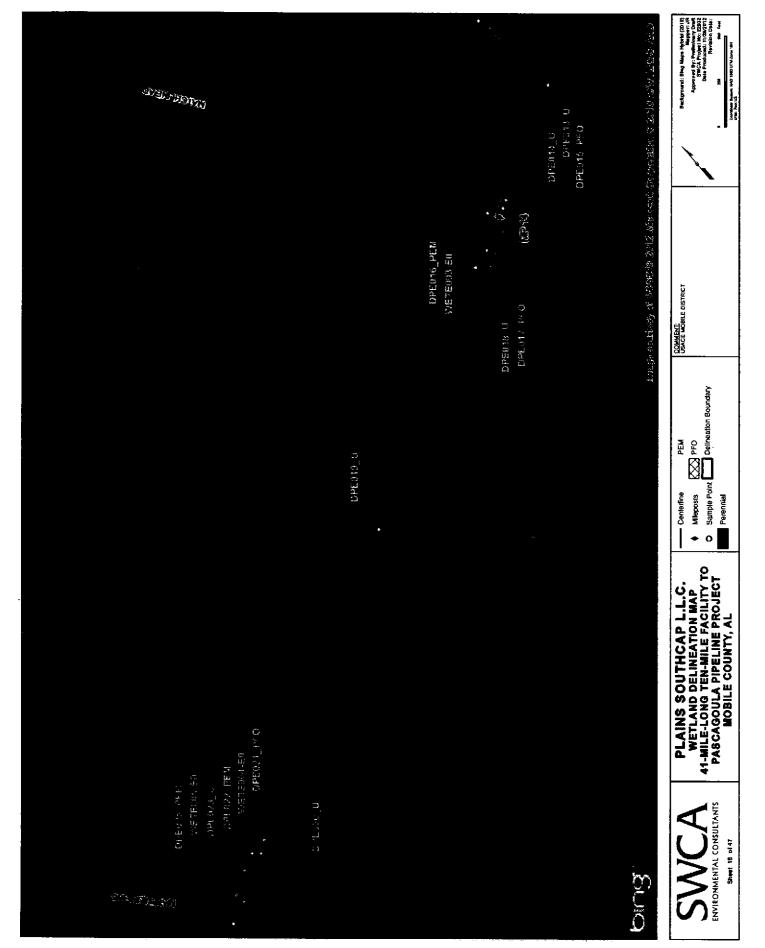


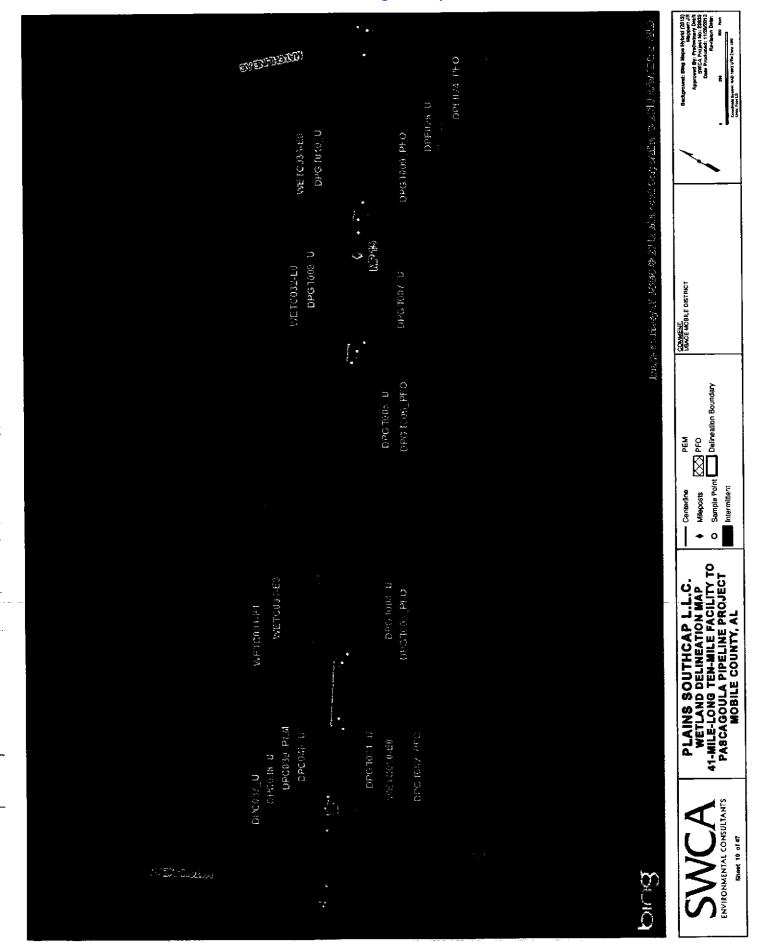


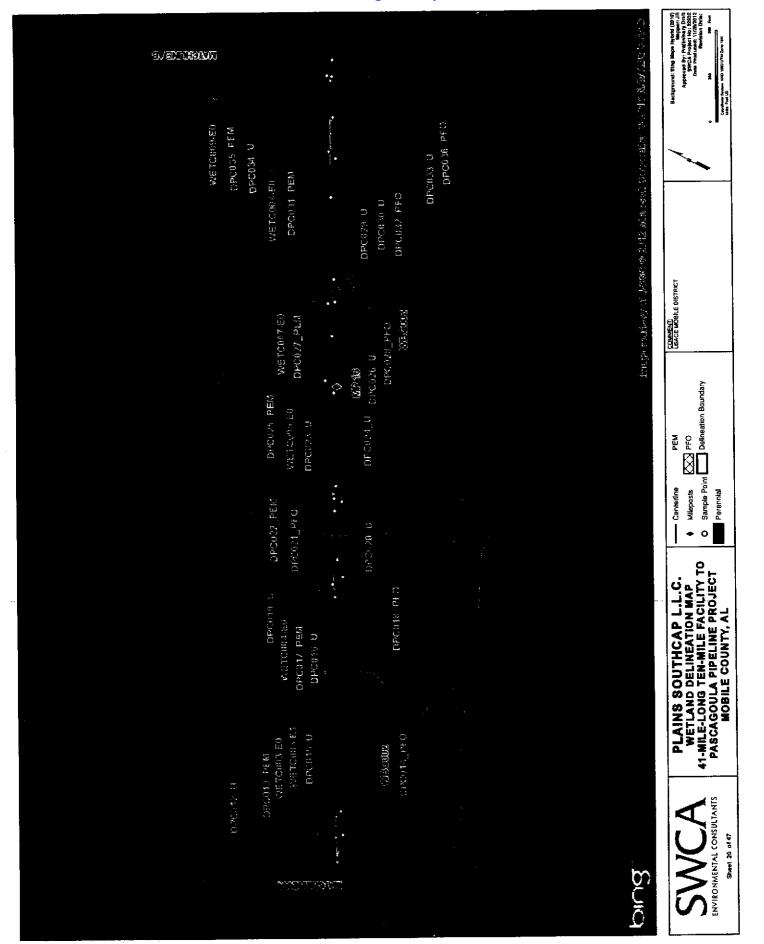


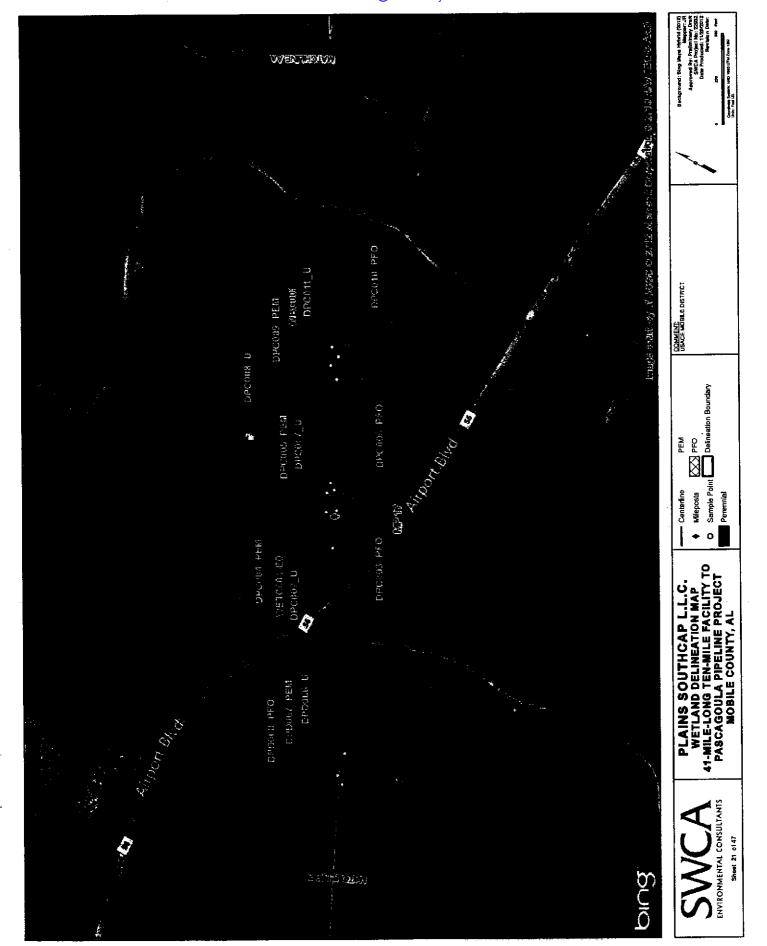


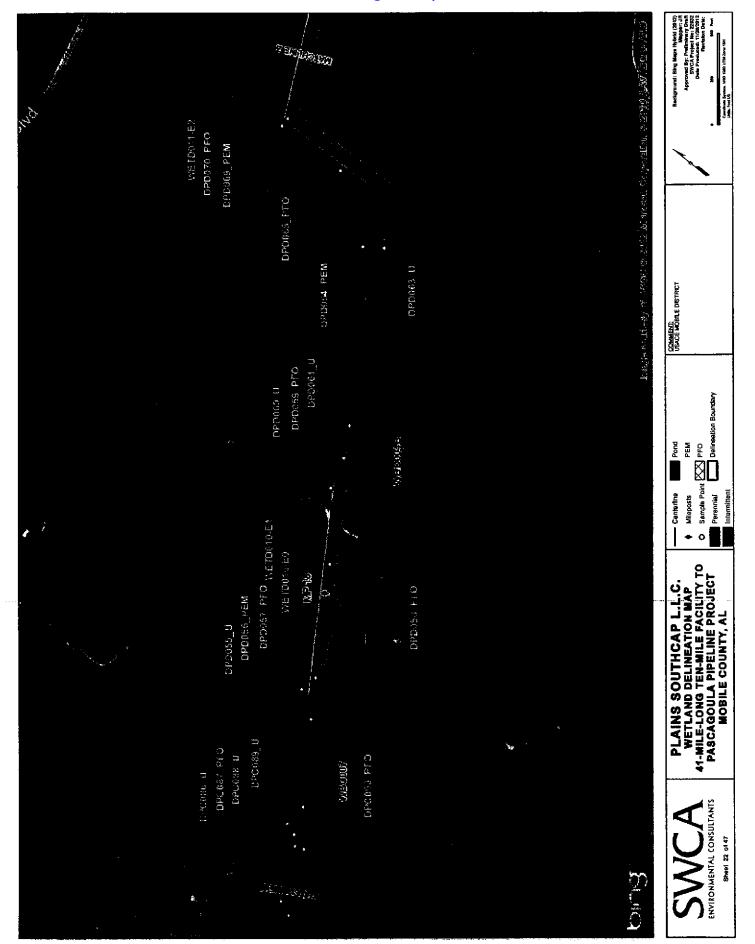












Moxey, Michael B SAM

From:

Moxey, Michael B SAM

Sent:

Wednesday, November 28, 2012 10:41 AM

To:

'Eric Munscher'

Subject:

RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Thanks for the quick response. I spoke with Jeremy this morning and he informed me that the information and field data we currently have has been updated and replaced. It is my understanding the corrected information will be provided to us in the near future.

Jeremy mentioned that the previous data reflected all wetlands and streams within the 200-foot corridor that your firm traditionally surveys for the applicant. I mentioned that our evaluation is limited to our federal permit areas, which are wetlands and streams in the 75-foot wide pipeline corridor that will subject to regulated impacts (ditching and clearing), and any actions requiring a Section 10 permit. Please note that directional drilling where there are no impacts to 404 wetlands or streams (complete avoidance) is a non-regulated activity. This is important the provided data and worksheets address only regulated actions in federal permit areas that requiring a permit by our program.

I look forward to receiving the most current information and data so that we may continue with our evaluation.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg http://www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Wednesday, November 28, 2012 8:42 AM

To: Moxey, Michael B SAM

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Mike,

I will be in a class all week but will get with my GIS guy who has all of the data to figure this out. His name is Jeremy Rabalais. He has worked on all of the mapping and acreages for impacts and mitigation. We will figure this out as soon as possible.

Thanks.

ΕM

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Tuesday, November 27, 2012 3:28 PM To: Moxey, Michael B SAM; Eric Munscher

Subject: RE: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I have been reviewing the JD paperwork to get a grasp of the number of entries needed. I have the following questions.

A. Overall

1. There are 262 wetlands and 52 streams, and 7 ponds. Should there be 321 water uploads instead of 311 for the JD?

A. Streams.

- 1. The overall project summary states there are 7 ponds and 52 streams (6 ephemeral, 13 intermittent, and 33 perennial).
- 2. Based on the waters upload sheet provided with the JD template, 14 of the streams are named: Little Black Creek, Black Creek Escatawpa, Escatawpa, Rocky Creek-Escatawpa, Upper Big Creek, Wolf Branch, Double Branch, Big Creek, Hamilton Creek, Red Creek, Chickasaw Creek, Black Creek, Pierce Creek, Pt. Aux Chenes Mississippi Sound.
- 3. Based on the waters upload sheet, 7 of the waters of the U.S. are isolated? The impact worksheet only showed 5 ponds being directional bored under. I assume the other two ponds are also being directional bored to allow for the use of a preliminary JD form?
- 4. The impact worksheet reflects 106 stream crossings and 5 ponds being directional boring actions. Are the same streams being crossed multiple times?

B. Wetlands

- 1. In the overall project summary, there are 262 wetland areas (109 PEM, 22 PSS, 129 PFO, 2 EEM). Based on the number of actions on the impact worksheet, are we to assume a wetland area the same as a single water of the U.S.? If it is a single water of the U.S., then should the JD form reflect 262 water uploads for the wetlands, and 321 total entries (including 52 streams and 5 ponds)?
- 2. The impact worksheet reflects 568 actions occurring in streams, ponds, and wetlands. These actions include including directional boring under 105 streams (Double Branch correctly listed as a wetland on the first page?), 5 ponds, and 38 wetlands. The worksheet reflects 288 wetland conversions, and undefined "work" being performed in an additional 132 wetland areas. I assume the other 2 ponds need to be added to the worksheet? Based on these numbers, you would be directionally boring under the same streams at multiple locations, and crossing the same wetland areas numerous times?
- 3. Do we have wetland delineations for all the impacted (conversion and "work") wetland areas not being directionally bored (approximately 420 of them based on this worksheet)

Any help would be greatly appreciated. Please let me know if I should be sending these emails to someone else. I do not have Mr. Sankey's e-mail.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message-----From: Moxey, Michael B SAM

Sent: Tuesday, November 27, 2012 10:35 AM

To: Eric Munscher

Cc: Moxey, Michael B SAM

Subject: Plains SouthCap Pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I have been reviewing the information provided to clarify the next steps forward for this 41mile pipeline project. Based on my review, the following summarizes what I believe is still needed to issue the 2 permits (Alabama: SAM-2012-885-MBM, and Mississippi:SAM-2012-1165-MBM). There was a lot of information so please let me know if any of this information is already provided and I may have missed it.

- 1. Need to develop the wetland delineation verification letter that will be good for both projects. Need to visit 3 easily accessible sites to verify flagged wetland/upland line.
- 2. Need to develop preliminary 3D verification documents. Need to verify Waters of U.S. worksheet contains all single waters of U.S. (but not same water multiple times).
- 3. Need mitigation worksheet, identifying all impacts for each "single water of the U.S" that will be each separate nationwide permits for each "single and complete project".
- 4. Check to see if Mississippi SHPO letter was obtained.

Thanks, Mike

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Friday, November 02, 2012 9:45 AM

To: Moxey, Michael B SAM

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Attached you will find the Aquatic Resource and Impact tables for the Pascagoula project broken down by state. The mitigation table and plan will follow shortly. Please let us know if you have any questions. Copies of these tables have already been sent to Pauline.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist) Herpetologist / Ecologist Certified Gopher Tortoise Agent Principal Investigator of the CFFTRG SWCA Environmental Consultants 7255 Langtry Suite, 100 Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message-----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Wednesday, October 24, 2012 11:00 AM To: Moxey, Michael B SAM; Eric Munscher

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I have also attached the data forms we use when downloading large numbers of waters of U.S. into our database. I remember seeing datasheets on the CD's you provided, however I am not sure if these were the ones provided?

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message---From: Moxey, Michael B SAM

Sent: Wednesday, October 24, 2012 10:55 AM

To: 'Eric Munscher'

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Wednesday, October 24, 2012 9:13 AM

To: Moxey, Michael B SAM

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Can you send me the mitigation spredsheets for wetland impacts.

Thanks and cheers,

ΕM

Eric C. Munscher, M.S. Ecologist / Herpetologist 7255 Langtry, Suite 100 Houston, Texas 77040 Phone: 717-676-8497

Sound Science. Creative Solutions. (r)
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<http://www.swca.com/>

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Mon 8/27/2012 7:40 AM

To: Eric Munscher

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric.

Using the definition in the Nationwide permits for "Single and Complete Project", long pipeline projects can usually be authorized by multiple nationwide permits (using one permit number). If any single component exceeds the 0.5 acre thresh hold and must go IP, then the whole project will go IP. Attached is the worksheet we attach to the permit if we can use multiple nationwide permits.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Monday, August 27, 2012 9:22 AM

To: Moxey, Michael B SAM

Subject: Spread sheet for U.S. Waterbodys

Mr. Moxey,

During our July meeting concerning the Plains Southcap, LLC Pascagoula pipeline project you had mentioned that we need to use a spread sheet that describes waterbody information throughout the entire project line. Could you please send me this table so I can include it in our permit applications.

Thanks	and	cheers,
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EM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

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Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

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-	RIVERINE	ANEA	1.355349 ACRE	RPWWD	-88.220898	30.776724 C	30.776724 Chickasaw Creek	
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		AREA	0.397334 ACRE	Napww	-88.233774	30.776212	30,776212 Chickasaw Creek	
		AREA	1.536409 ACRE	NRPWW	-88.233455	30.776133 (30.776133 Chickasaw Creek	
	RIVERINE	AREA	0.305326 ACRE	NRPWW	-88.237704	30.772049 (hickasaw Creek	
WETC025-E0 PEM	RIVERINE	AREA	0.107317 ACRE	NRPWW	-88.237498	30.771793 (hickasaw Creek	
		AREA	4.914225 ACRE	NRPWW	-88.239646	30.769326 (nickasaw Creek	
		AREA	0.291451 ACRE	ISOLATE	-88.24497	30,763655 (hickasaw Creek	
WBG009		AREA	0.315826 ACRE	ISOLATE	48.249771	30 750035	Incressed Linesk	
	DEPRESS	AREA	0.198141 ACRE	ISOLATE	PECTC7:00-	30.739933	John Big Creak	
		AREA	0.298206 ACRE	RPWWD	-88.252346	30 757682	Joper Big Creek	
60		AREA	DODGATE ACRE	Row	-88.252598	30.757013	Joper Big Creek	
WBD009D	DIVEBINE	AREA	D.088152 ACRE	RPWWD	-88.253391	30 755205 (Jpper Big Creek	
WELDOLS-EZ		AREA	0.271188 ACRE	RPWWD	-88.253822	30.755175	30.755175 Upper Big Creek	
		AREA	0.02993 ACRE	RPW	-88.253672	30.755055 (30.755055 Upper Big Creek	
WETD013-E1		AREA	0.121235 ACRE	RPWWD	-88.253589	30.754876	Jpper Big Creek	
	RIVERINE	AREA	0.017824 ACRE	RPW	457457.89-	30.754466	30.734466 Upper big Creek	
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2-E0		AREA	4.144953 ACRE	RPWWO	-88.255782	30.749765	30.749765 Upper Big Creek	
		AREA	7.978578 ACRE	RPWWN	-88.256467	30.748971	30.748971 Upper Big Creek	
		AREA	0.534549 ACRE	RPWWD	-88.259254	30.742536	30,742536 Upper Big Creek	
		AREA	2.135624 ACRE	RPWWD	-88.259248	30.741389	Upper Big Creek	
2-61		AREA	1.433292 ACRE	RPWWD	-88.259071	30.740883	Upper Dig Creek	
	RIVERINE	AREA	0.190621 ACRE	KFW DOMESTIC	A07070 98.	30 73983	Inner Bio Creek	
		AREA	0.55054 ACRE	BPWAVD	-88.759569	30 739797	Josef Big Creek	
WETC022-F0	RIVERINE	AREA	6.179398 ACRE	NRPWW	-88.262045	30.736393	30,736393 Upper Big Creek	
		AREA	4.215762 ACRE	NRPWW	-88.262791	30.736114	Upper Big Creek	
WETCO21-E1		AREA	0.770529 ACRE	NRPWW	-88.26501	30,733924	30,733924 Upper Big Creek	
		AREA	0.068935 ACRE	NRPW	-88.265678	30.73353	Upper Big Creek	
WETC021-E0		AREA	0,443472 ACRE	NRPWW	-88.266833	30.732862	30.732852 Upper Big Creek	
		AREA	1.464876 ACRE	NRPWW	-88.266637	20.732632	30.732532 Upper Big Creek	
		AREA	0.910758 ACRE	KPWWN	7877 83 787484	30.777.05	Total Creek	
	RIVERINE	AREA	S.B84941 ACRE	ROWWN	-88.273322	30,726483	Upper Bir Creek	
O128-EU PEM		AREA	1.107156 ACRE	RPWWD	-88.274326	30.724638	30.724638 Upper Big Creek	
WETD012A-E4 PEM		AREA	0.001448 ACRE	RPWWD	-88.274165	30.724489	Upper Big Creek	
		AREA	0.138855 ACRE	RPW	-88.27433	30.7244	Hamilton Creek	
WETD012A-E3		AREA	0.505144 ACRE	RPWWO	-88.275071	30,723732	Upper Big Creek	1
		AREA	1.752277 ACRE	RPWWD	-88.2/4/10	20.723753	Upper Big Cont.	
2A-£2		AREA	0.171493 ACKE	RPW	-88.275295	30,723109	Upper Big Creek	
WEUDOUG WEUTOOLOA ED	PIVERINE	4864	0.067504 ACRE	RPWWD	-88.275325	30.723006	30.723006 Upper Big Creek	
		AREA	0.04465 ACRE	RPWWD	-88.275084	30.72293.	30.72293 Upper Big Creek	
		AREA	0.055602 ACRE	RPWWD	-88.275335	30.722908	Upper Big Creek	
		-				TUTTE GO		

WBG010	RA	NF	ARFA	0.013918 ACRE	DOLAY		-, -, -, -, -, -, -, -, -, -, -, -, -, -	
38-61	PEM	525	AREA	0.719485 ACRE	NPWAN	-88.277235	30.719949	30.719949 Upper Big Creek
			AREA	0.DSOGO3 ACRE	NEDWAN	-88.289889	30.700355	30.700355 Lower Big Creek
2	PFO SLOPE		AREA	0.02627 ACRF	MEDIUM	567,627,00	30.692306	Lower Big Creek
		NE	AREA	0.077734 ACRE	ВРЖ	F7610£ 88.	20,096,662	30.592.202 UDWer Big Creek
		N.	AREA	0.044259 ACRE	RPWWD	-88.302265	30 691331	20 691291 Court Rie Creak
		NE	AREA	0.245906 ACRE	RPWWD	-88.302276	30.691062	Lower Big Creek
WETC019-E1	PEM RIVERINE	2	AREA	2.424474 ACRE	RPWWD	-88.303743	30.690284	Lower Big Creek
		E L	AREA	2.87068 ACRE	RPWWD	-88.303637	30.689981	Lower Big Creek
	RIVERINE		AREA		NRPW	-88.30505	30.68892	30.68892 Lower Big Creek
Ua't	DENA	200	ANEA	D.O.S. B. ACRE	RPW	-88.304762	30.688826	30.688826 Lower Big Creek
		# J	ANEA	2 245845 ACRE	RPWWD	-88.305532	30.687829	30.687829 Lower Big Creek
	PEM	ي اي	AREA	0 354998 ACDE	Nobada	-88.305322	30.687585	30.687585 Lower Big Creek
WETCO18-FO			ARFA	0 572533 ACRE	NBOWN	-88.309026	30.685166	30.685166 Lower Big Creek
		¥.	AREA	0.258927.ACRE	NRPWW	1812181	30.004938	SUIDONASIS LOWER BIS CHEEK
		¥	AREA	0.257321 ACRE	NBPWW	-88 317108	30,670735	SOURCE LOWER DR. Creek
6-E1		Z	AREA	0.374573 ACRE	RPWWD	-88 319874	30,073,24K	Lower Big Lreek
		ZE.	AREA	0.036978 ACRE	RPW	-88 320084	30.678059	Ower Rig Creek
		NE.	AREA	0.40448 ACRE	RPWWD	88.319834	30.678054	30.678054 Lower Big Creek
		NE	AREA	1.167228 ACRE	RPWWD	-88.320846	30.677753	30.677753 Lower Big Creek
		ZE.	AREA	1.202172 ACRE	RPWWD	-88.32069	30.677514	30.677514 Lower Big Creek
	PFO DEPRESS	SS	AREA	0.405061 ACRE	RPWWN	-88.323378	30.675848	Lower Big Creek
WETEON CO		2	AREA	1.034732 ACRE	RPWWN	-88.324282	30.675581	Lower Big Creek
		3	AREA	0.93299 ACRE	RPWWN	-88.324171	30.675345	30.675345 Lower Big Creek
	DEPRESS	2 :	AREA	0.122569 ACRE	RPWWN	-88.327278	30.67378	30.67378 Lower Big Creek
		2 2	AREA	0.01004 ACRE	RPWWN	-88.327194	30.673648	Lower Big Creek
	RIVERINE	2	AREA	0.081182 ACRE	RPW	-88.328035	30.673152	Pierce Creek
		200	ANCH	0.043245 ACRE	ZKFW	-88.328116	30.672919	30.672919 Pierce Creek
		97	ABEA	0 110104 ACRE	W-W	-88.333594	30.669693	30.669693 Lower Big Creek
		102	ARFA		DOMAN	-88.333462	30.669523	30.669523 Lower Big Creek
WBE001A	R5 RIVERINE	2 2	ARFA	0.001177 ACRE	POW	-88.335965	30.667256	Lower Big Creek
		y	AREA	D.000462 ACRE	RPWW	-06.333346 90.335548	30.666152	30.bbb15.2 Lower Big Creek
		¥	AREA	0.002127 ACRE	RPW	48. 33555.A	30,000,000	LOWer big Creek
F2	0	Je.	AREA	0.04343 ACRE	RPWW	-88.335591	30.665885	Lower Rig Creek
	R5 RIVERINE	9	AREA	0.017465 ACRE	RPW	-88.335607	30 665841	Lower Rig Creek
WETED02-F0	PFO RIVERIN	y	AREA	0.862431 ACRE	RPWW	-88.33575	30.665511	Lower Big Creek
		¥	AREA	0.00825 ACRE	RPWW	-88.335558	30.665006	Lower Big Creek
		7	AREA		RPWW	-88.335763	30.663896	30.663896 Lower Big Creek
WHEUDZ	R5 RIVERINE	, L	AREA	0.01072 ACRE	RPW	-88.335882	30.663041	30.663041 Lower Big Creek
		¥ (4	AREA	0.443737 ACRE	RPWW	-88.335905	30.66289	30.66289 Lower Big Creek
	PPO	, L	AREA	0.1D6484 ACRE	RPWW	-88.338152	30.660972	Lower Big Creek
		يا ي	AREA	0.4263 ACRE	RPWW	-88.338234	30.660801	30,550801 Lower Big Creek
		212	ANCA	0.71403 AURE	RPWW	-88.338324	30.660504	ower Big Creek
		¥ 4	AREA	0.100464 ACRE	NRPWW	-88.348655	30.655814	30,655814 Lower Big Creek
		4 4	APFA	0.129345 ACRE	NEWW	-88.348412		Lower Big Creek
	PFO	W.	AREA	0.143505 ACRF	NAPAAA	-68.349305	30.655516	Lower Big Creek
		Æ	AREA	0.182373 ACRE	NRPWW	-88.345252 -88.457798	30.653228	30.533428 Lower Big Linesk
0		E	AREA	0.273425 ACRE	NRPWW	-88.352143	30.653826	30.653826 Lower Rie Creek
	PEM RIVERINE	E.	AREA	0.292564 ACRE	NRPWW	-88,354388	30.653086	ower Biz Creek
WEIGIOGZ-FO		<u>.</u>	AREA	0,15239 ACRE	NRPWW	-88.354163	30.652879	30.652879 Lower Big Creek
			AREA	0.127605 ACRE	RPWWD	-88.359244	30.650684	ower Big Creek
	ALVERINE DA		AKEA	0.058248 ALKE	RPWWD	-88.359067	30.650659	30,650659 Lower Big Creek
13			AREA	O'UMZ46Z ALRE	KFW	-88.359404		Lower Big Creek
			AREA	0.067991 ACRE	Spirato	-88.359783		Lower Big Creek
0	PFO RIVERINE		AREA	0.298388 ACRE	RPWWD	AFJOSE AR	30.650300	Lower big Creek
			AREA	0.281293 ACRE	NRPWW	95CTAE 88.	265059.05	SUBSICIONAL LOWER DIR Creek
			AREA	D.078543, ACRE	NRPWW	-88.362754	30 649068	30 649068 Lower Big Creek
			AREA	0.10725S ACRE	NRPWW	-88.362503	30.648888	Lower Big Creek
WETCOGS-ED	***************************************		AREA	0.818637 ACRE	NRPWW	-88.363962	30.648484 (Lower Big Creek
	PFO RIVERINE		AREA	0.427921 ACRE	NRPWW	-88.363788	30.648343	Lower Big Creek
WETC007-E0	PEN		AREA	0.004867 ACRE	RPWWD	-88.366054	30.647581	30.647581 Lower Big Creek
			- Language	0.444005Jmcne	KrwwC	-88.366185	30.647411.1	30.547411 Lower Big Creek

Macoos	R5 85	RIVERINE	AREA	0.03992 ACRE	пру	-88.365877	30.647379	30.647379 Wolf Branch
WETCOOT ET		RIVERINE	AREA	0.051916 ACRE	Newwo	-88.365724	30.647286	30.647286 Lower Big Creek
WETCHOZEN		RIVERINE	AREA	0.619515 ACRE	RPWWD	-88.366107	30.647122	30.647122 Lower Big Creek
WETCOOF-EO		RIVERINE	AREA	0.056394 ACRE	NRPWW	-88.367438	30.646808	30.646808 Lower Big Creek
WETCOS-EO		RIVERINE	AREA	0.076672 ACRE	NRPWW	-88.369154	30.645965	30.645965 Lower Big Creek
WETCOSS-FO		RIVERINE	AREA	0.052799 ACRE	NRPWW	-88.369158	30.645742	30.645742 Lower Big Creek
WFTC004-F0		RIVERINE	AREA	0.15022 ACRE	NRPWW	-88.370568	30.645313	30,645313 Lower Big Creek
WETCON4-FO		RIVERINE	AREA	0,197123 ACRE	NRPWW	-88.370329	30.645109	30.645109 Lower Big Creek
WETC003-E1		RIVERINE	AREA	0.040246 ACRE	RPWWD	-88.374103	30.643563	30.643S63 Lower Big Creek
WETCO03-E0	PEM	RIVERINE	AREA	0.419841 ACRE	RPWWD	-88.374429	30.643439	30.643439 Lower Big Creek
WETC003-F2		RIVERINE	AREA	0.025146 ACRE	RPWWD	-88.374096	30.643421	30.643421 Lower Big Creek
WBC002	R5	RIVERINE	AREA	0.00904 ACRE	RPW	-88.374183	30.643378	30.643378 Lower Big Creek
WETC003-F1	PFO	RIVERINE	AREA	0.063158 ACRE	RPWWD	-88.374281	30.643308	30.643308 Lower Big Creek
WETC003-FD		RIVERINE	AREA	0.002593 ACRE	RPWWD	-88.37424	30.643158	30.643158 Lower Big Creek
WETC002-E1	PEM	RIVERINE	AREA	0.051942 ACRE	RPWWD	-88.379725	30.640811	30.640811 Lower Big Creek
WETCO02-E0		RIVERINE	AREA	0.058544 ACRE	RPWWD	-88.379847	30.640767	30.540767 Lower Big Creek
WBC001		RIVERINE	AREA	0.00735 ACRE	RPW	-88.379625	30.640651	30.640651 Lower Big Creek
WETC002-F1		RIVERINE	AREA	0.051337 ACRE	RPWWD	-88.37965	30.640629	30.640629 Lower Big Creek
WFTC002-F0		RIVERINE	AREA	0.210768 ACRE	RPWWD	-88.379441	30.640621	30.640621 Lower Big Creek
WETCOOL EQ		RIVERINE	AREA	0.256998 ACRE	NRPWW	-88.381936	30.639812	30,639812 Lower Big Creek
WETCOOL-FO	PFO	RIVERINE	AREA	D.389776 ACRE	NRPWW	-88.38177	30.639595	30.639595 Lower Big Creek
WETD011-E2		RIVERINE	AREA	2.217786 ACRE	RPWWD	-88.387411	30.637052	30.637052 Lower Big Creek
WETD011-F1		RIVERINE	AREA	3.169255 ACRE	RPWWD	-88.387367	30.636755	30.636755 Lower Big Creek
WBD005	R4	RIVERINE	AREA	0.014662 ACRE	RPW	-88.388556	30.635896	30.635896 Lower Big Creek
WETD011-E1		RIVERINE	AREA	0.025497 ACRE	RPW/WD	-88.38836	30.635658	30.635658 Lower Big Creek
WETDO11-FO		RIVERINE	AREA	3.376433 ACRE	RPW/WD	-88.388618	30.634901	30.634901 Lower Big Creek
WETD011-E0	PEM	RIVERINE	AREA	0.267921 ACRE	RPWWD	-88.389233	30.634424	30.634424 Lower Big Creek
WET0010-E1		RIVERINE	AREA	0.024054 ACRE	RPWWD	-88.393153	30.632271	30.632271 Lower Big Creek
WETD010-F1	04	RIVERINE	AREA	1.492907 ACRE	RPWWD	-88.392937	30.632109	30.632109 Lower Big Creek
W800048		RIVERINE	AREA	0.248155 ACRE	RPW	-88.393515	30.631923 Big Creek	Big Creek
WBD003B	2	DEPRESS	AREA	0.042289 ACRE	ISOLATE	-88.394076	30.631695	30.631695 Lower Big Creek
WETD010-E0		RIVERINE	AREA	1.097842 ACRE	RPWWD	-88.395026	30.631308	30.631308 Lower Blg Creek
WETD010-F0		RIVERINE	AREA	3.356579 ACRE	RPWWD	-88.394994	30.631008	30.631008 Lower Big Creek
WETC017-F1	PFO	RIVERINE	AREA	0,410182 ACRE	RPWWD	-88.397944	30.629415	30.629415 Lower Blg Creek
WBC007		RIVERINE	AREA	0.01461 ACRE	RPW	-88.39816	30.629391	30.629391 Lower Big Creek
WETC017-F0		RIVERINE	AREA	1.048957 ACRE	RPWWD	-88.398696	30.629009	30.629009 Lower Big Creek
WETCOIG-E1	PEM	RIVERINE	AREA	0.177762 ACRE	RPWWD	-88.399515	30.628914	30.628914 Lower Big Creek
WBCOOL		RIVERINE	AREA	0.016304 ACRE	RPW	-88.399393	30.628735	30.628735 Lower Big Creek
WETC016-E0	PEM	RIVERINE	AREA	0.496547 ACRE	RPWWD	-88.400305	30.628492	30.628492 Lower Big Creek
WETGT008-E0	PEM	RIVERINE	AREA	0.160186 ACRE	NRPWW	-88.405736	30.625392	30.625392 Lower Big Creek
WETGT008-F0	PFG F	RIVERINE	AREA	0.483707 ACRE	NRPWW	-88.405478	30.625199	30.625199 Lower Big Creek

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WBC001		, crossin River/Stream
WBC002		Other (directional boring, crossin, River/Stream
	Wolf Branch	Other (directional boring, crossin River/Stream
	Wolf Branch	Work River/Stream No
WBC006		Other (directional boring, crossin, River/Stream
WBC007		
WBC008		
WBC010B		
WBC011		
WBC012		
WBC112A	Double Branch	Other (directional boring, crossin, River/Stream
WBD003B		
WBD004B	Big Creek	Other (directional boring, crossin, River/Stream
WBD005)	
WBD006		
	Hamilton Creek	Other (directional boring, crossin, River/Stream
	Hamilton Creek	Work River/Stream No
		Other (directional boring, crossin, Pond
		Work Pond No
WBD009A		
WBD009C		
WBD010		
WBD011	Red Creek	/Stream
WBE002		
WBE005		crossinį River/Stream
WBG005		Other (directional boring, crossin River/Stream No
WBG009		crossin; Pond
WBG010		crossin; River/Stream
WBGT001		
WBGT005		
WBGT006	Pierce Creek	_
WETC001-E0		Work Non-Tidal Wetland No

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WETC003-E0
WETC003-E1

WETC003-F2

WETC004-F0
WETC005-E0
WETC005-F0
WETC007-E0

WETC004-E0

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WETC009-E0 WETC010-E0 WETC017-F0

WETC017-F1 WETC018-F0

WETC008-E0 WETC008-F0 WETC020B-E1 WETC020B-F0

METC021-E1 METC021-F0

METC021-F1 METC021-F2

WETC020A-E0

WETC019-F2

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WET0013-E1	VETD013-E2	WETD013-F0	WETD013-F1	WETD013-F2	WETD013-F4	WETD014-F0	WETD015-E0	WETD015-F0	WETD018-F0	WETE001-F0	WETE002-F0	WETE002-F4	WETE002-F5	WETE003-E0	WETE003-F1	WETE004-E0	WETE004-F0	WETE005-E0	WETEO05-F0	WETEO06-E0			WETE006-F0							WETE007-F1	WETE008-E0	WETE008-F0	WETE009-F0	WETE009-F1	WETGT001-F0	WETGT001-F1

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Authorized_Area Units_Area	0 ACRE						0 ACRE		0 ACRE	0 ACRE	0 ACRE	0 ACRE		0 ACRE																						
Proposed_Area	0.002628	0.004221	0.014155	0.010248	0.005754	0.005283	0.022986	0.02585	0.017234	0.015876	0.035077	0.104762	0.044981	0.042289	0.130004	0.005538	0.019378	0.057533	0.008491	0.001158	0.040485	0.018636	0.0094	0.004851	0.009817	0.004602	0.011986	0.006166	0.007442	0.004736	0.015191	0.033025	0.00092	0.014837	0.016016	0.001738
Initially_Proposed_Area F	0.002628	0.004221	0.014155	0.010248	0.005754	0.005283	0.022986	0.02585	0.017234	0.015876	0.035077	0.104762	0.044981	0.042289	0.130004	0.005538	0.019378	0.057533	0.008491	0.001158	0.040485	0.018636	0.0094	0.004851	0.009817	0.004602	0.011986	0.006166	0.007442	0.004736	0.015191	0.033025	0.00092	0.014837	0.016016	0.001738
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0.252141	0.036891	0.057314	0.007696	0.00067	0.002232	0.055606	0.025146	0.007426	0.074719	0.014024	0.035464	0.004592	0.415975	0.044065	0.063127	0.414087	0.002801	0.070149	0.080348	0.536327	0.209903	0.267357	0.255358	0.340337	0.032184	1.315065	1.608756	0.107211	0.023114	0.071196	0.02627	0.385849	0.724846	0.380242	3.490452
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0.078867 0.721788	0.222627	0.143046	0.629307	1.136946	0.095885	0.700072	2.253559	0.042034	0.053874	0.067676	0.034788	0.022483	0.017855	0.009027	0.109968	0.142792	0.022645	1.429179	0.324739	0.235457	0.331943	0.195032	1.410556	1.768604	0.054217	0.001832	0.006768	0.000592	0.569227	0.002773	0.175164	0.057857	1.017479	1.963062	0.030492
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0.004389	0.003509	4.314003	0.313556	0.987063	0.11449	0.168742	0.021362	0.654703	0.148191	0.348129	0.215871	0.559539	0.212089	0.013038	0.539297	0.005009	0.077854	0.000476	0.093167	0.323678	0.045428	0.072337	0.569893	0.163721	0.039371	0.079904	0.249022	0.317162	0.107081	0.200899	0.01858	0.01004	0.271509	0.61947	0.298388	0.058248
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STATE OF ALABAMA

ALABAMA HISTORICAL COMMISSION 468 SOUTH PERRY STREET MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE EXECUTIVE DIRECTOR

Tel: 934-242-3184 FAX: 334-240-3477

November 14, 2012

Todd L. Butler SWCA Consultants 7255 Langtry, Suite 100 Houston, Texas 77040

Re:

AHC 13-0133

COE SAM-2012-00085-MBM Cultural Resource Assessment

10-Mile Facility

Pascagoula 41-mile Pipeline Mobile County, Alabama

Dear Mr. Butler:

Upon review of the cultural resource assessment submitted by your office, we have determined that project activities will have no adverse effect on cultural resources eligible for or listed on the National Register of Historic Places. Therefore, we concur with the proposed project activities. However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately.

We appreciate your efforts on this project. Should you have any questions, please contact Greg Rhinehart at (334) 230-2662. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown

Elicated Ann Brown____

Deputy State Historic Preservation Officer

EAB/RJG/GCR/gcr

Moxey, Michael B SAM

From: Moxey, Michael B SAM

Sent: Wednesday, November 14, 2012 7:54 AM

To: 'Eric Munscher' Cc: Bruce_Porter@fws.gov

Subject: RE: HDD sites for Pascagoula (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Thanks for sending this information explaining how you will be direction boring to avoid all of the gopher tortoise pods. It is my understanding that you will be directionally boring under gopher tortoise pods, which are located in uplands and outside the Corps 404 federal permit area, to address coordination and Section 10 consultation requirements with the U.S. Fish and Wildlife Service. State concurrence letters would be required on our 404 evaluation if any "single and complete project" per the definition in the nationwide permit guidance exceeds 0.5 acre of wetland loss and we have to use a standard individual permit (IP) instead of a nationwide permit. I am not aware of any state concurrence letters that would be required for the gopher tortoise component.

Thanks, Mike Moxey USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771

Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com] Sent: Thursday, November 08, 2012 12:26 PM

To: Moxey, Michael B SAM

Subject: HDD sites for Pascagoula

Importance: High

Mike,

Attached are all of the new HDD sites for avoiding all of the located gopher tortoise pods. Please let us know if you have any questions.

I also wanted to ask you about the state concurrence letters. Who would you like us to send the T/E reports to at the state agencies? Names and addresses would help immensely.

Τ	han:	ks	and	cheers,

ΕM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

Classification: UNCLASSIFIED

Caveats: NONE

Moxey, Michael B SAM

From: Sent: Eric Munscher [emunscher@swca.com] Friday, November 02, 2012 9:45 AM

To:

Moxey, Michael B SAM

Subject:

RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Attachments:

Aquatic Resources AL 10-30-2012.xlsx; Aquatic Resources MS 10-30-2012.xlsx; Impacts AL

10-30-2012.xlsx; Impacts MS 10-30-2012.xlsx

Mr. Moxey,

Attached you will find the Aquatic Resource and Impact tables for the Pascagoula project broken down by state. The mitigation table and plan will follow shortly. Please let us know if you have any questions. Copies of these tables have already been sent to Pauline.

Thanks and cheers,

EM

Eric C. Munscher, M.S., ES3 (Scientist)
Herpetologist / Ecologist
Certified Gopher Tortoise Agent
Principal Investigator of the CFFTRG
SWCA Environmental Consultants
7255 Langtry Suite, 100
Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Wednesday, October 24, 2012 11:00 AM To: Moxey, Michael B SAM; Eric Munscher

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I have also attached the data forms we use when downloading large numbers of waters of U.S. into our database. I remember seeing datasheets on the CD's you provided, however I am not sure if these were the ones provided?

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660 FOIA-SAM@usace.army.mil

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg http://www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----From: Moxey, Michael B SAM

Sent: Wednesday, October 24, 2012 10:55 AM

To: 'Eric Munscher'

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg http://www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Wednesday, October 24, 2012 9:13 AM

To: Moxey, Michael B SAM

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Can you send me the mitigation spredsheets for wetland impacts.

Thanks and cheers,

ΕM

Eric C. Munscher, M.S. Ecologist / Herpetologist 7255 Langtry, Suite 100

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

Houston, Texas 77040 ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS

Phone: 717-676-8497

Sound Science. Creative Solutions. (r) www.swca.com <http://www.swca.com/>

<http://www.swca.com/>

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Mon 8/27/2012 7:40 AM

To: Eric Munscher

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eríc,

Using the definition in the Nationwide permits for "Single and Complete Project", long pipeline projects can usually be authorized by multiple nationwide permits (using one permit number). If any single component exceeds the 0.5 acre thresh hold and must go IP, then the whole project will go IP. Attached is the worksheet we attach to the permit if we can use multiple nationwide permits.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message-----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Monday, August 27, 2012 9:22 AM

To: Moxey, Michael B SAM

Subject: Spread sheet for U.S. Waterbodys

Mr. Moxey,

During our July meeting concerning the Plains Southcap, LLC Pascagoula pipeline project you had mentioned that we need to use a spread sheet that describes waterbody information throughout the entire project line. Could you please send me this table so I can include it in our permit applications.

