

JOINT PUBLIC NOTICE

March 19, 2018

United States Army Corps of Engineers
New Orleans District
Regulatory Branch
7400 Leake Avenue
New Orleans, Louisiana 70118

State of Louisiana
Department of Environmental Quality
Water Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

(504) 862-1301
Project Manager
Neil T. Gauthier
Neil.T.Gauthier@usace.army.mil
MVN 2016-01163-CM

(225) 219-3225
Project Manager
Elizabeth Hill
WQC Application Number
WQC 180312-01

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the US Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

Application has also been made to the Louisiana Department of Environmental Quality, Water Quality Certifications Section, for a Water Quality Certification (WQC) in accordance with statutory authority contained in LRS 30:2074 A(3) and provisions of Section 401 of the Clean Water Act.

PROPOSED ECOLOGICAL SWAMP ENHANCEMENT PROJECT (EAST GRAND LAKE) IN THE ATCHAFALAYA BASIN, IN IBERVILLE PARISH

NAME OF APPLICANT: Louisiana Department of Natural Resources, c/o Sigma Consulting Group, Inc., Attn: Robert Lear, 10305 Airline Hwy, Baton Rouge, Louisiana 70816.

LOCATION OF WORK: Within the Atchafalaya Basin, to include Bayou Sorrel, the Gulf Intracoastal Waterway, and the Florida Pipeline Canal, approximately 20 miles east of Donaldsonville, Louisiana, near the town of Bayou Sorrel, in Iberville Parish, within the Atchafalaya Basin in hydrologic unit (HUC 08080101), as shown on the attached drawings.

CHARACTER OF WORK: The applicant has requested Department of the Army authorization to clear, grade, excavate, dredge, and place fill to improve the north to south hydrologic flow in Bayou Sorrel during moderate river stages to improve the circulation and ecological function throughout the back swamp of the East Grand Lake Area of the Atchafalaya Basin. Work will include shaving and dredging existing spoil banks, clearing, snagging, excavation, dredging, and placement of spoils in designated areas no higher than 6' to be planted with native tree species to accomplish the return of positive water conveyance. Approximately 25,535 cubic yards of native material will be excavated and re-deposited to complete the project. The applicant proposes that the area of benefit would be approximately 5,560 acres of swamp habitat through hydrologic restoration.

A preliminary analysis has determined that the proposed project would directly impact approximately 2.4 acres of jurisdictional forested wetlands by clearing and conversion to open water, approximately 8.3 acres of jurisdictional forested wetlands will be cleared and excavated to become open water, and approximately 5.8 acres of jurisdictional forested wetlands will be cleared and filled. It is anticipated that the proposed action would have a beneficial impact to the surrounding area wetlands.

The applicant has designed the project to avoid and minimize direct and secondary adverse impacts to the maximum extent practicable. The applicant proposes that this project will enhance and improve existing forested wetlands and they expect the benefit gained in enhancement will offset any wetland losses associated with the construction of this project.

The comment period for the Department of Army will close in **20 days** from the date of this joint public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit and/or this WQC request and must be mailed so as to be received before or by the last day of the comment period. Letters concerning the Corps of Engineers permit application must reference the applicant's name and the Permit Application Number, and be mailed to the Corps of Engineers at the address above, **ATTENTION: REGULATORY BRANCH**. Similar letters concerning the Water Quality Certification must reference the applicant's name and the WQC application number and be mailed to the Louisiana Department of Environmental Quality at the address above. Individuals or parties may request an extension of time in which to comment on the proposed work by writing or e-mailing the Corps of Engineers Project Manager listed above. Any request must be specific and substantively supportive of the requested extension, and received by this office prior to the end of the initial comment period. The Section Chief will review the request and the requestor will be promptly notified of the decision to grant or deny the request. If granted, the time extension will be continuous to the initial comment period and, inclusive of the initial comment period, will not exceed a total of 30 calendar days.

The application for this proposed project is on file with the Louisiana Department of Environmental Quality and may be examined during weekdays between 8:00 a.m. and 4:30 p.m. Copies may be obtained upon payment of costs of reproduction.

Corps of Engineers Permit Criteria

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs,

considerations of property ownership and, in general, the needs and welfare of the people.

The US Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the US Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Copies of this notice are being sent to the State Archeologist and the State Historic Preservation Officer.

Our initial finding is that the proposed work would not affect any species, nor affect any habitat designated as critical to the survival and recovery of such species, listed as endangered by the U.S. Department of Commerce.

Our initial finding is that the proposed work would not affect any species, nor affect any habitat designated as critical to the survival and recovery of such species, listed as endangered by the U.S. Department of Interior. Utilizing Standard Local Operating Procedure for Endangered Species in Louisiana (SLOPES), dated October 22, 2014, between the U.S. Army Corps of Engineers, New Orleans and U.S. Fish and Wildlife Service, Ecological Services Office, the Corps has determined that there are no endangered species in the project area.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of up to 0 acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate water quality standards will be required from the Department of Environmental Quality, Water Quality Certifications Section before a permit is issued.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

JOHN M. HERMAN
Chief, Central Evaluation Section
Regulatory Branch

Enclosures

STATE OF LOUISIANA
DEPARTMENT OF NATURAL RESOURCES
ATCHAFALAYA BASIN PROGRAM

EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN

BAYOU SORREL, LOUISIANA
PROJECT NO. 11-431-99-01 PART 83
WBS: F.11000077

STATE OF LOUISIANA
INSET MAP

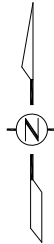
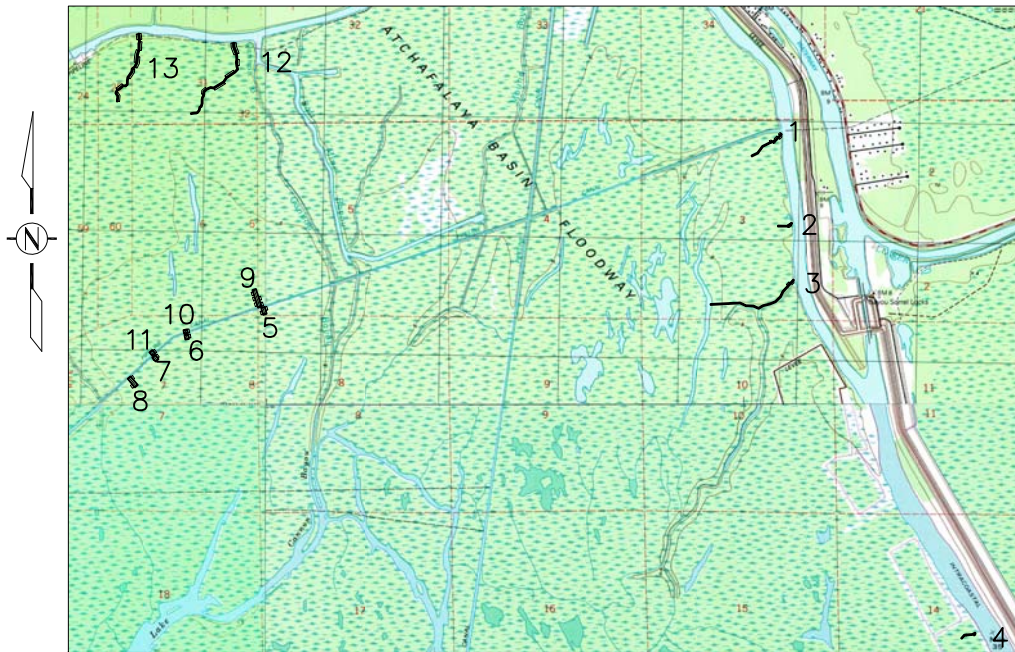


PROJECT LOCATION
IBERVILLE PARISH

STATE OF LOUISIANA
JOHN BEL EDWARDS
GOVERNOR

DIVISION OF ADMINISTRATION
JAY DARDENNE
COMMISSIONER OF ADMINISTRATION

OFFICE OF FACILITY PLANNING AND CONTROL
MARK MOSES
DIRECTOR

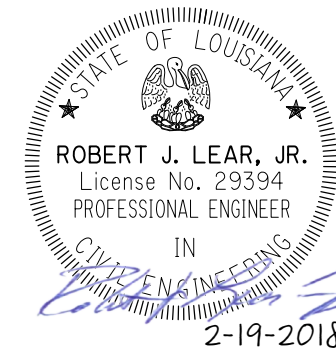





PREPARED BY:

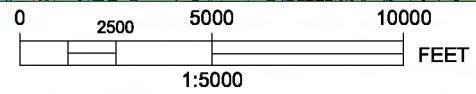
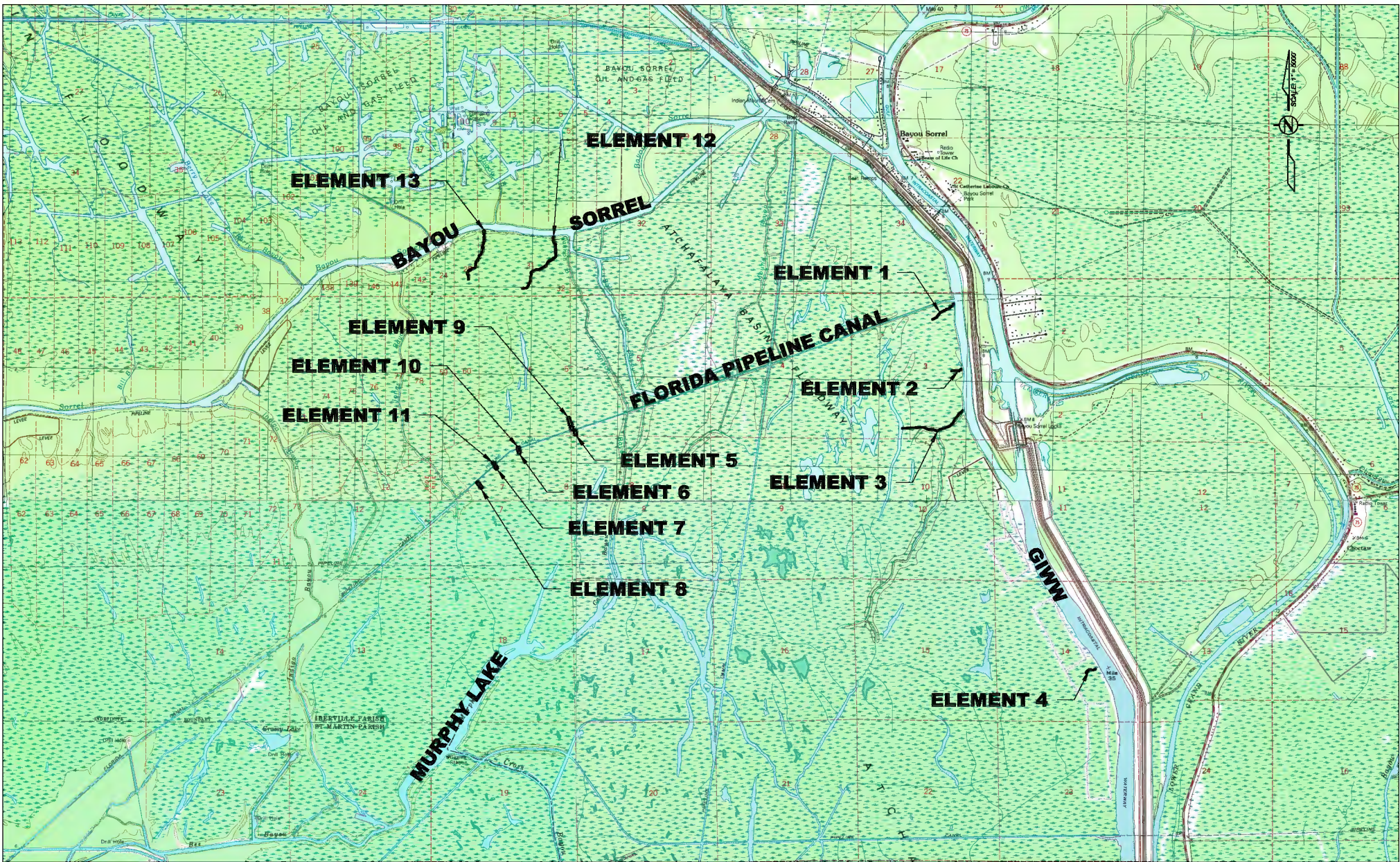


SIGMA CONSULTING GROUP, INC.
10305 AIRLINE HIGHWAY
BATON ROUGE, LA 70816
(225) 298-0800

THESE PLATS ARE FOR
PERMITTING PURPOSES ONLY



				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA							
				TITLE SHEET		WBS NUMBER: F.11000077		FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83		DATE: FEBRUARY 2018	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: L. AMEDEE	DESIGNED BY: R. LEAR	COE PERMIT NUMBER: MVN 2016-01163-CY		SHEET: 1 OF 29			



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
 ATCHAFALAYA RIVER BASIN
 BAYOU SORREL, LOUISIANA**



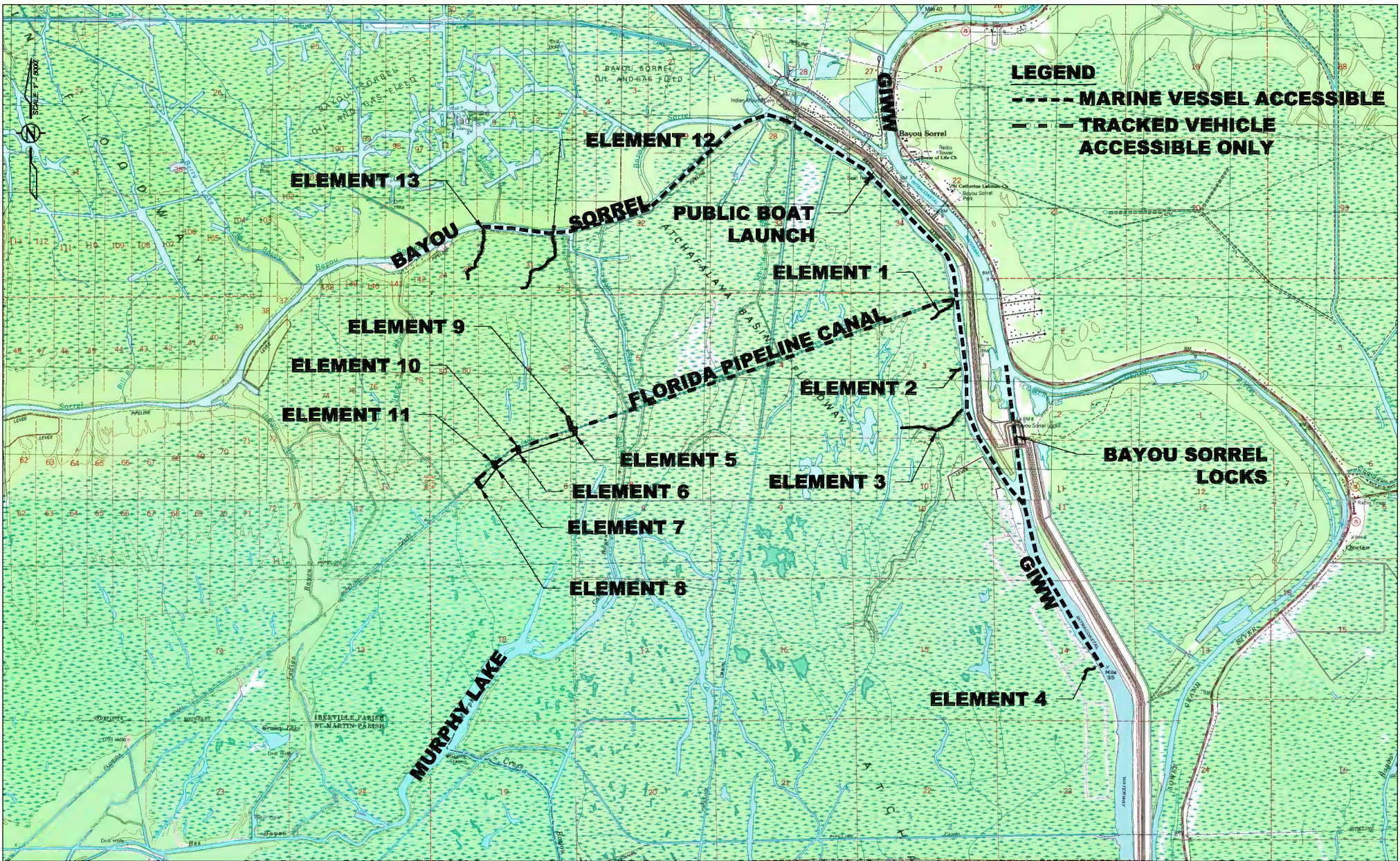
LOCATION MAP




WBS NUMBER: F.11000077
 FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83
 COE PERMIT NUMBER: MVN 2016-01163-CY

