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# *REPORT ON LOUISIANA SURFICIAL SEDIMENT DISTRIBUTION (SSD) MAP COMPILATION*

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## Revision History

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Version	Date	Description
0	2011	Original Issue
1	09/30/2015	Revisions to offshore mapping and volume estimates (2015 Update)
2	02/17/2017	Revisions to offshore mapping and volume estimates (2017 Update)
3	08/27/2018	Revisions to offshore mapping and volume estimates. Revision to pipeline buffer used in nearshore and offshore volume calculations from 500 ft to 1000 ft buffer (2018 Update)
4	05/30/2019	Revisions to riverine mapping and volume estimates (2019 Update)
5	06/22/2020	Revisions to offshore mapping and volume estimates (2020 Update)
6	01/15/2021	Application of new color scheme to all figures and maps (2021 Interim Update)
7	02/07/2022	Revisions to offshore mapping and volume calculations (2022 Update). Merged SSRA report with SSD Report
8	07/06/2023	Revisions to offshore mapping and volume calculations (2023 Update)

## Acknowledgements

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This project was supervised by Coastal Protection and Restoration Authority's (CPRA) Task Manager Syed Khalil and Aptim Environmental & Infrastructure, LLC's (APTIM) Project Manager Beth Forrest. Ed Haywood's (CPRA, retired) and Rocky Wager's (CPRA) assistance was critical and greatly appreciated. Blaire Hutchison (USGS), Dr. Mike Miner (TWI) and Diana Di Leonardo (TWI) are an integral part of CPRA's Sediment Management Team. They continue to update LASARD with their suggestions and insights. APTIM also wishes to acknowledge Heather Vollmer, APTIM's Geographic Information System Professional (GISP) responsible for quality assurance and quality control for the mapping effort.

## Disclaimer

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The maps and volumes provided in this report are considered first order delineations and estimates. They are based on an evaluation of existing geoscientific data, which varies widely in terms of quality and spatial distribution/density. It is important to note that standard sediment classification schemes have not been applied here. The classification system being used was developed to meet CPRA's specific restoration needs and goals as well as to account for the density and quality of existing data used to develop the Surficial Sediment Distribution (SSD) Map. The goal of the map is to advance restoration efforts.

## Recommended Citation

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## Executive Summary

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Louisiana's coastal area, especially the Mississippi River Delta Plain (MRDP), is experiencing some of the most extreme erosion rates in the nation and requires urgent mitigative actions to reestablish a sustainable coastal ecosystem via large-scale sedimentological restoration. Sediment management plays a vital role in implementing this strategy. The Louisiana Sediment Management Plan (LASMP) facilitates a holistic and system approach to sediment management for restoration by providing an inventory of potential sediment resources and tracking sediment needs, both of which are crucial to the development of regional strategies for restoration.

When this project was initiated in 2011, the state of Louisiana was developing the 2012 Coastal Master Plan (CMP), a major initiative to address concerns related to the future of Louisiana's coast. To aid in the development of the 2012 CMP and to help fulfill the goals of the LASMP, first-order surficial sediment distribution maps for offshore (including major inland lakes and bays) and the Lower Mississippi River were developed based on existing geophysical and sedimentological data residing in the Louisiana Sand Resources Database (LASARD). LASARD was initially developed by the State of Louisiana to manage geological, geophysical, geotechnical and other related data pertaining to offshore sand searches but subsequently evolved into a database to archive and populate all geoscientific data not only pertaining to sediment searches but also acquired during implementation of various monitoring programs viz. System-Wide Assessment and Monitoring Program (SWAMP), Barrier Island Comprehensive Monitoring (BICM), etc.

First order total **available** (total volume of sediment within the sediment resource) and **accessible** (volume of sediment within the sediment resource after excluding sediment impacted by oil and gas infrastructure safety buffers) volume estimates were calculated from the offshore sediment distribution maps for sand and mixed sediment (see summary table below). Riverine sand deposits were not updated during this Surficial Sediment Distribution (SSD) map update. It is estimated that 9,000 to 25,000 million cubic yards (MCY) of sediments are required to meet coastal Louisiana's long-term needs. There is an increasing need for mixed sediment, as sand alone is not sufficient and not always the most compatible sediment for restoration projects. First order volume estimates based on the SSD maps indicate that this volume of sediment may be available. However, this does not necessarily mean that all accessible sediment can be dredged. Dredging all of these sediment resources may not be cost-effective, feasible or technically sound depending on sediment quality/compatibility, volume requirements, accessibility, transport distance, cost, permit restrictions, etc. It is important to emphasize that these volumes are first order estimates as these calculations are based on various geoscientific information with varying degrees of confidence.

The SSD maps are living documents and are updated along with sediment volumes typically on an annual basis as new data become available. These maps are basic but important tools for resource planning and play a critical role in the regional management of sediment resources. Additionally, SSD maps are good indicators of the presence as well as absence of sufficient geoscientific data. As such, these are also useful for conducting data gap analyses, which are conducted during the planning stages of various investigations. These maps also form templates and/or base maps for the development of comprehensive biotic and abiotic habitat maps. Most importantly they play a vital role in the enforcement of federal and state regulations related to the removal of decommissioned pipelines and conflict resolution for multiple use of resources in coastal zone management.

**Volume estimate summary table.**

Location	Sediment Type	Total Available Volume of Sediment (million cubic yards, MCY)	Total Accessible Volume of Sediment (MCY)
Offshore and Coastal Louisiana	Sand	1,779	1,387
	Mixed Sediment	904	589
	Potential Sand	4,545	3,515
	Potential Mixed Sediment	8,624	7,167
	Inferred Sand	3,223	2,123
	Inferred Mixed Sediment	3,044	2,160
	Sand with =<10 ft. Overburden	304	194
	Sand with >10 ft. Overburden	805	206

*Note: "Sand" and "Mixed Sediment" deposits were delineated based on data spaced less than 1 mile apart, while "Potential" deposits were based on data spaced more than 1 mile apart. Inferred deposits were delineated based solely on subbottom data and/or poling data which may not have been ground-truthed.*

This report describes the methodology of utilizing geoscientific data in LASARD to delineate surficial sediment resources and develop a SSD map, specifically the 2023 update. As previously mentioned, only the offshore portion of the SSD map was updated in 2023. The river mapping will be updated when new bathymetric data are available.

## Table of Contents

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Executive Summary.....	4
Introduction .....	8
Regionalization of Surficial Sediment Resources .....	9
Role of the Louisiana Sand Resources Database (LASARD) in Map Development .....	10
Delineation of Sediment Resources.....	13
Offshore Sediment Volume Estimates.....	17
Lower Mississippi River Sediment Volume Estimates (between Mouth of Southwest Pass and Mile Marker 100) .....	18
2022 Surficial Sediment Distribution (SSD) Map Summary .....	20
Surficial Sediment Distribution (SSD) Map Applications.....	20
Glossary.....	22
Literature Cited .....	25

## List of Tables

---

Table 1. Various sediment types modified after Shepard and Folk and defined for restoration purposes in Louisiana .....	15
Table 2. First order estimates of sediment quantities in million cubic yards (MCY). .....	20

## List of Figures

---

Figure 1. Sediment samples incorporated into the 2023 SSD mapping update. Black boundaries show the limits of the sediment mapping effort both offshore (including major coastal lakes and bays) and in the Mississippi River.....	12
Figure 2. Map showing tracklines (dark green) along which geophysical data (subbottom) were acquired. These include geophysical data collected under SWAMP implementation from 2015 to 2019. ....	12
Figure 3. Surficial sediment mapping boundaries. ....	14
Figure 4. CPRA’s sediment designations relative to the Folk (left panel) and Shepard (right panel) classification systems (after Khalil et. al. 2022). ....	15
Figure 5. Offshore coastal Louisiana surficial sediment distribution map.....	16
Figure 6. Map showing sand bars in the Lower Mississippi River and surficial sediment distribution on both sides of the river. ....	17

## List of Attachments

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Attachment 1. Data Incorporated into the Sediment Mapping Effort.....	28
Attachment 2. Offshore SSD Maps.....	54
Attachment 3. Lower Mississippi River SSD Maps -70 ft NAVD88 Cut.....	78
Attachment 4. Lower Mississippi River SSD Maps -90 ft NAVD88 Cut.....	120
Attachment 5. Offshore Volume Estimates.....	162
Attachment 6. Riverine Volume Estimates.....	174

## List of Acronyms

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AHP	Above Head of Passes
APTIM	Aptim Environmental & Infrastructure, LLC
BAG	Bathymetric Attributed Grid
BICM	Barrier Island Comprehensive Monitoring
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CIMS	Coastal Information Management System
CMP	Coastal Master Plan
CPRA	Coastal Protection and Restoration Authority of Louisiana
CRMS	Coastwide Reference Monitoring System
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
GISP	Geographic Information System Professional
LASAAP	Louisiana Sediment Availability and Allocation Program
LASARD	Louisiana Sand Resources Database
LASED	Louisiana Sedimentary and Environmental Database
LASMP	Louisiana Sediment Management Plan
LDNR	Louisiana Department of Natural Resources
LGS	Louisiana Geological Survey
LSU	Louisiana State University
mi <sup>2</sup>	square miles
MCY	million cubic yards
MMS	Minerals Management Service
MRDP	Mississippi River Delta Plain
MRGO	Mississippi River Gulf Outlet
NAIP	National Agricultural Imagery Program
NCEI	National Centers for Environmental Information
NOAA	National Oceanic and Atmospheric Administration
NPMS	National Pipeline Mapping System
OCS	Outer Continental Shelf
RNCs	Raster Navigational Charts
SSD	Surficial Sediment Distribution
SSRAs	Significant Sediment Resource Areas
SWAMP	System Wide Assessment and Management Program
TWI	The Water Institute of the Gulf
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WEA	Wind Energy Area

## Introduction

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Global shorelines are degrading due to an increase in the frequency and intensity of high energy events, and relative sea level rise capped by intensive anthropogenic interventions (Zhang *et al.*, 2004; Syvitski and Kettner, 2011). The Mississippi River Delta Plain (MRDP) in southeast coastal Louisiana exemplifies an ecocatastrophe which was triggered by geological and geophysical processes as well as anthropogenic activities, resulting in the present degradation of the coastal landscape (Khalil *et al.*, 2018a). It is well documented that during the past half century, coastal Louisiana has experienced rates of land loss that are considered to be the highest in the nation (Barras *et al.*, 2003; Barras *et al.*, 2008; Khalil *et al.*, 2010). Since the 1930s, Louisiana has lost approximately 0.5 million hectares of coastal land (a net decrease of approximately 25 percent of the 1932 land area) and is estimated to currently be losing land at a rate of about 1,440 hectares per year (CPRA, 2023). Land loss, particularly the loss of coastal wetlands, threatens the sustainability of Louisiana's coastal ecosystem.

Given the irreversibility of impacts caused by the usage of hard structures for coastal restoration, soft options via emplacement of sediment (sedimentological restoration) to replicate the geomorphic form have become a reliable mitigating strategy for coastal restoration amongst the coastal scientist community since late last century (Killebrew and Khalil, 2018). One of the most important recommendations of the Second Delta Committee of The Netherlands regarding coastal defense options was to adopt a soft engineering strategy (i.e., sand nourishment of the coastal system) to mitigate long term coastal recession (Stive *et al.*, 2013). A similar strategy has been applied to mitigate the severe land loss crisis in coastal Louisiana for the last two decades (Khalil and Raynie, 2015a, Khalil and Raynie, 2015b).

The ecosystem restoration program in coastal Louisiana depends heavily on the appropriate strategies adopted for robust sedimentological restoration. This includes a comprehensive sediment management plan that integrates various sediment input mechanisms including: beneficial use of sediment dredged annually from navigational channels and harvesting sand deposits in the river and offshore (Khalil and Freeman, 2014; Underwood, 2012; Underwood *et al.*, 2015). Thus, the success of a Louisiana coastal restoration effort depends on locating sufficient volumes of sand and mixed sediment that are suitable for placement on beaches and dunes, and for creating/nourishing wetlands. Locating potential borrow sites with suitable sediment resources that are extractable at acceptable costs is crucial to the success of restoration goals (e.g., Finkl and Khalil, 2005).

To address concerns related to coastal land loss and flooding, the State of Louisiana/Coastal Protection and Restoration Authority of Louisiana (CPRA) developed the Coastal Master Plan (CMP). The first CMP was developed and implemented in 2007 following the landfall of Hurricanes Katrina and Rita in 2005 and is updated every 5-6 years (2012, 2017 and 2023). The 2023 CMP includes 77 restoration projects to build or maintain more than 300 mi<sup>2</sup> of land over the next 50 years by restoring/creating marshes and ridges as well as restoring barrier islands and back barrier marshes on a regional scale (CPRA 2023). The success of these projects and the CMP depends on locating sufficient volumes of sediment that are suitable for wetland, beach, and levee creation and restoration, and effective management of those sediments. Execution of the CMP will take an unprecedented effort by government, the private sector, and coastal communities to improve the sustainability of the Louisiana coast. Based on the CMP, it is estimated that 9,000 to 25,000 million cubic yards (MCY) of sediments are required to meet coastal Louisiana's long-term needs.



One of the major causes of coastal land/wetland loss in Louisiana is sediment deficiency. To address this deficiency, restoration efforts must focus on the introduction/infusion of sediment to the system. Marine sand mining on the United States continental shelf is a major activity that supplies sediment for beach and dune restoration activities. However, the muddy coasts of the MRDP are challenging because sand resources are scarce and their quality is variable. The potential for mining of renewable riverine sand resources to support construction of future coastal restoration projects provides a possible solution to this problem.

Because Louisiana sediment resources are limited, they must be managed in a manner that integrates various sediment input mechanisms including the use of sediment dredged from navigational channels, and sediment harvested from rivers and offshore areas (Khalil and Freeman, 2014; Underwood, 2012; Underwood *et al.*, 2015). The Louisiana Sediment Management Plan (LASMP) was developed to help manage sediment resources and is a comprehensive sediment management plan, which identifies and inventories all proven and potential sediment resources. It is also a tool and an opportunity to proactively identify and minimize conflicting uses for sediment. Through proper management, more sediment is made available efficiently and cost-effectively (Khalil and Freeman, 2014).

LASMP uses the offshore and the Lower Mississippi River Surficial Sediment Distribution (SSD) Maps for coastal Louisiana, which were compiled using geoscientific data residing in the Louisiana Sand Resources Database (LASARD), to manage sediment resources. The initial SSD Maps were compiled in 2011 to assist in planning coastal restoration projects for the 2012 CMP. The maps are regularly updated when additional geoscientific data are added to LASARD. The goal of the mapping was to identify sediment deposits that could be further investigated for future borrow area development (CPRA, 2017).

LASMP, along with its important components LASARD and the SSD Maps, aid the CMP by facilitating the optimum use of sediment resources in an environmentally effective, economical, and feasible manner. The SSD Maps also provide background data for the development of federal regulations to protect sediment resources through the Bureau of Ocean Energy Management (BOEM)'s "Offshore Significant Sediment Resources Areas (SSRAs)", which play a critical regulatory role in decision making for removal or otherwise of decommissioned pipelines. The removal of such pipelines from significant sediment resources areas makes previously inaccessible sediment resources available for restoration usage. To maximize the availability of offshore sediment, the State is collaborating with BOEM on the removal of decommissioned pipelines and avoiding, to the extent possible, the installation of new pipelines over identified offshore significant sediment resources areas which contain sediment that would otherwise be available for restoration projects. Such collaborations offer opportunities to resolve conflicts between the sediment needs to restore and protect coastal ecosystems and the proximity of these resources to oil and gas infrastructure.

## Regionalization of Surficial Sediment Resources

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The restoration of the barrier islands and marsh habitat along Louisiana's coastline plays a major role in Louisiana's current and future CMPs. Healthy barrier islands are the first line of defense that protect the mainland coastline and preserve marsh habitat. Land loss, particularly the loss of coastal wetlands, threatens the sustainability of coastal Louisiana. Multiple tropical weather systems (i.e. Hurricane Ivan in 2004; Hurricanes Dennis, Katrina, and Rita in 2005; Hurricanes Gustav and Ike in 2008; Hurricane Isaac in 2012; Hurricane Harvey in 2017; Hurricanes Laura and Zeta in 2020, and Hurricane Ida in 2021) have

exacerbated the degradation and erosion of Louisiana barrier islands. To restore these eroding barrier islands and marsh habitat, sand and mixed sediment must be identified and allocated to various projects. It is well documented that the continental shelf offshore of Louisiana is typically shallow and broad with a predominantly muddy seabed with transgressive sand bodies and shallow reefs (Penland *et al.*, 1988; Roberts, 1997; Kjerfve, 2003; Khalil *et al.*, 2010). In this region, sand deposits are typically located in buried paleochannels or within bar deposits in the Lower Mississippi River (Khalil *et al.*, 2010). Most of these offshore/nearshore deposits are covered by a muddy overburden consisting of mixed silt and clay. However, large sand deposits occur as major shoals on the outer continental shelf (in federal waters) in the Sabine Bank, the Tiger and Trinity Shoal Complex, Ship Shoal, and St. Bernard Shoal Complex (Khalil *et al.*, 2010).

Maps approximating the spatial distribution of these surficial sediments are an integral part of coastal restoration planning. Louisiana has a long history of exploration for marine sediment resources. Historically, large areas of the continental shelf have been surveyed and thousands of miles of seismic data and hundreds of vibracores have been collected. However, this effort to compile existing data and use it on a statewide basis to develop surficial sediment distribution maps with the purpose of informing future restoration strategies via further exploration, conservation, and/or preservation of the State's sediment resources is being undertaken almost annually.

#### **Role of the Louisiana Sand Resources Database (LASARD) in Map Development**

Sand and mixed sediment resources in Louisiana are limited but crucial for barrier island and marsh restoration. In addition, knowledge of sediment budget and inventory is essential for regional sediment management (Khalil, 2012). To help facilitate the identification and management of nearshore, offshore and riverine sediment resources, the State of Louisiana's Coastal Protection and Restoration Authority (CPRA) initiated LASARD.

LASARD was developed to catalog, maintain and archive the geoscientific (geological, sedimentological, and geophysical data including but not limited to bathymetric, seismic, sub-bottom profile, side scan sonar, and magnetometer data) and related data (related to oil and gas and cultural resources) acquired for ecosystem restoration in a Geographic Information System (GIS) platform (Khalil et al 2016a, 2022a). LASARD was initially developed to manage the data collected during offshore sand searches. It was designed to archive historic and current geoscientific data that could be queried by state, federal, and private entities for planning and executing restoration projects. LASARD, initially contained data relevant only to offshore sand searches, but was later expanded to include geoscientific data pertaining to the exploration of any sediment resources in offshore/nearshore coastal Louisiana and the Lower Mississippi River as well as regional geoscientific monitoring data collected through the System Wide Assessment and Monitoring Program (SWAMP) and Barrier Island Comprehensive Monitoring (BICM) Program.

The objective of LASARD is to standardize and centralize relevant geoscientific data from various sources for archival and improve project coordination while avoiding duplication during subsequent data collection efforts. This facilitates future planning for delineation and utilization of sediment resources by streamlining access to existing data sources, which will minimize the cost and time required to identify appropriate resources to support sustainable ecosystem restoration in coastal Louisiana (Khalil et al, 2010).

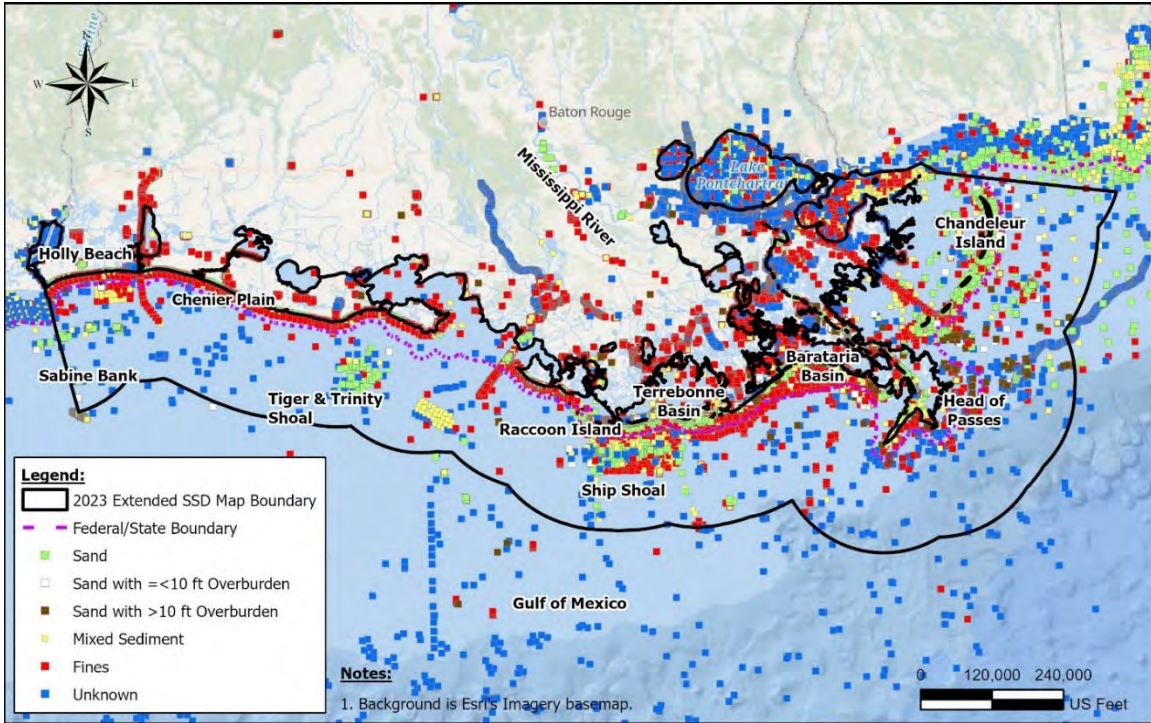
LASARD currently includes over 3,200 historic and current datasets that were collected over decades by private industry, universities and federal and state agencies. Each dataset contains thousands of data records consisting predominantly of geophysical (e.g., seismic, sidescan sonar, magnetometer,

bathymetric) and geological (e.g., sediment data obtained using vibracore, jet probe and grab sampler) data. LASARD also includes oil and gas infrastructure data since it affects the delineation of borrow areas and subsequent dredging. Data in LASARD are available through the CPRA Coastal Information Management System (CIMS) website at <https://cims.coastal.louisiana.gov/default.aspx>. Through this website, geoscientific information are easily accessible to all stakeholders, saving money, time, and avoiding duplication of data collection efforts. A tutorial/storymap on how to access LASARD data through CIMS is available at <https://cims.coastal.louisiana.gov/outreach/lasard.html>.

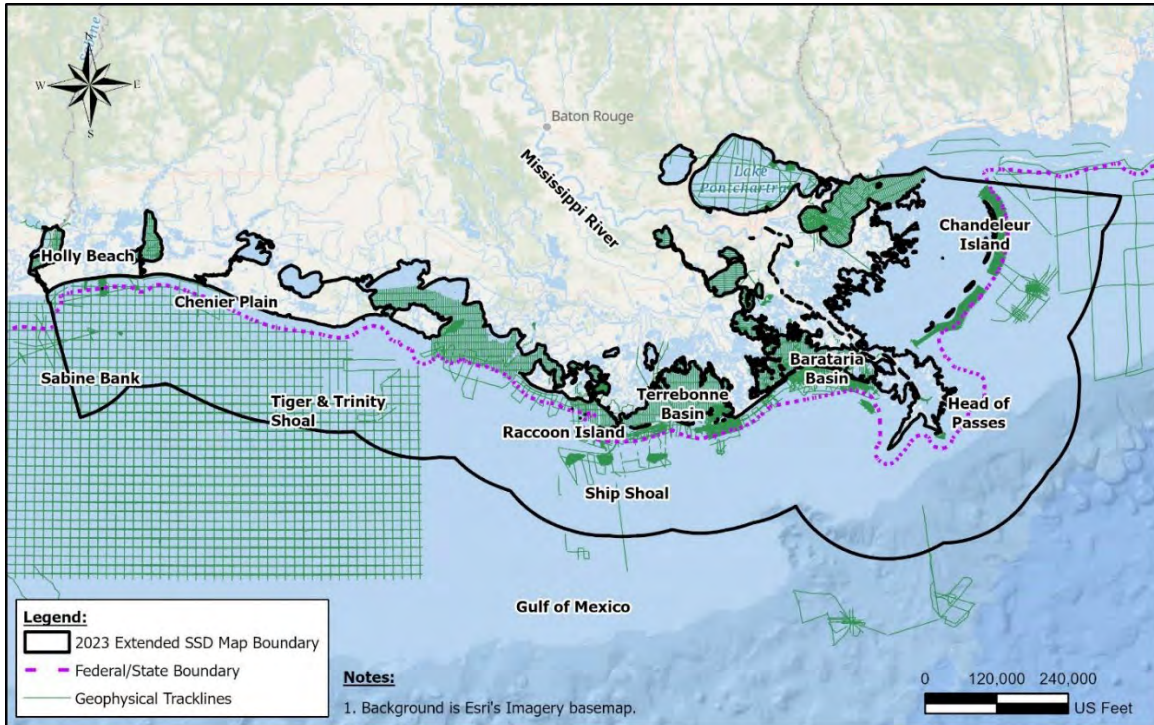
In addition to data housed in LASARD, surficial sediment data made available through the usSEABED and Louisiana Sedimentary and Environmental Database (LASED) databases of the U.S. Geological Survey (USGS) were also utilized in the compilation of the SSD Map. A listing of the data used to delineate these potential sediment resources is provided in Attachment 1.

Spatially, the majority of existing sediment data in LASARD are concentrated within state and federal waters around the MRDP in southeast Louisiana with data becoming sparser in areas west of Racoon Island. Thousands of grab samples and core borings have been collected along the Louisiana coast and within the Lower Mississippi River. Most of the available geophysical and sedimentological data were collected during exploration of sand in the Ship Shoal Complex, the Tiger and Trinity Shoal Complex, Sabine Bank, and the Chandeleur Islands. Of the over 600 sediment sample/grain size datasets representing over 32,000 core borings and grab samples that are currently in LASARD, more than 17,000 core borings and sediment samples were incorporated into the development of the SSD Maps (Figure 1). These borings and samples were collected between 1948 and 2020 by a variety of consultants and organizations. The majority of grab samples were collected within state waters, with the exception of clusters of grab samples in federal waters off Holly Beach and Ship Shoal as well as the Chandeleur Islands. As with the grab samples, the majority of core borings were collected within state waters, with the exception of clusters of core borings in federal waters at Sabine Bank, Tiger and Trinity Shoals, Ship Shoal, at the mouth of the Mississippi River and offshore from the Chandeleur Islands. The geotechnical data west of Racoon Island are comparatively sparse (Figure 1).

The majority of historical geophysical data incorporated into the mapping effort were collected along the Louisiana coast and within the Lower Mississippi River by the USGS, Louisiana Geological Survey (LGS), and by private consultants on behalf of the oil and gas industry (Figure 2). These datasets include electrodynamic “boomer” seismic data and high-resolution “chirp” sub-bottom data, sidescan sonar as well as bathymetric data. Data also include those collected during preliminary geophysical investigations in the Lower Mississippi River (south of New Orleans) along a 20 mile stretch of river between River Mile 15 and River Mile 35 (Finkl *et al.*, 2006). Recent high-resolution surveys were collected in connection with the delineation of borrow areas for marsh creation (Long Distance Pipeline Dredging) and barrier island restoration. A large multibeam bathymetric dataset was made available by the U.S. Army Corps of Engineers (USACE) New Orleans District which was collected over a stretch of approximately 312 miles from Head of the Passes (River Mile 0) to the Old River Control Structure (River Mile 312) under their decadal survey program. The frequency of bathymetric/geophysical surveys and geotechnical investigations in the Lower Mississippi River have increased considerably in order to utilize the renewable sediment resources for restoration and engineering design of major sediment diversions.



**Figure 1. Sediment samples incorporated into the 2023 SSD mapping update. Black boundaries show the limits of the sediment mapping effort both offshore (including major coastal lakes and bays) and in the Mississippi River.**

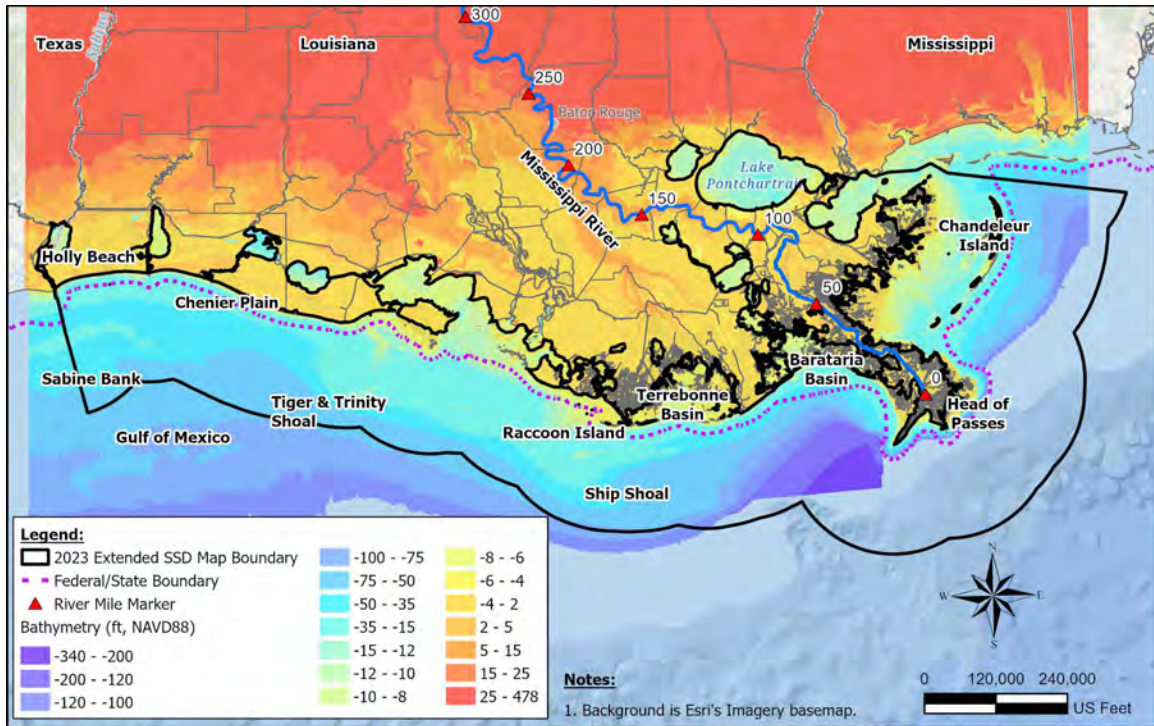


**Figure 2. Map showing tracklines (dark green) along which geophysical data (subbottom) were acquired. These include geophysical data collected under SWAMP implementation from 2015 to 2019.**

In 2006, single beam bathymetric surveys were conducted along cross-shore transects spaced 1,500 ft apart under the BICM Program for the entire coast along the barrier islands and Chenier plain. During 2015, another round of surveys were repeated along the same transects. Sedimentological analyses of surficial grab samples were also undertaken and repeated. A recent addition to LASARD are the large geophysical datasets acquired during the geophysical surveys undertaken along the entire coast of Louisiana under SWAMP (Figure 2). These datasets included single beam bathymetry, subbottom profiling, sidescan sonar and magnetometer data. These surveys were done in Barataria Basin and a few select coastal lakes including Little Lake, Lake Salvador, Lac des Allemands, Lake Cataouatche, The Pen, Bayou Perot, Bayou Rigolets and other major hydrologic pathways (CB&I, 2016). Surveys were conducted in Lake Pontchartrain, Lake Borgne, Chef Menteur Pass, the Rigolets, Chandeleur Sound and the Mississippi River Gulf Outlet (MRGO) (APTIM, 2018) and within the Terrebonne Basin (APTIM, 2019). Surveys from Vermilion Bay to Sabine Lake were conducted in 2019 (APTIM, 2021).

### **Delineation of Sediment Resources**

The framework of existing data, though sparse in some areas, has been interpreted and used to identify and delineate sediment resources. As shown in Figure 3, the SSD Map covers an area which is located between the Texas/Louisiana and Mississippi/Louisiana borders and extends offshore and inland to include major inland lakes and bays and the outer shoals (Sabine Bank, Tiger and Trinity Shoals, Ship Shoal and St. Bernard Shoals). During the 2023 update, the offshore limit was extended from 17 miles offshore to 34 miles offshore based on our experience and understanding of current and well as predicted near future, best-case sediment transport distances. Future installation of Wind Energy Areas (WEAs) was also a determinant of the offshore boundary of the map. current dredging technology/limits to dredging. Depths at the offshore limit range from -17 ft to over -1,500 ft. Depths are shallowest between the Texas/Louisiana border and Terrebonne/Timbalier Bay and get deeper towards the east. Depths are deepest offshore of the mouth of the Mississippi River and towards the west where the continental shelf is closer to the coastline. Within the Lower Mississippi River, the mapped area extends from the mouth of Southwest Pass to approximately River Mile Marker 100. These mapping limits maybe be extended in the future if needed.



**Figure 3. Surficial sediment mapping boundaries.**

To map the surficial sediment deposits, the geophysical and geotechnical data were classified (based on sediment type) and displayed using Esri's ArcGIS Pro software. Clusters of sample/seismic data with the same classification were identified. Preliminary boundaries were drawn around each cluster. If data density was relatively high with samples spaced less than one mile apart, the cluster was designated as a **sediment deposit**. If data were spaced more than one mile apart, the decreased level of confidence resulted in the cluster being designated as a **potential sediment deposit**. Based on sediment type, the deposits were classified as **sand** or **potential sand** (predominantly sand with <30% silt and/or clay), **mixed sediment** or **potential mixed sediment** (30-70% sand with the remainder comprised of silt and/or clay) or **finer** (<30% sand). Areas where no data were available were labeled as **unknown**. Once these initial deposits were delineated, existing bathymetric data as well as current NOAA Raster Navigational Charts (RNCs) were used to help refine the sediment deposit boundaries, particularly in situations where the clusters of data were located on a known and mapped sediment shoal (i.e., Sabine Bank, Ship Shoal, etc.). Where available, interpreted subbottom data and poling data (including data collected during the SWAMP project) were reviewed and used to refine some of the delineated deposits. The interpretations were also used to delineate additional deposits. It is important to note that not all of the subbottom data have been ground-truthed (i.e. with core borings). Therefore, these additional deposits were designated as **inferred sediment deposits**. For this reason, deposits delineated based solely on the subbottom data and/or poling data have the lowest level of confidence.

It is also important to note that standard sediment classification schemes were not followed. CPRA has adopted very broad-based definitions for sand, mixed sediment, and fines exclusively for the purpose of coastal restoration in Louisiana. These definitions are modified after Folk (1980) and Shepard (1954) by adjusting the limits of sand, silt, and clay fractions (Figure 4) and are summarized in Table 1.

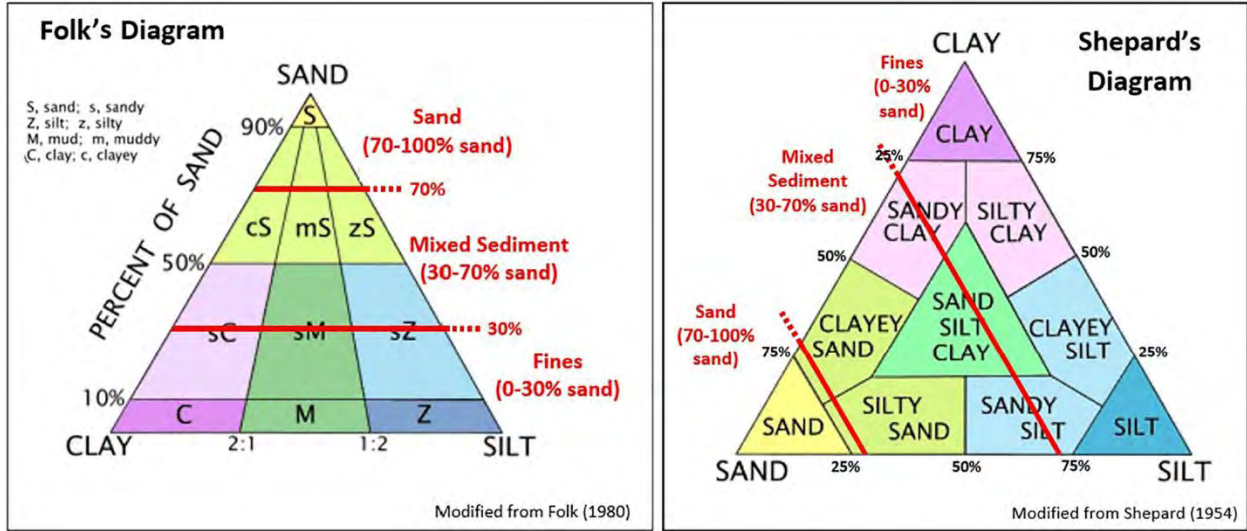


Figure 4. CPRA’s sediment designations relative to the Folk (left panel) and Shepard (right panel) classification systems (after Khalil et. al. 2022b).

Table 1. Various sediment types modified after Shepard and Folk and defined for restoration purposes in Louisiana.