ΕM

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

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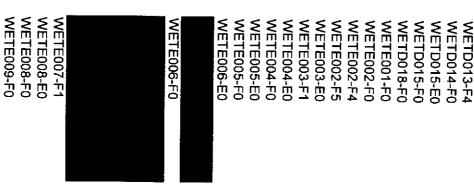
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Temporary	Temporary	Temporary	Temporary
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Removal	Removal	Removal	Removal

Authorized_Linear | Units_Linear | Debits

Notes

From: Mo

Moxey, Michael B SAM

Sent: Friday, October 26, 2012 10:20 AM

To: 'Tom Sankey'

Subject: RE: Action IDs SAM-2012-01165-MBM and SAM-2012-00885-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Thanks for providing the letter authorizing you to serve as the applicant's representative. It appears the project issues regarding gopher tortoises is being resolved. It would be helpful if you could provide a table of contents for the CD's provided to help us evaluate and confirm all the information required to have a complete PCN is provided. Once I can confirm the wetland delineation information is provided (location maps, GPS coordinates, worksheets) I will work with you for identifying locations to visit to verify the delineations (once identified, the wetland lines should be flagged).

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----

From: Tom Sankey [mailto:tsankey@swca.com] Sent: Thursday, October 25, 2012 5:24 PM

To: Moxey, Michael B SAM

Subject: Action IDs SAM-2012-01165-MBM and SAM-2012-00885-MBM

Mike:

Here is a letter from Plains formally authorizing me as their designated agent on the subject Action IDs. We dropped the original of this letter in today's mail.

We are sending you a response to your letters of September 19, 2012 by close of business tomorrow.

Thanks, Tom

----Original Message----

From: ricoh@swca.com [mailto:ricoh@swca.com] Sent: Thursday, October 25, 2012 2:24 PM

To: Eric Munscher; Tom 5ankey

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. Subject: Message from "RNP0026731DD45F" FOIA-SAM@usace.army.mil

This E-mail was sent from "RNP0026731DD45F" (Aficio MP C5501A).

Scan Date: 10.25.2012 15:24:20 (-0400)

Queries to: ricoh@swca.com

Classification: UNCLASSIFIED

Caveats: NONE

From: Tom Sankey [tsankey@swca.com]
Sent: Friday, October 26, 2012 4:34 PM

To: Moxey, Michael B SAM

Cc: DGore@paaip.com; SRLee@paaip.com

Subject: RE: Plains 41-mile pipeline, SAM-2012-00885-MBM, (UNCLASSIFIED) ALABAMA PORTION

Attachments: 10242012 SHP to USACE Mobile.zip.zip.zip

Mike:

As you, Eric Munscher and I discussed yesterday, this email provides our response to your September 19, 2012 letter regarding the subject Action ID for Plains Southcap, LLC's Pipeline Project in Mobile County, AL. It is our understanding that, based on this response, you will keep this Action ID open and active, for now. We, in turn, will be feeding you with the requested information as it becomes available.

Each of your requests a. through h. is listed below, followed by our response:

a. Please provide a permit application with the original signature by the applicant, or a signed letter from the applicant authorizing you to serve as their authorized agent. Please provide a hard copy of the permit application materials for the portion of the project located in Alabama. You do not have to provide the wetland delineation documents that have already been provided electronically.

We sent you on October 25, 2012, via email, a signed letter on Plains All America Pipeline letterhead authorizing us as their agent. The hard copy of that letter was mailed to you, as well. With regards to hard copies of the permit application materials, we will deliver those materials to you next week.

b. Please identify if the Federal Energy Regulatory Commission is associated as the lead federal agency for your project.

This is not a FERC project.

c. Please provide the GPS points for the boundaries of the wetlands and stream polygons within the project footprint, and data points for the sampling points reflected on each of the wetlands impact maps.

The GIS shapefile with all data points and wetland boundary points is attached to this email.

d. Please provide a scope of work as to how you will cross each of the wetland and waterbody crossings (i.e., horizontal directional drilling, or trench and backfill, etc.). If open-trenching methods would be utilized for any stream or waterbody crossings, then a survey of pre-construction contours should be submitted for each affected crossing.

Table 2 on pages 8-14 of the Wetland Delineation Report (Attachment B of the PCN) shows wetlands that will be avoided by horizontal directional drill (HDD). All other crossings will be by conventional trenching

methods. Table 4 on page 16 of the Wetland Shelineation Report (Attachment B of the PCN) shows waterbodies that will be avoided by HDD. All other waterbody crossings will be by conventional trenching methods. Willbros Engineers, the consulting engineer for this project, completed a topographic survey of the proposed centerline. We will forward that to you upon receipt from our client. This will provide you with pre-construction contours in the vicinity of jurisdictional areas.

e. Please provide details regarding how the applicant will mitigate for the loss of wetland functions as a result of the project in Alabama.

We are crunching the numbers using your mitigation worksheet and will forward that to you, as soon as we have completed our analysis.

f. Please provide an assessment of threatened and endangered species in wetlands and streams (federal permit area) within the project area (coordinate with the U.S. Fish and Wildlife Service and the Alabama Department of Conservation and Natural Resources, and provide concurrence letters if any present).

We supplied you threatened and endangered species information in Attachment D of the PCN. Alabama Natural Diversity Database (NDD) data lists were attached as well as a NDD data map showing known occurrences. The only federally listed or candidate species issues we came up with in the Alabama portion of the project were gopher tortoises, which we are in the process of totally avoiding. Willbros Engineers is in the process of designing HDDs to totally avoid all active gopher tortoise burrows within 30 feet of the proposed construction corridor. We have been in informal consultation with the USFWS and will obtain concurrence letters from the USFWS and the ADCNR, as requested.

g. Please provide information relating to cultural resource locations within the wetlands or streams (federal permit area) along your proposed project (coordinate with Alabama Department of Archives and History, and provide concurrence letter).

We submitted the archaeological report as Attachment E of the PCN and will submit to the Alabama State Historical Preservation Office for concurrence, as requested.

h. I will be sending you copies of the electronic spreadsheets for documenting the waters of the U.S., wetlands impacts, and wetland mitigation spreadsheets for the wetlands and streams impacts in Alabama.

Wetland and water impacts are identified throughout the PCN and Wetland Delineation Report within the CDs that we submitted to you. Nevertheless, we will re-organize the data as you requested using the electronic spreadsheets that you provided, and forward to you.

We appreciate your assistance with this project and will forward these items to you as soon as possible.

Regards, Tom

R. Thomas Sankey, PWS, CSE

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

Senior Project Manager / Senior EcologistNA-SAM@usace.army.mil SWCA Environmental Consultants 7255 Langtry, Suite 100

Houston, Texas 77040

713-934-9900 (office) 713-252-9291 (mobile) 713-934-9906 (fax)

----Original Message----

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Tuesday, October 23, 2012 10:42 AM

To: Moxey, Michael B SAM; Tom Sankey

Subject: RE: Plains 41-mile pipeline, SAM-2012-00885-MBM.

SAM-2012-01165-MBM (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

We provided you a letter dated September 19, 2012, stating your application was incomplete. In our letter we identified items that were needed to consider your application complete, including a permit application with original signatures by the applicant and the agent. requested the information within 30 days otherwise we would close your file for administrative purposes until the information could be provided. We have not received any response to our letter. Please provide the requested information by October 26, 2012, otherwise we will close the file for administrative purposes, and will reopen the project once received.

Thanks, Michael Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message----From: Moxey, Michael B SAM

Sent: Thursday, September 20, 2012 12:06 PM To: Moxey, Michael B SAM; 'tsankey@swca.com'

Cc: Bruce Porter@fws.gov

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

Subject: RE: Plains 41-mile pipeline (UNTCLASSMEDE): army.mil

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

It is my understanding that your pipeline project has avoided most of the gopher tortoise issues except for a 6. So that we can determine how to evaluate the six burrows in relation to our federal permit area, could you provide site plans that show the location of the burrows in relation to the location of waters of the U.S. in the corridor in this vicinity.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message---From: Moxey, Michael B SAM

Sent: Monday, September 17, 2012 4:27 PM
To: Moxey, Michael B SAM; 'tsankey@swca.com'

Subject: RE: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

You can also provide an original signed letter from the applicant designating your company as a duly authorized agent, similar to what I on the standard permit application.

Thanks,
Mike Moxey
USACE, Regulatory Division
Team Leader, Inland South
109 St. Joseph Street
Mobile, Alabama 36602
(251) 694-3771
Fax: (251) 690-2660

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responses are appreciated and will allowouss/to@improvey.our services.

----Original Message----From: Moxey, Michael B SAM

Sent: Monday, September 17, 2012 3:36 PM

To: 'tsankey@swca.com'

Subject: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

Thanks you for submitting the CD's with the electronic version of your permit application. So that we may evaluate your project, please provide hard copies of the permit application that contains the original signatures.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg 'http://www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE





October 8, 2012

Michael B. Moxey
Biologist, Inland Team Leader
Regulatory Division
U.S. Army Corps of Engineers – Mobile District
109 St. Joseph Street
Mobile, AL 36628-0001

Re: Pascagoula Pipeline Project

Pre-Construction Notice (MS and AL)

Action IDs SAM-2012-01165-MBM (MS) and SAM-2012-000885-MBM (AL)

Dear Mr. Moxey:

By this letter, Plains All American Pipeline, L.P. (Plains) provides notification that Mr. R. Thomas Sankey of SWCA Environmental Consultants (SWCA) will be functioning as Plains' authorized agent in the permitting of the referenced project. I would also appreciate being copied on all correspondence between SWCA and the USACE concerning this matter.

If you have any questions or concerns about this letter or any other matter related to the referenced project, please feel free to contact me at (713) 646-4419.

Best Regards,

Wm. Dean Gore, Jr., P.E.

Director, Environmental Project Development

Cc: Tom Sankey, SWCA - Houston Chuck Fontenot, SWCA - Houston Steve Lee, Plains - Houston OCT 9 6 7012

Plains All American GP LLC, General Partner of Plains AAP, L.P., the Sole Member of PAA GP LLC, the General Partner of Plains All American Pipeline, L.P. 333 Clay Street, Suite 1600 (77002) • P.O. Box 4648 • Houston, Texas 77210-4648 • 713-646-4100



October 8, 2012

Michael B. Moxey Biologist, Inland Team Leader Regulatory Division U.S. Army Corps of Engineers – Mobile District 109 St. Joseph Street Mobile, AL 36628-0001

Re: Pascagoula Pipeline Project

Pre-Construction Notice (MS and AL)

Action IDs SAM-2012-01165-MBM (MS) and SAM-2012-000885-MBM (AL)

Dear Mr. Moxey:

By this letter, Plains All American Pipeline, L.P. (Plains) provides notification that Mr. R. Thomas Sankey of SWCA Environmental Consultants (SWCA) will be functioning as Plains' authorized agent in the permitting of the referenced project. I would also appreciate being copied on all correspondence between SWCA and the USACE concerning this matter.

If you have any questions or concerns about this letter or any other matter related to the referenced project, please feel free to contact me at (713) 646-4419.

Best Regards,

Wm. Dean Gore, Jr., P.E.

Director, Environmental Project Development

Cc: Tom Sankey, SWCA - Houston

Chuck Fontenot, SWCA - Houston

Steve Lee, Plains - Houston

Plains All American GP LLC, General Partner of Plains AAP, L.P., the Sole Member of PAA GP LLC, the General Partner of Plains All American Pipeline, L.P. 333 Clay Street, Suite 1600 (77002) • P.O. Box 4648 • Houston, Texas 77210-4648 • 713-646-4100

From:

Moxey, Michael B SAM

Sent: To: Wednesday, October 24, 2012 11:00 AM Moxey, Michael B SAM; 'Eric Munscher'

Subject:

RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Attachments:

Aquatic Resources.xlsx; Impacts.xlsx; Mitigation.xlsx; NWP.XLSX; Old JD.XLSX

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

I have also attached the data forms we use when downloading large numbers of waters of U.S. into our database. I remember seeing datasheets on the CD's you provided, however I am not sure if these were the ones provided?

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message-----From: Moxey, Michael B SAM

Sent: Wednesday, October 24, 2012 10:55 AM

To: 'Eric Munscher'

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

Fax: (251) 690-2660

FOIA-SAM@usace.army.mil

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Wednesday, October 24, 2012 9:13 AM

To: Moxey, Michael B SAM

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Mr. Moxey,

Can you send me the mitigation spredsheets for wetland impacts.

Thanks and cheers,

EΜ

Eric C. Munscher, M.S. Ecologist / Herpetologist 7255 Langtry, Suite 100 Houston, Texas 77040 Phone: 717-676-8497

Sound Science. Creative Solutions. © www.swca.com/ http://www.swca.com/

From: Moxey, Michael B SAM [mailto:michael.b.moxey@usace.army.mil]

Sent: Mon 8/27/2012 7:40 AM

To: Eric Munscher

Subject: RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Using the definition in the Nationwide permits for "Single and Complete Project", long pipeline projects can usually be authorized by multiple nationwide permits (using one permit number). If any single component exceeds the 0.5 acre thresh hold and must go IP, then the whole project will go IP. Attached is the worksheet we attach to the permit if we can use multiple nationwide permits.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

109 St. Joseph Street

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Mobile, Alabama 36602 (251) 694-3771

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----Original Message----

From: Eric Munscher [mailto:emunscher@swca.com]

Sent: Monday, August 27, 2012 9:22 AM

To: Moxey, Michael B SAM

Subject: Spread sheet for U.S. Waterbodys

Mr. Moxey,

During our July meeting concerning the Plains Southcap, LLC Pascagoula pipeline project you had mentioned that we need to use a spread sheet that describes waterbody information throughout the entire project line. Could you please send me this table so I can include it in our permit applications.

Thanks and cheers,

EΜ

Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

cid:3401782132 144728300

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

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Classification: UNCLASSIFIED

Caveats: NONE

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Moxey, Michael B SAM

Sent:

Wednesday, October 24, 2012 10:55 AM

To:

'Eric Munscher'

Subject:

RE: Spread sheet for U.S. Waterbodies (UNCLASSIFIED)

Attachments:

Corps Pipeline data worksheet.xlsx, 2008 Pipeline Corridor Mitigation.pdf

Classification: UNCLASSIFIED

Caveats: NONE

Eric,

Attached are our spreadsheets we use for pipeline projects. You will note along the first column that we issue multiple nationwide 12 permits in our letter, based on single and complete project definition, and that we use the pipeline conversions ratios for mitigation in the right columns. I have attached the pipeline mitigation ratio worksheet also.

Thanks, Mike Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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Eric C. Munscher, M.S. Ecologist / Herpetologist 7255 Langtry, Suite 100 Houston, Texas 77040 Phone: 717-676-8497

Sound Science. Creative Solutions. ® www.swca.com < http://www.swca.com/>

<http://www.swca.com/>

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Sent: Mon 8/27/2012 7:40 AM

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Classification: UNCLASSIFIED

Caveats: NONE

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Thanks and cheers,

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Eric C. Munscher, M.S., ES3 (Scientist)

Herpetologist / Ecologist

Certified Gopher Tortoise Agent

Principal Investigator of the CFFTRG

SWCA Environmental Consultants

7255 Langtry Suite, 100

Houston, TX 77040

"And I can only believe, from somewhere deeper than any logic center of the brain, that a life of incomprehensible loneliness awaits a world where the wild things were, but are never to be again." William Stolzenburg. Where the Wild Things Were.

cid:3401782132 144728300

Classification: UNCLASSIFIED

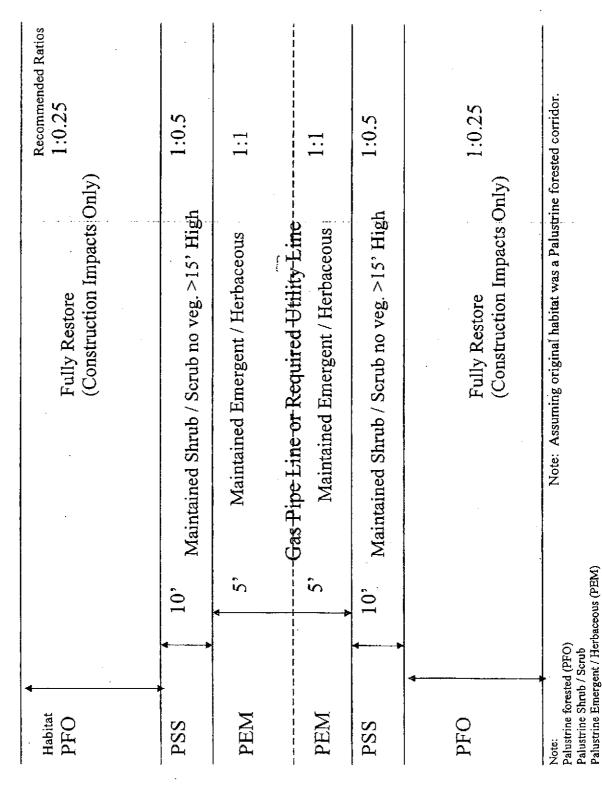
Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

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3 W1AMO009	009 UT to Bay Branch	Wetland	PFO/PEM	30.5720	-88.3571	0.29	90.0	0.08	0.07	0.00	80.0	0.17
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5 S1AM0001	01 Jackson Creek	Stream	RPW	30.5334	-88.3517	e/u	n/a	n/a	E/U	e/u	B/11	6/4
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Grand Total	Grand Total					2.9	0.4	0.8	0.7	0.2	× 0	1.7

w/ Typical Recommendation for Compensation due to Vegetation Conversion Converted Wetland Habitat ROW for Typical Linear Project



From:

Moxey, Michael B SAM

Sent:

Tuesday, October 23, 2012 10:42 AM

To:

Moxey, Michael B SAM; tsankey@swca.com

Subject:

RE: Plains 41-mile pipeline, SAM-2012-00885-MBM, SAM-2012-01165-MBM

(UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

We provided you a letter dated September 19, 2012, stating your application was incomplete. In our letter we identified items that were needed to consider your application complete, including a permit application with original signatures by the applicant and the agent. We requested the information within 30 days otherwise we would close your file for administrative purposes until the information could be provided. We have not received any response to our letter. Please provide the requested information by October 26, 2012, otherwise we will close the file for administrative purposes, and will reopen the project once received.

Thanks, Michael Moxey

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771

Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg <http://www.sam.usace.army.mil/RD/reg> , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message-----From: Moxey, Michael B SAM

Sent: Thursday, September 20, 2012 12:06 PM To: Moxey, Michael B SAM; 'tsankey@swca.com'

Cc: Bruce Porter@fws.gov

Subject: RE: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

It is my understanding that your pipeline project has avoided most of the gopher tortoise issues except for a 6. So that we can determine how to evaluate the six burrows in relation to our federal permit area, could you provide site plans that show the location of the burrows in relation to the location of waters of the U.S. in the corridor in this vicinity.

Thanks, Mike Moxey AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE.

TONY Division

FOIA-SAM@usace.army.mil

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message-----From: Moxey, Michael B SAM

Sent: Monday, September 17, 2012 4:27 PM
To: Moxey, Michael B SAM; 'tsankey@swca.com'

Subject: RE: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

You can also provide an original signed letter from the applicant designating your company as a duly authorized agent, similar to what I on the standard permit application.

Thanks, Mike Moxey USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

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----Original Message----From: Moxey, Michael B SAM

Sent: Monday, September 17, 2012 3:36 PM

To: 'tsankey@swca.com'

Subject: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

Thanks you for submitting the CD's with the electronic version of your permit application. So that we may evaluate your project, please provide hard copies of the permit application that contains the original signatures.

Thanks, Mike Moxey AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. FOIA-SAM@usace.army.mil

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: Moxey, Michael B SAM

Sent: Thursday, September 20, 2012 12:06 PM
To: Moxey, Michael B SAM; tsankey@swca.com

Cc: Bruce_Porter@fws.gov

Subject: RE: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

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Subject: RE: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

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Subject: Plains 41-mile pipeline (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Mr. Sankey,

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Thanks, Mike Moxey

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Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

Classification: UNCLASSIFIED

Caveats: NONE

From: Moxey, Michael B SAM

Sent:Thursday, September 20, 2012 1:52 PMTo:Bruce_Porter@fws.gov; 'tsankey@swca.com'Subject:FW: Pipeline projects and ESA (UNCLASSIFIED)

Attachments: Pipelines and ESA.pdf

Classification: UNCLASSIFIED

Caveats: NONE

Attached are the Corps guidelines for addressing ESA/Section 7 limits for pipeline projects.

Thanks, Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771 Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg , and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

----Original Message-----From: Moxey, Michael B SAM

Sent: Thursday, September 20, 2012 1:16 PM

To: 'Bunkley, Bill'; Crosson, S. Brad SAM; 'Moxey, Michael B SAM'; 'Riley, Anthony W SAM';

Turney, Leslie E; Villarreal, Rudolph C SAM; Zettle, Sheri M SAM

Subject: FW: Pipeline projects and ESA (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Team,

Low and behold, I found the following guidance regarding expanding our federal permit area in regards to ESA in my REG II A manual. Seems like some significant criteria must be met before we should ever do this.

Mike

USACE, Regulatory Division Team Leader, Inland South 109 St. Joseph Street Mobile, Alabama 36602 (251) 694-3771

Fax: (251) 690-2660

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg , and please take a

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DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers WASHINGTON, D.C. 20314-1600

27 MCY 1991

REPLY TO ATTENTION OF:

Office of the Chief Counsel/Regulatory Branch

Honorable John Turner Director U.S. Fish and Wildlife Service Department of the Interior Washington, DC 20240

Dear Mr. Turner:

I am writing this letter to respond to Richard Smith's June 12, 1991, letter regarding the U.S. Army Corps of Engineers Galveston District's extension of General Permit (GP) 14114(02). To begin with, I would like to assure you that the Galveston District's issuance and use of GP 14114(02) is in no way an effort to evade its responsibilities under the Endangered Species Act (ESA). The Galveston District, and the Corps as a whole, are committed to acting in full compliance with the ESA, and to exercising proper sensitivity regarding the effects that Corps actions may have on threatened or endangered species.

In his letter Mr. Smith stated that in past applications of GP 14114 to linear projects (such as pipelines or electric transmission lines), the Galveston District limited its ESA review to the permit area relevant to Corps regulation under section 10 of the Rivers and Harbors Act of 1899 (RHA) and/or section 404 of the Clean Water Act (CWA). Mr. Smith contends that this limited assessment improperly fails to consider the indirect effects of a project, because it does not take into account the portion of the project outside the permit area. Mr. Smith posits that, in the context of a linear project, section 7 of the ESA forbids the Corps to issue a permit until the Corps has assessed the potential effects on endangered or threatened species of the entire linear project.

The Corps does not fully agree with Mr. Smith's interpretation of section 7. Section 7 requires Federal agencies to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize . . . any endangered or threatened species . . . ," or to adversely affect critical habitat (16 U.S.C.A. § 1536, emphasis added). This requires the Corps to consider the ESA effects of "any action authorized" (that is, any activity permitted) by the Corps. In the typical linear project requiring a Corps permit, a power company will apply for an RHA section 10 river crossing permit to facilitate the construction of a transmission line. In this context, the action authorized by the Corps, if the Corps issues such a permit, is the power line's crossing of the river. Thus,

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the Corps usually would confine its ESA review to the permit area surrounding the river crossing. This permit area includes the jurisdictional reach of the Corps RHA authority (i.e., the area extending up to the ordinary high water mark of the river) and any uplands affected by the river crossing that are within a reasonable distance from the river. Within this permit area, in accordance with National Wildlife Federation v. Coleman, 529 F.2d 359 (5th Cir. 1976) (potential private development stemming from the completion of a 5.7 mile road section and interchange was considered an indirect effect that must be considered in ESA review of Federal project), the Corps considers the direct, indirect and cumulative effects of the river crossing on threatened or endangered species.

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In three situations, however, the Corps will assess ESA affects beyond the immediate permit area. In the first situation, in accordance with Riverside Irrigation District V. Andrews, 758 F.2d 508 (10th Cir. 1985), (Corps considered indirect or secondary physical effects of a dam on critical habitat of the whooping crane many miles downstream from the permit area), the Corps will look outside the permit area for ESA effects that have a causal physical link to the activity authorized by the Corps pursuant to the RHA and/or the CWA. In doing so the Corps recognizes that there is a difference between: 1) the Corps de facto legal control over a project which cannot be built "but for" a Corps permit, and 2) the Corps legal responsibility to consider indirect and cumulative physical effects of the actions we permit. That is, when the Corps only has de facto legal or "but for" control over a linear project, the Corps typically will confine its ESA review to the permit area. Conversely, when the activity authorized by the Corps has a physical effect on threatened or endangered species outside the permit area, the Corps will look outside the permit area to evaluate those effects.

This distinction has been recognized in cases such as Winnebago Tribe of Nebraska v. Ray, 621 F.2d 269 (8th Cir.), Cert. denied, 449 U.S. 836 (1980), and Save the Bay. Inc. v. United States Corps of Engineers, 610 F.2d 322, (5th Cir.), Cert. denied, 449 U.S. 900 (1980). Although Winnebago and Save the Bay involved the application of the National Environmental Policy Act, the Corps believes that this analysis has validity in the context of the ESA with regard to linear projects.

not for but for

As stated above, typically the Corps will not broaden its review to encompass ESA effects that are the product of the Corps de facto legal control over a linear project. The Corps does not believe that such "but for" control justifies the Corps broadening its jurisdiction to include indirect non-physical effects. By limiting its ESA review to the activity which the Corps permits, and to direct, indirect, and cumulative physical effects resulting from that authorized activity, the Corps can

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pragmatically balance Federal interests in protecting the environment with the Corps mission of operating a manageable regulatory program. Although it might seem to be a noble undertaking for the Corps to expand its ESA review to include the entire length of a linear project, the Corps lacks the resources programmatically to conduct such far-reaching examinations. Furthermore, we believe that such extensive regulation would overstep the limits of the Corps regulatory authority.

The second situation in which the Corps will expand its ESA review beyond the permit area is when the FWS or an interested party informs the Corps that a linear project will affect critical habitat outside the permit area, and the Corps, through its control over the placement of a river crossing, can reasonably steer the route of the linear project around the critical habitat. That is, if the Corps can encourage or require the proponent of a linear project to utilize a practicable alternative location for the proposed river crossing site, and thereby lead an applicant to reroute its linear project to avoid the adverse effects on the critical habitat, then the Corps will do so when such a practicable alternative river crossing site is reasonably available.

It should be explicitly clear that by adopting this approach the Corps is not acknowledging any additional legal obligation under the ESA. The Corps is voluntarily taking this action solely in the interests of environmental protection. Furthermore, the Corps, by adopting this approach, is not obligating itself to identify critical habitat outside a permit area. Consequently, before the Corps will investigate whether this approach should be employed for a specific linear project, the FWS or an interested party must provide the Corps with credible information that an area of critical habitat is sufficiently near a river crossing site that it could practicably be protected by this approach. Moreover, it will be totally at the Corps discretion whether to pursue this approach based on such credible information.

In the third situation the Corps may actually enlarge the scope of its ESA review to include an entire linear project. This situation arises when, for instance, a linear project requires the Corps to issue such a significant number of permits, or permits authorizing such a large portion of the project's length, that by granting the permits the Corps essentially would be authorizing the entire project or segments thereof.

When none of these three situations are present, the Corps will confine its ESA review to the permit area. To contend that the Corps should examine the entire length of a linear project for adverse effects to threatened or endangered species, even when the Corps only means of preventing such effects would be to deny the permit, one must rely on the "but for" test. One would

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have to reason that, since the linear project could not be constructed "but for" a Corps permit, then an indirect effect of the Corps permit is the possible destruction of critical habitat. Although this test may have validity in certain contexts, it lacks such validity with regard to linear projects. Drawn to its extreme, under this approach, the Corps would be required to take legal responsibility for all environmental effects along a 1000 mile pipeline even if the Corps had actual regulatory responsibility only for one river crossing permit. Not only would such a review cause the Corps to overstep the reasonable limits of its regulatory authority, but it simply would not be practicable.

Despite this, the Corps can help ensure that threatened and endangered species are better protected by assisting the FWS in exercising its authority under section 9 of the ESA. The Corps Regulatory Branch is currently considering guidance concerning ESA reviews to instruct our field offices to include in both individual permits and in general permits for linear projects a special condition requiring applicants to supply the FWS with information concerning the intended route of the linear project. This will apprise the FWS of all linear projects that involve Corps permits. In those cases in which the Corps restricts its review to the permit area alone, the FWS would be free to exercise its authority under section 9 of the ESA to protect critical habitat and prevent takings of threatened and endangered species. As I am sure you are fully aware, the FWS, under Palila V. Hawaii Department of Land and Natural Resources, 639 F.2d 495 (9th Cir. 1981) (degradation of critical habitat alone can be considered a taking), potentially could cause a linear project to be redirected around critical habitat.

We believe that our approach to defining the area of consideration for endangered species impacts is consistent with the ESA, and with the Corps policy on scope of analysis incorporated in the Corps 1988 National Environmental Policy Act (NEPA) compliance regulations. If you wish to discuss this matter further, I would be pleased to meet with you.

Sincerely,

Arthur E. Williams

Major General, U.S. Army Director of Civil Works AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. FOIA-SAM@usace.army.mil

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FOIA-SAM@usace.army.mil

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

September 19, 2012

Inland Branch Regulatory Division

REPLY TO ATTENTION OF:

SUBJECT: Department of the Army Application Number SAM-2012-000885-MBM, Plains Southcap L.L.C. Pipeline, Mobile County, Alabama.

Plains Southcap L.L.C. Attention: Mr. Thomas Sankey 7255 Longtry, Suite 100 Houston, Texas 77040

Dear Mr. Sankey:

Please reference your application for a Department of the Army (DA) permit received in this office September 13, 2012, to install a 41-mile crude oil pipeline from the Plains Ten-Mile Crude Oil Facility in Mobile County, Alabama, to Pascagoula, Mississippi. This project has been divided in to two actions, one for the pipeline located in Alabama, and the portion of the pipeline located in Mississippi. This permit action is evaluating the pipeline that is located in Alabama. Your application has been assigned file number SAM-2012-00885-MBM, which should be referred to in all future correspondence with this office.

Following an initial review of the application, it appears that there will be no permanent filling activities involving "waters of the U.S." in Alabama. If this is correct, your project may qualify for a Nationwide Permit 12 verification for Utility Line Activities. To further evaluate your proposed project, this office requests the following information:

- a. Please provide a permit application with original signature by the applicant, or a signed letter from the applicant authorizing you to serve as their authorized agent. Please provide a hard copy of the permit application materials for the portion of the project located in Alabama. You do not have to provide the wetland delineation documents that have already been provided electronically.
- b. Please identify if the Federal Energy Regulatory Commission is associated as the lead federal agency for your project. If they are, please provide a copy of the Final FERC EA and a copy of the FERC Ordering Issuing Certificate is required.
- c. Please provide the GPS points for the boundaries of the wetlands and stream polygons within the project footprint, and data points for the sampling points reflected on each of the wetlands impact maps in Alabama.

- d. Please provide a scope of work as to how you will cross each of the wetland and waterbody crossings (i.e. horizontal directional drilling, or trench and backfill, etc.). If opentrenching methods would be utilized for any stream or waterbody crossings, then a survey of preconstruction contours should be submitted for each affected crossing.
- e. Please provide details regarding how the applicant will mitigate for the loss of wetland functions as a result of this project in Alabama. The attached mitigation worksheet and ratio guidance for pipeline projects is also being sent to you electronically and the worksheet should be filled-out and returned. Also attached is the guidance regarding required mitigation for pipeline projects.
- f. Please provide an assessment of threatened and endangered species in the wetlands and streams (federal permit area) within the project area (coordinate with U.S. Fish and Wildlife Service and the Alabama Department of Conservation and Natural Resources, and provide concurrence letters if any present).
- g. Please provide information relating to any cultural resource locations within the wetlands or streams (federal permit area) along your proposed project (coordinate with Alabama Department of Archives and History, and provide concurrence letter).
- h. I will be sending you copies of the electronic spreadsheets for documenting the waters of the U.S., wetland impacts, and wetland mitigation spreadsheets for the wetlands and streams impacts in Alabama.

As your application is considered incomplete, further evaluation of your request is being held in abeyance pending receipt of this additional information. If the required information has not been received by October 19, 2012, the file will be closed. Closure of your file at such time will not preclude you from re-opening the file at a later date should you wish to do so.

We appreciate your cooperation with the Corps of Engineers' Regulatory Program. Please contact me at (251) 694-3771 should you have any questions. For additional information about permitting and our Regulatory Program, visit our web site at www.sam.usace.army.mil/RD/reg, and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

Sincerely,

Michael B. Moxey Team Leader, Inland Branch Regulatory Division

RD-I-S

FILE

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DEPARTMENT OF THE ARMY

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

September 19, 2012

Inland Branch South Regulatory Division

SWCA Environmental Consultants Attention: Mr. Thomas Sankey 7255 Longtry, Suite 100 Houston, Texas 77040

Dear Mr. Sankey:

We are in receipt of your application for Department of the Army (DA) authorization for Nationwide Permit 12, for Pipeline Project. Project is located in Mobile County, Alabama.

This request has been assigned project file number SAM-2012-00885-MBM, which should be referred to in all future correspondence with this office. The request is also identified as Plains Southcap, LLC.

I will be reviewing this project and can be reached by telephone at (251) 694-3771, or by e-mail at michael.b.moxey@usace.army.mil or by mail to U. S. Army Engineer District, Attention: CESAM-RD-I-S, Leslie E. Turney, P.O. Box 2288, Mobile, Alabama, 36628-0001. I will let you know if additional information is needed before we can complete your request..

Please take a moment to visit our website and complete our customer satisfaction survey. Our website is http://www.sam.usace.army.mil/RD/reg/

Sincerely,

Michael B. Moxey Team Leader, Inland Branch Regulatory Division

Aland Market.

Standard Market ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIL OFFICE. FOIA-SAM@usace.army.mil Leslie Turney Mike Moxey ASSIGN TO PM: Brad Crosson . Rudy Villarreal Sheri Zettle Damon Young PROJECT NAME: WATERWAY: NWP 29 - Residential Developments -- PCN + 3. NATIONWIDE PERMIT: NWP 1 - Aids to Navigation. NWP 30 - Moist Soil Management for Wildlife CR NWP 2 - Structures in Artificial Canals NWP 31 - Maintenance of Existing Flood NWP 3 - Maintenance — PCN* Control Facilities - PCN + CR NWP 4 - Fish and Wildlife Harvesting, NWP 32 - Completed Enforcement Actions --- CR NWP 33 - Temporary Construction, Access, and Enhancement, and Attraction Devices and Activities NWP 5 - Scientific Measurement Devices --- CR Dewatering --- PCN + CR NWP 34 - Cranberry Production Activities --NWP 6 - Survey Activities -- CR NWP 7 - Outfall Structures and Associated Intake PCN NWP 35 - Maintenance Dredging of Existing Structures -- PCN NWP 8 - Oil and Gas Structures on the Outer Continental Shelf --- PCN + CR Basins NWP 36 - Boat Ramps --- PCN* + CR. NWP 37 - Emergency Watershed Protection and NWP 9 - Structures in Fleeting and Anchorage Rehabilitation --- PCN + CR NWP 38 - Cleanup of Hazardous and Toxic Areas NWP 10 - Mooring Buoys NWP 11 - Temporary Recreational Structures. Waste - PCN NWP 39 - Commercial and Institutional NWP 12 - Utility Line Activities - PCN + CR NWP 13 - Bank Stabilization - PGN* + CR Developments --- PCN + CR NWP 40 - Agricultural Activities -- PCN + CR NWP 14 - Linear Transportation Projects. PCN + NWP 41 - Reshaping Existing Drainage Ditches -NWP 15 - U.S. Coast Guard Approved Bridges NWP 42 - Recreational Facilities -PCN + CR NWP 16 - Return Water From Upland Contained NWP 43 - Stormwater Management Facilities -Disposal Areas NWP 17 - Hydropower Projects -- PCN PCN+CR NWP 44 - Mining Activities -- PCN + CR NWP-18-Minor Discharges --- PCN---NWP 45 - Repair of Uplands Damaged by NWP 19 - Minor Dredging Discrete Events - PCN NWP. 20 - Oil Spill Cleanup NWP 21 - Surface Coal Mining Activities -- PCN NWP 46 - Discharges in Ditches - PCN NWP 47 - Pipeline Safety Program Designated Time Sensitive Inspections and Repairs. + CR NWP 48 - Commercial Shellfish Aquaculture NWP 22 - Removal of Vessels -- PCN + GR NWP 23 - Approved Categorical Exclusions -Activities - PCN NWP 49 - Coal Remining Activities - PON* + NWP 24 - Indian Tribe or State Administered NWP 50 - Underground Coal Mining - PCN + Section 404 Program NWP 25 - Structural Discharges NWP 27 - Aquatic Habitat Restoration, Establishment, & Enhancement Activities — PCN CR - ALL areas-Cultural Resource clearance required. NWP 28 - Modifications of Existing Marinas PCN* - See NWP Permit for special PCN conditions. Section 10/404__ _____ Section 404 _____ 4. NATURE OF ACTIVITY: Section 10 __ 5. PROJECT PURPOSE: Use will be Residential, Commercial, Municipal, or Governmental Date received by RD 9/13 TL to AA: By MAL on 9/13

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFIC FOIA-SAM@usace.army.mil

Sound Science. Creative Solutions.

7255 Langtry, Suite 100 Houston, Texas 77040 Tel 713.934.9900 Fax 713.934.9906

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September 12, 2012

Michael B. Moxey U. S. Army Corp of Engineers, Mobile District CESAM-RD 109 St. Joseph Street P.O. Box 2288 Mobile, AL 36628-0001

Re: Plains 41-Mile Ten-Mile to Pascagoula Pipeline Project

Mr. Moxey:

Enclosed within this package are three DVD-Rs that include all of the information in regards to the permit application for the Pascagoula 41-Mile Ten Mile to Pascagoula Pipeline Project. DVD-R #1 includes the PCN permit documents for the Alabama portion of the project and one for the Mississippi portion of the project, DVD-R #2 includes separate attachments of the overall permit application (including the Wetland Delineation Report, Threatened and Endangered Species Report, map books, and data sheets, and DVD-R #3 includes a comprehensive photographic log of the wetland Delineation. Our client would like to receive approval for this project by the end of the year.

If you have questions or require additional information regarding this matter, please contact me at 713-934-9900 or tsankey@swca.com.

Sincerely,

SWCA ENVIRONMENTAL CONSUTLANTS

R. Thomas Sankey, PWS, CSE

Senior Project Manager/Senior Ecologist

Houston Natural Resources



Houston Office 7255 Langtry, Suite 100 Houston, TX 77040 Tel 713.934.9900 Fax 713.934.9906

September 12, 2012

Michael B. Moxey U. S. Army Corp of Engineers, Mobile District CESAM-RD 109 St. Joseph Street P.O. Box 2288 Mobile, AL 36628-0001

Re: Plains 41-Mile Ten-Mile to Pascagoula Pipeline Project Alabama Portion

Mr. Moxey:

Plains Southcap, LLC, (Plains) requested that SWCA Environmental Consultants (SWCA) complete a wetland and waters delineation, a threatened and endangered species evaluation, a cultural resources survey, and a Pre-construction Notification (PCN) for a proposed 41-mile 24-inch diameter crude oil pipeline. The project area begins at the Plains Ten-Mile Crude Oil Facility in Mobile County, Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line terminates at the Chevron Pascagoula Refinery approximately one mile from the Gulf of Mexico (project area).

This PCN addresses the Alabama portion (18.63 miles) of this 41-mile pipeline project. A separate PCN document will be submitted for the remaining 22.37 miles of the pipeline project that occurs within Jackson County, Mississippi.

Please find attached to this letter the Nationwide Permit 12 Pre-construction Notification, maps and schematics, plan and profile exhibits for horizontal directional drills under Section 10 waters, Preliminary Jurisdictional Determination Form, Wetland Delineation Report, Threatened and Endangered Species Report, and Cultural Resources Report for your review. A mitigation plan will be submitted to you within 21 calendar days of the date of this letter.

SWCA, as authorized agent for Plains, is requesting a preliminary jurisdictional determination for all potential waters of the United States in the project area, as well as NWP 12 authorization for construction of this project.



Houston Office 7255 Langhy, Suite 100 Houston, TX 77040 Tel 713.934.9900 Fax 713.934.9906 www.swco.com

If you have questions or require additional information regarding this matter, please contact me at 713-934-9900 or tsankey@swca.com.

Sincerely,

SWCA ENVIRONMENTAL CONSUTLANTS

R. Thomas Sankey, PWS, CSE

Senior Project Manager/Senior Ecologist

Houston Natural Resources

Attachments: Pre-construction Notification

PRE-CONSTRUCTION NOTIFICATION PLAINS 41-MILE TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT JACKSON COUNTY, MISSISSIPPI AND MOBILE COUNTY, ALABAMA (ALABAMA PORTION 18.63 MILES) September 12, 2012

The following paragraphs contain information relative to Items 1 through 7 as required under General Condition 31 (b) of Nationwide Permit (NWP) 12 (Utility Line Activities), NWP Regional Conditions dated May 12, 2007.

(1) Prospective Permittee Contact Information

Permittee:

Plains Southcap, LLC 333 Clay Street, Suite 1600 Houston, TX 7702 (303) 605-1931 Contact: Steve Lee SRlee@paalp.com Agent:

SWCA Environmental Consultants 7255 Langtry, Suite 100 Houston, Texas 77040 (713) 934-9900 Contact: Tom Sankey tsankey@swca.com

(2) Proposed Project Location

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete a wetland and waters delineation for a proposed 41-mile 24-inch diameter crude oil pipeline project. The project area begins at the Plains Ten-Mile Crude Oil Facility in Mobile County, Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula Refinery approximately one mile from the Gulf of Mexico (project area). The project area is shown in Attachment A.

(3) Proposed Project Description

Construction of the proposed project is slated to begin in March 2013 and end before September 2013. No fill material will be placed within waters or wetlands for more than three months.

The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter pipeline. Construction of the pipeline will be within a 75-foot-wide right-of-way (ROW) and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and reestablishing vegetation. A permanent 50-foot-wide easement will be maintained and mowed on a regular basis. Please refer to **Attachment A** for an illustration of the ROW showing both temporary and permanent easements within the project area. Cross-sectional illustrations for open-cut techniques and site-specific plan and profile exhibits for horizontal directional drills (HDD) under Rivers and Harbor Act, Section 10 waters are also included in **Attachment A**.

Project Purpose

The proposed project will be constructed to transport petroleum liquids from the Plains Ten-Mile storage facility in north Mobile County, Alabama to the Chevron Pascagoula Refinery, in southeastern Jackson County, Mississippi.

Conversions

SWCA identified and delineated a total of 262 wetlands within the project area. Of those 262 wetlands, 121 were delineated within the Alabama portion of the project. The project plans do not include permanently raising the elevation of any wetland areas or placing impervious materials in wetland areas. All wetlands and other waters in the project area will be restored to pre-construction contours. The proposed project will have no permanent impacts on wetlands, except for the permanent conversion of palustrine scrub/shrub (PSS) and palustrine forested (PFO) wetlands to palustrine emergent (PEM) wetlands immediately adjacent to existing pipeline and power line corridors.

Plains will use HDDs to avoid and minimize areas of impacts wherever practical. Other areas along the line have had the pipeline footprint reduced or "necked down" in order to minimize disturbances and impacts to gopher tortoise (*Gopherus polyphemus*) pod locations as well as wetland complexes.

Plains' ROW through these wetlands follows an existing power line corridor, minimizing further fragmentation. Given these considerations, Plains finds the use of HDDs at these locations impracticable, but has completely avoided impacts to all other PSS/PFO wetlands along the project route.

Open-cutting certain wetlands will cause the displacement of woody vegetation which will be permanently maintained (mowed) within the 50-foot-wide permanent easement. The area outside of the permanent easement will be allowed to revegetate naturally, causing only a temporary conversion of these areas from PSS and PFO wetlands to PEM wetlands.

Table 1 provides the total crossing lengths and total acreages for each type of wetland community within the project area's 200-foot-wide survey corridor, 50-foot permanent easement, and 25-foot temporary construction easement within the 18.63 miles of proposed line in Mobile County, Alabama.

Table 1. Wetland Summary Table (Alabama Portion)

	Crassing Length at Crassing Length at Captrolline (feet)	Toma descentas			
		Middigo Streety Consider	ysolven Tonopastry Basameni	al (Centilio mement kasaman)	Tigraszowa Dawystone Polli Als
PEM Wetlands	1,587.50	36.957	0.212	2.403	1.137
PSS Wetlands	511.79	2.686	0.062	0.711	0.00
PFO Wetlands	21,085.39	66.604	11.239	21.487	0.956
Totals:	23,184.69	106.247	11.513	24.601	2.093

SWCA identified and delineated a total of 27 streams and 5 other waterbodies within the Alabama portion of the project area. There are no Section 10 water crossings within the Alabama portion of this project.

SWCA identified a total of five other waterbodies within the Alabama portion of the project area, most of which were man-made ponds. **Table 2** below provides the crossing lengths and total acreages for each type of stream and other waterbodies within the project area's 200-foot-wide survey corridor and construction corridor.

Table 2. Waterbody Summary Table (Alahama Portion)

Table 2. Water body Summary Table (Atabama Portion)							
Type			ii Arrands kalton Hammung	sali igu Cammung			
Ephemeral Streams	20.58	0.121	0.018	0.022			
Intermittent Streams	53.86	0.173	0.013	0.035			
Perennial Streams	246.01	1.230	0.146	0.199			
Other Waterbodies	163.23	0.891	0.002	0.145			
Totals:	483.68	2.414	0.179	0.401			

(4) Delineation of Special Aquatic Sites and Other Waters of the U.S.

SWCA conducted a wetland delineation of the areas that will be impacted by the project. SWCA conducted this delineation in accordance with the methods described in the 1987 USACE Wetland Delineation Manual (Manual) (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Supplement) (USACE 2010). The results of this delineation are documented in the attached wetland delineation report (Attachment B). The attached maps depict all potential waters of the U.S., including wetlands and Section 10 waters located within the temporary and permanent easements crossed by the project.

SWCA has included a preliminary jurisdictional form and aquatics resources and impacts tables in **Attachment C**.