DATE: FEBRUARY 2018
 SHEET: 2 OF 29

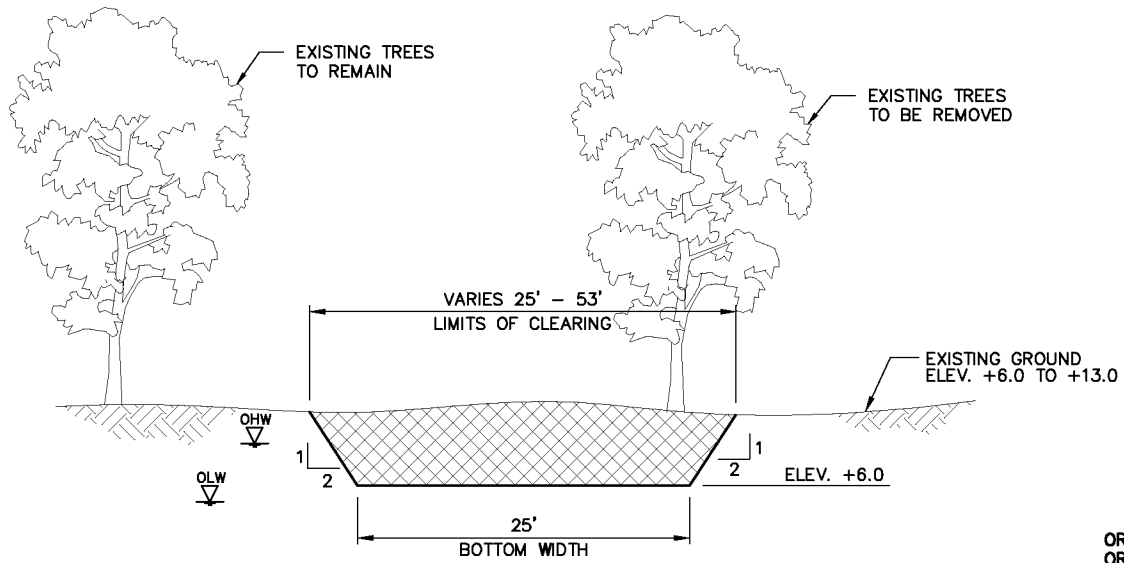
REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR



				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA		 SIGMA CONSULTING GROUP, INC.	 Atchafalaya BASIN	
				PROJECT ACCESS MAP				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 3 OF 29

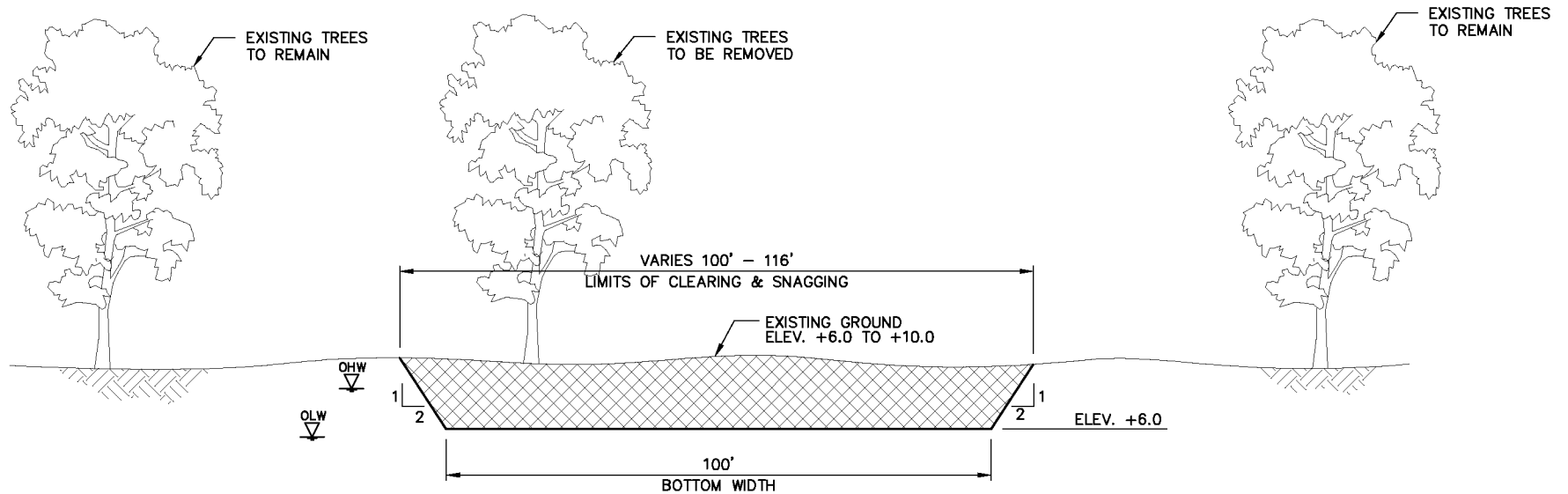
F:\02020171001\Permit Drawings\171001 Access Map.dwg [Layout1] Feb 12, 2018 - 2:26pm



ORDINARY HIGH WATER: +9.3
 ORDINARY LOW WATER: +1.7

TYPICAL DREDGE SECTION
ELEMENTS 1, 2, 3, 4, 12 & 13

N.T.S.



TYPICAL DREDGE SECTION
ELEMENTS 5, 6, 7, 8, 9, 10 & 11

N.T.S.

EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA



DREDGE SECTIONS

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

DATE: FEBRUARY 2018

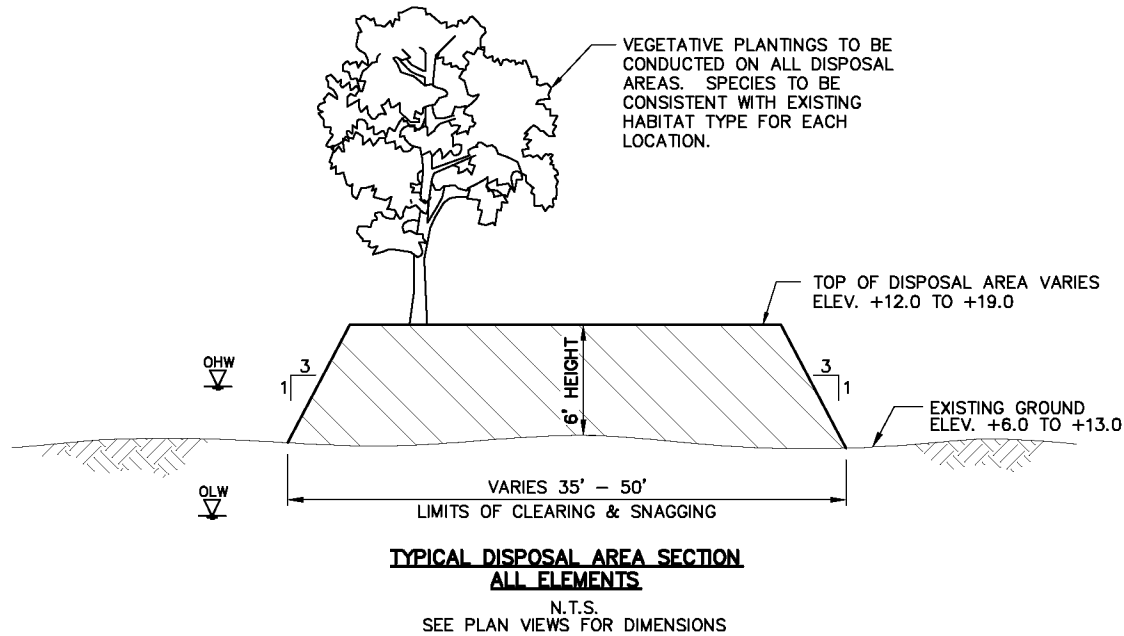
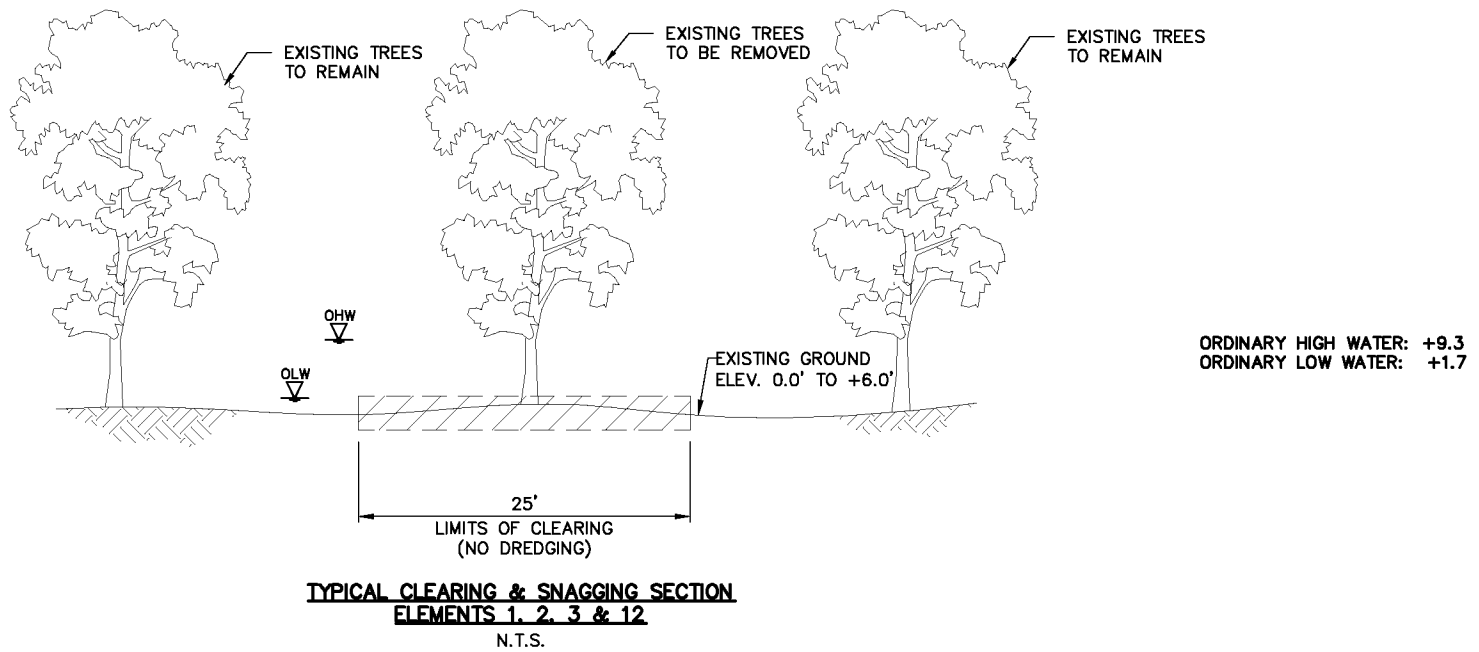
COE PERMIT NUMBER: MVN 2016-01163-CY

SHEET: 4 OF 29

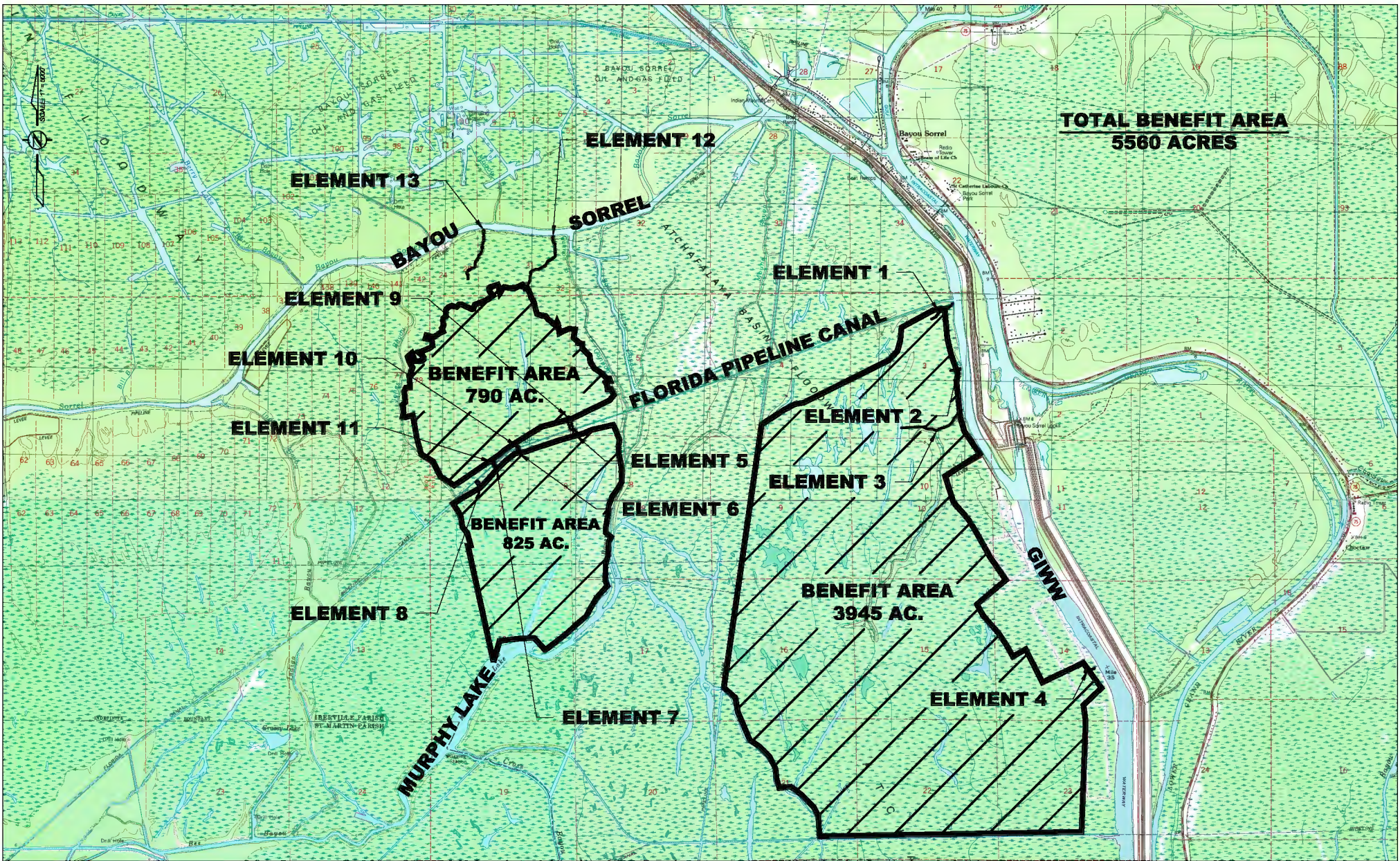
REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES

DESIGNED BY: R. LEAR



				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA				
				CLEARING & DISPOSAL AREA SECTION				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 5 OF 29	

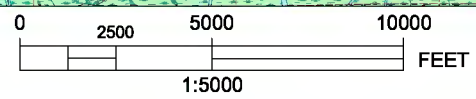


**TOTAL BENEFIT AREA
5580 ACRES**

**BENEFIT AREA
790 AC.**

**BENEFIT AREA
825 AC.**

**BENEFIT AREA
3945 AC.**



REV.	DATE	DESCRIPTION	BY




EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA	
PROJECT BENEFIT MAP	
DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR

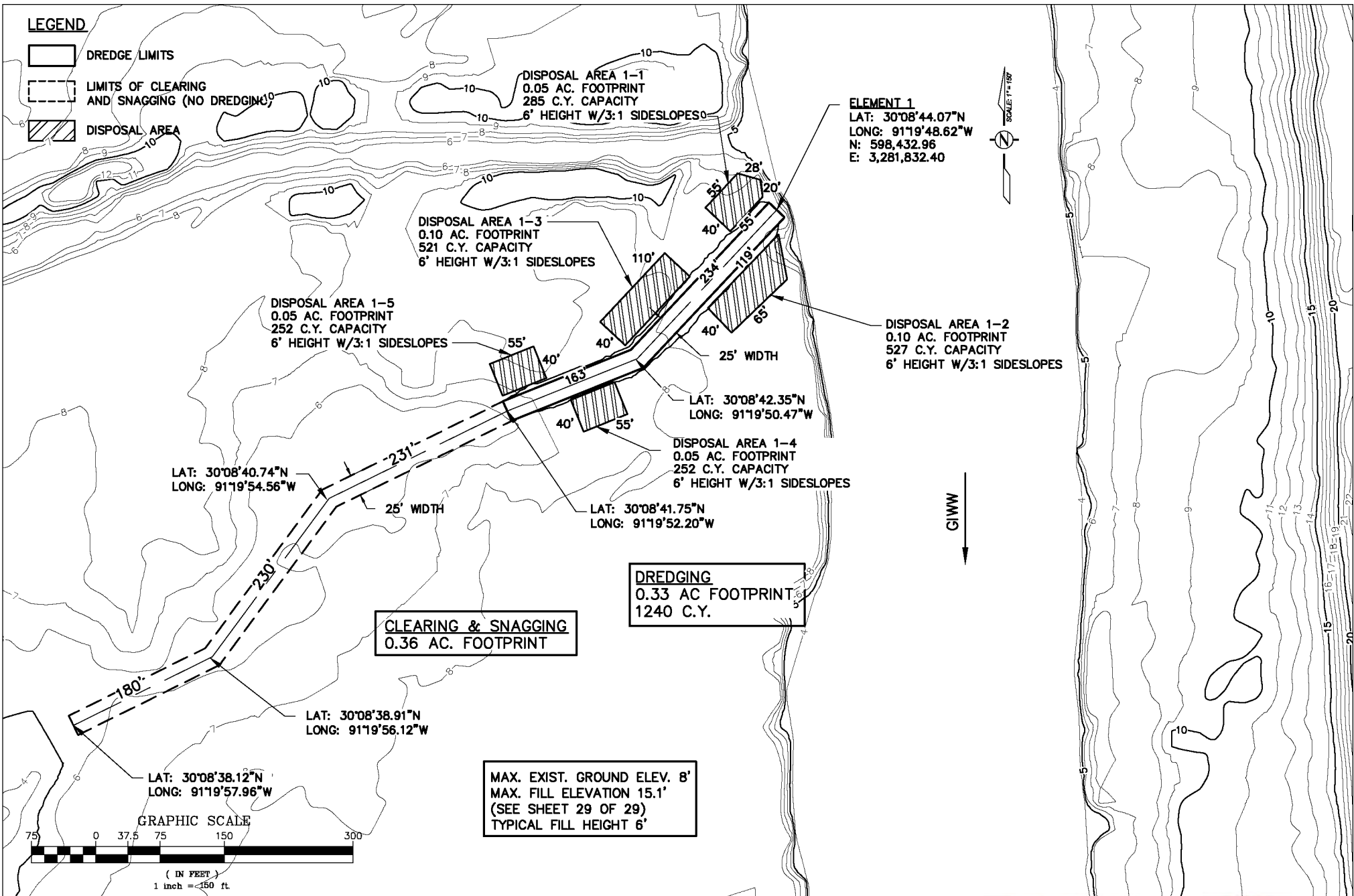
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	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83
COE PERMIT NUMBER: MVN 2016-01163-CY	DATE: FEBRUARY 2018

SHEET: 6 OF 29

F:\02020171001\01800\Permit Drawings\171001 Project Benefit Map.dwg [Layout] Jan 25, 2018 - 3:00pm

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**



REV.	DATE	DESCRIPTION	BY

ELEMENT 1 PLAN VIEW
DRAWN BY: D. THYMES
DESIGNED BY: R. LEAR

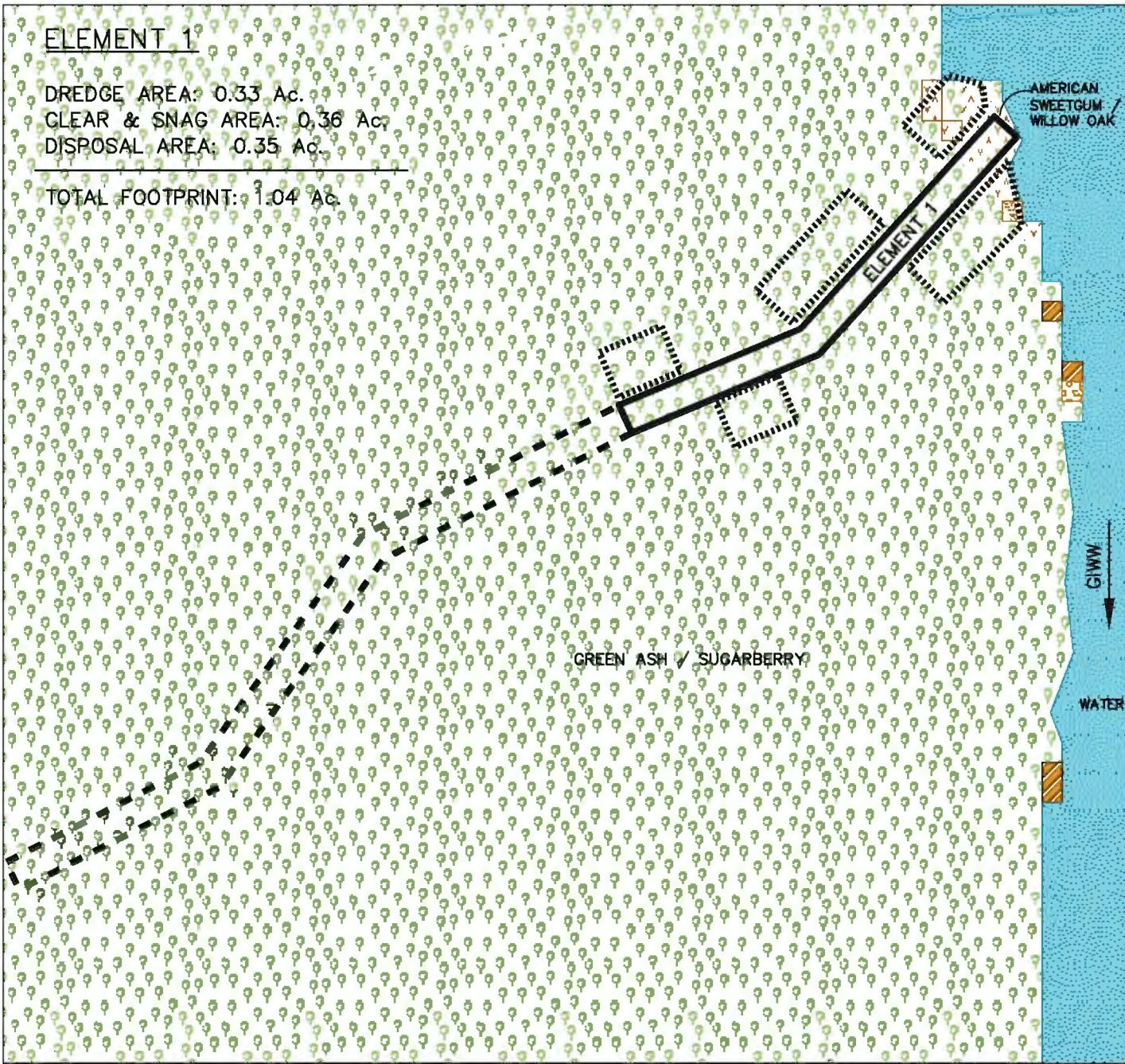
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FEDERAL PROJECT NUMBER:	11-431-99-01, PART 83
COE PERMIT NUMBER:	MVN 2016-01163-CY

DATE:	FEBRUARY 2018
SHEET:	7 OF 29

ELEMENT 1

DREDGE AREA: 0.33 Ac.
 CLEAR & SNAG AREA: 0.36 Ac.
 DISPOSAL AREA: 0.35 Ac.

TOTAL FOOTPRINT: 1.04 Ac.



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
 ATCHAFALAYA RIVER BASIN
 BAYOU SORREL, LOUISIANA**

ELEMENT 1 FORESTRY CLASS




DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

**SIGMA
CONSULTING
GROUP, INC.**

Atchafalaya
RIVER BASIN

WBS NUMBER:	F.11000077	DATE:	FEBRUARY 2018
FEDERAL PROJECT NUMBER:	11-431-99-01, PART 83	COE PERMIT NUMBER:	MVN 2016-01163-CY
SHEET: 8 OF 29			

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA

CLEARING & SNAGGING
0.15 AC. FOOTPRINT

DREDGING
0.11 AC. FOOTPRINT
270 C.Y.

ELEMENT 2
LAT: 30°08'19.82"N
LONG: 91°19'45.41"W
N: 595,983.79
E: 3,282,114.31

LAT: 30°08'19.05"N
LONG: 91°19'49.75"W

LAT: 30°08'19.02"N
LONG: 91°19'46.72"W

25' WIDE

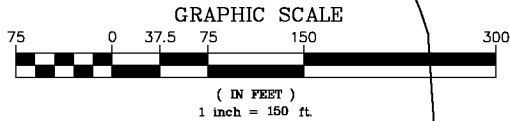
25' WIDE

35'

DISPOSAL AREA 2-1
0.08 AC. FOOTPRINT
368 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

GIWW

MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**



ELEMENT 2 PLAN VIEW

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

DATE: FEBRUARY 2018

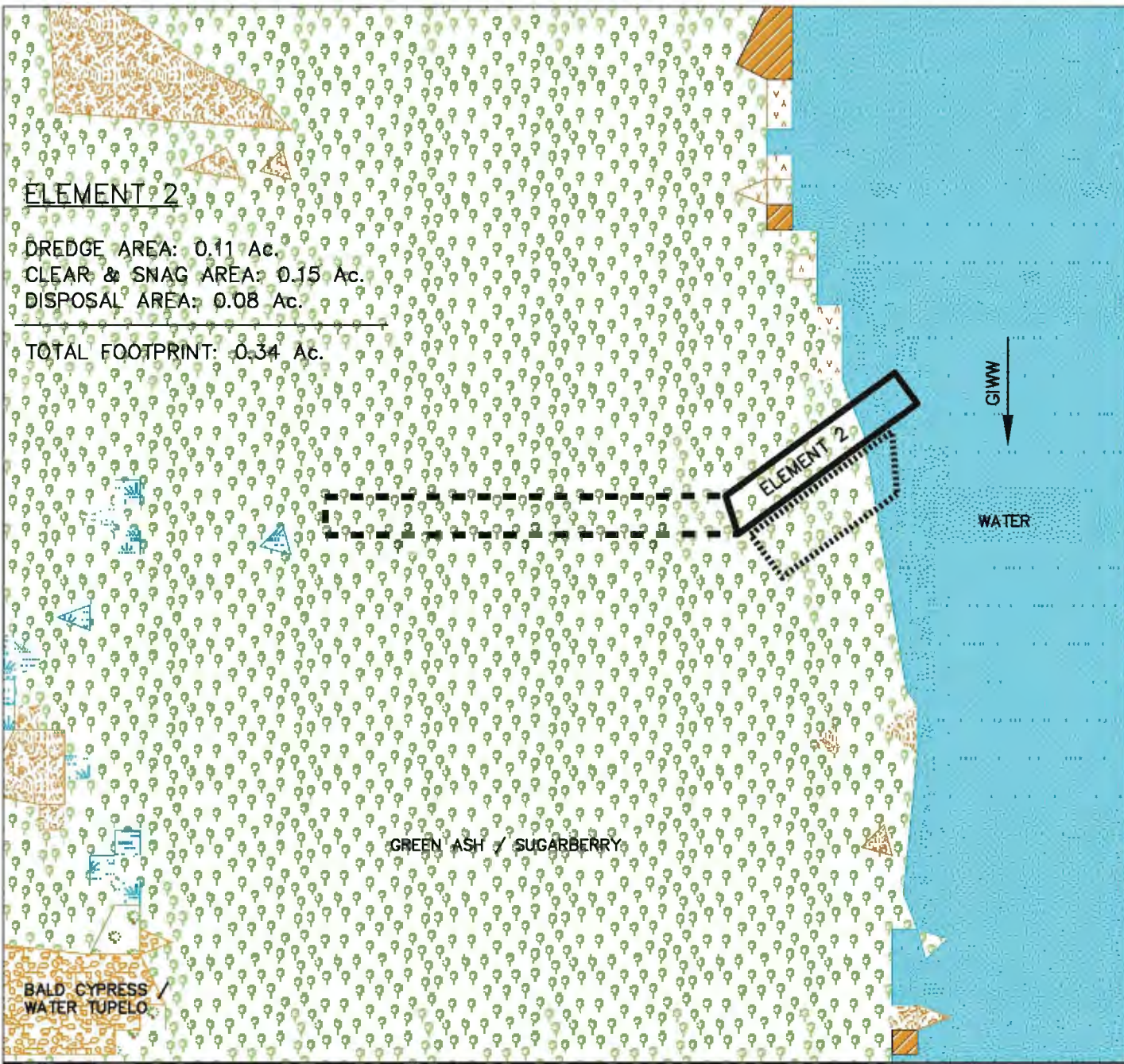
COE PERMIT NUMBER: MVN 2016-01163-CY

SHEET: 9 OF 29

REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES

DESIGNED BY: R. LEAR



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry




- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

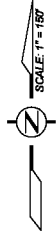
0 50 100 200 Feet

EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA							
							WBS NUMBER: F.11000077
ELEMENT 2 FORESTRY CLASS				FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	DATE: FEBRUARY 2018		
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 10 OF 29

F:\02620617\1001\01800\Permit Drawings\171001 Element 2 Forestry.dwg [ELEMENT 2] Jan 23, 2018 - 1:59pm

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA



LAT: 30°07'57.71"N
LONG: 91°20'10.83"W

LAT: 30°07'58.11"N
LONG: 91°20'01.62"W

LAT: 30°07'57.37"N
LONG: 91°19'59.79"W

LAT: 30°07'57.26"N
LONG: 91°19'57.46"W

MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'

DREDGING
0.19 AC. FOOTPRINT
575 C.Y.