Sediment Type	Description
<b>Sand</b>	<b>Sediment comprised predominantly (70-100%) of sand with &lt;30% fines (silt/clay)</b>
Sand	Surficial sand deposit delineated based on data less than 1 mile apart
Potential Sand	Surficial sand deposit delineated based on data more than 1 mile apart
Inferred Sand	Surficial sand deposit delineated based on acoustic data which have not been ground-truthed
<b>Mixed Sediment</b>	<b>Sediment comprised of a mixture of sand (30-70%) with the remaining fraction made up of fines (silt/clay)</b>
Mixed Sediment	Surficial mixed sediment deposit delineated based on data less than 1 mile apart
Potential Mixed Sediment	Surficial mixed sediment deposit delineated based on data more than 1 mile apart
Inferred Mixed Sediment	Surficial mixed sediment deposit delineated based on acoustic data which have not been ground-truthed
<b>Fines</b>	<b>Sediment comprised of predominantly (70-100%) silt/clay with &lt;30% sand</b>
<b>Unknown</b>	<b>Very limited or no data to make a meaningful interpretation</b>

To create the SSD map for the Mississippi River, multibeam bathymetric data collected in 2019 (NOS Hydrographic Surveys H13193, H13194, H13195, H13196, and H13212), obtained through the National Centers for Environmental Information (NCEI) in Bathymetric Attributed Grid (BAG) format were used to digitize bar formations that potentially contain sand. The boundaries of the delineated resource areas within the main channel of the Lower Mississippi River were based on the 750 ft. offset that the USACE typically requires from the centerline of the levees. The centerline of the levees was provided by CPRA. The riverbanks were digitized from a 2013 statewide National Agricultural Imagery Program (NAIP) image and a 750 ft. offset was applied. It should be noted that although the river deposits are discussed and

provided in this report, no revisions were made to the previous version of the river maps. The river deposits will be updated when new bathymetric data are available.

After mapping was completed, each individual deposit was reviewed to verify that the available data supported the delineation and classification. The entire coast was also reviewed to make sure that any deposit had not been overlooked. Once the delineations were confirmed, geospatial topology was checked to make sure there were no gaps or overlap between adjacent deposits sharing a common boundary.

Based on this effort, 515 sediment resources were identified, and delineated offshore Louisiana (including within major coastal lakes and bays). An additional fifty-two (52) deposits were previously identified along the Lower Mississippi River (Figures 5 and 6). Areas where no data were available were labeled as “unknown.” Of the 515 offshore deposits mapped, 1 was labelled unknown, 1 contained predominantly fines, 193 contained mixed sediment, and 252 contained predominantly sand. The remaining 68 deposits contained sand with varying thicknesses of overburden. From this point forward, the term “offshore” includes everything from inshore lakes and bays to approximately 34 nautical miles (nm) offshore. Except for deposits mapped as “inferred” deposits, no high resolution geophysical or geotechnical investigations were conducted. None of the deposits that were mapped can be considered official borrow areas without further, more detailed investigation. Within the Lower Mississippi River only inferred sand deposits were mapped. Regardless of sediment type, all of the resources identified are considered probable or likely deposits.

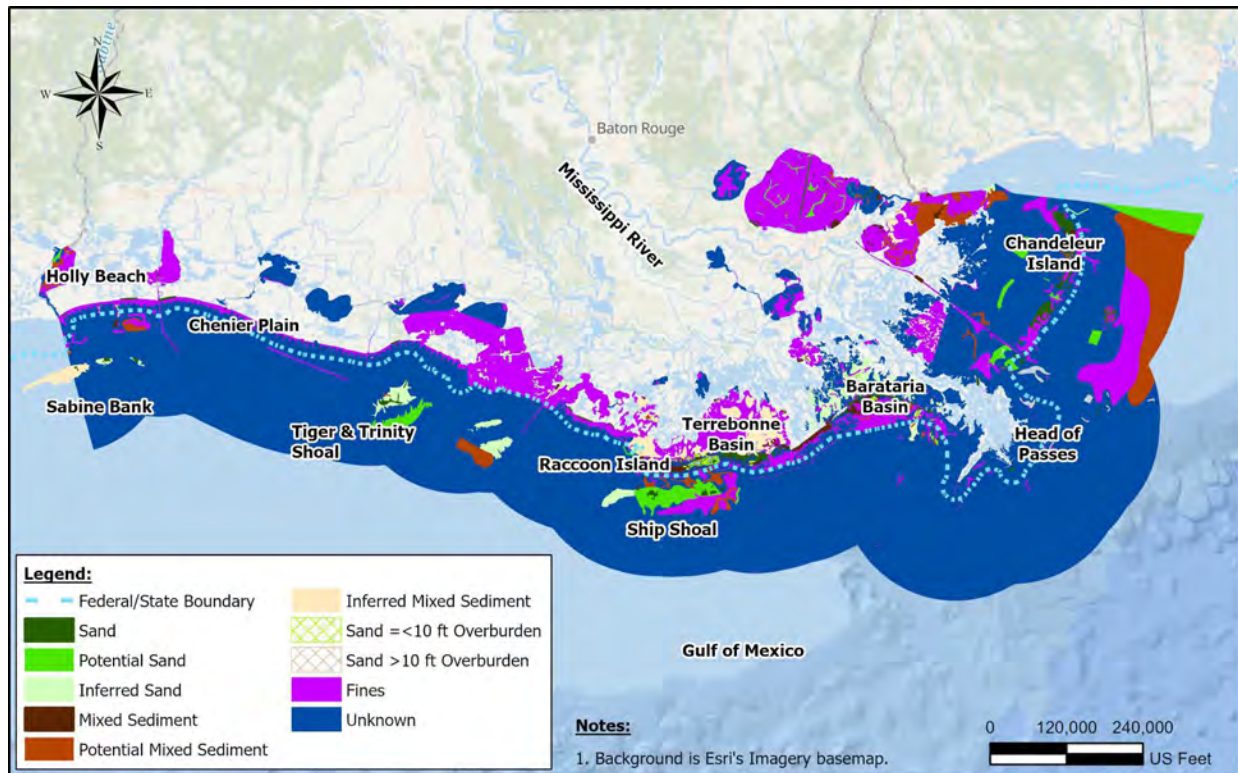
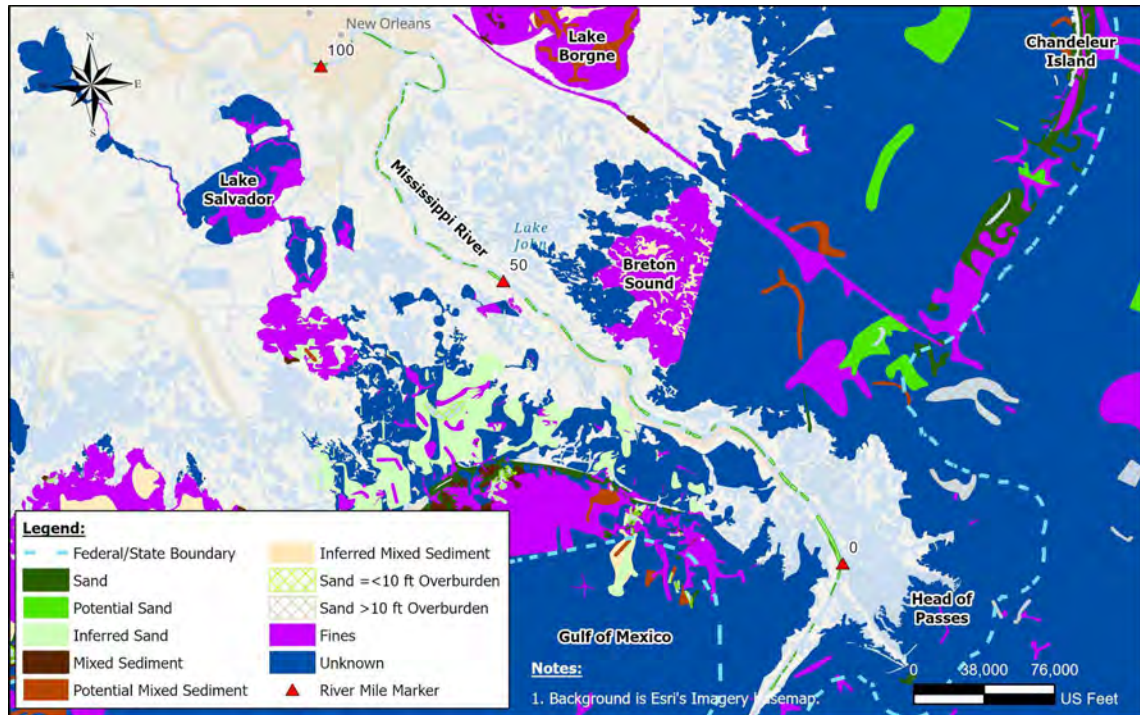


Figure 5. Offshore coastal Louisiana surficial sediment distribution map.





**Figure 6. Map showing sand bars in the Lower Mississippi River and surficial sediment distribution on both sides of the river.**

Detailed and large-scale SSD Maps developed for offshore Louisiana and previously developed for the Mississippi River between River Mile 0 and River Mile 100 Above Head of Passes (AHP) are provided in Attachments 2, 3, and 4.

### Offshore Sediment Volume Estimates

Based on the offshore SSD Map, two 1<sup>st</sup> order approximations of sediment volume were calculated. The first represents the total volume *available* within each delineated sediment deposit/resource (**Available Volume**). The second represents the amount of sediment volume *accessible* (**Accessible Volume**) after accounting for the amount of sediment rendered unavailable due to dredging safety buffer zones around oil and gas industry infrastructure. It is important to note that these volumes are first order estimates and approximations based on evaluation of the existing geoscientific data used to generate the maps. Additionally, the sediment boundaries are tentative, and the datasets are limited, hence the volume calculations are approximations at best. These volumes will vary depending on future updates made to the SSD map. The volumetric calculations made for each offshore area were based on several assumptions that are provided below.

Assumptions for Offshore Volume Calculations:

1. With the exception of mapped deposits designated as “inferred” deposits, no high resolution geophysical or geotechnical investigations on an engineering scale were conducted as part of this study. Therefore, the resources that have been identified are considered probable sediment deposits.
2. Volume calculations are first order estimates based on an evaluation of existing geoscientific data. It is important to note that variability in volume estimates is common when volumes are an approximation.

3. To ensure that mapping was only conducted in Louisiana waters, the eastern and western limits were based on the Louisiana Coastal Zone boundary as defined by the Louisiana Department of Natural Resources (LDNR) in 2012.
4. The offshore limit for each sediment type was approximately 34 nm offshore.
5. Areas delineated as sand or mixed sediment were reviewed individually. Available core borings were reviewed to determine the range of thickness of the sand or mixed sediment in each area. This information was used to estimate an average thickness for each area, which was used to calculate the total estimated volumes. If a deposit was delineated based solely on grab samples, a thickness of 10 ft was assumed.
6. The most current pipeline data available were used to identify exclusion zones for safety buffers. Pipeline data were compiled from the Louisiana Coastal Management Division, BOEM, the National Pipeline Mapping System (NPMS), consultants and oil and gas companies. There is no single, comprehensive source for this data. For all sediment types, a 1,000 ft. oil and gas infrastructure safety-buffer was applied. Each area was reviewed and the percentage of each area impacted by oil and gas infrastructure (including the buffer) was determined by using the area covered by the buffer to clip each sediment resource in ArcGIS. The total volume was then reduced by the assigned percentage, producing the estimated volume excluding the potential impact of oil and gas infrastructure.
7. The volume estimates, which as stated above are 1<sup>st</sup> order, do not take into consideration the location of cultural resources or dredging hazards (i.e., debris). If borrow areas are developed within the mapped deposits, a magnetometer survey will be required to identify dredging hazards.

Volume estimates for each of the mapped offshore sediment resources are provided in Attachment 5. The mapped resources range in size from 3.08 acres to 9,635,776 acres and have total available volumes ranging from 0.03 MCY to 155,458 MCY.

#### **Lower Mississippi River Sediment Volume Estimates (between Mouth of Southwest Pass and Mile Marker 100)**

As previously mentioned, the description below is based on previous revisions to the river mapping. These were not updated during the 2023 SSD Map update but will be updated when new bathymetry are available. As with the offshore volume estimates, once sediments were classified and tentative boundaries of sediment resources were delineated, an approximate volume for each resource area was estimated using a simple tool developed for this purpose. It is important to note that within the river only lateral bars were delineated on the basis of bathymetric expression therefore, it is assumed that sand is the only sediment type that was mapped.

A volume calculation tool was developed within Esri ArcGIS using a python script. This tool takes user defined inputs and uses them to calculate the volumes of a delineated deposit. The user defined inputs are the multibeam raster bathymetric surfaces that intersect the deposit, the desired maximum cut elevation and the shapefile of the delineated riverine deposits. The results are stored as a feature class in an output geodatabase created by the user.

For each mapped lateral bar located within the main channel of the Lower Mississippi River, volumes were estimated from the bathymetry down to a cut elevation of -70 ft. NAVD88, which is the typical cut for borrow areas in the Mississippi River. Volumes were also estimated to a cut elevation of -90 ft NAVD88. This deeper cut could be permitted if the contractor can prove that it will not structurally impact the levees. A single volume estimate was calculated for each resource. This estimate was calculated based

on the thickness of each deposit under these conditions, as calculated using the tool described above, and on the volume of each sediment-type which could be dredged after taking into account the borrow area excavation constraints described in Moffat & Nichol (2012) and described below. The volumetric calculations made for each area were based on several assumptions mentioned below.

#### Assumptions for Mississippi River Volume Calculations:

- 1) Multibeam bathymetric data collected in 2019 (NOS Hydrographic Surveys H13193, H13194, H13195, H13196, and H13212), obtained through the NCEI in BAG format was used to digitize lateral bars that are predominantly sand.
- 2) As previously stated, the volume calculations are first order estimates based on an evaluation of existing multibeam data. Multibeam data are being used for volume calculations. It is important to note that variability in volume estimates is common when volumes are an approximation.
- 3) For each lateral bar within the main channel of the lower Mississippi River, volumes were estimated from the bathymetry down to cut elevations of -70 ft. and -90 ft. NAVD88. The thickness of each deposit under these conditions was used to estimate volumes.
- 4) The boundaries of the delineated resource areas for a -70 ft. NAVD88 cut were based on a 750 ft. federal levee offset. Per "Limits of Permissible Excavation in River" (USACE, 1974) the landward edge of any excavation in the river shall be located a minimum of 750 ft. from the centerline of the levee. Levee centerline locations were provided by CPRA.
- 5) The boundaries of the delineated resource areas at -90 ft. NAVD88 were based on the assumption that a variance would be granted by the USACE allowing a reduced levee setback of 400 ft. from the centerline of the levee. This offset was approved for the BA-48 project (Alliance Anchorage Borrow Area). It is important to note that approval of this reduced offset required additional geotechnical slope stability analysis of the existing levee, which had to be approved by USACE. Although it is possible to receive a variance, additional work is required and the timeline for approval is extended. As previously indicated, levee centerline locations were provided by CPRA.
- 6) The minimum offset from the existing revetment was equal to the horizontal distance between the toe of the revetment and the intersection of a 1V:6H slope from the toe of the revetment and the proposed dredge cut elevation. For example, if the toe of the revetment was at -45 ft. and the dredge cut was at -70 ft., the offset was 150 ft.  $([70-45] \times 6)$ . 2016 revetment footprints were provided by CPRA.
- 7) All sediment deposits were delineated to provide an adequate safe distance from the Mississippi River shipping lane. Delineations provide for a 1,200 ft. wide shipping lane, as defined as the distance between the outside edge of the potential sand deposit and the -45 ft. NAVD88 contour on the opposite riverbank.
- 8) A minimum 300 ft. buffer was maintained between the edge of the potential sand deposit and any navigation aids. Navigation aid locations were obtained from the U.S. Coast Guard (USCG).
- 9) Normally dredging is not permitted within 4,000 ft. of the upstream side of bridges. A 4,000 ft. buffer was applied to all bridges.
- 10) The most current pipeline data available were used to identify exclusion zones for safety buffers. A 500 ft. oil and gas infrastructure safety-buffer was applied.
- 11) The volume estimates do not take into consideration the location of cultural resources or dredging hazards (i.e., debris). If borrow areas are developed within the potential deposits, a magnetometer survey will be required to identify dredging hazards.

Volume estimates for each of the sand resources in the river are provided in Attachment 6. For a -70 ft. NAVD88 cut, accessible volumes ranged from 0.47 MCY to 71 MCY. For a -90 ft. NAVD88 cut, accessible

volumes ranged from 0.72 MCY to 108 MCY. These wide ranges are related to the varying size of the deposits and the varying impact of safety buffers on the deposits.

## 2023 Surficial Sediment Distribution (SSD) Map Summary

An estimated 6,324 MCY and 9,528 MCY of available sand (sand and potential sand) and mixed sediment (mixed sediment and potential mixed sediment) respectively were mapped in offshore and coastal Louisiana. Depending on cut elevation, an estimated 354 MCY to 622 MCY of inferred sand were mapped in the Lower Mississippi River. Table 2 summarizes the first order volume estimates for offshore. It is important to note that the delineation of these surficial sediment deposits is based on limited geophysical and sedimentological data, most of which were collected during reconnaissance-level surveys. Although no high resolution geophysical or geotechnical investigations were conducted as part of this study, the sources of some of the data are high resolution/engineering scale surveys conducted to delineate project-specific borrow areas. These surveys follow specific protocols for exploratory surveys and data acquisition (Khalil *et al.*, 2016b).

**Table 2. First order estimates of sediment quantities in million cubic yards (MCY).**

Sediment Type	Total Volume Available (MCY)	Total Volume Accessible (MCY)	% of Total Volume Inaccessible due to Pipeline Safety Buffers
Sand	1,779	1,387	22
Mixed Sediment	904	589	35
Potential Sand	4,545	3,515	23
Potential Mixed Sediment	8,624	7,167	17
Inferred Sand	3,223	2,123	34
Inferred Mixed Sediment	3,044	2,160	29
Sand with ≤10 ft Overburden <sup>1</sup>	304	194	36
Sand with >10 ft Overburden <sup>1</sup>	805	206	74

<sup>1</sup>These are unique deposits. The volume of sand contained in these deposits is not included in the volume of the deposits designated as "Sand".

## Surficial Sediment Distribution (SSD) Map Applications

This is a first-of-its-kind- attempt to compile a map showing the surficial sediment distribution for the entire coastal Louisiana and to use this map to estimate first-order volumes of various sediment types available for coastal protection and restoration efforts. This effort was only possible because appropriate geoscientific data were available in a standardized format in LASARD. SSD maps are living documents and are updated when sufficient additional data are available through LASARD. Updates are typically done on an annual basis. Because the density of data used to compile this map is unevenly distributed and in places sparse, it is considered a first-order map. However, it is still valuable in several respects. This map is being used in planning for the restoration efforts in Louisiana via the CMP (CPRA, 2012; CPRA, 2017). These maps also help guide state and federal regulatory agencies in efforts to protect areas of significant sediment resources and form the basis/template for a variety of maps including various habitat maps. For

example, The Water Institute of the Gulf (TWI) is working with CPRA, the U.S. Fish and Wildlife Service (USFWS) and Louisiana State University (LSU) to determine Gulf Sturgeon habitat suitability in Lakes Borgne and Pontchartrain. The SSD map will be used to develop a substrate map for sturgeon habitat. It will then be used to correlate sturgeon presence to bottom type. These maps also play an important role in conflict resolution.

Sediment management involves detailed coordination between many stakeholders and agencies, which all have different missions that need to be taken into consideration. Stakeholders must work together to resolve conflicts. Often these conflicts are related to the decommissioning of pipeline segments (either by removal or abandonment in place). Due to the fact that the presence of oil and gas infrastructure can limit sediment availability, these SSD Maps can be used to help prioritize the removal of such infrastructure. The availability of some sediment resources is limited by the fact that offshore coastal Louisiana and the Lower Mississippi River are dominated by oil and gas infrastructure (primarily pipelines) that could be damaged by dredging or cause damage to dredging equipment (Khalil *et al.*, 2010). Based on an evaluation of the potential impacts of dredging to existing oil and gas infrastructure in the outer continental shelf (OCS) of Louisiana (Nairn *et al.*, 2004), the former Minerals Management Service (MMS), U.S. Department of Interior (now BOEM), established buffer zones around oil and gas infrastructure on the OCS to ensure the safety of the infrastructure, as well as the safety of dredging operations. Potentially useable sediments in these buffer zones, which are often as wide as 1,000 ft., are unavailable for use because they cannot be dredged (Finkl and Khalil, 2005).

Many of Louisiana's pipelines are decommissioned, and if removed, would allow access to needed sediment. Historically, the regulations requiring removal have seldom been enforced. BOEM, the Bureau of Safety and Environmental Enforcement (BSEE), and the state of Louisiana, have been working together to comprehensively enforce regulations and require the oil and gas industry to remove decommissioned pipelines, specifically in areas identified as containing "significant sediment resources." The SSD Map is a critical tool used to help identify the "significant sediment resources" that are overlain by decommissioned pipelines. CPRA worked with BOEM to identify offshore blocks for protection of sediment resources for restoration. CPRA has also been working with BOEM to obtain additional geoscientific data not currently in LASARD so that the LASARD surficial sediment distribution maps can be updated and used to review OCS blocks for significant sediment resources.

The SSD Map, along with other data residing in LASARD, were used to develop the Louisiana Sediment Availability and Allocation Program (LASAAP), which includes a tool that matches compatible sediment sources with restoration projects identified in the 2017 CMP. LASAAP analyzes dredge and construction locations along with hydrographic, geotechnical, and geophysical data in order to efficiently and equitably manage valuable sediment resources (Khalil and Freeman 2014; Khalil *et al.* 2018b).

SSD Maps are critical to the data gap analyses conducted to determine future data collection needs. These maps allow users to identify areas for which data are lacking and, therefore, areas where future exploration needs to be conducted. They also help users prioritize the need and sequence of exploration for sediment, especially sand for restoration.

## Glossary

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**available volume:** total volume of sediment within each mapped deposit.

**accessible volume:** volume of sediment remaining in each deposit after excluding sediment within existing borrow areas and within the oil and gas infrastructure safety buffers.

**Barrier Island Comprehensive Monitoring (BICM) Program:** a State of Louisiana program designed to provide long-term data on the barrier islands of Louisiana. This program can be used to plan, design, evaluate, and maintain current and future barrier-island restoration projects.

**Coastal Information Management System (CIMS):** provides geospatial, tabular database and document access to CPRA's suite of protection and restoration projects, Coastwide Reference Monitoring System (CRMS) stations, the 2017 Master Plan, geophysical data, and coastal community resiliency information.

**Coastal Master Plan (CMP):** the state of Louisiana's 50-year blueprint for large-scale restoration and protection of the state's critical coastal areas. The plan is updated every 5-6 years to account for evolving science and changing environmental conditions. The most recent update was done in 2017.

**Coastwide Reference Monitoring System (CRMS):** program designed to monitor the effectiveness of restoration actions at multiple spatial scales from individual projects to the influence of projects on the entire coastal landscape. The CRMS design includes a suite of sites encompassing a range of ecological conditions in swamp habitats and fresh, intermediate, brackish, and salt marshes. Approximately 390 sites are monitored using standardized data collection techniques and fixed sampling schedules. CRMS sites are located within or outside of Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) restoration and protection projects. The CRMS reference network approach allows for comparisons of changing conditions at CRMS sites within and outside of restoration and protection projects.

**finer:** sediment comprised of 70-100% silt and/or clay. These deposits are designated on the SSD Maps as **F** for "Fines".

**first order:** roughly approximate value of a quantity. This refers to a very rough estimation.

**inferred sediment deposit:** a surficial deposit delineated based solely on subbottom data and/or poling data which have not been ground-truthed. These deposits have the lowest level of confidence. These deposits are designated on the SSD Maps as **IM** for "Inferred Mixed Sediment" and **IS** for "Inferred Sand" or **IF** for "Inferred Fines". The **I** indicates that these deposits were delineated on the basis of subbottom or poling data.

**Louisiana Sand Resources Database (LASARD):** a database designed by the Coastal Protection and Restoration Authority of Louisiana to manage geological, geophysical, geotechnical and other data pertaining to offshore sediment searches. The objective of LASARD is to centralize relevant data from various sources for better project coordination and to facilitate future planning for delineating and using sediment resources for restoration in coastal Louisiana.

**Louisiana Sedimentary and Environmental Database (LASED):** a database developed by the U.S. Geological Survey and state and academic cooperators to manage decades of geologic data gathered from the Louisiana coastal zone. The database incorporates a wide range of data types: sediment-sample descriptions and analyses, geophysical profiles, raster-image basemaps, logbooks, etc.

**Louisiana Sediment Availability and Allocation Program (LASAAP):** a program developed to help guide CMP efforts related to locating, managing and utilizing sediment in a cost-effective manner.

**Louisiana Sediment Management Plan (LASMP):** a regional sediment management strategy developed to help manage sediment resources. It is a comprehensive sediment management plan, which identifies and inventories all proven and potential sediment resources. It is also a tool to proactively identify and minimize conflicting uses for sediment, such that more sediment is made available efficiently and cost effectively through proper management.

**Mississippi River Deltaic Plan:** the land and shallow estuarine area between the two northernmost passes of the Mississippi River and the Gulf of Mexico.

**mixed sediment:** sediment comprised of 30-70% sand with the remainder comprised of silt and/or clay.

**multibeam bathymetry:** a multibeam echo sounder attached to a boat sends out a wide array of beams across a "swath" of the waterbody floor. As the beams are bounced back from the waterbody floor, the data is collected and processed. The processed data can be viewed in real time on the boat during the survey. Multibeam surveying is generally done in larger water bodies.

**potential sediment deposit:** a surficial deposit delineated based on data that were spaced more than 1 mile apart. These deposits are designated on the SSD Maps as **PM** for "*Potential Mixed Sediment*" and **PS** for "*Potential Sand*".

**sand:** sediment comprised of predominantly sand (>70%) with <30% silt and/or clay.

**sediment diversion:** a large-scale restoration project that allows river water, sediment and nutrients to flow into degrading wetlands to help sustain and rebuild land.

**Significant Sediment Resource Areas (SSRAs):** BOEM OCS blocks that contain sand or mixed sediment deposits.

**single-beam bathymetry:** rather than sending out a wide set of beams, single-beam bathymetry measures the water depth directly under the boat. Single-beam surveys are generally used for smaller water bodies.

**sediment deposit:** a surficial deposit delineated based on data that were spaced less than 1 mile apart. These deposits are designated on the SSD Maps as **SM** for "*Mixed Sediment*" and **SS** for "*Sand*".

**System Wide Assessment and Monitoring Program (SWAMP):** a long-term monitoring program to ensure a comprehensive network of coastal data collection activities to support the development, implementation and adaptive management of the coastal protection and restoration program within coastal Louisiana.

**unknown sediment:** insufficient data were available to determine if the deposit was sand, mixed sediment or fines.

**usSEABED:** collaborative product of the U.S. Geological Survey, the University of Colorado, and other partners that provides integrated data from marine research efforts by federal and state agencies, local authorities, universities, and private and public consortiums. usSEABED includes surficial and sub-bottom information on grain size and composition, and is held in comma-delimited files, useable in most GIS programs.



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**Attachment 1**  
**Data Incorporated into the Sediment Mapping Effort**

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Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
N/A	BF0001	BF0001	Sediment Samples/Grain Size	14 vibracores	Geotechnical Investigation State of Louisiana East and West Grand Terre Restoration Barataria Bay, Louisiana	Eustis Engineering Company, Inc.	2004
N/A	BF0002	BF0002	Sediment Samples/Grain Size	3 piston cores	Evaluation of a New Sand Resource For Barrier Island Restoration	Roberts	2005
4/21/2023	UNK_SEDGS_0_1987080819870819_PBF0011	BF0011	Sediment Samples/Grain Size	200 hand auger borings	Geotechnical Engineering, Restoration of Shell Island, Plaquemines Parish, Louisiana. Task II-3 Sand Borrow Source Evaluation – Sixty Mile Point, Volume 2	McClelland	1987
N/A	BF0013	BF0013	Sediment Samples/Grain Size	80 vibracores, photos, grain size data	Timbalier Island Dune/Marsh Restoration Project TE-40	T. Baker Smith & Son, Inc.	2001
N/A	BF0014	BF0014	Sediment Samples/Grain Size	8 vibracores		Weston Solutions Inc.	2002
N/A	BF0036	BF0036	Sediment Samples/Grain Size	38 vibracores	Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE Borehole Cores)	Dreher, et al	2000
N/A	BF0037	BF0037	Sediment Samples/Grain Size	21-23 vibracores	Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE Borehole Cores)	Dreher, et al	1983
N/A	BF0038	BF0038	Sediment Samples/Grain Size	132 vibracores	Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE Borehole Cores)	Dreher, et al	2000
N/A	BF0039	BF0039	Sediment Samples/Grain Size	16 vibracores	Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, P86, and USACE Borehole Cores)	Dreher, et al	1986
N/A	BF0065	BF0065	Sediment Samples/Grain Size	[samples: 1000+ pen, 15000+ grab] + [12000+ vib samples from 680+ cores]	usSEABED:Gulf of Mexico and Caribbean (Puerto Rico and U.S. Virgin Islands) Offshore Surficial Sediment Data Release	Buczowski et al.	2005
N/A	no shapefile submitted-data only	BF0075	Sediment Samples/Grain Size	35 grab samples	North Gulf Littoral Initiative (NGLI), Geology and Physical Properties of Marine Sediments in the N.E. Gulf of Mexico: Data Report	NOAA	2001
N/A	BF0076	BF0076	Sediment Samples/Grain Size	29 vibracores	New Cut Dune and Marsh Restoration Project (TE-37): Results from Offshore Geotechnical and Geophysical Investigations	Coastal Planning & Engineering, Inc.	2005
N/A	BF0078	BF0078	Sediment Samples/Grain Size	~12 beach samples	New Cut Dune and Marsh Restoration Project (TE-37): Results from Offshore Geotechnical and Geophysical Investigations	Coastal Planning & Engineering, Inc.	2005
5/11/2023	MO7AC12518_SEDGS_0_2009060520090620_PBF0080	BF0080	Sediment Samples/Grain Size	26 core borings	Report of the Sand Source Investigation of the PaleoSabineTrinity Marine Features	Texas A&M -Galveston (TAMUG)	2009
4/21/2023	MR-MM-7430-01-8548_SEDGS_0_1999029920000799_BF0096	BF0096	Sediment Samples/Grain Size	53 shallow core borings	North Gulf Littoral Initiative (NGLI), Geology and Physical Properties of Marine Sediments in the N.E. Gulf of Mexico: Data Report	NOAA	1999-2000
9/23/2021	W912P8-08-C-0103_SEDGS_0000000000_2008100620081012_PBF0101	BF0101	Sediment Samples/Grain Size	2 grab samples	Atchafalaya Basin, Gulf Intracoastal Waterway (GIWW) and Miscellaneous Projects, Cutterhead Dredge Rental Contract No. FY-2008, St. Mary Parish, LA	U.S. Army Corps of Engineers	2008
9/23/2021	UNK_SEDGS_0000000000_1970052719700528_PBF0102	BF0102	Sediment Samples/Grain Size	6 core borings	Proposed Navigation Channel, Cameron Parish, Louisiana	McClelland Engineers	1970
9/23/2021	W912P8-0980053_SEDGS_0000000000_2009052220090522_PBF0103	BF0103	Sediment Samples/Grain Size	12 grab samples	Mermentau River, Maintenance Dredging Mile 6.5 to Mile 1.3, Cameron Parish, LA	U.S. Army Corps of Engineers	2010
9/23/2021	W912P8-09-C-0079_SEDGS_0000000000_2009111320091124_PBF0104	BF0104	Sediment Samples/Grain Size	6 grab samples	Barataria Bay Waterway, Maintenance Dredging, Bar Channel, Jefferson Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-05-C-0011_SEDGS_8950029250_2005011720050324_PBF0105	BF0105	Sediment Samples/Grain Size	5 grab samples	Miss. River Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 6-2004, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
9/23/2021	W912P8-09-C-0028_SEDGS_0000000000_2009040120090521_PBF0106	BF0106	Sediment Samples/Grain Size	23 grab samples 17 samples (5 samples have no Excel data 8.26.21_SD)	Tiger Pass, Maintenance Dredging Bar Channel (FY 09) Approx. Mile 7.3 to Approx. Mile 14.0 Plaquemines Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-05-C-0052_SEDGS_0000000000_2005092020051013_PBF0107	BF0107	Sediment Samples/Grain Size	6 grab samples	Atchafalaya Basin, GIWW and Misc. Projects, Cutterhead Dredge Rental Contract No 2-2005, St. Mary Parish, LA	Eustis Engineering Company, Inc.	2005
9/23/2021	W912P8-06-C-0190_SEDGS_0000000000_2006101220061110_PBF0108	BF0108	Sediment Samples/Grain Size	8 grab samples	Atchafalaya Basin, Gulf Intercoastal Waterway (GIWW) and Miscellaneous Projects Cutterhead Dredge Rental No. 1-2006	U.S. Army Corps of Engineers	2006
9/23/2021	W912P8-05-C-0036_SEDGS_0000000000_2005060520050605_PBF0109	BF0109	Sediment Samples/Grain Size	10 grab samples	Baptiste Collette Bar Channel, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
9/23/2021	W912P8-08-C-0040_SEDGS_0000000000_2008050120080501_PBF0110	BF0110	Sediment Samples/Grain Size	10 grab samples	Baptiste Collette, Maintenance Dredging Bar Channel (#06-2) Plaquemines Parish, LA	U.S. Army Corps of Engineers	2008
9/23/2021	W912P8-09-C-0090_SEDGS_0000000000_2009111720100202_PBF0111	BF0111	Sediment Samples/Grain Size	10 grab samples	Mississippi River Outlet Vicinity of Venice, LA Baptiste Collette Bar Channel FY 09 Maintenance Dredging Plaquemines Parishes, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-05-C-0015_SEDGS_0000000000_2005021820050223_PBF0112	BF0112	Sediment Samples/Grain Size	12 grab samples	Freshwater Bayou, Maintenance Dredging, Mile 1.3 (Lock) to Mile -4.0 (Gulf of Mexico), C/L Sta. 70+00 to C/L Sta. -210+00, Vermilion Parish, Louisiana	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0201_SEDGS_0000000000_2006110820070304_PBF0113	BF0113	Sediment Samples/Grain Size	19 grab samples	Fresh Water Bayou Station -210+00 to Station 70+00. Dredge Venture, Fresh Water Bayou Vermillion Parish, LA	U.S. Army Corps of Engineers	2006
9/23/2021	W912P8-09-C-0021_SEDGS_0000000000_2009040920090419_PBF0114	BF0114	Sediment Samples/Grain Size	12 grab samples	Freshwater Bayou Maintenance Dredging Mile 1.3 to Mile (-) 4.0 Vermilion Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	DACW29-02-C-0029_SEDGS_0000000000_2002022820020329_PBF0115	BF0115	Sediment Samples/Grain Size	9 grab samples	Atch River, Horseshoe, Crew Boat Cut & Avoca Island Cutoff	U.S. Army Corps of Engineers	2002
9/23/2021	DACW29-03-C-0047_SEDGS_0000000000_2003072520031107_PBF0116	BF0116	Sediment Samples/Grain Size	129 grab samples	Atch. River, Maint. Dredging, Bayou Chene, Boeuf, and Avoca Island Cutoff	U.S. Army Corps of Engineers and Eustis Engineering Company, Inc.	2003
9/23/2021	DACW29-03-C-0048_SEDGS_9137529625_2003072720030803_PBF0117	BF0117	Sediment Samples/Grain Size	18 grab samples	Lower Atch. River, Horse Shoe, Cutterhead Dredge Rental Contract No 1-03, St. Mary Parish, LA	U.S. Army Corps of Engineers	2003
9/23/2021	DACW29-95-C-0033_SEDGS_0000000000_1995051219950621_PBF0118	BF0118	Sediment Samples/Grain Size	24 Before Dredging grab samples, 20 After Dredging grab samples	Lower Atch. River	U.S. Army Corps of Engineers	1995
9/23/2021	DACW29-96-C-0033_SEDGS_0000000000_1996041819960515_PBF0119	BF0119	Sediment Samples/Grain Size	12 Before Dredging grab samples, 12 After Dredging grab samples. 15 Before Dredging grab samples	LOWER ATCHAFALAYA RIVER HORSESHOE NO. 1-96	U.S. Army Corps of Engineers	1996
9/23/2021	DACW29-96-C-0036_SEDGS_0000000000_1996041619960612_PBF0120	BF0120	Sediment Samples/Grain Size	16 Before Dredging grab samples, 9 After Dredging grab samples	ATCHAFALAYA BAY AND BAR CHANNELS	U.S. Army Corps of Engineers	1996
9/23/2021	W912P8-04-C-0029_SEDGS_0000000000_2004041220040515_PBF0121	BF0121	Sediment Samples/Grain Size	30 grab samples	Atch. River Bar Ch., Cutterhead Dredge Rental Contract No 1-2004, St. Mary's Par. LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-05-C-0012_SEDGS_0000000000_2005010720050430_PBF0122	BF0122	Sediment Samples/Grain Size	57 grab samples	Atchafalaya Bar Channel, Maintenance Dredging, C/L Sta.475+00 to C/L Sta.1355+00St. Mary Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0042_SEDGS_9137529625_2005080120050819_PBF0123	BF0123	Sediment Samples/Grain Size	6 grab samples	Lower Atchafalaya River, Horseshoe Crew Boat and Avoca Island Cutoff Cutterhead Dredge Rental No 1-2004	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0053_SEDGS_9150029375_2005101920051029_PBF0124	BF0124	Sediment Samples/Grain Size	12 grab samples	Atchafalaya River and Bayous Chene, Boeuf, and Black, Maintenance Dredging Atchafalaya Bar Channel Dustpan Dredge Demonstration C/L Sta. 650+00 to C/L Sta. 1050+00 St. Mary Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0126_SEDGS_0000000000_2006050220060626_PBF0125	BF0125	Sediment Samples/Grain Size	45 grab samples	Atchafalaya Bar Channel 2006, Hydraulic Cutter Head Dredge, St. Mary Parish, LA	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0181_SEDGS_0000000000_2006083120061001_PBF0126	BF0126	Sediment Samples/Grain Size	18 grab samples	Atchafalaya River Horse Shoe and Bayou Chene	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0203_SDEGS_0000000000_2007020420070404_PBF0127	BF0127	Sediment Samples/Grain Size	45 grab samples	Atchafalaya Bar Channel, Maintenance Dredging C/L Sta. 475+00 to C/L Sta. 1355+00 Non-Continuous (06-1), St. Mary Parish LA	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-08-C-0055_SEDGS_0000000000_2008061220080924_PBF0128	BF0128	Sediment Samples/Grain Size	51 grab samples	Atchafalaya Bar Channel, Maintenance Channel, C/L Sta. 475+00 to Sta. 1355+00, Non-Continuous (07-1) St. Mary Parish, Louisiana	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-07-C-0075_SEDGS_9137529500_2008081720080817_PBF0129	BF0129	Sediment Samples/Grain Size	3 grab samples	Atchafalaya River, Cutterhead Dredge Rental No. 1-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0085_SEDGS_9137529625_2008082320080908_PBF0130	BF0130	Sediment Samples/Grain Size	6 grab samples	Atchafalaya River Bar, Horseshoe and Miscellaneous Project, St. Mary Parish and Terrebonne Parish , LA. Cutterhead Dredge Rental No. 2-05	U.S. Army Corps of Engineers	2008