(5) Description of Avoidance, Minimization, and Compensation

Avoidance and Minimization

Plains proposes to construct all activities using currently acceptable and preferable construction methods and best management practices (BMPs) such as silt fencing, matting, and hay bales. These will be in place prior to commencement of construction and will be designed to avoid/minimize soil erosion and sedimentation into adjacent wetlands and waterbodies.

All construction activities will take place in accordance with all NWP General Conditions, including the requirements related to aquatic life movements, soil erosion and sediment controls, proper maintenance, endangered species, historic properties and water quality.

Plains has designed the footprint of the construction corridor to be as small as possible, while still serving the project needs in order to minimize impacts to waters of the U.S. After construction, all temporarily impacted waterbodies and wetlands will be restored to preconstruction conditions/contours.

In addition to these minimization measures, Plains will avoid several wetland and stream features that were originally within the construction footprint by implementing HDDs and alterations to the construction footprint to the maximum extent practical. There are no listed Section 10 water crossings within the Alabama area of this project. In addition to the PFO and PSS wetlands, numerous gopher tortoise pods will be avoided by HDDs.

Mitigation and Compensation

Emergent wetlands will be restored to pre-construction contours and allowed to naturally revegetate, causing a temporary impact only. Mitigation is not proposed for temporary impacts to emergent wetlands. Plains proposes to mitigate for permanent conversion of PSS and PFO wetlands that will be open-cut and will be permanently converted into PEM wetlands. A Mitigation Plan that describes the proposed compensation for these conversions will be sent within 21 calendar days from the date of this document.

(6) Threatened and Endangered Species Review

SWCA conducted a threatened and endangered species assessment for the proposed project in order to facilitate compliance with the Endangered Species Act of 1973, as amended. The Alabama Nature Heritage Program's NDD data (2011) lists a total of 16 federally threatened or endangered species that have the potential to occur in Mobile County, Alabama. The Alabama and Mississippi USFWS NDD (2011) lists one candidate species as well as one delisted species that has the potential to occur in both counties. Additionally the Alabama NDD (2011) lists one important state listed species. The attached Threatened and Endangered Species Report summarizes the habitat requirements, the potential for occurrence, and possible effects on these species. All currently listed candidate, threatened, or endangered species that are assigned the occurrence categories "known to occur" or "may occur" and which may be affected, are discussed in detail in Sections 3.4.1 through 3.4.13 of the attached Threatened and Endangered Species Report (Attachment D).

SWCA determined that six protected species may occur within the project area, including the bald eagle (Haliaeetus leucocephalus), the yellow-blotched map turtle (Graptemys flavimaculata), the eastern indigo snake (Drymarchon corais couperi), the black pine snake (Pituophis melanoleucus lodingi), the Gulf sturgeon (Acipenser oxyrinchus desotoi), and the iron color shiner (Notropis chaybacus). SWCA also determined that the gopher tortoise (Gopherus polyphemus) is likely to occur in the project area. Of these species, the bald eagle and the gopher tortoise are the most likely to occur in the project area and are discussed below.

SWCA biologists conducted a helicopter survey of the project area to identify the location of bald eagle nests near the Escatawpa River. According to the National Bald Eagle Management Guidelines published by the USFWS, oil and gas construction projects should be constructed no closer than 660 feet (0.125-mile) from bald eagle nests. No bald eagle nests were located within the Alabama portion of this project. It is SWCA's opinion that the proposed project may affect, but is likely to not adversely affect bald eagles. A second helicopter survey will be conducted in late December 2012 or early January 2013 to verify the project will not adversely affect this species.

SWCA Certified Gopher Tortoise Agent Eric Munscher (Permit # GTA-09-00286A) surveyed the entire 41-mile project route for the presence/absence of gopher tortoises. Mr. Munscher documented 254 burrows along the proposed route. Of the 254 burrows, 145 burrows are located within the 200' project corridor. Of the burrows located within the 200' survey corridor 109 were considered active.

A total of 174 burrows were documented within the Alabama portion of the project. Of the 174 burrows identified in Alabama, 74 were considered active. Due to Plains ability to narrow the ROW, the majority of these burrows have been avoided. Only five active burrows occur within the Alabama portion of the construction ROW.

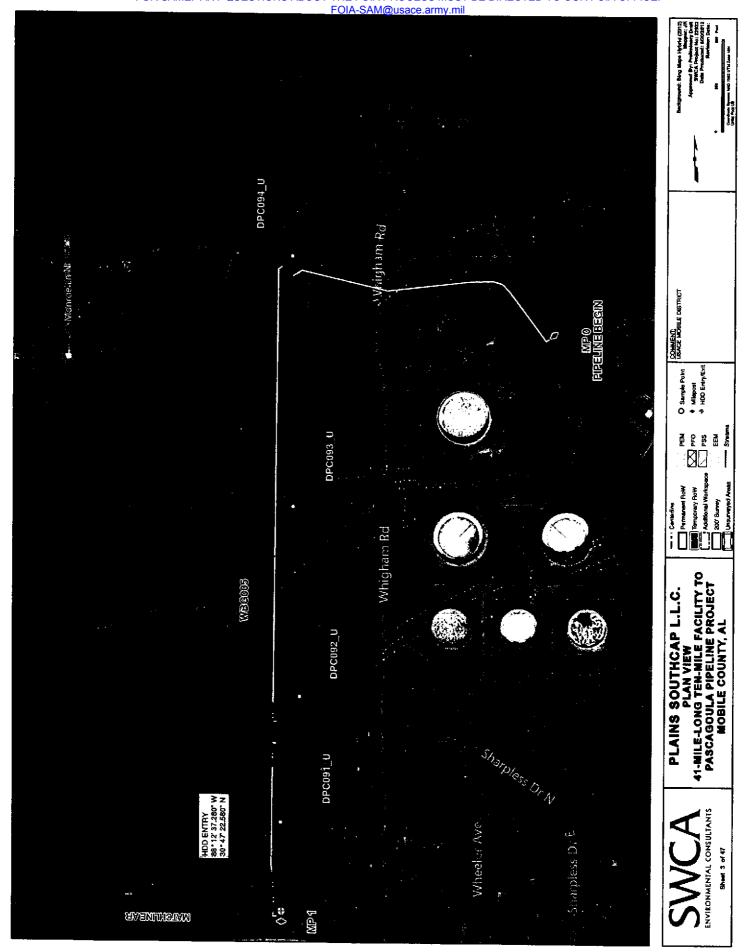
Please refer to the Threatened and Endangered Species Report in Attachment D for the results of the threatened and endangered species assessment, as well as recommended mitigation measures.

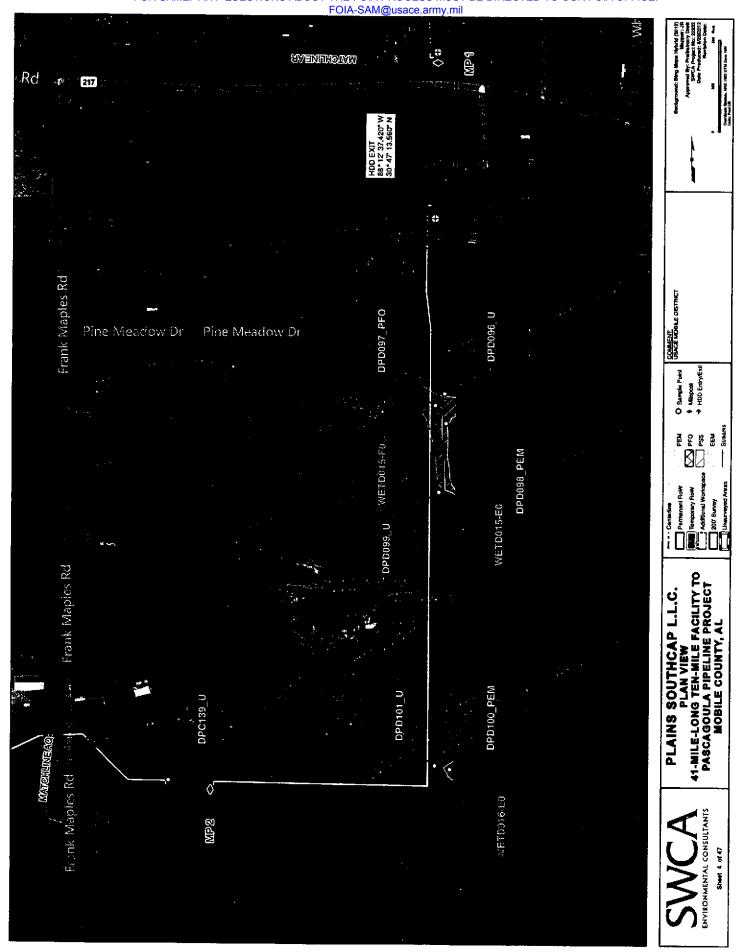
(7) Cultural and Historical Resources Review

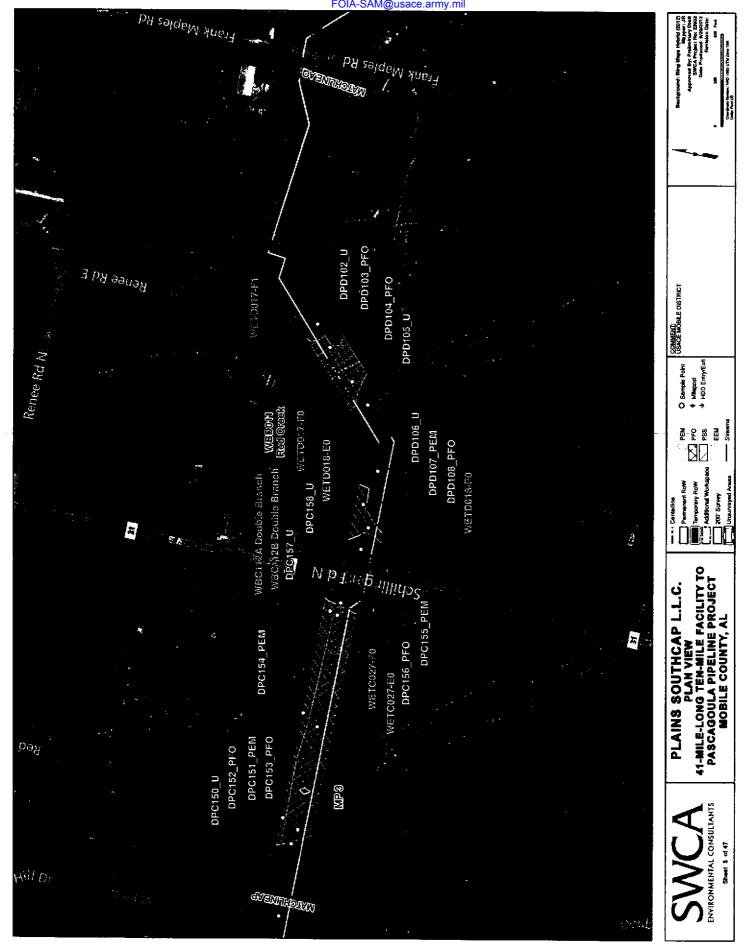
SWCA conducted a cultural resources survey for the project area. The results of this survey are provided in the attached Cultural Resources Report (Attachment E).