CLEARING & SNAGGING
1.38 AC. FOOTPRINT

DISPOSAL AREA 3-2
0.08 AC. FOOTPRINT
448 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

ELEMENT 3
LAT: 30°08'04.42"N
LONG: 91°19'44.82"W
N: 594,427.67
E: 3,282,165.82

DISPOSAL AREA 3-1
0.07 AC. FOOTPRINT
400 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

LAT: 30°07'57.37"N
LONG: 91°19'54.40"W

LAT: 30°08'01.22"N
LONG: 91°19'48.14"W

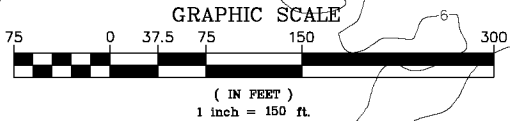
LAT: 30°07'58.47"N
LONG: 91°19'50.51"W

LAT: 30°08'02.64"N
LONG: 91°19'46.68"W

LAT: 30°07'56.65"N
LONG: 91°19'55.78"W

LAT: 30°07'57.81"N
LONG: 91°19'52.36"W

LAT: 30°07'59.76"N
LONG: 91°19'48.97"W



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**



ELEMENT 3 PLAN VIEW

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

COE PERMIT NUMBER: MVN 2016-01163-CY

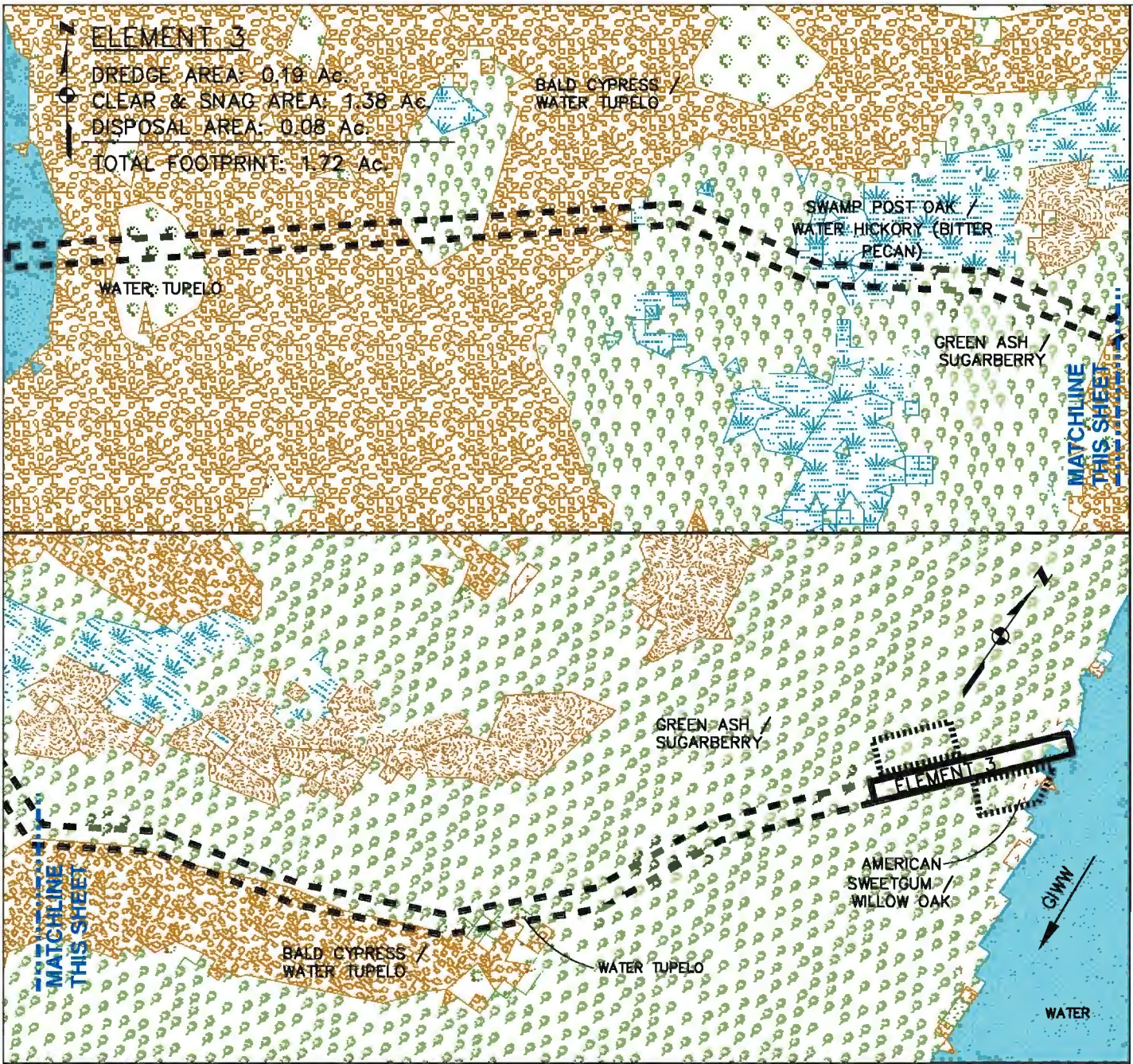
DATE: FEBRUARY 2018

SHEET: 11 OF 29

REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES

DESIGNED BY: R. LEAR



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
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- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

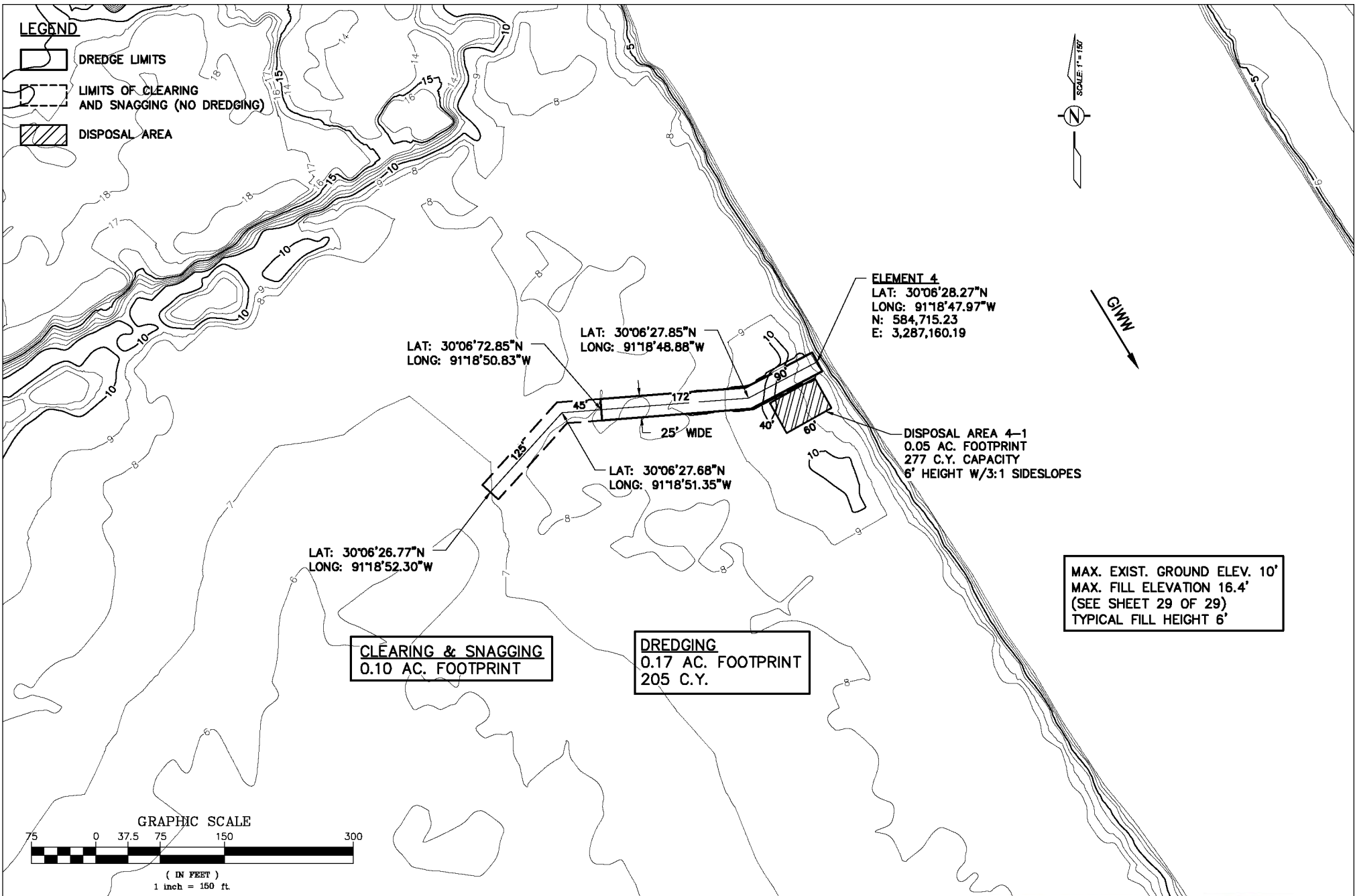
ELEMENT 3 FORESTRY CLASS

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

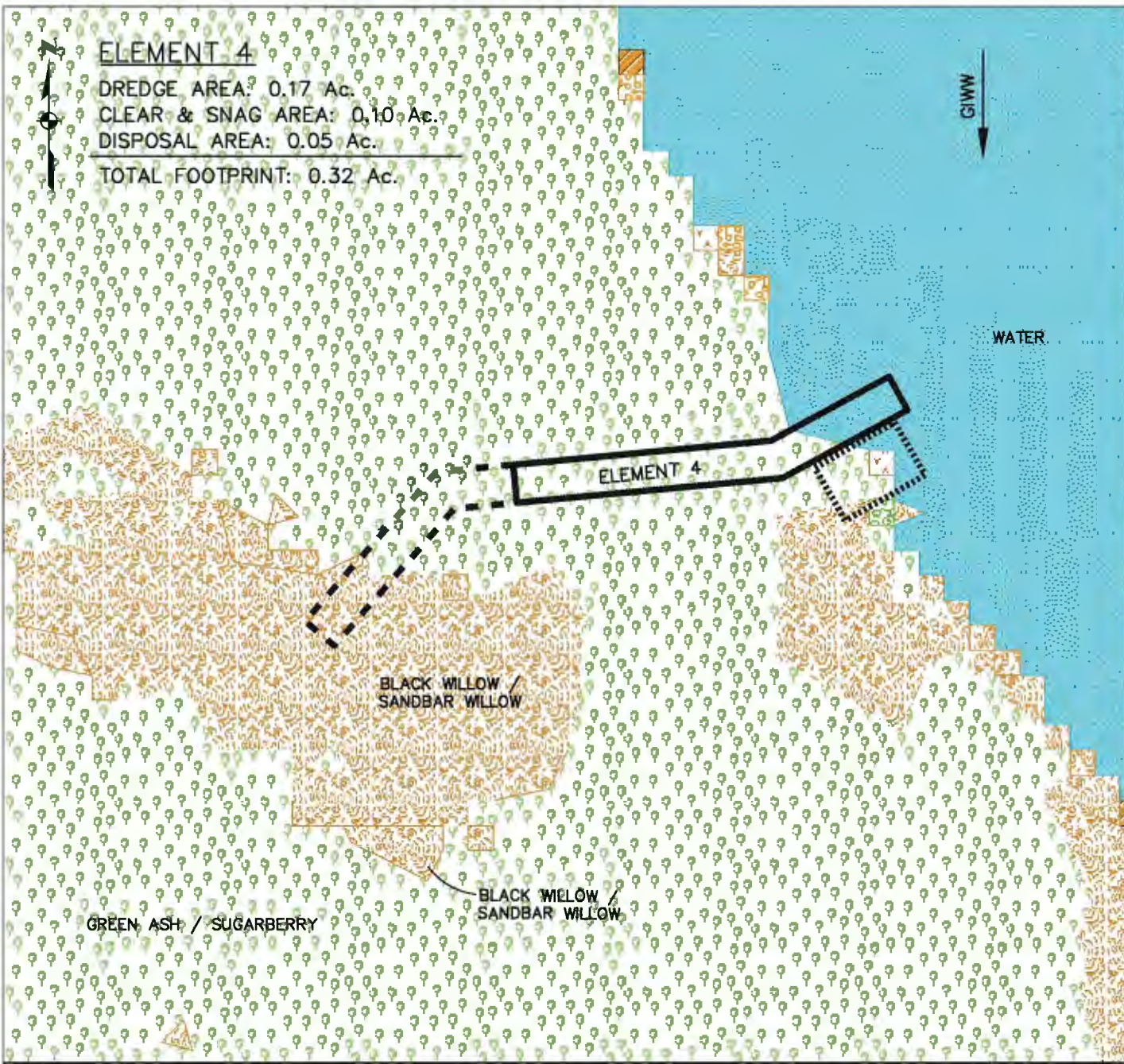
**SIGMA
CONSULTING
GROUP, INC.**

Atchafalaya
BASIN

WBS NUMBER:	F.11000077	DATE: FEBRUARY 2018
FEDERAL PROJECT NUMBER:	11-431-99-01, PART 83	SHEET: 12 OF 29
COE PERMIT NUMBER:	MVN 2016-01163-CY	



EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA								
							ELEMENT 4 PLAN VIEW	
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	WBS NUMBER: F.11000077	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	DATE: FEBRUARY 2018
						COE PERMIT NUMBER: MVN 2016-01163-CY		SHEET: 13 OF 29

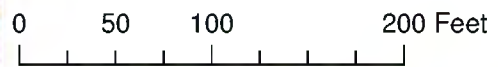


ELEMENT 4

DREDGE AREA: 0.17 Ac.
 CLEAR & SNAG AREA: 0.10 Ac.
 DISPOSAL AREA: 0.05 Ac.
 TOTAL FOOTPRINT: 0.32 Ac.

Legend

- Clear and Snag
- Disposal Area
- Dredge Area
- Forestry**
- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
 ATCHAFALAYA RIVER BASIN
 BAYOU SORREL, LOUISIANA**



REV.	DATE	DESCRIPTION	BY




ELEMENT 4 FORESTRY CLASS

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

WBS NUMBER: F.11000077
 FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83
 COE PERMIT NUMBER: MVN 2016-01163-CY

DATE: FEBRUARY 2018
 SHEET: 14 OF 29

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA

MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'

DREDGING
1.24 AC. FOOTPRINT
2410 C.Y.

DREDGING
0.48 AC. FOOTPRINT
1030 C.Y.