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9/23/2021	W912P8-09-C-0086_SEDGS_0000000000_2009081920091115_PBF0131	BF0131	Sediment Samples/Grain Size	6 grab samples	Atchafalaya River Bay, Bar, Horseshoe and Miscellaneous Projects, Cutterhead Dredge Rental No. 1-2009	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0099_SEDGS_0000000000_2009082520091025_PBF0132	BF0132	Sediment Samples/Grain Size	18 grab samples	Atchafalaya River and Bayous Chene, Boeuf, and Black Bayous Chene and Avoca Island Cutoff Maintenance Dredging C/L Sta. 96+00 to C/I Sta. 1042+00 Non Continuous Assumption, St. Mary, and Terrebonne Parishes, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0103_SEDGS_0000000000_2009090720100310_PBF0133	BF0133	Sediment Samples/Grain Size	66 grab samples	Atchafalaya Bar Channel Maintenance Dredging	U.S. Army Corps of Engineers	2009
10/26/2021	W912P8-05-C-0033_SEDGS_0000000000_2005031720050515_PBF0134	BF0134	Sediment Samples/Grain Size	7 grab samples	Atch Basin, Gulf Intercoastal Waterway (GIWW) and Misc Projects, Cutterhead Dredge Rental No. 1-2005	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0052_SEDGS_0000000000_2005092020051013_PBF0135	BF0135	Sediment Samples/Grain Size	6 grab samples	Atchafalaya Basin, GIWW and Misc. Projects, Cutterhead Dredge Rental Contract No 2-2005, St. Mary Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0142_SEDGS_9125029750_2006050620060622_PBF0136	BF0136	Sediment Samples/Grain Size	3 grab samples	Berwick Harbor Rental	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-08-C-0057_SEDGS_0000000000_2008051920080916_PBF0137	BF0137	Sediment Samples/Grain Size	6 grab samples	Atchafalaya Basin, Gulf Intracoastal Waterway (GIWW) and Miscellaneous Projects, Cutterhead Dredge Rental Contract No. FY-2008, St. Mary Parish, LA	U.S. Army Corps of Engineers	2008
9/23/2021	W912P8-09-C-0047_SEDGS_0000000000_2009051220090908_PBF0138	BF0138	Sediment Samples/Grain Size	14 grab samples	Atchafalaya Basin, Gulf Intracoastal Waterway (GIWW) and Miscellaneous Projects, Cutterhead Dredge Rental No. 1-2009	U.S. Army Corps of Engineers	2009
10/26/2021	W912P8-10-C-0055_SEDGS_9125029750_2010040420100503_PBF0139	BF0139	Sediment Samples/Grain Size	3 grab samples	Atch. Basin, GIWW & Misc. Project, Cutterhead Dredge Rental No. 3-2010	U.S. Army Corps of Engineers	2010
9/23/2021	W912P8-05-C-0002_SEDGS_9025029125_2004110720041204_PBF0140	BF0140	Sediment Samples/Grain Size	12 grab samples	Port Fourchon Navigation Channel, Maintenance Dredging C/L Sta. 200+00 to 330+00, LaFourche Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-06-C-0125_SEDGS_9025029125_2006041720060418_PBF0141	BF0141	Sediment Samples/Grain Size	4 grab samples	Port Fourchon Navigation Channel, Cutterhead Dredge, Lafourche Parish, La	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0213_SEDGS_0000000000_2007011320070114_PBF0142	BF0142	Sediment Samples/Grain Size	7 grab samples	Fort Fourchon Navigation Channel, Maintenance Dredging, C/L Sta. 60+00 to C/L Sta. 215+00, Lafourche Parish, LA (ED-06-126)	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-08-C-0099_SEDGS_9025029125_2008100720081007_PBF0143	BF0143	Sediment Samples/Grain Size	6 grab samples	Port Fourchon Navigation Channel Maintenance Dredging C\L Sta. 200+00 To C\L Sta. 330+00 Lafourche Parish, LA (ED-06-108)	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-05-C-0030_SEDGS_0000000000_2005052520051229_PBF0144	BF0144	Sediment Samples/Grain Size	27 grab samples	Houma Navigation Canal, Maintenance Dredging, Terrebonne Bay and Cat Island Pass	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-07-C-0071_SEDGS_0000000000_2007060120070627_PBF0145	BF0145	Sediment Samples/Grain Size	17 grab samples	Houma Navigation Canal, Terrebonne Bay & Cat Island Pass, Maint. Dredging, C/L 1420+00 to C/L 2160+00, Non Continuous, Terrebonne Parish, LA	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-08-C-0074_SEDGS_0000000000_2008081820080926_PBF0146	BF0146	Sediment Samples/Grain Size	15 grab samples	Houma Navigation Canal, Terrebonne Bay, Maintenance Dredging, C\L Sta. 1420+00, Approx. Mile 10.1, to C\L Sta. 1640+00, Approx. Mile 5.9, with Optional Dredging Between C\L Sta. 1640+00 Approx. Mile 5.9, to C\L Sta. 1845, Approx. Mile 2.0, Terrebonne Parish, La	U.S. Army Corps of Engineers	2008
9/23/2021	WP12P8-09-C-0120_SEDGS_9075029625_2009102020091020_PBF0147	BF0147	Sediment Samples/Grain Size	5 grab samples	GIWW to Houma Navigation Canal, Maintenance Dredging of Bayou Lecarpe, C/L Station 1+30 to C/L Station 116+13, Terrebonne Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	DACW29-03-C-0055_SEDGS_0000000000_2003091920031218_PBF0148	BF0148	Sediment Samples/Grain Size	21 grab samples	Mississippi River Gulf Outlet, 2003 CUTTERHEAD DREDGE, St. Bernard and Plaquemines Parish	U.S. Army Corps of Engineers	2003
10/26/2021	W912P8-04-C-0018_SEDGS_0000000000_2004012220040615_PBF0149	BF0149	Sediment Samples/Grain Size	54 grab samples	Miss River Gulf Outlet Mile 55.1 to 49.9, Maintenance Dredging, St. Bernard Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-04-C-0032_SEDGS_0000000000_2004060320041017_PBF0150	BF0150	Sediment Samples/Grain Size	17 grab samples	MRGO Mile 47.8 to Mile 33.8 (N/C)	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-05-C-0009_SEDGS_0000000000_2005012720050524_PBF0151	BF0151	Sediment Samples/Grain Size	22 grab samples	MRGO, 2004 Maintenance Dredging C/L STA. 2590+00 TO STA. 3696+00, MILE 17.0 TO MILE -4.0, NON-CONTINUOUS, St. Bernard and Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	DACW29-01-C-0057_SEDGS_9337529750_2001080320010803_PBF0152	BF0152	Sediment Samples/Grain Size	1 Grab Sample	unknown	U.S. Army Corps of Engineers	2001
10/26/2021	DACW29-02-C-0069_SEDGS_0000000000_2002092220021026_PBF0153	BF0153	Sediment Samples/Grain Size	4 grab samples	Calcasieu River & Pass Bar Channel, MRGO	U.S. Army Corps of Engineers	2002
10/26/2021	DACW29-03-C-0004_SEDGS_0000000000_2002111420021129_PBF0154	BF0154	Sediment Samples/Grain Size	3 grab samples	unknown	U.S. Army Corps of Engineers	2002

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10/26/2021	DACW29-03-C-0044_SEDGS_0000000000_2003090820031124_PBF0155	BF0155	Sediment Samples/Grain Size	21 grab samples	Calcasieu River and Pass, Maint. Dredging, C/L Sta. 1160+00 To C/L Sta.740+00 , Calcasieu And Cameron Ph., LA	U.S. Army Corps of Engineers	2003
10/26/2021	DACW29-03-C-0052_SEDGS_0000000000_2003081020030912_PBF0156	BF0156	Sediment Samples/Grain Size	3 grab samples	Calcasieu River and Pass,2003 Maint. Dredging, Bar Channel Hopper Rental No.1-2003, Cameron Ph., LA	U.S. Army Corps of Engineers	2003
10/26/2021	DACW29-99-C-0002_SEDGS_0000000000_1998111619990110_PBF0157	BF0157	Sediment Samples/Grain Size	12 grab samples	unknown	U.S. Army Corps of Engineers	1999
10/26/2021	W912P8-05-D-0005_SEDGS_0000000000_2004120120080211_PBF0158	BF0158	Sediment Samples/Grain Size	11 grab samples	Calcasieu River and Pass, 2004 Maintenance Dredging, Bar Channel Hopper Dredge Rental No. 3-2004, Cameron Parish , La (Task Order #1)	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-06-C-0001_SEDGS_0000000000_2005101620060414_PBF0159	BF0159	Sediment Samples/Grain Size	15 grab samples	Calcasieu River and Pass, 2005 Maintenance Dredging, Bar Channel Hopper Dredge Rental No. 1-2005, Cameron Parish , La	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-10-C-0030_SEDGS_0000000000_2010041720100607_PBF0160	BF0160	Sediment Samples/Grain Size	4 grab samples	Calcasieu River Pass 2010 Maintenance Dredging Bar Channel Hopper Rental No. 1-2010 Cameron, La	U.S. Army Corps of Engineers	2010
10/26/2021	DACW29-03-C-0058_SEDGS_9337530125_2003120320040111_PBF0161	BF0161	Sediment Samples/Grain Size	13 grab samples	Calcasieu River and Pass, Maint. Dredging, C/L Sta. 1160+00 To C/L Sta.1300+00 including Devil's Elbow, Calcasieu Ph., LA	U.S. Army Corps of Engineers and Eustis Engineering Company, Inc.	2003
10/26/2021	W912P8-04-C-0048_SEDGS_0000000000_2004103120050210_PBF0162	BF0162	Sediment Samples/Grain Size	27 grab samples	Calcasieu River and Pass Maint Dredge Approx. Mile 36.0 to Approx. Mile 10.0 Non-Continuous, Calcasieu and Cameron Parishes, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-05-C-0045_SEDGS_0000000000_2005081020060201_PBF0163	BF0163	Sediment Samples/Grain Size	27 grab samples	Calcasieu River and Pass, LA Maintenance Dredging, C/L STA. APPROX. MILE 17.0 TO APPROX. MILE 28.7 NON-CONTINUOUS, Calcasieu And Cameron Parish , La	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0189_SEDGS_0000000000_2006103120061214_PBF0164	BF0164	Sediment Samples/Grain Size	14 grab samples	Calcasieu River and Pass, LA Maintenance Dredging Approx. Mile 35.0, / sta.1842+00 to Approx. Mile 29.3, C\L Sta. 1545+00 Including Clooney Island Loop and Coon Island, Calcasieu Parish, LA	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0192_SEDGS_0000000000_2007010420070626_PBF0165	BF0165	Sediment Samples/Grain Size	24 grab samples	Calcasieu River and Pass, LA Maintenance Dredging Approx. Mile 5.0, / sta.260+00 to Approx. Mile 22.8, C\L Sta. 1201+75 (non-continuous) Including Devils Elbow (non-continuous)and CWPPRA, 8th Priority Project List, Sabine Refuge Marsh Creation Cycle 3 Project, CS-28-3, Cameron and Calcasieu Parish, LA	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-08-C-0059_SEDGS_0000000000_2008072720090611_PBF0166	BF0166	Sediment Samples/Grain Size	28 grab samples	Calcasieu River and Pass, LA Maintenance Dredging, Approx. Mile 17.0 to Approx. 29.3 Including Coon Island Channel and Clooney Island Loop, Cameron and Calcasieu Parishes, LA	U.S. Army Corps of Engineers	2008
10/26/2021	DACW29-96-C-0009_SEDGS_0000000000_1996062519961229_PBF0167	BF0167	Sediment Samples/Grain Size	96 grab samples	unknown	U.S. Army Corps of Engineers	1996
10/26/2021	DACW29-03-C-0054_SEDGS_8937529250_2003092320031105_PBF0168	BF0168	Sediment Samples/Grain Size	8 grab samples	CWPPRA - West Bay, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2003
10/26/2021	DACW29-03-C-0050_SEDGS_0000000000_2003080920030918_PBF0170	BF0170	Sediment Samples/Grain Size	6 grab samples	Southwest Pass, Miss River, New Orleans Harbor, Orleans to Jefferson Parish, LA	U.S. Army Corps of Engineers	2003
10/26/2021	W912P8-04-C-0039_SEDGS_0000000000_2004052120040614_PBF0171	BF0171	Sediment Samples/Grain Size	3 grab samples	Miss Riv, New Orleans Harbor, Cutterhead Dredge Rental No. 2-2004 Orleans and Jefferson Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-05-C-0027_SEDGS_0000000000_2005030120050326_PBF0172	BF0172	Sediment Samples/Grain Size	6 grab samples	Miss. River, New Orleans Harbor Cutterhead or Injection Dredge Rental No. 1-2004, Orleans and Jefferson Parishes, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0005_SEDGS_0000000000_2006061320060624_PBF0173	BF0173	Sediment Samples/Grain Size	7 grab samples	Mississippi River New Orleans Harbor, Cutterhead Dredge Rental No. 2-2005	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0144_SEDGS_9012530000_2006051120060604_PBF0174	BF0174	Sediment Samples/Grain Size	7 grab samples	Mississippi River, New Orleans Harbor, Cutterhead Dredge Rental No 1-02, Orleans and Jefferson Parish, La	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-08-C-0056_SEDGS_0000000000_2008052320080703_PBF0175	BF0175	Sediment Samples/Grain Size	11 grab samples	Mississippi River, New Orleans Harbor, Cutterhead Dredge Rental No. FY-2008	U.S. Army Corps of Engineers	2008
9/23/2021	W912P8-09-C-0076_SEDGS_0000000000_2009072720091115_PBF0176	BF0176	Sediment Samples/Grain Size	17 grab samples	Mississippi River, New Orleans Harbor, Cutterhead Dredge Rental No. 1-2009 Orleans and Jefferson Parishes, La. Cutterhead Dredge Rental No. 1-200	U.S. Army Corps of Engineers	2009
10/26/2021	DACW29-00-C-0051_SEDGS_0000000000_2000051720000628_PBF0177	BF0177	Sediment Samples/Grain Size	11 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge	U.S. Army Corps of Engineers	2000
10/26/2021	DACW29-02-C-0042_SEDGS_0000000000_2002050720020802_PBF0178	BF0178	Sediment Samples/Grain Size	11 grab samples	Mississippi River, Southwest Pass	U.S. Army Corps of Engineers	2002
10/26/2021	DACW29-03-C-0030_SEDGS_0000000000_2003040520030508_PBF0179	BF0179	Sediment Samples/Grain Size	9 grab samples	Southwest Pass Miss River, Maintenance Dredging	U.S. Army Corps of Engineers	2003



Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
10/26/2021	DACW29-03-C-0036_SEDGS_0000000000_2003052720030730_PBF0180	BF0180	Sediment Samples/Grain Size	22 grab samples	Miss River, B.R. to the Gulf, Southwest Pass and Cubit's Gap	U.S. Army Corps of Engineers	2003
10/26/2021	DACW29-03-C-0045_SEDGS_0000000000_2003070220030806_PBF0181	BF0181	Sediment Samples/Grain Size	8 grab samples	Southwest Pass, Miss River, Hopper Dredge	U.S. Army Corps of Engineers	2003
10/26/2021	W912P8-04-C-0027_SEDGS_0000000000_2004022220040421_PBF0182	BF0182	Sediment Samples/Grain Size	15 grab samples	Miss River Baton Rouge to the Gulf of Mexico, SW Pass and Cubit's Gap, Hopper Dredge Rental No. 11-03, Plaquemines Parish, LA (NEWPORT)	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-04-C-0030_SEDGS_0000000000_2004031920040528_PBF0183	BF0183	Sediment Samples/Grain Size	22 grab samples	Miss River, Baton Rouge to the Gulf of Mexico, SW Pass and Cubit's Gap, Hopper Dredge Rental No. 12-03, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-04-C-0034_SEDGS_0000000000_2004061620040719_PBF0184	BF0184	Sediment Samples/Grain Size	14 grab samples	Miss River Baton Rouge to the Gulf of Mexico, SW Pass and Cubit's Gap, Hopper Dredge Rental No. 03-2004, Plaquemines Parish, LA (STUYVESANT)	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-04-C-0037_SEDGS_0000000000_2004051420040614_PBF0185	BF0185	Sediment Samples/Grain Size	11 grab samples	Miss River Baton Rouge to the Gulf of Mexico, SW Pass and Cubit's Gap, Hopper Rental No. 13-03, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-04-C-0040_SEDGS_0000000000_2004053020040715_PBF0186	BF0186	Sediment Samples/Grain Size	14 grab samples	Miss River, Baton Rouge to the Gulf of Mexico, SW Pass and Cubit's Gap, Hopper Dredge Rental No. 14-03, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2004
10/26/2021	W912P8-05-C-0005_SEDGS_0000000000_2004120920050207_PBF0187	BF0187	Sediment Samples/Grain Size	16 grab samples	Miss. River Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 5-2004, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0010_0011_SEDGS_0000000000_2004122420050203_PBF0188	BF0188	Sediment Samples/Grain Size	13 grab samples	Miss. River Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 6-2004, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0016_SEDGS_0000000000_2005011020050225_PBF0189	BF0189	Sediment Samples/Grain Size	15 grab samples	MRGO, 2004Maintenance Dredging, Bar Channel Hopper Dredge Rental No. 2-2004, St. Bernard and Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0025_SEDGS_0000000000_2005020920050615_PBF0190	BF0190	Sediment Samples/Grain Size	20 grab samples	Miss. River, Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 5-2005, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0029_SEDGS_0000000000_2005022820050531_PBF0191	BF0191	Sediment Samples/Grain Size	22 grab samples	Miss. River, Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 7-2005, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-05-C-0032_SEDGS_0000000000_2005032220050527_PBF0192	BF0192	Sediment Samples/Grain Size	11 grab samples	Miss. River Baton Rouge to the Gulf of Mexico, Southwest Pass and Cubit's Gap, Hopper Dredge Rental No. 3-05, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2005
10/26/2021	W912P8-06-C-0127_SEDGS_0000000000_2006041320060727_PBF0193	BF0193	Sediment Samples/Grain Size	19 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 10-2005	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0136_SEDGS_0000000000_2006041520060602_PBF0194	BF0194	Sediment Samples/Grain Size	7 grab samples	Passes of the Mississippi River, Baton Rouge to the Gulf of Mexico, Southwest pass & Cubit's Gap, Hopper Dredge Rental 03-2004, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0176_SEDGS_0000000000_2006080420060905_PBF0195	BF0195	Sediment Samples/Grain Size	5 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 1-2006	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-06-C-0191_SEDGS_0000000000_2006091320061219_PBF1096	BF0196	Sediment Samples/Grain Size	17 grab samples	Passes of the Miss River, Southwest Pass, Maintenance Dredging, C/L Sta. 240+00 to C/L Sta.740+00, Plaquemines Parish, LA	U.S. Army Corps of Engineers	2006
10/26/2021	W912P8-07-C-0029_SEDGS_0000000000_2007010720070212_PBF0197	BF0197	Sediment Samples/Grain Size	20 grab samples	Mississippi River, Southwest Pass (SWP) Hopper Dredge Rental Contract NO. 1-2007	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-07-C-0032_SEDGS_0000000000_2007011720070304_PBF0198	BF0198	Sediment Samples/Grain Size	19 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No 2 2007	U.S. Army Corps of Engineers	2007
10/26/2021	W912P8-08-C-0032_SEDGS_0000000000_2008021620080505_PBF0199	BF0199	Sediment Samples/Grain Size	26 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 1-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0033_SEDGS_0000000000_2008022520080325_PBF0200	BF0200	Sediment Samples/Grain Size	9 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 2-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0034_SEDGS_0000000000_2008032120080526_PBF0201	BF0201	Sediment Samples/Grain Size	25 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental, Contract No. 3-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0041_SEDGS_0000000000_2008022820080610_PBF0202	BF0202	Sediment Samples/Grain Size	37 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental, Contract No. 4-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0042_SEDGS_0000000000_2008040320080614_PBF0203	BF0203	Sediment Samples/Grain Size	32 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental, Contract No. 5-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0053_SEDGS_0000000000_2008050120080716_PBF0204	BF0204	Sediment Samples/Grain Size	22 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental, Contract No. 6-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0054_SEDGS_0000000000_2008050220080716_PBF0205	BF0205	Sediment Samples/Grain Size	31 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental, Contract No. 3-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0063_SEDGS_0000000000_2008061520080714_PBF0206	BF0206	Sediment Samples/Grain Size	21 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 8-2008	U.S. Army Corps of Engineers	2008

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10/26/2021	W912P8-08-C-0072_SEDGS_0000000000_2008071620080824_PBF0207	BF0207	Sediment Samples/Grain Size	8 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 7-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0076_SEDGS_0000000000_2008072320080822_PBF0208	BF0208	Sediment Samples/Grain Size	7 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 11-2008	U.S. Army Corps of Engineers	2008
10/26/2021	W912P8-08-C-0081_SEDGS_0000000000_2008080920081122_PBF0209	BF0209	Sediment Samples/Grain Size	17 grab samples	Mississippi River Southwest Pass (SWP), Hopper Dredge Rental Contract No. 12-2008	U.S. Army Corps of Engineers	2008
9/23/2021	W912P8-09-C-0004_SEDGS_0000000000_2009020120090330_PBF0210	BF0210	Sediment Samples/Grain Size	3 grab samples	Cutterhead or Dustpan Dredge Rental, Mile 5.0 AHP to Passes of the Miss Riv, Southwest Pass Maint Dredge, Cutterhead or Dustpan Dredge Rental, Mile 5.0 AHP to Mile 9.5 BP C/L Sta. 2925+20 O C/L Sta. 1094+00 (Non-Continuous) Plaquemines Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-C-0022_SEDGS_0000000000_2009020420090712_PBF0211	BF0211	Sediment Samples/Grain Size	42 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No.2 2009	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0025_SEDGS_0000000000_2009031720090510_PBF0212	BF0212	Sediment Samples/Grain Size	3 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 15-2008 Secondary Region: Calcasieu River and Pass, Bar Channel Cameron on Parish, LA	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0035_SEDGS_0000000000_2009040920090606_PBF0213	BF0213	Sediment Samples/Grain Size	19 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No.3 2009	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0037_SEDGS_0000000000_2009022420090626_PBF0214	BF0214	Sediment Samples/Grain Size	32 grab samples	Mississippi River Southwest Pass(SWP) Hopper Dredge Rental Contract No. 4 2009	U.S. Army Corps of Engineers	2009
10/26/2021	W912P8-09-C-0055_SEDGS_0000000000_2009050920090827_PBF0215	BF0215	Sediment Samples/Grain Size	29 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 15-2008 Secondary Region: Calcasieu River and Pass, Bar Channel	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0066_SEDGS_0000000000_2009061120090801_PBF0216	BF0216	Sediment Samples/Grain Size	10 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No.7 2009	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-09-C-0072_SEDGS_0000000000_2009062620090910_PBF0217	BF0217	Sediment Samples/Grain Size	14 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental	U.S. Army Corps of Engineers	2009
9/23/2021	W912P8-10-C-0005_SEDGS_0000000000_2009102420091116_PBF0218	BF0218	Sediment Samples/Grain Size	14 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No.W912P8-09-C-0072	U.S. Army Corps of Engineers	2009
9/23/2021	W91208-10-C-0014_SEDGS_0000000000_2009111320100611_PBF0219	BF0219	Sediment Samples/Grain Size	21 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 11-2009	U.S. Army Corps of Engineers	2009
10/26/2021	W912P8-10-C-0022_SEDGS_0000000000_2009121520100512_PBF0220	BF0220	Sediment Samples/Grain Size	16 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No.1 2010	U.S. Army Corps of Engineers	2010
10/26/2021	W912P8-10-C-0028_SEDGS_0000000000_2010011320100312_PBF0221	BF0221	Sediment Samples/Grain Size	4 grab samples	Mississippi River Southwest Pass, Cutterhead Dredge Rental Contract No. 1-2009	U.S. Army Corps of Engineers	2010
10/26/2021	W912P8-10-C-0052_SEDGS_0000000000_2010031920100422_PBF0222	BF0222	Sediment Samples/Grain Size	6 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 3-2010	U.S. Army Corps of Engineers	2010
4/21/2023	UNK_SEDGS_0_2007999920079999_BF0223	BF0223	Sediment Samples/Grain Size	7 core boring sites	Carbon Burial on river-dominated continental shelves: Impact of historical changes in sediment loading adjacent to the Mississippi River	Mead Allison	2007
N/A	BF0227	BF0227	Sediment Samples/Grain Size	5 vibracores	Influence of the Atchafalaya River on recent evolution of the chenier-plain inner continental shelf, northern Gulf of Mexico	Draut et al	2001
N/A	BF0237	BF0237	Sediment Samples/Grain Size	116 vibracores	Sand Resources, Regional Geology, and Coastal Processes of the Chandeleur Islands Coastal System: an Evaluation of the Breton National Wildlife Refuge- Chapters E & F	Twichell et al	2007
01/25/2016	UNK_SEDGS_0000000000_2010070820100716_PBF0279	BF0279	Sediment Samples/Grain Size	shapefile	2010 Emergency Sand Search Investigation: St. Bernard Shoals	Coastal Planning & Engineering	2010
N/A	BF0285	BF0285	Sediment Samples/Grain Size	8 vibracores	Sandy Point 2005 Geotechnical Investigations	Coastal Planning & Engineering, Inc.	2005
4/21/2023	UNK_SEDGS_0_1961999919659999_BF0290	BF0290	Sediment Samples/Grain Size	4 core borings	unknown	McClelland	1961-1965
6/7/2023	UNK_SEDGS_0_1948999919841023_PBF0296	BF0296	Sediment Samples/Grain Size	88 core borings	Main Pass Core Borings	McClelland	1951-1984

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
6/7/2023	UNK_SEDGS_0_1955999919849999_PBF0297	BF0297	Sediment Samples/Grain Size	96 core borings	South Pass Core Borings	unknown	1955-1984
6/7/2023	UNK_SEDGS_0_1955999919819999_PBF0301	BF0301	Sediment Samples/Grain Size	2 core borings	unknown	Eustis Engineering Company, Inc.	1955, 1981
N/A	BF0319	BF0319	Sediment Samples/Grain Size	40 vibracores	Barataria/Plaquemines Barrier Shoreline Restoration Project Geotechnical Investigation and Analysis	Coastal Planning & Engineering, Inc.	2002
N/A	BF0320	BF0320	Sediment Samples/Grain Size	31 vibracores	Barataria/Plaquemines Barrier Shoreline Restoration Project Geotechnical Investigation and Analysis	Coastal Planning & Engineering, Inc.	2002
N/A	BF0321	BF0321	Sediment Samples/Grain Size	10 vibracores	Barataria/Plaquemines Barrier Shoreline Restoration Project Geotechnical Investigation and Analysis	Coastal Planning & Engineering, Inc.	2002
N/A	BF0322	BF0322	Sediment Samples/Grain Size	35 vibracores	Chaland Headland and Pelican Island Barrier Shoreline Restoration: Sandy Point Geotechnical Investigations	Coastal Planning & Engineering, Inc.	2003
N/A	BF0323	BF0323	Sediment Samples/Grain Size	5 vibracores	Geotechnical Investigation for Exploration of Sand Resources in the Lower Mississippi River	Coastal Planning & Engineering, Inc.	2005
N/A	BF0325	BF0325	Sediment Samples/Grain Size	20 vibracores		Louisiana Geological Survey	1983
N/A	BF0326	BF0326	Sediment Samples/Grain Size	101 vibracores		University of New Orleans	2000
N/A	BF0368	BF0368	Sediment Samples/Grain Size	35 paper copy core borings and sediment data	Holly Beach breakwater enhancement and sand management plan	Coastal Planning & Engineering, Inc.	2000
N/A	BF0382	BF0382	Sediment Samples/Grain Size	9 grab samples	Raccoon Island Project (TE-48) Sediment Budget Terrebonne Parish, Louisiana	Coastal Planning & Engineering, Inc.	2004
N/A	BF0383	BF0383	Sediment Samples/Grain Size	80 grab samples	Raccoon Island Project (TE-48) Sediment Budget Terrebonne Parish, Louisiana	Stone, G.W.	unknown
N/A	BF0387	BF0387	Sediment Samples/Grain Size	50 vibracores	East and West Grand Terre Island Restoration Project (BA-30): Results from Offshore Geotechnical and Geophysical Investigations	Coastal Planning & Engineering, Inc.	2003
2/9/2015	BA-30_SEDGS_0000000000_2004012320040123_PBF0394	BF0394	Sediment Samples/Grain Size	22 beach samples	East and West Grand Terre Island Restoration Project (BA-30): Results from Offshore Geotechnical and Geophysical Investigations	Coastal Planning & Engineering, Inc.	2003
N/A	BF0405	BF0405	Sediment Samples/Grain Size	25 vibracores	Holly Beach Breakwater Enhancement and Sand Management Plan	Coastal Planning & Engineering, Inc.	2001
N/A	BF0432	BF0432	Sediment Samples/Grain Size	105 beach samples		Coastal Planning & Engineering, Inc.	2007
N/A	BF0436	BF0436	Sediment Samples/Grain Size	6 core borings	Geotechnical Investigation North Lake Mechant Landbridge Restoration Project (TE-44) Borrow Pit Investigation Terrebonne Parish, Louisiana	Ardaman & Associates, Inc.	2007
N/A	BF0437	BF0437	Sediment Samples/Grain Size	23 vibracores	2010 Louisiana Emergency Berm Project	Coastal Planning & Engineering, Inc.	2010
N/A	BF0438	BF0438	Sediment Samples/Grain Size	12 vibracores	2010 Louisiana Emergency Berm Project	Coastal Planning & Engineering, Inc.	2010
N/A	BF0439	BF0439	Sediment Samples/Grain Size	36 grab samples	2010 Louisiana Emergency Berm Project	Coastal Planning & Engineering, Inc.	2010
N/A	BF0440	BF0440	Sediment Samples/Grain Size	15 grab samples	2010 Louisiana Emergency Berm Project	Coastal Planning & Engineering, Inc.	2010
01/25/2016	UNK_SEDGS_0000000000_2010060820100614_RBF0441	BF0441	Sediment Samples/Grain Size	shapefile	2010 Emergency Sand Search Investigation: St. Bernard Shoals	Coastal Planning & Engineering	2010
N/A	BF0449	BF0449	Sediment Samples/Grain Size	16 cores		University of New Orleans	2009
N/A	BF0452	BF0452	Sediment Samples/Grain Size	~24 vibracores	Terrebonne Basin Barrier Shoreline Restoration, Appendix L Engineering Investigations and Cost Estimates	Ocean Surveys Inc.	2007

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
N/A	BF0485	BF0485	Sediment Samples/Grain Size	12 vibracores	Vibracore Sampling Borrow Areas MR-B-09 and MR-E-09 Mississippi River, Louisiana	Alpine Ocean Seismic Survey, Inc.	2008
N/A	BF0491	BF0491	Sediment Samples/Grain Size	18 vibracores (5 recon + 13 design level)	Offshore Geophysical and Geotechnical Survey Report: Raccoon Island Shoreline Protection/Marsh Creation Project Phase B	Alpine Ocean Seismic Survey, Inc.	2006
N/A	BF0495	BF0495	Sediment Samples/Grain Size	1138 core logs and associated shp	Provided by OCPD from SONRIS database	Various	Variable
N/A	BF0498	BF0498	Sediment Samples/Grain Size	64 core logs with lab data	Results of a Geophysical and Sedimentological Evaluation: Tiger-Trinity Shoals as Sources of Sand for Coastal Restoration	Roberts et. al.	2010
03/27/2015	OPR-K977-SA-08_SEDGS_0000000000_2009999920099999_PBF0507	BF0507	Sediment Samples/Grain Size	49 grab samples	Descriptive Report H11784	NOAA	2009
2/9/2015	C-190362_SEDGS_0000000000_2006089920060899_PBF0532	BF0532	Sediment Samples/Grain Size	197 grab samples	Assessing Quantity and Quality of Sand Available in the Lower Atchafalaya River Channel for Coastal Marsh and Barrier Island Restoration in Louisiana	Mead Allison	
11/22/2016	UNK_SEDGS_0000000000_2008101020100514_PBF0549	BF0549	Sediment Samples/Grain Size	grab samples		Mead Allison	unknown
03/27/2015	H11785_SEDGS_0000000000_2008999920089999_PBF0566	BF0566	Sediment Samples/Grain Size	179/49 bottom samples	H11785, NOAA Hydrographic Survey in the vicinity of Timbalier Island to Belle Pass, Louisiana (2009) H11785_bottom samples	NOAA	2009
03/27/2015	OPR-I977-DU-0_SEDGS_0000000000_2009999920099999_PBF0567	BF0567	Sediment Samples/Grain Size	39 bottom samples	H11806, NOAA Hydrographic Survey in the vicinity of Vicinity of Quatre Bayou Pass, Louisiana (2009) [H11806 Bottom Samples]	NOAA	2009
03/27/2015	OPR-K977-FU-0_SEDGS_0000000000_2008091920080919_PBF0568	BF0568	Sediment Samples/Grain Size	37 grab samples	H11807, NOAA Hydrographic Survey in the vicinity of Vicinity of Grand Bayou Pass, Louisiana (2009) [Bottom Samples]	NOAA	2009
03/27/2015	W912P8-10-C-012_SEDGS_0000000000_2010112020101222_PBF0586	BF0586	Sediment Samples/Grain Size	25 grab sample locations and grain size distribution curves	Houma Navigation Canal Terrebonne Bay and Cat Island Pass Maintenance Dredging	U.S. Army Corps of Engineers	2011
N/A	BF0596	BF0596	Sediment Samples/Grain Size	21 core borings	Hydrographic, Geophysical and Geotechnical Survey Program-Grand Isle Hurricane Protection, Levee Repair, and Beach Renourishment Project	Ocean Surveys, Inc.	2003