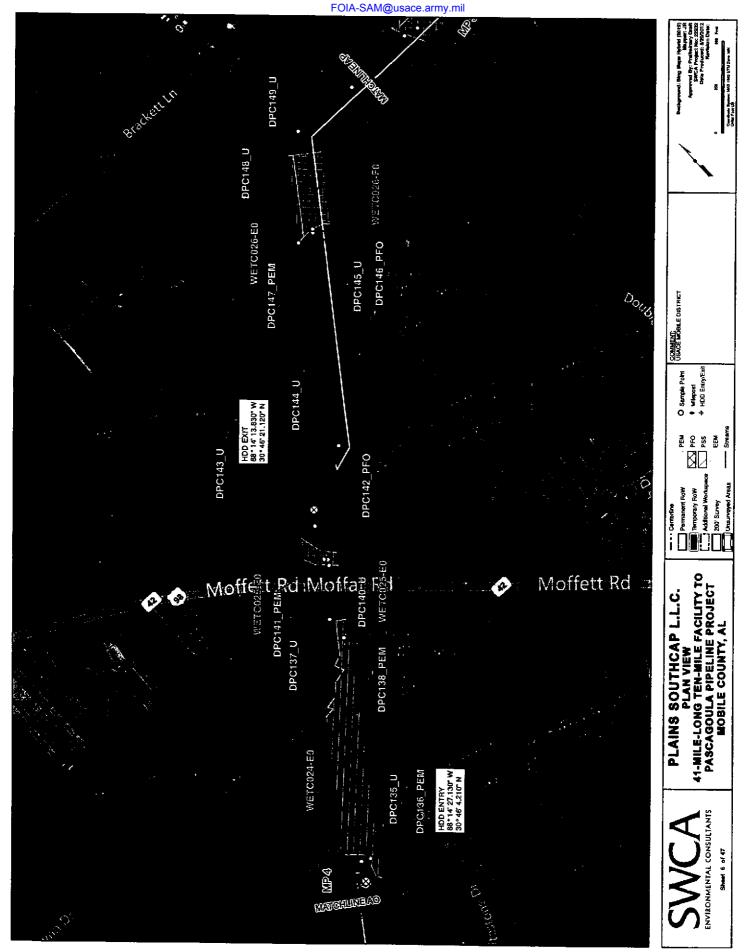
Attachment A

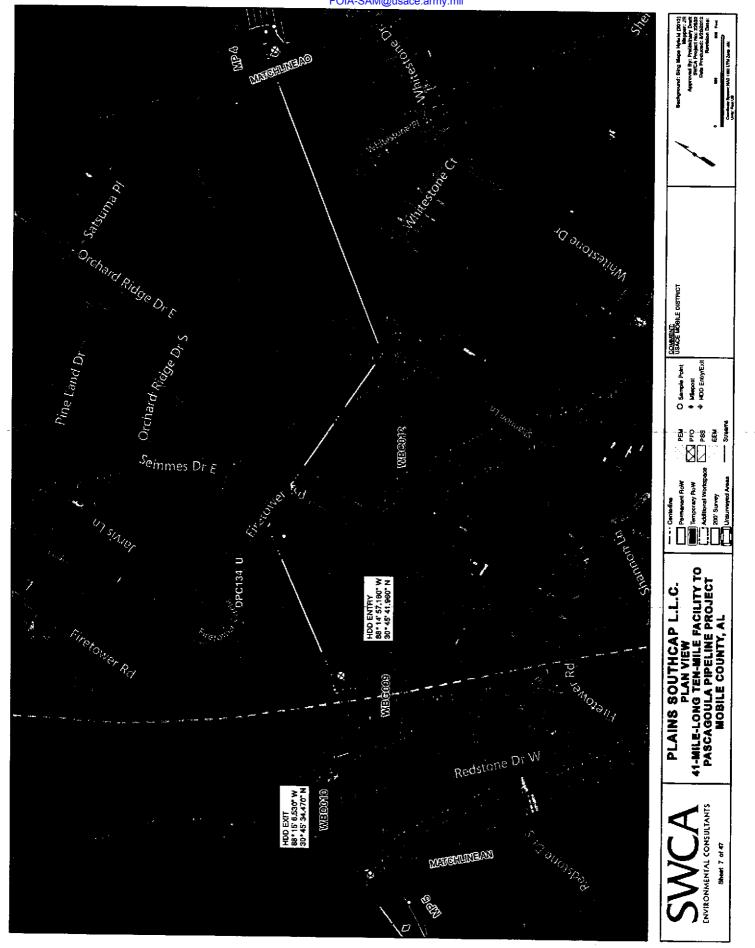
PCN Maps, Figures and Drawings

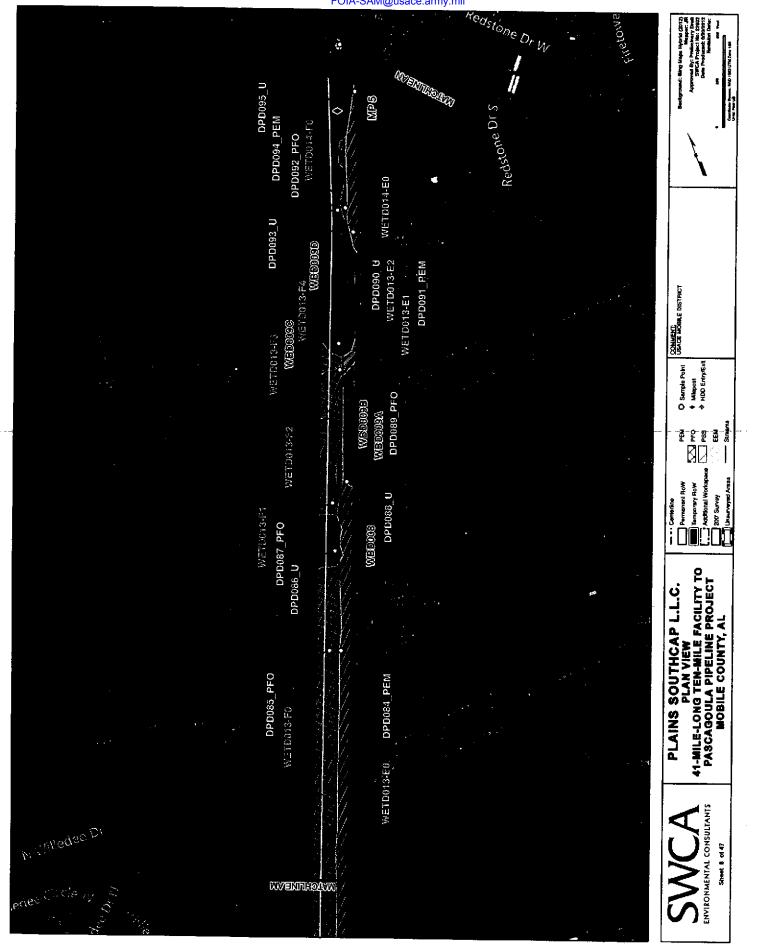


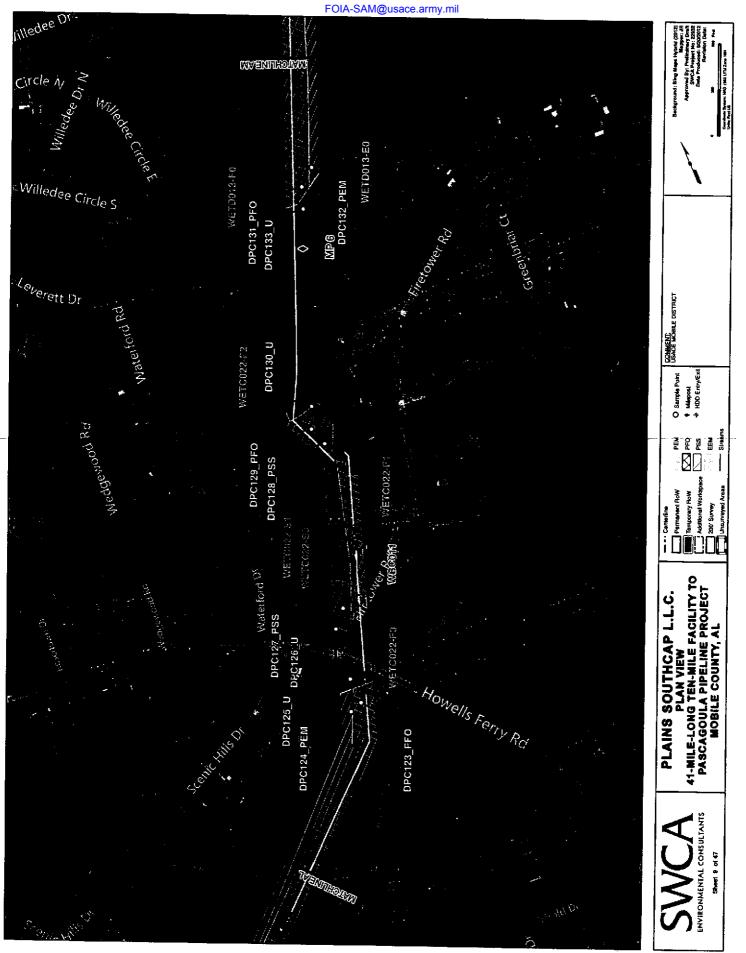


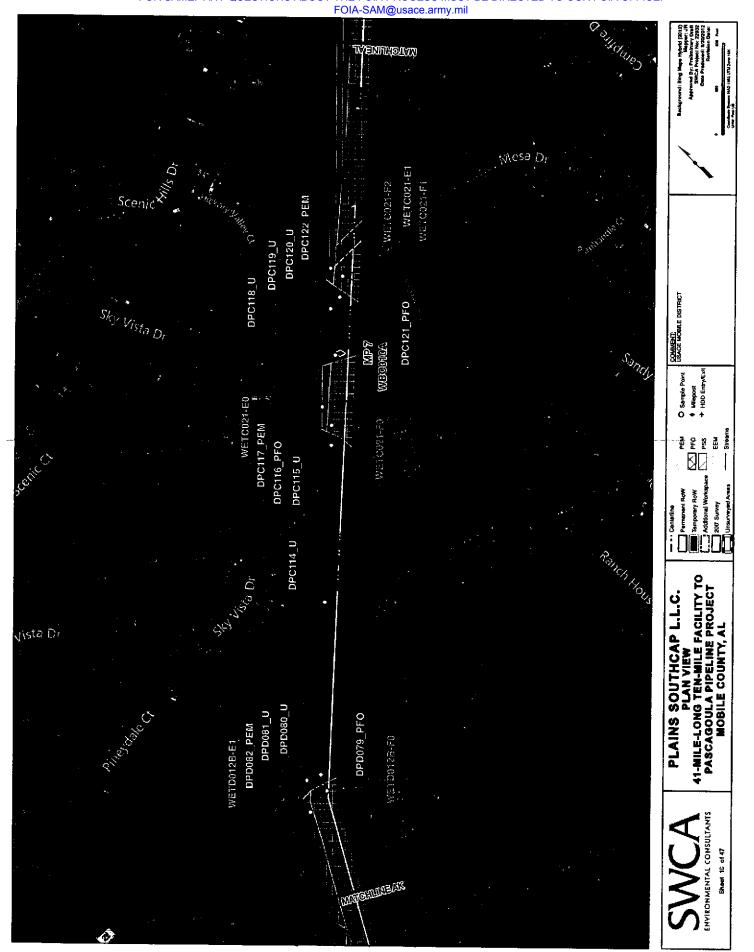


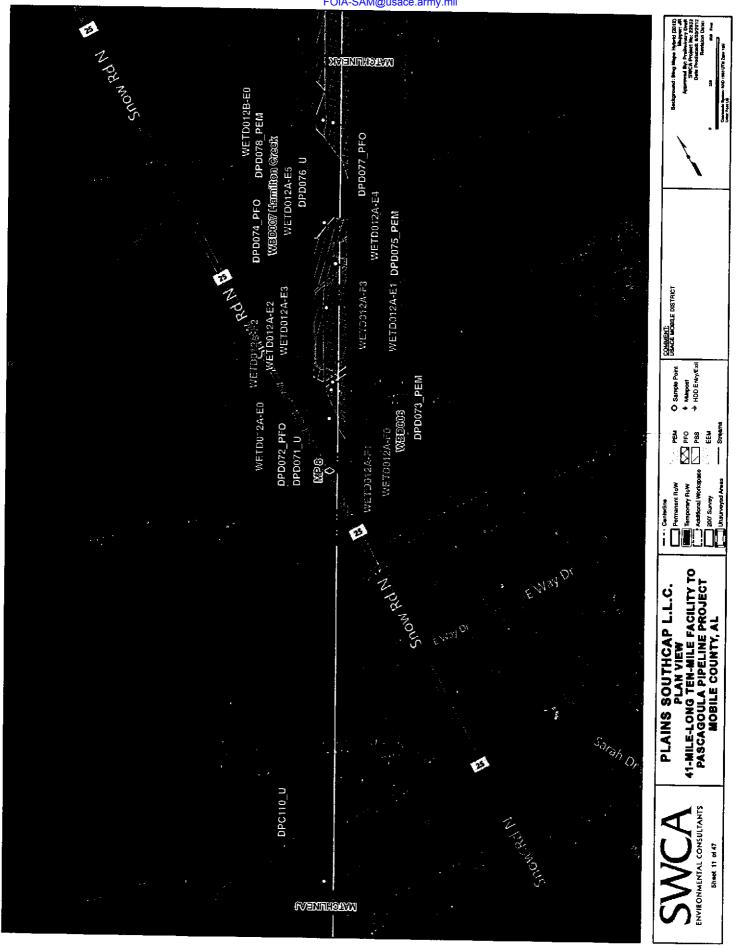


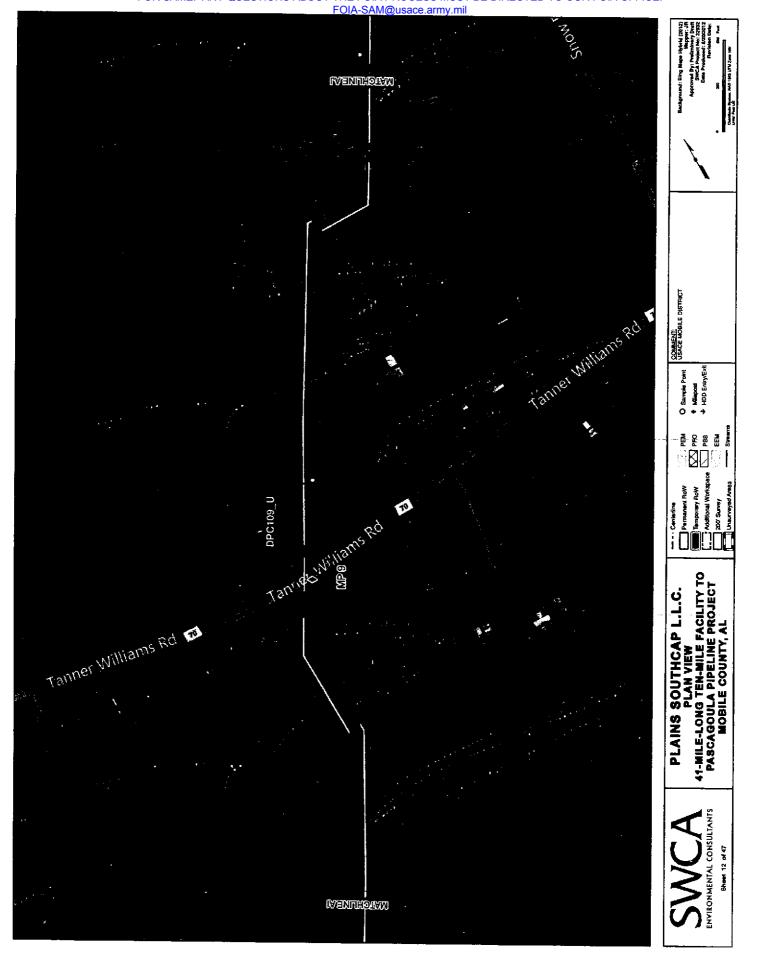


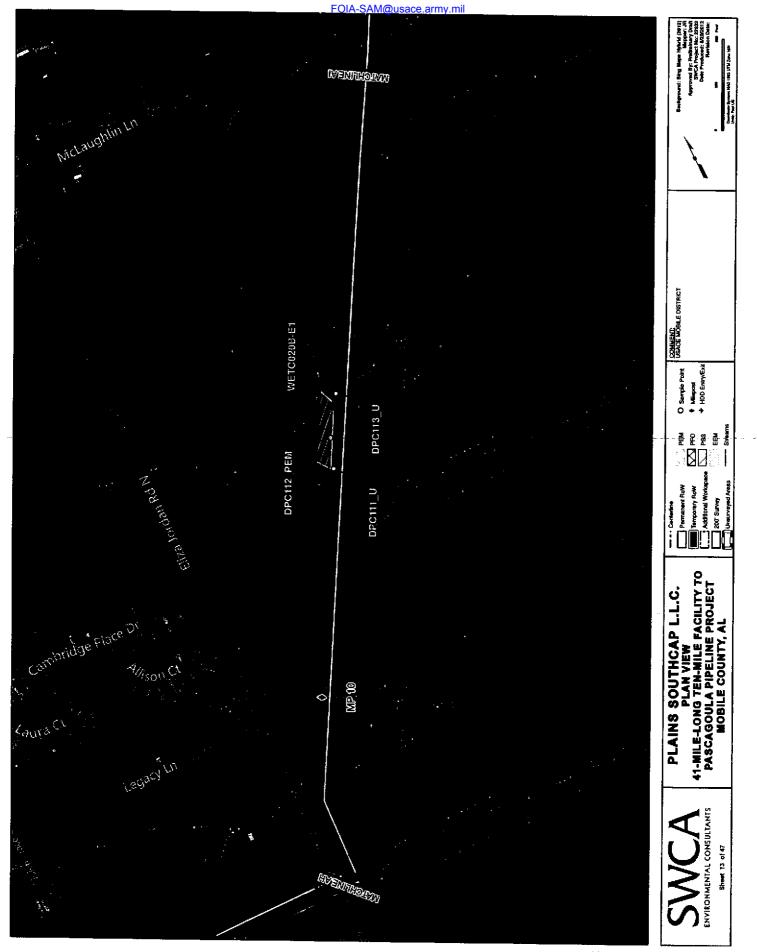


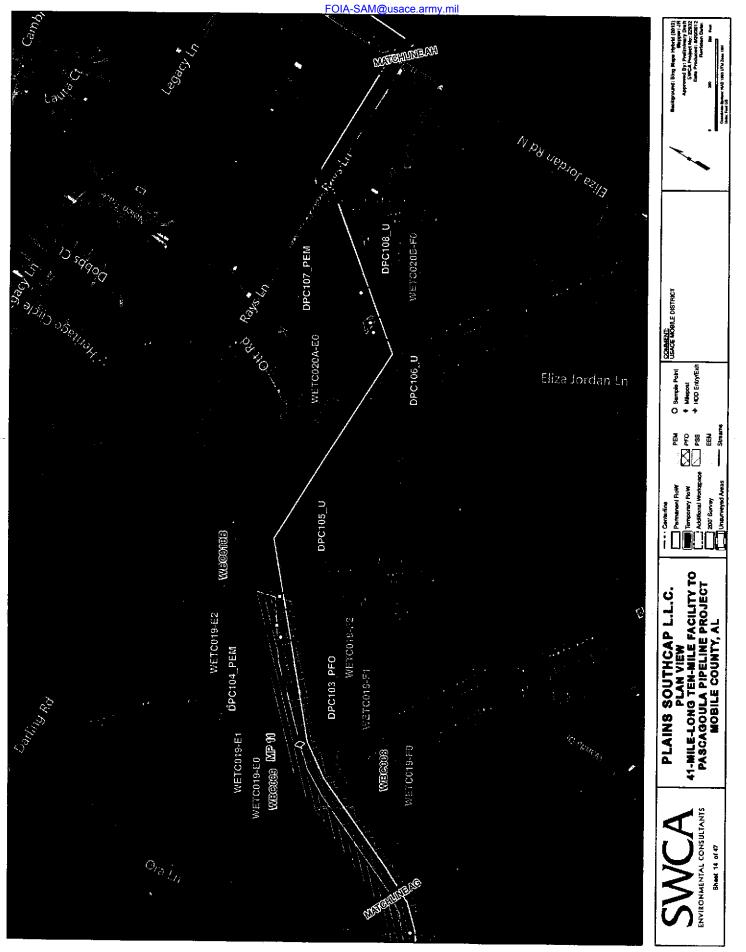


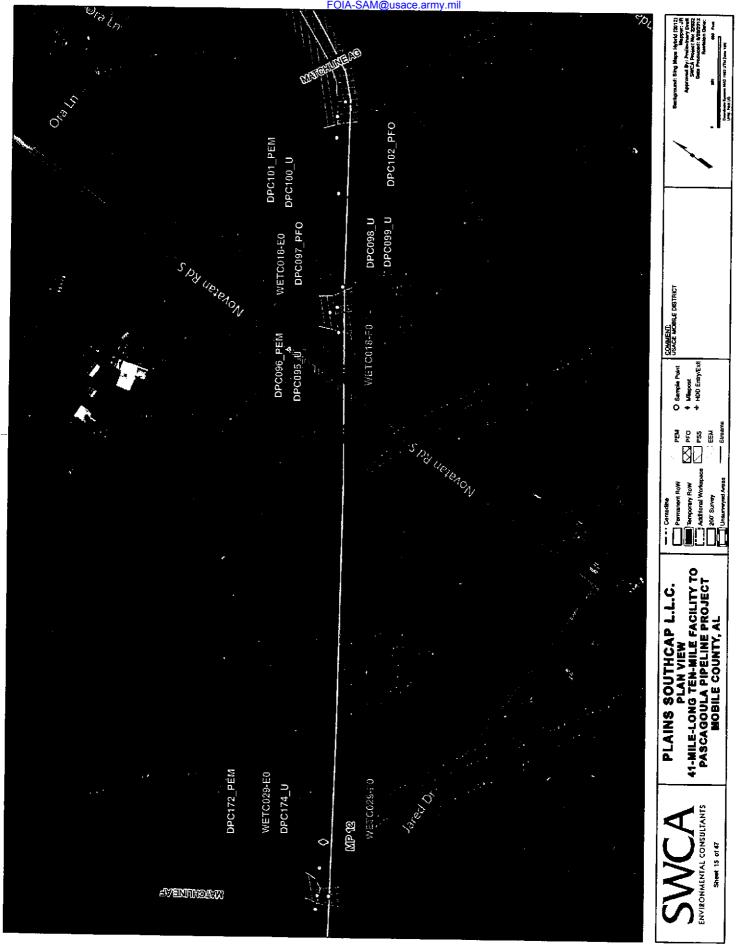


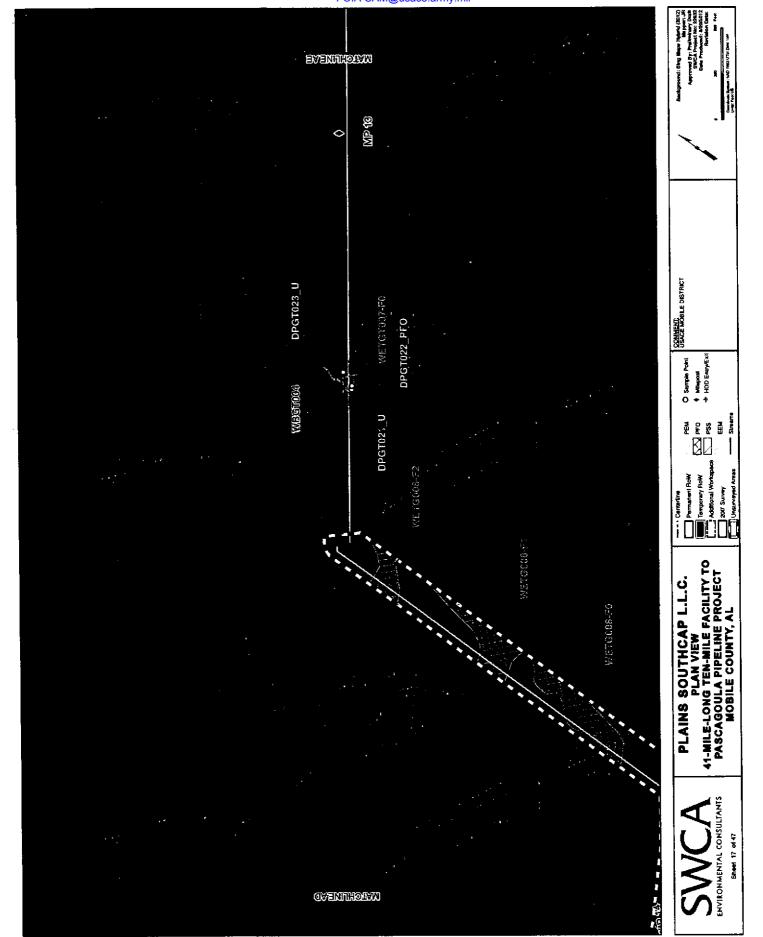


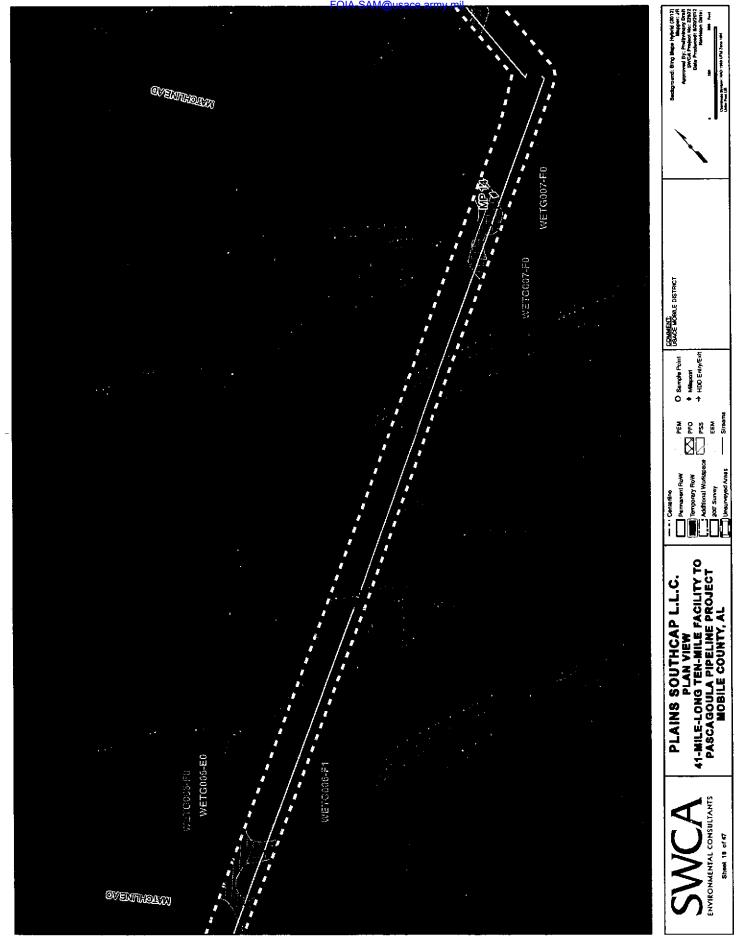


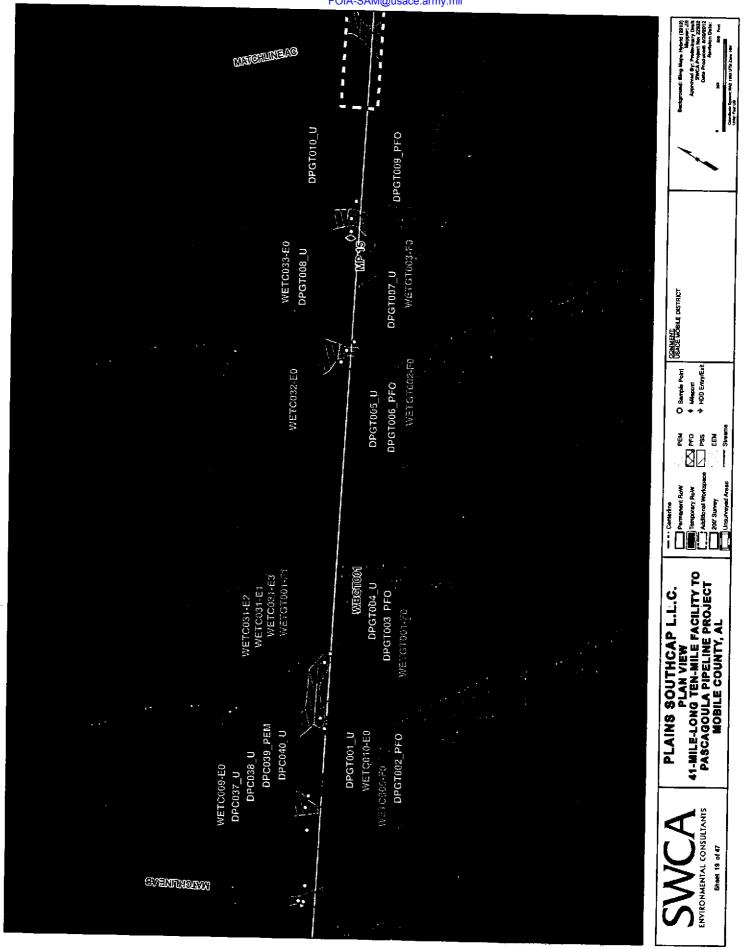


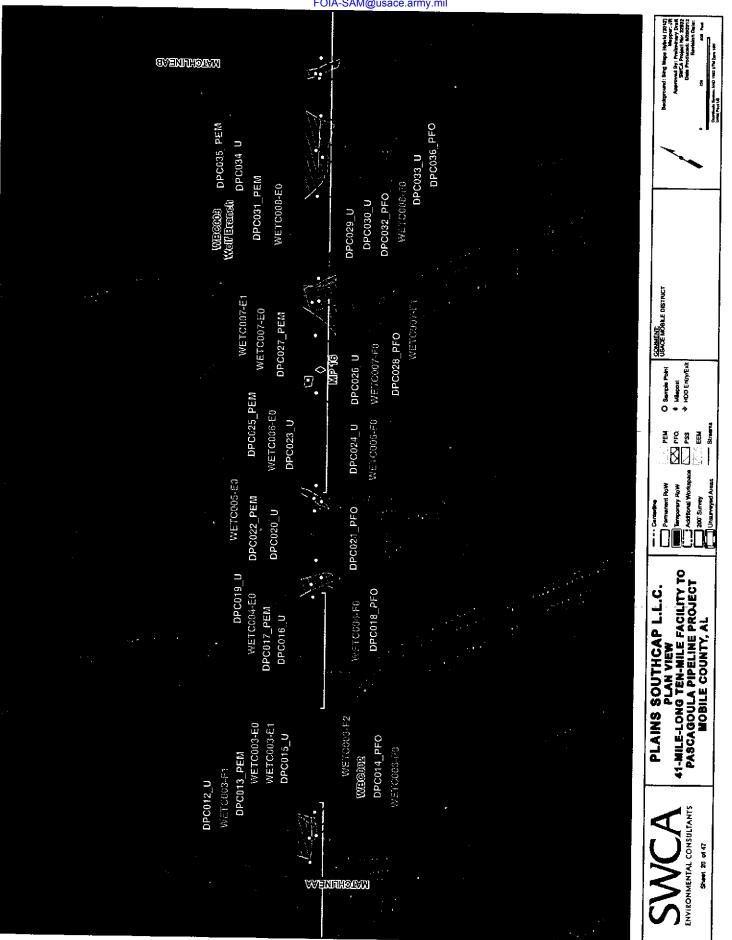


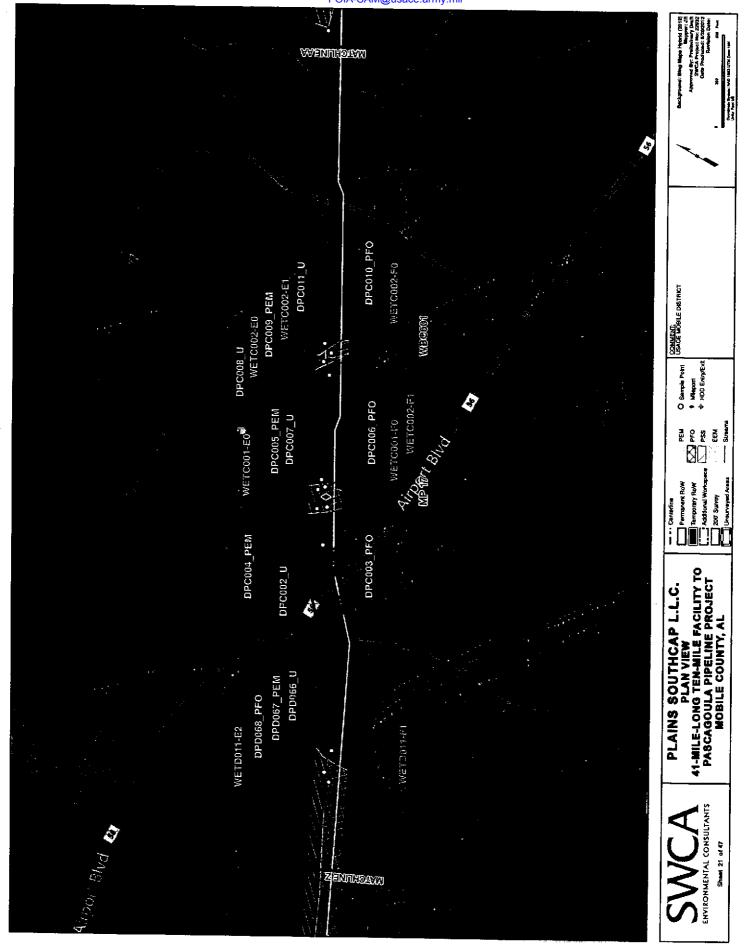


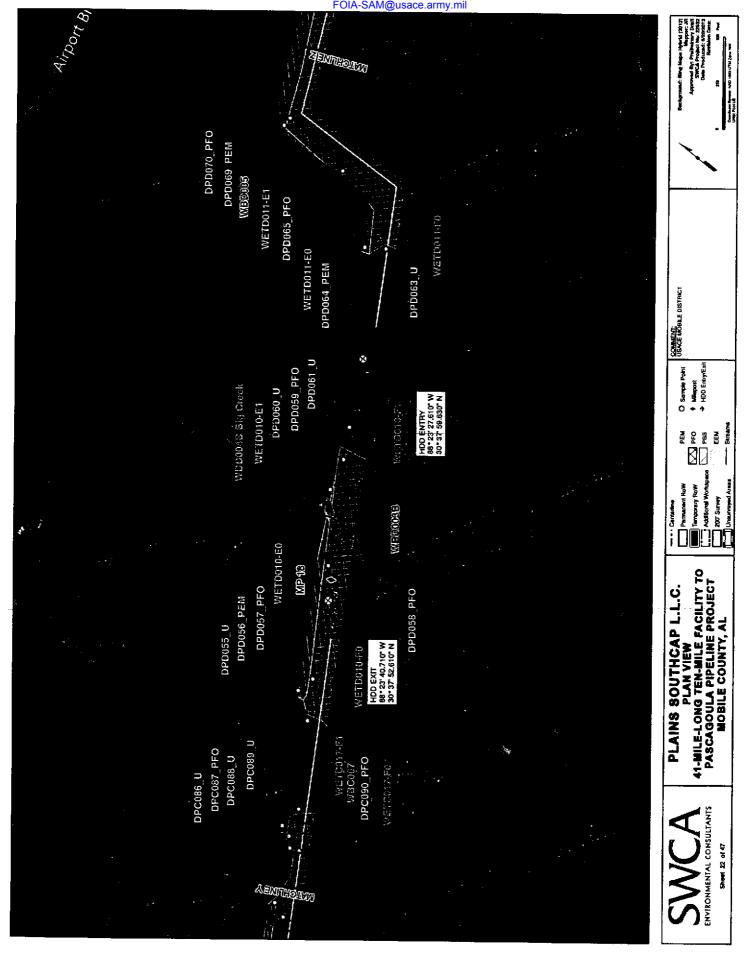


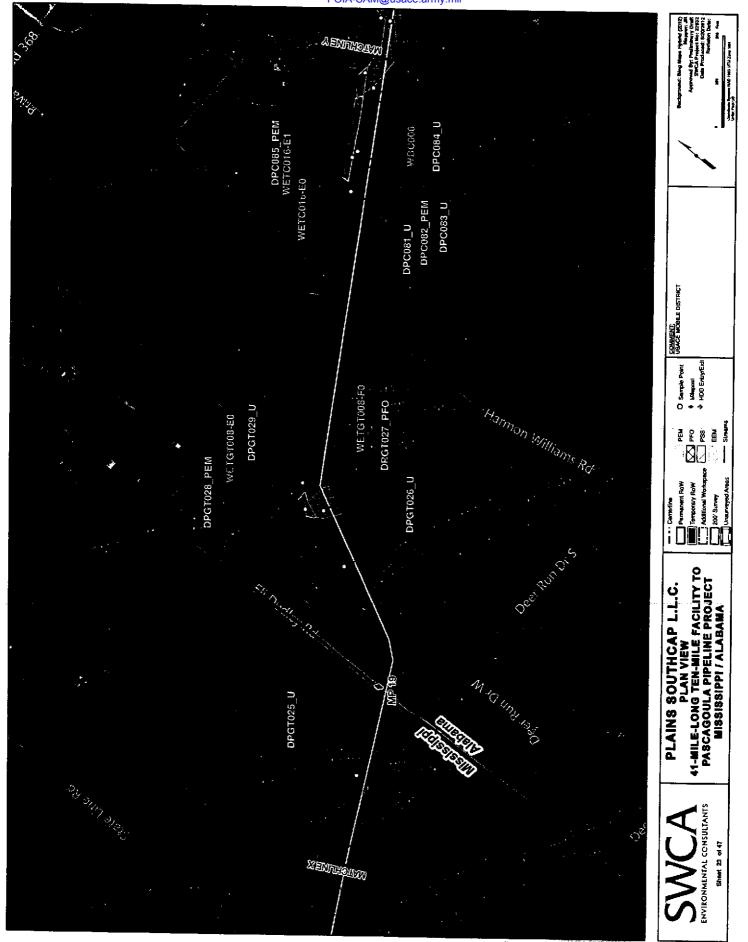












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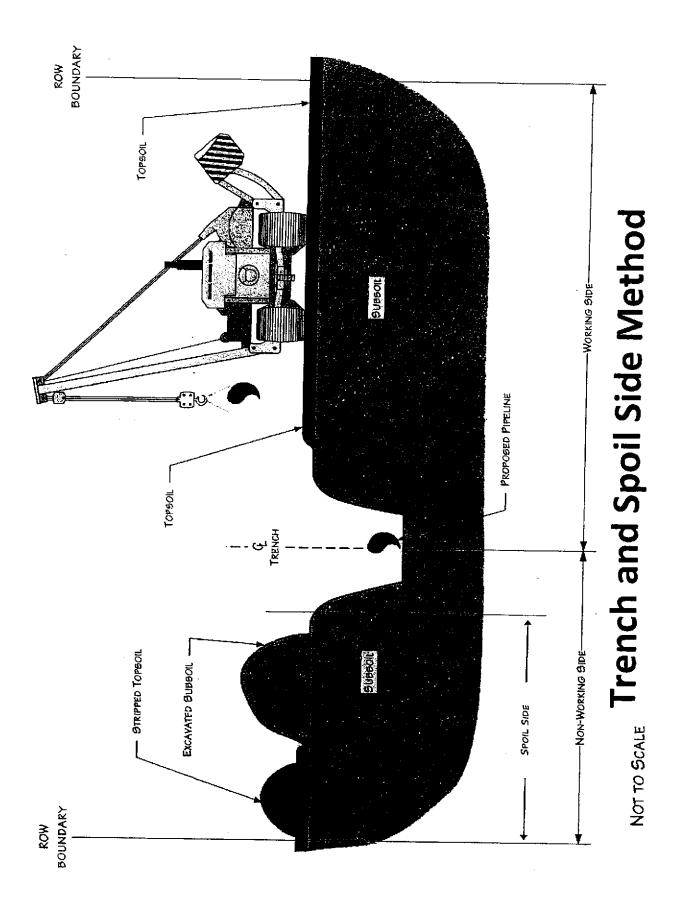
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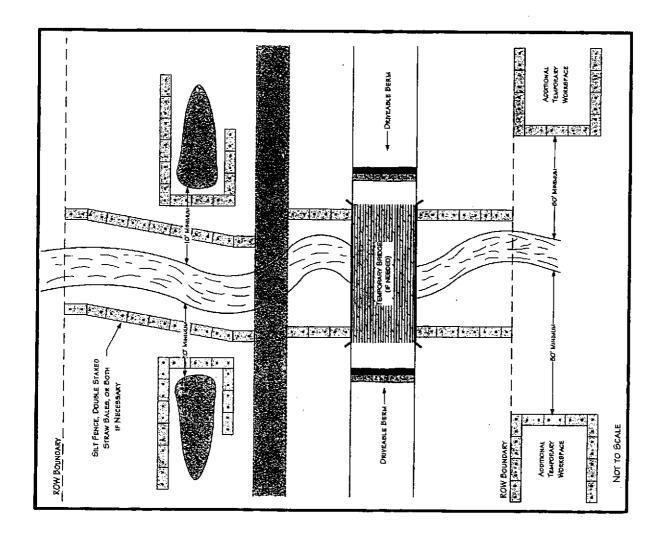
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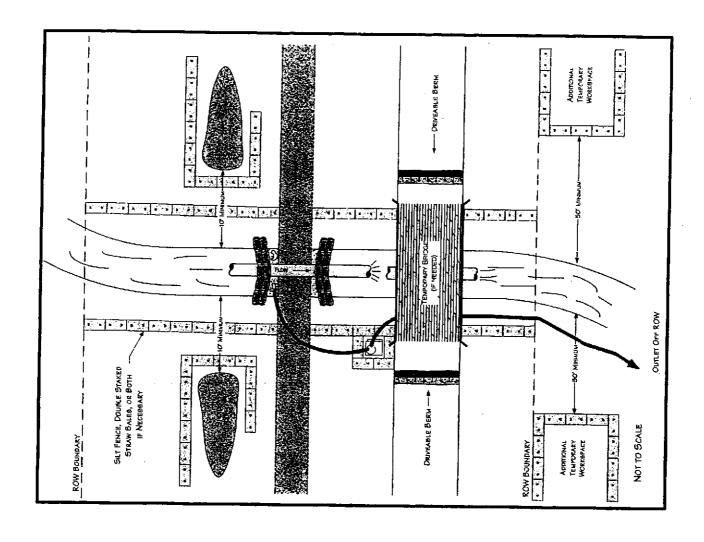
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AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE NUMBER OF THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAIME ANY QUESTIONS ABOUT THE PROCESS NUST BE WHEN CITED TO THE FOIA OFFICE. HORIZONAL DIRECTIONAL DISTRIBUTION PRINCIPLE PROPERTY PROPERTY PROPERTY PROPILE PLAN AND PROFILE COUNTY, ASSAURA OF THE PROPILE COUNTY, ASSAURANCE OF THE PROPILE COUNTY, ASSAURACE OF THE PROPILE COUNTY, ASSAUR LEAVE AND AND 100) CODH 57:1996 YAS 77 (BF)96 **©** Ta 29+258 Э A SCALE (M3AMDITY



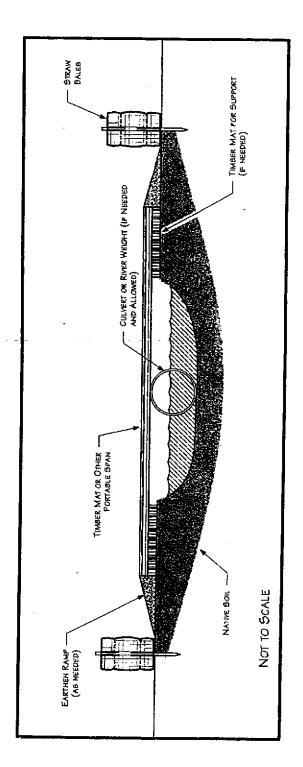


Open-Cut Waterbody Crossing Method



Flumed Waterbody Crossing Method

Equipment Bridge



Performance Criteria

- Design, construct, and maintain to
- Provide unrestricted flow
- Withstand and pass highest expected flows
 - Prevent soil from entering waterbody
- Align culverts to prevent bank erosion or streambed scour
- Install energy-dissipating devices downstream of culverts, if necessary

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. FOIA-SAM@usace.army.mil

Attachment B

Wetland Delineation Report



WETLAND DELINEATION REPORT

PLAINS SOUTHCAP, LLC 41-MILE TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

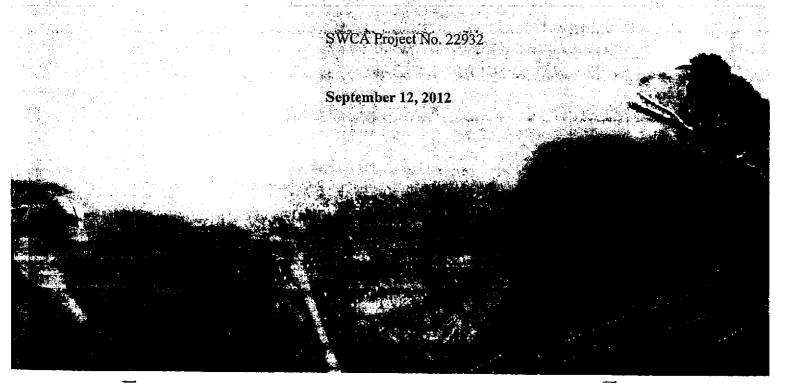
MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for:

Plains Southcap, LLC 333 Clay Street, Suite 1600 Houston, TX 77210-4648

Prepared by:

SWCA Environmental Consultants 7255 Langtry, Suite 100 Houston, Texas 77040



WETLAND DELINEATION REPORT PLAINS SOUTHCAP, LLC 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

MOBILE COUNTY, ALABMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for:

Plains Southcap, LLC 333 Clay Street, Suite 1600 (77002) Houston, TX 77210-4648

SWCA Project No. 22932

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Herpetologist
Houston Natural Resources

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September 9, 2012

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Appendices

Appendix A: Vicinity and Site Layout Maps Appendix B: Wetland Determination Data Forms

Appendix C: Photographic Log

Appendix D: Soil Map Unit Descriptions

Appendix E: Nationwide Permit 12 Conditions

1.0 INTRODUCTION

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete a wetland and waters delineation for approximately 41 miles of proposed 24-inch diameter crude oil pipeline. The project area begins at the Plains Southcap Ten-Mile Crude Oil Facility in Mobile County, Alabama located approximately 11 miles northwest of downtown Mobile and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula Refinery approximately one mile from the Gulf of Mexico (project route).

This wetland delineation includes the identification of areas likely to be considered jurisdictional "waters of the U.S.," as defined by Section 404 of the Clean Water Act (CWA) and regulated by the U.S. Army Corps of Engineers (USACE). "Waters of the U.S." include most wetlands, rivers, creeks, streams, lakes, tributaries, and so forth. Only the USACE has final and/or legal authority in determining the presence of jurisdictional "waters of the U.S." and the extent of their boundaries. This report provides a brief description of the methods utilized for SWCA's wetland delineation and results of the information collected from the on-site delineations conducted in April, May, and June 2012. Please refer to Figures 1 and 2 in Appendix A for the location and setting of the project route.

2.0 METHODS

SWCA conducted on-site wetland delineations along an approximate 41-mile proposed crude oil pipeline. The delineations were conducted in accordance with routine determination guidelines provided in both the USACE Wetland Delineation Manual (Manual) (USACE 1987) and the newly published Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Supplement) (USACE 2010). SWCA conducted wetland delineations within a 200-foot-wide survey corridor centered on a 75-foot-wide construction right-of-way (ROW) (project area). Two-person teams were utilized to complete the field work portion of this project.

2.1 Wetlands

According to both the Manual and Supplement, an area is a wetland if positive indicators for the three mandatory wetland criteria are identified in a given area, with special exceptions. These criteria include the presence of hydrophytic vegetation, wetland hydrology, and hydric soils. Identification of dominant vegetation species and their United States Fish and Wildlife Service (USFWS)-designated wetland indicator statuses dictates the presence of hydrophytic vegetation. Typically, a soil pit is dug to identify the presence of hydric soils. Inundation, saturation, and other physical indicators suggesting the presence of water may be used to determine wetland hydrology at each site. All wetlands mapped within the project area are shown on the map book found in **Appendix A**.

Biologists generally took two wetland data points and two upland data points for each wetland delineated along the 200-foot environmental survey corridor. Additional wetland data points were taken in wetlands displaying multiple wetland habitats. In select locations, a single upland data point may have been used to describe a series of upland ridges within a large wetland complex. Data points were generally taken in undisturbed areas, as close to the proposed centerline as possible. A soil pit was typically dug to a depth of approximately 20 inches at each data point to document the presence or absence of hydric soils.

Each data point identified within the proposed pipeline corridor was categorized as herbaceous upland, scrub-shrub upland, forested upland, palustrine emergent (PEM) wetland, palustrine scrub-shrub (PSS) wetland, palustrine forested (PFO) wetland, or estuarine emergent (EEM) wetland communities. Within each community, the vegetation was sub-divided into tree, sapling, shrub, herbaceous, and woody vine vegetative layers. All species within a 30-foot radius were recorded for each vegetative layer and their USFWS indicator statuses were included as well. USFWS indicator statuses include upland (UPL), facultative upland (FACU), facultative (FAC), facultative wetland (FACW), and obligate (OBL). A vegetative community was determined to be hydrophytic if greater than 50 percent of dominant species had an indicator status of FAC, FACW, or OBL. A data point was determined to have wetland hydrology if it displayed at least one primary hydrology indicator or if it displayed at least two notable secondary hydrology indicators as defined in the Supplement (USACE 2010). A data point was determined to have hydric soils if it displayed at least one significant hydric soil indicator as defined in the Supplement (USACE 2010).

Wetland Determination Data Forms (data sheets), which document the presence or absence of the three required wetland criteria, were completed for different vegetation communities along the proposed pipeline route. Data points represent areas of uniformity and allow comparisons between wetland and non-wetland areas. Refer to the data sheets located in **Appendix B** for detailed descriptions of each data point.

2.2 Waterbodies

Streams (i.e., creeks, rivers, etc.,) were identified by the presence of an ordinary high water mark (OHWM), usually identifiable by indicators such as the level of water present, scouring of the channel, or the presence of a vegetation line within the channel. The OHWM typically represents the outer limits of the waterbody's potential USACE jurisdictional limits.

Streams were classified as ephemeral, intermittent, or perennial based on field observations. According to the USACE, an ephemeral stream has flowing water only during, and for a short duration following precipitation events in a typical year and is not fed by groundwater. An intermittent stream has flowing water during times of the year when groundwater provides water for stream flow. Rainfall is supplemental to the stream flow. Perennial streams flow year round under normal hydrologic conditions and are primarily supplied by groundwater. Rainfall is supplemental to the stream flow. Common information recorded for streams included flow, OHWM, observed water, bank slope, substrate, and quality. All streams that occur within the project area are shown on the map book in **Appendix A**.

2.3 Mapping

SWCA used Trimble GeoXH 6000 series global positioning systems (GPS) to geographically reference features, such as data points and wetland boundaries, obtained during the field survey. These units typically have real-time and post-processed sub-meter accuracy. Geographic Information System (GIS) software was used to analyze collected features, calculate areas, and generate attached vicinity and site layout maps, located in **Appendix A**. Please note that all point, line, and polygon data collected using the GPS, and displayed on the attached maps, are for review purposes only and do not represent a professional civil survey.

3.0 RESULTS

3.1 Vegetation Communities

Seven vegetation communities were identified within the project area. Wetlands occurred as PEM, PSS, PFO, and EEM, and non-wetlands occur as herbaceous upland, scrub-shrub upland, and forested upland communities.

3.1.1 Wetland Vegetation

PEM Wetland: PEM wetlands occur throughout the project area and are found within existing maintained ROW. Common dominant herbaceous species within the PEM wetland communities include swamp smartweed (Polygnum hydropiperoides, OBL), pale pitcher plant (Sarracenia alata, OBL), crimson pitcher plant (Sarracenia leucophylla, OBL), parrot pitcher plant (Sarracenia psittacina, OBL), roundleaf sundew (Drosera rotundifolia, OBL), netted chainfern (Woodwardia areolata, OBL), Virginia chainfern (Woodwardia virginica, OBL), royal fern (Osmunda regalis, OBL), common rush (Juncus effusus, OBL), roundhead rush (Juncus validus, FACW), roundpod St. Johnswort (Hypericum cistifolium, FACW), St. Andrew's cross (Hypericum hypercoides, FAC), candyweed (Polygala lutea, FACW), low pinebarren milkwort (Polygala ramosa, OBL), largeflower milkweed (Asclepias connivens, OBL), Frank's sedge (Carex frankii, OBL), false hopsedge (Carex lupuliformis, OBL), whitehead bogbutton (Lachnocaulon anceps, OBL), foxtail clubmoss (Lycopodiella alopecuroides, OBL), broadleaved cattail (Typha latifolia, OBL), bushy broom grass (Andropogon glomeratus, FACW), cogon grass* (Imperata cylindrical, UPL), Carolina spider lily (Hymenocallis caroliniana, FACW), savannah meadowbeauty (Rhexia alifanus, FACW), creeping primrose willow (Ludwigia repens, OBL), floating primrose willow (Ludwigia peploides, OBL), velvet panicum (Dicanthelium scoparium, FACW), disk waterhyssop (Bacopa rotundifoloia, OBL), and anglestem beaksedge (Rhynchospora caduca, FACW). In occasional instances trees such as slash pine (Pinus elliottii, FACW), saplings such as red maple (Acer rubrum, OBL) and sweetbay (Magnolia virginiana, FACW), shrubs such as wax myrtle (Myrica cerifera, FAC) and swamp titi (Cyrilla racemiflora, FACW), or woody vines such as sawtooth blackberry (Rubus argutus, FAC) and coral greenbriar (Smilax walteri, OBL) were identified as minor components within PEM wetlands.

PSS Wetland: PSS wetlands occur within the project area and are found within the existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PSS wetland communities include swamp titi, buckwheat titi (Cliftonia monophylla, OBL), gall berry (Ilex glabra, FACW), large gallberry (Ilex coriacea, FACW), fetterbush (Lyonia lucida, FACW), swamp bay (Persea palustris, NI), eastern baccharis (Baccharis halimifolia, FACW), wax myrtle, sweetleaf (Symplocos tinctoria, FAC), highbush blueberry (Vaccinium corymbosum, FACW), pawpaw (Asimina triloba, FAC), and yaupon (Ilex vomitoria, FAC). In occasional instances trees, herbaceous species, or woody vines were identified as minor components within PSS wetlands. Tree species which occur in these instances include red maple, sweetgum (Liquidambar styraciflua, FAC), sweetbay, slash pine, Chinese tallow*(Triadica serbifera, FAC), laurel oak (Quercus laurifolia, FACW), and overcup

oak (Quercus lyrata, OBL), Common dominant herbaceous species which occur in these instances include bushy broom grass, netted chainfern, Virginia chainfern, royal fern, bogbutton, foxtail clubmoss, roundpod St. Johnswort, common rush, and Frank's sedge. Common dominate vine species observed inculded coral greenbriar, southern dewberry (Rubus trivialis, FAC), and Florida grape (Vitis cinerea, FACW).

PFO Wetland: PFO wetlands occur within the project area and are found within the existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PFO wetland communities include swamp tupelo (Nyssa biflora, OBL), tulip poplar (Liriodendron tulipifera, FAC), sweetbay, slash pine, bald cypress (Taxodium distichum, OBL), water oak (Quercus nigra, FAC), cherrybark oak (Quercus pagoda, FACW), overcup oak, laurel oak, swamp chestnut oak (Quercus michauxii, FACW), and boxelder (Acer negundo, FACW). On occasion, shrubs such as wax myrtle, swamp titi, sweetleaf, gallberry, and fetterbush dominated the understory. Woody vines such as sawtooth blackberry, coral greenbriar, and saw greenbriar (Smilax bona-nox, FAC) were identified as minor components within PFO wetlands.

<u>EEM Wetland</u>: EEM wetlands occur within the project area around the southern Escawtapa River crossing. The dominant vegetation within these communities include giant cut grass (Zizaniopsis miliacea, OBL), broadleaved cattail, California bulrush (Schoenoplectus californicus, OBL), and on occasion trees such as bald cypress and swamp tupelo.

3.1.2 Non-wetland Vegetation

Herbaceous Upland: Herbaceous upland communities occur throughout the project area and are found within existing maintained ROW. Common dominant herbaceous species within the herbaceous upland communities include Bermudagrass (Cynodon dactylon, FACU), Italian ryegrass (Lolium multiflorum, FACU), Canada goldenrod (Solidago canadensis, FACU), roundpod St. Johnswort, broom grass (Andropogon virginicus, FAC), candyroot (Polygala nana, FAC), heartwing sorrel (Rumex hastatulus, FAC), cogon grass*, poverty rush (Juncus tenuis, FAC), slender crab grass (Digitaria filiformis, UPL), tapered rosette grass (Dichanthelium acuminatum, FAC), cuman ragweed (Ambrosia psilostachya, FAC), perennial rye grass (Lolium perenne, FACU), romerillo (Bidens alba, UPL), and American beauty berry (Callicarpa americana, UPL). In occasional instances trees, saplings, shrubs, or woody vines were identified as minor components of herbaceous uplands. Common dominant tree, sapling, shrub or vine species which occur in these instances include red maple, slash pine, long leaf pine (Pinus palustris, UPL), sweetbay, Chinese tallow*, dwarf live oak (Quercus minima), American holly (Ilex opaca, FAC), and saw greenbriar.

Scrub-Shrub Upland: Scrub-shrub upland communities occur throughout the project area and are mostly found along the edges of existing maintained ROW. Common dominant sapling or shrub species within scrub-shrub upland communities include yaupon, fetterbush, gallberry, swamp titi, eastern sweet shrub (Calycanthus floridus, FACU), swamp bay, wax myrtle, American holly, slash pine, and highbush blueberry. In occasional instances trees, herbaceous species, or woody vines which were identified as minor components in scrub-shrub uplands include longleaf pine,

southern magnolia (Magnolia grandiflora, UPL), dwarf live oak, red maple, and herbaceous species such as American beauty berry, broom grass, saw palmetto (Serenoa repens, FACU), and man of the Earth (Ipomoea pandurata, FACU) were also identified.

Forested Upland: Forested upland communities occur throughout forested portions of the project area and along the edge of the existing maintained ROW. Common dominant tree or sapling species within the forested upland communities include slash pine, longleaf pine, southern magnolia, sweetbay, tulip poplar, dwarf live oak, water oak, and laurel oak. In occasional instances shrubs, herbaceous species, or woody vines were identified as minor components of forested uplands. Common dominant shrub species which occur in these instances include fetterbush, gallberry, yaupon, and eastern sweetbush. Common herbaceous plants included western bracken fern (*Pteridium aquilinum*, FACU), cogon grass*, broom grass, American beauty berry, St. Andrew's cross and Bermudagrass.

Refer to the data sheets presented in **Appendix B** for specific vegetation species recorded at each data point. Refer to the photographic log in **Appendix C** for a pictorial representation of vegetation communities within the survey corridor. Several exotic species were encountered during the field survey. An asterisk (*) symbol indicates the exotics species identified.

3.2 Hydrology

Wetland communities observed during the delineation effort typically displayed primary hydrology indicators such as inundation, soil saturation in the upper 12 inches, watermarks, water stained leaves, sphagnum moss, root buttressing or hummocks, adventitious roots, and sediment deposits indicative of wetlands. Less common primary hydrology indicators as well as multiple secondary hydrology indicators were also observed in the wetland communities. Refer to the data sheets presented in **Appendix B** for specific hydrology data recorded at each data point.

Alabama and Mississippi received less than average rainfall over the past several months. According to the National Weather Service (NWS)/National Oceanic and Atmospheric Administration (NOAA) NOWData for the Mobile Regional Airport recording location, which is approximately mid-way along the proposed project route, the project area was deficient in rainfall before and during the field delineation effort. **Table 1** shows the recorded and normal rainfall amounts per month.

Table 1. Monthly Recorded Rainfall at the NWS/NOAA Mobile Alabama recording station.

Month	Recorded Rainfall (inches)	Normal Rainfall (inches)	Departure from Normal (inches)
December 2011	1.88	5.06	-3.18
January 2012	2.24	5.65	-3.41
February 2012	7.25	5.12	+2.13
March 2012	6.69	6.14	+0.55
April 2012	2.51	4.79	-2.28
May 2012	7.82	5.14	+2.68
June 2 nd 2012	0.35	0.37	-0.02
Total	28.74	32.27	-3.53

3.3 Soils

Wetland communities displayed hydric soil indicators as described in the Supplement (USACE 2010) such as depleted matrix, 5 cm mucky mineral, hydrogen sulfide, and histic epipedon. Upland communities either failed to display hydric soil indicators or they displayed hydric soils, but failed to meet vegetation and/or hydrology criteria. Refer to **Appendix B** for specific soil data recorded at each data point.

According to the Natural Resource Conservation Service Soil Surveys for Mobile County, Alabama and Jackson County, Mississippi, 51 soil map units are present within the proposed project area (NRCS 2012). Seventeen of the 51 soil map units are hydric (USDA 2012). A list of the 51 soil series along with official soil series descriptions and hydric soil statuses can be found in **Appendix D**.

3.4 Wetlands

The wetland delineation identified 262 wetlands including 109 PEM, 22 PSS, 129 PFO, and two EEM within the project area. The vast majority of these wetland crossings had transitional zones where the wetland transitioned from one wetland cover type to another. Some of these wetland crossings were complex, transitioning multiple times within the survey corridor. To gather crossing lengths and acreages by wetland type, we devised a naming system to name each transitional zone within each wetland; for example the label [WETA003-E0], the 003 indicates the third wetland that Team-A mapped; E0-indicates the first emergent wetland that Team-A mapped within this wetland complex. Another such example, the label WETA003-F1 indicates the second forested wetland that Team-A mapped within this third wetland. Refer to the maps located in Appendix A for all wetland boundaries and supporting data points. Refer to the data sheets in Appendix B for specific characteristics of each wetland such as vegetation, soils, and hydrology observed. The wetland ID, type, centerline crossing length, and temporary, permanent, and horizontal directional drill (HDD) easement acreages are provided in Table 2 below.

Table 2. Wetland Data

Wetland ID	Туре	Centerline Crossing Length	50-foot Permanent	25-foot Temporary	Impacts Avoided by	Map & Book
WITTAGO FO	DED 6	(feet)	Easement (ac)	Easement (ac)	HDD (ac) ¹	Page #
WETA002-E0	PEM		<u>-</u>	-	<u>-</u>	47
WETA002-F0	PFO	1590.8	1.890	0.817	<u>-</u>	46-47
WETA002-S0	PSS	468.9	0.529	0.031		47
WETA003-E0	PEM	83.6	0.096	0.253	-	46-47
WETA003-E1	РЕМ	3020.6	3.190	0.472		44-46
WETA003-F0	PFO	2306.7	2.649	1.163	-	46
WETA003-F1	PFO	19.5	0.022	0.003	-	46
WETA003-F2	PFO	1636.0	1.513	0.938	<u> </u>	45-46
WETA003-F3	PFO	1921.2	1.789	1.101	-	45
WETA003-F4	PFO	44.4	0.049	0.028	-	45
WETA003-F5	PFO	1175.9	1.351	0.675	-	44-45
WETA003-F6	PFO	340.8	1.474	1.337	-	44
WETA003-F7	PFO	994.3	1.127	0.654		43-44
WETA003-S0	PSS	1827.3	2.095	1.039		45-46
WETA005-E0	PEM	599.7	0.634	0.203	0.035	43-44
WETA005-F0	PFO	366.8	0.446	0.255	-	43-44
WETA005-F1	PFO	370.7	0.547	0.336	-	43
WETA005-F2	PFO	501.6	0.518	0.064	-	43
WETA005-F3	PFO	784.8	0.522	0.311	0.309	43
WETA006-E0	PEM	_	-	-	0.000	43
WETA006-F0	PFO	63.9	•		0.074	43
WETA007-E0	PEM	275.3	0.316	0.164		42
WETA007-F0	PFO	226.9	0.261	0.129	-	42
WETA008-E0	PEM	121.0	0.173	0.069	-	42
WETA008-F0	PFO	96.0	0.093	0.022	-	42
WETA009-E0	PEM	419.1	0.484	0.241	_	40-41
WETA010-E0	PEM	875.8	•	-	1.050	40
WETA010-E1	PEM	-	-	-	0.056	40
WETA010-F0	PFO	43.4	-	-	0.037	40
WETA010-S0	PSS	56.1	-	-	0.050	40
WETA010-S1	PSS	366.8	-	-	0.360	40
WETA011-E0	PEM	5.5	0.011		3.550	40
WETA011-F0	PFO	103.6	0.139	0.045		40
WETA012-E0	РЕМ	261.1	0.302	0.095		40
WETA013-E0	PEM	232.7	0.270	0.123		39-40
WETA013-F0	PFO	119.6	0.140	0.056		39-40
WETA014-E0	PEM	-	-	-		39

Table 2. Wetland Data Continued

Wetland ID	Туре	Centerline Crossing length	50-foot Permanent		Impacts Avoided by	Map Book
WETA015-E0	PEM	(feet) 120.8	Easement (ac)	Easement (ac)	HDD (ac) ¹	Page #
WETA015-E0	PFO	91.3	0.184 0.092	0.032	-	39
WETA016-E0	PEM	137.0		0.066	-	39
WETA016-F0	PFO	165.9	0.362	0.000	-	38-39
WETA017-E0	PEM	48.4	0.114	0.121	-	38-39
WETA017-E0	PFO	219.9	0.054	0.041	-	38
WETA018-E0	PEM		0.253	0.111	•	38
WETA019-E0	PEM	157.0	0.189	0.061	-	38
WETA019-E0	PFO	225.0	0.005	-	-	38
		925.9	0.849	0.588	-	38
WETA020-E0	PEM	38.8	0.047	0.022	-	37-38
WETA020-F0	PFO	278.7	0.319	0.158		37-38
WETA021-F0	PFO	212.1	0.241	0.129		37
WETA022-E0	PEM	103.4	0.119	0.057		36
WETA022-E1	РЕМ	445.4	0.561	0.246	<u>-</u>	36
WETA022-F0	PFO	1312.0	1.509	0.741	-	36
WETA022-F1	PFO	291.1	0.325	0.137	-	36
WETA022-S0	PSS	91.3	0.104	0.050	-	36
WETA023-F0	PFO	154.4	0.181	0.091	-	36
WETA023-F1	PFO	325.1	0.377	0.141	-	36
WETA024-F0	PFO	89.0	-	-	0.156	35
WETA024-F1	PFO	197.7	_	-	0.332	35
WETA024-F2	PFO	213.8	-	-	0.326	35
WETA024-F3	PFO	14.9	-	-	0.054	35
WETA025-F0	PFO	1882.6	2.161	1.079	-	32
WETA026-F0	PFO	1452.1	1.676	0.825	-	31-32
WETA026-F1	PFO	113.0	0.106	0.080		31-32
WETB003-E0	PEM		0.287	-	-	28
WETB003-F0	PFO	773.9	0.585	0.481		28
WETB004-E0	PEM		-	-		28
WETB004-E1	PEM	-		-	_	28
WETB004-E2	PEM	-	-	-	-	28
WETB004-E3	РЕМ	-	-		0.002	28
WETB004-E4	РЕМ	-		-	0.000	28
WETB004-E5	PEM	-	-	-	0.008	28
WETB004-F0	PFO	1039.0	_	-	1.179	28-29
WETB004-F1	PFO	52.0	-		0.055	28
WETB004-F2	PFO	27.0	-	-	0.041	28
WETB004-F3	PFO	60.5	-	-	0.059	28
WETB004-F4	PFO	80.1	-	·	0.089	28

Table 2. Wetland Data Continued

Wetland ID	Туре	Centerline Crossing Length		25-foot Temporary	Impacts Avoided by	Map Book
WETB005-E0	PEM	(feet)	Easement (ac)	Easement (ac)	. HDD (ac) ¹	Page #
WETB005-E0	PSS	240.0	-	<u> </u>	0.018	28-29
WETB005-50	PEM	349.9	-	-	0.369	28-29
WETB006-F0	PFO		-		-	29
WETB007-E0	PEM	99.1	0.101	0.070	-	29
WETB007-S0	PSS	- · · · · - · · · · · · · · · · · · · ·	0.014	0.005		29
WETB007-50	PEM	506.3	0.581	0.290	-	29
WETB008-F0	PFO	2120.0	0.034		0.268	25-26
WETB009-E0		3138.8	1.646	0.856	1.653	25-26
WETB009-E0 WETB009-F0	PEM	-	0.025	-	<u>-</u>	24-25
WETC001-E0	PFO	328.7	0.358	0.169		24-25
	PEM		0.002	<u>-</u>		21
WETC001-F0	PFO	154.8	0.175	0.077		21
WETC002-E0	PEM	<u> </u>			-	21
WETC002-E1	PEM	-	-			21
WETC002-F0	PFO	66.0	0.070	0.045	-	21
WETC002-F1	PFO	21.7	0.029	0.007		21
WETC003-E0	PEM	-	0.057	-	-	20-21
WETC003-E1	PEM		0.008	-	_	20
WETC003-F0	PFO	-		0.001	-	30
WETC003-F1	PFO	62.0	0.056	0.002	_	20-21
WETC003-F2	PFO	45.9	0.025	-	-	20
WETC004-E0	PEM	<u>-</u>	0.007	-		20
WETC004-F0	PFO	71.2	0.075	-	-	20
WETC005-E0	PEM		0.014	-		20
WETC005-F0	PFO	45.2	0.035	-	-	20
WETC006-E0	PEM			-		20
WETC007-E0	PEM	-	0.005	-		20
WETC007-E1	PEM		-	_		20
WETC007-F0	PFO	179.3	0.195	0.119		20
WETC007-F1	PFO	13.3	110.0	0.015		20
WETC008-E0	PEM	-	0.063	-	<u> </u>	20
WETC008-F0	PFO	328.7	0.327	0.087		20
WETC009-E0	PEM	-	0.003	-		19-20
WETC009-F0	PFO	42.3	0.045	0.025		19-20
WETC010-E0	PEM	57.0	0.071	0.009		19-20
WETC011-S0	PSS	-	-	0.001		35
WETC011-SI	PSS	3309.6	3.799	1.901		35
WETC011-S2	PSS	748.7	0.854	0.410		34
WETC012-E0	PEM	464.1	1.900			33-34

Table 2. Wetland Data Continued

Wetland ID	Туре	Centerline Crossing Length (feet)	50-foot Permanent	25-foot Temporary	Impacts Avoided by	Map Bok
WETC012-S0	PSS	3023.6	Easement (ac)	Easement (ac)	HDD (ac)1	Page #
WETC012-SI	PSS		2.111	2.003	-	33-34
WETC013A-E0	PEM	-		-	•	33-34
WETC013A-E0	PFO	111.2	0.006	-		33
WETC013B-EI	PEM	111.2	0.113	0.010	-	33
WETC013B-S0	PSS	1027.2	0.184	-	-	33
WETC014-E0	PEM	1233.3	1.230	0.704	·	33
WETC014-E0	PEM	121.4	0.044	<u> </u>		32-33
WETC015-E1	PEM	160.7	0.104	-	-	32
WETC015-F0	PFO		0.103	<u> </u>		32
WETC015-F1	PFO	11.1	0.091	0.044	-	32
WETC015-F1	PEM	89.3	0.136	0.128		32
WETC016-EI	PEM	-	-	<u> </u>		22-23
WETC017-F0		200.4	-			22-23
WETC017-F0	PFO	268.4	0.332	0.221		22-23
	PFO	128.5	0.141	0.079	-	22
WETCO18-E0	PEM			<u>-</u>	-	15
WETC018-F0	PFO.	194.3	0.143	0.124		15
WETC019-E0	PEM	-	0.255		_	14-15
WETC019-E1	PEM	73.1	0.340	-	-	14
WETC019-E2	PEM	0.3	0.032	•	-	14
WETC019-F0	PFO	911.6	0.794	0.521		14-15
WETC019-F1	PFO	1071.6	0.978	0.631	-	14
WETC019-F2	PFO	73.6	0.046	0.062	-	14
WETC020A-E0	PEM	-	0.023	<u>-</u>		14
WETC020B-E1	PEM		0.071		-	13
WETC020B-F0	PFO	43.0	0.025	0.001	-	14
WETC021-E0	PEM	-	-	-	-	10
WETC021-E1	PEM	112.6	0.213	0.065	-	9-10
WETC021-F0	PFO	413.9	0.471	0.254	-	10
WETC021-F1	PFO	191.0	0.209	0.141	-	10
WETC021-F2	PFO	2136.0	2.370	0.911	-	9-10
WETC022-F0	PFO	98.5	0.079	0.043	-	9
WETC022-F1	PFO	368.8	0.346	0.352	-	9
WETC022-F2	PFO	118.3	0.129	0.093	-	9
WETC022-S0	PSS	86.1	0.143		-	9
WETC022-S1	PSS	425.7	0.568	0.062	-	9
WETC024-E0	PEM	971.9	<u>-</u>	-	1.137	6-7

Table 2. Wetland Data Continued

Wetland ID.	Туре	Centerline Crossing Length (feet)	50-foot Permanent Easement (ac)	25-foot Temporary Easement (ac)	Impacts Avoided by	1 7 7 7
WETC025-E0	PEM	-	(ue)	rasement (ac)	HDD (ac) ¹	Page #
WETC025-F0	PFO	84.6			0.096	6
WETC026-E0	PEM	-				6
WETC026-F0	PFO	408.9	0.471	0.229	<u> </u>	6
WETC027-E0	PEM	-		0.229	<u>-</u>	6
WETC027-F0	PFO	1314.6	1.513	0.740		5-6
WETC028-E0	РЕМ	-	0.106	0.740	<u> </u>	5-6
WETC028-F0	PFO	251.7	0.196	0.141	<u>.</u>	27
WETC029-E0	PEM	-	0.042	0.141	-	27
WETC029-F0	PFO	87.1	0.068			15-16
WETC030-E0	PEM	-	0.521	0.054	•	15-16
WETC030-E1	PEM			-	0.578	26-27
WETC030-E2	PEM		-	<u> </u>	0.006	26
WETC030-F0	PFO	3199.8	1.760	- 1100	0.082	26
WETC030-F1	PFO		- 1,700	1.192	0.829	26-27
WETC030-F2	PFO	859.3			0.012	26
WETC031-E1	PEM	-	0.035		0.857	26
WETC031-E2	PEM		- 0.053			19
WETC031-E3	PEM		0.022			19
WETC032-E0	PEM		0.022			19
WETC033-E0	PEM		0.009	-		19
WETD001-E0	РЕМ					19
WETD001-F0	PFO	44.7	0.002		<u> </u>	43
WETD002-F0	PFO		0.045	0.032		43
WETD003-F0	PFO	1160.2				42
WETD004-F0	PFO	2217.8	1.322 2.061	-		42
WETD005-F0	PFO	632.7		1.736	0.491	42
WETD006-F0	PFO	134.0	0.734	0.342		31
WETD006-F1	PFO	46.7		0.121		31
WETD006-F2	PFO		0.059	0.011		31
WETD007-F0	PFO		0.000		-	31
WETD008-E0	PEM	35.7	0.006			31
WETD008-F0	PFO	676.3	0.233	-	-	31
WETD008-S0	PSS	125.2	0.642	0.439	-	31-32
WETD009-E0	PEM	-	0.090	0.036		31
WETD009-EI	PEM		0.833			30-31
WETD009-F0	PFO	1404.4	0.098	-	<u> </u>	29-30
WETD009-F1	PFO	431.4	1.094	0.797	-	30-31
WETD009-F2	PFO	60.6	0.450	0.244	-	30
		0,0	0.066	0.029	-	29-30

Table 2. Wetland Data Continued

The second second		Centerline	± 50-foot Permanent Easement (ac)	25-foot 1	Linpacts:	. Vlane
20 S 7 M 20 C	A STATE	Crossing Control of the Control of t	Permanent.	».Temporarya.	Aypided by	A Bridge
WETD009-F3	PFO	140.6	Casement (ac)	Essement (ac)	就HDD/(ac)指	##JPape###
WETD009-S0	PSS	1212.9	0.161	0.081		29-30
WETD009-S1	PSS	1349,3	1.124	0.702	-	30
WETD009-S2	PSS	285.7	1.461 0.321	0.778	-	29-30
WETD010-E0	PEM	203.7	0.321	0.169		29-30
WETD010-E1	PEM	_		-	<u>-</u>	22
WETD010-F0	PFO	997.3	0.733	0.400	-	22
WETD010-F1	PFO	412.8		0.400	0.399	22
WETD011-E0	PEM	. 1410	-		0.461	22
WETD011-E1	PEM			- -		22
WETD011-E2	PEM		0.195			22
WETD011-F0	PFO	809.4		-		21-22
WETD011-F1	PFO	1150.9	0.928	0.478		22
WETD012A-E0	PEM	34.2		0.627		21-22
WETD012A-E1	PEM		0.039	0.015	-	11
WETD012A-E2	PEM			0.002	-	11
WETD012A-E3	PEM	3.0	0.007		-	11
WETD012A-E4	PEM		0.007			11
WETD012A-E5	PEM	315.3	0.000	0.001		11
WETD012A-F0	PFO	515.5	0.333	0.121	-	11
WETD012A-F1	PFO	92.1	-	0.003	-	11
WETD012A-F2	PFO	42.5	0.084	0.091		11
WETD012A-F3	PFO	484.3	0.054	0.004	-	11
WETD012B-E0	PEM	- +84.3	0.558	0.338		11
WETD012B-E1	PEM		-		-	10-11
WETD012B-F0	PFO	1128.8	1 205			10-11
WETD013-E0	PEM	1126.6	1.287	0.676	_	10-11
WETD013-E1	PEM		0.031	<u>-</u>		8-9
WETD013-E2	PEM		0.004		-	8
WETD013-F0	PFO	2496.8	0.004	-		8
WETD013-FI	PFO	180.2	2.863	1.452	-	8-9
WETD013-F2	PFO	538.3	0.153	0.160	-	8
WETD013-F3	PFO	338.3	0.696	0.291		8
WETD013-F4	PFO					8
WETD014-E0	PEM	63.4	0.064	0.051	-	8
WETD014-F0	PFO	64.2		-		7-8
WETD015-E0	PEM	64.3	0.169	-	•	8
WETD015-E0	PFO	400 5	0.021	-		4
WETD016-E0	PEM	488.5	0.502	0.152	-	4
WETD017-F0	PFO	140.5	-			4
	110	149.5	0.166	0.102	-	5

AS REQUIRED BY THE FREEDOM OF INFORMAITON ACT (FOIA) THIS FILE IS BEING MADE AVAILABLE ONLINE BECAUSE THE MOBILE DISTRICT FOIA OFFICE HAS RECEIVED MORE THAN THREE (3) REQUESTS FOR SAME. ANY QUESTIONS ABOUT THE FOIA PROCESS MUST BE DIRECTED TO OUR FOIA OFFICE. FOIA-SAM@usace.army.mil

Table 3. Wetland Summary Table

1. 1vm	Ünosingiksigirer Comvilinetiesi	Alf Sowa Condide	er e e e e e e e e e e e e e e e e e e	ni Agrengen 30 awha Penganeni Penganeni	Radziaisi Dealiosa (Infli Sed
PEM Wetlands	9,256.40	122.314	2.412	14.126	3.241
EEM Wetlands	3,707.89	17.056	2.675	3.870	0.394
PSS Wetlands	17,177.143	63.331	9.396	16.972	0.779
PFO Wetlands	58,802.62	200.240	30.528	55.989	7.511
Totals:	88,944.05	402.941	45.011	90.957	11.925

3.5 Waterbodies

The wetland delineation identified 52 streams and seven ponds within the 200-foot survey area. Of the 52 streams delineated, six are ephemeral, 13 are intermittent, and 33 are perennial. The seven ponds are a mixture of man-made and natural waterbodies. Refer to Figure 2 located in **Appendix A** for locations of waterbody crossings along the pipeline route.