DISPOSAL AREA 9-1
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

DISPOSAL AREA 9-3
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

DISPOSAL AREA 5-1
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

LAT: 30°08'01.76"N
LONG: 91°22'33.75"W

LAT: 30°07'55.00"N
LONG: 91°22'30.39"W

MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'

DISPOSAL AREA 9-5
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

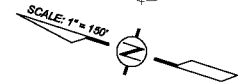
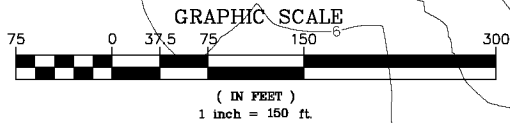
ELEMENT 5
LAT: 30°07'56.90"N
LONG: 91°22'31.02"W
N: 593,670.30
E: 3,267,572.60

DISPOSAL AREA 5-2
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

DISPOSAL AREA 9-4
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

DISPOSAL AREA 9-2
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

ELEMENT 9
LAT: 30°07'56.95"N
LONG: 91°22'31.98"W
N: 593,675.93
E: 3,267,487.79



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**



ELEMENT 5 & 9 PLAN VIEW

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

DATE: FEBRUARY 2018

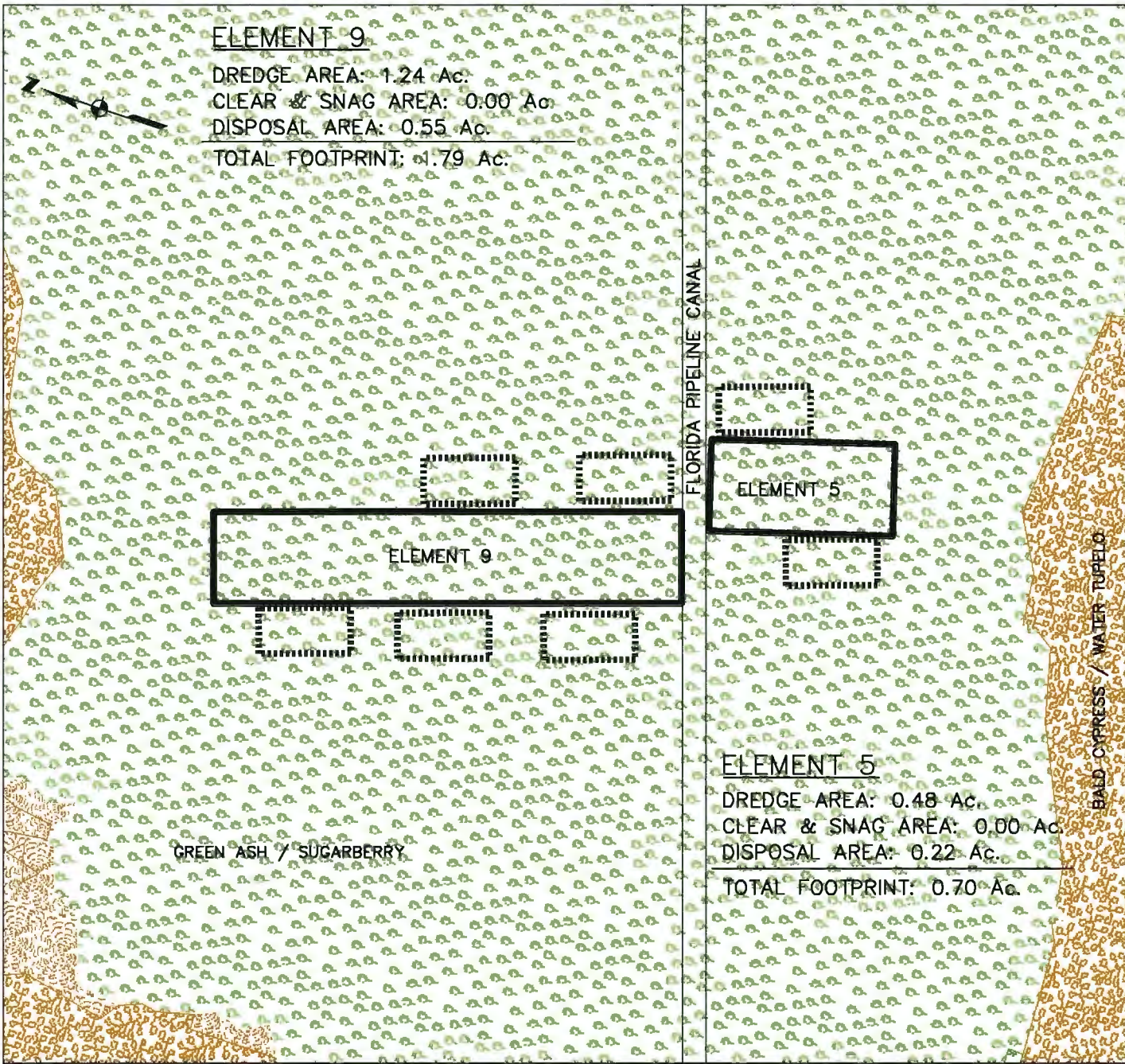
COE PERMIT NUMBER: MVN 2016-01163-CY

SHEET: 15 OF 29

REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES

DESIGNED BY: R. LEAR



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry




- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

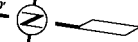
				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA				
				ELEMENT 5 & 9 FORESTRY CLASS				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 16 OF 29

F:\02020171001\071800\Permit Drawings\171001 Element 5 and 9 Forestry.dwg [ELEMENT 5 and 9] Feb 13, 2018 - 6:35am

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA

SCALE: 1" = 150'



DREDGING
0.24 AC. FOOTPRINT
505 C.Y.

DREDGING
0.31 AC. FOOTPRINT
530 C.Y.

DISPOSAL AREA 10-1
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/5:1 SIDESLOPES

DISPOSAL AREA 6-1
0.11 AC. FOOTPRINT
655 C.Y. CAPACITY
6' HEIGHT W/3:1 SIDESLOPES

LAT: 30°07'50.78"N
LONG: 91°22'55.32"W

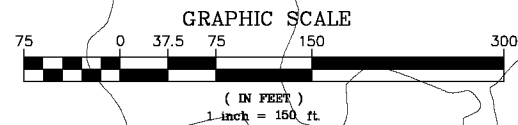
MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'

MAX. EXIST. GROUND ELEV. 8'
MAX. FILL ELEVATION 15.1'
(SEE SHEET 29 OF 29)
TYPICAL FILL HEIGHT 6'

LAT: 30°07'48.20"N
LONG: 91°22'54.77"W

ELEMENT 10
LAT: 30°07'49.80"N
LONG: 91°22'55.15"W
N: 592,953.86
E: 3,265,453.38

ELEMENT 6
LAT: 30°07'49.48"N
LONG: 91°22'55.00"W
N: 592,921.29
E: 3,265,466.83



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**



ELEMENT 6 & 10 PLAN VIEW

WBS NUMBER: F.11000077
FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83
COE PERMIT NUMBER: MVN 2016-01163-CY

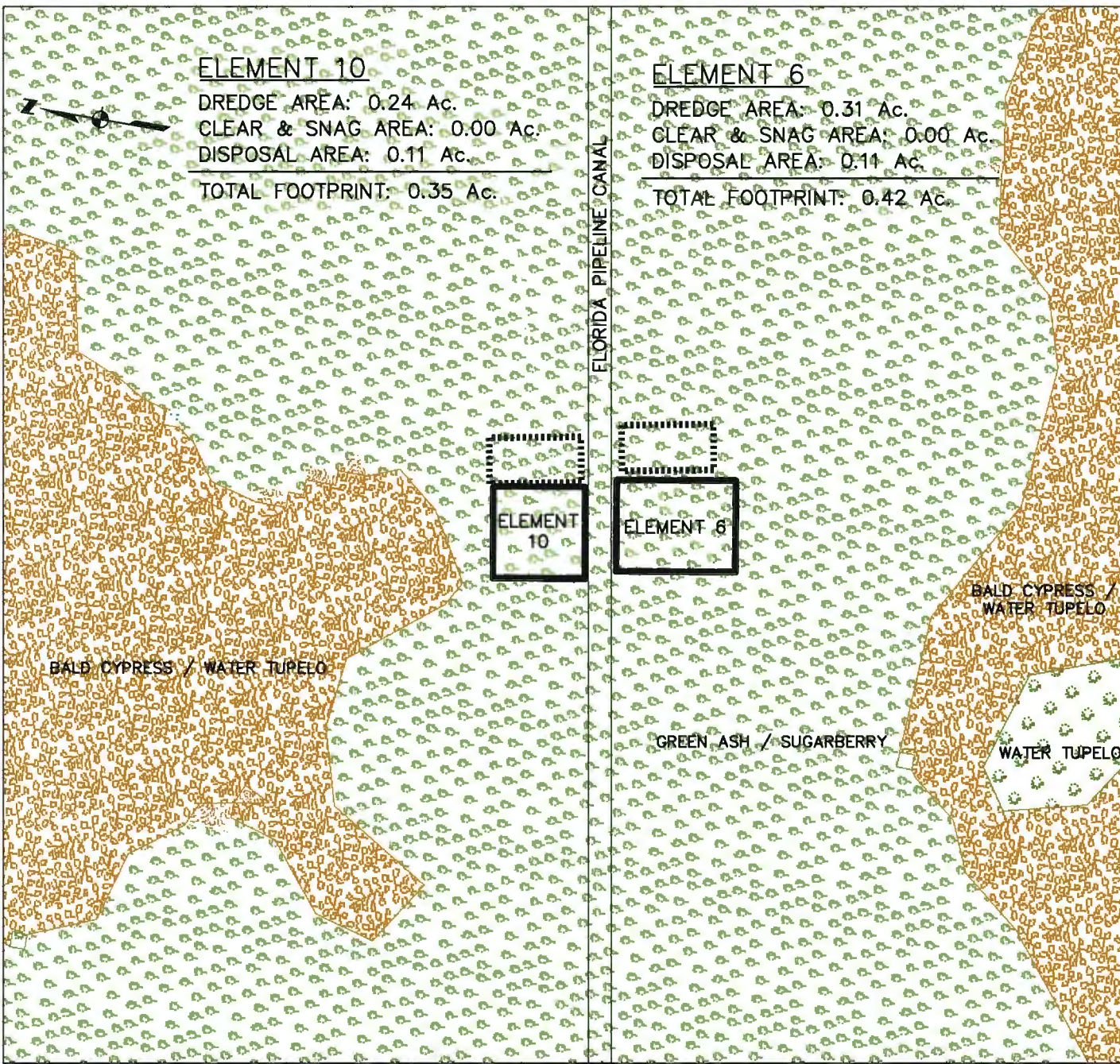
DATE: FEBRUARY 2018
SHEET: 17 OF 29

REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES

DESIGNED BY: R. LEAR

F:\02020171001\01800\Permit Drawings\171001 Plan View.dwg (Element 6 & 10) Feb 13, 2018 - 3:11pm



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ELEMENT 6 & 10 FORESTRY CLASS

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

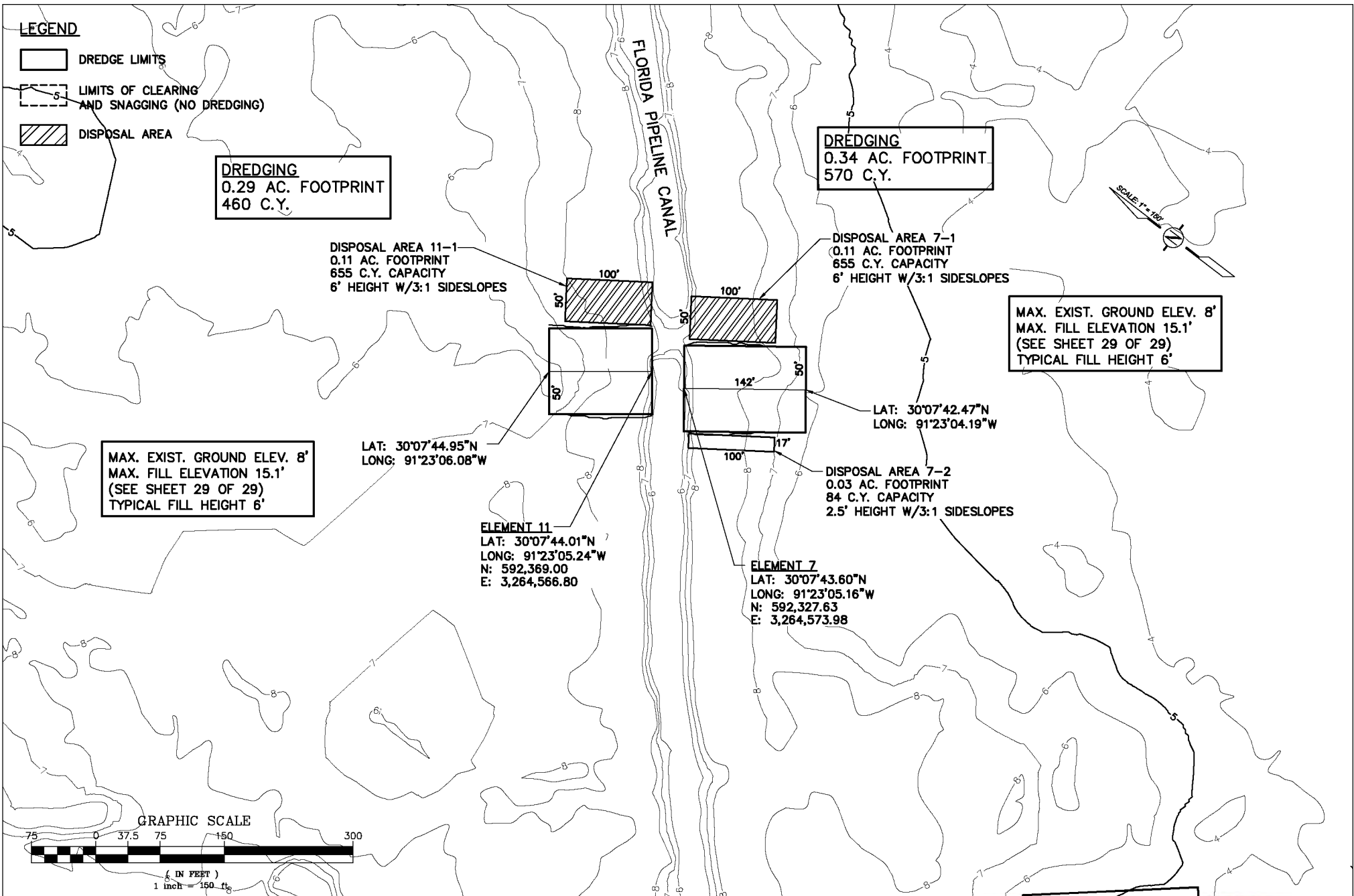
WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

COE PERMIT NUMBER: MVN 2016-01163-CY

DATE: FEBRUARY 2018

SHEET: 18 OF 29



REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ELEMENT 7 & 11 PLAN VIEW

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

SIGMA CONSULTING GROUP, INC.