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
2/9/2015	03ES045_SEDGS_9012529250_2003082020030820_PBF0597	BF0597	Sediment Samples/Grain Size	3 grab samples	Hydrographic, Geophysical and Geotechnical Survey Program-Grand Isle Hurricane Protection, Levee Repair, and Beach Renourishment Project	Ocean Surveys, Inc.	2003
2/9/2015	BA-45_SEDGS_0000000000_2010089920100899_PBF0602	BF0602	Sediment Samples/Grain Size	17 grab samples	unknown	Ocean Surveys, Inc.	2010
2/9/2015	BA-45_SEDGS_0000000000_2010089920100899_PBF0603	BF0603	Sediment Samples/Grain Size	455 push probes	unknown	Ocean Surveys, Inc.	2010
12/20/2016	UNK_SEDGS_0000000000_2011052120110522_PBF0625	BF0625	Sediment Samples/Grain Size	12 Isokinetic water samples (6 from May, 6 from June)	unknown	Mead Allison	2011
12/20/2016	UNK_SEDGS_0000000000_2011062120110622_PBF0626	BF0626	Sediment Samples/Grain Size	12 Isokinetic water samples (6 from May, 6 from June)	unknown	Mead Allison	2011
11/22/2016	UNK_SEDGS_0000000000_2011052120110623_PBF0627	BF0627	Sediment Samples/Grain Size	sediment grain size from 6 stations	unknown	Mead Allison	2011
03/27/2015	UNK_SEDGS_0000000000_2011052120110623_PBF0628	BF0628	Sediment Samples/Grain Size	6 bedload calcs	unknown	Mead Allison	2013
03/27/2015	UNK_SEDGS_9075029375_2011070320110703_PBF0641	BF0641	Sediment Samples/Grain Size	3 Core Borings	Bayou Petit Caillou Structure Preliminary Report	Shaw Coastal, Inc.	2011
03/27/2015	TE-64_SEDGS_9075029375_2008041720080620_PBF0644	BF0644	Sediment Samples/Grain Size	24 Core Borings	Interim Flood Risk Reduction Projects-Houma Navigation Canal Flood Control Structure	Shaw Coastal, Inc.	2010
03/27/2015	TE-64_SEDGS_9075029375_2008080120091021_PBF0645	BF0645	Sediment Samples/Grain Size	12 Boring Characteristics and Locations	Interim Flood Risk Reduction Project, Houma Navigation Canal Receiving Structure & Floodwall	Eustis Engineering Company, Inc.	2009
03/27/2015	TE-63_SEDGS_0000000000_2011110320111104_PBF0651	BF0651	Sediment Samples/Grain Size	Location & Characteristics	Falgout Canal Diversion Structures Preliminary Report	TBS T. Baker Smith, LLC	2011
01/25/2016	UNK_SEDGS_9337529875_2010031720100319_PBF0654	BF0654	Sediment Samples/Grain Size	PDFs of Core Borings	Geotechnical Data Report Calcasieu Loop Pass and East Fork Dredging Cameron Parish Police Jury	Lonnie G. Harper and Associates, Inc.	2010
03/27/2015	TE-64_SEDGS_9050029500_2004092920040929_PBF0655	BF0655	Sediment Samples/Grain Size	9 Core Borings	Bayou Pointe Aux Chenes Floodgate Structure	CB&I	2013
03/27/2015	TE-64_SEDGS_9087529500_2013020220130328_PBF0656	BF0656	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	Preliminary Geotechnical Exploration-Falgout Canal	Eustis Engineering Company, Inc.	2009; 2013
03/27/2015	TE-64_SEDGS_0000000000_2009070920090818_PBF0657	BF0657	Sediment Samples/Grain Size	Locations and Characteristics	Interim Flood Risk Reduction Project-Reach F Levee Alignment	Shaw Coastal, Inc.	2009
03/27/2015	TE-64_SEDGS_9075029375_2010020220100220_PBF0660	BF0660	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	G1 Geotechnical Report-Part 1	Eustis Engineering Company, Inc.	2010
03/27/2015	TE-64_SEDGS_9075029375_2011070720110707_PBF0661	BF0661	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	Reach G-1 Soils Report 04OCT2013	Eustis Engineering Company, Inc.	2011
03/27/2015	TE-64_SEDGS_9075029375_2013040920130416_PBF0662	BF0662	Sediment Samples/Grain Size	Locations and Characteristics /Logs/Tests	G-2a Geo Report	Eustis Engineering Company, Inc.	2013
03/27/2015	TE-64_SEDGS_9075029375_2013040820130504_PBF0663	BF0663	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	Reach G-2b Geotechnical Report 22NOV2013.pdf	Eustis Engineering Company, Inc.	2013
03/27/2015	TE-64_SEDGS_9075029375_2012050621020509_PBF0665	BF0665	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	Appendices	Eustis Engineering Company, Inc.	2013
03/27/2015	TE-64_SEDGS_9075029375_2013041320130507_PBF0666	BF0666	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	Figures	Eustis Engineering Company, Inc.	2013

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03/27/2015	TE-64_SEDGS_9075029375_2012081220120925_PBF0667	BF0667	Sediment Samples/Grain Size	Locations and Characteristics/Logs/Tests	06_Figures 1 through 24	Eustis Engineering Company, Inc.	2012
03/27/2015	TE-64_SEDGS_0000000000_2009022420090722_PBF0668	BF0668	Sediment Samples/Grain Size	Boring Logs/CPT Records	Appendix I - Boring Logs and CPT Records.pdf	Eustis Engineering Company, Inc.	2009
03/27/2015	TE-64_SEDGS_9075029375_9999999999999999_PBF0672	BF0672	Sediment Samples/Grain Size	Vicinity Area	TLCD Reach F Mitigation Plans	T.Baker Smith	2010
03/27/2015	BA-153_SEDGS_9000029750_1966082319690926_PBF0680	BF0680	Sediment Samples/Grain Size	3 Core borings	Report of Existing Geotechnical Data	USACE	1969
03/27/2015	BA-153_SEDGS_9000029750_9999999999999999_PBF0681	BF0681	Sediment Samples/Grain Size	7 Core Borings--Only 2 Have Extensive Info--Others in File Dups of PBF0682/PCV2210	Report of Existing Geotechnical Data	USACE	2003-2006
2/9/2015	BA-153_SEDGS_9000029750_2009080220090924_PBF0682	BF0682	Sediment Samples/Grain Size	12 CPTs	Report of Existing Geotechnical Data	USACE	2009
2/9/2015	BA-153_SEDGS_0000000000_2007051620070524_PBF0683	BF0683	Sediment Samples/Grain Size	5 core borings	Report of Existing Geotechnical Data	Louis J. Capozzoli & Associates, Inc.	2007
2/9/2015	BA-153_SEDGS_9000029750_1969999919889999_PBF0684	BF0684	Sediment Samples/Grain Size	7 Core Borings--Others in File are Dups of PVB 2181/PVB1066	Report of Existing Geotechnical Data	USACE	1969, 1970, 1972, 1982, 1983, 1988
2/9/2015	BA-153_SEDGS_0000000000_9999999999999999_PBF0685	BF0685	Sediment Samples/Grain Size	core borings	Geotechnical Baseline Report for 30% Design - Mid Barataria Diversion (BA-153)	GeoEngineers	2014
2/9/2015	BA-153_SEDGS_9000029750_2013052820130912_PBF0687	BF0687	Sediment Samples/Grain Size	20 CPT	Geotechnical Data Report for 30% Design; Mid Barataria Diversion (BA-153)	GeoEngineers	2014
2/9/2015	BA-153_SEDGS_9000029750_2013051720131118_PBF0688	BF0688	Sediment Samples/Grain Size	40 core borings	Geotechnical Data Report for 30% Design; Mid Barataria Diversion (BA-153)	GeoEngineers	2014
2/9/2015	BA-153_SEDGS_9000029750_2013101720131025_PBF0690	BF0690	Sediment Samples/Grain Size	Grain size curves	Geotechnical Data Report for 30% Design; Mid Barataria Diversion (BA-153)	GeoEngineers	2013
03/27/2015	UNK_SEDGS_0000000000_1999010620090823_PBF0708	BF0708	Sediment Samples/Grain Size	29 Core Borings	Unknown	Unknown	2009
03/27/2015	CS-058_SEDGS_9337530000_1999012520010401_PBF0713	BF0713	Sediment Samples/Grain Size	14 core borings	Calcasieu River and Pass Foreshore Dike Construction	USACE	1999-2001
03/27/2015	CS-058_SEDGS_0000000000_1960092820031218_PBF0714	BF0714	Sediment Samples/Grain Size	~141 core borings	Calcasieu River and Pass Foreshore Soil and Geologic Profile	USACE	1960-2000
01/25/2016	UNK_SEDGS_0000000000_1960092819610119_PBF0715	BF0715	Sediment Samples/Grain Size	~50 core borings	Calcasieu River and Pass, Louisiana. Design Memorandum No. 1, General Design.	USACE	1960
01/25/2016	UNK_SEDGS_0000000000_2008999920089999_PBF0832	BF0832	Sediment Samples/Grain Size	Excel with Coordinates; 1500 points; shapefile	Louisiana Barrier Island Comprehensive Monitoring Program (BICM)	University of New Orleans	2008
01/25/2016	UNK_SEDGS_0000000000_2003101320031016_PBF0870	BF0870	Sediment Samples/Grain Size	250 samples; XY; Jpegs	The Anatomy of a Coastal Bay/Lake System	Michelle Greene; Louisiana State	10/13/2003-10/16/2003
01/25/2016	UNK_SEDGS_0000000000_2003101320031016_PBF0871	BF0871	Sediment Samples/Grain Size	26 Cores; XY; Jpegs	The Anatomy of a Coastal Bay/Lake System	Michelle Greene; Louisiana State	10/13/2003-10/16/2003
01/25/2016	UNK_SEDGS_0000000000_2010102820101028_PBF0877	BF0877	Sediment Samples/Grain Size	PDF of Location/Coordinates/Data	Analysis and Modeling of Hurricane Impacts on a Coastal Louisiana Lake Bottom: A Dissertation	Angelina Freeman; Louisiana State	2010
01/25/2016	UNK_SEDGS_9337529875_2010039920100399_PBF0886	BF0886	Sediment Samples/Grain Size	PDF of Core Borings	Geotechnical Data Report Calcasieu Loop Pass and East Fork Dredging Cameron Parish Police Jury	Lonnie G. Harper and Associates, Inc.	2010
12/21/2015	TE-0110_SEDGS_9125029750_2015052120150521_PBF0891	BF0891	Sediment Samples/Grain Size	30 grab samples (xls of locations, pdfs of grain size info, gdb showing locations).	TE-0110 Increase Atchafalaya Flow to Terrebonne	Moffatt & Nichol	5/21/2015
3/23/2016	BA-0171_SEDGS_0000000000_2015021120150212_PBF0902	BF0902	Sediment Samples/Grain Size	15 vibracores (pdf report, map of locations, cross-sections, soil parameters, logs, grain size reports and curves)	FINAL GEOTECHNICAL EXPLORATION STATE OF LOUISIANA COASTAL PROTECTION AND RESTORATION AUTHORITY CAMINADA HEADLANDS BACK BARRIER MARSH CREATION PROJECT (BA-171) OFFSHORE WORK LAFOURCHE PARISH, LOUISIANA	Ocean Surveys, Inc.	02/09/2015-02/14/2015

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3/23/2016	BA-0171_SEDGS_0000000000_2015051920150522_PBF0903	BF0903	Sediment Samples/Grain Size	8 core borings	Geotechnical Investigation Data Report. Caminada Headlands Back Barrier Marsh Creation (BA-171) Project Lafourche Parish, Louisiana	GeoEngineers	05/19/2015-05/22/2015
3/23/2016	BA-0171_SEDGS_0000000000_2015120220151210_PBF0904	BF0904	Sediment Samples/Grain Size	27 CPT Soundings (logs)	Geotechnical Investigation Data Report. Caminada Headlands Back Barrier Marsh Creation (BA-171) Project Lafourche Parish, Louisiana	GeoEngineers	12/02/2015-12/04/2015
3/23/2016	UNK_SEDGS_9025029125_2007999920079999_PBF0906	BF0906	Sediment Samples/Grain Size	1 core boring	Geotechnical Investigation Data Report. Caminada Headlands Back Barrier Marsh Creation (BA-171) Project Lafourche Parish, Louisiana	PSI	4/3/2007
3/23/2016	TE-0118_SEDGS_9075029000_2015100320151008_PBF0907	BF0907	Sediment Samples/Grain Size	30 vibracores (pdf map, table of locations, logs)	Interim Report 3. Geophysical/Cultural Resource Surveys & Borrow Area Sampling of Ship Shoal to Support TE-118 East Timbalier Island Restoration Gulf of Mexico, Louisiana	Ocean Surveys, Inc.	09/29/2015-10/09/2015
N/A	LA-0252_SEDGS_0000000000_2016020620160222_PBF0918	BF0918	Sediment Samples/Grain Size	23 grab samples	LA-0252 System-Wide Assessment and Monitoring (SWAMP) Program Phase I	CB&I	2015-2016
6/7/2023	M12PC00006_SEDGS_0_2014082120150203_PBF0961	BF0961	Sediment Samples/Grain Size	core borings	Analyzing the Potential Impacts to Cultural Resources at Significant Sand Extraction Areas	TAR/CB&I	2013
11/22/2016	UNK_SEDGS_0000000000_9999999999999999_PBF1008	BF1008	Sediment Samples/Grain Size	673 sediment samples (vibracores and box cores)	LASED	Flocks 1998	Unknown
11/22/2016	UNK_SEDGS_0000000000_9999999999999999_PBF1011	BF1011	Sediment Samples/Grain Size	10 sediment samples (dredge)	LASED	Tarver and Dugas, 1973	Unknown
11/22/2016	UNK_SEDGS_0000000000_1983042819940408_BF1012	BF1012	Sediment Samples/Grain Size	20 sediment cores	LASED	LGS/USGS	1983-1987
12/20/2016	UNK_SEDGS_0000000000_2002070120020710_BF1013	BF1013	Sediment Samples/Grain Size	99 sediment samples	LASED	USGS	07/01/2002-07/10/2002
1/22/2018	CS-0066_SEDGS_9375029750_2015012920150131_PBF1052	BF1052	Sediment Samples/Grain Size	25 vibracores	Geotechnical Services Data Report, Cameron Meadows Borrow Area Delineation (CS-66), Cameron Parish, Louisiana.	CB&I	01/28/2015-01/31/2015
1/22/2018	CS-0059_SEDGS_9337529750_2013040520130429_PBF1059	BF1059	Sediment Samples/Grain Size	22 vibracores	GeoEngineers, 2013. Geotechnical Services Data Report, Oyster Bayou Marsh Restoration (CS-59), Cameron Parish, Louisiana. Prepared for CB&I Coastal Planning and Engineering. 149p.	GeoEngineers	2013
1/22/2018	BA-111_SEDGS_0000000000_2012039920120799_PBF1065	BF1065	Sediment Samples/Grain Size	10 core borings	Geotechnical Investigation Documentation Report Shell Island West Barrier Restoration Project	HNTB	2012
1/22/2018	UNK_SEDGS_0000000000_2003070720040423_PBF1067	BF1067	Sediment Samples/Grain Size	core borings	La. 1 Improvements Fourchon, LA to Golden Meadow, LA	Soil Testing Engineers, Inc.	07/07/2003-04/23/2004
1/22/2018	061-01-0040_SEDGS_0000000000_2006053020060820_PBF1068	BF1068	Sediment Samples/Grain Size	20 core borings	Caminada Bay Bridge	Louis J. Capozzoli & Associates, Inc.	05/30/2006-08/20/2006
1/22/2018	CS-0080_SEDGS_0000000000_2014120220141204_PBF1085	BF1085	Sediment Samples/Grain Size	5 core borings	LA-280_Rabbit Island Borings_JPB_041916	Ardaman & Associates, Inc.	2014
8/21/2018	UNK_SEDGS_0000000000_99999999_PBF1087	BF1087	Sediment Samples/Grain Size	core borings and grab samples	usSEABED:Gulf of Mexico and Caribbean (Puerto Rico and U.S. Virgin Islands) Offshore Surficial Sediment Data Release	USGS	2006
1/22/2018	UNK_SEDGS_0000000000_2007050420070725_PBF1089	BF1089	Sediment Samples/Grain Size	soil borings	MRGO Ecosystem Restoration Study	USACE	2007
1/22/2018	S-J977-KR-SAIC_SEDGS_0000000000_2006999920069999_PBF1090	BF1090	Sediment Samples/Grain Size	grab samples	NOAA Hydrographic Survey H11615	Science Applications International Corp.	2007
1/22/2018	UNK_SEDGS_0000000000_2014012220140624_PBF1159	BF1159	Sediment Samples/Grain Size	core borings and cpt	Mississippi River Reintroduction into Bayou Lafourche Phase 2-Belle Rose to LA Highway 70 in Paincourtville, LA	Terracon Consultants, Inc.	2014
1/22/2018	UNK_SEDGS_0000000000_2014073120140802_PBF1160	BF1160	Sediment Samples/Grain Size	core borings	Geotechnical Study Schneider Canal Pump Station Fronting Protection South Slidell Levee St. Tammany Parish-Louisiana.	Fugro	2014
1/22/2018	PO-0133_SEDGS_0000000000_2013110120131105_PBF1161	BF1161	Sediment Samples/Grain Size	core borings	LaBranche Central Marsh Creation Project (PO-133) St. Charles Parish, Louisiana.	GeoEngineers	2013
8/21/2018	TE-0051_SEDGS_0000000000_2012101320121106_PBF1166	BF1166	Sediment Samples/Grain Size	CPT	Madison Bay CPT Locations	Unknown	2014

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1/22/2018	TV-0067_SEDGS_0000000000_2015042020150425_PBF1167	BF1167	Sediment Samples/Grain Size	5 core borings	Bayou Tigre Flood Protection Project (TV-67) Vermilion Parish, Louisiana	GeoEngineers	2015
1/22/2018	TE-0116_SEDGS_0000000000_2015020320150218_PBF1178	BF1178	Sediment Samples/Grain Size	soil borings	St. Mary Levee District Morgan City Levee Improvements	Eustis Engineering	2015
1/22/2018	UNK_SEDGS_0000000000_2015090220160107_PBF1179	BF1179	Sediment Samples/Grain Size	soil borings	Phase I report Field and Laboratory Data Collection Houma Navigation Canal Lock Complex	Ardaman & Associates, Inc.	2015
1/22/2018	TV-0063_SEDGS_0000000000_2013100820131026_PBF1180	BF1180	Sediment Samples/Grain Size	26 core borings	Final Design Report Cole's Bayou Marsh Restoration Project (TV-63)	Ardaman & Associates, Inc.	2013
1/22/2018	TE-0083_SEDGS_0000000000_2013102120131030_PBF1208	BF1208	Sediment Samples/Grain Size	soil borings, cpt borings	Terrebonne Bay Marsh Creation and Nourishment Terrebonne Parish, Louisiana	GeoEngineers	2013
1/22/2018	TE-0064_SEDGS_0000000000_2012102620121107_PBF1209	BF1209	Sediment Samples/Grain Size	soil borings, cpt borings	Morganza to the Gulf of Mexico (TE-64) Reach K Levee Rehabilitation Project, Lafourche Parish, Louisiana	Arcadis	2014
1/22/2018	PO-0169_SEDGS_0000000000_2016090720160914_PBF1210	BF1210	Sediment Samples/Grain Size	soil borings	Field and Laboratory Collection Phase New Orleans Landbridge Shoreline Stabilization & Marsh Creation (PO-169)	Ardaman & Associates, Inc.	2016
1/22/2018	ME-0031_SEDGS_0000000000_2014121520141217_PBF1216	BF1216	Sediment Samples/Grain Size	soil borings	Sampling and Testing of Sediments and Soil for the ME-031 Freshwater Bayou Marsh Creation Project, Vermilion Parish, Louisiana	Environ	2014
1/22/2018	ME-021A_SEDGS_0000000000_2013071120130712_PBF1217	BF1217	Sediment Samples/Grain Size	soil borings	Geotechnical Investigation Report Tebo Point-Grand Lake Shoreline Protection (ME-21a) Cameron Parish, Louisiana	GeoEngineers	2013
1/22/2018	UNK_SEDGS_0000000000_2013071020130717_PBF1218	BF1218	Sediment Samples/Grain Size	core borings	Geotechnical Services Report, Expanded Small Scale Physical Model Facility Baton Rouge, Louisiana	GeoEngineers	2013
8/21/2018	UNK_SEDGS_0000000000_1960093020151118_PBF1219	BF1219	Sediment Samples/Grain Size	soil borings	-	USACE	2000
1/22/2018	CS-0059_SEDGS_0000000000_2012100120121010_PBF1225	BF1225	Sediment Samples/Grain Size	core borings	Final Data Report-Field and Laboratory Data Collection Phase Oyster Bayou Marsh Restoration Project (CS-59) Cameron Parish, Louisiana	Ardaman & Associates, Inc.	2013
1/22/2018	BA-0173_SEDGS_0000000000_2015052920150613_PBF1228	BF1228	Sediment Samples/Grain Size	soiling borings, CPT	Geotechnical Exploration State of Louisiana Coastal Protection and Restoration Authority Bayou Grande Chenier Marsh and Ridge Restoration (BA-173), Plaquemines Parish, Louisiana.	Eustis Engineering	2015
1/22/2018	BA-0125_SEDGS_0000000000_2013051420130520_PBF1270	BF1270	Sediment Samples/Grain Size	soil borings	Geotechnical Engineering Services BA-125 Northwest Turtle Bay Marsh Creation	GeoEngineers	2013
1/22/2018	BA-0125_SEDGS_0000000000_2015083120150903_PBF1271	BF1271	Sediment Samples/Grain Size	soil borings, cpt borings	Geotechnical Engineering Services BA-125 Northwest Turtle Bay Marsh Creation	GeoEngineers	2016
1/22/2018	BA-0153_SEDGS_0000000000_2013051720131026_PBF1305	BF1305	Sediment Samples/Grain Size	soil borings, cpt borings	Mid-Barataria Diversion Project (BA-153)	GeoEngineers	2013
1/22/2018	BA-0039_SEDGS_0000000000_2006030120070516_PBF1327	BF1327	Sediment Samples/Grain Size	core borings	Bayou Dupont Restoration Project Plaquemines and Jefferson Parishes, LA	Eustis Engineering, Louis J. Capozzoli & Associates, Inc.	unknown
1/22/2018	BA-0164_SEDGS_0000000000_2014060320140606_PBF1331	BF1331	Sediment Samples/Grain Size	soil borings	Bayou Dupont Restoration Project Plaquemines and Jefferson Parishes, LA	Unknown	2013
1/22/2018	TV-0055_SEDGS_0000000000_2013100120150807_PBF1336	BF1336	Sediment Samples/Grain Size	soil borings, cpt borings	Morgan City Levee Improvements (TV-55)	Eustis Engineering	2013
1/22/2018	UNK_SEDGS_0000000000_2013121020131219_PBF1340	BF1340	Sediment Samples/Grain Size	soil borings, cpt borings	Teche-Vermilion Pumping Station St. Landry Parish, Louisiana	Fugro	2014
1/22/2018	TV-0060_SEDGS_0000000000_2012101820121021_PBF1346	BF1346	Sediment Samples/Grain Size	soil borings	Front Ridge Chenier Terracing (TV-60)	Ardaman & Associates, Inc.	2012
1/22/2018	TE-0050_SEDGS_0000000000_2006042520060509_PBF1348	BF1348	Sediment Samples/Grain Size	soil borings	Whiskey Island Back Barrier Marsh Creation	Eustis Engineering Company, Inc.	2006
1/22/2018	TE-100_SEDGS_0000000000_2014021820140220_PBF1349	BF1349	Sediment Samples/Grain Size	cpt	NRDA Caillou Lake Headlands (TE-100) Terrebonne Parish, Louisiana	GeoEngineers	2014
1/22/2018	TE-0100_SEDGS_0000000000_2012050420120515_PBF1353	BF1353	Sediment Samples/Grain Size	soil borings	NRDA Caillou Lake Headlands (TE-100) Terrebonne Parish, Louisiana	GeoEngineers	2012
1/22/2018	TE-0050_SEDGS_0000000000_2006071620060719_PBF1354	BF1354	Sediment Samples/Grain Size	soil borings	NRDA Caillou Lake Headlands (TE-100) Terrebonne Parish, Louisiana	Ocean Surveys Inc.	2006
1/22/2018	TE-0100_SEDGS_0000000000_2004033120040403_PBF1358	BF1358	Sediment Samples/Grain Size	vibracores	NRDA Caillou Lake Headlands (TE-100) Terrebonne Parish, Louisiana	Soil Testing Engineers, Inc.	2004
1/22/2018	TE-0050_SEDGS_0000000000_2006021620060225_PBF1359	BF1359	Sediment Samples/Grain Size	push probes	NRDA Caillou Lake Headlands (TE-100) Terrebonne Parish, Louisiana	Ocean Surveys Inc.	unknown



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1/22/2018	TE-0117_SEDGS_0000000000_2016080220160806_PBF1364	BF1364	Sediment Samples/Grain Size	soil borings, cpt borings	Island Road Marsh Creation and Nourishment (TE-117)	GeoEngineers	2016
1/22/2018	BS-0024_SEDGS_0000000000_2014050920140516_PBF1368	BF1368	Sediment Samples/Grain Size	soil borings	BS-24 Terracing and Marsh Creation South of Big Mar Plaquemines Parish, Louisiana	GeoEngineers	2014
1/22/2018	BS-0024_SEDGS_0000000000_2015122120151221_PBF1374	BF1374	Sediment Samples/Grain Size	soil borings	BS-24 Terracing and Marsh Creation South of Big Mar Plaquemines Parish, Louisiana	GeoEngineers	2015
1/22/2018	PO-0104_SEDGS_0000000000_2014062620140630_PBF1375	BF1375	Sediment Samples/Grain Size	6 soil borings	PO-104 Bayou Bonfouca Marsh Creation Project Expanded Borrow Area Investigation St. Tammany Parish, Louisiana	GeoEngineers	2014
1/22/2018	PO-0104_SEDGS_0000000000_2011083020120726_PBF1376	BF1376	Sediment Samples/Grain Size	soil borings, cpt borings	PO-104 Bayou Bonfouca Marsh Creation Project Expanded Borrow Area Investigation St. Tammany Parish, Louisiana	GeoEngineers	2012
1/22/2018	TE-0118_SEDGS_0000000000_2016070720160728_PBF1381	BF1381	Sediment Samples/Grain Size	14 soil borings	East Timbalier Island Restoration (TE-118) Project Lafourche Parish, Louisiana	GeoEngineers	2016
1/22/2018	PO-0148_SEDGS_0000000000_2013082020130829_PBF1389	BF1389	Sediment Samples/Grain Size	soil borings	Living Shoreline Demonstration Project (PO-148)	Ardaman & Associates, Inc.	2013
1/22/2018	BA-0045_SEDGS_0000000000_2013082020141029_PBF1390	BF1390	Sediment Samples/Grain Size	beach samples	Caminada Headland Beach and Dune Restoration (BA-45)	Coastal Engineering Consultants, Inc.	2014
1/22/2018	BA-0045_SEDGS_0000000000_2010062920100719_PBF1410	BF1410	Sediment Samples/Grain Size	soil borings	Caminada Headland Beach and Dune Restoration (BA-45)	GeoEngineers	2010
8/21/2018	BA-0171_SEDGS_0000000000_2015051920151210_PBF1413	BF1413	Sediment Samples/Grain Size	soil borings	Caminada Headlands Back Barrier Marsh Creation (BA-171)	GeoEngineers	2016
8/21/2018	CS-0066_SEDGS_0000000000_2014100720141011_PBF1427	BF1427	Sediment Samples/Grain Size	13 soil borings and 16 CPT	Cameron Meadows Marsh Creation and Terracing (CS-66)	Lonnie G. Harper and Associates, Inc.	2014
8/21/2018	CS-0078_SEDGS_0000000000_2003071920151118_PBF1449	BF1449	Sediment Samples/Grain Size	soil borings	Bayou Marsh Creation & Nourishment (CS-78)	USACE	2003-2015
8/21/2018	CS-0078_SEDGS_0000000000_2016082220160831_PBF1454	BF1454	Sediment Samples/Grain Size	8 soil borings	Bayou Marsh Creation & Nourishment (CS-78)	Ardaman & Associates, Inc.	2016
8/21/2018	CS-0078_SEDGS_0000000000_2016082220160831_PBF1456	BF1456	Sediment Samples/Grain Size	soil borings	Bayou Marsh Creation & Nourishment (CS-78)	Unknown	2009
8/21/2018	UNK_SEDGS_0000000000_9999999999999999_PBF1480	BF1480	Sediment Samples/Grain Size	471 soil borings	Sedimentary Sequence and Seismic Responses Related to Sea Level Cycles, Louisiana Continental Shelf	Louisiana State University	1980s
6/7/2023	UNK_SEDGS_0_1983011019930701_BF1481	BF1481	Sediment Samples/Grain Size	soil borings	Acadia Parish Sanitary Landfill, Egan, Louisiana	Lourie Consultants	1996
6/7/2023	UNK_SEDGS_0_1992011419960702_PBF1482	BF1482	Sediment Samples/Grain Size	soil borings	Timberlane Landfill, Oakdale, Louisiana	Soil Testing Engineers, Inc.	1992
8/21/2018	UNK_SEDGS_0000000000_9999999999999999_PBF1484	BF1484	Sediment Samples/Grain Size	auger samples	Quantifying Holocene lithospheric subsidence rates underneath the Mississippi Delta	Tulane University	unknown
8/21/2018	UNK_SEDGS_0000000000_2010120620120120_PBF1486	BF1486	Sediment Samples/Grain Size	soil borings	Ardoin	Hydro-Environmental Technology, Inc.	2012
8/21/2018	UNK_SEDGS_0000000000_2010120820110316_PBF1487	BF1487	Sediment Samples/Grain Size	soil borings	Henry V Apache 10995	Arabie Environmental Solutions, Inc.	2010
8/21/2018	UNK_SEDGS_0000000000_2012032620120330_PBF1489	BF1489	Sediment Samples/Grain Size	soil borings	Solid Waste Permit Application	Providence Engineering and Environmental Group, LLC.	2012
6/7/2023	UNK_SEDGS_0_1983120619940527_PBF1492	BF1492	Sediment Samples/Grain Size	soil borings	Jefferson Davis Parish Sanitary Landfill	Soil Testing Engineers, Inc.	1983, 1991
8/21/2018	UNK_SEDGS_0000000000_1999032420031203_PBF1494	BF1494	Sediment Samples/Grain Size	soil borings	Jefferson Davis Parish Sanitary Landfill	Soil Testing Engineers, Inc.	1983, 1991
8/21/2018	UNK_SEDGS_0000000000_2009061720090619_PBF1496	BF1496	Sediment Samples/Grain Size	vibracores	Holly Beach	Alpine Ocean Seismic Survey, Inc.	2009

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8/21/2018	CS-0001_SEDGS_0000000000_2000072720000728_PBF1497	BF1497	Sediment Samples/Grain Size	jet probes	Holly Beach	Coastal Planning & Engineering, Inc.	2000
6/7/2023	UNK_SEDGS_0_1978112819800409_PBF1502	BF1502	Sediment Samples/Grain Size	24 soil borings	Monitoring Well Installation Sheets	Woodward-Clyde Consultants	1980
6/7/2023	UNK_SEDGS_0_1980080619850418_PBF1505	BF1505	Sediment Samples/Grain Size	15 soil borings	Solid Waste Permit Application Woodland Hills Landfill Calcasieu Parish	Soil Testing Engineers, Inc.	1980
6/7/2023	UNK_SEDGS_0_1977999919879999_PBF1508	BF1508	Sediment Samples/Grain Size	soil borings	BFI Waste Management Calcasieu Site	Woodward-Clyde Consultants	1983
6/7/2023	P-0230_SEDGS_0_1972999919909999_PBF1520	BF1520	Sediment Samples/Grain Size	soil borings	Solid Waste Permit Modification Equalization Basin	Woodward-Clyde Consultants	1987
8/21/2018	UNK_SEDGS_0000000000_2013090620130910_PBF1521	BF1521	Sediment Samples/Grain Size	soil borings	Proposed Headquarters/Boat House and Airboat Shed Replacement for the Department of Wildlife and Fisheries Bird Island Bayou Marsh Island, Louisiana	Site Engineering, Inc.	2013
8/21/2018	UNK_SEDGS_0000000000_9999999999999999_PBF1523	BF1523	Sediment Samples/Grain Size	soil borings	Cameron Parish Shoreline Restoration	GeoEngineers	2009
6/7/2023	UNK_SEDGS_0_1977012619839999_PBF1524	BF1524	Sediment Samples/Grain Size	soil borings	Vermillion Parish Solid Waste Plant Permit Modification Number 5	Woodward-Clyde Consultants	1977
8/21/2018	UNK_SEDGS_0000000000_2003051920030529_PBF1525	BF1525	Sediment Samples/Grain Size	soil borings	Vermillion Parish Solid Waste Plant Permit Modification Number 9 Area 2-B Expansion	Soil Testing Engineers, Inc.	2003
8/21/2018	UNK_SEDGS_0000000000_2005060220050602_PBF1526	BF1526	Sediment Samples/Grain Size	soil borings	Permit Renewal Application	Lourie Consultants	unknown
8/21/2018	UNK_SEDGS_0000000000_2002050620020506_PBF1527	BF1527	Sediment Samples/Grain Size	soil borings	Derouen Type III Solid Waste Disposal Facility	Soil Testing Engineers, Inc., Soil Foundation Engineers, Inc.	1984, 2002
6/7/2023	UNK_SEDGS_0_1984110719850210_PBF1529	BF1529	Sediment Samples/Grain Size	soil borings	Tri-Parish Sanitary Landfill Permit Application	Soil Testing Engineers, Inc.	1984
02/27/2020	UNK_SEDGS_0000000000_1975999919989999_PBF1537	BF1537	Sediment Samples/Grain Size	soil borings	Late Pleistocene to Recent Subsurface Geology of Lake Pontchartrain, Louisiana: Integration of Geophysical and Geological Techniques.	University of New Orleans	1994
8/21/2018	UNK_SEDGS_0000000000_2003062920050726_PBF1538	BF1538	Sediment Samples/Grain Size	soil borings	Late Quaternary Mississippi River Incised Valley Fill: Transgressive Depositional Packages	University of New Orleans	2003
8/21/2018	UNK_SEDGS_0000000000_2004081720040922_PBF1543	BF1543	Sediment Samples/Grain Size	soil borings	Solid Waste Permit Renewal Application	Providence Engineering and Environmental Group, LLC.	1996
8/21/2018	UNK_SEDGS_0000000000_1951121419910926_PBF1544	BF1544	Sediment Samples/Grain Size	soil borings	Phase 1 Geotechnical Engineering Report State Of Louisiana Mississippi River Water Reintroduction into Bayou Lafourche, Donaldsonville to Gulf of Mexico, Louisiana	Eustis Engineering, Inc.	1981
8/21/2018	UNK_SEDGS_0000000000_1991022819910307_PBF1545	BF1545	Sediment Samples/Grain Size	soil borings	Type III Solid Waste Permit Application for Proposed Greater Metro C&D Landfill Site Jefferson Parish	ESE	1991
8/21/2018	UNK_SEDGS_9112530250_2007030220071107_PBF1546	BF1546	Sediment Samples/Grain Size	soil borings	St. Gabriel Redevelopment Construction and Demolition Landfill (Type III).	Eustis Engineering, Inc.	2007
02/27/2020	UNK_SEDGS_9037530000_1993082019931007_PBF1548	BF1548	Sediment Samples/Grain Size	soil borings	Preliminary Geotechnical Investigation Proposed Landfill Site Ward Property Jefferson Parish, Louisiana	Eustis Engineering, Inc.	1990
8/21/2018	UNK_SEDGS_0000000000_1993082019931007_PBF1549	BF1549	Sediment Samples/Grain Size	soil borings	Solid Waste Permit Application	Eustis Engineering, Inc.	1990
8/21/2018	LA-12.6_SEDGS_0000000000_2012049920120499_PBF1550	BF1550	Sediment Samples/Grain Size	soil borings	Caminada Moreau Subsidence Study Phases 1-3	Gahagan & Bryant Associates, Inc.	2012
8/21/2018	UNK_SEDGS_9000030125_1982999920060527_PBF1551	BF1551	Sediment Samples/Grain Size	soil borings	Geotechnical Investigation Gentilly Landfill Slope Stability Analysis New Orleans (Orleans Parish), Louisiana	Soil Testing Engineers, Inc.	2006
8/21/2018	UNK_SEDGS_0000000000_1955101020041104_PBF1552	BF1552	Sediment Samples/Grain Size	soil borings	Michoud Generating Plant	Soil Testing Engineers, Inc.	1955-2004
8/21/2018	UNK_SEDGS_8987530250_2006012020060319_PBF1553	BF1553	Sediment Samples/Grain Size	soil borings	Twin Span Bridge Replacement Project	Fugro	2006