Table 4. Waterbody Data

Name	OHWM Width (feet)	OHWM Depth (feet)	TOB Width (feet)	Flow/Type	Substrate	50-foot Permanent Easement (ac)	25-foot Temporary Easement	Centerline Crossing Length
WBA001	8	1.5	20	Intermittent	Clay	0.035	0.040	31.5
WBA002	40	2	50	Perennial	Clay	-	-	37.0
WBA003	2	0.5	2.5	Ephemeral	Clay	0.011	0.001	2.1
WBA004	35	10	40	Perennial	Clay	0.050	0.014	41.0
WBA005	8	3	10	Perennial	Clay	0.013	0.006	20.5
WBA006	3	1	10	Perennial	Clay	0.003	0.002	8.3
WBA007	8	1.5	10	Perennial	Clay	0.019	0.009	8.5
WBB001	75	4	80	Perennial	Clay	-	-	234.3
WBB004	4	2	20	Intermittent	Organic	-	-	4.1
WBB005	3	2	5	Intermittent	Sand	-	-	6.6
WBB006	2.5	1	7	Intermittent	Sand	-	-	2.8
WBB007	5	2	10	Perennial	Sand	~	-	5.0
WBB008	110	5	120	Perennial	Sand	-	-	-
WBC001	1.5	1	2	Perennial	Organic	0.002	0.001	1.5
WBC002	2	0.5	3	Perennial	Clay	0.003	0.001	2.5
WBC003	10	2	12	Perennial	Sandy Clay	0.009	0.005	8.0
WBC004	4	0.5	8	Ephemeral	Sandy Clay	0.003	0.002	4.1

	OHW M	онум	тов	OIA-SAM@usad		50-foot Permanent	25-foot Temporary	Centerline
Name	Width (feet)	Depth (feet)	Width (feet)	Flow/Type	Substrate	Easement (ac)	Easement (ac)	Crossing Length
WBC005	40	4	50	Perennial	Clay	0.035	0.055	29.4
WBC006	2.5	Ī	3	Perennial	Sandy Clay	0.003	0.002	3.1
WBC007	3	1	4	Perennial	Sandy Clay	0.004	0.002	3.0
WBC008	10	3	12	Perennial	Clay	0.017	0.006	11.1
WBC009	2	0.75	4	Ephemeral	Clay	-	-	
WBC010A	0	0	10	Ephemeral	Concrete	0.017	0.009	15.0
WBC010B	1.5	0.75	2	Intermittent	Clay	0.011	0.005	9.9
WBC011	25	3	30	Perennial	Clay	0.035	0.049	30.8
WBC012	100	5	120	Perennial	Clay	0.105	-	116.1
*WBC013	6	2	12	Intermittent	Clay	-		23.7
WBC112A	0	0	0	Perennial	-	0.026	0.019	21.9
WBC112B	0	0	0	Perennial		-	-	•
WBD001	2	2	3	Ephemeral	Sand	0.007	0.002	2.7
WBD002	63	10	65	Perennial	Sand	0.182	-	158.5
WBD003A	6	1	10	Intermittent	Sand	0.010	0.004	9.7
*WBD003B	20	2	40	Perennial	Clay	-	-	
WBD004A	3	1	5	Intermittent	Sand	0.003	0.002	3.0
*WBD004B	40	3	50	Perennial	Sand	-	-	64.4
WBD005	_ 3	1	4	Intermittent	Clay	0.004	- 0.002	3.5
WBD006	5	2	6	Perennial	Sand	0.006	0.014	5.2
WBD007	10	2	12	Perennial	Sand	0.036	0.022	17.1
WBD008	30	5	30	Perennial	Clay	0.040	0.001	47.1
WBD009A	5	2	8	Perennial	Clay	0.016	0.003	42.8
WBD009B	5	2	8	Perennial	Clay	-	-	-
WBD009C	5	2	8	Perennial	Clay	0.006	0.003	5.7
WBD009D	0	0	0	Intermittent		-	-	-
*WBD010	60	6	65	Perennial	Clay	-	-	•
WBD011	5	3	7	Perennial	Clay	0.006	0.003	5.0
WBG003	0	0	0	Perennial		_	0.012	-
WBG004	0	0	0	Perennial		-	-	-
WBG005	3	0	0	Intermittent	Clay	0.004	0.002	3.6
*WBG006	20	0	0	Perennial	Clay	_	-	19.8
*WBG007	270	0	0	Perennial	Clay	-	-	266.5
WBG008	15	0	0	Perennial	Clay	0.023	0.016	22.8
*WBG009	195	0	0	Perennial	Clay	-	-	-
WBG010	0	0	0	Intermittent		0.003	0.002	2.3
WBG011	12	0	12	Perennial		0.014	0.007	12.0
WBG012	12	0	12	Perennial		0.014	0.007	12.0
WBGT001	3	0.5	5	Intermittent	Sandy Clay	0.013	0.002	34.6

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Name	OHW M Width (feet)	OHWM Depth (feet)	TOB FO	HA-SAM@usac	e.army.mil Sübstrate	50-foot Permanent Easement (ac)	25-foot Temporary Easement (ac)	Centerline Crossing Length
WBGT004	10	2	18	Perennial	Sandy Silt	0.021	0.010	12.1
WBGT005	12	3	15	Ephemeral	Sandy Clay	0.005	0.010	5.6
WBGT006	25	3	35	Perennial	Sandy Clay	0.010	0.006	11.8
4177 . 1		To	tals	<u> </u>		0.824	0.358	1,449.3

^{*}Waterbodies that will be horizontally directional drilled. **Waterbodies that have 0 within the typical waterbody data (OHWM, Top of Bank etc.) were aerially interpreted.

SWCA identified and delineated a total of 52 streams within the project area. Many of the streams were small perennial hillside seeps. Another 7 waterbodys were delineated within the project area. Most of these were man-made ponds.

Only one of the waterbodies (two crossings) delineated (Escatawpa River) in the project area are considered Section 10 navigable waters. Plains Southcap, LLC will use a HDD to proceed under both the lower and upper crossings of the Escatawpa River.

SWCA identified a total of seven other waterbodies within the project area, most of which were man-made ponds. **Table 5** below provides the crossing lengths and total acreages for waterbodies within the survey corridor and project area.

Table 5. Stream/Waterbody Summary Table

- uoic 5. Bu camp	mater body Summ	ialy Lauic		
	Greens condition		. Fair koogs	
40.5	(tennestine (feat)	Surge Coming	(All Wedge Communes) Lessonant	SP Who Toupostay Lessuest
Ephemeral Streams	29.46	0.416	0.0431	0.023
Intermittent Streams	135.15	0.516	0.084	0.059
Perennial Streams	1,121.5	5.717	0.552	0.262
Other Waterbodies	163.23	1.166	0.145	0.013
Totals:	1,424,35	7.705	1.624	0.363

All wetlands and waterbodies delineated within the project area are subject to USACE jurisdiction under section 404 of the CWA. It should be understood that the scope of these delineations was to ascertain the presence of potential jurisdictional areas. In SWCA's professional opinion, physical features identified during site visits may be considered "waters of the U.S." (i.e. wetlands and waterbodies); however, this report is not a legal delineation of the boundaries of "waters of the U.S." or a determination of their jurisdictional status. Only the USACE has final and/or legal authority in determining the presence of jurisdictional "waters of the U.S." and the extent of their boundaries.

4.0 PERMITTING

Based on survey findings, the project could be constructed under Nationwide Permit (NWP) 12 – Utility Line Activities. NWP 12 conditions are provided in **Appendix E**. In accordance with NWP 12, a project sponsor must submit a pre-construction notification (PCN) to the USACE

prior to commencing the activity in waters and wetlands if any of the following criteria are met:

- (1) The activity involves mechanized land clearing in a forested wetland for the utility line right-of-way.
- (2) A Section 10 Permit is required.
- (3) The utility line in "waters of the U.S.," excluding overhead lines, exceeds 500 feet.
- (4) The utility line is placed within a jurisdictional area, and it runs parallel to a stream bed that is within that jurisdictional area.
- (5) Discharges that result in a loss greater than 1/10th acre of waters of the United States.
- (6) Permanent access roads are constructed above grade in waters of the United States for a distance more than 500 feet.
- (7) Permanent access roads are constructed in waters of the United States with impervious materials.

Regulatory Analysis

The following responses are given for each of the seven criteria mentioned above:

- (1) A total of 129 forested wetlands and 22 scrub shrub wetlands were delineated within the project area. The majority of these wetlands will be avoided by HDD. However, in some areas using HDD practices will not be possible and as a result the project will require mechanized land clearing in some forested wetlands for the utility line right-of-way throughout the proposed project line.
- (2) SWCA examined the existing USACE List of Navigable Waters of the U.S. (Section 10 waters), and the section 10 waters found within the project area are the two crossings of the Escawtapa River.
- (3) The pipeline crossing at the Escatawpa River and the associated wetlands is over 500 feet long. Plains proposes to HDD under the river and adjacent EEM wetland.
- (4) The pipeline does not run parallel to a stream bed that is within a jurisdictional area.
- (5) It is our understanding that permanent conversions for wetlands or waters as a result of project construction will be inevitable due to construction constraints. Mitigation for permanent conversions of forested and scrub shrub wetlands into emergent wetlands will be completed by purchasing credits through a local mitigation bank. A mitigation plan for the use of that mitigation bank will be provided within 21 calendar days of the submission of this document.

- (6) It is our understanding that pre-existing roads will be utilized and new roads within "waters of the U.S." are not proposed as part of this project.
- (7) It is our understanding that permanent access road crossing of waterbodies using impervious materials will not be constructed as part of this project.

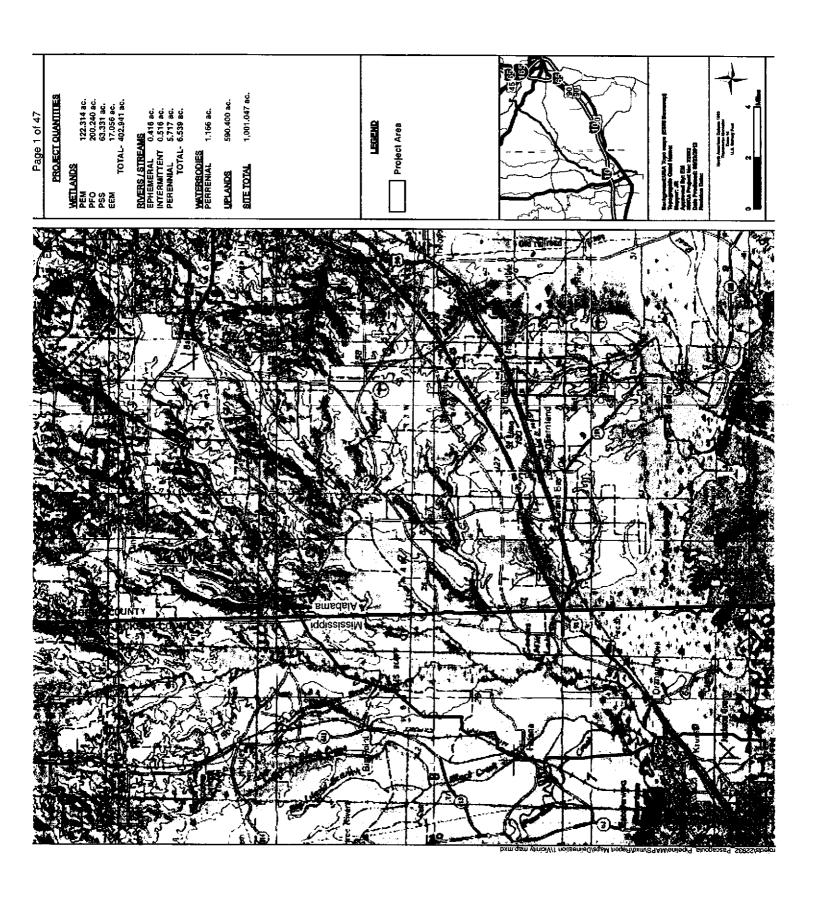
5.0 SUMMARY

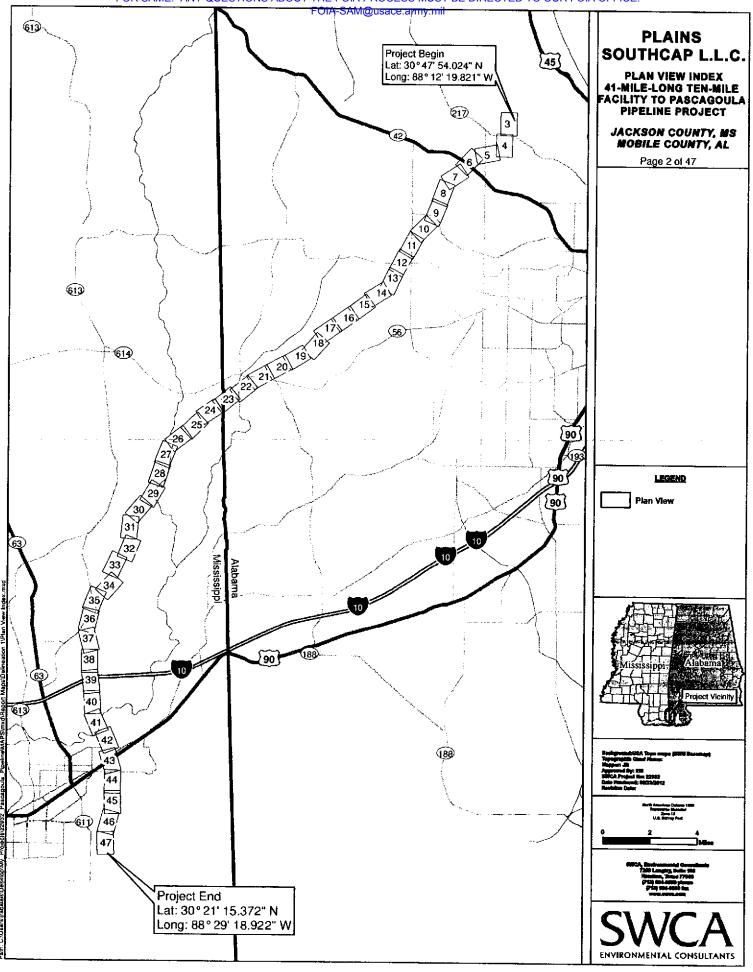
In April, May, and June of 2012, SWCA biologists conducted a wetland delineation survey for approximately 41 miles of crude oil pipeline for Plains Southcap, LLC, in Mobile County, Alabama and Jackson County, Mississippi. Under Section 404 of the CWA, the USACE regulates the discharge of dredged or fill material into "waters of the United States," including wetlands. SWCA's scope of work was to determine the location of potential jurisdictional "waters of the U.S.," including wetlands. SWCA identified and delineated 248 wetlands and 57 waterbodies within the boundaries of the project area. Based on our regulatory analysis, the proposed project could be constructed under the conditions of NWP 12 with submittal of a PCN.

All wetlands and waterbodies delineated along the pipeline route are subject to USACE jurisdiction under Section 404 of the CWA. It should be understood that the scope of these delineations was to ascertain the presence of potential jurisdictional areas. In SWCA's professional opinion, physical features identified during site visits may be considered "waters of the U.S." (i.e. wetlands and waterbodies). This report is not a legal delineation of the boundaries of "waters of the U.S." or a determination of their jurisdictional status. Only the USACE has final and/or legal authority in determining the presence of jurisdictional "waters of the U.S." and the extent of their boundaries.

6.0 REFERENCES

- NOAA Online Weather Data (NOWData), National Oceanic and Atmospheric Administration. Climatology data for Mobile, Alabama. Available online at http://www.weather.gov/climate. Accessed 7/5/2012.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Mobile county Alabama and Jackson county Mississippi. Available online at http://soildatamart.nrcs.usda.gov. Accessed 07/21/2012.
- United States Army Corps of Engineers (USACE) (1987) Corps of Engineers Wetland Delineation Manual. United States Corps of Engineers Research and Development Center, Vicksburg, MS. Techinal ReportY-87-1.
- United States Army Corps of Engineers (USACE) (2010) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). United States Corps of Engineers Research and Development Center, Vicksburg, MS. ERDC/EL TR-10-20





PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 08/31/2012
- B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

R. Thomas Sankey, Senior Project Manager, SWCA 7255 Langtry, Suite 100 Houston, TX 77040

- C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Mobile District.
- D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Plains Southcap, LLC (Plains) requested that SWCA Environmental Consultants (SWCA) complete a wetland and waters delineation for the approximately 41 miles of 24-inch crude oil pipeline. The project area begins at the Plains Ten-Mile Crude Oil Facility in Mobile Alabama, located approximately 11 miles northwest of downtown Mobile, and extends southwest towards Pascagoula, Mississippi. The line ends at the Chevron Pascagoula Refinery approximately one mile from the Gulf of Mexico (project site).

Construction of the proposed project is slated to begin in March 2013 and end before September 2013. No fill material will be placed within waters or wetlands for more than three months.

The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter pipeline from Ten-Mile, Alabama to Pascagoula, Mississippi. Construction of the pipeline will be within a 75-foot-wide right-of-way (ROW) and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and re-establishing vegetation. A permanent 50-foot-wide easement will be maintained and mowed on a regular basis. Please refer to the permit application map book for an illustration of the ROW showing both temporary and permanent easements within the project area, cross-sectional illustrations for open-cut techniques and site-specific plan and profile exhibits for horizontal directional drills (HDD) under Rivers and Harbor Act, Section 10 waters.

(USE THE WATER RESOURCES TABLE ATTACHED TO THIS PACKET THAT DOCUMENTS MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: Alabama / Mississippi County/parish/borough: Mobile / Jackson City: Mobile and Pascagoula
Center coordinates of site (lat/long in degree decimal format): Lat. 30° 36' 46.437"° N. Long. -88° 25' 24.257"° W.

Universal Transverse Mercator: 15

Name of nearest waterbody: Escatawpa River Project crosses this river twice.

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 1425.4 linear feet: width (ft) and/or 7.70 acres.

Cowardin Class: Riverine Stream Flow: Perennial Wetlands: 386.2 acres

Cowardin Class: Emergent Wetland

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: Escatawpa River and associated estuarine wetlands for the southern crossing.

Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office	(Desk)	Dete	ermir	atior	١.	Da	ite:	
					_			

- Field Determination. Date(s): April, May, and the first week of June.
- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting

an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and

requested, appropriately reference sources below): Maps, plans, plots or plat submitted by or on behalf of the
applicant/consultant: SWCA delineation maps . Data sheets prepared/submitted by or on behalf of the
applicant/consultant.
☐ Office concurs with data sheets/delineation report. ☐ Office does not concur with data sheets/delineation report.
Data sheets prepared by the Corps:
Corps navigable waters' study:
U.S. Geological Survey Hydrologic Atlas:
☐ USGS NHD data. ☐ USGS 8 and 12 digit HUC maps.
U.S. Geological Survey map(s). Cite scale & quad name:
USDA Natural Resources Conservation Service Soil Survey. Citation:
•
☐ National wetlands inventory map(s). Cite name:
State/Local wetland inventory map(s):
FEMA/FIRM mans:

☐ 100-year Floodplain Elevation is: of 1929)	(National Geodectic Vertical Datum
🛮 Photographs: 🗌 Aerial (Name & Da	te):
or $oxtimes$ Other (Name & Date): prepared/submitted by or on behalf of the	See Attached. Photographs ne applicant/consultant.
Previous determination(s). File no. a	and date of response letter;
Other information (please specify):	
IMPORTANT NOTE: The information reconecessarily been verified by the Corps a later jurisdictional determinations.	orded on this form has not nd should not be relied upon for
	1. Thom- Taken 9/9/12
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

No.			Commence of the last of the la					
R. RIVERINE AREA	3	RIVERINE	AREA	0.098092 ACRE	RPW	30,362179	-88.483413	Pt Aux Chemes Bay-Mississippi Sound
RS	2	RIVERINE	AREA	0.193311 ACRE	RPW	30.441738	-88.495247	Little Black Creek
150 ATTECHNE ATT	92	RIVERINE	AREA	0.021627 ACRE	NRPW	30.453589	-88.496405	Black Creek-Escatawpa River
P. P. P. P. P. P. P. P. P. P. P. P. P. P. P.	R5	RIVERINE	AREA	0.147623 ACRE	RPW	30.480654	-88 499077	Alack Creek, Schalauna River
P. P. P. P. P. P. P. P. P. P. P. P. P. P. P.	RS	RIVERINE	AREA	0.278305)ACRE	RPW	30 496089	-AR 497469	Black Crook-Reculations Biner
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100 NY-ERINE AREA 14	RS	RNERINE	AREA	0.058694 ACRE	RPW	30 64186	90 4746	
144 RIVERINE AREA 14	R5	RIVERINE	AREA	1.088488 ACRF	RDW	30.500424	01 V V 00	DACK COURT OF THE PRINCE
R4 RIVERINE AREA	7. 7.4	RIVERINE	ARFA	0.022758 ACSE	NO SA	2000	-00.4400.6	Escalawpa Kivel
R4 RIVERINE AREA	14	RIVERINE	APEA	DD 74 - 100 CO D	MONA	20.00/6024	-86.432031	Rocky Creek-Escalawpa River
Colored Colo	45	TANDEN TO THE PERSON OF THE PE	4004	30000000000000000000000000000000000000	WKPWV	30.578401	-88.452114	Rocky Creek-Escatawpa River
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1		RIVERINE	AREA	D 025588 ACRE	RPW	30.578203	-88 452216	Rocky Creek-Escatawpa River
R5 NYCERNE AREA	ן ני	טביאריטט	AKEA	D.211361 ACRE	ISOLATE	30.55858	-88.454774	Rocky Creek-Escatawpa River
R5 RIVERINE AREA	Ŷ	RIVERINE	AREA	0.00735 ACRE	RPW	30,640651	-88.379625	Upper Big Creek
P. P. RIVERINE AREA	RS.	RIVERINE	AREA	0.00904 ACRE	RPW	30.643378	-88.374183	Upper Big Creek
R5 RAVERINE AREA	85		AREA	0.03992 ACRE	WAR	30.647.379	38 365877	Worl Branch
R5 RNJERINE AREA R5 RNJERINE AREA R6 RNJERINE R7	22		AREA	0.260021 ACRE	WARM	20 505 Bu	978507.88	Open Constitution Direct
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Re RIVERINE JAREA Re RIVERINE	Re	RIVERINE	ARFA	O OSOSE ACRE	MOG	60600000	48.39816	Upper Big Creek
R4 RWERINE AREA R4 RWERINE AREA R5 RWERINE R5 RWERINE AREA R5 RWERINE 84		V-000	TUDY COSCOLO	WLA.	30.688826	-88 304762	Upper Big Creek	
R4	9.0	CHACAINE	AKEA		NRPW	30.68892	-88.30505	Upper Big Creek
Richard Received	0.0	KINE	AKEA		NRPW	30.73353	-88.265678	Upper Big Creek
C	200	RIVERINE	AREA	0.077735 ACRE	RPW	30,69158	-88.301973	Upper Big Creek
R5	CK	KIVEKINE	AKEA	D.19062 ACRE	Rpw	30.740001	-88.259513	Upper Big Creek
R5 RIVERINE AREA	74	CEPRESS	AXEA	0.291451 ACRE	ISOLATE	30.763655	-88.24497	Chickasaw Creek
R5	10	THEFT	AKEA O	O USZ134 ACRE	RPW	30.598884	-88.442303	Rocky Creek-Escatawpa River
Received 200	AIVERINE	AREA	0.144441 ACRE	RPW	30.776981	-88.226859	Double Branch	
RA RAVERINE AREA	98	DAYCONIC	ARCA	O'OTZ339 ACRE	RPW	20.777217	-88,226265	Double Branch
R4 RNVERINE AREA	28	02120124Q	ΔΕ.Ε.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α.Α	O TO THE ACINE	NRPW	30.408902	-88.483617	Black Creek-Escatawpa River
12	R4	RAFAFINE	AREA AREA	0.038336 9.095	XTX SOUTH	30.417491	-88.482852	Black Creek-Escatawpa River
R4 RIVERINE AREA R5 RIVERINE R5 R5 R5 R5 R5 R5 R5 R5	[2	DEPRESS	APEA	2000 paceroo	ALL NO.	30.546427	-88.471696	Black Creek-Escatewpa River
R4 RIVERINE AREA	5. 4.	RIVERINE	AREA	0.093728 ACRE	50CA16	30.631695	-88.394076	Upper Big Creek
R4 RIVERINE AREA D.014655 R5 RIVERINE AREA D.0166427 R5 RIVERINE AREA D.0130304 R5 RIVERINE AREA D.017624 R5 RIVERINE AREA D.017624 R5 RIVERINE AREA D.02303 R5 RIVERINE AREA D.020303 R5 RIVERINE AREA D.020303 R5 RIVERINE AREA D.013023 R5 RIVERINE AREA D.0100234 R5	S	RIVERINE	AREA	D 248155 ACRE	NGO.	30.568429	-88.471501	Black Creek-Escarlawpa River
R5 RIVERINE AREA 0.066427	24	RIVERINE	AREA	0.014683 ACRE	RPW	30 635806	Page 1 and Clear	END CHEEK
Company Comp	RS	RIVERING	AREA	0.086427 ACRE	RPW	30 734.00	2002200	DO 27500 (Carred Dis Carred
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12 OEPRESS AREA 0.05/1053 R3	2)	OEPRESS	AREA	0.043001 ACRE	ISOI ATE	30.7244	-86.2/433	наплиол Ствек
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R4 RVERINE AREA 0.02939	23	RMERINE	ARFA		CONAC	30.753782	-88.254431	Upper Big Creek
R4 RIVERINE AREA 0.0074174	R5	RIVERINE	4004		WHA	30.754468	-88.254234	Upper Big Creek
12 OKPRESS AREA 0.0441	Ba	DINE DINE	V 10 V	OUGSSTATE	KPW	30.755055	-88.253672	-88.253672 Upper Blg Creek
R5 NVERINE AREA 0.02330	6	DEDOCO	2000	O'COVATA RCRE	KPW	30,757013	-88.252598	-88.25259B Upper Big Creek
C	7 20	COUNTY OF AND	355	0.198141 ACRE	ISOLATE	30.759935	-88.251594	88.251594 Upper Big Creek
KE NUCRINE AREA 0.004373		KIVERINE	AKEA Dire	0.023308 ACRE	RPW	30.77766	-88.222117 Red Creek	Red Creek
R4 RYLERINE AREA 0.04654	DX	PINOTO INC.	AKEA	0.064323 ACRE	SOLATE	30,464371	-88.497297	-88 497297 Black Creek-Escatawpa River
R5 RUFERINE RREA 0.00445 R5 RUFERINE RREA 0.00445 L2 RATERINE AREA 0.108435 L2 RATERINE AREA 0.108436 R4 RUFERINE AREA 0.108436 R5 RIVERINE AREA 0.005488 R5 RIVERINE AREA 0.005486 R5 RIVERINE AREA 0.005586 R5 RIVERINE AREA 0.005586 R5 RIVERINE AREA 0.00558	200	DAMPEN DE LA CONTROL DE LA CON	ANGA	O DAUGS ACKE	RPW	30.480747	-88.49869	-88.49869 Black Creek-Escatawpa River
R5 RNERINE AREA 0.109033	14	DANCE OF THE PARTY	AAEA	U.U.DB445 ACKE	RPW	30.794895	-88.210302	-88.210302 Chickasaw Creek
R4 RYVERINE AREA 1,231749	30	TINELL	AREA		RPW	30.498219	-88.49696	-88.49696 Black Creek
12 DEPRESS AREA 0.13028	20	THE TOTAL OF THE TANK	AREA		WWI	30.421551	-88.468024	-89.469024 Escatawpe River
A	2		AREA	D.120238 ACRE	RPW	30.428795	-88.492343	-89.492343 Black Creek-Escatawna River
MAREA 0.03918 R5 RIVERINE AREA 0.056186 R5 RIVERINE AREA 0.056186 R5 RIVERINE AREA 0.05482 R5 RIVERINE AREA 0.056186 R5 RIVERINE AREA 0.050186 R5 RIVERINE AREA 0.050186 R5 RIVERINE AREA 0.050181 R5 RIVE	2 2	DEPKERS	ARR	D 315826 ACRE	ISOLATE	30,750946	-89.249771	-89.249771 Chickasaw Creek
100 NYSERINE AREA 0.055108 R4	100	KIVEKINE	AREA	0.013918 ACRE	RPW	30,719949	-88.277235	Upper Sig Creek
R4 RIVERINE AREA 0.05488 R5 RIVERINE AREA 0.02467 R5 RIVERINE AREA 0.059167 R5 RIVERINE AREA 0.059167 R5 RIVERINE AREA 0.041617 R5 RIVERINE AREA 0.041617 R5 RIVERINE AREA 0.040596 R5 RIVERINE AREA 0.040596 R5 RIVERINE AREA 0.040596 R5 RIVERINE AREA 0.040596 R5 R5 RIVERINE AREA 0.040596 R5 R5 R5 R5 R5 R5 R5 R	90	בויינוביים בייי	AMEA		RPW	30.35603	-88-487115	-88-487115 Pt Aux Chenes Bay-Mississippi Sound
R5 RIVERINE AREA 0.052462	200		AREA		RPW	30,355344	-88.488586	-88.488586 Pt Aux Chenes Bav-Mississippi Sound
RS RIVERINE AREA 0.059167 RS RIVERINE AREA 0.040246 RS RIVERINE AREA 0.040346 PEM MINSOILE,T AREA 0.050568 PFO MINSOILE,T AREA 0.050568	4 t	RIVERINE	AREA	0.042462 ACRE	RPW	30.650564	-88.359404	-88 359404 Upper Bin Creek
R5 NWERNE AREA R5 R5 R1 R1 R1 R1 R1 R1	2,8	RIVERINE	AREA	0.059167 ACRE	RPW	30.669693	-88 333594	Dooer Blo Creek
KS	9	RIVERINE	AREA	0.043246 ACRE	NRPW	30.672919		Pierce Creak
FEW MINSOILET AREA 0.050566 PFO MINSOILET AREA 6.777804 6.7	2 2	RIVERINE	AREA	0.081181 ACRE	RPW	30.673152		Pierce Creek
MINSULFU AREA 677804		MINSOILFL	AREA	0.050596 ACRE	WWW	30.355817	-88.483218	Pt Aux Chenes Bav-Mississippi Sound
- · · · · · · · · · · · · · · · · · · ·	200	MINSOLF	AREA	6.777804 ACRE	TNWW	30.359738	-88.483396	-88.483396 Pt Aux Chenge Bay-Mississipol Sound
1,50831	9000	AINOCALAL TOTAL	AREA	1.526831 ACRE	TNWW	30.356521	-88.4E3371	-88.483371 Pt Aux Chenes Bay-Mississippi Sound
I MINSOILFLT I AREA	IN CASA	IMINGOILEEL	AREA	3.686245 ACRE	WWW	30.356111	-88,483571	88.483571 Pt Aux Chenes Bay-Mississippi Sound

WETA003-F0 WETA003-F1 WETA003-F2 WETA003-F3 PF0 PF0 META003-F3 PF0			**************************************			N DOO INTERNET TO CO. IN THE CO.
	O MINSOILFLY	AREA	7.803755 ACRE	TWWW	30.366167	-88.483281 Pt Aux Chenes Bay-Mississippi Sound
	TO MINSOLFLY	AREA	0.06148 ACRE	TWWW	30 369471	-88 483237 Pt Any Change Bay Miceiering Cound
		AREA	4.466564 ACRE	TNWW	30.376091	
	D MINSOILFLT	AREA	5.169493 ACRE	RPWWW	30.381474	
	PFO MINSOILFLT	AREA	0.187013 ACRE	RPWWN	30.384309	
		AREA		RPWWN	30.388262	-88.480282 Pt Aux Chenes Bay-Mississippi Sound
		AREA	5.013388 ACRE	RPWWN	30.391451	-88 48038 Pt Aux Chenes Bay-Mississippi Sound
		AREA	4.182854 ACRE	RPWWN	30,397319	
		AREA		Twww	30.371754	-88.481687 Pt Aux Chenes Bay-Mississippi Sound
		AREA		RPWWWN	30,40253	-88.480762 Pt Aux Chenes Bay-Mississippi Sound
AND THE PORT OF THE PROPERTY OF THE PORT O		AHEA	1.28969 ACKE	RPWWW	30.389673	-88.480255 Pt Aux Chenes Bay-Mississippi Sound
	MINSOLFE	ADY.	1,741/13 ACRE	KPWWW	30.401093	
		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	TOO STORY	KFWWN	30.4029Z2	-88,480294 Pt Aux Chenes Bay-Mississippi Sound
		VIII V	2. CVBOOLACKE	NAVAVA	30.40473	Pt Aux Chenes Bay-Mississippi
		4 u	O.108352 AURE	MANAMA	30.405627	-88.482907 Pt Aux Chenes Bay-Mississippi Sound
		ADEA	1 440431 4 700	DOMANO	30.405783	
WETAON ES		ADEA	DE 00 00 00 00 00 00 00 00 00 00 00 00 00	N-WWW	30.431792	-88.494193 Black Creek-Escatawpa River
D L COOL L		\U_U_V	0.000000 ACRE	KPWWN	30.431216	-88.493949 Black Creek-Escatawpa River
		2000		MELWAY	30.433388	
		AKEA		NKPWW	30.433225	
		AREA	1.979721 ACRE	NRPWW	30,435943	-88.494702 Black Creek-Escalawpa River
VAL AUTO-EO		AREA	4,468533 ACRE	RPWWD	30.440197	-88.495105 Black Creek-Escatawpa River
		AREA	0.62285 ACRE	RPWWD	30,442262	-88.495436 Black Creek-Escatawpa River
		AREA	0,079146 ACRE	RPWWN	30.43919	-88,494887 Black Creek-Escatawoa River
WETA010-SO PSS		AREA	0.157278 ACRE	RPWWD	30.441596	
	RIVERINE	AREA	0.996642 ACRE	RPWWD	30.442285	-98.495122 Black Creek-Escatewoa River
	M DEPRESS	AREA	0.616275 ACRE	NRPWW	30,444244	
		AREA	0.309868 ACRE	NRPWW	30.44481	-88.495397 Black Creek-Escatawoz River
	M	AREA	0.879316 ACRE	NRPWW	30,445833	-88.495656 Black Creek-Escatawpa River
		AREA	1.251247 ACRE	NRPWW	30,447739	-88.495778 Black Creek-Escatawpa River
And an extended the second to		AREA	0.290464 ACRE	NRPWW	30,447662	-88.495649 Black Creek-Escetawpa River
		AREA	0,158505 ACRE	NRPWW	30.456093	-88.497043 Black Creek-Escatawpa River
WE AUTS ED		AREA	0.757089 ACRE	NRPWW	30.457236	-88.497125 Black Creek-Escalawpa River
ELECTOR TO		AREA	0.191209 ACRE	NRPWW	30.45685	-88.496861 Black Creek-Escatawps River
		AREA	1.245398 ACRE	NRPWW	30.459875	-88.497613 Black Creek-Escalawpa River
	DE LOS CONTROL DE LA CONTROL D	AKEA	0.311/35 ACRE	NRPWW	30,459861	-88.497376 Black Creek-Escatawpa River
700 TOWN		AREA	0.621626 ACRE	NRPWW	30.461878	-88.497633 Black Creek-Escatawpa River
		AREA	0.632249 ACRE	NRPWW	30.462061	-88,497429 Black Creek-Escatawpa River
		AREA	0.697045 ACRE	NRPWW	30,464232	-86.497612 Black Creek-Escatawpa River
VVC I AUTO-EU		AREA	0.504257 ACRE	NRPWW	30.468055	-88.497708 Black Creek-Escatawpa River
		AREA	2.674708 ACRE	NRPWW	30.469302	-88,497375 Black Creek-Escatawpa River
		AREA	0.566355 ACRE	NRPWW	30,472781	-88.497653 Black Creek-Escatawpa River
We TA020-FO		AREA	O.B82001 ACRE	NRPWW	30.47276	-88.497407 Black Creek-Escatawpa River
		AREA	0.964981 ACRE	RPWWD	30.480986	-88.499295 Black Creek-Escalawoa River
		AREA	0.337353 ACRE	NRPWW	30 490184	
		AREA	1.708126 ACRE	NRPWW	30.491844	-88.498114 Black Creek-Escalawpa River
		AREA	4.407486 ACRE	NRPWW	30.488128	
WELAUZZ-F1		AREA	1,031724 ACRE	NRPWW	30,490728	-88.498365 Black Creek-Escatawpa River
		AREA	0.216029 ACRE	NRPWW	30,488449	-88.499027 Black Creek-Escalawpa River
		AREA	0.606651 ACRE	RPWWD	30.494338	-88,498085 Black Creek-Escatawpa River
		AREA	0.903965 ACRE	RPWWD	30.495022	-88,497936 Black Creek-Escatawpa River
		AREA	D.357641 ACRE	RPWWD	30,497594	-88.49728 Black Creek-Escatawoa River
		AREA	0.699237 ACRE	RPWWD	30.497965	-88.497104 Black Creek-Escatawpa River
		AREA		RPWWD	30,498524	-88,496924 Black Creek-Escatawpa River
WEIMOZG-F3		AREA	0.164001 ACRE	RPWWD	30,498808	-88.497028 Black Creek-Escalawpa River
		AREA	8.637816 ACRE	NRPWW	30.533543	-88 471512 Black Creek-Escalawpa River
MCIAUZO-FU		AREA	6.74688 ACRE	RPWWD	30.539633	-88.471603 Black Creek-Escatawpa River
		AREA	0.384105 ACRE	RPWWD	30.541777	
METOOGS CO.		AREA		NRPWW	30.582457	-88.450813 Rocky Creek-Escatawpa River
		AREA		NRPWW	30.582521	
WETENOCHE :	AVERNING	AKEA ABB	0.29/522 ACRE	KPWWN	30.575998	-88,453263 Rocky Creek-Escalawpa River

WET8004-E2	E S	KIVEKIIVE	AKEA	0.056BUA ACKE	KHWW	9750/6706	-65.452068 ROCK) CIBER-ESCAIRWOR RIVE
WETB004-E3	PEM	RIVERINE	AREA	0.10662 ACRE	NRPWW	30,57849	-88.452314 Rocky Creek-Escatawpa River
/ETB004-E4	PEM	RIVERINE	AREA	0.047537 ACRE	NRPWW	30.578646	-88 452266 Rocky Creek-Escatawpa River
WETB004-E5	PEM	RIVERINE	AREA	0.192522 ACRE	NRPWW	30.578855	-88,452177 Rocky Creek-Escalawpa River
WETB004-F0	PFO	RIVERINE	AREA	4.010395 ACRE	RPWWD	30.576537	-88.452708 Rocky Creek-Escalawpa River
WET3004-F1	PFO	RIVERINE	AREA	0.070569 ACRE	RPWWD	30,57825	-88,452198 Rocky Creek-Escatawpa River
WETB004-F2	PFO	RIVERINE	AREA		RPWWD	30.578286	
WETB004-F3	PFO	RIVERINE	AREA	0.168199 ACRE	NWAEN	30.578403	-88.452019 Rocky Creek-Escatawpa River
WET8004-F4	PFO	RIVERINE	AREA	0.217404 ACRE	NRPWW	30,578577	-88.451959 Rocky Creek-Escatawpa River
WETB005-60	PEM	RIVERINE	AREA	0.573594 ACRE	NRPWW	30,57361	-88 454134 Rocky Creek-Escatawpa River
WETB005-S0	PSS	RIVERINE	AREA		NRPWW	30.573455	-88 453845 Rocky Creek-Escatawpa River
WETB006-E0	PEM	RIVERINE	AREA	0.118438 ACRE	NRPWW	30.571167	-88.455076 Rocky Creek-Escalawpa River
WETB006-FD	PFO	RIVERINE	AREA	0,36774 ACRE	NRPWW	30.571003	-88.454785 Rocky Creek-Escalawpa River
WE18007-E0	SEW Services	RIVERINE	AREA	0.212/94 ACRE	NKPWW	30.570023	-88.455463 Rocky Creek-Escalawpa River
WEIBOOK-SU	2 2	KIVEKINE	4 i	S - 1933UI ACRE	NAPARA	30.303430	-88.454944 KOCKY Creek-Escalawpa Kiver
WE BUGGEO	E (1	KIVERING	ARG.	5.163512 AURE	DESCRIPTION	a) conding	-88.43580 ROCKY L'RESK-ESCEIBMDB RIVER
WITHOUGH O	7 4	OFPRESS	ABEA	D 297585 ACRF	MRPWAM	30.000 97	-88 422257 Honer Bir Creek
WETBOOG EO	PEO	DEPRESS	ARFA	O 907899 ACRE	WRPWW	30.644258	-28 422211 Door Bio Crook
WFT0001.F0	Nud	BIVERINE	AREA	0.256998 ACRE	NAVA CALL	30,630,612	SS 201036 Union Din Creek
WETC001-F0	PE0	RIVERINE	AREA		NRPWW	30808	-88 38177 Unor Bio Crook
WETC002-E0	Mid	RIVERINE	AREA	0.058544 ACRE	RPWWD	30.640767	-86.379847 (Inder Bio Creek
WETC002-E1	- A	RIVERINE	AREA	0.051943 ACRE	RPWWD	30 640811	-88 379725 (Inder Bid Creek
WETC002-F0	PFO	RIVERINE	AREA	0.210766 ACRE	RPWWD	30.640621	-88 379441illooer Bio Creek
WETC002-F1	O.F.	RIVERINE	AREA	0,051337 ACRE	RPWWD	30.640629	-88.37965 l Doer Big Creek
WETC003-E0	PEM	RIVERINE	AREA	0,419841 ACRE	RPWWD	30.643439	-88.374429 Upper Blg Creek
WETC003-E1	PEN	RIVERINE	AREA	0.040246 ACRE	RPWWD	30,543563	
WETC003 FO	PFO	RIVERINE	AREA	0.002593 ACRE	RPWWD	30.843158	
WETC003-F1	PFO	RIVERINE	AREA	0.063158 ACRE	RPWWD	30.643308	-88.374281 Upper Big Creek
WETC003-F2	PFO	RIVERINE	AREA		RPWWD	30.643421	-88.374096 Upper Big Creek
WETCO04-E0	PEM	RIVERINE	AREA SOS	0.15022 ACRE	NRPWW	30.645313	-88.370568 Upper Big Creek
VYELCOOK-FO	2.0	KIVERINE	7.70 ×	0.197123 ACRE	NECKAON	30.545108	-88.370329 Upper Big Creek
WE TOOK ED	2 0	AND THE PROPERTY OF THE PROPER	4004		ANNA BY	COBCACO CO	28 369154 Upper Big Creek
WETC006-E0	DEN.	RIVERINE	AREA	0.058394 ACRE	NRPWW	30.546808	-88 367438 () Oner Bio Creek
WETCOO7-EO	PEM	RIVERINE	AREA	0.221863 ACRE	RPWWD	30.547411	-88,365185 Upper Big Creek
ETC007-E1	PES	RIVERINE	AREA	0.004867 ACRE	RPWWO	30.547587	
WETC007.F0	PFO	RIVERINE	AREA	0.619515 ACRE	RPWWD	30.547122	
WETC007-F1	PFO	RIVERINE	AREA	0.051916 ACRE	RPWWD	30.647286	
WETC008-E0	PEM	RIVERINE	AREA		NRPVWV	30.848484	-88.363962 Upper Big Creek
WETC008-F0	PFO	RIVERINE	AREA	D.427921 ACRE	NRPVWV	30.648343	
WETCO09-E0	PER	RMERINE	AREA	0.078543 ACRE	NRPWW	30.649068	-88.362754 Upper Big Creek
WETC008-F0	PFO	RYERINE	AREA	D.107255 ACRE	NRPWW	30.648888	-88.362503 Upper Big Creek
WETCO10-E0	PEN	RIVERINE	AREA	0.281283 ACRE	NRPWW	30.649732	-88.361268 Upper Big Creek
WETCO11-S0	PSS	MINSOILFLT	AREA	1.58063 ACRE	NRPWW	30.505764	-88 493845 Black Creek-Escatawpa River
WETCOTT 63	000	MINOCILAL.	AKEA	11,026030 ACRE	NKPWW	30.506044	-88.4931811Black Creek-Escatawpa River
WETCHOLDS	000	MINSOIL T	4004 4004	5.418140 ACRE	22000 22 2000 22	30.508763	-88.48886 Black Creek-Escatawpa River
WFTC012-S0	SSG	TISTOSMIN	AREA	R 114123 ACRE	ANALY CONTRACTOR OF THE PROPERTY OF THE PROPER	30.5712.05	-86.462/39 Black Creek-Escalawpa Kiver
WETC012-S1	888	MINSOII FLT	ARFA	2 1AAB7 ACRE	NEPVAN	30 647030	SO AP2011 Disc. Order Description Disc.
WETC013A-E0	PEM	DEPRESS	AREA	G 100501 ACRE	NRPWW	30.525186	-98 482827 Black Creek Receivants Biogr
WETC013A-F0	PFO	DEPRESS	AREA	0.123088 ACRE	NRPWW	30 525218	
WETC013B-E1	PEM	MINSOILFLT	AREA	2.3709721ACRE	NRPWW	30.527375	-88 48114 Black Creek-Espatawoa River
WETC013B-S0	PSS	MINSOILFLT	AREA	3,367778 ACRE	NRPWW	30,5278	-88.481203 Black Creek-Escatawos River
WETC014-E0	PEN	DEPRESS	AREA	0.323622 ACRE	NRPWW	30.529048	-88.478363 Black Creek-Escalawpa River
WETCD15-E0	MU A	DEPRESS	AREA	0.468837 ACRE	RPWWD	30.529502	
WEI CO15-E1	P CE	DEPRESS	AREA	0.36982BIACRE	RPWWD	30.529558	-88.473648 Black Creek-Escatawpa River
WEICOIS-FO	2 2	DEPRESS	AREA	0.14328 ACRE	RPWWD	30.529746	-88 473573 Black Creek-Escatawpa River
VACTOR DO	2 2		202C	1000 x 00000	Characo	SERRACION OF	-88.474139 Black Creek-Escalawpa River
FTC016-F1	MIG	RIVERINE	APEA	0.177782 ACRE	Chyvian	20.000 S	-68,400,505 Upper Big Creek
WETC017-F0	DE0	RIVERINE	AREA	1.048957 ACRE	RPWWD	30 629009	-co.sesuit Dippel on Clear -RS 308506 Librar Rin Creak
			5		71111	**********	