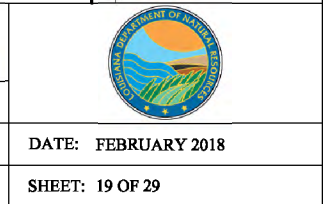
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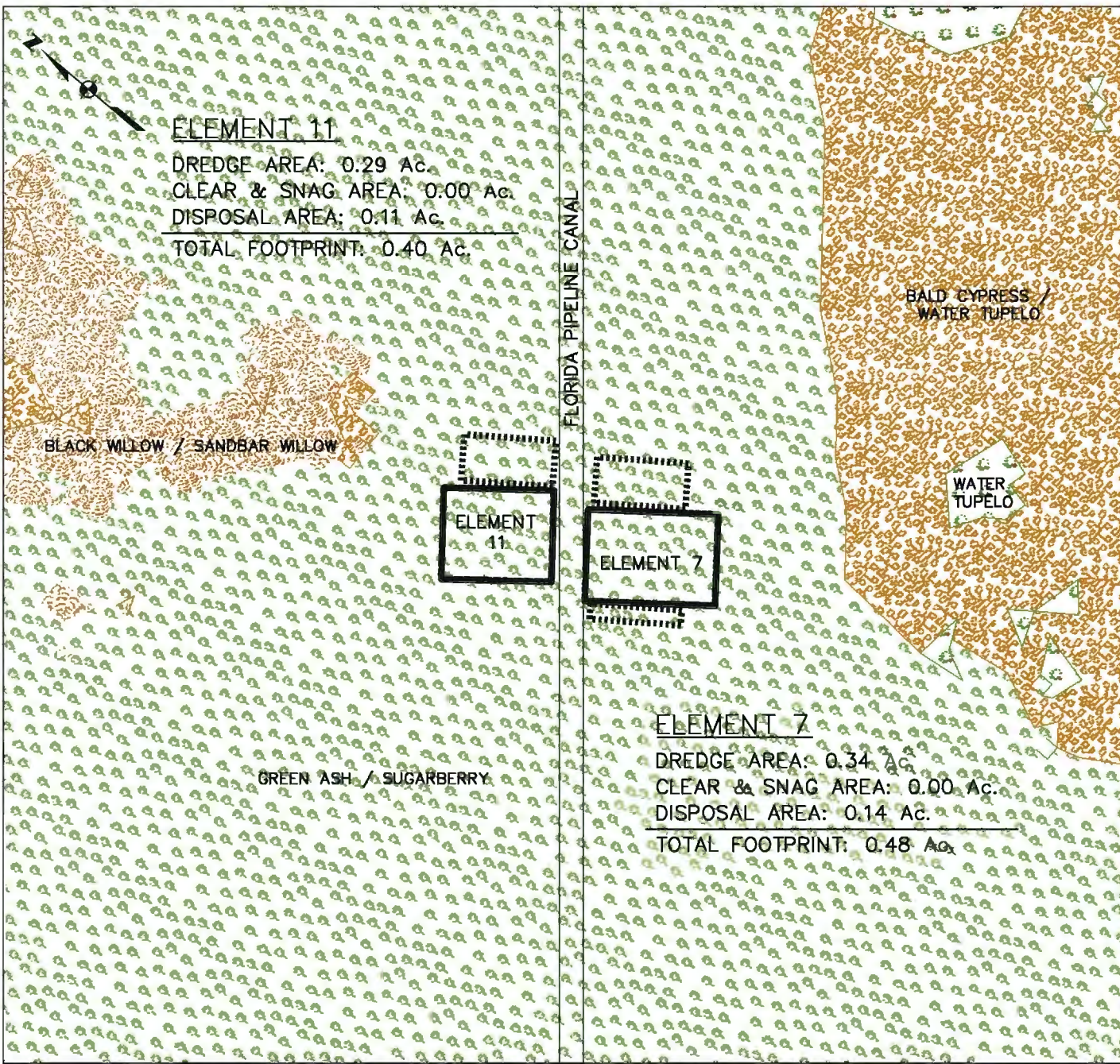
FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

COE PERMIT NUMBER: MVN 2016-01163-CY

Atchafalaya BASIN

DATE: FEBRUARY 2018





Legend

- Clear and Snag
- Disposal Area
- Dredge Area

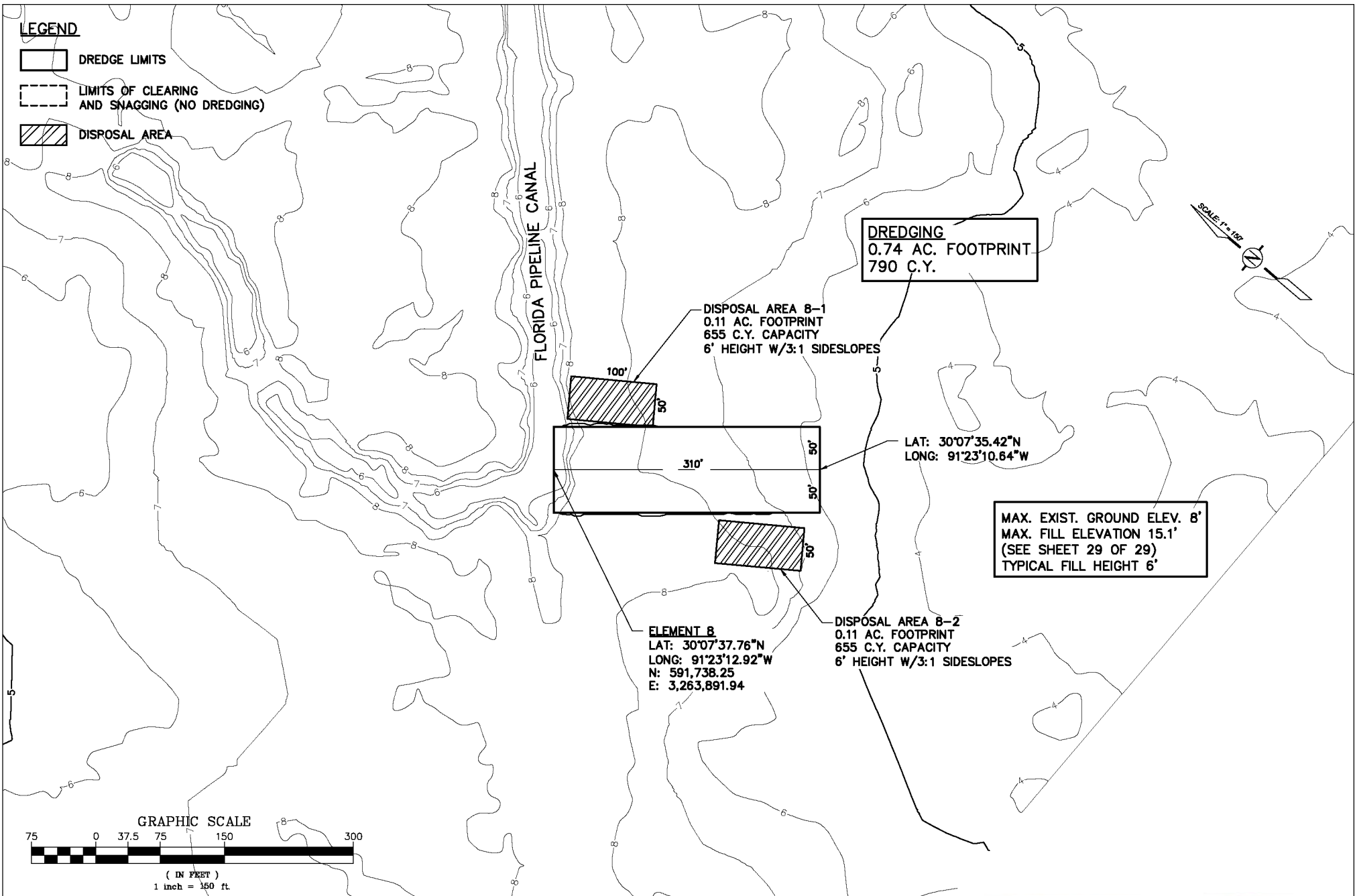
Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA				
				ELEMENT 7 & 11 FORESTRY CLASS				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 20 OF 29

F:\02020171001\071800\Permit Drawings\171001 Element 7 and 11 Forestry.dwg ELEMENT 7 and 11 Feb 13, 2018 - 11:21am



REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ELEMENT 8 PLAN VIEW

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

SIGMA
CONSULTING
GROUP, INC.

WBS NUMBER: F.11000077

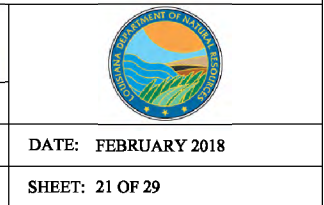
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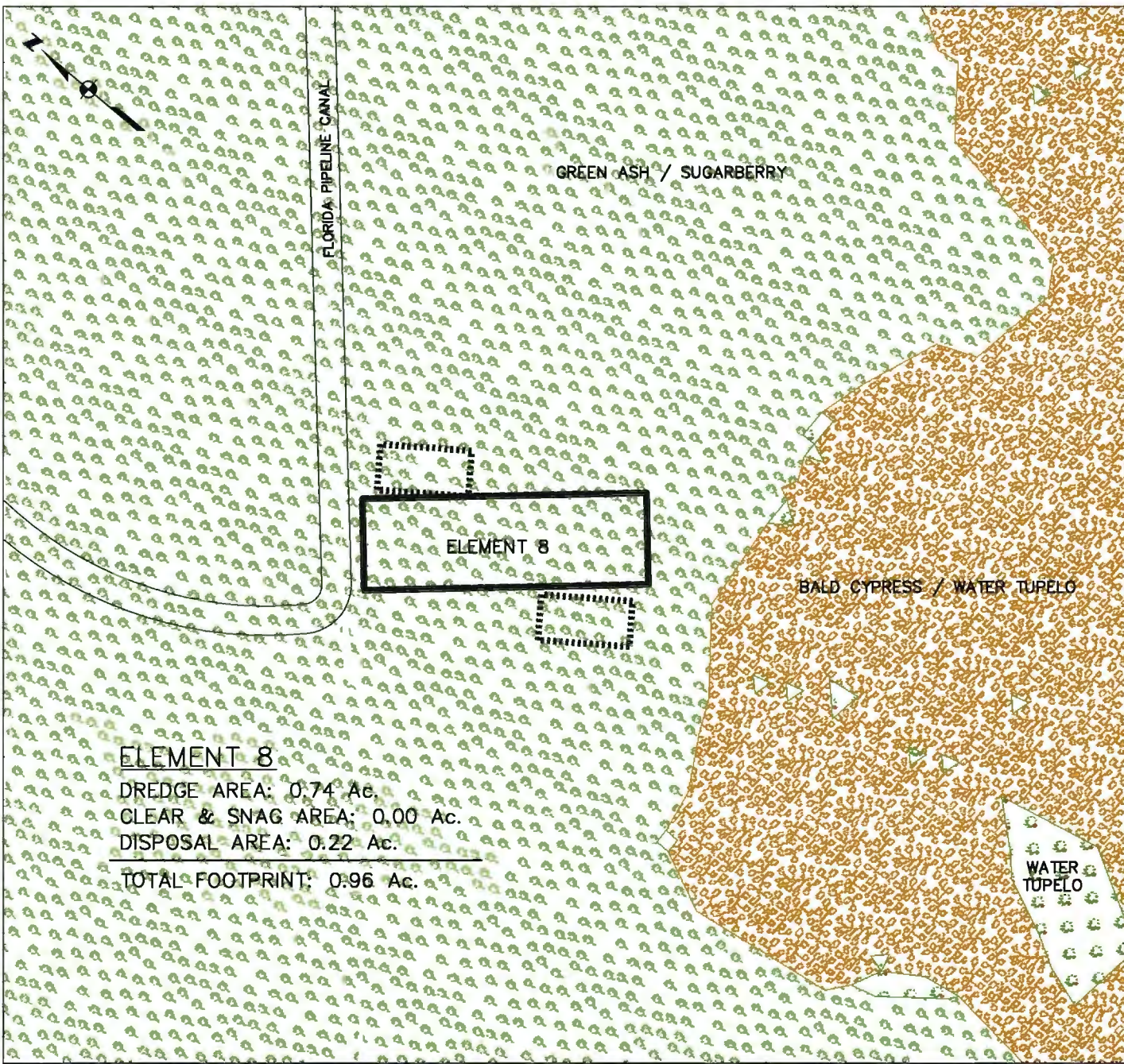
COE PERMIT NUMBER: MVN 2016-01163-CY

Atchafalaya
BASIN

DATE: FEBRUARY 2018

SHEET: 21 OF 29



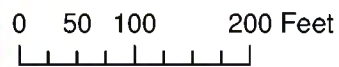


Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo



ELEMENT 8
 DREDGE AREA: 0.74 Ac.
 CLEAR & SNAG AREA: 0.00 Ac.
 DISPOSAL AREA: 0.22 Ac.
 TOTAL FOOTPRINT: 0.96 Ac.

REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
 ATCHAFALAYA RIVER BASIN
 BAYOU SORREL, LOUISIANA**

ELEMENT 8 FORESTRY CLASS

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

SIGMA CONSULTING GROUP, INC.

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83




COE PERMIT NUMBER: MVN 2016-01163-CY

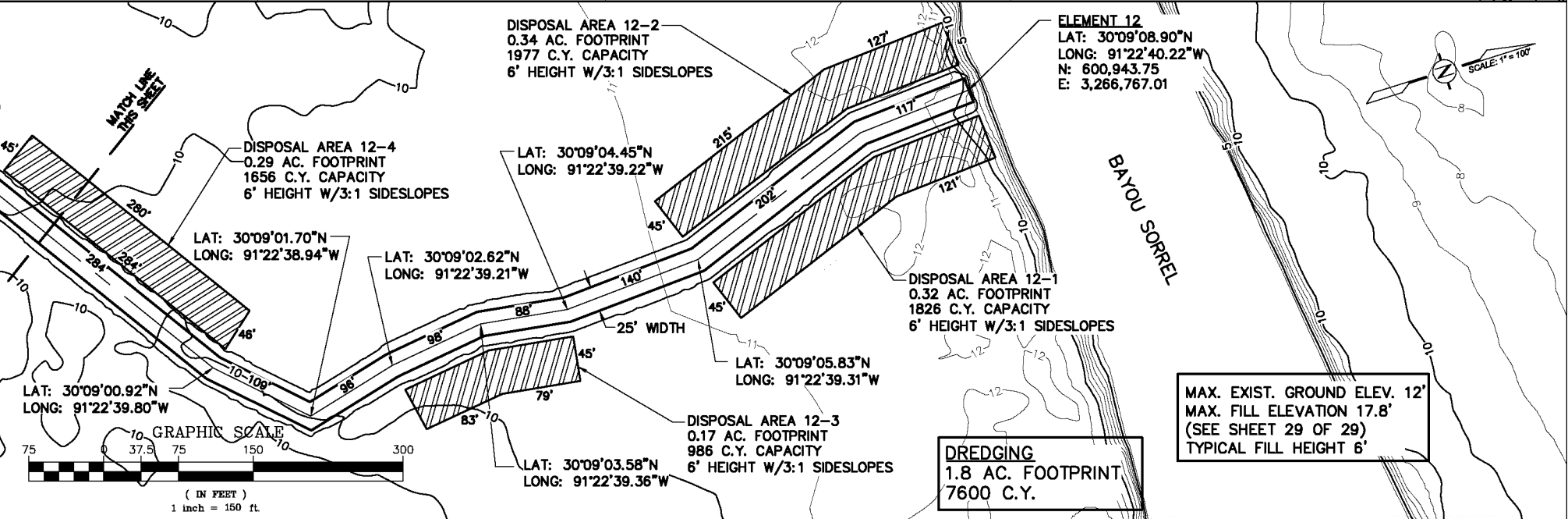
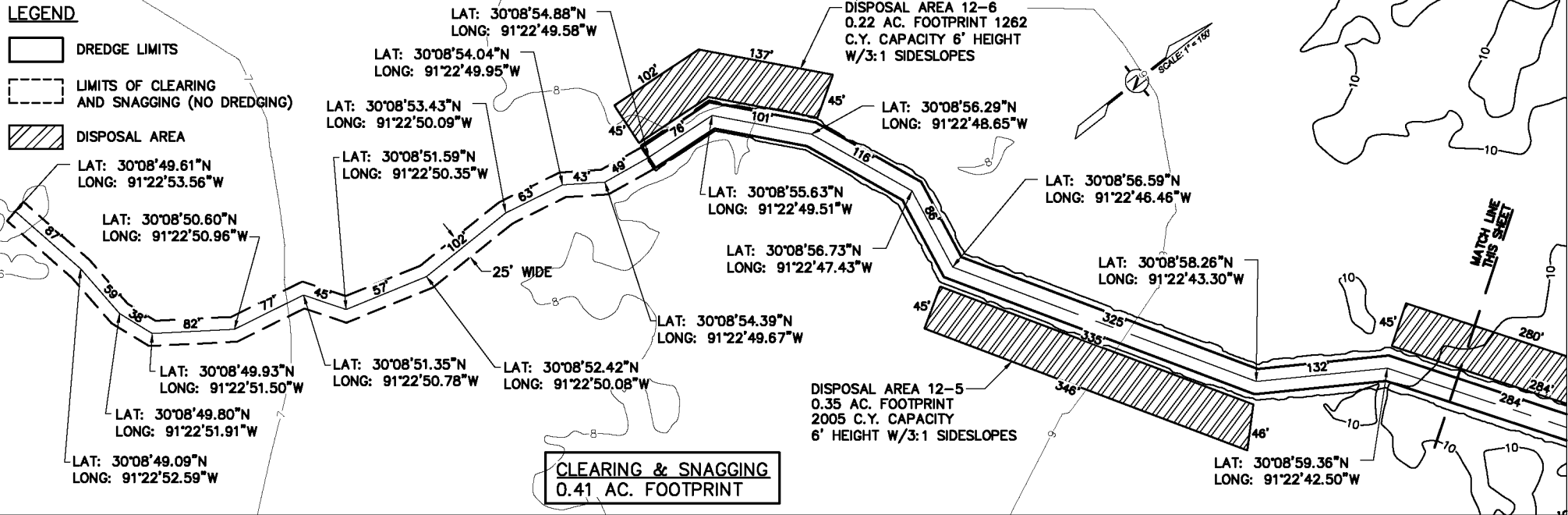
Atchafalaya BASIN