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8/21/2018	UNK_SEDGS_0000000000_1983999919939999_PBF1554	BF1554	Sediment Samples/Grain Size	soil borings	Geologic Framework and Consolidation Settlement Potential of the LaFourche Delta, Topstratum Valley Fill; Implications for Wetland Loss in Terrebonne and LaFourche Parishes, Louisiana	Kuecher	unknown
6/7/2023	UNK_SEDGS_0_9999999999999999_PBF1555	BF1555	Sediment Samples/Grain Size	soil borings	Subsidence in the Mississippi River Delta-Important Influences of Valley Filling by Cyclic Deposition, Primary Consolidation Phenomena and Early Diagenesis	Roberts	unknown
8/21/2018	UNK_SEDGS_0000000000_1976050320060719_BF1558	BF1558	Sediment Samples/Grain Size	soil borings	Permit Renewal Application Construction/Demolition Debris and Woodwaste Landfill	Eustis Engineering Company, Inc.	2006
6/7/2023	UNK_SEDGS_0_2001062520010629_PBF1560	BF1560	Sediment Samples/Grain Size	soil borings	Construction Debris Landfill LA Highway 3127 St. Charles Parish, Louisiana	Gore Engineering, Inc.	2001
8/21/2018	UNK_SEDGS_9075030125_2011092720110927_PBF1561	BF1561	Sediment Samples/Grain Size	soil borings	Subsoil Investigation Proposed Administrative Office Building Rain CII Facility	Ardaman & Associates, Inc.	2011
8/21/2018	UNK_SEDGS_8987529625_2009021120090212_PBF1562	BF1562	Sediment Samples/Grain Size	soil borings	Targeted Brownfields Assessment Phase II Environmental Site Assessment	GEC	2009
09/26/2018	PO-0163_SEDGS_0000000000_2017062620170707_PBF1580	BF1580	Sediment Samples/Grain Size	144 grab samples	Golden Triangle Marsh Creation Project (PO-163)	APTIM	2017
09/26/2018	PO-0163_SEDGS_0000000000_2018021520180219_PBF1581	BF1581	Sediment Samples/Grain Size	35 vibracores	Golden Triangle Marsh Creation Project (PO-163)	APTIM	2017
09/26/2018	PO-0163_SEDGS_0000000000_2018062020180621_PBF1582	BF1582	Sediment Samples/Grain Size	push cores	Golden Triangle Marsh Creation Project (PO-163)	APTIM	2017
02/27/2020	AT-0015_SEDGS_0000000000_2016033020160402_PBF1612	BF1612	Sediment Samples/Grain Size	vibracores	Atchafalaya River Long Distance Sediment Pipeline Borrow Area Evaluation	CB&I	2015-2016
N/A	BA-0045_SEDGS_0000000000_2017080820170808_RUN001_points	BF1623	Sediment Samples/Grain Size	98 ponar grab samples	BA-0045 Caminada Headland Beach and Dune Restoration	USGS, UNO	2017
02/17/2020	TE-0117_SEDGS_0000000000_2015022720180318_PBF1624	BF1624	Sediment Samples/Grain Size	core borings, CPT	TE-117 Island Road Marsh Creation and Nourishment	GeoEngineers	2015, 2018
N/A	BF1635	BF1635	Sediment Samples/Grain Size	vibracores	West Belle Pass Barrier Headlands Restoration (TE-052)	Coastal Planning & Engineering, Inc.	2008
N/A	BF1647	BF1647	Sediment Samples/Grain Size	vibracores	Shell Island Barrier Enhancement Project	Coastal Planning & Engineering, Inc.	2012
02/27/2020	UNK_SEDGS_0000000000_9999999999999999_PBF1650	BF1650	Sediment Samples/Grain Size	sediment samples	unknown	unknown	unknown
02/27/2020	LA-0226_SEDGS_0000000000_2015041520160811_PBF1651	BF1651	Sediment Samples/Grain Size	grab samples	BICM	BICM	2015
02/27/2020	UNK_SEDGS_0000000000_2001021520010411_PBF1667	BF1667	Sediment Samples/Grain Size	core borings	Coast 2050	Unknown	2001
02/27/2020	UNK_SEDGS_0000000000_1971089920139999_PBF1670	BF1670	Sediment Samples/Grain Size	cpt and soil borings	unknown	USACE	1971-2013
02/27/2020	TV-0018_SEDGS_0000000000_2002999920029999_PBF1672	BF1672	Sediment Samples/Grain Size	core borings (?)	Four Mile Canal Terracing and Sediment Trapping (TV-0018)	Unknown	2002
02/27/2020	TE-0078_SEDGS_0000000000_2012102520121030_PBF1676	BF1676	Sediment Samples/Grain Size	core borings	Cut Off/Point-Aux-Chenes Levee (TE-78)	Fugro, Inc.	unknown
02/27/2020	BA-0160_SEDGS_0000000000_2007062220070622_PBF1677	BF1677	Sediment Samples/Grain Size	core borings	Elmers Island Emergency Construction Project	Coast and Harbor Engineering, Inc.	2007
02/27/2020	CS-0081_SEDGS_0000000000_2017013120170628_PBF1678	BF1678	Sediment Samples/Grain Size	grab samples	Sabine Refuge Marsh Creation (CS-0081)	USACE	2017
02/27/2020	BS-0018_SEDGS_0000000000_2011999920119999_PBF1680	BF1680	Sediment Samples/Grain Size	soil borings/CPTs	Bertrandville Siphon (BS-18)	unknown	2011
02/27/2020	BS-0010_SEDGS_0000000000_1970031820040930_PBF1681	BF1681	Sediment Samples/Grain Size	core borings	Delta Building Diversion North of Fort St. Philip (BS-10)	USACE	1970, 1987, 2004
02/27/2020	BA-0082_SEDGS_0000000000_2017030720170309_PBF1691	BF1691	Sediment Samples/Grain Size	soil borings	Lafitte Area Levee Repair Project (BA-82)	The BETA Group	2017
02/27/2020	TV-0065_SEDGS_0000000000_2003123020031230_PBF1694	BF1694	Sediment Samples/Grain Size	core borings	TV-65	Soil and Foundation Engineers, Inc.	30-Dec-03

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02/27/2020	LA-0001-E_SEDGS_0000000000_2006011820060120_PBF1695	BF1695	Sediment Samples/Grain Size	core borings	LA-0001 Grand Bayou Blue	Louis J. Capozzoli & Associates, Inc.	2006
02/27/2020	BA-0075-1_SEDGS_0000000000_1999079920170116_PBF1793	BF1793	Sediment Samples/Grain Size	soil borings, CPTs	BA-75-1 Phase 2 Additional CPT Exploration 30 June 2017	EUSTIS Engineering, Inc.	1999-2017
02/27/2020	BA-0075-1_SEDGS_0000000000_1999071220000222_PBF1794	BF1794	Sediment Samples/Grain Size	soil borings	Fisher Phase 2 Draft Geotech Report July 2012 - Jean Lafitte Tidal Protection (BA-0075-1)	EUSTIS Engineering, Inc.	2012
02/27/2020	BA-0193_SEDGS_0000000000_2010079920170710_PBF1801	BF1801	Sediment Samples/Grain Size	soil borings	17-2810A Final Data Report (BA-193 - Offshore Borrow) [FULL] - Caminada Headlands Back Barrier Marsh Creation (BA-0193)	Ardaman & Associates, Inc.	2017
02/27/2020	CS-0004_SEDGS_0000000000_2006120520061219_PBF1812	BF1812	Sediment Samples/Grain Size	6 soil borings	Cameron-Creole Levee (CS-0004)	Louis J. Capozzoli & Associates, Inc.	2006
02/27/2020	CS-0032_SEDGS_0000000000_1999999919999999_PBF1814	BF1814	Sediment Samples/Grain Size	soil borings	East Sabine Lake Hydrologic Restoration (CS-0032)	NRCS	1999
02/27/2020	CS-0059_SEDGS_0000000000_2017999920179999_PBF1822	BF1822	Sediment Samples/Grain Size	soil borings/cpts	Oyster Lake's Borings - Oyster Bayou Marsh Restoration Project (CS-0059)	Unknown	2017
6/7/2023	ME-0013_SEDGS_0_2001041320010414_PBF1829	BF1829	Sediment Samples/Grain Size	soil borings	Pecan Island Terraces (ME-0014)	Soil and Foundation Engineers, Inc.	2001
02/27/2020	PO-0029_SEDGS_0000000000_2007999920139999_PBF1844	BF1844	Sediment Samples/Grain Size	cores/cpts	95% Complete Set 9-18-13- River Reintroduction into Maurepas Swamp (PO-0029)	URS	2007-2013
02/27/2020	UNK_SEDGS_9012530125_2013052920130719_PBF1845	BF1845	Sediment Samples/Grain Size	cores/cpts	DP 0.0.25 Geotechnical Report IDP - Permanent Canal Closures and Pump Stations (PO-0060)	FUGRO, Inc.	1973-2009
02/27/2020	PO-0142_SEDGS_0000000000_2012062120120626_PBF1847	BF1847	Sediment Samples/Grain Size	soil borings	Amite_Diversion_Geotechnical_Data_Report - Hydrologic Restoration of the Amite River Diversion Canal (PO-0142)	HNTB Corporation	2012
02/27/2020	PO-0164_SEDGS_0000000000_2005072520050726_PBF1848	BF1848	Sediment Samples/Grain Size	soil borings	Geotechnical Report Revised - Manchac WMA - Prairie Shoreline Protection (PO-0164)	Soil Testing Engineers, Inc.	2005
02/27/2020	PO-0168_SEDGS_0000000000_2008999920089999_PBF1849	BF1849	Sediment Samples/Grain Size	soil borings	PO-168_Historical Borings_JPB_053116 - Shell Beach Marsh Creation (PO-0168)	USAGE	2008
02/27/2020	TE-0034_SEDGS_0000000000_2006101220061026_PBF1852	BF1852	Sediment Samples/Grain Size	soil borings	02485-12 report- Penchant Basin Natural Resources Plan, Increment I (TE-0034)	Burns Cooley Dennis, Inc.	2006
02/27/2020	TE-0052_SEDGS_0000000000_2008071320080717_PBF1855	BF1855	Sediment Samples/Grain Size	soil borings	WBPBH - Appendix III - Geotechnical Report - Fugro Consultant - West Belle Pass Barrier Headland Restoration (TE-0052)	Fugro Consultants, Inc.	2008
02/27/2020	TE-0100_SEDGS_0000000000_2014031320140321_PBF1860	BF1860	Sediment Samples/Grain Size	soil borings	14 08 04 - Final Report - NRDA Caillou Lake Headlands Restoration Project (TE-100)	Ardaman & Associates, Inc.	2014
02/27/2020	UNK_SEDGS_0000000000_2012999920129999_PBF1896	BF1896	Sediment Samples/Grain Size	cpts	CPT_Locations	Unknown	2012
02/27/2020	BA-0045_SEDGS_0000000000_2010071520100715_PBF1922	BF1922	Sediment Samples/Grain Size	soil borings	CAMINADA HEADLAND BEACH AND DUNE RESTORATION (BA-45)	GeoEngineers	2010/2015
02/27/2020	UNK_SEDGS_0000000000_2013121020131212_PBF1923	BF1923	Sediment Samples/Grain Size	soil borings	STATE CANAL SIPHON	APS Design and Testing, LLC.	2013
02/27/2020	BA-0171_SEDGS_0000000000_2014121620141216_PBF1926	BF1926	Sediment Samples/Grain Size	soil borings	BA-171 Final HTRW Report 8-17-15	G.E.C., Inc.	2015
02/27/2020	BA-0195_SEDGS_0000000000_9999999999999999_PBF1929	BF1929	Sediment Samples/Grain Size	soil borings	Survey Report - Boring Locations	GeoEngineers	2017
02/27/2020	UNK_SEDGS_0000000000_2017122020180123_PBF1942	BF1942	Sediment Samples/Grain Size	soil borings	Queen Bess Marsh Restoration Final Data Report.180517	APS Design and Testing, LLC.	2017
02/27/2020	UNK_SEDGS_0000000000_2015999920159999_PBF1955	BF1955	Sediment Samples/Grain Size	soil borings	Data Report TO15 Lower Barataria Bay Core Study_update030215/	LSU	2015
02/27/2020	UNK_SEDGS_0000000000_9999999999999999_PBF1956	BF1956	Sediment Samples/Grain Size	soil borings	Data Report TO16 Lower Breton Core Study_update030215	LSU	2015
02/27/2020	UNK_SEDGS_0000000000_2018999920189999_PBF1987	BF1987	Sediment Samples/Grain Size	soil borings	EMC17093_Bore Locations	EMC, Inc.	2018
02/27/2020	MR-0009_SEDGS_0000000000_2003031920030319_PBF2031	BF2031	Sediment Samples/Grain Size	grab samples	unknown	Unknown	2003
02/27/2020	TE-0065_SEDGS_0000000000_2008062620091218_PBF2063	BF2063	Sediment Samples/Grain Size	soil borings/cpts	20100701 Soil Boring Logs	Ardaman & Associates, Inc.	2008
02/27/2020	TE-0065_SEDGS_0000000000_1967060520110913_PBF2067	BF2067	Sediment Samples/Grain Size	soil borings	USACE Borings 9-16-2016	USACE	1967-2011

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02/27/2020	UNK_SEDGS_0000000000_9999999999999999_PBF2072	BF2072	Sediment Samples/Grain Size	soil borings	20170123 Geotechnical Report. - Addition to Floodgate - EE Project No. 23449	EUSTIS Engineering, Inc.	2017
02/27/2020	TE-0118_SEDGS_0000000000_2015071620150717_PBF2081	BF2081	Sediment Samples/Grain Size	cpts	TE-118 Geotechnical CPT Report_02-25-2016	GeoEngineers	2015
02/27/2020	TE-0118_SEDGS_0000000000_2015022320150224_PBF2085	BF2085	Sediment Samples/Grain Size	grab samples	Final_OSI_InterimReport_1_TE-118-1(6-1-15)_withAppendices	Ocean Surveys, Inc.	2015
02/27/2020	UNK_SEDGS_0000000000_1966081720071014_PBF2131	BF2131	Sediment Samples/Grain Size	soil borings	Alliance South/Wills Point Borings from Corps 1-2012	USACE	2012
02/27/2020	UNK_SEDGS_0000000000_2013069920130699_PBF2149	BF2149	Sediment Samples/Grain Size	soil borings	20130606_DES_RTK_BORINGS	Unknown	2013
02/27/2020	CS-0080_SEDGS_0000000000_2018020520180213_PBF2157	BF2157	Sediment Samples/Grain Size	soil borings	Rabbit Island Restoration RIBA Logs	GeoEngineers, Inc.	2018
02/27/2020	CS-0080_SEDGS_0000000000_2018022120180224_PBF2170	BF2170	Sediment Samples/Grain Size	soil borings	CS-80 Loop Pass Borrow Area GDR	GeoEngineers, Inc.	2018
02/27/2020	CS-0080_SEDGS_0000000000_2018011920180120_PBF2171	BF2171	Sediment Samples/Grain Size	soil borings/cpts	CS-80 Rabbit Island Geotechnical Data Report - Final 04272018	GeoEngineers, Inc.	2011/2014/2018
02/27/2020	PO-0030_SEDGS_0000000000_2002111120030219_PBF2182	BF2182	Sediment Samples/Grain Size	soil borings	Lake Borgne	Sigma Consulting Group, Inc.	2003
02/27/2020	PO-0173_SEDGS_0000000000_2018999920189999_PBF2191	BF2191	Sediment Samples/Grain Size	soil borings	Boring Location Plates	USACE	2018
02/27/2020	UNK_SEDGS_0000000000_1957012120030905_PBF2199	BF2199	Sediment Samples/Grain Size	soil borings	Unknown	Unknown	1957/1975/2003
02/27/2020	PO-0180_SEDGS_0000000000_2017999920179999_PBF2202	BF2202	Sediment Samples/Grain Size	soil borings	Borings	Unknown	2017
02/27/2020	PO-0180_SEDGS_0000000000_9999999999999999_PBF2203	BF2203	Sediment Samples/Grain Size	soil borings	LBMC_GeotechReview_Task2.2	Fugro,USACE, Louis J. Capozzoli	1989/2002/2003/2007/209
02/27/2020	TE-0051_SEDGS_0000000000_2009090220091119_PBF2274	BF2274	Sediment Samples/Grain Size	soil borings	Madison Bay Final Report Dec 1 2010 - GER	Professional Service Industries, Inc.	2009
02/27/2020	TE-0051_SEDGS_0000000000_2011100320111004_PBF2280	BF2280	Sediment Samples/Grain Size	soil borings	Madison Bay Geotechnical Investigation Report	GeoEngineers, Inc.	2011
02/27/2020	TE_0134_SEDGS_0000000000_2017061620170702_PBF2310	BF2310	Sediment Samples/Grain Size	soil borings/cpts	17-2803 DRAFT DATA REPORT (TE-134) [FULL]	Ocean Surveys, Inc.	2017
02/27/2020	TE-0138_SEDGS_0000000000_2018032820180402_PBF2318	BF2318	Sediment Samples/Grain Size	soil borings/cpts	logsdraftborrow_2018-04-24 (2)	Fugro Consultants, Inc.	2018
02/27/2020	BA-0045_SEDGS_0000000000_2011101120111013_PBF2355	BF2355	Sediment Samples/Grain Size	soil borings	BA-45	Ocean Surveys, Inc.	2012
02/27/2020	BA-0045_SEDGS_0000000000_2011061720110617_PBF2361	BF2361	Sediment Samples/Grain Size	grab samples	BA-45	BEM SYSTEMS	2011
02/27/2020	BA-0143_SEDGS_0000000000_2012061920120620_PBF2364	BF2364	Sediment Samples/Grain Size	soil borings	BA-143	Ocean Surveys, Inc.	2012
02/27/2020	TE-0118_SEDGS_0000000000_2005081920050820_PBF2374	BF2374	Sediment Samples/Grain Size	soil borings	TE-118	CPE	2005
02/27/2020	TE-0118_SEDGS_0000000000_2015093020151002_PBF2390	BF2390	Sediment Samples/Grain Size	soil borings	TE-118	Ocean Surveys, Inc.	2016
02/27/2020	BA-0068_SEDGS_0000000000_2010012920100210_PBF2395	BF2395	Sediment Samples/Grain Size	soil borings	BA-0068		
1/25/2021	BS-0029_SEDGS_0000000000_2015041520150415_PBF2426	BF2426	Sediment Samples/Grain Size	grab samples	BS-0029	USGS	2015
N/A	UNK_SEDGS_0000000000_2016080820160818_PBF2427	BF2427	Sediment Samples/Grain Size	core borings	Beneficial use marsh creation sites near Houma navigation canal	Specialized Environmental Resources/ Eustis Engineering L.L.C.	2000
02/27/2020	UNK_SEDGS_8987529625_2019040120190409_PBF2446	BF2446	Sediment Samples/Grain Size	core borings	Lake Hermitage (BA-0042)	APTIM	2019
7/17/2020	BA-0153_SEDGS_0000000000_2019099920191218_PBF2451	BF2451	Sediment Samples/Grain Size	core borings	Bayou Dularge	APTIM	2019

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
7/17/2020	BA-0038_SEDGS_0000000000_2003090320030926_PBF2465	BF2465	Sediment Samples/Grain Size	core borings	Chandeleur and Pelican Headlands (BA-0038)	APTIM	2012
9/23/2021	AT-0005_SEDGS_0000000000_2010010520100106_PBF2521	BF2521	Sediment Samples/Grain Size	soil borings	Subsoil Investigation Proposed Floodwall Roadway and Sound Wall Morgan City, Louisiana (AT-0005)	Ardaman & Associates, Inc.	2010
6/3/2021	BA-0050_SEDGS_9012529250_2010040820100408_PBF2523	BF2523	Sediment Samples/Grain Size	soil borings	Subsoil Investigation Bayside Segmented Breakwater Grande Isle (Jefferson, Parish), LA (BA-0050)	Ardaman & Associates, Inc.	2010
9/23/2021	BA-0058_SEDGS_0000000000_2011069920110699_PBF2524	BF2524	Sediment Samples/Grain Size	55 soil borings	BA-0058 Fringe Marsh Repair	Evans-Graves Engineers, Inc.	2011
4/22/2022	BA-0075-2_SEDGS_9012529875_2001092420011029_PBF2525	BF2525	Sediment Samples/Grain Size	soil borings	BA-75-2_Rosethorne Tidal Protection	Eustis Engineering Company, Inc.	2002
6/3/2021	BA-0084_SEDGS_9100030125_2012041720120417_PBF2526	BF2526	Sediment Samples/Grain Size	soil borings	Bayou Lafourche Pump Station Rehabilitation Program Standby Generator (BA-0084)	Eustis Engineering Company, Inc.	2012
9/23/2021	BA-0162-CAT_SEDGS_0000000000_2012042420151006_PBF2528	BF2528	Sediment Samples/Grain Size	31 soil borings	Cat Island 95% Design Report (BA-0162)	Professional Service Industries, Inc.	2012
6/3/2021	CS-0034_SEDGS_9350030000_1999090719990907_PBF2531	BF2531	Sediment Samples/Grain Size	soil borings	Marcantel Property in Black Lake (CS-0034)	HVJ	2007
4/22/2022	TE-0043_SEDGS_0000000000_2002111220021208_PBF2532	BF2532	Sediment Samples/Grain Size	soil borings	Breach Closure Along the Gulf Intracoastal Waterway (GIWW) (TE-0043)	unknown	2002
6/3/2021	TV-0024_SEDGS_9187529875_2010061720100617_PBF2533	BF2533	Sediment Samples/Grain Size	soil borings	Weeks Bay/Gulf Intracoastal Waterway Shoreline Protection (TV-0024)	Tolunay-Wong Engineers, Inc.	2010
9/23/2021	TV-0031_SEDGS_0000000000_2012073120120810_PBF2534	BF2534	Sediment Samples/Grain Size	soil borings	Pavement Exploration (TV-0031)	Eustis Engineering Company, Inc.	2012
4/22/2022	TV-0037_SEDGS_9162529625_2004021620040217_PBF2536	BF2536	Sediment Samples/Grain Size	soil borings	Geotechnical Investigation Burns Point Recreation Park (TV-0037)	Louis J. Capozzoli & Associates, Inc.	2004
6/3/2021	TV-0038_SEDGS_9125029750_2008091920080919_PBF2537	BF2537	Sediment Samples/Grain Size	soil borings	Geotechnical Investigation for the Thorguson Road Detour (TV-0038)	Louisiana Testing & Inspection, Inc.	2008
10/26/2021	BA-0161_SEDGS_0000000000_2005060220050825_PBF2539	BF2539	Sediment Samples/Grain Size	31 soil borings	Mississippi River Water Reintroduction Into Bayou LaFourche (BA-0161)	CH2MHILL	2005
4/22/2022	UNK_SEDGS_0000000000_9999999999999999_PBF2543	BF2543	Sediment Samples/Grain Size	soil borings	Mississippi River Gulf Outlet (MRGO) Ecosystem Restoration Plan Draft Feasibility Study, Draft Engineering Appendix.	USACE	unknown
9/23/2021	PO-0174_SEDGS_0000000000_2018051420180516_PBF2550	BF2550	Sediment Samples/Grain Size	core borings	Biloxi Marsh Living Shoreline Project (PO-0174)	Ardaman & Associates, Inc.	2018
6/3/2021	PO-0174_SEDGS_8937529875_2017101720171025_PBF2551	BF2551	Sediment Samples/Grain Size	13 core borings	Biloxi Marsh Living Shoreline Project (PO-0174)	SEARCH	2017
9/23/2021	BA-0194_SEDGS_0000000000_2018041620200216_PBF2562	BF2562	Sediment Samples/Grain Size	CPT	BA-0194 – East Leeville Marsh Creation and Nourishment	GeoEngineers, Inc.	2019
N/A	AH0001	BF2563	Sediment Samples/Grain Size	12 core borings, 3 CPT	Long Point Bayou Marsh Creation Project (CS-0085)	Chustz Surveying, Inc.	2020
N/A	CS-0085_SEDGS_0000000000_2020052620200630_PAH0001	BF2565	Sediment Samples/Grain Size	12 core borings, 3 CPT	Long Point Bayou Marsh Creation Project (CS-0085)	Chustz Surveying, Inc.	2020
4/22/2022	BS-0030_SEDGS_0000000000_2018042520180425_PBF2570	BF2570	Sediment Samples/Grain Size	suspended grain size	Barataria and Breton Sound Sediment Diversion (Event 1)	The Water Institute of the Gulf	2018
4/22/2022	BS-0030_SEDGS_0000000000_2018042620180426_PBF2573	BF2573	Sediment Samples/Grain Size	suspended sediment	Barataria and Breton Sound Sediment Diversion (Event 1)	The Water Institute of the Gulf	2018
4/22/2022	BS-0030_SEDGS_0000000000_2018052120180522_PBF2575	BF2575	Sediment Samples/Grain Size	suspended grain size	Barataria and Breton Sound Sediment Diversion (Event 2)	The Water Institute of the Gulf	2018
4/22/2022	BS-0030_SEDGS_0000000000_2018061820180618_PBF2580	BF2580	Sediment Samples/Grain Size	suspended grain size	Barataria and Breton Sound Sediment Diversion (Event 3)	The Water Institute of the Gulf	2018
N/A	BS-0037_SEDGS_SEDST_8987529875_2020090320201109_PJW0001_DELACROIX	BF2585	Sediment Samples/Grain Size	core borings and cpt	East Delacroix Marsh Creation Project (BS-0037)	Eustis Engineering, LLC	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020102520201119_PBF2588	BF2588	Sediment Samples/Grain Size	bedload	Barataria and Breton Sound Sediment Diversion (Event 8)	Unknown	2020

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4/22/2022	BS-0030_SEDGS_0000000000_2020111520201117_PBF2589	BF2589	Sediment Samples/Grain Size	suspended grain size	Barataria and Breton Sound Sediment Diversion (Event 8)	Unknown	2020
7/13/2021	BS-0030_SEDSC_9012529875_2020999920209999_PBF2590	BF2590	Sediment Samples/Grain Size	sediment concentration	Barataria and Breton Sound Sediment Diversion (Event 8)	Unknown	2020
7/13/2021	BS-0030_SEDSC_0000000000_2019022520190227_PBF2593	BF2593	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion (BS-0030)	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019060420190612_PBF2594	BF2594	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_9012529875_2019031120190312_PBF2600	BF2600	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_9012529875_2019031120190311_PBF2601	BF2601	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019031120190313_PBF2602	BF2602	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019039920190399_PBF2603	BF2603	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019039920190399_PBF2604	BF2604	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019061320190626_PBF2606	BF2606	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019031120190313_PBF2608	BF2608	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019049920190499_PBF2609	BF2609	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019040120190403_PBF2611	BF2611	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_9012529875_2019040220190402_PBF2613	BF2613	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019049920190499_PBF2614	BF2614	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019062720190727_PBF2615	BF2615	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019062420190725_PBF2616	BF2616	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019031220190402_PBF2619	BF2619	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_9012529875_2019081420190814_PBF2621	BF2621	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019082820190920_PBF2623	BF2623	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019089920190899_PBF2625	BF2625	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019089920190899_PBF2626	BF2626	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019090420190920_PBF2628	BF2628	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019081420190815_PBF2630	BF2630	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2019129920191299_PBF2631	BF2631	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_9012529875_2019031120190311_PBF2632	BF2632	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2020021720200228_PBF2633	BF2633	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019012920190217_PBF2637	BF2637	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
7/13/2021	BS-0030_SEDSC_0000000000_2019129920191299_PBF2638	BF2638	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
4/22/2022	BS-0030_SEDGS_0000000000_2019120920191211_PBF2640	BF2640	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2019
7/13/2021	BS-0030_SEDSC_0000000000_2020019920200199_PBF2641	BF2641	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020051920200712_PBF2642	BF2642	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020022420200529_PBF2646	BF2646	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
7/13/2021	BS-0030_SEDSC_0000000000_2020019920200199_PBF2647	BF2647	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020012020200121_PBF2649	BF2649	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
7/13/2021	BS-0030_SEDSC_0000000000_2020039920200399_PBF2650	BF2650	Sediment Samples/Grain Size	sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2019071420190731_PBF2654	BF2654	Sediment Samples/Grain Size	bedload grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020060420200704_PBF2656	BF2656	Sediment Samples/Grain Size	suspended grain size	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
7/13/2021	BS-0030_SEDSC_9012529875_2020039920200399_PBF2657	BF2657	Sediment Samples/Grain Size	suspended sediment concentration	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020030220200303_PBF2659	BF2659	Sediment Samples/Grain Size	suspended sediment discharge	Mississippi River 2019-2020 Data Collection in Support of the Mid-Breton Diversion	Mead Allison	2020
10/26/2021	W912P8-08-C-0071_SEDGS_0000000000_2008071420080921_PBF2707	BF2707	Sediment Samples/Grain Size	9 grab samples	Mississippi River Southwest Pass (SWP) Hopper Dredge Rental Contract No. 8-2008	U.S. Army Corps of Engineers	2008
4/22/2022	UNK_SEDSC_0000000000_20018032120180321_PBF2709	BF2709	Sediment Samples/Grain Size	CTD	Task Order 58	Unknown	2018
4/22/2022	UNK_SEDGS_0000000000_20018031920180411_PBF2711	BF2711	Sediment Samples/Grain Size	grab samples	Task Order 58	Unknown	2018
4/22/2022	UNK_SEDSC_0000000000_20018032120180322_PBF2712	BF2712	Sediment Samples/Grain Size	suspended sediment	Task Order 58	Unknown	2018
4/22/2022	UNK_SEDSC_0000000000_20018032120180322_PBF2713	BF2713	Sediment Samples/Grain Size	LISST	Task Order 58	Unknown	2018
9/23/2021	DACW29-96-C-0070_SEDGS_0000000000_1996082319960922_PBF2714	BF2714	Sediment Samples/Grain Size	12 Before Dredging grab samples, 12 After Dredging grab samples. 15 Before Dredging grab samples	LOWER ATCHAFALAYA RIVER HORSESHOE NO. 1-96	U.S. Army Corps of Engineers	1996
10/26/2021	DACW29-03-C-0037_SEDGS_0000000000_2003052020030627_PBF2715	BF2715	Sediment Samples/Grain Size	13 grab samples	Miss River, Southwest Pass and Cubit's Gap	U.S. Army Corps of Engineers	2003
10/26/2021	DACW29-03-C-0038_SEDGS_0000000000_2003053020030718_PBF2716	BF2716	Sediment Samples/Grain Size	19 grab samples	Miss River, B.R. to the Gulf, Southwest Pass and Cubit's Gap	U.S. Army Corps of Engineers	2003
10/26/2021	W912P8-04-C-0053_SEDGS_0000000000_2004090420040913_PBF2717	BF2717	Sediment Samples/Grain Size	7 grab samples	Miss. River, New Orleans Harbor Cutterhead Dredge Rental No. 3-2004 Orleans and Jefferson Parish, LA	U.S. Army Corps of Engineers	2004
-	BA-0207_SEDGS_9012529625_2019020720190506_PEM0001	BF2719	Sediment Samples/Grain Size	42 core borings and cpts	Unknown	Moffatt & Nichol	2019
4/22/2022	BS-0030_SEDGS_0000000000_9999999999999999_PBF2727	BF2727	Sediment Samples/Grain Size	core borings and cpt	Mid-Breton Sediment Diversion (BS-0030)	Ardaman & Associates, Inc.	2020
4/22/2022	BS-0030_SEDGS_0000000000_2020121420201216_PBF2728	BF2728	Sediment Samples/Grain Size	core borings	Mid-Breton Sediment Diversion (BS-0030)	Eustis Engineering	2021
1/15/2016	LA-0012-7_SEDGS_0000000000_2013071720130721_PCS0000	CS0000	Sediment Samples/Grain Size	4 core borings	Louisiana Borrow Area Management and Monitoring Program (BAMM)	CB&I Coastal Planning & Engineering, Inc.	2013
09/20/2016	MR-0016_SEDGS_0000000000_2015999920159999_PDM0065	DM0065	Sediment Samples/Grain Size	25 core locations (.xls, photos, grain size data, LOI data, lab tests)	T027 Final Integrated Report	LSU	2015



Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
09/20/2016	MR-0016_SEDGS_0000000000_2015999920159999_PDM0066	DM0066	Sediment Samples/Grain Size	25 core locations (.xls, photos, grain size data, LOI data, lab tests)	T027 Final Integrated Report	LSU	2015
N/A	BA-193_SEDGS_9012529250_2017071120180320_PGS0001	GS0001	Sediment Samples/Grain Size	14 samples (12 CPT, 2 Shelby Tube)	Caminada Headlands Back Barrier Marsh Creation Survey (BA-0193)	Ardaman & Associates, Inc.	2017
09/20/2016	MR-0016_SEDGS_0000000000_2011052120110623_PMD0003	MD0003	Sediment Samples/Grain Size	14+12+13+12 Grain Size Samples	T:\Projects\CPRA\20131010_DataFromMead\MississippiRiver2008topresentData\BonnetCarre2011flood\BonnetCarreDetailedSuspendedGSbreakdown	Mead Allison	05/21/2011-06/23/2011
04/02/2015	C-162523_SEDGS_0000000000_2003119920031199_PMD0004	MD0004	Sediment Samples/Grain Size	grain size, 3 .xlsx files and pdf report	T:\Projects\CPRA\20131010_DataFromMead\MississippiRiver2008topresentData\Mississippi_EnglishTurntoHOP_bedgrainsizesampling_2003lowand2008high	Mead Allison	11/2009
04/02/2015	BA-40_SEDGS_0000000000_2008129920081299_PMD0052	MD0052	Sediment Samples/Grain Size	grain size, 3 Excel files	MississippiRiver2008topresentData\MyrtleGrove2009to2011\base maps	Mead Allison	12/2008
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0192	MR0192	Sediment Samples/Grain Size	kmz file of sample locations, xls files of grain size distribution for 28 sediment samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0208	MR0208	Sediment Samples/Grain Size	xls files of grain size distribution for 28 sediment samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0224	MR0224	Sediment Samples/Grain Size	xls files of grain size distribution for 28 sediment samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0225	MR0225	Sediment Samples/Grain Size	xls files of grain size distribution for 30 bed samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0241	MR0241	Sediment Samples/Grain Size	xls files of grain size distribution for 30 bed samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0273	MR0273	Sediment Samples/Grain Size	xls files of grain size distribution for 30 bed samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2013059920130599_PMR0274	MR0274	Sediment Samples/Grain Size	xls files of grain size distribution for 30 bed samples	MS River High Water Longitudinal Survey 2013	Thad Pratt	05/2013
03/22/2016	MR-0016_SEDGS_0000000000_2012100920121009_PMR0275	MR0275	Sediment Samples/Grain Size	.xls of grain size distribution for 27 samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/9/2012
03/22/2016	MR-0016_SEDGS_0000000000_2012101220121012_PMR0276	MR0276	Sediment Samples/Grain Size	.xls of grain size distribution for 24 samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/12/2012
03/22/2016	MR-0016_SEDGS_0000000000_2012101020121010_PMR0277	MR0277	Sediment Samples/Grain Size	.xls of grain size distribution for ?? Samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/10/2012
03/22/2016	MR-0016_SEDGS_0000000000_2012100620121006_PMR0278	MR0278	Sediment Samples/Grain Size	.xls of grain size distribution for 25 samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/6/2012
03/22/2016	UNK_SEDGS_9100032250_2012109920121099_PMR0279	MR0279	Sediment Samples/Grain Size	.xls of grain size distribution for 33 samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/2012
03/22/2016	MR-0016_SEDGS_0000000000_2012100320121004_PMR0280	MR0280	Sediment Samples/Grain Size	.xls of grain size distribution for 21 samples	MS Longitudinal Low flow Oct 2012	Thad Pratt	10/03/2012-10/04/2012
11/18/2016	UNK_SEDGS_0000000000_2010029920110599_PVB0009	VB0009	Sediment Samples/Grain Size	grain size, Seven report documents and xls data tables containing data for 7 sampling events	Report on Old River Trip, February, March, April, July, September 2010, March and May 2011	Unknown	02/2010-05/2011
11/18/2016	UNK_SEDGS_0000000000_2009050520110510_PVB0021	VB0021	Sediment Samples/Grain Size	grain size, Eight report documents and xls data tables containing data for 8 sampling events	Report on West Bay Trip, April 22-23, May 5-6, May 29-30, June 16-17, July 21-24, September 22-24, 2009, February 20-21, 2010 and March 31, 2011	Unknown	05/05/2009-05/10/2011
N/A	GSZ_MR168169_20121126_VB0132_MRHDM	VB0132	Sediment Samples/Grain Size	Sediment Flux, Total Suspended Material (TSM), Grain Size-Test result data tables, ADCP Output files, Correlation Plots, JPEG of plots	Mississippi Hydro First Longitudinal Survey - Convent	U.S. Army Corps of Engineers	11/26/2012
N/A	GSZ_MR307308_20121120_VB0134_MRHDM	VB0133	Sediment Samples/Grain Size	Sediment Flux, Total Suspended Material (TSM), Grain Size-Test result data tables, ADCP Output files, Correlation Plots, JPEG of plots	Mississippi Hydro First Longitudinal Survey - Natchez	U.S. Army Corps of Engineers	11/20/2012