20-20-02	NEW .	N N N N	AREA	0.354998 ACRE		00.00	-88.3.39.78	-88.309026 Upper Big Cheek
WETC018-F0	PFO	RIVERINE	AREA	0.572532 ACRE	NRPWW	30,684938		Upper Big Creek
WETCO19-E0	₩ <u>G</u> A	RIVERINE	AREA	1.87554 ACRE	RPWWD	30.687829	ľ	-88.305532 Upper Big Creek
WETC019-E1	PEM	RIVERINE	AREA	2.424476 ACRE	RPWWD	30.690284	-88.303743	-88.303743 Upper Big Creek
WETC019-E2	<u>~</u>	RIVERINE	AREA	0.044259 ACRE	RPWWD	30.691331	-88.302285	Upper Big Creek
WETC019-F0	PFO	RIVERINE	AREA	2.345845 ACRE	RPWWD	30.687585	-RR 305322	-88 305322 Umer Pin Creek
WETC019-F1	PFO	RIVERINE	AREA	2.87068 ACRE	RPWWD	30 689981	-88.303637	Const. Dog Creak
WETC019-F2	OHO	RVERINE	AREA	0.245906 ACRE	RPWWD	30.691052	-88 30227B	-88 302278 (Indee Bio Creek
WETC020A-E0	NEW .	SLOPE	AREA	0.050603 ACRE	INRPWW	30,609306	AR 297295	AR 207205 I fonce His Create
WETC0208-E1	2	DEPRESS	AREA	0.719485 ACRE	NRPWW	30 700355	-4R 280880	48 280889 I took Bio Creek
WETC0208-FD	PFO	SLOPE	AREA		NRPWW	30 692282	-AR 2071741	
WETC021-E0	PEM	RIVERINE	AREA	0.443471 ACRE	NRPWAV	30 732862	AR SARRY	100 P. C.
WETC021-61	MHG	RIVERINE	ARFA		MANAGA	30.736444	00 061704	Opposition of Cheek
WETCO21-FD	DEC	BINESNA	4864		NEDAAAA	20. CO	1000000	Opposition of the control of the con
WETC021,F1	Cia	PATERINE	A DEA	0.770530 4.005	NDDAAAA	30.732634	-99.20037	Opper big Creek
ACTIONAL CO	250		5	2000 6300 1.0	AAA AAA	30./33924	DC07.98-	-56 Zoou Opper Sig Creek
WEI COZIERZ	2	XIVEKEN	AKEA		NRPWW	30,736393	-38.262045	-38.262045 Upper Big Creek
WE I C022-F0	PFO	RNERINE	AREA		RPWWD	797967.08	-88.259569	-88.259569 Upper Big Creek
WETC022-F1	PFO	RIVERINE	AREA	1.433291 ACRE	RPWWD	30,740863	-88,259071	-88.2590711Upper Big Creek
WETC022-F2	PFO	RIVERINE	AREA	0.534549 ACRE	RPWWD	30.742536	-88.259264	-88.259264 (Upper Big Cheek
WETC022-S0	PSS	RIVERINE	AREA	0,55064 ACRE	RPWWD	30.73983	A8 259794	-88 259794 Librar Blo Creek
WETC022-S1	SSG	RIVERINE	AREA	2 135625 ACRE	RPWAM	30 741380	OPCOSC BO	
WETC024-ED	NHC.	RINERINE	AREA	A 914228 ACRE	NEGRAM	20 76030C	943000000	
WETCHS-ED	Since Since	DAY GOINE	500			30.788328	-86 235040	-68 209040 Chickasaw Creek
WETCOSE ED	e Cu	CHICONICO	5 5		איייייייייייייייייייייייייייייייייייייי	30.771793	-88.237498	-88.237498 Chickasaw Creek
WATER CONTRACTOR	2	E STANKE	77	U.SUBSIZE AURE	NKPWW	30 772049	-88.237704	-88.237704 Chickasaw Creek
METCOZO-EG	L L	RIVERINE	AREA		NRPWW	30,776212	-88.233774	-88.233774 Chickasaw Creek
WETC026-F0	DE0	RIVERINE	AREA	1.536409 ACRE	NRPWW	30,776133	-88.233465	Chickasaw Creek
WETC027-E0	PEM	RIVERINE	AREA	1.466568 ACRE	RPWWD	30.777143	-88.227931	Ohickasaw Creek
WETC027-F0	ō.	RIVERINE	A3EA	4.585799 ACRE	RPWWD	30.775874	-88.228398	-88.228399 Chickasaw Creek
WETC028-EG	PEM	RIVERINE	AREA	0.832808 ACRE	NRPWW	30.588265	-88 448732	-88 448732 Rocky Creek, Facetawns River
WETC028-FD	PFO	RIVERINE	AREA	0.507717.ACRE	NRPWW	30.587934	-8R 44R5/19	-88 448509 Poeto Creek Fecatawa Diser
WETC029-E0	PĒM	RVERINE	AREA	0.258927 ACRE	NRPWW	30.680046	-88.3171R1	-88 317181 Inner Ro Creak
WETC029-FD	5	RVERINE	AREA	0.257321 ACRE	NRPWW/	30.679735	-88 317108	Liboar Bio Creak
WETC030-E0	PEM	RIVERINE	AREA	7.301268 ACRE	RPWWD	30 595793	-89 445544	Dorlo Create Lecateure Direct
WETC030-E1	PEM	RIVERINE	AREA	0.006476 ACRE	RPWWD	30 598/05	38 442463	38 442483 Booky Order Fendamo Diver
WETC030-E2	PEM	RIVERINE	AREA	1.150808 ACRE	RPWWD	30.599767	-88 441304	Rocky Creek-Hecatavana River
WETC030-F0	PFO	RIVERINE	AREA	7.712206 ACRE	RPWWD	30.595236	-88 445532	Rocky Creek-Facateuna River
WETC030-F1	PFO	RIVERINE	AREA	0.01204 ACRE	RPWWD	30.598906	-R8 442272	-88 442272 Rocky Craak Facalauma River
WETC030-F2	PFO	RIVERINE	AREA	2.420431 ACRE	RPWWD	30.599375	-88 441362	-88 441362 Rock Creek-Frontains River
WETC031-E1	PEM	RIVERINE	JAREA		RPWWD	30 850445	. AR 350783	Those Big Creek
WETCO31: E2	PEM	RIVERINE	AREA	0.067991 ACRE	RPWWD	30 550438		Charles and Charles
WETC031-E3	Sing Sing	RIVERINE	AREA	0.127605 ACRE	CWWda	A SACRES		
WETC032-E0	Ē	RIVERINE	AREA	0.292563 ACRE	Neway	30.00000		Upper big creek
WETC033-E0	PEM	RVFRINE	AREA	0 182373 ACRE	Nacional	000000000	90.00000	Upper Big Creek
WETDOO! FO	244	in Nanyaa	2008	1000 V 9080 C	MAC TO THE PARTY OF THE PARTY O	30.034081	80.55258	Coper dig Creek
WETDON: EC	050	DANGING	Vior.	1000 A 00000 C	AAAAA	30.409223	-88,483668	-88,483668 Black Creek-Escalawpa River
WETDONS.FO	OEO.	מאום איום.	C 100 C	O COSESSE A COSE	NKPWW	30,409143	-88.48355	-88.48355 Black Creek-Escatawpa River
WETDOORED	2 2 2	T 10 100000	5 50	TOO COLUMN	NAMALY	30.413603	-88.482927	Black Creek-Escatawpa River
WETD004-F0	Cae	ORGSOILELT	ADEA	10 140707 ACBE	Think	30.415632	-89.482824	88.482824 Black Creek Escatawpa River
WETDOOS FO	DEC	DIVERSITE OF THE PARTY OF THE P	ADEA	3 101003 6000	NO DISCORDING THE RESERVE OF THE PERSON OF T	30.419186	-88.485628	-88.485628 Black Creek-Escatawpa River
WETTOOR FO	0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$ 10 ¢	0.000 ADOL	AAAALUN	30.544185	-66.47.1693	-66.47.1693 Black Creek-Escatawpa River
AND TOUCH BY			ל בי י	COSTON ACRE	Krywy	30.546176		-88.47158 Black Creek-Escatawpa River
ACT TOOK TO	0 6		5000	C.SUT ACRE	CMMMC	30.546532	-88.471817	Black Creek-Escatawpa River
WEILOUGHE	2 2	MIVERINE	AKEA	0.014472 ACRE	RPWWD	30.546699	-88.471409	-88 471409 Black Creek-Escatawpa River
A CLICOLO TO	200	MINIOCITE	ARE I	O.UZ/838 ACRE	RPWWD	30.549742		Black Creek-Escatawpa River
WE LOOPED	Sul	MINSOLF!	3	1.341908 ACRE	RPWWN	30.552149	-88.471554 E	Black Creek-Escatawpa River
WC LUCA-FU	2	MINSOILFL	AREA		RPWWN	30.551646	-88.471437 E	Black Creek-Escatawpa River
WEILCOS-SO	PSS	MINSOLFIT	AREA		RPWWN	30.552008	-88.471432	-88.471432 Black Creek-Escatawpa River
we coose-co	PER	MINSOILFLT	AREA		NRPWW	30.556909	-88.467092 F	Rocky Creek-Escatawpa River
WE LOOP ET	Z (MINSOILFLT	AREA		NRPWW	30.5625	-88.461B03 F	-88.461803 Rocky Creek-Escatawpa River
WE I DOUGHED	PFO	MINSOILFLT	AREA	3.495099 ACRE	NRPWW	30.555082	-88.468406 E	-88.468406 Black Creek-Escatawpa River
WETD009-F1	PFO	MINSOLFLT	AREA		NRPWW	765958.0E	-88.464144 F	Rocky Creek-Escatawpa River
WET0009-F2	O±0	MINSOILFLT	AREA	0.150657 ACRE	NRPWW	30.563347	-88.460597 F	Rocky Creek-Escatawpa River
WELLOUS-F3	2	MINSOILFLT	AREA	-	NRPWW	30.564177	-88.459807 F	Rocky Creek-Escatawpa River
	-		į	1664				

Marchine Archite Arc	WETD009-S1	PSS	IMINSOLFLT	AREA	3.791372 ACRE	INRPWW	30.561855	-88 462	-88 462 Rocky Creek-Escalawna River
1879 1970	WET0009-S2	PSS	MINSOLFLT	AREA	0.839516 ACRE	NRPWW	30,563713	-88.460237	Rocky Creek-Escatawoa River
1979 1970	WETDOICHED	PEM	RIVERINE	AREA	1.097842 ACRE	RPWWD	30.631308	-88,395026	Upper Big Creek
17.00 17.0	WETD010-E1	PEM	RIVERINE	AREA	0.024054 ACRE	RPWWD	30,632271	-88.393153	Upper Big Creek
Page	WETD010-F0	PFO	RIVERINE	AREA	3.356577 ACRE	RPWWD	30,631008		Upper Big Creek
1970 1970	WEI0010-F1	PFO	RIVERINE	AREA	1.492907 ACRE	RPWWD	30.632109	-88.392937	Upper Big Creek
The control of the	WEIDGIT-ED	2 1	RIVERINE	AREA	0.287921 ACRE	RAWWD	30,634424	-68.388233	Upper Big Creek
Fig. Receipted Action	WELDON - EL	¥ 100		AKUA AKUA	0.02549/ ACKE	CANAMA CONTRACTOR OF THE CONTR	30,63,658	88.38836	Upper Big Creek
PARTY CONTRIBUTE CONTRIBUTE </td <td>WETDO11-FO</td> <td>PFO</td> <td>RIVERINE</td> <td>AREA</td> <td></td> <td>DWWN</td> <td>30,637(052</td> <td>68.387417</td> <td>Upper dig Creek</td>	WETDO11-FO	PFO	RIVERINE	AREA		DWWN	30,637(052	68.387417	Upper dig Creek
1.5 1.5	WETD011-F1	PFO	RIVERINE	AREA	3.169254 ACRE	CWWAB	30 636755	- 88 387387	Upper Old Creat
FEM MUNICIPATION APPLICATION CONTRIBUTION STATESTICAL AND CONTRIBUTIO	WETD012A-E0	Madı	RIVERINE	AREA	0.055602 ACRE	RPWWO	30 722308	-BR 275336	Under Big Creek
PEM INVERSIGN ACRES O 1712/9 AADE INVERNO 20.72229 48.7250/1 Date 196 Cover PEM INVERNO 20.00000 20.72229	WETD012A-E1	290 200	RIVERINE	AREA	0.044B5 ACRE	RPWWD	30.72293	-\$8.275084	Upper Blo Creek
PEM REFERENT CODOMALA LACES STATAMON SATZAMON	WETD012A-E2	PEM	RIVERINE	AREA	0,171493 ACRE	RPWWO	30.723253	-88.275426	Upper Bio Creek
PEM REFERENT CONTROLLAGINE REVANDO D. 0.7.24649 40.7.7.246499 40.7.7.246499 40.7.7.246499 <	WETD012A-E3	DEM	RIVERINE	AREA	0.505144 ACRE	RPWWD	30,723732	-88 27507	Upper Big Creek
PRINT INTERENT AREA 11.17.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT INTERENT AREA 11.17.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT INTERENT AREA 11.27.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT INTERENT AREA 11.27.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT INTERNAT AREA 11.27.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT AREA 11.27.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT AREA 11.27.18 ALEE RAVINO 20.27263 48 2.72530 (ADER 10.0000) PRINT AREA 11.27.18 ALEE RAVINO 20.27270 48 2.72530 (ADER 10.0000) PRINT AREA 11.27.18 ALEE RAVINO 20.27270 48 2.72530 (ADER 10.0000) PRINT AREA 11.27.18 ALEE RAVINO 20.27270 48 2.27270 (ADER 10.0000) PRINT	WETD012A-E4	PEM	RIVERINE	AREA	0.001448 ACRE	RPWWD	30.724489	-88.274165	Upper Big Creek
PROF. INVERTING ACRES O. A STATION DESCRIPTION CONTROL	WETD012A-ES	PEM	RIVERINE	AREA	1.107156 ACRE	RPWWD	30.724638	-88.274326	Upper Big Creek
PROFERED BY STATES AND ASSESSION AND STATES	WETD012A-F0	Q.	RIVERINE	AREA		RPWWD	30.722625	-88.275257	Upper Big Creek
Proc. Controlled APPLY Controlled	WETD012A-F1	PFO	RIVERINE	AREA		RPWWD	30.722523		Upper Big Creek
Part Control Control	WE LOOTEA-FZ	04.	RIVERINE	AREA	0.067504 ACRE	RPWWD	30.723006	-88,275325	Upper Big Creek
PEM RATE COLTABRE LOCATION REPOYNTY 30.773-36 48.177730 UNIT DESIGNED PEM RATE CASCA 2.04.2480 LOCATION 30.773-36 48.177730 UNIT DESIGNED PEM RATE CASCA 0.04.02.02 REPOYND 30.7273-36 48.177730 UNIT DESIGNED PEM RATE 0.04.02.02 CASCA 0.04.02.02 REPOYND 30.72730 48.177730 UNIT DESIGNED PEM RATE 0.04.02.02 CASCA CASCA REPOYND 30.72730 48.17750 UNIT DESIGNED PEM RATE 0.04.02.02 CASCA REPOYND 30.72730 48.17750 UNIT DESIGNED PEM RATE 0.04.02.02 CASCA REPOYND 30.72730 48.17750 DESCO REPOYND 30.72730 38.17750 UNIT DESCO ASSAC ASSAC <td>WELDOZA-FG</td> <td>57.5</td> <td>RIVERINE</td> <td>AREA</td> <td>1.752276 ACRE</td> <td>RPWWD</td> <td>30,723723</td> <td>-88.274718</td> <td>Upper Big Creek</td>	WELDOZA-FG	57.5	RIVERINE	AREA	1.752276 ACRE	RPWWD	30,723723	-88.274718	Upper Big Creek
PROFIT MARCH A SOLIDA LACE FORMING SOLIDA LACE FORMING SOLIDA LACE FORMING SOLIDA LACE PORMING SOLIDA LACE PORMING SOLIDA LACE SOLIDA LACE PORMING SOLIDA LACE <	WELLOTZB-ED	PEM	RIVERINE	AREA	0.214836 ACRE	RPWWN	30.726463	-88.273322	Upper Big Creek
PER INTERNITY ACRES 10 12459 (ACRE 10 1244) CONNOTION DESCRIPTION OF ACCUSATION OF	WCTD012B-E1	E (100	KIVEKINE	AREA	0.910757 IACRE	RPWWN	30.7278	-88,272534	Opper Big Creek
PER PRESENT CARCEN O 10,703.00 COMMIN SALESTAN SALESTAN SALESTAN SALESTAN CORRESPONDED SALESTAN SALESTAN SALESTAN CORRESPONDED SALESTAN SALESTAN CORRESPONDED SALESTAN CORRESPONDED SALESTAN CORRESPONDED SALESTAN CORRESPONDED SALESTAN CORRESPONDED SALESTAN CORRESPONDED SALESTAN SALESTAN CORRESPONDED CORRESPONDED <t< td=""><td>WETDOM: FO</td><td>DEN</td><td>DIVERNING</td><td>A304</td><td>2.8048921ACRE</td><td>NAMAL DOMANA</td><td>30,727285</td><td>-88.272484</td><td>Upper Big Creek</td></t<>	WETDOM: FO	DEN	DIVERNING	A304	2.8048921ACRE	NAMAL DOMANA	30,727285	-88.272484	Upper Big Creek
PED RINCERNIE ARREA COMBINION REVENUE ARREA COMBINION REVENUE	WETDO13-F	2 10	PINERINE	AREA	4 1493 ACRE	Downson	30.769735		Upper big Creek
PFO RIVERINE AREA TYTSTON LOCKE ROWN 30,718072 28,718072 </td <td>WETD013-E2</td> <td>PEM</td> <td>RIVERINE</td> <td>AREA</td> <td>D.088152 ACRE</td> <td>RPWWT</td> <td>30.754906</td> <td>-40.633309 88.353301</td> <td></td>	WETD013-E2	PEM	RIVERINE	AREA	D.088152 ACRE	RPWWT	30.754906	-40.633309 88.353301	
PDC INTERNINE AMERIA 0.00000000000000000000000000000000000	WET0013-F0	앤	RIVERINE	AREA	7.978576 ACRE	RPWWN	30 748071	20,233391	Upper 60 Creek
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PPO RIVERINE AREA QUATTIRB JACKE RIVANYO 30,7554877 283,252480 LUDRE 180 Creek PPO RIVERINE AREA 1,0281781 ACREE RIVANYO 30,755487 283,252280 LUDRE 180 Creek PPO RIVERINE AREA 1,028171 ACREE RIVANYO 30,755487 283,252280 LUDRE 180 Creek PPO RIVERINE AREA 0,00820 ACREE RIVANYO 30,755487 283,252280 LUDRE 180 Creek PPO RIVERINE AREA 0,00820 ACREE RIVANYO 30,755887 483,252280 LUDRE 180 Creek PPO RIVERINE AREA 0,00820 ACREE RIVANYO 30,755887 483,25280 LUDRE 180 Creek PPO RIVERINE AREA 0,00820 ACREE RIVANYO 30,755887 483,1008 Creek RIVANYO 30,25589 LUDRE 180 Creek Creek Creek Creek CREEK CREEK PED RIVERINE AREA 1,00840 CREEK RIVANYO 30,25589 LUDRE 180 CREEK CREEK CREEK	WETD013-F2	PFO	RIVERINE	AREA	1.519709 ACRE	RPWWD	30,75427	-88.254123	Josef Bio Creek
PPO FIREMENTALING AREA 0.27149AL RPRWND 30.7759SB 48.2233SB 0.000 PPO RIVERINE AREA 0.2649SB CAPPA 0.2747B 0.2747B </td <td>WETD013-F3</td> <td>Odel</td> <td>RIVERINE</td> <td>AREA</td> <td>0,038259 ACRE</td> <td>RPWWD</td> <td>30,754467</td> <td>-88 254248</td> <td>Jober Big Creek</td>	WETD013-F3	Odel	RIVERINE	AREA	0,038259 ACRE	RPWWD	30,754467	-88 254248	Jober Big Creek
PEM RAPERA (LARING AREE) 1,00.316 AREE FROWNO 30,775592 86.220200 Luppe Bg Creek PEM RAFERINE AREE 1,00.316 AREE 1,00.31759 86.22020 Luppe Bg Creek PEM RAFERINE AREA 0,48920 ACREA 1,00.31750 1,00.31759 86.22020 Luppe Bg Creek PEM RAFERINE AREA 0,48920 ACREA RAFERINE 2,00.317700 30,77590 86.22020 Luppe Bg Creek PEM RAFERINE AREA 0,48920 ACREA RAFERINE RAFERINE 48.22010 Chicasae Creek PEM RAFERINE AREA 0,48920 ACREA RAFERINE RAFERINE 48.22020 Chicatae Creek PEM RAFERINE AREA 0,48920 ACREA RAFERINE RA	WEY0013-F4	PFO	RIVERINE	AREA	0.271189 ACRE	RPWWD	30,755175	-88.253822	Upper Big Creek
PPO RIVERINE AREA 0.288201/JACKE RWWD 20.775787 38.252200 (June Bib Creek PFO RIVERINE AREA 0.488201/JACKE RIVERAN 20.775797 30.777797 48.21016 (Chiesaeu Creek PFO RIVERINE AREA 0.488201/JACKE RIVERAN 30.777797 48.221010 (Chiesaeu Creek PFO RIVERINE AREA 0.488201/JACKE RIVERAN 30.777797 48.221010 (Chiesaeu Creek PFO RIVERINE AREA 0.488201/JACKE RIVERAN 30.777797 48.22405 (Chiesaeu Creek PFO RIVERINE AREA 0.487204/JACKE RPWWD 30.777777 48.22405 (Chiesaeu Creek PFO RIVERINE AREA 1.282504/JACKE RPWWD 30.77777 48.24405 (Chiesaeu Creek PFO RIVERINE AREA 1.080898/ACRE RPWWD 30.77787 48.24506 (Chiese Received Creek Escratorya Roe PFO RIVERINE AREA 1.080898/ACRE RPWWD 30.75787 48.43007 (Back Creek Escratorya Roe PFO RIVERINE ARE	WETD014-E0	PEM	RIVERINE	AREA	1.034138 ACRE	RPWWD	30,757682	-88.252336	Joper Big Creek
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PPO RIVERNIE AREA 0.058531 ACRE INFPWW 30.778758 48.210106 (Chackassaw) Creek PPO RIVERNIE AREA 0.058531 ACRE INFPWW 30.77759 48.22237 (Chackassaw) Creek PPO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77759 48.22237 (Chackassaw) Creek PPO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22237 (Chackassaw) Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22207 (Chackassaw) Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22207 (Chackassaw) Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22402 (Chackassaw) Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22402 (Chackassaw) Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD 30.77757 48.22401 (Dept Bp Creek PEO RIVERNIE AREA 0.04504 ACRE IRPWWD<	WETOO15-E0	PEM	RIVERINE	AREA	0.489713 ACRE	NRPWW	30.783799		Chickasaw Creek
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CEEM ORGSOLLE-TT AREA 1, 943944, ACRE Inviving 30, 12, 135, 14 48, 48, 40, 12, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18	WETDOIRED	050	PINEDINE	ADGA	1004 A1740 O	N V V V V	30.777002	-88.224506	Chickesaw Creek
EZEW ORGSOLULIT AREA 0.104600 ACRES	WETG001-F0	F2FM !	OBOSON ELT	AREA	12 052044 ACRE	Thurstar	30.7/8752	-88.224728	Unickasaw Oreek
PEM RIVERINE AREA 0.74079 ACRE INRPWW 30.675550 -88.323451 Upper Big Creek PEO RIVERINE AREA 1.0609580 ACRE INRPWW 30.675550 -88.319994 Upper Big Creek PEO RIVERINE AREA 0.600734 ACRE INRPWW 30.675550 -88.319994 Upper Big Creek PEM RINISOLLETT AREA 0.600734 ACRE RPWWD 30.355135 -88.319994 Upper Big Creek PEM MINISOLLETT AREA 0.105511 ACRE RPWWD 30.35513 -88.469556 P.Aux Chenes Bay-Mississpp PEM MINISOLLETT AREA 0.105511 ACRE RPWWD 30.35517 -88.469556 P.Aux Chenes Bay-Mississpp PEM MINISOLLETT AREA 1.054981 ACRE RPWWD 30.35561 -88.469556 P.Aux Chenes Bay-Mississpp PEM MINISOLLETT AREA 2.55974 ACRE RPWWD 30.35564 -88.469596 P.Aux Chenes Bay-Mississpp PEM MINISOLLETT AREA 2.59740 ACRE RPWWD 30.35660 -88.469510 P.Aux Chenes Bay-Mississpp PEM RIVERINE	WETG002-E0	EZEM	ORGSOILFLT	AREA	4 104845 ACRE	RPANA	P00002 OF	-86.490Z1	State Creek-cacatawpa Kiver
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PCO RNCRINE AREA 0,800724 ACRE RNCRINE AREA 0,800724 ACRE RNCRINE AREA 0,800724 ACRE ACREA 0,800724 ACREA ACREA 0,800724 ACREA ACREA ACREA 0,800724 ACREA ACREA<	WETGOO4-ED	PEM	RIVERIME	AREA	0.579371 ACRE	NRPWW	30.578303	-88.319991	Josef Bio Creek
PEM MINSOIL FLT AREA 0.188405 ACRE RPWWD 30.35541 86.489565 PLAUX Chenes Bay-Mississpip and ALEA 0.2354135 86.489565 PLAUX Chenes Bay-Mississpip and ALEA 0.2354134 48.489565 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 48.488565 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 48.488512 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 48.488512 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 48.488512 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 48.488517 PLAUX Chenes Bay-Mississpip and ALEA 0.235417 PLAUX Chenes Bay-Mississpip and ALEA 0.235414 ALEA <t< td=""><td>WETG004-F0</td><td>P. D.</td><td>RIVERINE</td><td>AREA</td><td>0.800754 ACRE</td><td>NRPWW</td><td>30.67797</td><td>-88.319984</td><td>Joper Big Creek</td></t<>	WETG004-F0	P. D.	RIVERINE	AREA	0.800754 ACRE	NRPWW	30.67797	-88.319984	Joper Big Creek
PEM MINSOIL FLT AREA 0.105511 ACRE RPWWD 30,355135 -80,486556 Pr, Aux Chenes Bay-Mississpip PEM MINSOIL FLT AREA 0.105511 ACRE TWWN 30,356919 -80,486556 Pr, Aux Chenes Bay-Mississpip PEO MINSOIL FLT AREA 2.756574 ACRE TWWW 30,356969 -80,486372 Pr, Aux Chenes Bay-Mississpip PSS MINSOIL FLT AREA 2.756574 ACRE TWWW 30,356969 -80,486201 Pr, Aux Chenes Bay-Mississpip PSS MINSOIL FLT AREA 2.591749 ACRE RPWWD 30,356694 -80,486701 Pr, Aux Chenes Bay-Mississpip PSS MINSOIL FLT AREA 2.591749 ACRE RPWWD 30,356694 -80,486701 Pr, Aux Chenes Bay-Mississpip PEM RIVERINE AREA 0.541791 ACRE RPWWD 30,5565147 -80,486701 Pr, Aux Chenes Bay-Mississpip PFO RIVERINE AREA 0.54379 ACRE RPWWD 30,5565147 -80,34691 Upper Big Cheek PFO RIVERINE AREA 0.54349 ACRE RPWWD 30,556541 -80,3584 Upper Big Cheek	WETG005-E0	PEM	MINSOILFLT	AREA	0.168405 ACRE	RPWWD	30,36541	-88.488565	Pt Aux Chenes Bay-Mississippi Sound
PEO MINSOILF1 AREA 0.104861 ACRE TWWWD 30.356401 58.486502 P.Auz Chenes Bay-Mississeppo P.P.C MINSOILF1 AREA 2.756674 ACRE TWWWD 30.356703 P.Auz Chenes Bay-Mississeppo P.P.C MINSOILF1 AREA 2.756674 ACRE TWWWD 30.356703 A6.486581 P.Auz Chenes Bay-Mississeppo P.P.C MINSOILF1 AREA 2.596724 ACRE RPWWD 30.356703 A6.486271 P.Auz Chenes Bay-Mississeppo AREA 2.596724 ACRE RPWWD 30.356703 A6.486271 P.Auz Chenes Bay-Mississeppo AREA 2.596724 ACRE RPWWD 30.65567 A6.486271 P.Auz Chenes Bay-Mississeppo AREA 0.348491 ACRE RPWWD 30.65567 A6.348931 ACRE RPWWD AREA 0.34449 ACRE RPWWD 30.65567 A6.348931 ACRE RPWWD 30.65567 A6.348931 ACRE RPWWD ACRE RPWWD ACRE ACRE RPWWD ACRE ACRE RPWWD ACRE ACR	WEIGUSET	PEM	MINSOILFLT	AREA	0.643341 ACRE	RPWWD	30,355135	-89.488585	? Aux Chenes Bay-Mississippi Sound
PSS MINSOILETE AREA 1.000 APPEN 1.	WETCOOK ED	2 0	MINSOLF	AXEA FILE		RPWWD	30.354811	-88,488588	거 Aux Chanes Bay-Mississippi Sound
PSS MINISOLIE LT AREA 2.500.740 ACRE RWWD 30.3560.28 -88.4850.17 PSS MINISOLIE LT AREA 2.597.26 ACRE RPWWD 30.35694 -88.4851.1 PFO RIVERINE AREA 0.588371 ACRE RPWWD 30.65694 -88.48811 PFO RIVERINE AREA 0.388371 ACRE RPWWD 30.65694 -88.38403 PFO RIVERINE AREA 0.388371 ACRE RPWWD 30.66694 -88.38604 PFO RIVERINE AREA 0.34010123 ACRE NRPWW 30.660644 -88.33864 PFO RIVERINE AREA 1.78944 ACRE NRPWW 30.6606457 -88.33861 PFO RIVERINE AREA 0.310123 ACRE NRPWW 30.660644 -88.33861 PFO RIVERINE AREA 0.702347 ACRE NRPWW 30.660548 -88.33561 PFO RIVERINE AREA 0.702347 ACRE NRPWW 30.660342 -88.33561 PFO RIVERINE AREA </td <td>WETGOOS-SO</td> <td>38</td> <td>T I I I CSNIM</td> <td>2004 4004</td> <td>2 758574 0 COC</td> <td>TANADA</td> <td>30.358698</td> <td></td> <td>Aux Chanes Bay-Mississippi Sound</td>	WETGOOS-SO	38	T I I I CSNIM	2004 4004	2 758574 0 COC	TANADA	30.358698		Aux Chanes Bay-Mississippi Sound
PSS MINISOLLE IT AREA 2.59740 ACRE RPWWD 30.356028 - 58.488201 PSS MINISOLLE IT AREA 3.05729 ACRE RPWWD 30.356964 - 58.48810 PEO RIVERINE AREA 0.540249 ACRE RPWWD 30.655147 48.346931 PFO RIVERINE AREA 0.346949 ACRE RPWWD 30.656064 48.339064 PFO RIVERINE AREA 0.34049 ACRE RPWWD 30.660457 48.336014 PFO RIVERINE AREA 0.34049 ACRE NRPWW 30.660457 48.336014 PFO RIVERINE AREA 1.759494 ACRE NRPWW 30.660457 48.336014 PFO RIVERINE AREA 0.702407 ACRE NRPWWD 30.6603781 49.335014 PFO RIVERINE AREA 0.702407 ACRE NRPWWD 30.6603781 49.335014 PFO RIVERINE AREA 0.702407 ACRE NRPWWD 30.6603782 49.335016 PFO RIVERINE AREA 0.249384 ACRE RIVEWWD 30.660392 48.335016 PFO RIVERINE AREA 0.249384 ACRE RIVEWND 30.660392 48.335016 PFO RIVERINE AREA 0.2493384 ACRE RIVEWND 30.660392 48.335016 PFO RIVERINE AREA 0.2493384 ACRE RIVEWND 30.660392 48.335016 PFO RIVERINE AREA 0.2493384 ACRE RIVERINE AREA 3.049030392 48.335016 PFO RIVERINE AREA 0.2493384 ACRE RIVERINE AREA 3.049030392	WE7G005-S0	88	MINSOILFLT	AREA	2756574 ACRE	TNWW	30.356174		Pt Aux Chanes Bay-Mississippi Sound
PEON RIVERINE AREA 2545/929 AREA 2505/929 AREA 250	WE1G005-S1	788	MINSOILFLT	AREA	2.591749 ACRE	RPWWD	30.356028		Pt Aux Chenes Bay-Masissippi Sound
PFO RIVERINE AREA 0.386317 ACRE RPWWO 30.68562 488.34937 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.34837 48.348064	WEI GOUS-SA	2 2	MINSOILFLT	AREA	3.057929 ACRE	RPWWD	30.356964	-88,48811	* Aux Chenes Bay-Mississippi Sound
F.C. RIVERINE AREA 0.346379 ACRE RPWWD 30.655623 48.346409 48.346403 48.346403 48.346403 48.346403 48.346403 48.346403 48.346403 48.346403 48.3366623 48.346403 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.3366623 48.336673	WETGOOD ED	200	RIVERINE	ANEA	D. BTB/91 ACRE	RPWWD	30.85569	-86,348937	Joper Big Creek
PEIM RIVERINE AREA 0.3453979 ACRE RFWWY 0.365049 48.338049	WETG006-F1	2 2	AIVENINE	A1404	D.SSBST/ ACRE	H-WWWD	30.655147	-88.349333	Apper Big Creek
PFO RIVERINE AREA 0.810128 ACRE INPLANY 30.660457 38.336048 48.336048 48.336048 48.336048 48.336048 48.336048 48.336048 49.004804 ACRE I.759449 ACRE I.75944	WETG007-E0	NEM	DIVEDING	ADEA	BOOK OFOCALD	NOON	30.655623	-88.348409	Joper Big Creek
PFO RIVERNE AREA 1.799489 ACRE NRPWW 30.663781 PFO RIVERINE AREA 0.702847 ACRE NRPWW 30.663782 PFO RIVERINE AREA 0.702847 ACRE NRPWW 30.663782 RPO RIVERINE AREA 0.2989381 ACRE RPWWD 30.663092	WETG007-F0	O.d.	RIVERINE	AREA	0.830123 ACRE	ANAGAN/	30.0500884	PG096.98	Jpper Big Creek
PFO RIVERINE AREA 1.331835 ACRE INPWW 30.685548 PFO RIVERINE AREA 0.702847 ACRE INFPWW 30.667392 INFO RIVERINE AREA 0.298388 ACRE RPWWD 30.650392	WETG008-F0	PFO	RIVERINE	AREA	1.799484 ACRE	NEDWW	30,000,000	90.336949	
PFO RIVERINE AREA 0.702847 ACRE NRPWW 30.657392 88.3353676 PFO RIVERINE AREA 0.298398 ACRE RPWWD 30.6503392 88.359359	WETG008-F1	PFO	RIVERINE	AREA	1.381855 ACRE	NRPWW	30.665548	-88 335785	John Bin Creek
1 PFO RIVERINE AREA 0.298348/ACRE RPWWD 30.650392 88.389536	WETG008-F2	Ord	RIVERINE	AREA	0.702847 ACRE	MRPWW	30.867392	-89.335876	Joner Big Creek
	WETGT001-F0	PFO	RIVERINE	AREA	0.298388 IACRE	RPWWD	30,650392	-88.359536	Joper Bla Creek

	OCOCAS OF	acocoa oc	20000000		70, C251-00
0.058248 ACRE RPWWD					
 AREA	AREA	AREA	AREA	AREA	AREA
RIVERINE	RIVERINE	RIVERINE	RIVERINE	RIVERINE	RIVERINE
044	PFO	PFO	PFO	PEM	PFO
WETGT001-F1	WETGT002-F0	WETGT003-F0	WETGT007-F0	WETGT008-E0	WETGT008-F0

SUMMAN LA	in the second se						
		Other (disectional boring, crossir River/Sueam	No No	Temporary	_Proposed_Area 0	Proposed_Area 0	Authorized_Area Units_Area 0 ACRE
WBA0011 WBA0012		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Tempolary	ā	ō	O ACRE
WBA001.3 WBA002.0		Other (directional boring, crossir River/Stream	No	Тетрогагу Тетрогагу	0	0	
WBA003.0		Other (directional boring, crossir Rivet/Stream Other (directional boring, crossir Rivet/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBA003.1		Other (directional boring, crossir River/Stream	No	Temporary	0	0	0 ACRE
WBA004.1		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporany Temporany	0	0	
WBA005.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	Na Na	Temporary	٥	D	0 ACRE
WBA005.2 WBA005.3		Other (directional boring, clossly River/Stream	No No	Temporary Temporary	0	0	0 ACRE 9 ACRE
WBA006.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	a 0	0	0 ACRE
WBA005.1 WBA005.2		Other (directional boring, crossic River/Stream	No	Temporary	0	0	0 ACRE 0 ACRE
W9A008.3		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBA007.0 WBA007.1		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No	Temporary	0	Ô	0 ACRE 0 ACRE
WBA007.2 WBB001.0	F 6	Other (directions) boring, crossin River/Stream	No No	Temporary Temporary	0	0	0 ACRE 0 ACRE
WBB004.0	Escatówpa River	Other (directional boring, crossin Rivel/Stream Other (directional boring, crossin Rivel/Stream	No No	Тетригагу Тетрогагу	0	Ð	0 ACRE
W00005.0 WB9006.0		Other (directional boring, crossir River/Stream	No	Temporary	Ω 0	0	O ACRE G ACRE
WEB007.0		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	Ma No	Temporary Temporary	Q 0	0	0 ACRE
WBC0010 WBC0011		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	Mo	Temporary	D	٥	0 ACRE 0 ACRE
WBC002 0 WBC002 1		Other (directional boring, crossic River/Stream	No No	Temporary Temporary	0 0	a 0	0 ACRE 0 ACRE
WBC003.0	Wolf Branch	Other (directional bosing, crossir River/Stream Other (directional bosing, crossir River/Stream	No No	Теттрогиту	0	0	0 ACRE
WBC503 1 WBC003.2	Wolf Branch	Other (directional boring, crossir River/Stream	No	Temporary Temporary	0	D D	0 ACRE 0 ACRE
WBC004 6	Woll Branch	Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary Temporary	0	ō	0 ACRE
WBC004.1 WBC005.0		Other (directional boring, crossin River/Stream	No	Тетърогату	0	0	0 ACRE 0 ACRE
WBC005 1		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE 0 ACRE
WBC005.2 WBC006.0		Other (directional boring, crossic River/Stream Other (directional boring, crossic River/Stream	No No	Temporary	ō	0	0 ACRE
W9C005 1 WBC006.2		Other (directional boring, crossin River/Stream	No	Тетрогагу Тетрогагу	0	0	0 ACRE 0 ACRE
WHC607.0		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary Temporary	0	Ó	0 ACRE
WBC007 1 WBC008 0		Other (directional buring, crossic River/Stream	No	Temporary	ō	0	0 ACRE 0 ACRE
WBC608.1	_	Other Idirectional boring, crossin RiveuStream Other (directional boring, crossin RiveuStream	Na No	Temporary Temporary	0	0	0 ACRE
WBC010A(Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No	Temporary	Ď	0	0 ACRE 0 ACRE
WBC010A:		Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE 0 ACRE
WBC010A	1	Other (directional boring, crossle River/Stream Other (directional boring, crossle River/Stream	No	Temporary Temporary	Ó	.0	0 ACRE
W8C0108.0		Other (directional boring, crossir River/Stream	No	Temporary	0	0	0 ACRE 0 ACRE
WBC011.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	e 0	0	0 ACRE
WBC011.1 WBC012.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir Pond	No	Temporary	D	0	0 ACRE G ACRE
WBC013.0 WBC013.1		Other (directional bosing, crossin River/Stream	No No	Temporary Temporary	0 D	0	0 ACRE 0 ACRE
WBC112A		Other (directional bosing, crossir River/Stream Conversion of waters type (fores Non-Tidal Wetland	No No	Temporary Temporary	0	a	O ACRE
WBC112A 1	ı	Other (directional boting, cross): River/Stream	No	Temporary	0	a 0	0 ACRE 0 ACRE
W8D001.1		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBD003A0)	Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No	Temporary	a	0	0 ACRE 0 ACRE
W8D003A 1		Other [directional boring, crossin River/Stream	No No	Temporary Temporary	0	0	0 ACRE 0 ACRE
WBD003A 3	i	Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	Ó	0 ACRE
W80003B.0		Other (directional boring, crossir Pond	No	Temporary	0	0	0 ACRE 0 ACRE
WBD004A.1		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary Temporary	0	C	O ACRE Q ACRE
WBD004A.2 WBD004B.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary	a	Ó	0 ACRE
WBD005.0 WBD005 1		Other (directional boring, crossis River/Stream	Nο	Тепірогалу Тепірогалу	0	0	0 ACRE 0 ACRE
WB0006.0		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Тетрогану Тетрогану	0	ō	0 ACRE
WB0007.0	Hamilton Creek	Other (directional boring, crossir River/Stream	No	Temporary	Q	0	0 ACRE 0 ACRE
WBD007.1	Hamilton Creek	Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	ù O	0	0 ACRE
WSD007.2 WSD007.3	Hamilton Creek Hamilton Creek	Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No.	Temporary Temporary	Ď	٥	0 ACRE 0 ACRE
WBD007.4 WBD007.5	Hamiton Creek Hamiton Craek	Other (directional boring, crossic River/Stream	No	Тетпрогиту	0	0	O ACRE O ACRE
WBD008.0	Transmit C-dek	Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary Temporary	0	0	0 ACRE
W80008.1 W80008A.0		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No	Temporary	0	0	0 ACRE 0 ACRE
WBD009A1		Other (directional boring, crossir River/Stream	No No	Тетърогату Тетърогату	0	0	0 ACRE D ACRE
W8D009C.1		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary	Ō	ō	0 ACRE
W60010.0 W60011.0	Red Creek	Other (directional boring, crossin Pond	No	Тетрогагу Тетрогагу	о С	0	D ACRE O ACRE
WBD011.1	Red Creek	Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBG0011.2 WBG003.0	Red Creek	Other (directional boring, crossic River/Sycam Other (directional boring, crossic Pond)	No	Тетрогату	0	Ö	0 ACRE 0 ACRE
WBG005.0 WBG005.1		Other (directional boring, crosser River/Stream	No Na	Temporary Temporary	0	a 0	0 ACRE 0 ACRE
WBG006.0	Black Creek	Other (directional boiling, crossic River/Stream Other (directional boiling, crossic River/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBG006.1 WBG007.0	Black Creek Escalav/pa River	Other (desctional boving, crossir River/Stream	No	Temporary Temporary	0	0 D	0 ACRE 0 ACRE
WBG008.0	Antonio ber 1111,62	Other (directional boiling, crossir River/Stream Other (directional boiling, crossir River/Stream	No No	Temporary Temporary	0	0	0 ACRE
WBG008.1 WBG009.0		Other (directional boring, crossir River/Stream Other (directional boring, crossir Pond	No No	Тетгрогиту	O	0	0 ACRE 0 ACRE
WBG010.0 WBG010.1		Other (directional boring, crossir River/Stream	No	Тетрогигу Тетрогигу	0	0	0 ACRE 0 ACRE
WBGT001.0		Other (directional boring, crossin River(Stream Other (directional boring, crossin River(Stream	No No	Temporary Temporary	0	ō	0 ACRE
WBG1001.1 WBG1004.0		Other (directional boring, crossin RivertStream)	Na	Temporary	0	0	@ ACRE @ ACRE
WBGT004.1		Other (directional boring, crossir River/Stream Other (directional boring, crossir River/Stream	Na No	Temporary Temporary	0	0	0 ACRE
WBGT004.2 WBGT005.0		Other (directional boring, crossin River/Stream Other (directional boring, crossin River/Stream	No No	Temporary	0	0	0 AGRE 0 AGRE
WBGT005 1 WBGT005 2		Other (directional boring, crossin River/Stream	No	Тетрогагу Тетрогасу	0	0	0 ACRE 0 ACRE
WBGT005 3	_	Other (directional boring, cross): RiverStream Other (directional boring, cross): RiverStream	No No	Fempolary Tempolary	a O	o o	0 ACRE
WBGT006 0	Pierce Creek	Other (directional boring, crossic Piver/Stream	No	Temporary	ū	0	0 ACRE 0 ACRE