DATE: FEBRUARY 2018

SHEET: 22 OF 29

LEGEND

-  DREDGE LIMITS
-  LIMITS OF CLEARING AND SNAGGING (NO DREDGING)
-  DISPOSAL AREA



**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ELEMENT 12 PLAN VIEW

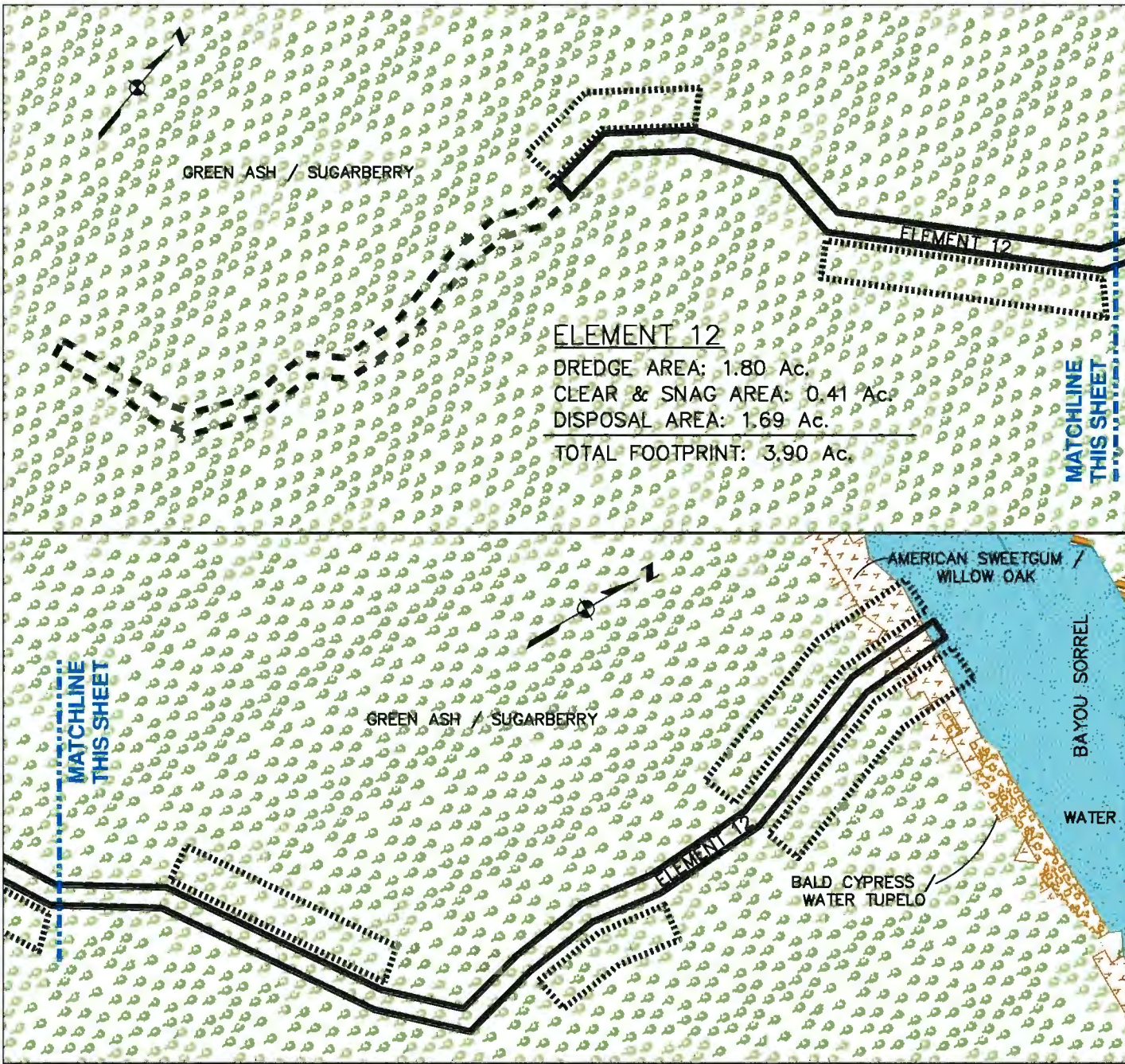


REV.	DATE	DESCRIPTION	BY

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

WBS NUMBER: F.11000077
FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83
COE PERMIT NUMBER: MVN 2016-01163-CY

DATE: FEBRUARY 2018
SHEET: 23 OF 29



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
 ATCHAFALAYA RIVER BASIN
 BAYOU SORREL, LOUISIANA**

ELEMENT 12 FORESTRY CLASS

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

SIGMA CONSULTING GROUP, INC.

WBS NUMBER: F.11000077

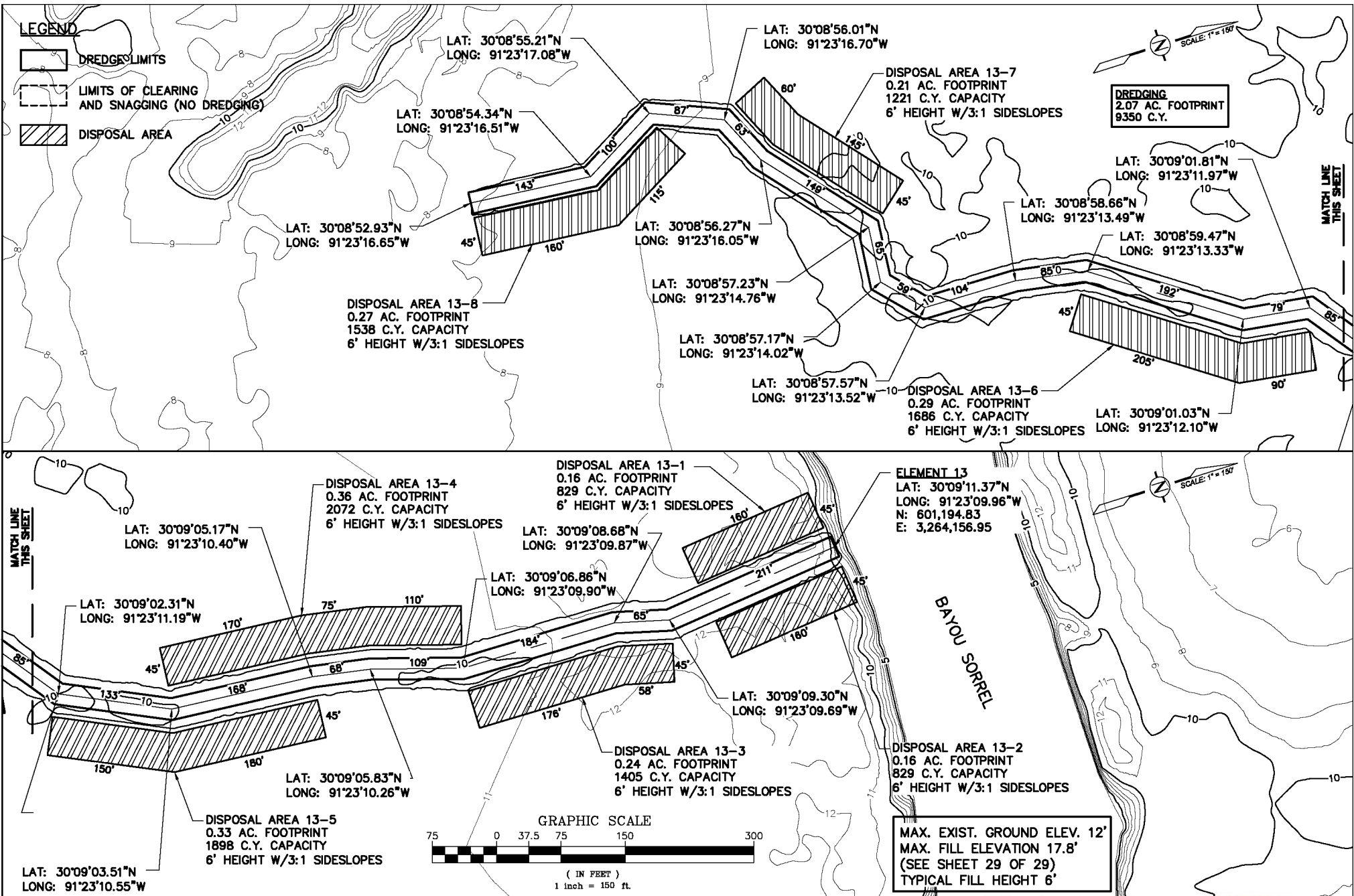
FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

COE PERMIT NUMBER: MVN 2016-01163-CY

Atchafalaya BASIN

DATE: FEBRUARY 2018

SHEET: 24 OF 29



REV.	DATE	DESCRIPTION	BY

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ELEMENT 13 PLAN VIEW

DRAWN BY: D. THYMES DESIGNED BY: R. LEAR

SIGMA CONSULTING GROUP, INC.

WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

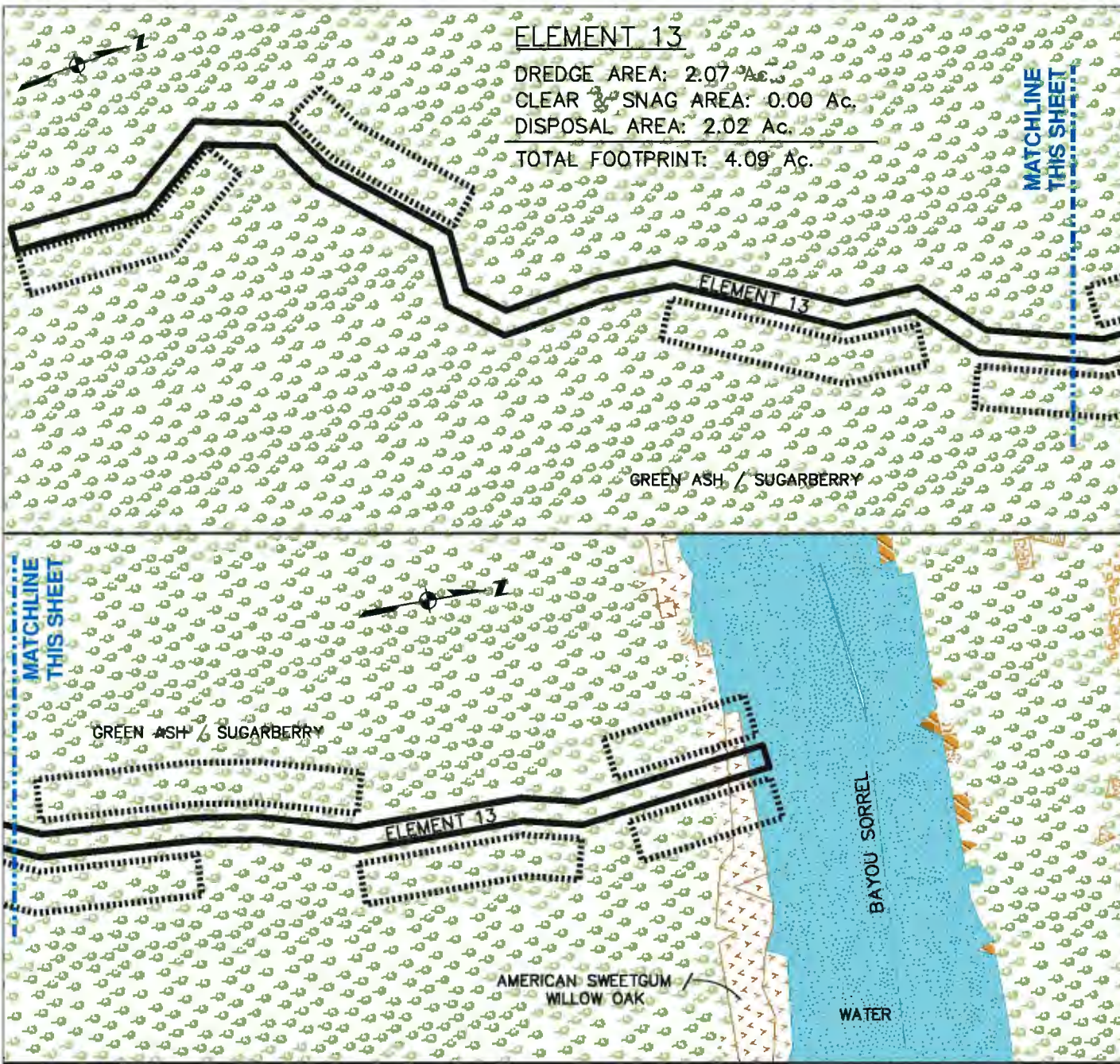
COE PERMIT NUMBER: MVN 2016-01163-CY

ATCHAFALAYA BASIN

U.S. DEPARTMENT OF NATURE RESOURCES

DATE: FEBRUARY 2018

SHEET: 25 OF 29



Legend

- Clear and Snag
- Disposal Area
- Dredge Area

Forestry

- American Sweetgum/Willow Oak
- American Sycamore / American Elm
- Baldcypress
- Baldcypress / Water Tupelo
- Black Willow / Sandbar Willow / Baldcypress
- Black Willow / Sandbar Willow
- Cultivated
- Grassland
- Green Ash / Sugarberry
- High Intensity Developed
- Low Intensity Developed
- Mixed Bottomland Hardwoods
- Mixed Upland Hardwoods
- Out
- Pasture / Hay
- River Birch / American Sycamore
- Swamp Post Oak / Water Hickory (Bitter Pecan)
- Swamp Red Maple / Tupelo Sp.
- Unknown Floating Aquatic Vegetation
- Water
- Water Tupelo

0 50 100 200 Feet

EAST GRAND LAKE ECOLOGICAL ENHANCEMENT			
ATCHAFALAYA RIVER BASIN			
BAYOU SORREL, LOUISIANA			
ELEMENT 13 FORESTRY CLASS			
REV.	DATE	DESCRIPTION	BY
		DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR




WBS NUMBER: F.11000077	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	DATE: FEBRUARY 2018
COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 26 OF 29	

F:\020206\171001\01800\Permit Drawings\171001 Element 13 Forestry.dwg [ELEMENT 13] Feb 13, 2018 - 8:17am