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
N/A	GSZ_MR362363_20121016_VB0133_MRHDM	VB0134	Sediment Samples/Grain Size	Sediment Flux, Total Suspended Material (TSM), Grain Size-Test result data tables, ADCP Output files, Correlation Plots, JPEG of plots	Mississippi Hydro First Longitudinal Survey - Tarbert	U.S. Army Corps of Engineers	10/16/2012
N/A	GSZ_MR433434_20121025_VB0135_MRHDM	VB0135	Sediment Samples/Grain Size	Sediment Flux, Total Suspended Material (TSM), Grain Size-Test result data tables, ADCP Output files, Correlation Plots, JPEG of plots	Mississippi Hydro First Longitudinal Survey - Vicksburg	U.S. Army Corps of Engineers	10/1/2012
2/9/2015	BA-04c_SEDGS_8987529625_2013039920130399_PVB1013	VB1013	Sediment Samples/Grain Size	2 soil boring files	2503-10-07(2011.03.01)_Survey_Report	C&C Technologies, Inc.	4/11/2013
2/9/2015	BA-35_SEDGS_8975029375_2003090820030908_PVB1042	VB1042	Sediment Samples/Grain Size	4 boring logs	Pass Chalard to Grand Bayou Pass Barrier Shoreline Restoration (BA-35)	Soil Testing Engineers, Inc.	5/6/2013
2/9/2015	BA-39_SEDGS_9000029750_2006030120060305_PVB1061	VB1061	Sediment Samples/Grain Size	3 boring logs	Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)	Eustis Engineering Company, Inc.	5/14/2013
2/9/2015	BA-39_SEDGS_0000000000_2006030120060403_PVB1062	VB1062	Sediment Samples/Grain Size	8 boring logs	Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)	Eustis Engineering Company, Inc.	5/14/2013
2/9/2015	BA-39_SEDGS_0000000000_1983022519880628_PVB1066	VB1066	Sediment Samples/Grain Size	3 boring logs	Mississippi River Sediment Delivery System - Bayou Dupont (BA-39)	Unknown	5/14/2013
03/27/2015	BA-40_SEDGS_0000000000_2008073120081027_PVB1074	VB1074	Sediment Samples/Grain Size	130 boring logs	Riverine Sand Mining/Scofield Island Restoration (BA-39)	U.S. Army Corps of Engineers	5/14/2013
2/9/2015	BA-41_SEDGS_0000000000_2006091920061009_PVB1075	VB1075	Sediment Samples/Grain Size	21 boring logs	South Shore of the Pen Shoreline Protection and Marsh Creation (BA-41)	NRCS	5/14/2013
2/9/2015	BA-42_SEDGS_8987529625_2007041220070430_PVB1077	VB1077	Sediment Samples/Grain Size	13 boring logs	Lake Hermitage Marsh Creation (BA-42)	Eustis Engineering Company, Inc.	5/14/2013
03/27/2015	UNK_SEDGS_0000000000_9999999999999999_PVB1085	VB1085	Sediment Samples/Grain Size	4 boring logs	Caminada Headland Beach and Dune Restoration (BA-45)	Professional Service Industries, Inc.	5/14/2013
2/9/2015	BA-45_SEDGS_9062529000_2011999920119999_PVB1094	VB1094	Sediment Samples/Grain Size	132 grain size reports	Caminada Headland Beach and Dune Restoration (BA-45)	OSI	5/14/2013
03/27/2015	UNK_SEDGS_0000000000_2009021620090220_PVB1104	VB1104	Sediment Samples/Grain Size	9 boring logs	Bayou Dupont Ridge Creation and Marsh Restoration (BA-48)	Southern Earth Sciences Inc.	5/14/2013
2/9/2015	BA-68_SEDGS_8950029375_2010081020100817_PVB1111	VB1111	Sediment Samples/Grain Size	10 boring logs	Grand Liard Marsh and Ridge Restoration (BA-68)	GeoEngineers, Inc.	5/14/2013
2/9/2015	BA-68_SEDGS_8950029375_2011081820110823_PVB1112	VB1112	Sediment Samples/Grain Size	10 boring logs	Grand Liard Marsh and Ridge Restoration (BA-68)	GeoEngineers, Inc.	5/14/2013
2/9/2015	BA-76_SEDGS_8987529375_2010091020100913_PVB1119	VB1119	Sediment Samples/Grain Size	9 boring logs	Cheniere Ronquille Barrier Island Restoration (BA-76)	Fugro Consultants, Inc.	5/14/2013
2/9/2015	BA-0161_SEDGS_0000000000_2005070520080912_PVB1919	VB1919	Sediment Samples/Grain Size	core borings	BA-25 Bayou Lafourche Freshwater Introduction	Eustis Engineering Company, Inc.	2005
2/9/2015	BA-35_SEDGS_0000000000_2003050820080330_PVB1954	VB1954	Sediment Samples/Grain Size	22 core borings	BA-35 Pass Chalard to Grand Bayou Pass	Coastal Engineering Consultants, Inc. and SJB Group, Inc.	2003
2/9/2015	BA-41_SEDGS_9012529750_9999999999999999_PVB1995	VB1995	Sediment Samples/Grain Size	20 core borings	BA-41 South Shore of the Pen Shoreline Protection and Marsh Creation	U.S. Department of Agriculture-Natural Resources Conservation Service	unknown
03/27/2015	TV-64_SEDGS_9225029625_2004020320040206_PVB2001	VB2001	Sediment Samples/Grain Size	3 core borings	CAT-01 Geotechnical Investigation State Of Louisiana Cheniere Au Tigre Shoreline Protection Vermilion Parish, Louisiana	Eustis Engineering Company, Inc.	2004
03/27/2015	UNK_SEDGS_9162529875_1996013020090903_PVB2005	VB2005	Sediment Samples/Grain Size	6 core borings	Franklin Canal Structure and Levee Design	Shaw Coastal; Eustis Engineering Services, L.L.C.	2009
03/27/2015	TE-48_SEDGS_9100029125_2003061120030617_PVB2023	VB2023	Sediment Samples/Grain Size	11 core borings	TE-48 Raccoon Island Shoreline Protection/Marsh Creation Project	Soil Testing Engineers, Inc.	2003
03/27/2015	TE-46_SEDGS_9075029500_2003031120130410_PVB2036	VB2036	Sediment Samples/Grain Size	36 core borings	TE-46 West Lake Boudreaux Shoreline Protection and Marsh Creation	Burns Cooley Dennis, Inc.	2003
2/9/2015	TE-47_SEDGS_9100029000_2004030420040403_PVB2037	VB2037	Sediment Samples/Grain Size	35 core borings	TE-47 Ship Shoal Whiskey West Flank Restoration	Burns Cooley Dennis, Inc.	2003
03/27/2015	TE-47_SEDGS_9087529125_2004051020040510_PVB2039	VB2039	Sediment Samples/Grain Size	60 grab samples	TE-47 Ship Shoal Whiskey West Flank Restoration	Soil Testing Engineers, Inc.	2004

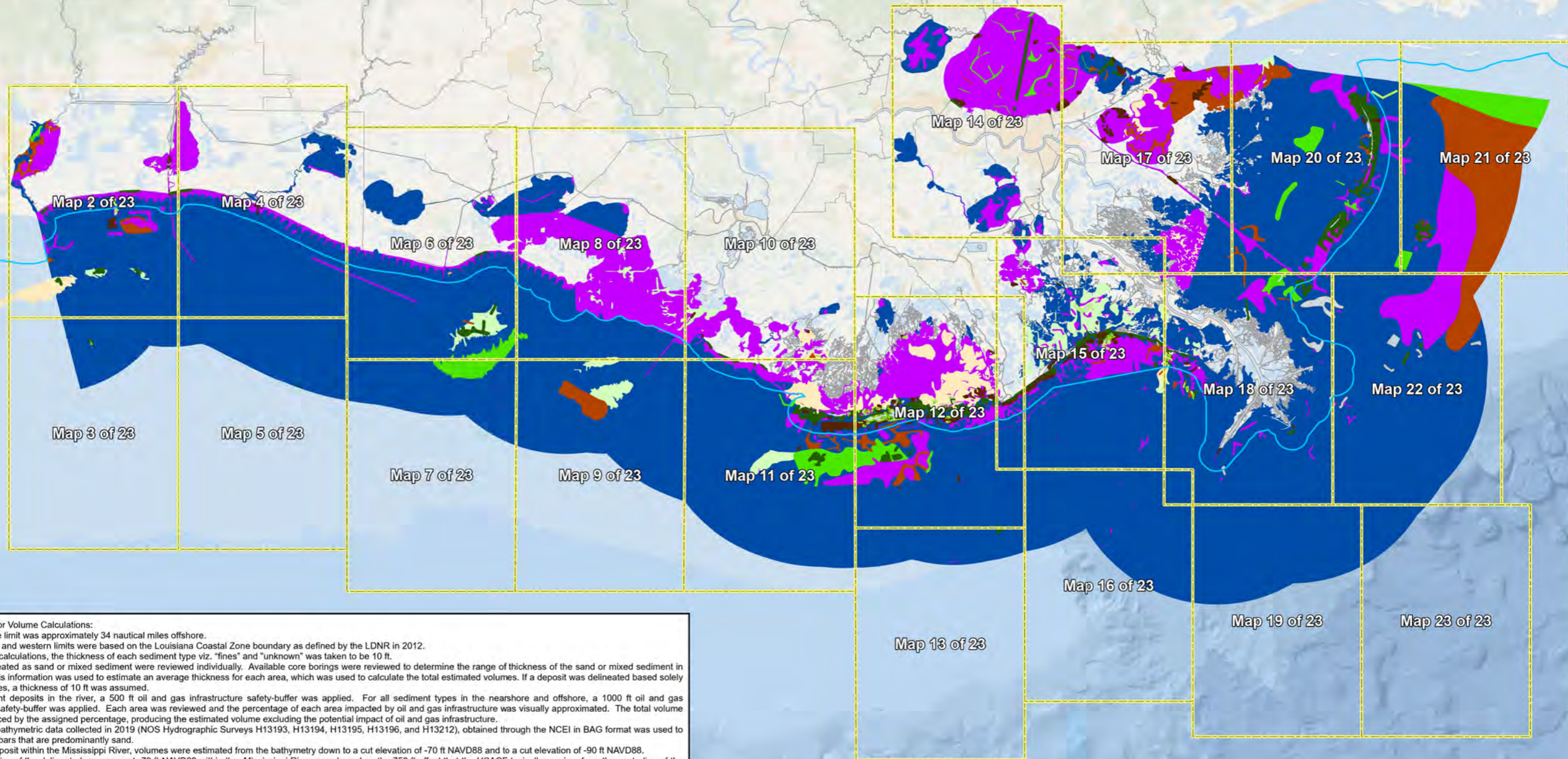
Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
03/27/2015	UNK_SEDGS_0000000000_1987081119870819_PVB2064	VB2064	Sediment Samples/Grain Size	152 core borings	Louisiana Coastal Area Barataria Basin Barrier Shoreline Restoration Draft Construction Report and Supplemental Environmental Impact Statement, McClelland	McClelland	2005
03/27/2015	ME-16_SEDGS_9262529750_2004030220040302_PVB2068	VB2068	Sediment Samples/Grain Size	4 core borings	ME-16 Freshwater Introduction South of Highway 82	Professional Service Industries, Inc.	2004
03/27/2015	ME-20_SEDGS_0000000000_2008081320090824_PVB2070	VB2070	Sediment Samples/Grain Size	17 core borings	ME-20 South Grand Chenier Hydrologic Restoration Project	Eustis Engineering Company, Inc.	2008
03/27/2015	ME-21_SEDGS_0000000000_2000081820030330_PVB2071	VB2071	Sediment Samples/Grain Size	6 core borings	ME-21 Grand Lake Shoreline Protection, Tebo Point	U.S. Army Corps of Engineers, Hydroterra Technologies, L.L.C.	2000
03/27/2015	ME-18_SEDGS_9287529750_2004061720040619_PVB2073	VB2073	Sediment Samples/Grain Size	9 core borings	ME-18 Rockefeller Refuge Gulf Shoreline Stabilization	Fugro Consultants, Inc.	2004
03/27/2015	ME-23_SEDGS_9262529750_2007082020070825_PVB2075	VB2075	Sediment Samples/Grain Size	7 core borings	ME-23 South Pecan Island Freshwater Introduction Project	Eustis Engineering Company, Inc.	2007
03/27/2015	MR-15_SEDGS_0000000000_2010061620100704_PVB2088	VB2088	Sediment Samples/Grain Size	13 core borings	MR-15 Venice Ponds Marsh Creation and Crevasses	Fugro Consultants, Inc.	2010
03/27/2015	LA-16_SEDGS_0000000000_2011050720110429_PVB2097	VB2097	Sediment Samples/Grain Size	12 core borings	LA-16 Non-rock Alternatives to Shoreline Protection Demo	GeoEngineers, Inc.	2011
03/27/2015	TE-50_SEDGS_0000000000_2004050320040621_PVB2106	VB2106	Sediment Samples/Grain Size	11 core borings	TE-50 Whiskey Island Back Barrier Marsh Creation	University of New Orleans	2004
03/27/2015	TE-72_SEDGS_0000000000_2011051320110528_PVB2111	VB2111	Sediment Samples/Grain Size	20 core borings	TE-72 Lost Lake Marsh Creation and Hydrologic Restoration	GeoEngineers, Inc.	2011
03/27/2015	TE-83_SEDGS_9062529375_2011092620111012_PVB2114	VB2114	Sediment Samples/Grain Size	20 core borings	TE-83 Terrebonne Bay Marsh Creation	GeoEngineers, Inc.	2011
03/27/2015	PO-72_SEDGS_8962530000_2009110420091113_PVB2131	VB2131	Sediment Samples/Grain Size	19 core borings	unknown	Fugro Consultants, Inc.	2009
03/27/2015	PO-33_SEDGS_0000000000_2006020320060219_PVB2140	VB2140	Sediment Samples/Grain Size	11 core borings	PO-33 Goose Point/Point Platte Marsh Creation	Soil Testing Engineers, Inc.	2006
03/27/2015	PO-36EB_SEDGS_0000000000_2008010920080118_PVB2141	VB2141	Sediment Samples/Grain Size	9 core borings	PO-36 (EB) Orleans Land Bridge SP & Marsh Creation	GeoEngineers, Inc.	2008
03/27/2015	PO-34_SEDGS_8975030125_2010033020100412_PVB2142	VB2142	Sediment Samples/Grain Size	24 core borings	PO-34 Alligator Bend Marsh Restoration and Shoreline Protection	GeoEngineers, Inc.	2010
03/27/2015	PO-75_SEDGS_0000000000_2010070920100714_PVB2149	VB2149	Sediment Samples/Grain Size	8 core borings	PO-75 LaBranche East Marsh Creation	GeoEngineers, Inc.	2010
03/27/2015	PO-104_SEDGS_0000000000_2011083020110912_PVB2150	VB2150	Sediment Samples/Grain Size	14 core borings	PO-104 Bayou Bonfouca Marsh Creation	GeoEngineers, Inc.	2011
2/9/2015	CS-33SF_SEDGS_0000000000_2009062520090629_PVB2162	VB2162	Sediment Samples/Grain Size	59 core borings	CS-33 Cameron Parish Shoreline Restoration	Coast & Harbor Engineering	2009
03/27/2015	CS-49_SEDGS_9312530000_2011030320110315_PVB2165	VB2165	Sediment Samples/Grain Size	33 core borings	CS-49 Cameron-Creole Freshwater Introduction	GeoEngineers, Inc.	2011
03/27/2015	CS-54_SEDGS_0000000000_2012030620120408_PVB2168	VB2168	Sediment Samples/Grain Size	24 borings	CS-54 Cameron-Creole Watershed Grand Bayou Marsh Creation	Fugro Consultants, Inc.	2012
03/27/2015	TV-11bEB_SEDGS_0000000000_2008111320081126_PVB2177	VB2177	Sediment Samples/Grain Size	16 core borings	Freshwater Bayou Shoreline Protection & Marsh Creation	GeoEngineers, Louis J. Capozzoli and Associates	2008
2/9/2015	BA-43EB_SEDGS_0000000000_2012040120120521_PVB2181	VB2181	Sediment Samples/Grain Size	6 core borings	Long Distance Sediment Pipeline	Fugro Consultants, Inc.	2012
2/9/2015	BA-39_SEDGS_9000029750_2011011820110124_PVB2183	VB2183	Sediment Samples/Grain Size	10 core borings	Long Distance Sediment Pipeline	Ocean Surveys, Inc.	2011
2/9/2015	BS-16_SEDGS_0000000000_2010032920100407_PVB2192	VB2192	Sediment Samples/Grain Size	35 core borings	BS-16 South Lake Lery Shoreline and Marsh Restoration	GeoEngineers, Inc.	2010
2/9/2015	BA-45_SEDGS_0000000000_2010071520100718_PVB2204	VB2204	Sediment Samples/Grain Size	2 core borings	BA-143 NRDA Caminada Headland Beach and Dune Restoration INCR2	GeoEngineers, Inc.	2010
2/9/2015	BA-33_SEDGS_0000000000_2004050920100514_PVB2209	VB2209	Sediment Samples/Grain Size	grab samples	BA-153 Mid-Barataria Diversion	Mead Allison	2010
03/27/2015	UNK_SEDGS_0000000000_2009081320101015_PVB2210	VB2210	Sediment Samples/Grain Size	100 core borings	BA-153 Mid-Barataria Diversion	U.S. Army Corps of Engineers	2009

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
03/27/2015	BA-153_SEDGS_0000000000_2008101020100514_PVB2211	VB2211	Sediment Samples/Grain Size	LISST	BA-153 Mid-Barataria Diversion	Mead Allison	2008-2010
03/27/2015	UNK_SEDGS_0000000000_200007102000928_PVB2212	VB2212	Sediment Samples/Grain Size	6 core borings	BTNEP Island Restoration	University of New Orleans	2000
2/9/2015	BA-37_SEDGS_0000000000_2000080220000802_PVB2217	VB2217	Sediment Samples/Grain Size	10 core borings	BA-37 Little Lake Shoreline Protection/Dedicated Dredging Near Round Lake	U.S. Army Corps of Engineers	2000
12/20/2016	UNK_SEDGS_0000000000_1997040519970425_VB2230	VB2230	Sediment Samples/Grain Size	21 sediment samples	LASED	USGS	04/05/1997-04/25/1997
3/29/2023	BA-0153_SEDGS_0_2018042320180525_PBF2741	BF2741	Sediment Samples/Grain Size	Isokinetic TSS Concentration, Sand Concentration	to059_MidBarataria_Report_DraftToCPRA_20180913.docx (Tables 5,6)	AECOM	2018
3/29/2023	BA-0153_SEDGS_0_2018042320180525_PBF2743	BF2743	Sediment Samples/Grain Size	CTD/LISST	to059_MidBarataria_Report_DraftToCPRA_20180913.docx (Table 4)	AECOM	2018
3/29/2023	BA-0153_SEDGS_0_2018042320180525_PBF2745	BF2745	Sediment Samples/Grain Size	Bottom Grab Samples Grain Size	to059_MidBarataria_Report_DraftToCPRA_20180913.docx (Table 8)	AECOM	2018
3/29/2023	BA-0153_SEDGS_0_2018042620180621_PBF2746	BF2746	Sediment Samples/Grain Size	Bedload Flux Measurements	to059_MidBarataria_Report_DraftToCPRA_20180913.docx (Figure 15, Table 9, Grids)	AECOM	2018
5/11/2023	BA-0153_SEDGS_0_2019032120190322_BF2757	BF2757	Sediment Samples/Grain Size	Isokinetic TSS Concentration, Sand Concentration	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 1)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019080120190802_BF2758	BF2758	Sediment Samples/Grain Size	Isokinetic TSS Concentration, Sand Concentration	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 2)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019080820190809_BF2759	BF2759	Sediment Samples/Grain Size	Isokinetic TSS Concentration, Sand Concentration	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 3)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019032120190322_BF2760	BF2760	Sediment Samples/Grain Size	Bed Grab Samples	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 1)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019080120190802_BF2761	BF2761	Sediment Samples/Grain Size	Bed Grab Samples	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 2)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019080820190809_BF2762	BF2762	Sediment Samples/Grain Size	Bed Grab Samples	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 3)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019082220190823_BF2763	BF2763	Sediment Samples/Grain Size	Bed Grab Samples	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 4)	T. Baker Smith, LLC.	2020
5/11/2023	BA-0153_SEDGS_0_2019082220190823_BF2764	BF2764	Sediment Samples/Grain Size	Isokinetic TSS Concentration, Sand Concentration	MID-BARATARIA SEDIMENT DIVERSION PROJECT (BA-153) (Event 4)	T. Baker Smith, LLC.	2020
3/29/2023	CIP86_SEDGS_0_1986999919869999_PJH0001	JH0001	Sediment Samples/Grain Size	19 core borings	unknown	UNO	1986
3/29/2023	LH03_SEDGS_0_2003999920039999_PJH0002	JH0002	Sediment Samples/Grain Size	28 core borings	unknown	UNO	2003
3/29/2023	RP02_SEDGS_0_2002999920029999_PJH0003	JH0003	Sediment Samples/Grain Size	13 core borings	unknown	UNO	2002
3/29/2023	BH10_SEDGS_0_2010082420100914_PJH0004	JH0004	Sediment Samples/Grain Size	25 core borings	unknown	Unknown	2010
3/29/2023	BL03_SEDGS_0_2003999920039999_PJH0005	JH0005	Sediment Samples/Grain Size	4 core borings	unknown	Unknown	2003
3/29/2023	BL04_SEDGS_0_2004999920049999_PJH0006	JH0006	Sediment Samples/Grain Size	9 core borings	unknown	Unknown	2004
3/29/2023	CS-0001_SEDGS_0_2001099920011099_PJH0007	JH0007	Sediment Samples/Grain Size	33 core borings	CS001-Holly Beach	Unknown	2001
3/29/2023	ID87_SEDGS_0_1987999919879999_PJH0008	JH0008	Sediment Samples/Grain Size	251 core borings	Unknown	Unknown	1987
3/29/2023	LPT05_SEDGS_0_2005999920059999_PJH0009	JH0009	Sediment Samples/Grain Size	13 core borings	Unknown	Unknown	2005
3/29/2023	MC07_SEDGS_0_2007999920079999_PJH0010	JH0010	Sediment Samples/Grain Size	18 core borings	Unknown	Unknown	2007

Date Submitted (mm/dd/yyyy)	Submittal Name	Dataset #	Data Category	Data Types and Quantities	Report Title/Data Title/File Name	Author	Estimated Date Collected
3/29/2023	ME-0018_SEDGS_0_2002061920020626_PJH0011	JH0011	Sediment Samples/Grain Size	20 core borings	Rockefeller Refuge Gulf Shoreline Stabilization	Fugro Consultants, Inc.	2002
3/29/2023	MR-0006_SEDGS_0_1979100419901205_PJH0012	JH0012	Sediment Samples/Grain Size	20 core borings	MR-0006	Unknown	1979-1990
3/29/2023	SCC04_SEDGS_0_2004999920049999_PJH0013	JH0013	Sediment Samples/Grain Size				2004
4/21/2023	CI87_SEDGS_0_1987999919879999_PJH0014	JH0014	Sediment Samples/Grain Size	66 core borings	unknown	unknown	1987
5/11/2023	BSS00_SEDGS_0_2000999920009999_PJH0015	JH0015	Sediment Samples/Grain Size	183 core borings	unknown	unknown	2000
4/21/2023	F02_SEDGS_0_2002999920029999_PJH0017	JH0017	Sediment Samples/Grain Size	9 core borings	unknown	unknown	2002
4/21/2023	CR83_SEDGS_0_1983999919839999_PJH0018	JH0018	Sediment Samples/Grain Size	19 core borings	unknown	unknown	1983
4/21/2023	H203_SEDGS_0_2003999920039999_PJH0019	JH0019	Sediment Samples/Grain Size	5 core borings	unknown	unknown	2003
5/11/2023	L86_SEDGS_0_1986999919869999_PJH0020	JH0020	Sediment Samples/Grain Size	11 core borings	unknown	unknown	1986
4/21/2023	TB90_SEDGS_0_1990999919909999_PJH0021	JH0021	Sediment Samples/Grain Size	24 core borings	unknown	unknown	1990
5/11/2023	P86_SEDGS_0_1986999919869999_PJH0022	JH0022	Sediment Samples/Grain Size	18 core borings	unknown	unknown	1986
4/21/2023	PS02_SEDGS_0_2002999920029999_PJH0023	JH0023	Sediment Samples/Grain Size	8 core borings	unknown	unknown	2002

**Attachment 2**  
**Offshore SSD Maps**

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**Assumptions for Volume Calculations:**

- 1) The offshore limit was approximately 34 nautical miles offshore.
- 2) The eastern and western limits were based on the Louisiana Coastal Zone boundary as defined by the LDNR in 2012.
- 3) For volume calculations, the thickness of each sediment type viz. "fines" and "unknown" was taken to be 10 ft.
- 4) Areas delineated as sand or mixed sediment were reviewed individually. Available core borings were reviewed to determine the range of thickness of the sand or mixed sediment in each area. This information was used to estimate an average thickness for each area, which was used to calculate the total estimated volumes. If a deposit was delineated based solely on grab samples, a thickness of 10 ft was assumed.
- 5) For sediment deposits in the river, a 500 ft oil and gas infrastructure safety-buffer was applied. For all sediment types in the nearshore and offshore, a 1000 ft oil and gas infrastructure safety-buffer was applied. Each area was reviewed and the percentage of each area impacted by oil and gas infrastructure was visually approximated. The total volume was then reduced by the assigned percentage, producing the estimated volume excluding the potential impact of oil and gas infrastructure.
- 6) Multibeam bathymetric data collected in 2019 (NOS Hydrographic Surveys H13193, H13194, H13195, H13196, and H13212), obtained through the NCEI in BAG format was used to digitize lateral bars that are predominantly sand.
- 7) For each deposit within the Mississippi River, volumes were estimated from the bathymetry down to a cut elevation of -70 ft NAVD88 and to a cut elevation of -90 ft NAVD88.
- 8) The boundaries of the delineated resources at -70 ft NAVD88 within the Mississippi River were based on the 750 ft offset that the USACE typically requires from the centerline of the levees. The boundaries of the delineated resources at -90 ft NAVD88 were based on the assumption that a variance would be granted by the USACE allowing a reduced levee setback of 400 ft.
- 9) Delineations provide for a 1,200 ft wide Mississippi River shipping lane, as defined as the distance between the outside edge of the potential sand deposit and the -45 ft NAVD88 contour on the opposite river bank. A minimum 300 ft buffer was maintained between the edge of the potential sand deposit and any navigation aids.
- 10) The volume estimates do not take into consideration the location of known dredging hazards or cultural resources. If borrow areas are developed within the potential deposits, a magnetometer survey will be required to identify dredging hazards.

**Notes**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.
5. No high resolution geophysical or geotechnical investigations were conducted as part of this study. Therefore, resources that have been identified are considered probable sediment deposits.
6. Volume calculations are 1st order estimates based on the evaluation of existing geoscientific data. It is important to note that variability in volume estimates is common when volumes are an approximation.

**Legend**

Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	Federal/State Boundary
Inferred Mixed Sediment	

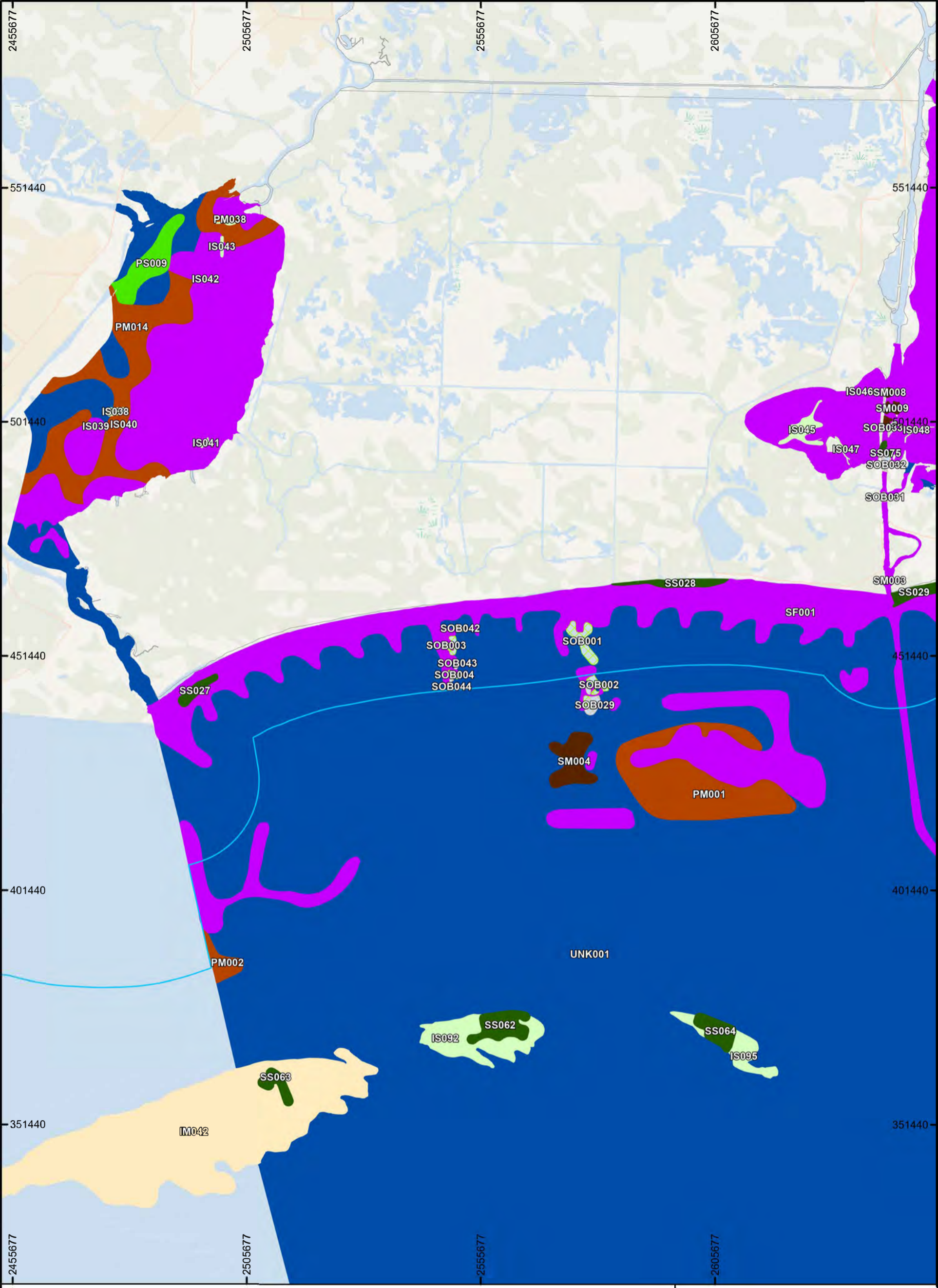
Louisiana Surficial Sediment Distribution Maps

Index Map

FIGURE NUMBER

**Map 1 of 23**

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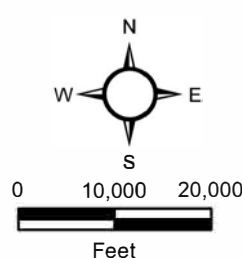


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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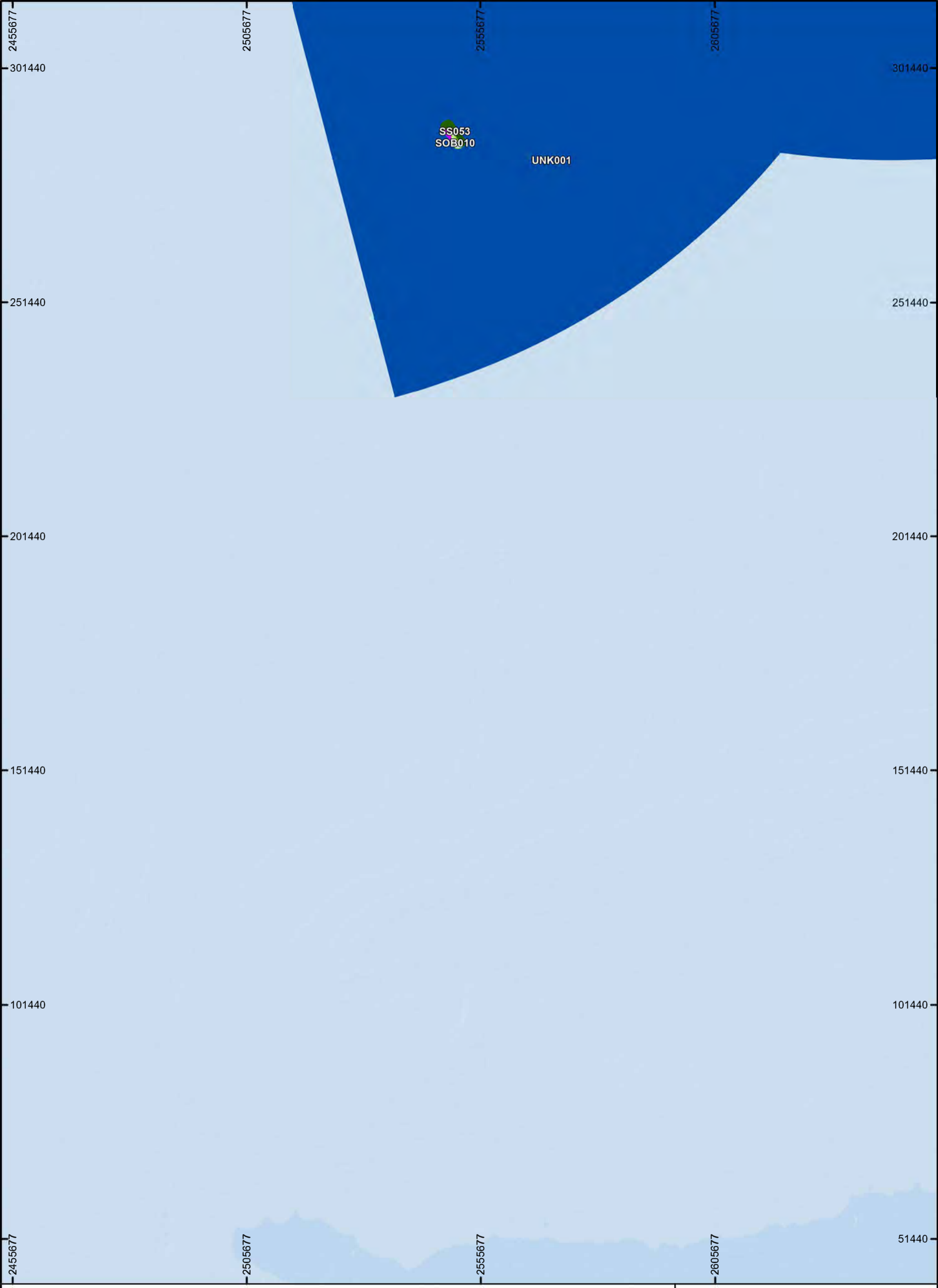
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER

**Map 2 of 23**





**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand =<10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

Feet

**Louisiana Surficial Sediment Distribution Maps**

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Total Surficial Deposit Volume Estimates

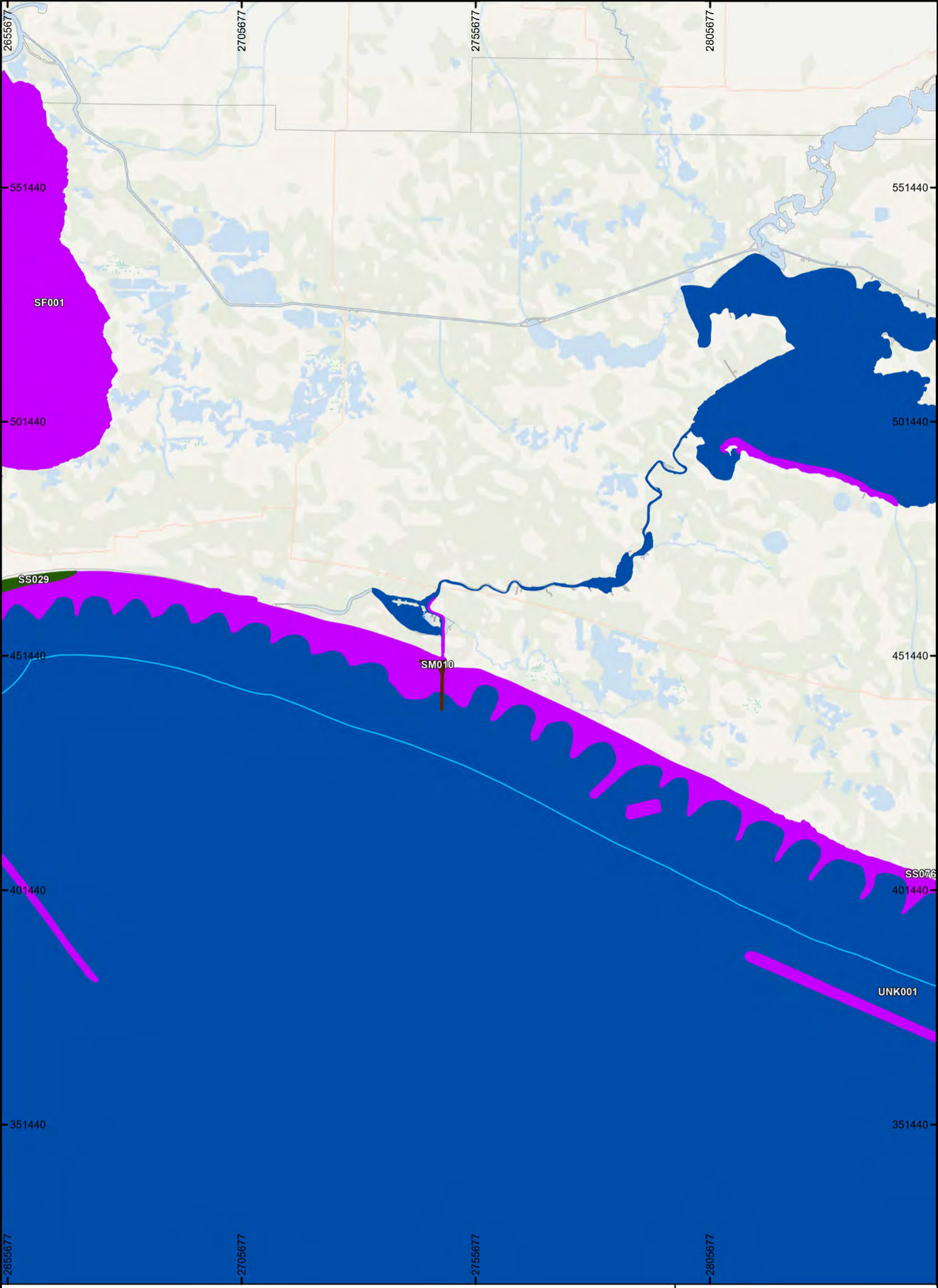
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FIGURE NUMBER

**Map 3 of 23**

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6401 Congress Avenue, Suite 140  
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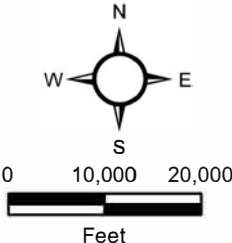