WOOTON:								
WBGT006.1 WETA002-F0.0	Pierce Cizek	Other (directional boring, crossic		No	Temporary	Q.	0	0 ACRE
WETA002-F0 1		Conversion of waters type (forest Conversion of waters type (forest	Non-Tidal Wella	nd No nd No	Temporary Temporary	0	D	0 ACRE
WETA002-F0:2		Conversion of waters type (fores			Temporary	0 0	1 2	0 ACRE
WETA002-S0.0		Conversion of waters type (fores	Non-Tidal Wella	nd No	Temporary	ä	ō	0 ACRE
WETA002-S0.1 WETA003-E0.0		Conversion of waters type (fores			Temporary	a	1	0 ACRE
WETA003-E0,1			Non-Tidal Wella Non-Tidal Wella		Temporary	0	0	0 ACRE
WETA003-E6.2			Non-Tidal Wellin		Temporary Temporary	0 0	Ç a	0 ACRE
WETA003-E0 3		Work	Non-Tidal Weda		Temporary	0	0	0 ACRE
WETA003-E0.4			Non-Tidal Wella		Temporary	ō	ŏ	0 ACRE
WETA003-E0.5 WETA000-E0.6			Non-Tidal Wella		Тепрогагу	0	0	0 ACRE
WETA003-E0.7		27.	Non-Tidal Wells: Non-Tidal Wells:		Тетрогагу	D.	O.	O ACRE
WETA003-ED 8			Non-Tidal Wells		Temporary Temporary	0	a	0 ACRE
WETA003-E0.9			Non-Tidal Wella		Temporary	0	0	0 ACRE 0 ACRE
WETA003-E1.0		Work	Non-Tidal Weller	nd Na	Temporary	ŏ	ä	0 ACRE
WETA003-E1.1 WETA003-E1.10			Non-Tidel Wells:		Temporary	0	ō	G ACRE
WETA003-E1 11			Non-Tidai Wellar Non-Tidai Welfar		Temporary	Q	1	0 ACRE
WETA003-E1 12			Non-Tidal Wellar		Temporary Temporary	0	0	0 ACRE
WETA003-E1 13			Non-Tidal Wellar		Temporary	Ŏ	Ð	0 ACRE 0 ACRE
WET A003-E 1.2			Non-Tidal Wellar	nd No	Temporary	Ğ	1	D ACRE
WETA003-E 1.3 WETA003-E 1.4			Non-Tidal Wellar		Temporary	a	Ó	D ACRE
WETA003-E15			Non-Tidel Weller Non-Tidel Weller		Тетрогагу	0	1	0 ACRE
WETA003-E1 6			Non-Tidal Weiler		Temporary Temporary	0	0	0 ACRE
WETA003-E1.7			Non-Tidal Wetlar		Temporary	a 0	0	0 ACRE
WE1A003-E1.8			Non-Tidal Wellar	nd No	Temporary	Ď	ŏ	0 ACRE 0 ACRE
WETA000-E1 9 WETA003-F0 0			Non-Tida) Wellar		Temporary	Ď	õ	0 ACRE
WETA003-F0 1		Conversion of waters type (fores			Temporary	D	3	0 ACRE
WETA003-F1 0		Conversion of waters type (fores)			Temporary	0	1	O ACRE
WETA003-F1.1		Convorsion of waters type (fores)			Tempotary Tempotary	0 0	0	0 ACRE
WETA003-F2.0		Conversion of waters type (fores)	Non-Tida! Wellar	nd No	Temporary	0	2	0 ACRE
WETA003-F2.1		Conversion of waters type (force)			Temporary	ŏ	ī	0 ACRE
WETA003-F3.0 WETA003-F3.1		Conversion of waters type (fores I			Temporary	ō	1	0 ACRE
WETA003-F4.0		Conversion of waters type (fores to Conversion of waters type (fores to	Non-I ktal Wellar		Temporary	Q:	7	0 ACRE
WETA003-F4 1		Conversion of waters type (fores t	Mon-Trial Wellar	nd No nd No	Temporary	9	0	0 ACRE
WETA003-F5 0		Conversion of waters type (fores)			Temporary Temporary	0 0	0	0 ACRE
WETA003-F5 1		Conversion of waters type (fores)	Non-Tidal Wellan	rd No	Temporary	ŏ	- 4	0 ACRE
WETA003-F6.0 WETA003-F6.1		Commission of waters type (force)	Non-Tidal Wetian	id No	Temporary	ō	i	0 ACRE
WETA003-F7.0		Conversion of waters type (fores)	Non-Tidal Wellan	id No	Temporary	D	1	0 AGRE
WETA003-F7.1		Conversion of waters type (fores) Conversion of waters type (fores)			Temporary	0	6	O ACRE
WETA003-F7.2		Conversion of waters type (fores)	Non-Tidal Wellen	M No	Temporary Temporary	D O	1	O ACRE
WETA003-60.0		Conversion of waters type (fores t	Non-Tidal Wetlan	id No	Temporary	0	1 2	0 AGRE
WETA003-S0.1 WETA005-E0.0		Conversion of waters type (fores t	Non-Tidal Wellan	id No	Temporary	ů	ī	0 ACRE
WETA005-E0 1		Other (directional boring, crossir) Work			Temporary	0	0	0 ACRE
WETA00\$-E0.2			Non-Tidal Wetlan Non-Tidal Wellan		Temporary	0	D	0 ACRE
WETA005-E0.3			von-Tidal Wellan		Temporary Temporary	0	1	0 ACRE
WE1A005-E0.4			tan-Tidal Wellon		Temporary	o o	0	0 ACRE
WETA005-E0.5			von-Tidal Wellan	rd No	Temporary	Ö	ŏ	0 ACRE 0 ACRE
WETA005-E0.6 WETA005-E0.7			ton-Tidal Wellen		Temporary	à	ő	D ACRE
WE [A005-F0 0		Work Conversion of waters type (fores t	lon-Tidəl Wellan	d No	Temporary	0	0	0 ACRE
WETAODS-FO 1		Conversion of waters type (fores h	406-likisi Yyekan 406-Tidai Wellan	d No d No	Temporary	0	0	0 ACRE
WETAD05-F0.2		Conversion of waters type (fores A			Temporary Temporary	В 0	0	0 ACRE
WETA005-F1 0		Conversion of waters type (fores h	lon-Tidai Wellan	d No	Temporary	G	0	0 ACRE 0 ACRE
WETA005-F1.1 WETA005-F1.2		Conversion of waters type (fores for	lon-Tidal Wellan	d No	Temporary	ō	ă	0 ACRE
WETA005-F2.0		Conversion of waters type (fores h	ion-Tidal Wellan	d No	Temporary	0	1	0 ACRE
WETA005-F2 1		Conversion of waters type (fores N Conversion of waters type (fores N			Temporary	0	0	0 ACRE
WETA005-F2:2		Conversion of waters type (fores h	ion Tidal Water	d No	Temporary Temporary	0	1	0 ACRE
WETA005-F3 0		Other (directional bosing, crossir N	Ion-Tidal Wellan	d No	Temporary	0	0	0 ACRE
WETA005-F3 1 WETA005-F3.2		Conversion of waters type (fores h	nellsty labiT-not	d Na	Temporary	ŏ	ŏ	0 ACRE 0 ACRE
WETA005-F3.3		Conversion of waters type (fores N			Temporary	0	0	0 ACRE
WETA008-E0.0		Conversion of waters type (fores h Other (directional boring, crossir h	/on-lidalγγe(tan: /on-Tidal(thelian:	d Na	Temporary	0	1	0 ACRE
WETA006-F0.0		Other (directional boring, crossir A	loa-Tidal Wellan	d No d No	Temporary Temporary	0	Ö	0 ACRE
WETA007-E0 0		Work A	ion-Tidal Wellani		Temporary	0	0	Ú ACRE D ACRE
WETA007-E0 1 WETA007-E0 2		Wark N	ion-Tidal Wellani		1emporary	ŏ	ŏ	D ACRE
WETA007-F0.0			ion-Tidal Welland		Temporary	D	ō	0 ACRE
WETA007-F0 1		Conversion of waters type (fores N Conversion of waters type (fores N	ron-Indal Wedani	d No	Temporary	0	0	0 ACRE
WETA008-E0.0		Work	on-Tidal Wedan	d No d No	Temporary	0	0	0 ACRE
WE TADOS-E0 1		Work N	ion-Tidal Wetland	d No	Temporary	0	0	0 ACRE 0 ACRE
WETA008-F0 0 WETA008-F0 1		Conversion of waters type (fores N			Тетпрогату	ő	ŏ	0 AGRE
WETA009-EG.C		Conversion of waters type (fores N Work	lon-Tidal Wetland Ion-Tidal Wetland		Тепрогасу	0	0	0 ACRE
WETA009-E0 1			ion-Tidai Welland		Temporary Temporary	0	0	0 ACRE
WETA010-60.0			ion-Tidal Weday		Temporary	0 0	0	O ACRE
WETA010-E1 0		Work N	ion-Tidal Wetland	d No	Temporary	ŏ	0	0 ACRE 0 ACRE
WETA010-F0.0 WETA010-50.0		Conversion of waters type (form N			Temporary	ŏ	ŏ	0 ACRE
WETA010-80.0		Conversion of waters type (fores N	ion-Tidal Welland	d No	Temporary	0	ō	0 ACRE
WETA011-E0 0		Conversion of waters type (fores N Work N	kan-I idai yyeliani Ion-Tidai Wejjani	d No d No	Temporary	a	0	0 ACRE
WETA011-F0.0		Conversion of waters type (force N			Temporary Temporary	a 0	0	0 ACRE
WETA011-F0 1		Convention of waters type (fores N	on-Tidal Welland	1 No	Temporary	0	0	0 ACRE 0 ACRE
WETA012-E0 0 WETA012-E0 1			on-Tidal Wellen:		Temporary	ŏ	ŏ	0 ACRE
WETA013-E0.0			fun-Tidel Welland		Temporary	0	0	0 ACRE
WETA013-E0 1			on-Tidal Welland on-Tidal Welland		Temporary	0	0	0 ACRE
WETA013-E0.2		Work N	on-Tidal Welland	d Na	Temporary Temporary	0	0	0 ACRE
WETAG13-E0 3		Work N	on-Tidal Wettand	d No.	Temporary	Ö	ě	0 ACRE 0 ACRE
WETA013-F0.0 WETA013-F0.1		Conversion of waters type (fores N			Temporary	0	ō	0 ACRE
WETA015-E0.0		Conversion of waters type Hores N Work N	on-Tidal Wettand on-Tidal Wetland		Temporary	0	0	0 ACRE
WETA015-E0 1			on-Tidal Wetland		Тетфонагу Тетрогагу	0	0	O ACRE
WETA015-F0.6	1	Conversion of waters type (force M	on-Tidat Welland	f No	Temporary	0	0	O ACRE
WETA015-F0.1 WETA015-F0.2	•	Conversion of waters type (fores N	on-Tidal Wedano) No	Temporary	ŏ	0	0 ACRE 0 ACRE
WETA018-E0.0		Conversion of waters type (fores N Work N			Temporary	0	0	0 ACRE
WETA016-E0.1			on-Tidal Wella∧d on-Tidal Welland		Temporary	0	۵	0 ACRE
WETA016-F0.0		Conversion of waters type (fores N			Temporary Temporary	о 0	0	0 ACRE
WETA016-F0.1	4	Conversion of waters type (fores N			Temporary	U O	0	0 ACRE 0 ACRE
WETA017-E0.0 WETA017-E0.1	,	Work N	on-Tidal Welland	l No	Тетрогату	ő	ŏ	0 ACRE
WETA017-E0.1			on-Tidal Wellarid		Temporary	0	0	0 ACRE
WETA017-FB 1	2	Conversion of waters type (force Ni Conversion of waters type (force Ni	un- i din Welland on-Tidai Welland	l No I No	Temporary	0	0	D ACRE
	•		I -DOI YECHIO	, reu	Temporary	0	0	D ACRE

WETAD18-ED.0		_					
WETABI8-E0.1		Non-Tidel Welland	No	Temporary	0	Ð	0 ACRE
WETAD19-E0.0		Non-Tidal Welland	No	Temporary	0	٥	0 ACRE
WETA019-F0.0		Yon-Tidal Welland	Mo	Temporary	0	¢	0 ACRE
WETA019-F0.1	Conversion of waters type (fores it Conversion of waters type (fores it		Mo	Temporary	0	1	0 ACRE
WETA020-E0.0		Yon-Tida! Welland	No No	Temporary	0	1	0 ACRE
WETA020-E0.1		Non-Tidal Welland	No	Temporary	0	0	0 ACRE
WETA020-E0.2		Non-Tidat Welland	Na	Temporary	0	0	0 ACRE
WETA020-F0.0	Conversion of waters type (fores h	Yon-Tidal Welland	No	Temporary Temporary	0	0	0 ACRE
WETA020-F0.1	Conversion of waters type (force h		No		0	0	0 ACRE
WETA020-F0.2	Conversion of waters type (fores h		No	Temporary Temporary	0	0	0 ACRE
WETA021-F0.0	Conversion of waters type (fores h		No	Temporary	Ö	Ö	0 ACRE
WETA021-F0.1	Conversion of waters type [fores h		No	Temporary	a	0	0 ACRE
WETA022-E0.0		Von-Tidal Wetland	No	Temporary	0	D	0 ACRE 0 ACRE
WETA022-E0.1	Work h	vion-Tidal Wetland	No	Temporary	ō	ő	
WETA022-E1,0	Work A	von-Tidal Wettand	No	Temporary	ŏ	1	D ACRE O ACRE
WETA022-E1.1		Non-Tidal Welland	No	Temporary	ō	ò	0 ACRE
WETA022-F0.0 WETA022-F0.1	Conversion of systems type [fores h		No	Temporary	ò	1	0 ACRE
	Conversion of waters type (forer h		No	Temporary	0	ò	0 ACRE
WETA022-F0.2 WE1A072-F0.3	Conversion of waters type (fores h		No	Temporary	D	1	0 ACRE
WETA022-F1 0	Conversion of waters type (fores N	lon-Tidal Welland	No	Temporary	0	ū	0 ACRE
WETAITZ-F1 1	Conversion of waters type (force N	fon-Tidal Welland	No	Temporary	0	0	0 ACRE
WETAD22-S0.0	Conversion of waters type (fores N		No	Temporary	0	0	O ACRE
WETA022-S0.1	Conversion of waters type (fores N Conversion of waters type (fores N	con the surveyand	No	Temporary	0	O .	0 ACRE
WETA023-F0.0	Conversion of waters type (fores N		No No	Тетрогису	0	0	ACRE
WETA023-F0.1	Conversion of waters type (fores N	AND THE STREET	No.	Temporary	Ō	0	0 ACRE
WETA023-F1 0	Conversion of waters type (fores N		No.	Temporary	0	0	0 ACRE
WETA023-F1.1	Conversion of waters type (fores N		No	Tempurary	0	0	0 ACRE
WETA023-F1.2	Conversion of waters type (fores N	hat Tidal Wellson	No	Temporary Temporary	D	0	0 ACRE
WETA024-F0.0	Other (directional boring, crossir N	ion-Tidal Welland	No		0	9	0 ACRE
WETA024-F0.1	Other (directional boring, crossir M	on-Tidal Welland	No	Temporary Temporary	0	0	0 ACRE
WETA024-F1.0	Other (directional boring, crossir N	ion-Tidat Wetland	No	Temporary	ā	0	0 ACRE
WETA024-F1.1	Other (directional boring, crossir N		Na	Тетрогену	Ö	Ö	O ACRE
WETAII24-F2.0	Other (directional boring, crossir N	ion-Tidal Wetland	Na	Temporary	ŏ	ŏ	O ACRE
WETA024-F2.1	Other (directional boring, crossly N	Ion-Tidal Welland	Na	Temporary	ő	ŏ	0 ACRE 0 ACRE
WETA024-F3.0	Other (directional boring, crossir N	Ion-Tidal Wetland	No	Temporary	ō	ŏ	0 ACRE
WETA024-F3,1	Other (directional boring, crossir N	ion-Tidel Wetland	No	Temporary	ō	ō	0 ACRE
WETA025-F0.0	Conversion of waters type [fores N	lon-Tidal Wetland	Nα	Temporary	Ď	2	0 ACRE
WETA025-FD 1 WETA025-FD 2	Conversion of waters type (fores N		No	Temporery	ō	ī	0 ACRE
WETA026-F0.0	Conversion of waters type (fores N	on-Tidal Welland	No	Тетронату	D	0	0 ACRE
WETA025-F0.1	Conversion of waters type (fores N	on-Tidal Welland	No	Temporary	0	D	0 ACRE
WETA026-F0.2	Conversion of waters type (lores N	on-Tidal Welland	No	Temporary	0	2	0 ACRE
WETA028-F1 0	Conversion of waters type (fores N Conversion of waters type (fores N	DU-11031 AA0113UU	No	Тетрогату	0	1	0 ACRE
WETA026-F1.1	Conversion of waters type (fores N		Mo	Temporary	0	0	0 ACRE
WETB003-E0 0		on-Tidal Wetland	Na	Temporary	0	0	0 ACRE
WETB003-F0.0	Conversion of waters type (forer N	on-Tidal Welland	No Na	Temporary	0	0	0 ACRE
WEYB003-F0.1	Conversion of waters type (fores No	on-Tidal Wielland	No	Temporary	0	1	O ACRE
WETR004-E3 1	Other (directional boring, crossir Ne	on-Tidal Welland	No	Temporary Temporary		0- · ·	DACRE
WET8004-E4.0	Other (directional boring, crossir No		No	Femporary	0	0	0 ACRE
WET8004-E5.0	Other (directional boring, crossir No		No	Temporary	0	0	0 ACRE
WE18004-FD.0	Other (directional boring, crossir No	on-Tidal Welland	No	Temporary	Ď	0	Q ACRE
WETB004-F1.0	Other (directional boring, crossir No	on-Tidal Welland	No	Temporary	ŏ	Ď	0 ACRE 0 ACRE
WETBOOK F2.0	Other (directional boring, crossir No		No	Temporary	ō	ŏ	0 ACRE
WET8004-F3.0 WET8004-F4.0	Other (directional boring, crossir No		No	Temporary	ō	ŏ	0 ACRE
WE16005-E0.0	Other (directional baring, crossir No	on-Tidal Welland		Temporary	D	ō	0 ACRE
WETB005-60.0	Other (directional boring, crossir Ne			Temporary	0	ō	0 ACRE
WET8005-F0 0	Other (directional buring, crossir No	on-Tidal Welland		Temporary	0	Ō	0 ACRE
WETB006-F0.1	Conversion of waters type (fores No	on-Irdal Welland	No	Temporary	0	G .	0 ACRE
WETB007-E0.0	Conversion of waters type (fores No Work		Na	Temporary	0	0	D ACRE
WETB007-E0.1		on-Tidal Welland on-Tidal Welland		Temporary	0	0	0 ACRE
WETB007-80.0	Conversion of waters type (fores No			Temporary	0	0	0 ACRE
WETB007-50,1	Conversion of waters type (force No		No No	Temporary	D	0	0 ACRE
WETB006-E0.0		on-Fidal Welland		Temporary Temporary	D	1	O ACRE
WETB008-60 1	Other (directional boring, crossir No			Temporary		0	0 ACRE
WETBOOB-FO.0	Conversion al waters type (force No			Temperary		0 2	0 ACRE
WET8008-F0.1	Conversion of waters type (fores No	on-Tidal Welland		Temporary	-	1	0 ACRE
WET8008-F0 2	Conversion of waters type flores No	on-Tidal Welland		Temperary		ò	0 ACRE 0 ACRE
WETB008-F0.3	Other (directional buring, crossir No	n-Tidal Welland		Temporary	-	ō	0 ACRE
WE18009-E0 0 WE18009-F0 0		n-jidəl Welland		Temporary		ŏ	O ACRE
WETB009-F0 1	Conversion of valers type (lores No			Тегпрогону		ō	0 ACRE
WETC001-E0.0	Conversion of waters type (force No			Temporary	0	ō	0 ACRE
WETG001-F0.0		m-Tidal Welland		Temporary	0	a	0 ACRE
WE1C001-F0.†	Conversion of waters type (fores No	XI-1108 Welland		Тенпротигу		0	0 ACRE
WETCO02-F0 B	Conversion of waters type (fores No			Temporary		0	0 ACRE
WETC002-F0.1	Conversion of waters type (fores No			Temporary		0	O ACRE
WETC002-F1.0	Conversion of waters type (fores No	n-Tidat Wetland		Temporary Temporary		0	0 ACRE
WE FC002-F1 1	Conversion of waters type (force No			Temporary		0	0 ACRE
WE1C003-E0.0	Work No	n-Tidal Wettand	No	Temporary	-	7	0 ACRE
WETCO03-E1.0		m-Tidal Welland					0 ACRE 0 ACRE
WETC003-F0.0 WETC003-F1.0	Conversion of waters type (fores No		No				0 ACRE
WETC003-F1.1	Conversion of waters type (fores No	Kn-Tidal Welland	No	Temperary		_	O ACRE
INSTRUMENT OF A	Conversion of waters type (fores No						0 ACRE
	Conversion of waters type (force No Work						0 ACRE
						Q .	0 ACRE
WETAGE SA	Conversion of waters type (lores No Work					0	0 ACRE
	Conversion of waters type (fores No	n-Tidai Welland					0 ACRE
WETC007-E0 0							0 ACRE
	Conversion of waters type (fores No	n-Tidal Welland					0 ACRE
WETC007-F0 1	Conversion of waters type (fores No						0 ACRE
WETC007-F0.2	Conversion of waters type (fores No	n-Tidal Wetland					0 ACRE
WETC007-F1.0	Conversion of waters type (fores No	n-Tidal Welland					0 ACRE
WE I COUT-F1.1	Conversion of waters type (fores No.	n-∏dai Wetland					0 ACRE
WETC007-F1.2	Conversion of waters type (fores No	n-Tidal Welland					0 ACRE 0 ACRE
		n-Tidal Welland	No 1				0 ACRE
	Conversion of waters type (fores No	n-Tidal Welland	No 1				0 ACRE
ILIETTORON CO. II	Conversion of waters type (fores No		No 1	Terriporary			0 ACRE
INCTEGRATE A	Conversion of waters type (fores No		No 1	Temporary			0 ACRE
				Temporary	0	0	0 ACRE
	Conversion of waters type (fores No.	n- Host Wedand				O .	O ACRE
	Conversion of waters type (fores No. Work No.					0	0 ACRE
				Temporary			O ACRE
WETC011-S0.0	Conversion of waters type (fores Nor						0 ACRE
WETC011-S1 0	Conversion of waters type (fores Nor						O ACRE
WE1C011-61 1	Conversion of waters type (fores Nor						0 ACRE
WE ICO11-S1 2	Conversion of waters type (fores No.	n-Tidal Welland					O ACRE
	Conversion of waters type (fores No.						O ACRE
				•	,	-	- 7076

WETC011-82.0	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	û	0	0 ACRE
WETC011-S2.1 WETC011-S2.2	Conversion of waters type (force Non-Tidal Wetland	No	Temporary	0	o	0 ACRE
WETC012-E0.D	Conversion of waters type (force Non-Tidal Wetland Work Non-Tidal Wetland	No No	Temporary Temporary	0	1	0 ACRE
WETC012-S0,0	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	0	2 2	0 ACRE 0 ACRE
WETC012-S0.1	Conversion of waters type (fores Non-Tidal Walland	No	Temporary	ŏ	2	0 ACRE
WETC013A-E0.0 WETC013A-F0.0	Work Non-Tidal Welfand	No	Temporary	0	0	Q ACRE
WETC013A-F0.1	Conversion of visiters type Hores Non-Tidal Welland Conversion of waters type Horer Hon-Tidal Welland	No No	Тетролягу	0	D	O ACRE
WE1C0138-E1.0	Work Non-Tidal Wetland	No	Temporary Temporary	0	0	Q ACRE
WETC013B-S0.0	Conversion of waters type (fores Non-Tidat Wetland	No	Temporary	ŏ	1	0 ACRE
WETC013B-S0 1 WETC014-E0,0	Conversion of waters type (fores Non-Tidal Welfand	Мo	Temporary	ō	í	0 ACRE
WETC015-E0.0	Work Non-Tidal Wetland Work Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETC015-E10	Work Non-Tidel Wetland Work Non-Tidel Wetland	No	Temporary	0	0	0 ACRE
WETC015-F0.0	Conversion of waters type (fores Non-Tidal Wetland	No No	Temporary Temporary	0	٥	0 ACRE
WETC015-F0.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	C O	0	0 ACRE 0 ACRE
WETC015-F0.2	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	ŏ	ă	0 ACRE
WETC015-F1.0 WETC015-F1.1	Conversion of waters type (fores Non-Tidal Wetland	No	Тепэротысу	0	Ō	0 ACRE
WEYC015-F1.2	Conversion of waters type (fores Non-Tidal Welland Conversion of waters type (fores Non-Tidal Welland	Na Na	Tempolary	0 .	0	0 ACRE
WETC015-F1 3	Conversion of waters type [fores Non-Tidal Welland	Na	Temporary Tempo/ary	0 0	0	0 ACRE
WETC017-F0.0	Conversion of waters type [fores Non-Tidal Welland	No	Temporary	Ö	0	0 ACRE 0 ACRE
WETC017-F0.1 WETC017-F1.0	Conversion of waters type (fores Non-Tidal Westand	Нo	Temporary	Ö	ŏ	0 ACRE
WETC017-F1.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	0	0	0 ACRE
WETC018-F0.0	Conversion of waters type (lores Non-Tidal Welland Conversion of waters type (lores Non-Tida) Welland	No No	Temporary	0	0	0 ACRE
WETC018-F0.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary Temporary	0 0	0	0 ACRE
WETC019-E0.0	Work Non-Tidal Wetland	No	Temporary	ő	ö	0 ACRE 0 ACRE
WETC019-E1.0	Work Non-Tidal Wetland	No	Temporary	á	ō	0 ACRE
WETC019-E1.1 WETC019-E2.0	Work Non-Tidal Wetland Work Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETC019-F0.0	Work Non-Tidal Weltand Conversion of waters type (fores Non-Tidal Weltand	No Na	Temporary	0	0	0 ACRE
WETC019-F0.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary Temporary	0 0	1	0 ACRE
WETC018-F1.0	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	Ö	i	0 ACRE 0 ACRE
WETC019-F1.1 WETC019-F2.0	Conversion of weters type (fores Non-Tida) Welland	No	Temporary	ō	i	0 ACRE
WETC019-F2.1	Conversion of visiters type (fores Non-Tidal Wetland Conversion of waters type (fores Non-Tidal Westland	No	Temporary	0	O	0 ACRE
WETC020A-ED 0	Work Non-Tidal Welland	No No	Temporary	0	0	0 ACRE
WETC0208-E1.0	Work Non-Tidal Welland	10	Temporary Temporary	0	0	O ACRE
WETC0208-F0.0	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	ŏ	ŏ	0 ACRE 0 ACRE
WETC02/0B-F0.1 WETC02/1-E1.0	Conversion of viaters type (fores Non-Tidel Welland	No	Temporary	ō	ő	0 ACRE
WETCUZI-E1.1	Work Non-Tidal Wetland Work Non-Tidal Wetland	No	Temporary	0	o	0 ACRE
WETC021-E1.2	Work Non-Tidat Wetland Work Non-Tidat Wetland	No No	Cemporary Temporary	0	0	0 ACRE
WETC021-E1.3	Work Non-Tidal Welland	Na	Temporary	0	0	0 ACRE 0 ACRE
WETC021-E1.4 WETC021-E1.5	Work Non-Tidal Welland	Na	Temporary	ŏ	ŏ	0 ACRE
WETC021-E1,6	Work Non-Tidel Welland	No	Temporary	0	Ö	0 ACRE
WETC021-F0.0	Work Non-Tidal Welland Consersion of waters type (fores Non-Tidal Welland	Na No	Temporary		<u>o</u>	C ACRE
WE1C021-F0.1	Conversion of waters type (force Non-Tidat Wetland	No No	Temporary Temporary	0	0	0 ACRE
WETC021-F0.2	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	ŏ	0	O ACRE O ACRE
WETC021-F1.0	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	ŏ	ō	0 ACRE
WETC021-F1.1	Conversion of waters type (lores Non-Tida) Wetland	No.	Temporary	0	0	0 ACRE
WETC021-F1.2	Conversion of waters type (fores Non-Tidal Wetland Conversion of waters type (fores Non-Tidal Wetland	No No	Temporary Temporary	0	0	0 ACRE
WETC021-F1.3	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETCU21-F14	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	0	Ö	0 ACRE 0 ACRE
WETC021-F2.0 WETC021-F2.1	Conversion of waters type (fores Hon-Tida) Welland	No	Теторониту	ō	ŏ	0 ACRE
WETC021-F2 2	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	0	1	0 ACRE
WETC021-F2.3	Conversion of waters type (fores Non-Tidal Welland Conversion of waters type (fores Non-Tidal Welland	No No	Temporary Temporary	0	2	O ACRE
WETC021-F2.4	Conversion of waters type (fore: Non-Tidal Welland	Na	Temporary	0	0	0 ACRE
WETCOZI-F25	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	ŏ	ŏ	0 ACRE
WETC021-F2.6 WETC021-F2.7	Conversion of waters type (fores Non-Tidal Welland	Ma	Temporary	ŏ	ō	0 ACRE
WETC021-F2 B	Conversion of violets type (fores Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETC021-F2.9	Conversion of waters type [fores Non-Tidal Wetland Conversion of waters type [fores Non-Tidal Wetland	No No	Temporary Temporary	0	0	0 ACRE
WETC022-F0.0	Conversion of waters type flores Non-Tidal Wetland	No	Temporary	0 4	0	0 ACRE
WETC022-F0 1	Conversion of waters type (fores Non-Tidal Wetland	No	Temporary	ŏ	ŏ	0 ACRE 0 ACRE
WETC022-F1.0 WETC022-F1.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	0	0	0 ACRE
WETC022-F12	Conversion of waters type (fores Non-Tidal Wetland Conversion of waters type (fores Non-Tidal Wetland	No.	Temporary	Ō	O .	0 AÇRE
WETC022-F1.3	Conversion of waters type (fores Non-Tidal Wetland	No No	Temporary Temporary	0	0	0 ACRE
WETC022-F2.0	Conversion of waters type (fores Non-Tidal Welland	No	lemporary	Ö	Ü	0 ACRE
WETC072-F2.1 WETC022-S0.0	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	ŏ	ŏ	O ACRE O ACRE
WETC022-50.0	Conversion of waters type (fores Non-Tidal Welfand	No	Temporary	0	0	0 ACRE
WETC022-S1.1	Conversion of waters type (fores Non-Tidal Welland Conversion of waters type (fores Non-Tidal Welland	No No	Temporary	0	0	0 ACRE
WETC022-S1.2	Conversion of waters type (fores Non-Tidal Welland	Na	Temporary Temporary	0	0	0 ACRE
WETC022-91.3	Conversion of waters type (force Non-Tidal Wetland	Na	Temporary	ő	ă	0 ACRE
WE1C024-E0.0 WE1C024-E0.1	Other (directional boring, crossir Non-Tidal Wetland	No	Temporary	ō	ŏ	O ACRE
WETCQ25-F0.0	Other (directional bonng, crossin Non-Tidal Wetland Other (directional boring, crossin Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETC026-F0.0	Conversion of waters type (fores Non-Tidal Welland	hão Năn	Temporary Temporary	0 0	0	0 ACRE
WETC026-F0.1	Conversion of waters type (force Non-Tidal Wetland	No	Temporary	0	ū O	0 ACRE 0 ACRE
WETC027-F0.0	Conversion of waters type I fores Non-Tidal Wetland	No	Temperary	ŏ	2	0 ACRE
WETC027-F0.1 WETC028-E0.0	Conversion of waters type (force Non-Tidal Wetland Work Non-Tidal Wetland	No	Temporary	0	3	D ACRE
WETC028-F0.0	Work Non-Tidal Wetland Conversion of waters type (lores Non-Tidal Wetland	No No	Temporary	0	0	0 ACRE
WETC028-F0.1	Conversion of waters two force Non-Tidal Welland	Na	Temporary Temporary	0	0	0 ACRE
WETC029-E0.0	Work Non-Tidal Wellend	No	Temporary	ŏ	0	O ACRE O ACRE
WETC029-F0.0 WETC029-F0.1	Conversion of waters type (fores Non-Tidal Welland	No	Temporary	0	ō	0 ACRE
WETC030-E0.0	Conversion of waters type (fores Non-Tidal Welland Cities (directional boring, crossin Non-Tidal Welland	No	Temporary	0	0	0 ACRE
WETC030-E0.1	Other (directional boring, crossir Non-Tidal Welland	No No	Temporary Temporary	D	0	0 ACRE
WETC030-E0 2	Work Non-Tidal Welland	No	Temporary	0 0	0 1	0 ACRE 0 ACRE
WETC030-E1,0	Other Joinectional boring, crossic Mon-Tidal Westland	No	Temporary	ŏ	ò	0 ACRE
WETC030-E2.0 WETC030-F0.0	Other (directional boring, crossin Non-Tidal Welland Other (directional boring, crossin Non-Tidal Welland	Na	Emporary	o	ō	0 ACRE
WETC030-F0.1	Conversion of waters type (fores Non-Tidal Wetland	Na No	Temporary Temporary	0	0	0 ACRE
WETC030-F0.2	Conversion of waters type (force Non-Tidal Welland	No.	l'emporary Temporary	0	0	0 ACRE
WETC03D-F0.3	Conversion of waters type (fores Mon-Tidal Weiland	No	Temporary	å	2	0 ACRE 0 ACRE
WETC030-F1.0 WETC030-F2.0	Other (oirectional boring, crossir Non-Tidal Welland	tio	Temporary	ā	ô	0 ACRE
WET C031-E5.0	Other (directional bonng, crossin Non-Tidal Wetland Work Non-Tidal Wetland	No	Temporary	0	0	0 ACRE
WETC031-E3.0	Work Non-Tigal Wetland	No cit	Temporary Temporary	0	0	0 ACRE
WETC032-E0 0	Work Non-Tidal Welland	No	Temporary Temporary	0	0	0 ACRE
WETCO33-E0.0	Work Non-Tidal Welland	No	Temporary	Ö	0	0 ACRE 0 ACRE
WETD001-F0.0	Work Non-Tidal Welland	fic	Temporary	D	0	0 ACRE
WET0001-F0.1	Conversion of waters type (fores Non-Tidal Welland Conversion of waters type (fores Non-Tidal Welland	No No	Temporary Temporary	0	D	0 ACRE
		144	Temporacy	Đ	0	0 ACRE

WE T0003-FQ.0	Conversion of waters type (fores f	ion-Tidai Welland	No	Temporary	Ð	1	0 ACRÉ
WETD004-F0.0	Other (directional boring, crossir I		No	Temporary	0	0	D ACRE
WET0004-F0.1	Conversion of waters type (fores)	idal Welland	No	Temporary	D	O .	0 ACRE
WETD004-F0.2	Conversion of waters type (fores)	idal Wetterd	No	Temporary	Ð	2	0 ACRE
WETD004-F0.3	Conversion of waters type (fores ?	idal YYetland	No	Temporary	0	2	0 ACRE
WETD005-F0.0	Conversion of waters type (fores f		Nο	Temporary	D	G	0 ACRE
WETD005-F0.1	Conversion of waters type (fores)		No	Temporary	O.	a	0 ACRE
WETD005-F0.2	Conversion of waters type (fores h			Temporary	ם	a	0 ACRE
WETD005-F0.3	Conversion of waters type (fores f			Temporary	D	0	0 ACRE
WETD005-F0.0	Conversion of waters type (loves h			Temporary	0	0	0 ACRE
WETD006-F0.1	Conversion of waters type (lores f		No	Temporary	0	0	0 ACRE
WETD008-F0.2	Conversion of waters type (fores f		No	Temporary	o	0	D ACRE
WET0006-F1.0	Conversion of waters type (fores t		Νo	Тетгроналу	0	C .	D ACRE
WETD005-F1 1	Conversion of waters Iyou (lores i		No	Temporary	0	o .	0 ACRE
WETD006-F1.2	Conversion of waters type (fores r		No	Temporary	0	0	0 ACRE
WETD007-F0.0	Conversion of waters type (fores it		Νo	Tempolary	0	G C	0 ACRE
WETD008-E0.0		ion-Tidal Walland	No	Temporary	o .	0	0 ACRE
WETD008-F0.0	Conversion of waters type (force)		Nο	Temporary	0	0	0 ACRE
WETD008-F0.1	Conversion of waters type (force)		No	Temporary	0	0	0 ACRE
WETD006-F0.2	Conversion of waters type (forer t		No	Temporary	D	0	0 ACRE
WETD006-F0.3	Conversion of waters type (fores)		No	Temporary	٥	ů.	0 ACRE
WETD008-50.0	Conversion of waters type (fores h		No	Temporary	0	0	0 ACRE
WET0008-80.1	Conversion of waters type (fores P		No	Temporary	0	ā	D ACRE
WET0009-E0.0		ion-Tidal Wetland	No	Temporary	0	1	D ACRE
WETD009-E1.0		fon-Tidal Welland	No	Temporary	D.	0	0 ACRE
WETD009-F0.0	Conversion of waters type (fores h		No	Temporary	0	1	D ACRE
WETD009-F0.1	Conversion of waters type (force)		No No	Temporary	0	1	D ACRE
WET0009-F1.0	Conversion of waters type (fores h			Temporary	D	0	0 ACRE
WETT0009-F1 1	Conversion of waters type flores h		No	Temporary	0	0	0 ACRE
WET0009-F2:0 WET0009-F2:1	Conversion of waters type (fores f		No No	Temporary	0	0	0 ACRE
	Conversion of waters type (fores h			Temporary	0	0	0 ACRE
WETD009-F3.1	Conversion of waters type (fores N		No No	Temporary	0	0	0 ACRE
WEID009-50.0	Conversion of waters type (fores it Conversion of waters type (fores it		No	Temporery	o o	-	0 ACRE
WETD009-80.1			No	Тетронагу Тетронагу		1	0 ACRE
WETD003-50.1 WETD009-81.0	Conversion of waters type (fores he Conversion of waters type (fores he	Jon Tidal Walland	No	Temporary	0	1	0 ACRE
WEID009-81.1	Conversion of waters type (fores I	ion Tidal Misland		тетри а: у Тетрина: у	Ö	-	0 ACRE
WETD009-52:0	Conversion of waters type (fores i				ŏ	1	
WETD009-82.1	Conversion of waters type (fores f		No No	Temporary	ŏ	0	0 ACRE
WETD030-F0,0	Other (directional boring, crossir h		No	Татронку Тетрогич	0	Ď	0 ACRE
WETD010-F0.1	Conversion of waters type (fores if		No.				
WETD010-F0.2	Conversion of waters type (fores f			Temporary Temporary	0	D 1	0 ACRE
WETD010-F0.3	Conversion of waters type (fores if		No	Temporary	å	Ö	0 ACRE 0 ACRE
WETD010-F1.4	Other Idirectional boring, crossir h		No	Temporary	ŏ	0	0 ACRE
WETD011-E2.0		Ion-Tidel Weband	No	Телпрогагу	ŏ	õ	0 ACRE
WETD011-E2:1		kan-Tidal Welland	Na	Тетрогасу	ŏ	ŏ	0 ACRE
WETD011-F0.0	Conversion of waters type (fores f			Тетрогису	ŏ	ĭ	0 ACRE
WETD011-F0.1	Conversion of waters type (fores f			Телпрогасу	ŏ	ó	0 ACRE
WETD011-F1.0	Conversion of waters type (fores I			Temporary	ō	ī	0 AGRE
WETD011-F1,1	Conversion of waters type (fores h			Temporary	0	1	0 ACRE
WETD012A-E0.0		ion-Tidal Welland	Na	Temporary	ō	ò	0 ACRE
WE1D012A-E0.1	Work h	ion-Tidal Welland		Temporary	0	ò	O ACRE
WET0012A-E1.0	Work F	ton-Tidal Welland		Temporary	0	o .	0 ACRE
WETDO12A-E3.0	Work t	ion-Tidal Welland		Temporary	0	0	0 ACRE
WETD012A-E4.0	Work I	Ion-Tidel Welland	Na	Temporary	0	0	O ACRE
WETD012A-E4.1	Work P	Ion-Tidal Wettand	Na	Temporary	0	0	0 ACRE
WE1D012A-E3.0	Work I	Ion-Tidal Welland	Na	Temporary	0	0	0 ACRE
WETD012A-E5.1		ion-Tidal Welland		Temporary	0	0	0 ACRE
WETD012A-E5.2		ion-Tidal Wetand		Temporary	0	0	0 ACRE
WE1D012A-E5 3		ton-Tidal Welland		Temporary	0	0	0 ACRE
WETD012A-F0.0	Conversion of waters type (fores I			Temporary	0	0	0 ACRE
WEID012AF1.0	Conversion of waters type (fores in			Temporary	n	0	0 ACRE
WETD012A-F1.1	Conversion of waters type (fores)			Temporary	C	0	0 ACRE
WETD012A-F2.0	Conversion of waters type (fores)			Temporary	O.	D	0 ACRE
WETD012A-F2.1	Conversion of waters type (fores I			Temporary	0	0	O ACRE
WE)D012A-F3.0	Conversion of waters type (fores t			Temporary	0	0	0 ACRE
WETD012A-F3.1	Conversion of waters type (fores)			Temporary	0	0	0 ACRE
WET0012AF3.2	Conversion of waters type Hores I		Na	Temporary	0	0	0 ACRE
WET0012AF13	Conversion of waters type (force h			Temporary	q	1	0 ACRE
WETD012AF3,4	Conversion of waters type (fores in			Temporary	0	o.	0 ACRE
WETD0128-F0.0	Conversion of waters type (fores h			Temporary	0	1	0 ACRE
WET00128-F0.1 WET0013-E0.0	Conversion of waters type (fores he Work	ion-Tidel Welfand		Temporary Temporary	0	1	0 ACRE
WETD013-E0.1		on-Tidal Welland		Temporary	ů	ŏ	0 ACRE 0 ACRE
WETD013-E1 0		Ion-Tidal Welland		Temporary	ů	0	0 ACRE
WETD013-E2.0		Ion-Tidal Webland		Temporary	å	ő	0 ACRE
WETD013-F0.0	Conversion of waters type (fores t			Temporary	ă	3	0 ACRE
WETD013-F0.1	Conversion of waters type (fores h			Temporary	ō	1	0 ACRE
WETD013-F1.0	Conversion of waters type (fores t	Ion Tidel Wetland	Na	Temporery	Ó	ó	0 ACRE
WETD013-F1.1	Conversion of waters type (fores f	Ion-Tigat Weltand	Na	Temporary	ō	0	0 ACRE
WETD013-F1 2	Conversion of waters type (fores to	ion-Tidal Welland	Na	Temporary	0	0	0 ACRE
WETD013-F2.0	Conversion of waters type (force)		Na	Temporary	0.	0	0 ACRE
WETD013-F2.1	Conversion of waters type (fores)			Temporary	0	1	0 ACRE
WETD013-F4.0	Conversion of waters type (fores it			Temporary	O-	0	0 ACRE
WET0013-F4.1	Conversion of waters type (fores f		No	Temporary	0	0	0 ACRE
WETO014-F0.0	Conversion of waters type (fores)		No	Temporary	0	0	O ACRE
WET0014-F0.1	Conversion of waters type (fores it		No	Temporary	0	0	0 ACRE
WETD015-E0.0	Work Conversion of waters type Ifores 6	ion-Tidal Welland	No	Temporary	0	0	0 ACRE
WET2015-F0.0			No	Temporary	0	0	0 ACRE
WET0015-F0.1 WET0017-F0.0	Conversion of waters type (fores fores for		No Na	Temporary	0	1	0 ACRE
WETD017-F0.1	Conversion of waters type (fores)		No.	Yemporary Temporary	0 0	0	0 ACRE
	Conversion of waters type (fores f		No.		Ö		
WET0017-F0.3 WET0017-F0.3	Conversion of waters type (fores)		No	Temporary Temporary	0	0	0 ACRE 0 ACRE
WE7D017-F1.0	Conversion of waters type (fores f		No.	Temporary	0	Ö	0 ACRE
WEJD017-F1.1	Conversion of waters type (fores f			Temporary	0	ŏ	0 ACRE
WETD017-F1 2	Conversion of waters type [fores]		No	Temporary	Ö	ŏ	C ACRE
WETD018-F0.0	Conversion of violers type (fores)		No	Temporary	ŏ	ŏ	0 ACRE
WETD016-F0.1	Conversion of waters type (fores)			Temporary	õ	ŏ	0 ACRE
WETG001-E0.0		Idal Wetland	No	Temporary	ŏ	1	0 ACRE
WETG001-EQ.1		idal Welland	No	Temporary	ō	3	G ACRE
WEYG001-E0.2	Wark	idal Watland	No	Temporary	0	ī	0 ACRE
WETG001-E0.3		idal Welland	No	Temporary	0	0	O ACRE
WETG001-EIL4	Other (directional boring, crossin)	idal Welland	No	Temporary	0	Ō	0 ACRE
WETG002-E0.0	Work 1	Id# Welland	No	Tempurary	0	1	0 ACRE
WETG002-E0.1		idel Welland	No	Temperary	0	1	0 ACRE
WETG003-E0.D		Yon-Tidal Welland		Tempurary	O-	٥	0 ACRE
WÉTG003-F0.0	Conversion of waters type (fores)			Temporary	0	0	O ACRE
WETG003-F0.1	Canadratan of united lane (1626)	haciletti khif ant	No	Temporary	O .	0	O ACRE
	Conversion of waters type (tores)						
WETG004-E0.0	Work	on-Tidal Welland	No	Temporary	0	0	0 ACRE
WETG004F0.0	Work Portion of waters type (fores f	ion-Tidal Welland ion-Tidal Welland	No No	Temporary Temporary	ù	0	0 ACRE
	Work	ion-Tidal Welland ion-Tidal Welland	No No	Temporary			



PHASE I CULTURAL RESOURCES SURVEY OF THE PROPOSED TEN-MILE FACILITY TO PASCAGOULA 41-MILE CRUDE OIL PIPELINE, MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for

Plains Southcap, LLC

Prepared by

Todd L. Butler and Brian Huttick

SWCA Cultural Resources Report No. 2012-390

September 6, 2012

PHASE I CULTURAL RESOURCES SURVEY OF THE PROPOSED TEN-MILE FACILITY TO PASCAGOULA 41-MILE CRUDE OIL PIPELINE, MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for

Plains Southcap, LLC 333 Clay Street, Suite 1600 Houston, Texas 77210-4648

Prepared by

Todd L. Butler and Brian R. Huttick

SWCA ENVIRONMENTAL CONSULTANTS

7255 Langtry, Suite 100 Houston, Texas 77040 www.swca.com

Under the direction of

Todd L. Butler, RPA Principal Investigator

Signature: ___

For submission to

MISSISSIPPI DEPARTMENT OF ARCHIVES AND HISTORY

100 South State Street Jackson, Mississippi 39201

and

ALABAMA HISTORICAL COMMISSION

468 South Perry Street Montgomery, Alabama 36104

SWCA Project Number 22932

SWCA Cultural Resources Report No. 2012-390

September 6, 2012

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THREATENED AND ENDANGERED SPECIES REPORT FOR THE PLAINS SOUTHCAP LLC 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA PIPELINE PROJECT

MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for

PLAINS SOUTHCAP, LLC

Prepared by

SWCA Environmental Consultants

SWCA Project No. 22932

THREATENED AND ENDANGERED SPECIES REPORT FOR THE PLAINS SOUTHCAP LLC 41-MILE-LONG TEN-MILE FACILITY TO PASCAGOULA REFINMERY PIPELINE PROJECT

MOBILE COUNTY, ALABAMA AND JACKSON COUNTY, MISSISSIPPI

Prepared for

Plains Southcap, LLC

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EXECUTIVE SUMMARY

SWCA Environmental Consultants (SWCA) has prepared this threatened and endangered species report for the proposed approximately 41-mile-long Plains Southcap, LLC (Plains) Ten-Mile Facility to Chevron Pascagoula Refinery Pipeline Project (proposed project) in Mobile County, Alabama and Jackson County, Mississippi (Figure 1). The work was conducted at the request of Plains Southcap, LLC in order to facilitate compliance with the Endangered Species Act of 1973 (ESA), as amended.