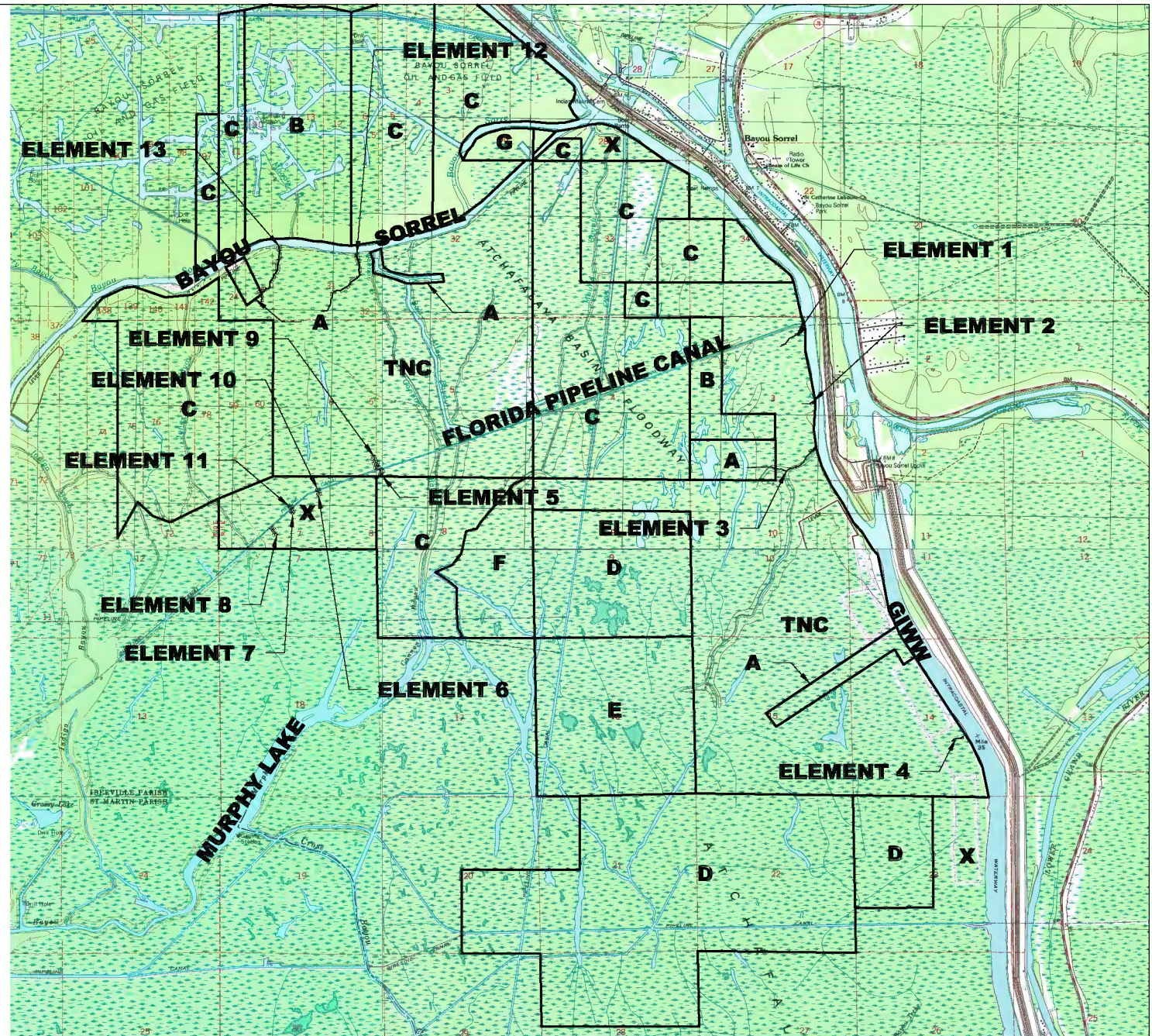
**EAST GRAND LAKE ECOLOGICAL RESTORATION
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

IMPACT SUMMARY

Element Number	Impacted Footprint			Cut/Fill	
	Dredge Area (Acres)	Clearing Area (Acres)	Disposal Area (Acres)	Excavation (C.Y.)	Disposal Capacity (C.Y.)
1	0.33	0.36	0.35	1,240	1,837
2	0.11	0.15	0.08	270	368
3	0.19	1.38	0.15	575	848
4	0.17	0.10	0.05	205	277
5	0.48	0.00	0.22	1,030	1,310
6	0.31	0.00	0.11	530	655
7	0.34	0.00	0.14	570	739
8	0.74	0.00	0.22	790	1,310
9	1.24	0.00	0.55	2,410	3,275
10	0.24	0.00	0.11	505	655
11	0.29	0.00	0.11	460	655
12	1.80	0.41	1.69	7,600	9,712
13	2.07	0.00	2.02	9,350	11,478
Subtotal	8.31	2.40	5.80	25,535	33,119
Total	16.51			25,535	

				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA		 SIGMA CONSULTING GROUP, INC.	 Atchafalaya BASIN		
				IMPACT SUMMARY					WBS NUMBER: F.11000077
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 27 OF 29		

DESIGNATION	Owner_Name
A	WILBERT A SONS, LLC
B	BAIST INDIVIDUAL OWNERS
C	SCHWING INC.
D	JEANERETTE LUMBER & SHINGLE CO
E	IBERVILLE PARISH SCHOOL BOARD
F	NORMAN, MILDRED G. & OTHERS
G	WILBERT, FUNERAL HOME, INC.
X	STATE OF LOUISIANA



REFERENCE: IBERVILLE PARISH ASSESSOR'S GIS WEBSITE. JANUARY 2018

**EAST GRAND LAKE ECOLOGICAL ENHANCEMENT
ATCHAFALAYA RIVER BASIN
BAYOU SORREL, LOUISIANA**

ADJACENT LANDOWNER MAP



WBS NUMBER: F.11000077

FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83

COE PERMIT NUMBER: MVN 2016-01163-CY

DATE: FEBRUARY 2018

SHEET: 28 OF 29

REV.	DATE	DESCRIPTION	BY




DRAWN BY: D. THYMES

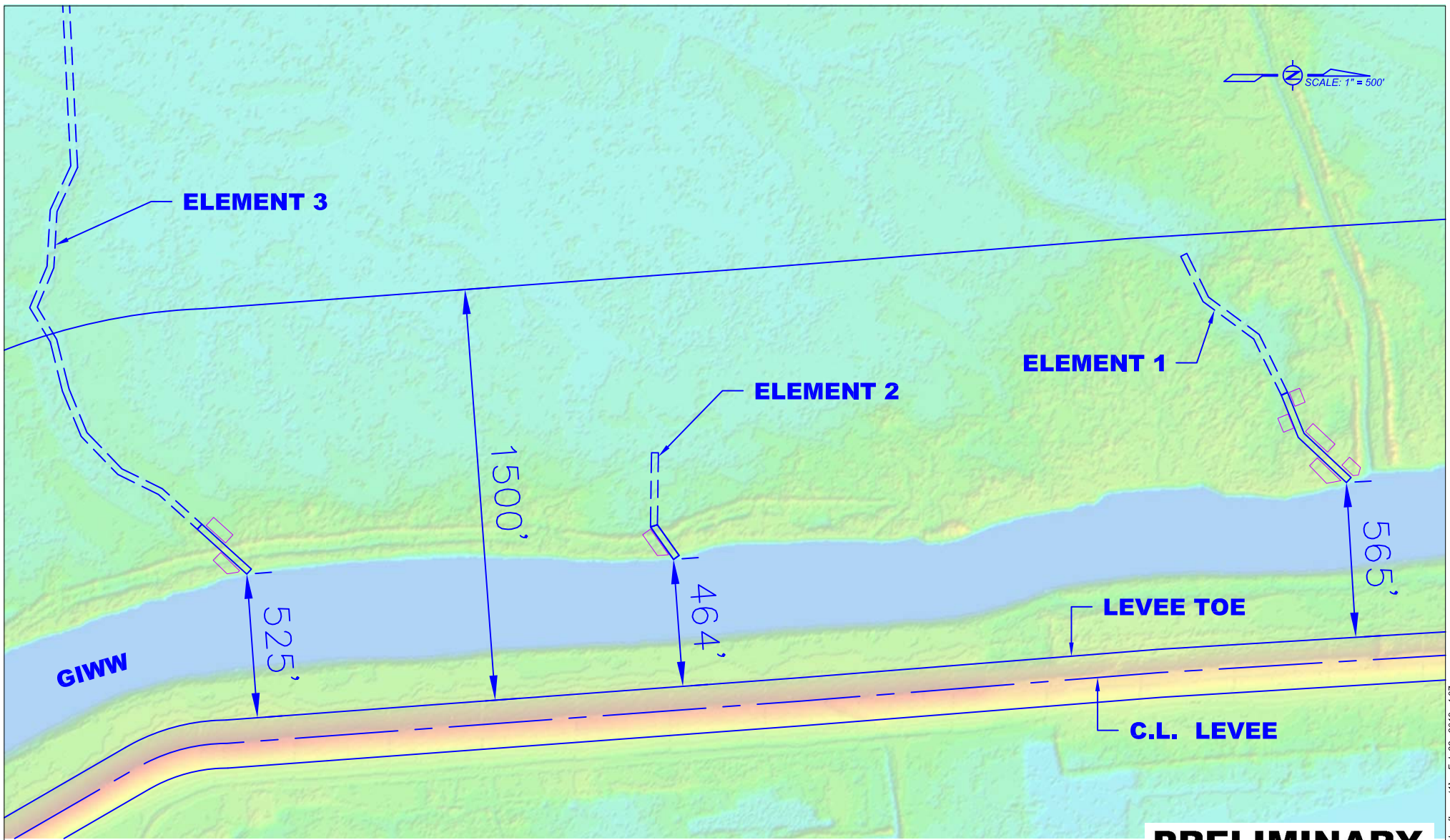
DESIGNED BY: R. LEAR

Spoil Schedule

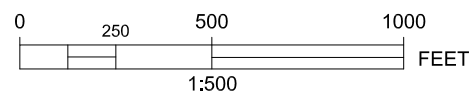
Elevation of Natural Ground, ft NGVD	Maximum Elevation of Spoil, ft NGVD	Flow Line
13	18.4	29.3
12	17.8	
11	17.1	
10	16.4	
9	15.8	
8	15.1	
7	14.4	
6	13.8	

THESE MAX FILL ELEVATIONS WERE PROVIDED BY ANH NGUYEN WITH THE COE-NO OPERATIONS DIVISION ON 2-2-2018.

				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA			
				SPOIL SCHEDULE	WBS NUMBER: F.11000077		
					FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83		DATE: FEBRUARY 2018
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 29 OF 29



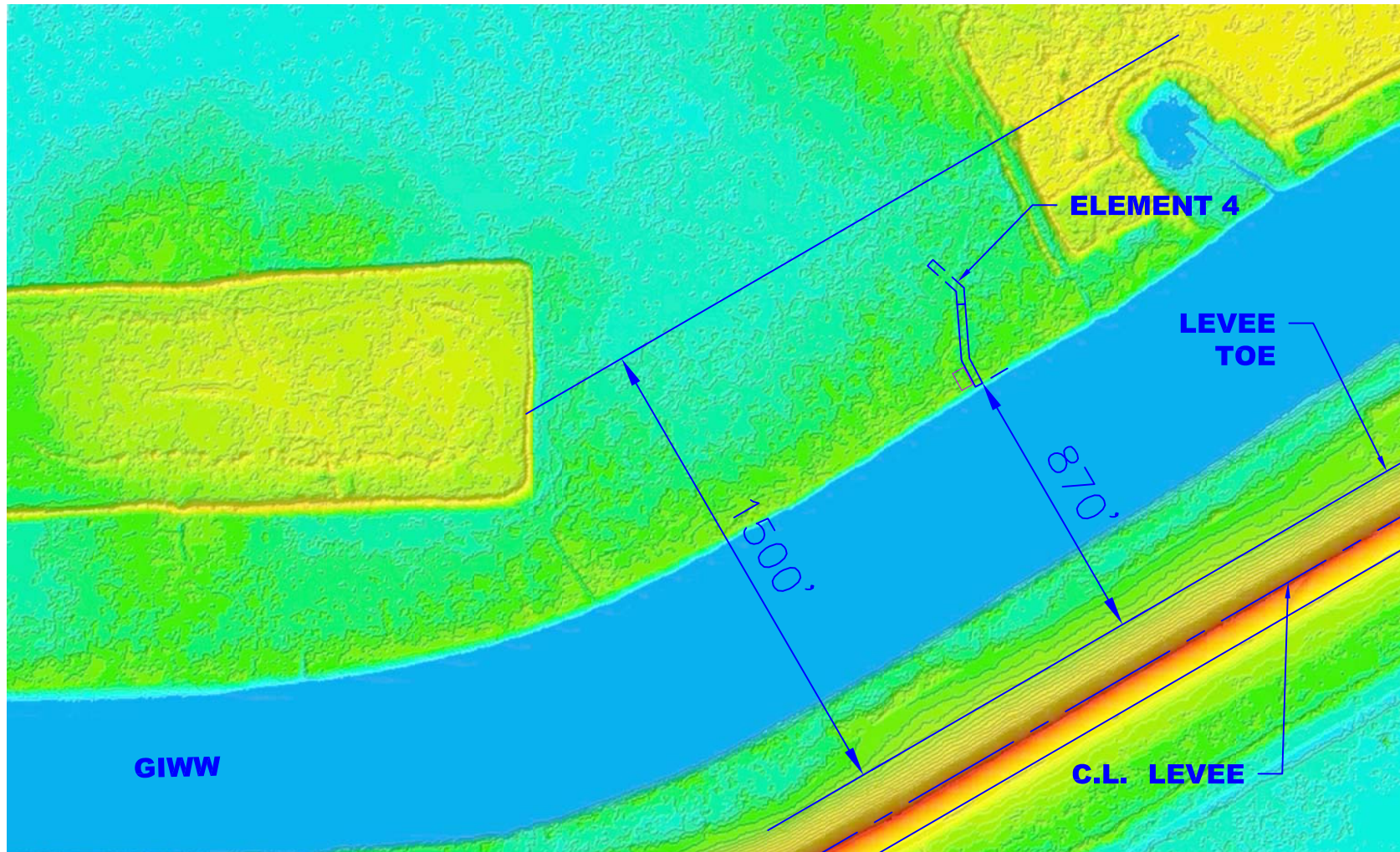
MAX DREDGE ELEV. +6.0' (NAVD88)



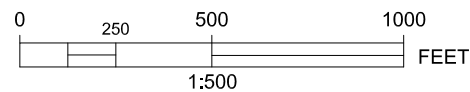
PRELIMINARY
 FOR PERMITTING PURPOSES ONLY
 SIGMA CONSULTING GROUP, INC.
 Robert J. Lear, Jr., PE
 LA No. 29394

				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA		 WBS NUMBER: F.11000077 FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83 COE PERMIT NUMBER: MVN 2016-01163-CY	 DATE: FEBRUARY 2018	 SHEET: 1 OF 2
				LEVEE OFFSET MAP				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR			

F:\02020171001018000\Permit Drawings\171001 Levee Offset.dwg [Layout1] Feb 22, 2018 - 4:37pm



MAX DREDGE ELEV. +6.0' (NAVD88)






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				EAST GRAND LAKE ECOLOGICAL ENHANCEMENT ATCHAFALAYA RIVER BASIN BAYOU SORREL, LOUISIANA				
				LEVEE OFFSET MAP				
REV.	DATE	DESCRIPTION	BY	DRAWN BY: D. THYMES	DESIGNED BY: R. LEAR	FEDERAL PROJECT NUMBER: 11-431-99-01, PART 83	COE PERMIT NUMBER: MVN 2016-01163-CY	SHEET: 2 OF 2