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

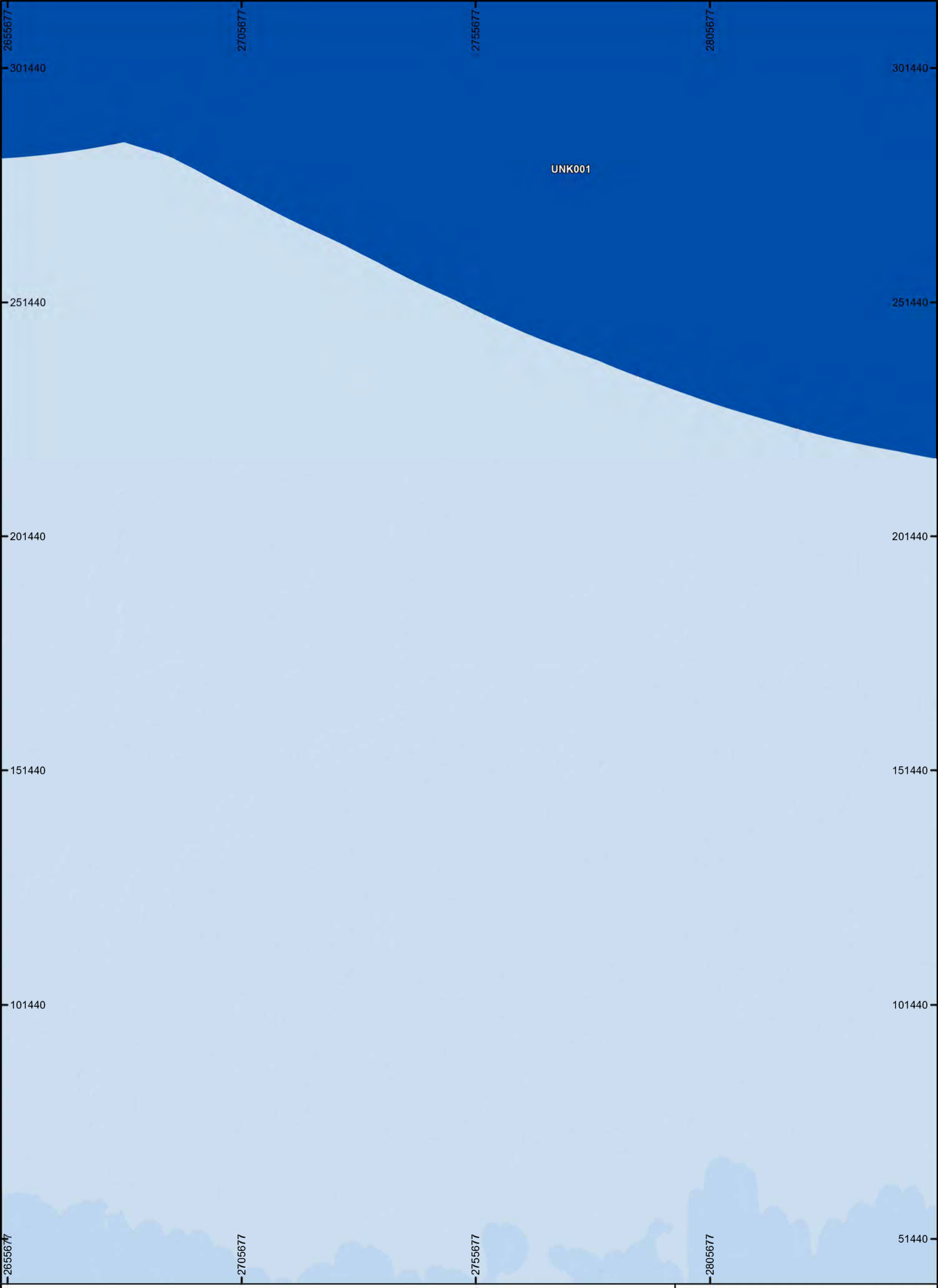
Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates












FIGURE NUMBER **Map 4 of 23**

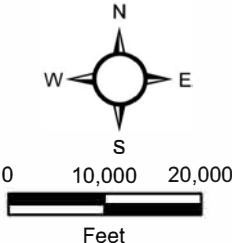


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

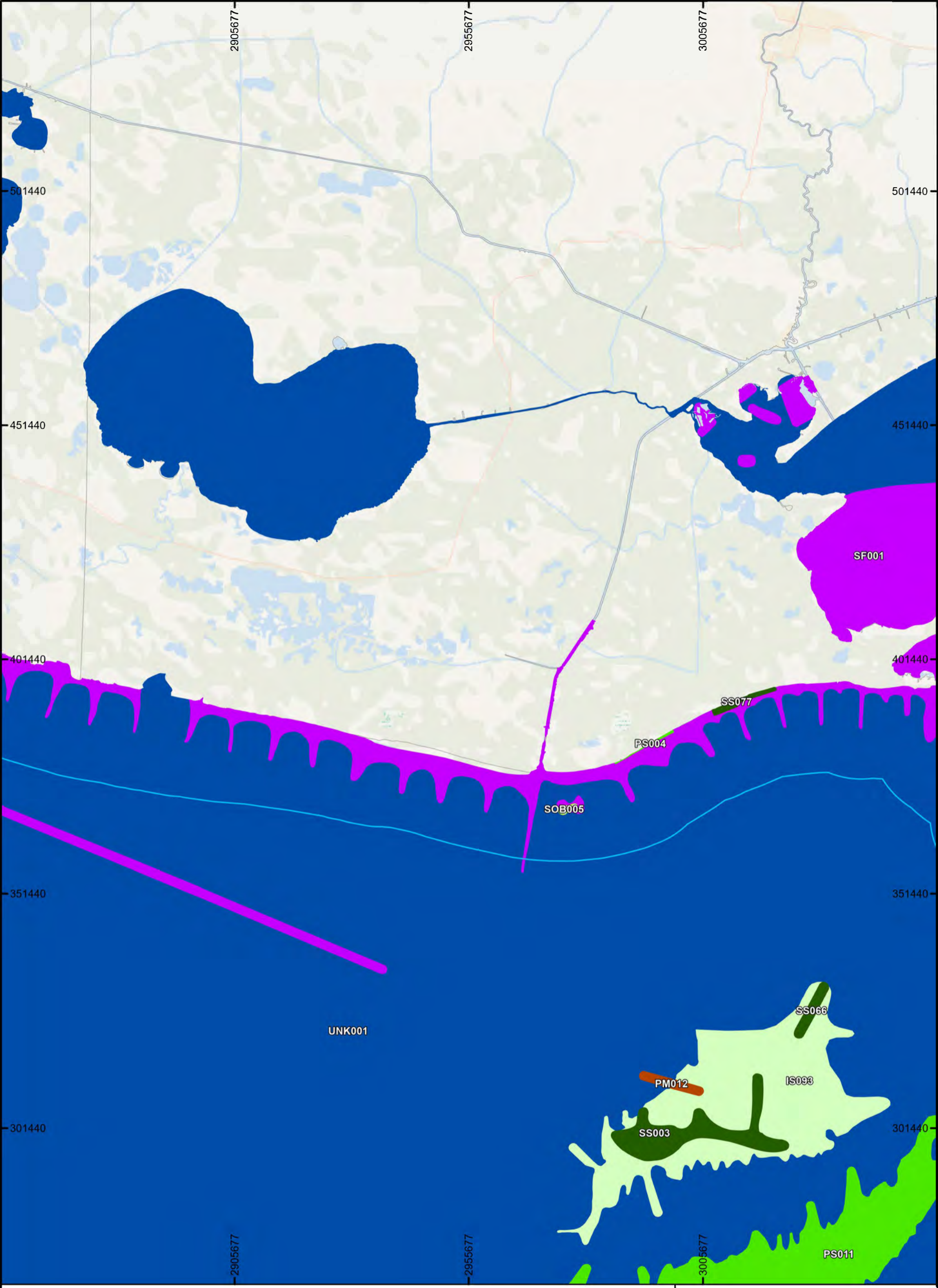
 Federal/State Boundary	 Inferred Mixed Sediment
 Sand	 Sand =<10 ft Overburden
 Potential Sand	 Sand >10 ft Overburden
 Inferred Sand	 Fines
 Mixed Sediment	 Unknown
 Potential Mixed Sediment	



Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates

FIGURE NUMBER **Map 5 of 23**

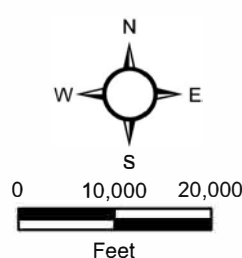


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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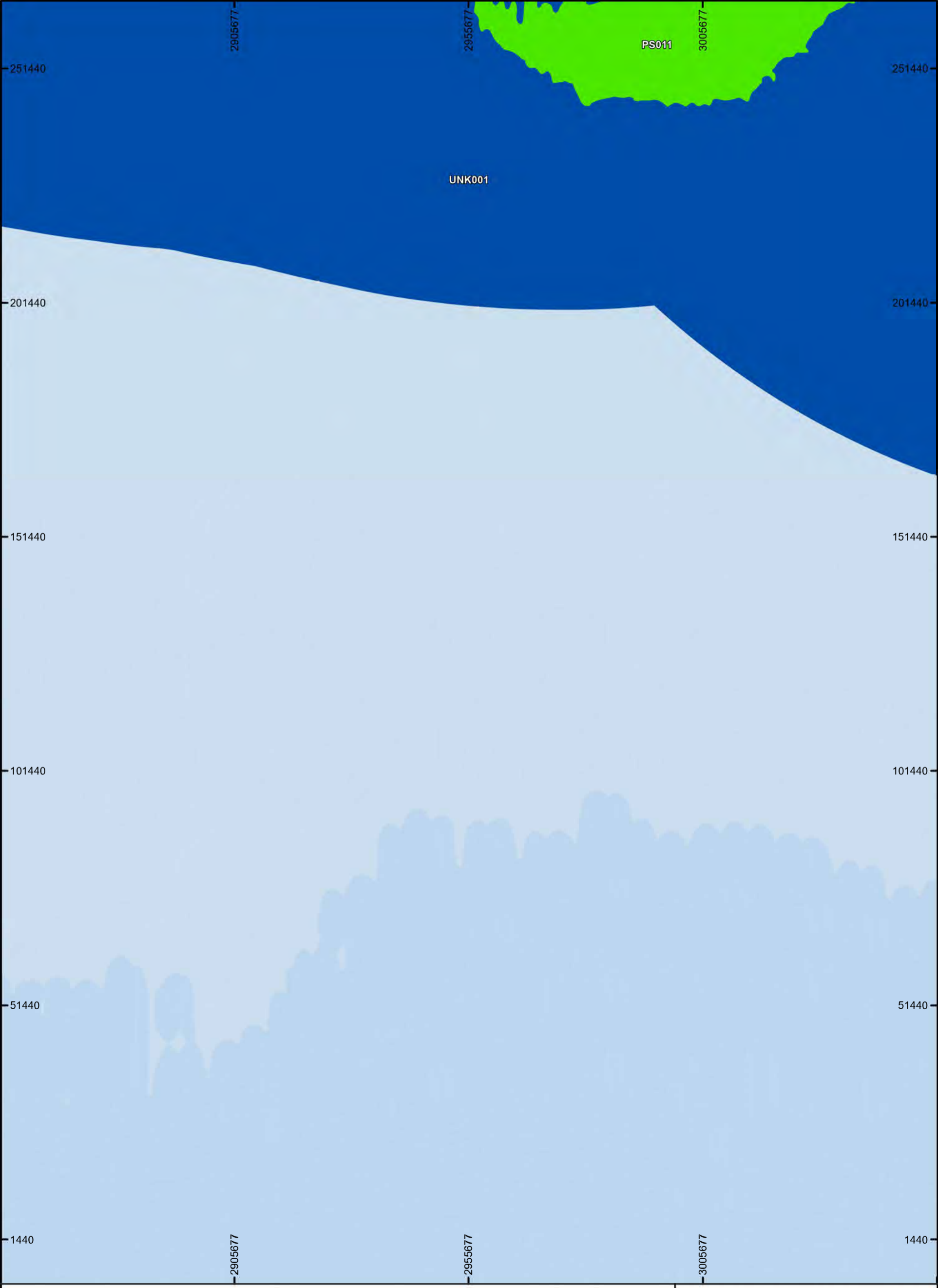
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER  
**Map 6 of 23**

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**APTIM** 6401 Congress Avenue, Suite 140  
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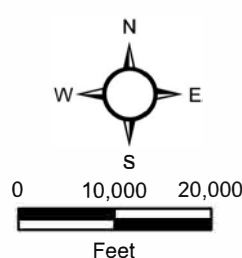


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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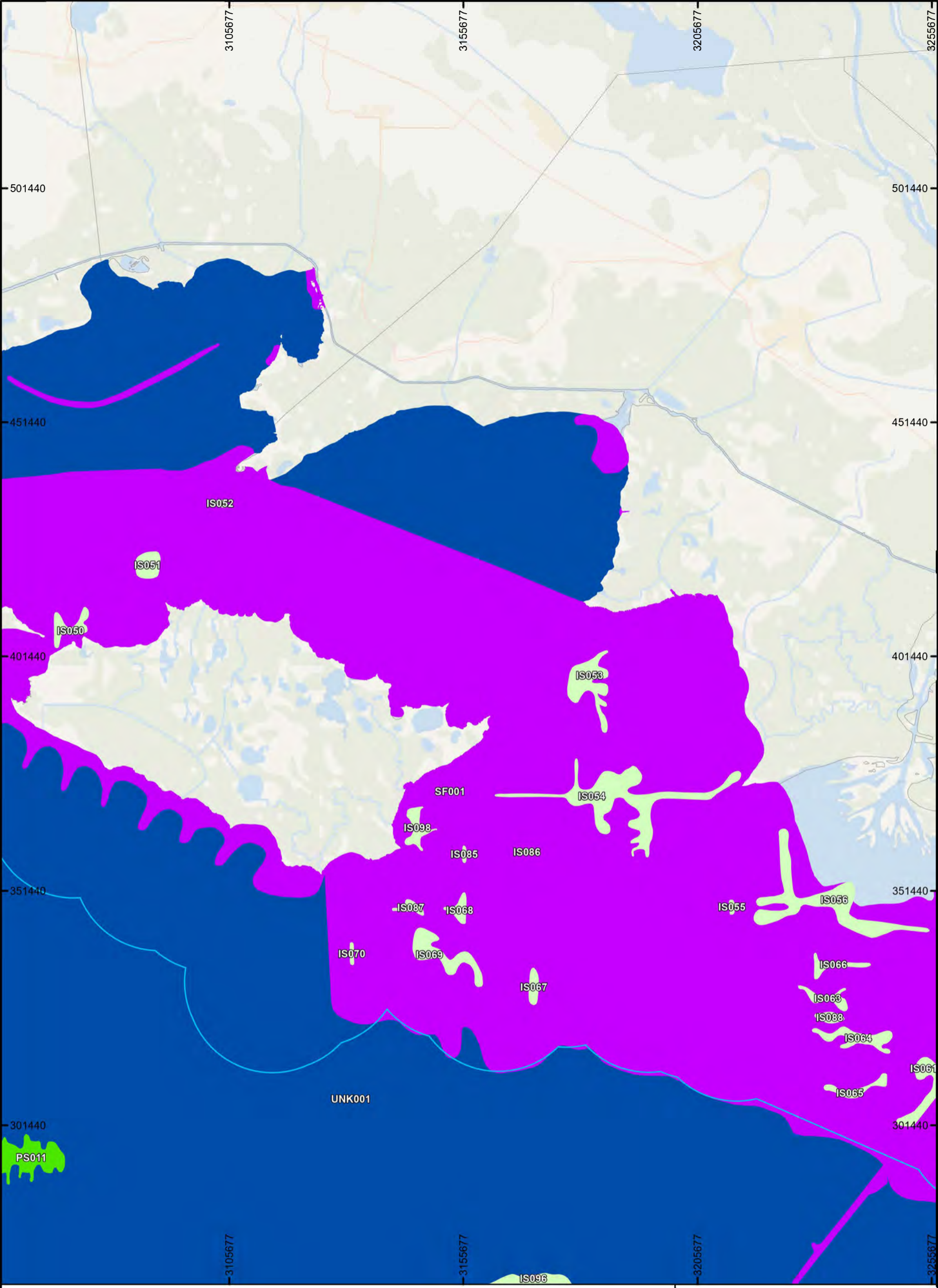
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER **Map 7 of 23**

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**APTIM** 6401 Congress Avenue, Suite 140  
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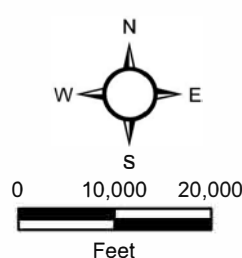


**Notes:**

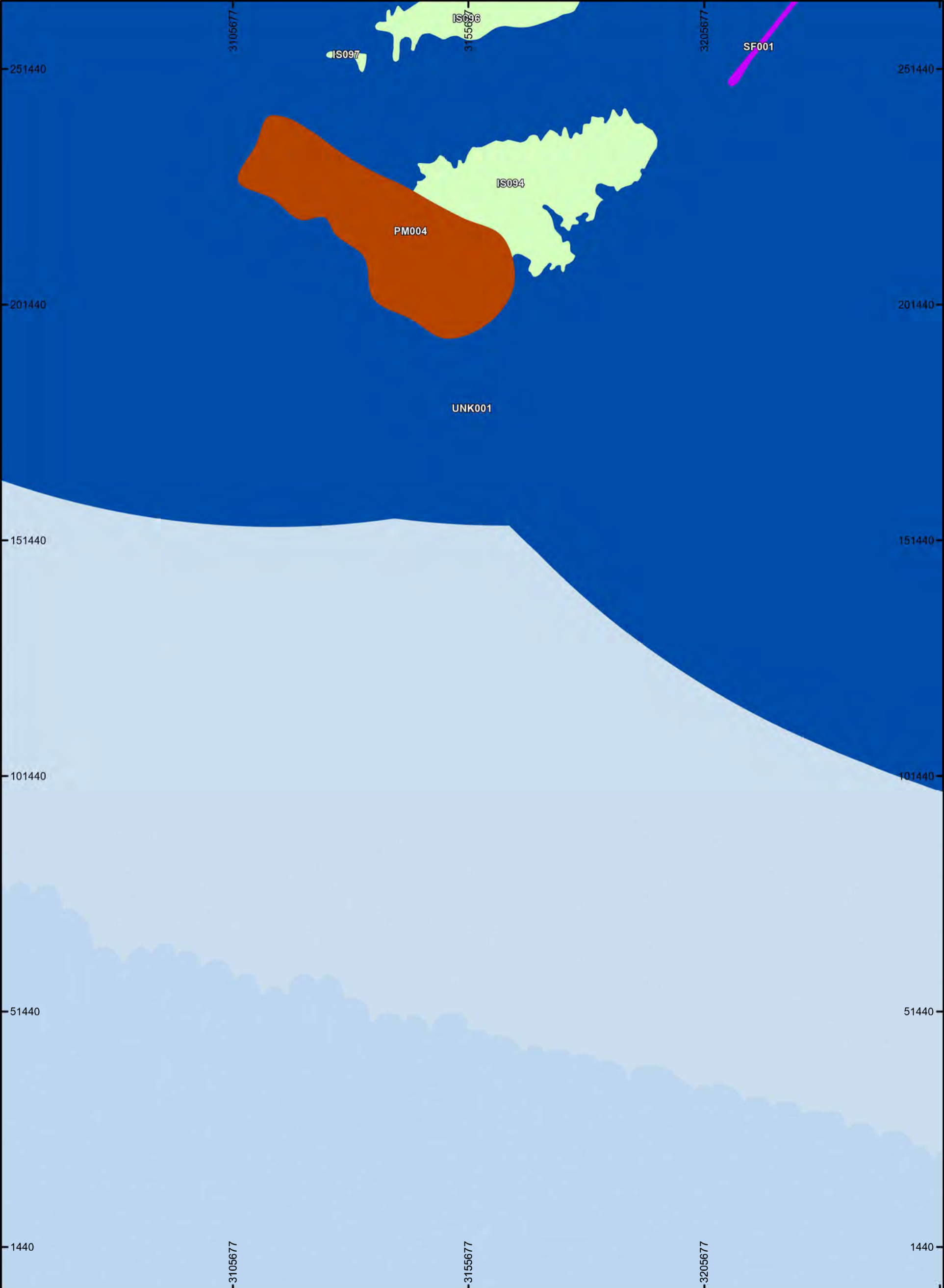
- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



<b>Louisiana Surficial Sediment Distribution Maps</b>	
Total Surficial Deposit Volume Estimates	
FIGURE NUMBER	<b>Map 8 of 23</b>



**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

Feet

**Louisiana Surficial Sediment Distribution Maps**

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Total Surficial Deposit Volume Estimates

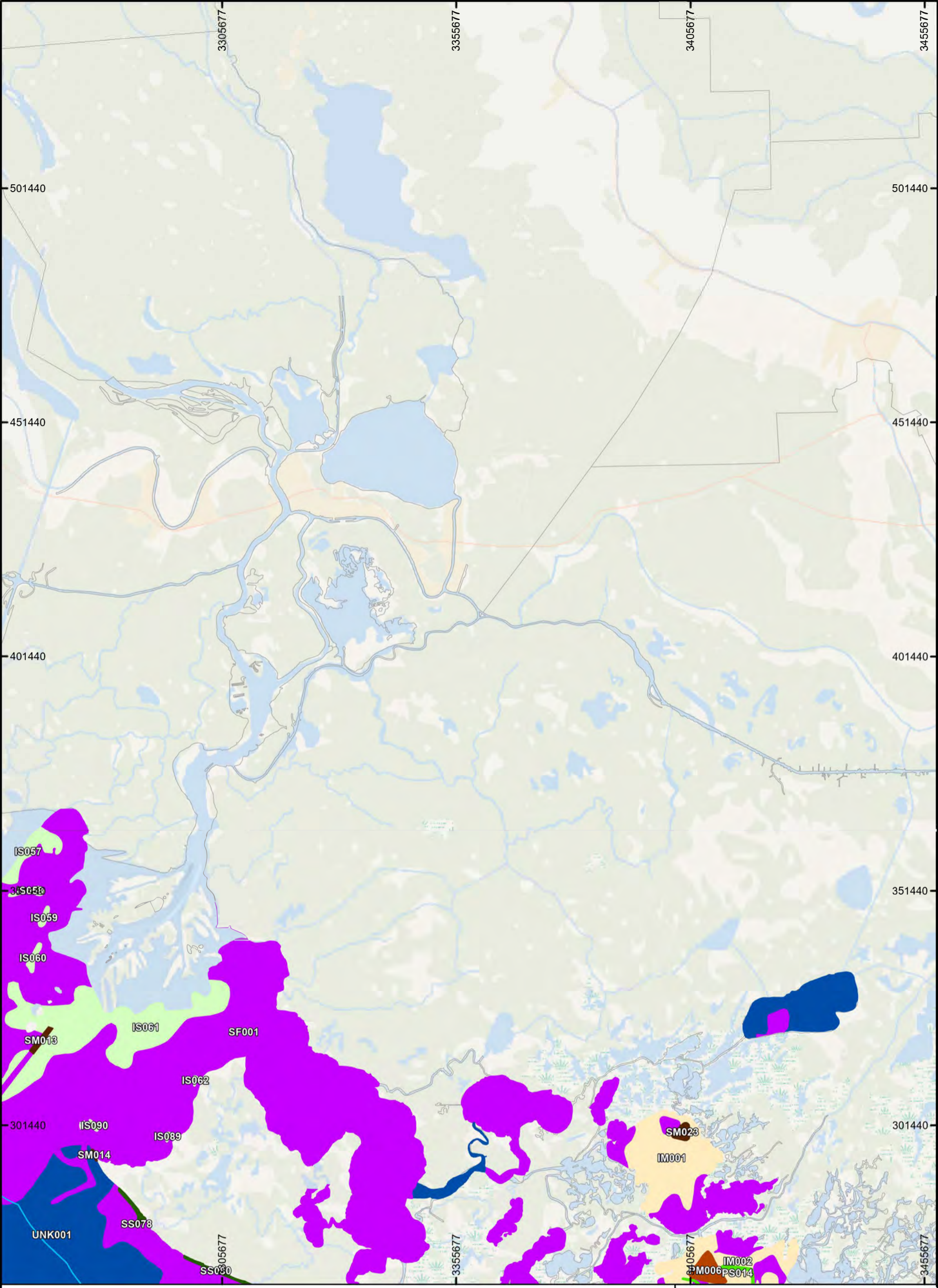
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FIGURE NUMBER

**Map 9 of 23**

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6401 Congress Avenue, Suite 140  
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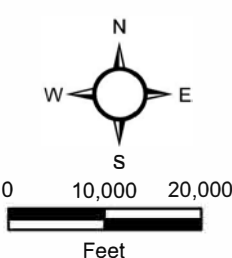


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

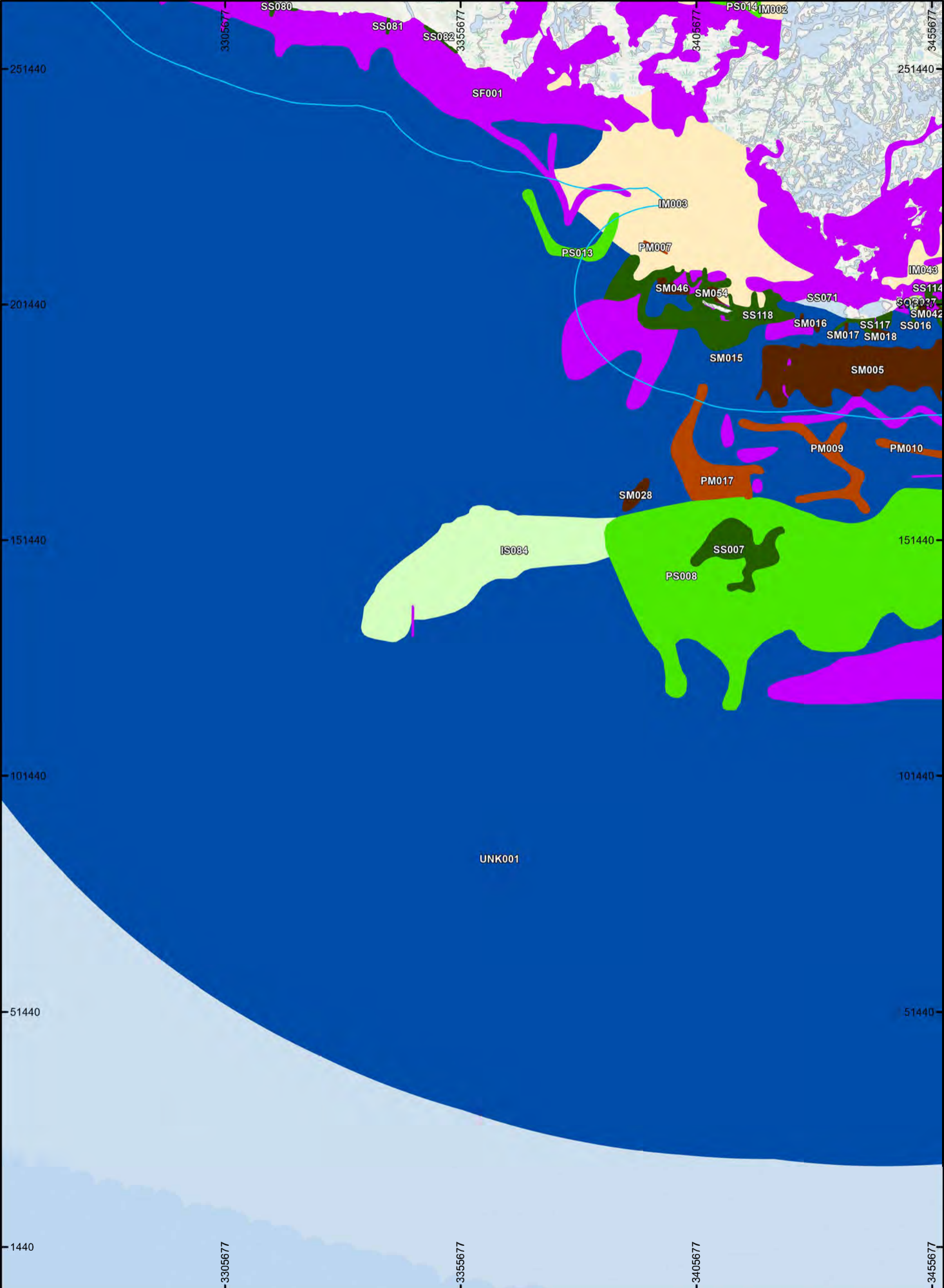


Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates

FIGURE NUMBER  
**Map 10 of 23**





**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

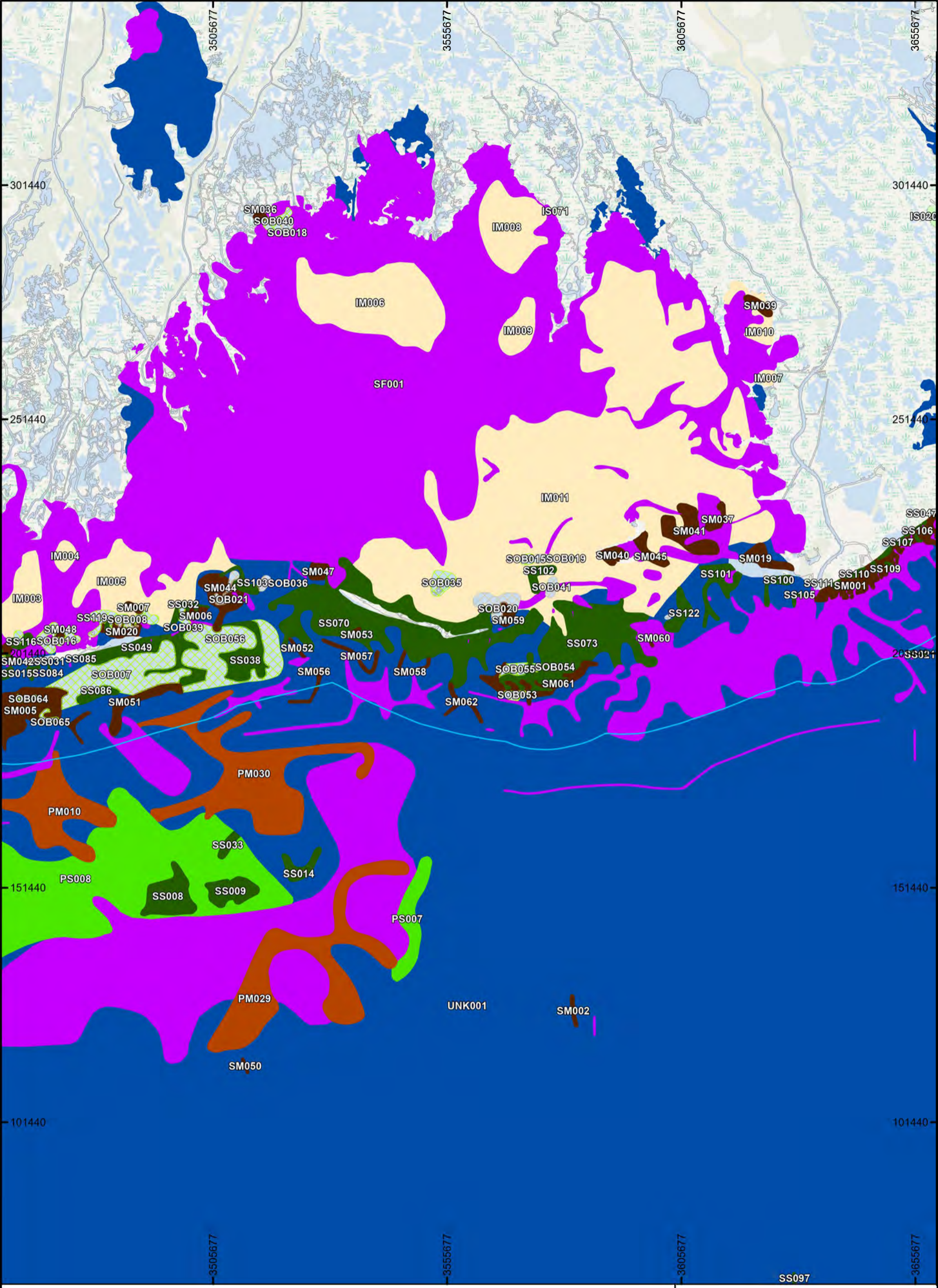
Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand =<10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

0 10,000 20,000  
Feet

**Louisiana Surficial Sediment Distribution Maps**

Total Surficial Deposit Volume Estimates

FIGURE NUMBER  
**Map 11 of 23**



**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

**Louisiana Surficial Sediment Distribution Maps**

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Total Surficial Deposit Volume Estimates

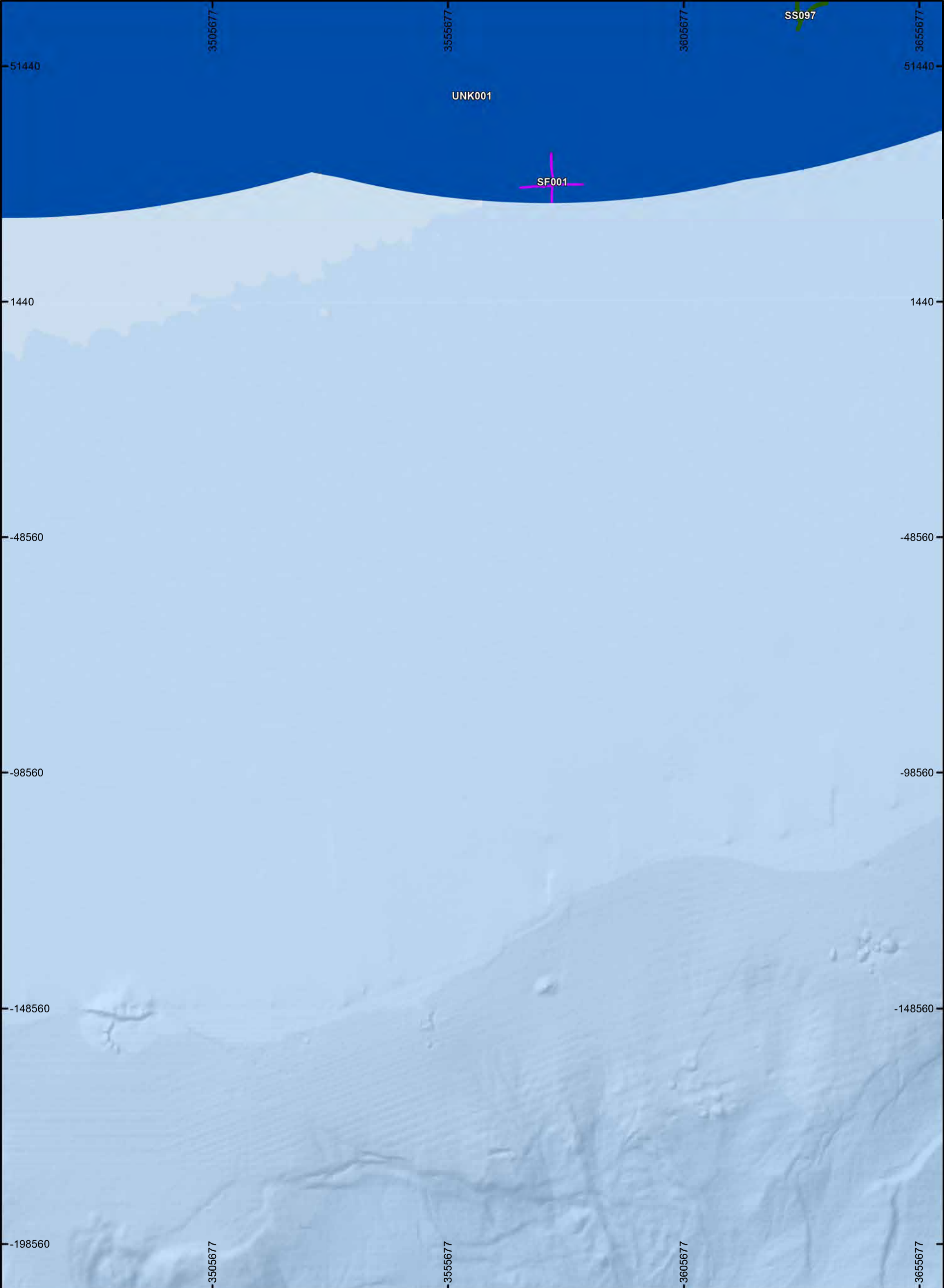
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FIGURE NUMBER

**Map 12 of 23**

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6401 Congress Avenue, Suite 140  
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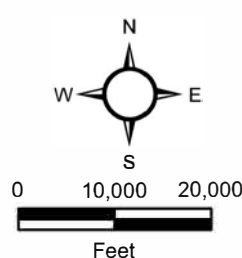