SWCA performed a threatened and endangered species review to determine which federally listed species would have the potential to occur within the proposed project area (Figure 1). Based upon field observations and habitat descriptions and requirements of listed species, SWCA determined that the proposed project may affect the gopher tortoise, eastern indigo snake, gopher frog, and bald eagle. SWCA recommends avoiding gopher tortoise burrows which will, in turn, minimize potential impacts to the eastern indigo snake and gopher frog. SWCA also recommends performing a second eagle survey before the construction phase of the project to verify that the documented nests are not active during the 2012-2013 breeding season.

Within the limitations of schedule, budget, and scope of work, SWCA warrants that this study was conducted in accordance with accepted environmental science practices, including the technical guidelines, evaluation criteria, and species' listing status in effect at the time this evaluation was performed.

The results and conclusions of this report represent the best professional judgment of SWCA scientists. No other warranty, expressed or implied, is made.

Please be aware that only the U.S. Fish and Wildlife Service and/or lead federal agency can determine compliance with the Endangered Species Act.

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1.0 INTRODUCTION

SWCA Environmental Consultants (SWCA) has prepared this threatened and endangered species report for the proposed 41-mile-long Ten-Mile to Pascagoula Crude Oil Pipeline Project (proposed project) in Mobile County Alabama and Jackson County Mississippi (Figure 1). The work was conducted at the request of Plains Southcap, LLC in order to facilitate compliance with the Endangered Species Act of 1973 (ESA), as amended.

The scope of work for this threatened and endangered species report included:

- review of the U.S. Fish and Wildlife Service (USFWS) threatened and endangered species lists for Mobile County Alabama and Jackson County Mississippi (**Appendix A**);
- review of the Alabama and Mississippi Natural Diversity Databases (NDD) occurrence records for threatened and endangered species near the project location;
- field reconnaissance survey of a 200-foot-wide corridor centered on the proposed pipeline centerline (project area); and
- evaluation of the potential for the species listed in this report to occur in the project area.

1.1 PROJECT PURPOSE

The proposed project will be constructed to transport crude oil from the Plains Southcap, LLC Ten-Mile facility northwest of Mobile Alabama, to the Chevron Rrefinery in Pascagoula, Mississippi.

1.2 PROJECT LOCATION

The proposed project will originate at the Plains Southcap, LLC Ten-Mile crude oil facility approximately 0.5 mile north off of County Road 217 on Whigham Rd. The proposed project will extend southwest through Mobile County, Alabama and Jackson County, Mississippi for approximately 41 miles and terminate at the Chevron Pascagoula Refinery, Mississippi. Aboveground facility locations are not yet defined, but once identified will be constructed in upland locations within or immediately adjacent to the pipeline right-of-way (ROW) and will include pig launching stations, pig receiving stations, and valve sites.

1.3 PROJECT DESCRIPTION

Construction of the proposed project is slated to begin in March 2013 and end before September 2013. No fill material will be placed within waters or wetlands for more than three months.

The proposed project will consist of the construction and placement of approximately 41 miles of 24-inch diameter crude oil pipeline. Construction of the pipeline will be within a 50-foot-wide ROW and will consist of clearing vegetation, excavating a trench, laying the pipe, replacing the soil, adjusting the topography to match pre-construction contours, and re-establishing vegetation Please refer to the attached map book (**Appendix B**) for an illustration of the survey corridor and 50' permanent ROW within the project area.

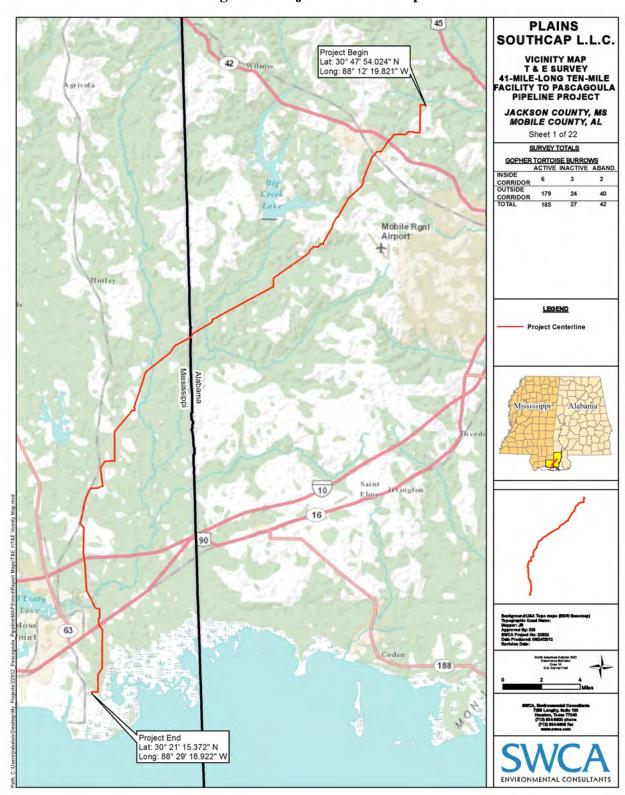


Figure 1: Project Location Map

2.0 METHODS

SWCA performed a threatened and endangered species review to determine which federally and state listed threatened, endangered, and candidate species would have the potential to occur within the project area. The first step was to review the U.S. Fish and Wildlife Service (USFWS) County records for each state as well as the Alabama Department of Conservation and Natural Resources and the Mississippi Department of Wildlife, Fisheries, and Parks annotated county lists of rare species for Mobile County, Alabama and Jackson County, Mississippi, respectively (**Appendix A**). The next step was to determine which listed species may occur in the project area based on species biology and habitat requirements. A Natural Diversity Database review for both Alabama and Mississippi was also completed to acknowledge and note occurrences of rare, threatened, or endangered species within the project area. Finally, the biology and life history requirements for each species were discussed and the project's potential effect on each species was evaluated.

2.1 SPECIES IDENTIFICATION

The threatened and endangered species evaluated in this report were based on lists of federally listed species for Mobile County, Alabama and Jackson County, Mississippi, available at the USFWS (2011) website as well as NDD documentation from both state (Alabama and Mississippi) wildlife departments (see **Appendix A**). SWCA also accessed the NDD databases for both states, which provides known occurrence records for listed species. The potential for occurrence within the project area of the species addressed in this report was based on 1) documented occurrences, 2) existing information on distribution, and 3) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the project area. Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

2.2 SPECIES EVALUATION

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows:

- Known to occur—the species has been documented in the project area by a reliable observer.
- *May occur*—the project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- *Unlikely to occur*—the project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the project area is clearly outside the species' currently known range.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by USFWS include:

• May affect, is likely to adversely affect—adverse effects to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial.

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- May affect, is not likely to adversely affect—the proposed action may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial.
- No effect—the proposed action will not affect federally listed species or critical habitat.

3.0 RESULTS

3.1 ECOLOGICAL OVERVIEW

The project area consists of numerous vegetated communities across the 41-mile project area including, palustrine emergent (PEM), palustrine scrub-shrub (PSS), palustrine forested (PFO), and estuarine emergent (EEM) wetlands, as well as herbaceous, scrub-shrub, and forested uplands as described below.

3.2 VEGETATION

Biologists identified seven general types of vegetative communities within the project area. Determination of wetland habitat (type) is based on the classification system developed by Cowardin et al. (1979). These vegetative communities were classified as herbaceous upland, scrub-shrub upland, forested upland, PEM, PSS, PFO, and EEM wetlands. Examples of common dominant species identified within each vegetative community are listed below.

3.2.1 Herbaceous Upland

Herbaceous upland communities occur throughout the project area and are found within existing maintained right of way (ROW). Common dominant herbaceous species within the herbaceous upland communities include Bermuda grass (*Cynodon dactylon*), Italian ryegrass (*Lolium multiflorum*), Canada goldenrod (*Solidago canadensis*), roundpod St. Johnswort (*Hypericum cistifolium*, FACW), broom grass (*Andropogon virginicus*, FAC), candyroot (*Polygala nana*, FAC), heartwing sorrel (*Rumex hastatulus*, FAC), cogon grass (*Imperata cylindrical*, UPL), poverty rush (*Juncus tenuis*, FAC), slender crab grass (*Digitaria filiformis*, UPL), tapered rosette grass (*Dichanthelium acuminatum*, FAC), cuman ragweed (*Ambrosia psilostachya*, FAC), perennial rye grass (*Lolium perenne*, FACU), romerillo (*Bidens alba*, UPL), and American beauty berry (*Callicarpa americana*, UPL). In occasional instances trees, saplings, shrubs, or woody vines were identified as minor components of herbaceous uplands. Common dominant tree, sapling, or shrub species which occur in these instances include red maple (*Acer rubrum*, FAC) slash pine (*Pinus ellioittii*, FACW), long leaf pine (*Pinus palustris*, UPL), sweetbay (*Magnolia virginiana*, FACW), Chinese tallow (*Triadica sebifera*, FAC) dwarf live oak (*Quercus minima*), American holly (*Ilex opaca*, FAC), and saw greenbriar (*Smilax bona-nox*, FAC).

3.2.2 Scrub-Shrub Upland

Scrub-shrub upland communities occur throughout the project area and are mostly found along the edges of existing maintained ROW. Common dominant sapling or shrub species within scrub-shrub upland communities include yaupon (*Ilex vomitoria*, FAC), fetterbush (*Lyonia lucida*, FACW), gallberry (*Ilex glabra*, FACW), swamp titi (*Cyrilla racemiflora*, FACW), eastern sweet shrub (*Calycanthus floridus*, FACU), swamp bay (*Persea palustris*, FAC), wax myrtle (*Myrica cerifera*,

FAC), American holly (*Ilex opaca*, FAC), slash pine, and highbush blueberry (*Vaccinium corymbosum*). In occasional instances trees, herbaceous species, or woody vines, were identified as minor components for scrub-shrub uplands. Common examples of the following are longleaf pine, southern magnolia (*Magnolia grandiflora*, UPL), dwarf live oak, red maple, and herbaceous species such as American beauty berry, broom grass, and saw palmetto (*Serenoa repens*, FACU).

3.2.3 Forested Upland

Forested upland communities occur throughout forested portions of the project area along the edge of the existing maintained ROW. Common dominant tree or sapling species within the forested upland communities include slash pine, longleaf pine, southern magnolia, sweetbay, tulip poplar (*Liriodendron tulipifera*, FAC), dwarf live oak, water oak (*Quercus nigra*, FAC), and laurel oak (*Quercus laurifolia*, FAC). In occasional instances shrubs, herbaceous species, or woody vines, were identified as minor components of forested uplands. Common dominant shrub species which occur in these instances include fetterbush, gallberry, yaupon, and eastern sweetbush (*Calycanthus floridus*, FACU). Common herbaceous plants were western bracken fern (*Pteridium aquilinum*, FACU), cogon grass, broom grass, American beauty berry, St. Andrew's cross (*Hypericum hypericoides*, FAC), and Bermuda grass.

3.2.4 Palustrine Emergent Wetland

PEM wetlands occur throughout the project area and are found within existing maintained ROW. Common dominant herbaceous species within the PEM wetland communities include swamp smartweed (Polygonum hydropiperoides, OBL), pale pitcher plant (Sarracenia alata, OBL), crimson pitcher plant (Sarracenia leucophylla, OBL), parrot pitcher plant (Sarracenia psittacina, OBL), roundleaf sundew (Drosera rotundifolia, OBL), netted chainfern (Woodwardia areolata, OBL), Virginia chainfern (Woodwardia viringinica, OBL), royal fern (Osmunda regalis, OBL), common rush (Juncus effuses, OBL), roundhead rush (Juncus validus, FACW), roundpod St. Johnswort, St. Andrew's cross (Hypericum hypericoides, FAC), candyweed (Polygala lutea, FACW), Frank's sedge (Carex frankii, OBL), false hopsedge (Carex lupuliformis, OBL), whitehead bugbutton (Lachnocaulon anceps, OBL), foxtail clubmoss (Lycopodiella alopecuroides, OBL), broadleaved cattail (Typha latifolia, OBL), bushy broom grass (Andropogon glomeratus, FACW), *cogon grass, Carolina spider lily (Hymenocallis caroliniana, FACW), creeping primrose willow (Ludwigia repens, OBL), floating primrose willow (Ludwigia peploides, OBL), velvet panicum (Dicanthelium scoparium, FACW), disk waterhyssop (Bacopa rotundifoloia, OBL), and anglestem beaksedge (Rhynchospora caduca, FACW). In occasional instances, trees such as slash pine, saplings such as red maple, and sweetbay, shrubs such as wax myrtle and swamp titi, or woody vines such as sawtooth blackberry (Rubus argutus, FAC) and coral greenbriar (Smilax walteri, OBL) were identified as minor components within PEM wetlands.

3.2.5 Palustrine Scrub-shrub Wetland

PSS wetlands occur within the project area and are found within existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PSS wetland communities include, swamp titi, buckwheat titi (*Cliftonia monophylla*, OBL), gall berry, large gallberry (*Ilex coriacea*, FACW), fetterbush, swamp bay, eastern baccharis (*Baccharis halimifolia*,

FACW), wax myrtle, sweetleaf (*Symplocos tinctoria*, FAC), highbush blueberry, pawpaw (*Asimina triloba*, FAC), and yaupon. In occasional instances, trees such as red maple, sweetgum (*Liquidambar styraciflua*, FAC), sweetbay, slash pine, *Chinese tallow, laurel oak, and overcup oak (*Quercus lyrata*, OBL), herbaceous species, or woody vines were identified as minor components within PSS wetlands. Common dominant herbaceous species which occur in these instances include bushy bluestem, netted chainfern, Virginia chainfern, royal fern, bog button, foxtail clubmoss, roundpod St. Johnswort, common rush, and Franks sedge. Common dominate vine species observed were coral greenbriar, southern dewberry (*Rubus trivialis*, FAC), and Florida grape (*Vitis cinerea*, FACW).

3.2.6 Palustrine Forested Wetland

PFO wetlands occur within the project and are found within the existing ROW and along the edges of existing maintained ROWs. The dominant shrub and sapling species within the PSS wetland community include swamp tupelo (*Nyssa biflora*, OBL), tulip poplar, sweetbay, slash pine, bald cypress (*Taxodium distichum*, OBL), water oak, cherrybark oak (*Quercus pagoda*, FACW), overcup oak, laurel oak, swamp chestnut oak (*Quercus michauxii*, FACW), and boxelder (*Acer negundo*, FACW). On occasion shrubs such as wax myrtle, swamp titi, sweetleaf, gall berry, and fetterbush dominated the understory. Woody vines such as sawtooth blackberry, coral greenbriar, and saw greenbriar (*Smilax bona-nox*, FAC) were identified as minor components within PFO wetlands.

3.2.7 Estuarine Emergent Wetland

EEM wetlands occur within the project area around the southern Escatawpa River crossing. The dominant vegetation within these communities include giant cut grass (*Zizaniopsis miliacea*, OBL), broadleaved cattail, California bulrush (*Schoenoplectus californicus*, OBL), and on occasion trees such as bald cypress and swamp tupelo.

3.3 ALABAMA AND MISSISSIPPI NATURAL DIVERSITY DATABASE RECORDS

According to the USFWS and the Alabama and Mississippi NDD records (**Appendix A**), there are occurrence records for two federally protected species within 5 miles of the project area. The gopher tortoise (*Gopherus polyphemus*) occurs in both Jackson County, Mississippi and Mobile County, Alabama. The bald eagle (*Haliaeetus leucocephalus*), which has been delisted from the federal list of threatened and endangered species, is also documented in the project vicinity. A summary of these species as they relate to the proposed project is discussed in detail in Section 3.4.

Absence of mapped occurrences in the NDD database does not constitute an absence of protected species within the project area.

3.4 SPECIES EVALUATION

The Alabama and Mississippi USFWS NDD data (2011) lists a total of 16 federally threatened or endangered species that have the potential to occur in Jackson County, Mississippi and Mobile County, Alabama. The Alabama and Mississippi USFWS NDD (2011) lists one candidate species as well as one delisted species that has the potential to occur in both counties. Additionally the Alabama and Mississippi NDD (2011) list two important state listed species. Table 1 summarizes the habitat requirements, the potential for occurrence, and possible effects on these species. All

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currently listed candidates, threatened, or endangered species that are assigned the occurrence categories "known to occur" or "may occur" and which may be affected, are discussed in detail in Sections 3.4.1 through 3.4.13.

Table 1: Federally Listed Species Potentially Occurring in Jackson County Mississippi and Mobile County Alabama.

Common Name (Scientific Name)	Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
BIRDS				
Bald eagle (Haliaeetus leucocephalus)	USFWS (DL) all counties	Found primarily near large bodies of water. Nests in tall trees or cliffs near water.	May occur. Mississippi and Alabama NDD occurrence records indicate the presence of bald eagles within and around the project area.	May affect, is not likely to adversely affect. See Section 3.4.1 below.
Piping plover (Charadrius melodus)		Wintering migrant along the Mississippi and Alabama coast; beaches and bayside mud or salt flats.	Unlikely to occur. The project area does not occur near coastal beaches.	No effect.
Mississippi Sandhill Crane (Grus canadensis pulla)		Open pine savannah. Today found only in the Mississippi Sandhill Crane National Wildlife Refuge.	Unlikely to occur. The project does not cross near the national wildlife refuge in which the current and only population lives.	No effect.
Red-Cockaded Woodpecker (Picoides borealis)	USFWS (E) Mobile county	Suitable nesting habitat for the RCW consists of pine stands that contain mature (60 + year old) trees with DBH of 16 inches of greater and is devoid of a midstory. Suitable foraging habitat consists of pine stands in which 50% of pines are mature.	Unlikely to occur. The project area lacks adequate nesting habitat.	May affect, is not likely to adversely affect. See Section 3,4,2 below.
Wood Stork (Mycteria americana)	USFWS (E) all counties	Freshwater wetlands dominated by large cypress trees in which they use to nest in colonies. Regular visitors to the state of Alabama but have not been observed nesting since the 1960's.	Unlikely to occur. The project area is historic habitat,	May affect, is not likely to adversely affect. See Section 3.4.3 below
*Bewick's Wren (Thryomanes bewickii)	Alabama (E) Jackson county	Brush habitat in open country or open woodlands.	Unlikely to occur. The project area is historic habitat.	No effect.
REPTILES and AMP	HIBIANS			
Atlantic hawksbill sea turtle (Eretmochelys imbricata)	USFWS (E) all counties	Found in clear waters off of mainland and island shelves. Commonly found near coral reef formations. The turtles nest on sandy beaches with a close proximity to coral reefs.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Green sea turtle (Chelonia mydas)	USFWS (T) all counties	Found in gulf and bay systems with shallow water seagrass beds, open water between feeding and nesting areas, and barrier island beaches.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Kemp's Ridley sea turtle (<i>Lepidochelys</i> <i>kempii</i>)	USFWS (E) all counties	Found in gulf and bay systems with shallow water, feeds primarily on crabs, snails, clams, and other crustaceans and plants; nests April through August.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Leatherback sea turtle (Dermochelys coriacea)	USFWS (E) all counties	Found in pelagic (open ocean) habitats. Has been found in coastal areas. Lays nests in large expanses of beach.	Unlikely to occur. The project area does not occur near coastal waters.	No effect.
Flatwoods Salamander (Ambystoma cingulatum)	USFWS (T) Mobile County	Found in pine flatwood communities dominated by longleaf or slash pine with wiregrass cover. Isolated pocket wetlands dominated by cypress and black gum trees.	Unlikely to occur. Habitat is available, however, the project area is historic habitat.	May affect, is not likely to adversely affect. See Section 3.4.4 below.

Gopher Frog (Rana sevosa)	USFWS (E) Jackson County	Found in upland, sandy areas dominated by longleaf pine forests, with isolated, temporary, wetland breeding sites within.	Unlikely to occur. Abundant habitat is available however; this species has not been observed in the project vicinity in over 50 years.	May affect, is not likely to adversely affect. See Section 3.4.5 below.
Gopher tortoise (Gopherus polyphemus)	USFWS (T) In parts of its range	The gopher tortoise digs and lives in burrows throughout its range from South Carolina, into Florida, west into Alabama and far east Louisiana. They can use a variety of upland habitats including scrub, pine Flatwoods, and dunes along the beach. Tortoises have also been observed using newly created edge habitat due to the construction of pipeline and power line easements.	Likely to occur. The project area has an abundance of suitable habitat.	May affect, is likely to adversely affect unless tortoises are found and relocated. See Section 3.4.6 below.
Alabama Red-bellied turtle (Pseudemys alabamensis)	USFWS (E) all counties	Found in shallow water ranging from 3 to 6 feet in backwater bays, lakes, and river channels. This turtle prefers broad vegetated expanses in these shallow water habitats. Current distribution is thought to occur in the Mobile Bay and its tributary system.	Unlikely to occur. The project area does not occur near broad expanses of shallow water such as bays.	No effect. Section 3.4.7 below.
Yellow blotched map turtle (Graptemys flavimaculata)	USFWS (T) all counties	Found in the Pascagoula River drainage system. Inhabitats sandy/mud bottomed rivers and tributaries, It is associated with vegetated debris such as snags and fallen down trees.	May occur. The project does not cross the Pascagoula River but does cross the Escatawpa River and tributaries.	May affect, is not likely to adversely affect. See Section 3,4.8 below
Eastern Indigo Snake (Drymarchon corais couperi)		Almost always associated with gopher tortoises and gopher tortoise habitats.	May occur. Project area does support abundant gopher tortoise habitat and burrows.	May affect, is not likely to adversely affect. See Section 3.4.9 below
Black Pine Snake (Pituophis melanoleucus lodingi)	USFWS (C)	Xeric, fire maintained longleaf pine forest with well drained sandy soils. Usually found along hill tops, in open canopied and dense herbaceous areas.	May occur. Project area does support abundant gopher tortoise habitat and burrows	May affect, is not likely to adversely affect. See Section 3.4.10 below
Fish				
Gulf Sturgeon (Acipenser oxyrinchus desotoi)	USFWS (T) all counties	Found in coastal rivers along the Gulf of Mexico. These rivers contain high levels of tanic acid that make the water appear dark in color.	May occur. Project area does cross the Escatawpa River twice. This river is a large tanic coastal river.	May affect, is not likely to adversely affect. See Section 3.4.11 below.
*Iron Color Shiner (Notropis chaybacus)	Mississippi (T)	Inhabits slow acidic blackwater steams and drainages and other types of vegetated wetlands from Chipola River to Big Creek.	May occur. Project area does cross Big Creek and tributaries.	May affect, is not likely to adversely affect. See Section 3.4.12 below.
Plants				
Louisiana quillwort (Isoetes louisianensis)	USFWS (E) all counties	Occurs in small blackwater streams as well as sand and gravel mud bars and steam banks. Associated with Laurel and water oaks as well as sweet bay magnolia trees.	Unlikely to occur. Historic populations. Species has not been identified in the part of Jackson county the project occurs in.	May affect, is not likely to adversely affect. See Section 3.4.13 below.

USFWS Status Definitions

E = Endangered. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

C=Candidate species. A species that has warranted further attention to gain federally threatened or endangered status.

T = Threatened. The ESA specifically prohibits the take of a species listed as threatened. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

DL = Delisted, Delisted species are those which USFWS had previously listed as threatened or endangered. These species are considered rare and vulnerable to population decrease. This listing has no legal protection.

Range or habitat information is from USFWS 2011, and Campbell 2003
*Indicates a state listed species. These two species are not federally listed and have no federal protection.

3.4.1 Bald Eagle

Current Federal Status: The bald eagle has been delisted by the USFWS. However it still holds protection under the Bald and Golden Eagle Protection Act (BGEPA).

Habitat and Range Requirements: Bald eagles build large stick nests lined with soft materials such as grass, leaves, and Spanish moss. Nests are used for several years by the same pair of eagles, with the birds adding materials each year. Nests are often very large, measuring 6 feet across and weighing hundreds of pounds. In south Alabama and Mississippi, eagle nest-building activities generally begin in October of each year. Peak egg-laying occurs in December and hatching occurs in January. The young eagles generally fledge in April after 10-12 weeks of growth but parental care continues in the nesting territory for another 4-6 weeks. Adults and juveniles begin to migrate north in May (Campbell, 1995).

Eagles are vulnerable to disturbance throughout the nesting period but are particularly vulnerable during the first 12 weeks, during courtship, nest-building, egg-laying, incubation and brooding. Disturbance at this time may cause nest abandonment and chilled or overheated eggs or young. Human activity, even late in the nesting cycle, may cause premature fledging and reduce the young eagles' chance of survival (Campbell, 1995).

Once a suitable breeding territory is found, breeding pairs will return to the same area year after year, often using alternate nests within the territory during different breeding years. Although a given nest may be lost due to weather or age of the tree, a pair often returns to the same territory to begin building another nest. In cases where one member of a pair dies, the nest may be colonized by the surviving member returning with a new mate. Nesting territories can also be inherited by subsequent generations (Campbell, 1995).

Bald eagles generally inhabit areas near large bodies of open water such as lakes, marshes, rivers, and sea coasts where there are plenty of fish to eat and tall trees for nesting and roosting (Campbell, 1995). Although the bald eagle was removed from the federal endangered species list on June 28, 2007, this species remains protected by the BGEPA of 1940 and the Migratory Bird Treaty Act of 1918.

SWCA discovered in our file search through the Mississippi and Alabama wildlife departments that there are records for bald eagles nesting near the Lower Escatawpa River in Mississippi. Based on these results, SWCA conducted an extensive aerial survey to identify bald eagle nests. The methods and results of this survey are discussed below.

Potential for Occurrence: This species likely occurs within the project area. Large expanses of open water with large associated forested wetlands occur throughout the southern portion of this project.

Determination of Impact: SWCA biologists Mr. Tom Sankey and Ms. Colette Craft were flown by Mr. Doug Dickey of Apex Helicopters out of Trent Lott Airport (TLA) to the project area on the morning of February 23, 2012. The investigators utilized a Robinson R-44 helicopter to complete a

bald eagle survey. The investigators took off from TLA at approximately 0930. The weather was cloudy and overcast. Visibility was estimated at 2 miles and the winds were out of the southwest at 5-10 knots. The investigators arrived at the northern end of the pipeline ROW in Mobile County by approximately 0950 to initiate the aerial survey.

The entire proposed ROW was searched methodically for the presence of bald eagles and/or eagle nests. The majority of the survey effort was spent searching a swath of land centered on the northern and the southern Escatawpa River crossings. These areas were searched for a distance of approximately one mile upstream of the proposed ROW and for a distance of approximately one mile downstream of the proposed ROW. The purpose of the survey was to ensure that eagle nests were not within the vicinity of the proposed pipeline construction area. The investigators left the project area at approximately 1330, after spending approximately 3 hours and 40 minutes in the search area.

Results of the Bald Eagle Survey

A total of five large nests were identified within the Lower Escatawpa River wetland complex during the helicopter survey (**Appendix C**). Nests 1 and 2 were identified as either inactive or abandoned bald eagle nests or possible osprey nests (*Pandion haliaetus*). Nest 4 was identified as either an inactive or abandoned eagle nest. Another nest was later identified as an osprey nest and is not shown in **Appendix C**. Nest 3 was determined to be a probable active bald eagle nest during the 2011-2012 breeding season.

Nest 1 is located over 2,700 feet away from the proposed project ROW. Nest 2 is located immediately adjacent to the proposed project area. Nest 3 is located approximately 5,000 feet west of the project area. Nest 4 is located immediately adjacent to the Escatawpa River, approximately 500 feet northeast of the proposed project area. SWCA biologists located one adult and two recently fledged juvenile bald eagles in the immediate vicinity of Nest 3.

Based on the results of the aerial survey, SWCA was able to verify that bald eagles are actively nesting in the Lower Escatawpa River marshes and tributaries in the vicinity of the proposed project area. With respect to the remainder of the project pipeline ROW (i.e., those areas located outside of the Lower Escatawpa River marshes and tributaries), due to the project's distance from large waterbodies, the lack of available foraging, roosting and nesting habitat for this species in the project area, as well as the mobility of this species, it is our professional opinion that the proposed project is not likely to adversely affect this species within the remainder of the project area (i.e., outside the Lower Escatawpa River marshes and tributaries).

Based on the location of the confirmed probable active nest within 5,000 feet of the proposed ROW, as well as the location of additional possible inactive nests in the project area, it is possible that bald eagles may nest within the immediate project vicinity during the upcoming 2012-2013 breeding season. SWCA recommends performing a boat or an additional helicopter survey during the beginning of the 2012-2013 bald eagle breeding season (i.e., December 2012 or January 2013) to determine if eagles are in the area and are nesting within the project area. If Nests 2 and 4 are active, then it will be necessary for the project to either be constructed via HDD across this portion of the

Escatawpa River, or construction will need to be delayed until after the end of the eagle breeding season (i.e., after March 2013).

3.4.2 Red-Cockaded Woodpecker

Current Federal Status: Federally endangered throughout its range.

Habitat and Range Requirements: Suitable nesting habitat for red-cockaded woodpecker (RCW) consists of pine stands that contain pine trees greater than 60 years of age, approximately 16-inch diameter at breast height (dbh), and that are located within 0.5 mile of suitable foraging habitat. Suitable foraging habitat for the RCW consists of pine stands in which 50 percent or more of the dominant trees are mature pines (greater than 30 years old, 10 inch dbh). Preferred nesting habitat is typically devoid of moderate to heavy mid-story layers (20 to 50 feet above the ground) (USFWS, 1985).

The RCW recovery plan survey protocol states that if the project area contains any suitable foraging habitat that will be impacted by the project, that habitat, if it contains any 60 year old pine trees or older, and all other suitable nesting habitat within 0.8 km (0.5 mi) of the project site, regardless of ownership, must be surveyed for the presence of red-cockaded woodpeckers (USFWS, 1985).

The project area's upland habitat consists mainly of mixed young pine and hardwoods or young silvicultural stands. Approximately 40-60 percent of the canopy is comprised of slash pine and long leaf pine approximately 10-20 years old with a dbh average of 12-16 inches. The pines are closely spaced along the ROW, with a tall midstory (40-50 feet) and at times a very thick understory (15-30 feet) existing within the project corridor. No 60 year old or older trees were identified within the project area and surrounding vicinity. The age and size of the pines are not suitable for RCW nesting habitat. Furthermore, most of these areas were determined not to be potential RCW foraging or nesting habitat due to the overall height and density of the midstory and understory. However, several areas along the project corridor did match up with potential foraging habitat requirements. In these areas the pine to hardwood ratio was adequate. The trees were spread farther apart and greater than 50% of the canopy was occupied by either maturing slash or long leaf pine. The midstory was thin and adequate to allow for flight paths.

Potential for Occurrence: RCWs have not been observed recently in either county the project occurs in. Habitat assessment was conducted during the gopher tortoise and wetland surveys. No suitable nesting habitat was documented.

Determination of Impact: The red cockaded woodpecker has not been observed in Mobile County, Alabama and Jackson County, Mississippi for a long time. SWCA conducted habitat surveys along the entire length of the proposed project and did not observe any habitat that would be considered RCW nesting habitat. Due to the lack of recent observations and habitat to support the species in the project vicinity it is our opinion that this project will not have any adverse affects to the red cockaded woodpecker.

3.4.3 Wood Stork

Current Federal Status: Federally endangered throughout its range.

Habitat and Range Requirements: Wood storks are large wading birds that inhabit freshwater wetlands. They use tall cypress trees near wetlands and waterbodies as colonial nesters. Nesting sites historically reached upwards of 10,000 pairs. Today the colonies are much smaller. They are regular visitors to Alabama's swamps and wetlands to forage, but are not known to nest in the state since the 1960's. Nesting has also not been confirmed in Mississippi (MDWFP, 2001).

Potential for Occurrence: This species is highly mobile, and has not been observed actually nesting or breeding in Alabama since the 1960s, and it has been an unconfirmed breeder in Mississippi.

Determination of Impact: Due to the absence of breeding individuals and known breeding colonies it is unlikely that this project will adversely affect this species.

3.4.4 Flatwoods Salamander

Current Federal Status: Threatened

Habitat and Range Requirements: Adults live underground in pine flatwood communities dominated by longleaf or slash pine with wiregrass ground cover in isolated pocket wetlands dominated by cypress and gum trees (Palis, 1996; Palis and Means, 2005). Ponds that are free of predatory fish are preferred breeding habitat. In Alabama, range is restricted to the lower coastal plain in Mobile, Baldwin, Escambia, Covington, Geneva, and Houston counties. No individuals have been found in Alabama since 1981 despite intensive survey of 143 ponds in winter (1992-1993 and 1993-1994) (Goodwin, 2002).

Potential for Occurrence: Abundant habitat is available throughout the proposed project route; however, Due to the lack of recent populations and individuals being found within Alabama, it is SWCA's opinion that this project will not likely adversely affect this species.

Determination of Impact: SWCA believes that this species had historic populations in this area. However, due to the extreme time frame in which it has not been documented in either state it is SWCA's opinion that the proposed project may affect, but is not likely to adversely affect this species.

3.4.5 Gopher Frog

Current Federal Status: Endangered

Habitat and Range Requirements: This species was once found in nine counties from Louisiana, Mississippi, and Alabama. It has not been observed in Louisiana since 1967 or in Alabama since 1922. The gopher frog is presently known to inhabit only one site in Harrison County, Mississippi (MDWFP, 2001).

Typical habitat for this species includes both upland, sandy areas dominated by longleaf pine forests, with isolated, temporary, wetland breeding sites within. The frogs spend most of their lives underground. They use active and abandoned gopher tortoise and armadillo burrows (Ashton and Ashton, 2008). This species requires sufficient winter precipitation to fill up breeding habitat to allow for reproduction.

Potential for Occurrence: Abundant habitat is available throughout the proposed project route; however, due to the amount of time which has passed since this species was last documented in the project area; it is SWCA's opinion that this project will not likely adversely affect this species.

Determination of Impact: SWCA believes that this species had historic populations in this area. However, due to the extreme time frame in which it has not been documented in the project area, it is SWCA's opinion that the proposed project is not likely to adversely affect this species. Also due to Plains ability to narrow the ROW foot print, the majority of gopher tortoise burrows have been avoided. Only six active burrows occur within the construction ROW, limiting the available habitat or this species.

3.4.6 Gopher Tortoise

Current Federal Status: Federally threatened in both counties the project occurs in. The species is protected through much of its range from South Carolina, throughout Florida, and into the four eastern parishes of Louisiana.

Habitat and Range Requirements: The gopher tortoise (*Gopherus polyphemus*) ranges from South Carolina all through Florida and west into the four most eastern parishes of Louisiana. Gopher tortoises favor dry, sandy ridges with broad open stands of turkey oak and long leaf pine along with other scrub species. They have also been documented in frequently edge habitats around roads, fence lines, and pipeline ROWs. Habitats much have well drained sandy soils with a relatively shallow water table. Burrows will be dug up to 30' long and 9 feet deep. Burrows are typically dug to the water table so that the end chamber can maintain a constant level of humidity.

Potential gopher tortoise habitat was first located by examining aerial imagery. Large areas that were indicative of classic gopher tortoise habitat such as sand hills, open pine and turkey oak savannahs, and existing linear line ROW were selected for ground-truthing. It is important to note that due to constant habitat alterations, identifying natural gopher tortoise habitat has become problematic (Ashton and Ashton, 2008). These animals are rather adaptive and will flourish in edge habitat (Ashton and Ashton, 2008).

The on-ground gopher tortoise survey protocol was adapted from the Florida Fish and Wildlife Conservation Commission Gopher Tortoise Management Plan (2007) and from Ashton and Ashton (2008). No actual linear line survey protocol currently exists. SWCA adapted the standard survey protocol used for large tracts of land to fit to a 200-foot-wide linear corridor. In the 200-foot-wide corridor, SWCA established three equally-spaced transects that traversed the entire length of the area to be surveyed. A team of three biologists (one biologist per transect) walked the 200-foot-wide corridor looking for burrows or other signs of gopher tortoises. To increase survey success and total area surveyed within the 200-foot corridor, perpendicular transects were added every 100 feet. SWCA adapted the survey to fit a 100% survey model.

Once gopher tortoise burrows were found, the state of the burrow was determined. Burrows were identified as active, inactive, abandoned or impacted, depending on the state of the burrow entrance (Ashton and Ashton, 2008), and as defined below:

- An **active** burrow has a defined shape and a clear mouth and apron; recent tracks and feces may be present in or around the burrow; and active feeding "lanes" may be visible in thicker vegetation.
- An **inactive** burrow has a defined shape but may have leaves and other debris blocking the mouth and apron; no fresh tracks or feces are found in the immediate area; could be a secondary burrow for a tortoise or one that is used intermittently by many tortoises in the pod.
- An **abandoned** burrow has lost its defined shape, and the entrance may be collapsed or clogged with debris or plant roots.
- An **impacted** burrow may be active, inactive, or abandoned. The entrance to the burrow has been damaged, possibly by a potential predator (such as dog or coyote) or by human activity. Impacted burrows are not identified on any of the attached maps, as they transcend active, inactive and abandoned categories.

GPS locations were taken for all burrows regardless of their state. The burrows' distance and bearing to the nearest transect was also taken (Florida Fish and Wildlife Conservation Commission Gopher Tortoise Management Plan 2007; Ashton and Ashton, 2008). Each burrow was photographed; between two to four photos of the apron and the entrance were taken to document the state of the burrow and to document possible tortoise activity.

Using this methodology resulted in the vast majority of the 200-foot-wide corridor being surveyed. It is highly unlikely that gopher tortoise burrows or activity within the survey corridor went undetected during the field survey.

Results of Gopher Tortoise Survey

Mr. Eric Munscher (Florida-certified Gopher Tortoise Agent-permit # GTA-09-00286A), Mr. Matt Gagnon, Mrs. Lynne Ray, Mrs. Michelle Wood-Ramirez, and Mrs. Kristal Schneider surveyed over 18 miles of potential habitat along the proposed pipeline corridor in February 14th-21th, April 18th-26th, and May 20th-June 2nd, 2012. The remaining 23 miles of line was also surveyed for the presence of absence of gopher tortoises during the wetland delineation. A total of 19 pods (tortoise concentrations, possibly family units) were found along the route on various properties (Appendix **B**). Of the 19 pods a total of 254 burrows were identified and mapped. Of the 254 burrows identified, 185 were considered to be active and showed signs of tortoise movement (tracks, trails in vegetation, or fresh scat) or displayed defined burrow shape and clean entrance, 27 were considered inactive, largely due to no evidence of recent tortoise movement and the degree of debris in the entrance to the burrow, and 42 were considered abandoned (**Appendix B**). The abandoned burrows all suffered from partially or fully collapsed burrow entrances, vegetation growing within burrow or apron, and other obstructions. Of the 254 burrows located, 10 were impacted in some manner. The most common form of impact observed was the result of an animal (i.e., a dog or coyote) digging at the entrance of the burrow (see photos in **Appendix D**). SWCA observed numerous dogs in the vicinity of some of the active tortoise pods.

SWCA indentified 6 active burrows within the proposed 50-foot-wide construction corridor. An additional 103 active burrows are located within the 200-foot-wide survey corridor (see **Appendix B**).

Bucket pit fall traps will be set at the entrance to all active burrows within the construction ROW, and tortoises found will have to be relocated to adequate acceptable habitat. Relocation habitat will be decided by the USFWS and Alabama / Mississippi state agencies. If adequate habitat remains on site tortoises should be able to remain within their breeding pod to keep adequate genetic flow available within the pod.

Tortoise removal will be conducted by certified gopher tortoise agents to assure proper compliance with federal and state regulations concerning the animals' welfare.

Certified gopher tortoise agents as well as environmental inspectors will be present during the construction aspect of this project and will be able monitor the presence of tortoises within the area. Heavy reinforced silt fencing will be placed at the edge of the construction ROW to deter gopher tortoises from entering the construction area.

3.4.7 Alabama Red-Bellied Turtle

Current Federal Status: Endangered throughout its range.

This highly endangered turtle prefers broad, vegetated expanses of shallow water (3 to 6 feet in depth) in backwater bays, lakes, and along river channels (USFWS, 1990). It has been suggested by Dobie (1985a) that snags and dense beds of submersed and emergent aquatic vegetation provide food and cover for this species. Current distribution is thought to be contained to Mobile Bay and its tributary streams. One of the only known major nesting sites is located on a dredged material disposal area known as Gravine Island (Dobie, 1985a).

The only area along the proposed route that offers potential habitat for this species is the Escatawpa River marshes. However, populations of this species are not known to occur within this area (USFWS, 1990).

Determination of Impact: Due to the extremely low population numbers and limited known nesting areas, SWCA believes that the proposed project would likely not adversely affect this species.

3.4.8 Yellow-Blotched Map Turtle

Current Federal Status: Threatened

Habitat and Range Requirements: This species is endemic to Mississippi and the Pascagoula River drainage system including the Escatawpa River (MDWFP, 2001). The largest viable current population is located in the lower Pascagoula River. This species requires waterbodies with strong, consistent current and large sandbars. As with most of this genus this species spends a great amount of time basking on vegetated debris (fallen down trees) (MDWFP, 2001).

Potential for Occurrence: This species may occur in the project area. The project crosses the Escatawpa River twice and numerous smaller tributaries of the river system. This turtle could find suitable habitat within these waterways.

Determination of Impact: It is highly unlikely that this project would have any adverse affects to this species. Several major waterbodies, including the two crossings of the Escatawpa River will be horizontally directional drilled (HDD) and as such will not have any direct impact to associated wildlife.

3.4.9 Eastern Indigo Snake

Current Federal Status: Threatened

Habitat and Range Requirements: This very large diurnal snake's habitat preference appears to vary with season and perhaps with latitude; it favors dry xeric habitats in winter and more mesic habitats in summer. Seasonal movements between these habitat types occur during fall and spring. In areas where the eastern indigo snakes occur sympatrically with gopher tortoises, they rely heavily on tortoise burrows (both active and abandoned) for denning and nesting sites (USFWS, 1982; Stevenson et al., 2003; Ashton and Ashton, 2008). Eastern indigo snakes have very large home ranges (>100 hectares or 250 acres). Although eastern indigo snakes remain active throughout much of the winter, their home ranges in winter are smaller. Breeding occurs November-April. Females lay clutches of 5 to12 eggs between March and July. Eggs hatch 90 - 120 days later. Males are territorial and male-male combat is known to occur (USFWS, 1982; Stevenson et al., 2003; Ashton and Ashton, 2008).

Potential for Occurrence: This species may occur in the project area. The majority of habitat which was surveyed for the presence of gopher tortoise would be adequate habitat for this species. Since this species has such a large home range and spends much time within animal burrows, we cannot confirm its presence or absence within the proposed project area. It is assumed that this species may likely be found within the project area.

Determination of Impact: Due to the amount of suitable habitat due to the presence of gopher tortoises throughout the proposed project route it is likely that this species would occur within the project area. Gopher tortoises found within the proposed project construction ROW will trapped using bucket traps beginning April 1, 2013. All tortoises trapped will be relocated to suitable habitat out of the construction corridor. The potential for an eastern indigo snake to be living in one of these burrows is likely. Certified gopher tortoise agents and environmental inspectors will be on hand during the tortoise extractions and construction phase of this project to ensure threatened and endangered species safety. If an indigo snake is observed it will be taken out of the construction zone and moved to suitable habitat. Based on these precautions, it is SWCA's opinion that the proposed project may affect, but is likely to not adversely affect this species. Also due to Plains ability to narrow the ROW foot print, the majority of gopher tortoise burrows within the survey area have been avoided. Only six active burrows occur within the construction ROW, limiting the available habitat or this species.

3.4.10 Black Pine Snake

Current Federal Status: Candidate species.

Habitat and Range Requirements: This large snake species inhabitats similar habitat to the eastern indigo snake and the gopher tortoise. They require long leaf pine forest with well drained sandy soils, open canopy, thin midstory with a thick herbaceous layer. The habitat should be maintained by frequent burning. They are believed to spend a great deal of time inside abandoned gopher tortoise burrows (MDWFP, 2001).

Potential for Occurrence: Habitat that meets this species needs is abundant throughout the project vicinity. The gopher tortoise is found throughout the region and numerous abandoned burrows were located. It is possible that black pine snakes occur within this area but no recent evidence has shown this to be true. All known occurrences of this snake in Mississippi are from the northwest of Jackson County, Mississippi.

Determination of Impact: Due to the amount of suitable habitat due to the presence of gopher tortoises throughout the proposed project route it is likely that this species would occur within the project area. Gopher tortoise burrows that are within the proposed projects construction ROW will be dug up with the tortoises being relocated to suitable habitat out of the project corridor. The potential for an black pine snake to be living in one of these burrows is likely. Certified gopher tortoise agents and environmental inspectors will be on hand during the tortoise extractions and the construction phase of this project to ensure threatened and endangered species safety. If an indigo snake is observed it will be taken out of the construction zone and moved to suitable habitat. Based on these precautions, it is SWCA's opinion that the proposed project may affect, but is likely to not adversely affect this species. Also due to Plains ability to narrow the ROW foot print, the majority of gopher tortoise burrows within the project survey corridor have been avoided. Only six active burrows occur within the construction ROW, limiting the available habitat or this species.

3.4.11 Gulf Sturgeon

Current Federal Status: Endangered throughout its range.

Habitat and Range Requirements: Gulf sturgeon can be found in coastal rivers of the Gulf of Mexico from the Suwannee River in Florida, to the Pearl River in Louisiana. The rivers which support sturgeons contain high levels of tannic acid that make the water appear dark in color. Sturgeons spawn near the headwaters of rivers, and spend the summer in the middle to lower portions of rivers. The most viable population of Gulf sturgeon in Alabama is located in the Choctawhatchee River near Geneva where over two dozen individuals were observed from 1991-1994 (Fox et al. 2000).

Potential for Occurrence: The project does cross the Escatawpa River twice along with large tributaries such as Big Creek. It is unlikely but not impossible that this species could be found within the project vicinity.