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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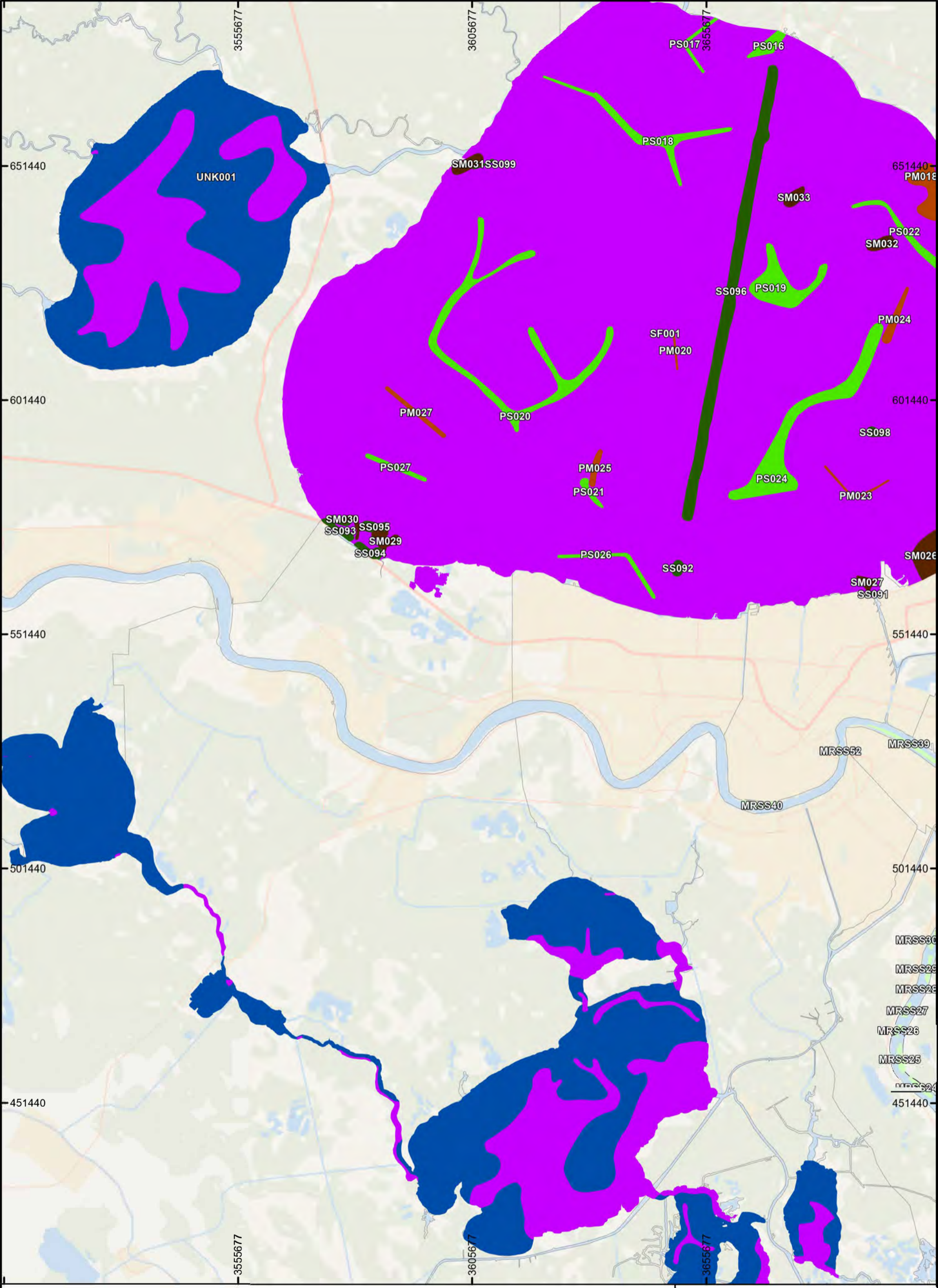
**Total Surficial Deposit Volume Estimates**

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FIGURE NUMBER **Map 13 of 23**

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**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

0 10,000 20,000  
Feet

**Louisiana Surficial Sediment Distribution Maps**

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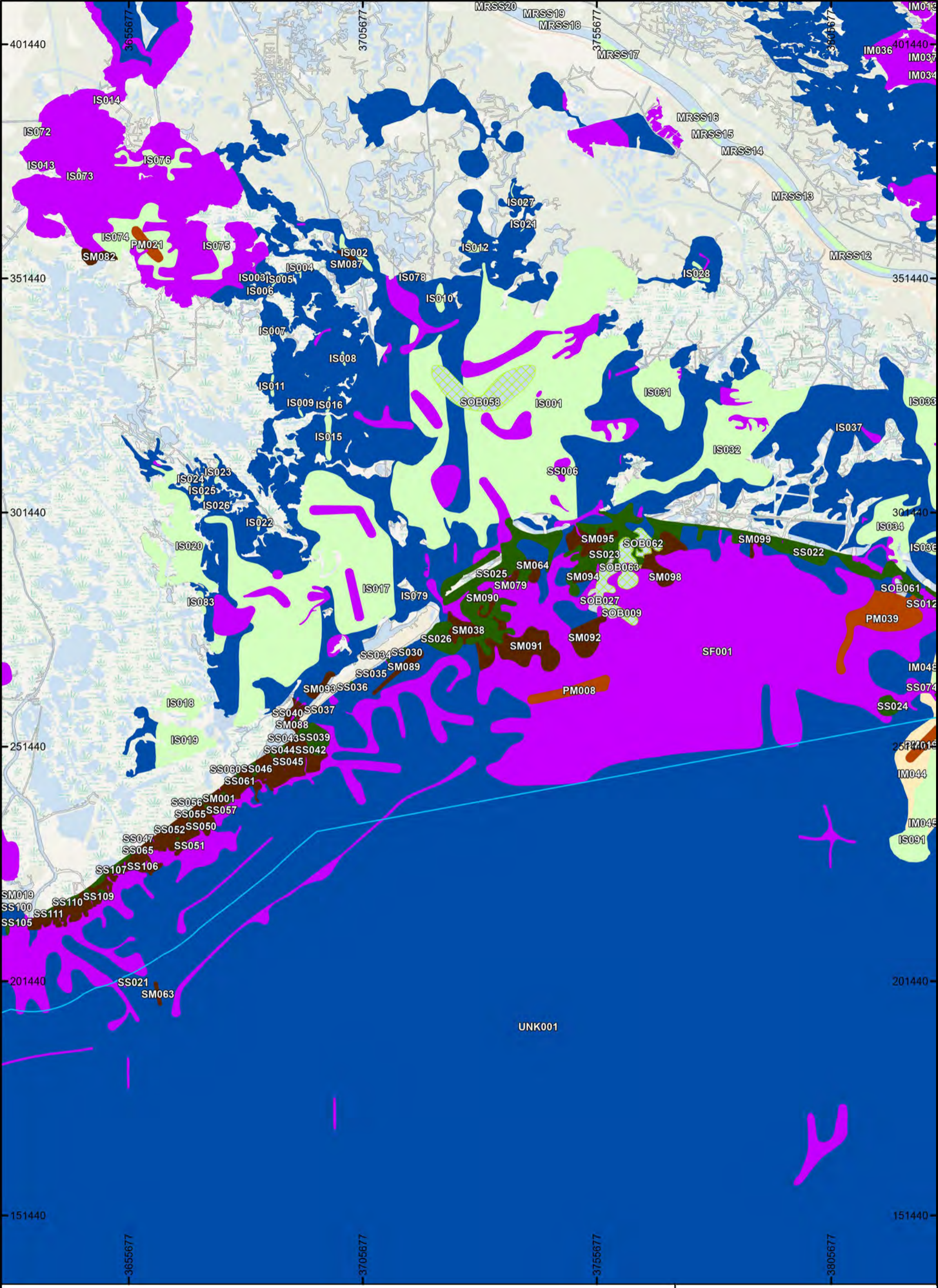
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER **Map 14 of 23**

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**APTIM** 6401 Congress Avenue, Suite 140  
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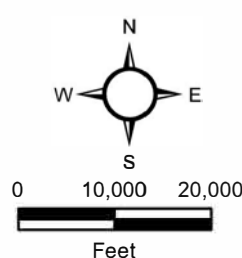


**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Sand	Inferred Sand	Sand <=10 ft Overburden
Potential Sand	Mixed Sediment	Sand >10 ft Overburden	Fines
Potential Mixed Sediment	Unknown		



**Louisiana Surficial Sediment Distribution Maps**

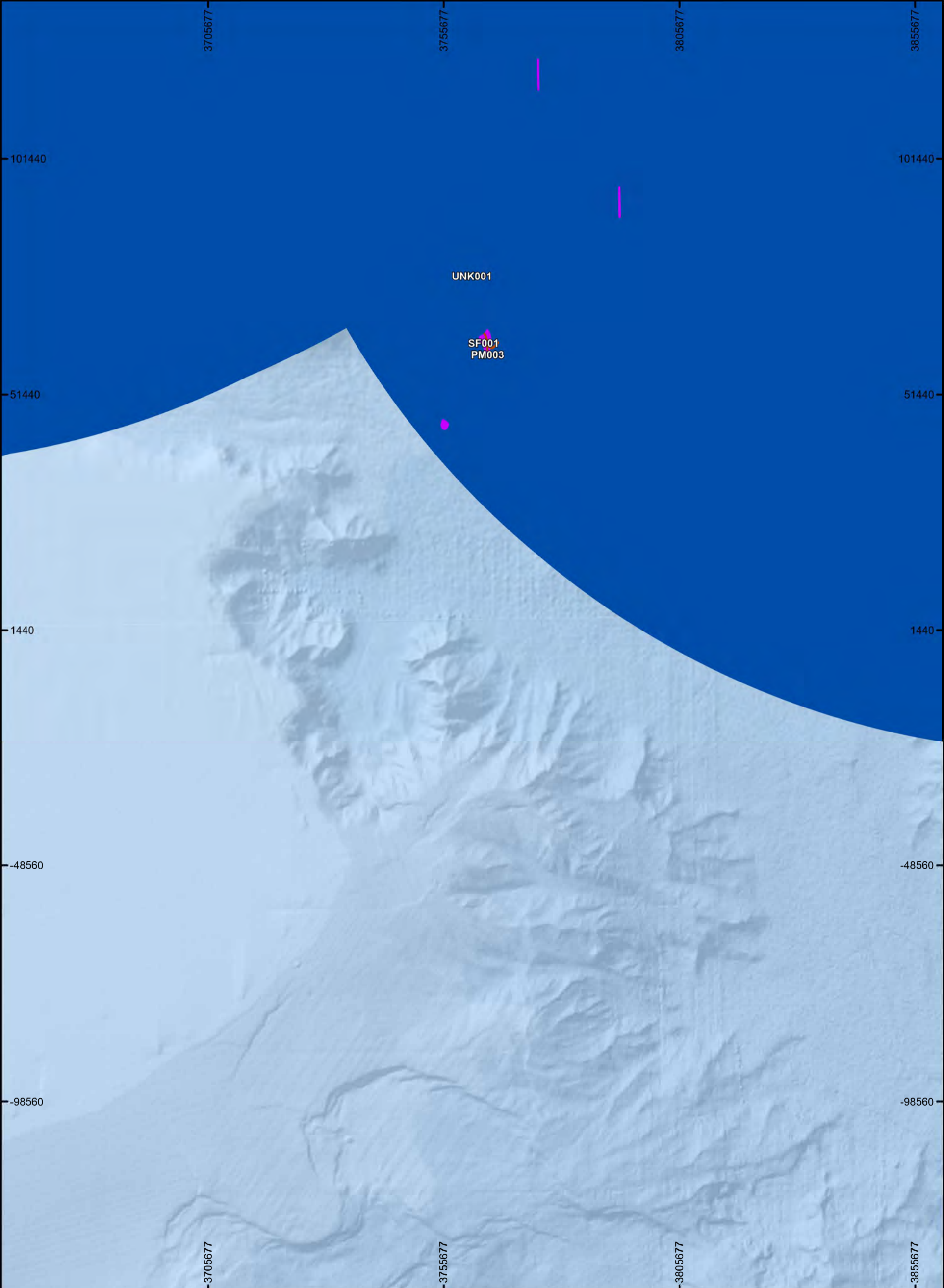
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Total Surficial Deposit Volume Estimates

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FIGURE NUMBER

**Map 15 of 23**



**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand =<10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	

Feet

**Louisiana Surficial Sediment Distribution Maps**

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Total Surficial Deposit Volume Estimates

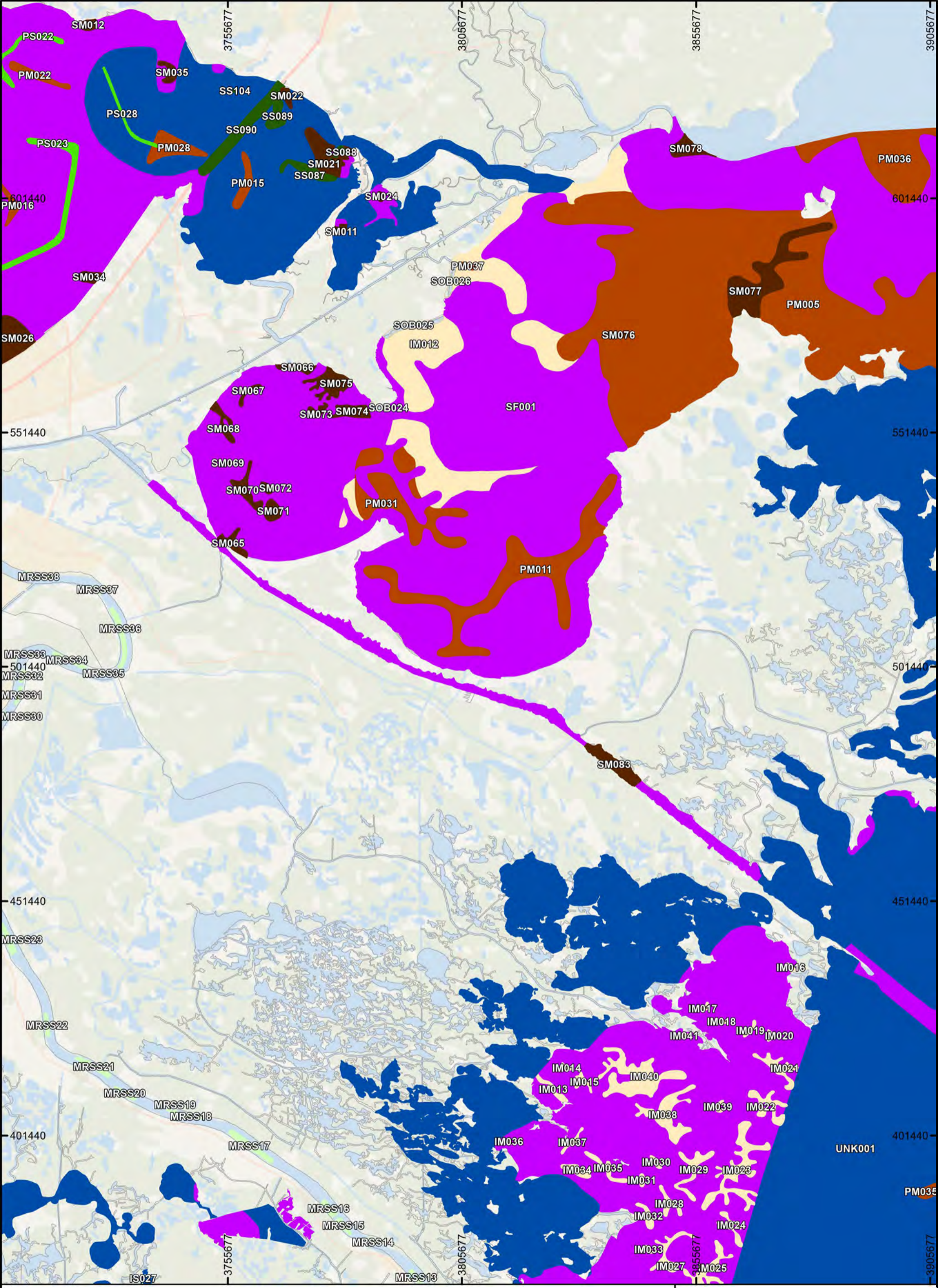
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FIGURE NUMBER

**Map 16 of 23**

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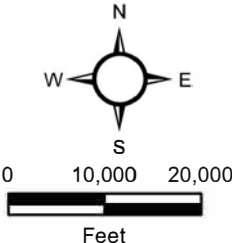


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

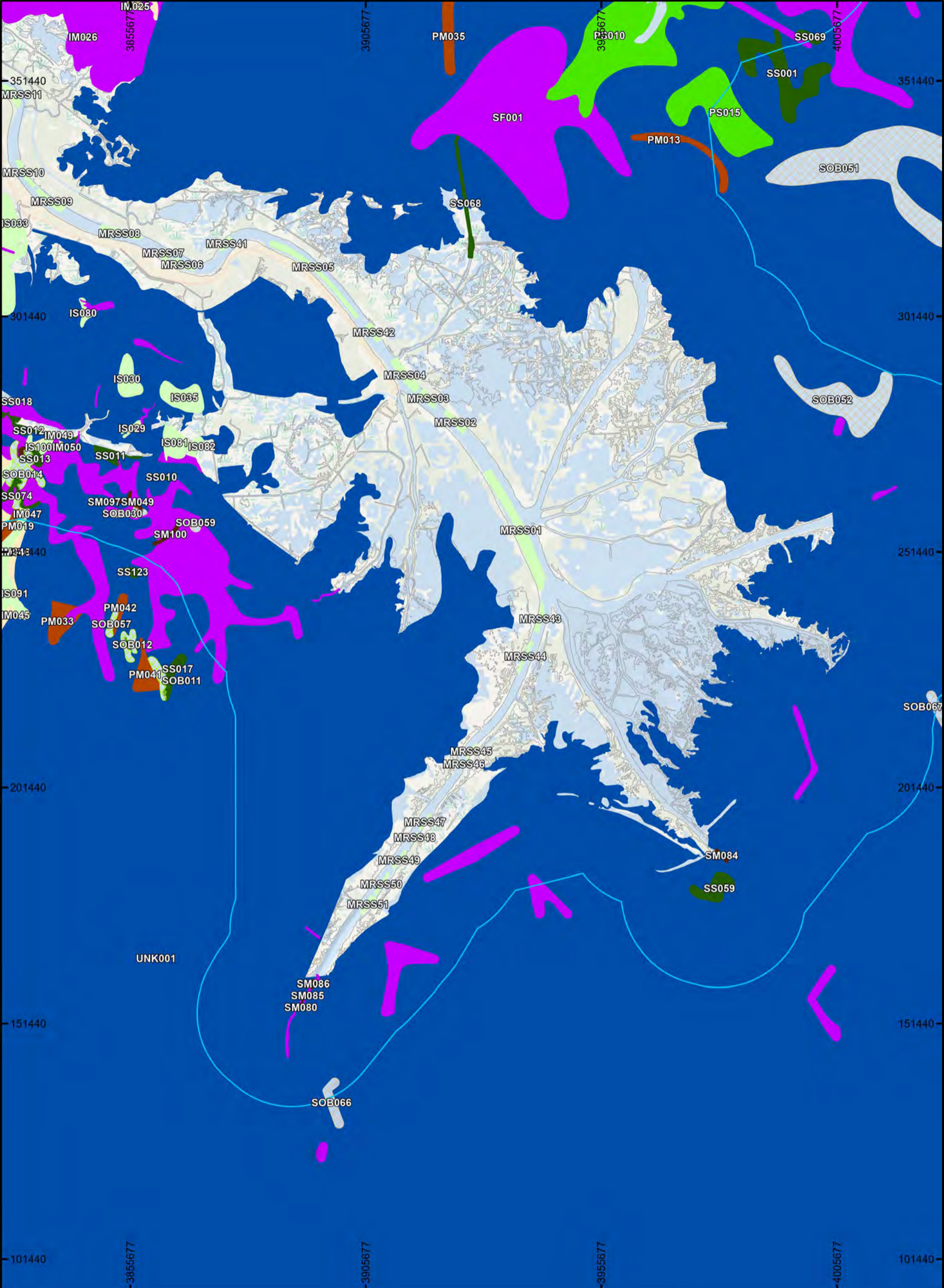
Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates

FIGURE NUMBER **Map 17 of 23**

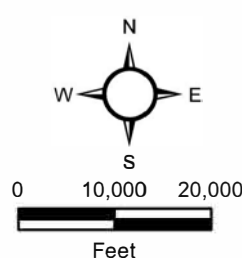


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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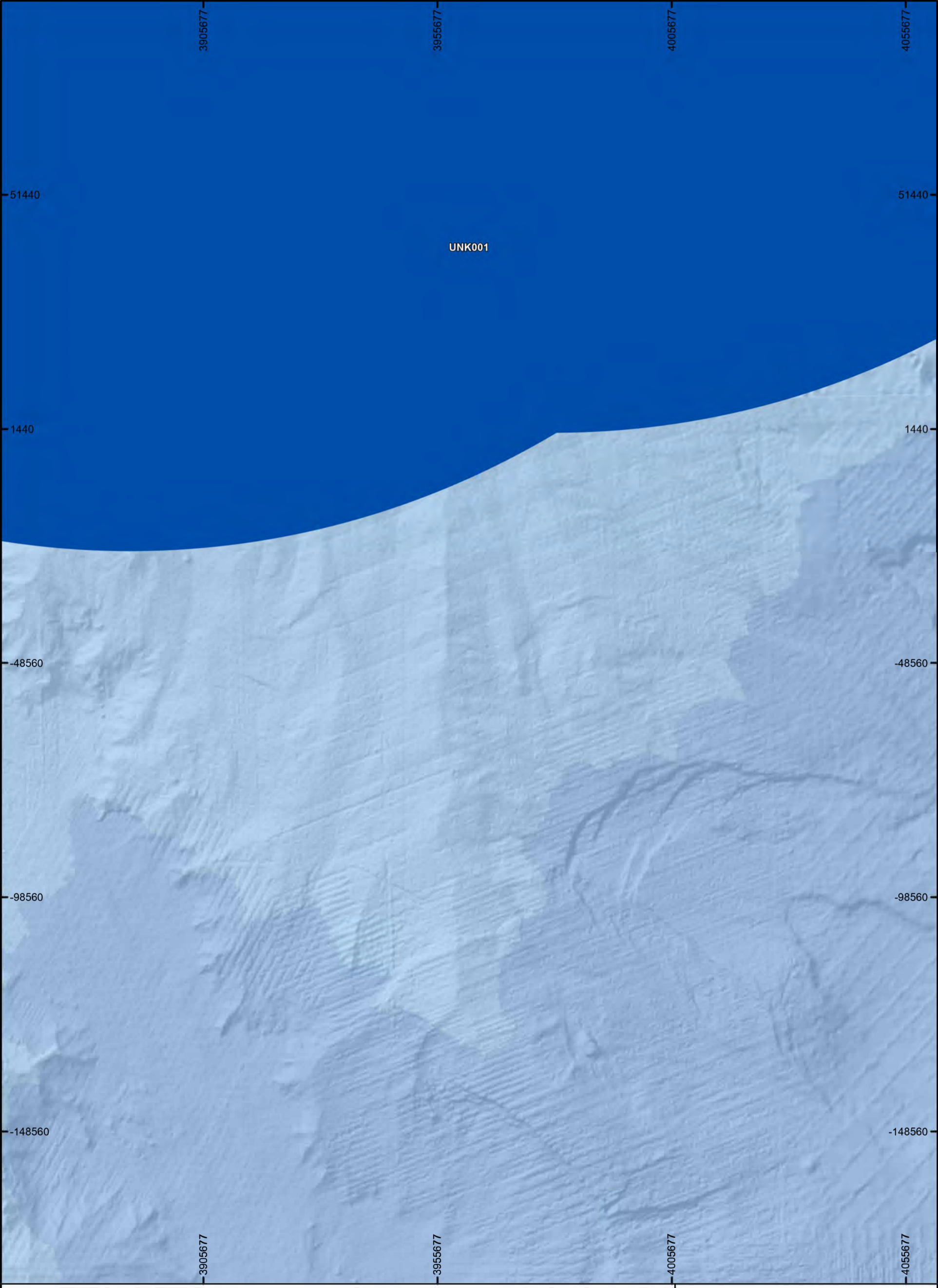
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER

**Map 18 of 23**
















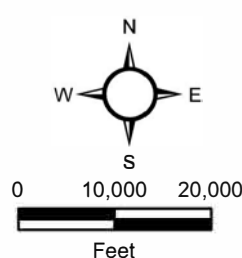
UNK001

**Notes:**

1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
2. Background imagery is ESRI's World Imagery basemap.
3. This map represents the 2023 mapping update.
4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

 Federal/State Boundary	 Inferred Mixed Sediment
 Sand	 Sand <=10 ft Overburden
 Potential Sand	 Sand >10 ft Overburden
 Inferred Sand	 Fines
 Mixed Sediment	 Unknown
 Potential Mixed Sediment	



Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates

FIGURE NUMBER **Map 19 of 23**

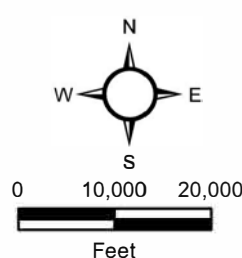


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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Total Surficial Deposit Volume Estimates

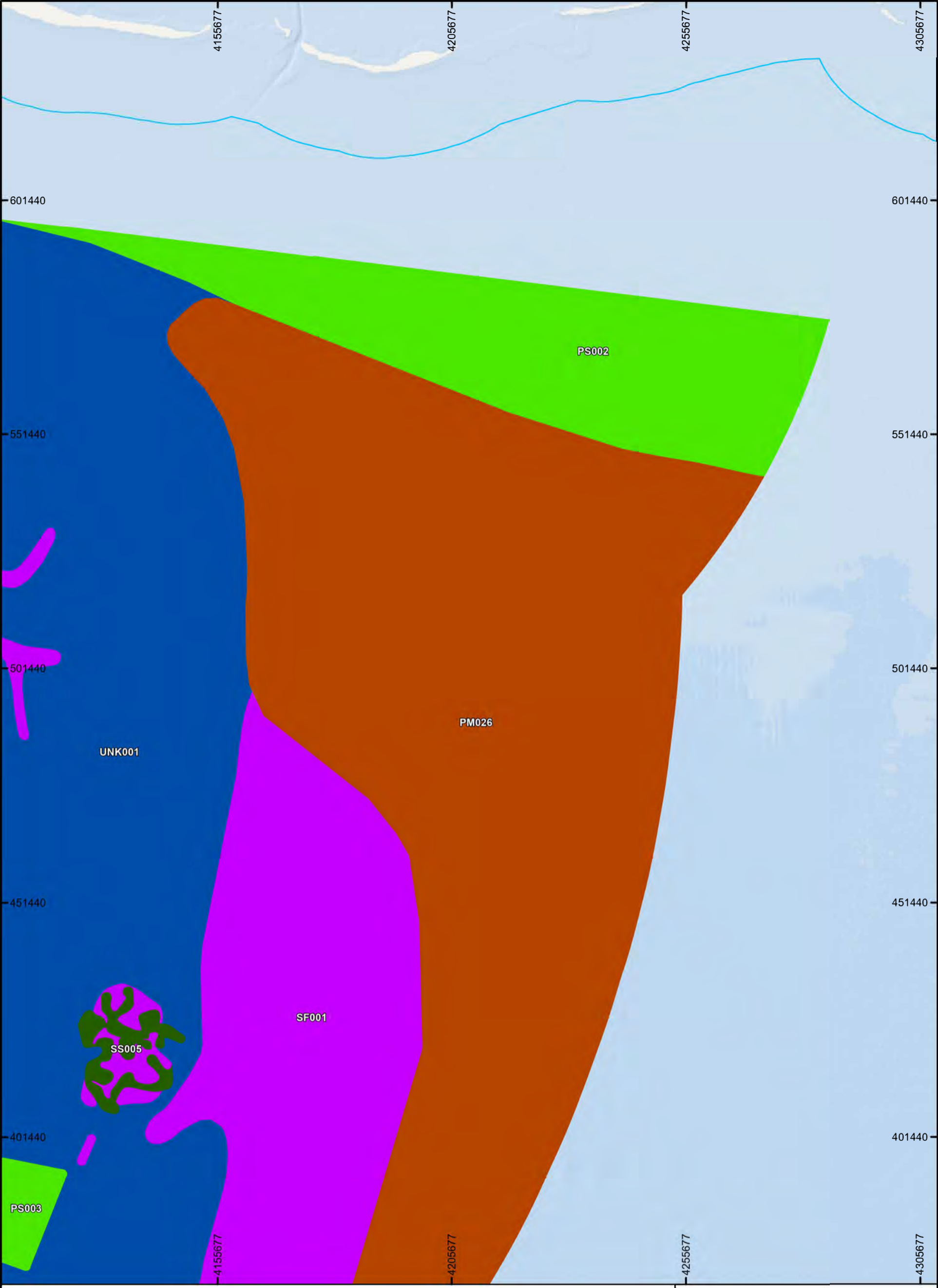
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FIGURE NUMBER

**Map 20 of 23**

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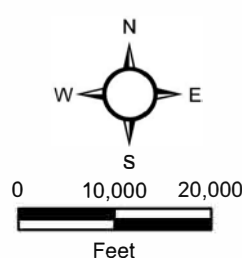


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand <=10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



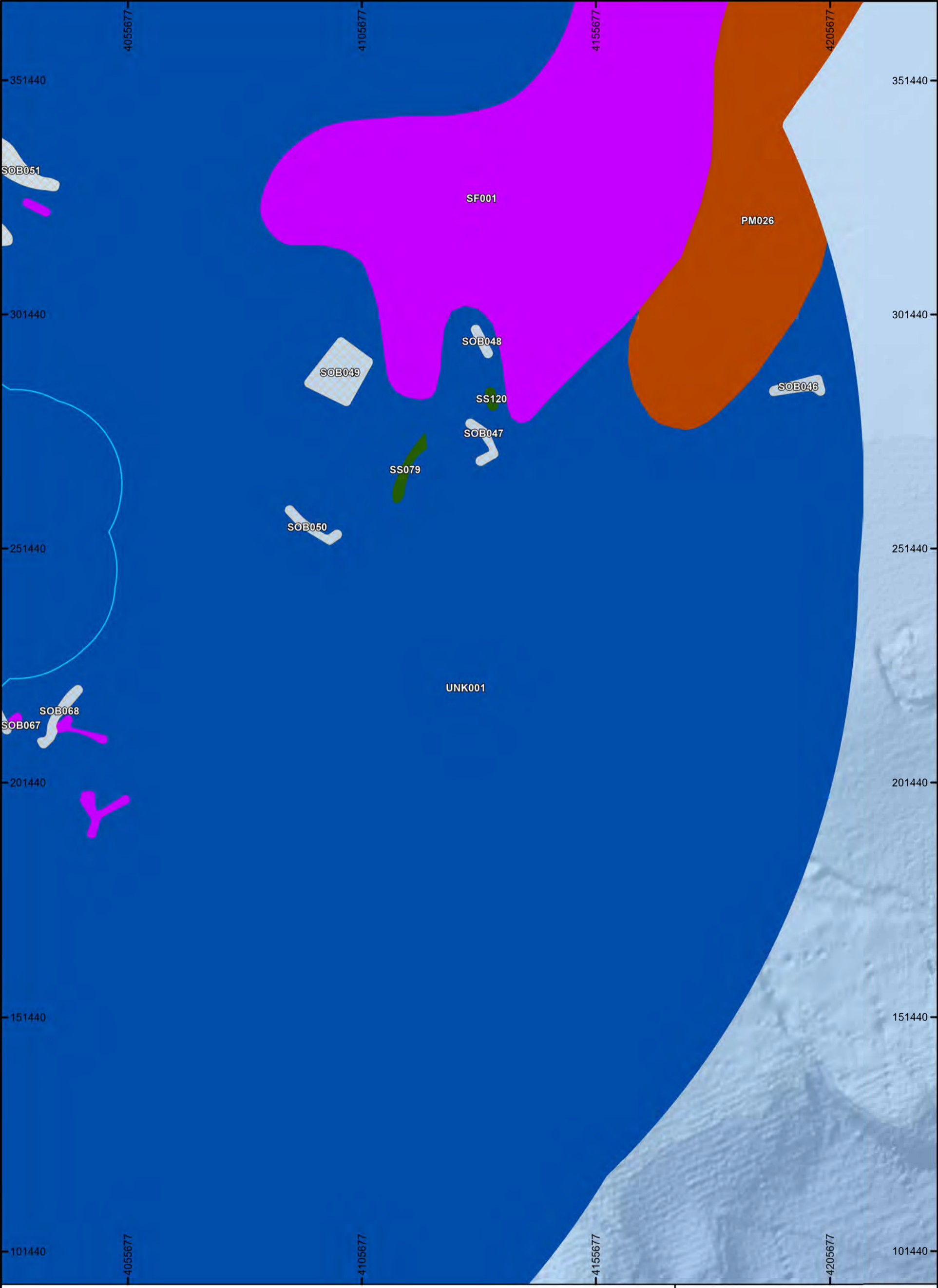
**Louisiana Surficial Sediment Distribution Maps**

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**Total Surficial Deposit Volume Estimates**

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FIGURE NUMBER **Map 21 of 23**

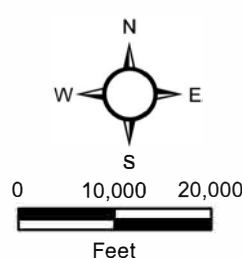


**Notes:**

- Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
- Background imagery is ESRI's World Imagery basemap.
- This map represents the 2023 mapping update.
- Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

**Legend:**

Federal/State Boundary	Inferred Mixed Sediment
Sand	Sand =<10 ft Overburden
Potential Sand	Sand >10 ft Overburden
Inferred Sand	Fines
Mixed Sediment	Unknown
Potential Mixed Sediment	



**Louisiana Surficial Sediment Distribution Maps**

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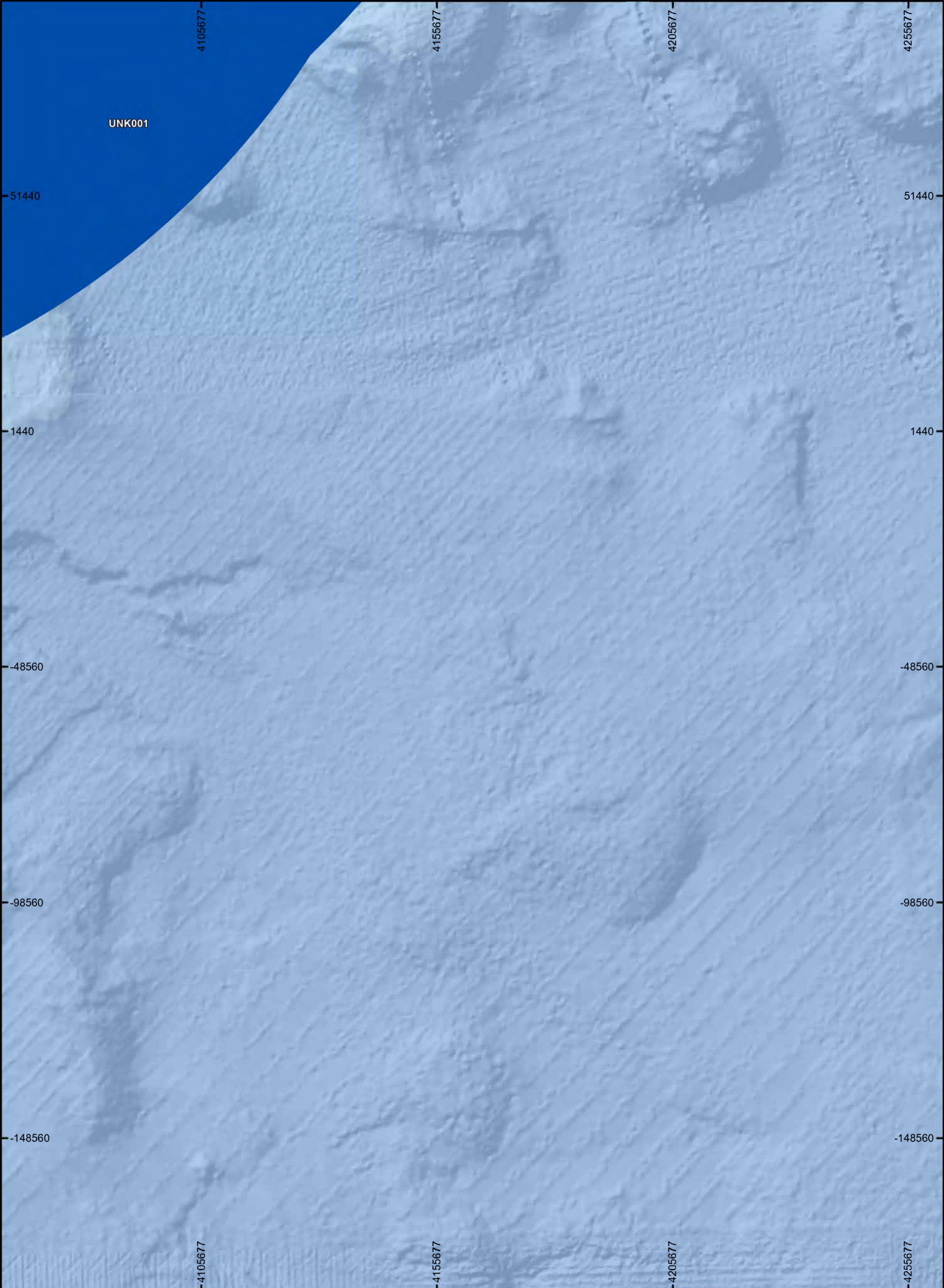
Total Surficial Deposit Volume Estimates

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FIGURE NUMBER **Map 22 of 23**

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UNK001

51440

51440

1440

1440

-48560

-48560

-98560

-98560

-148560

-148560

4105677

4155677

4205677

4255677

4105677

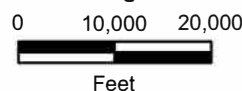
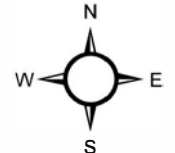
4155677

4205677

4255677

- Notes:**
1. Coordinates are in feet based on the Louisiana State Plane Coordinate System, South Zone, North American Datum of 1983 (NAD 83).
  2. Background imagery is ESRI's World Imagery basemap.
  3. This map represents the 2023 mapping update.
  4. Delineation of surficial sediment areas was based on the limited data available. Further investigation would be necessary to verify surficial sediment types and volumes.

- Legend:**
- Federal/State Boundary
  - Sand
  - Potential Sand
  - Inferred Sand
  - Mixed Sediment
  - Potential Mixed Sediment
  - Inferred Mixed Sediment
  - Sand ≤10 ft Overburden
  - Sand >10 ft Overburden
  - Fines
  - Unknown



Louisiana Surficial Sediment Distribution Maps

Total Surficial Deposit Volume Estimates

FIGURE NUMBER **Map 23 of 23**

**Attachment 3**  
**Lower Mississippi River SSD Maps -70 ft NAVD88 Cut**

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**Notes:**

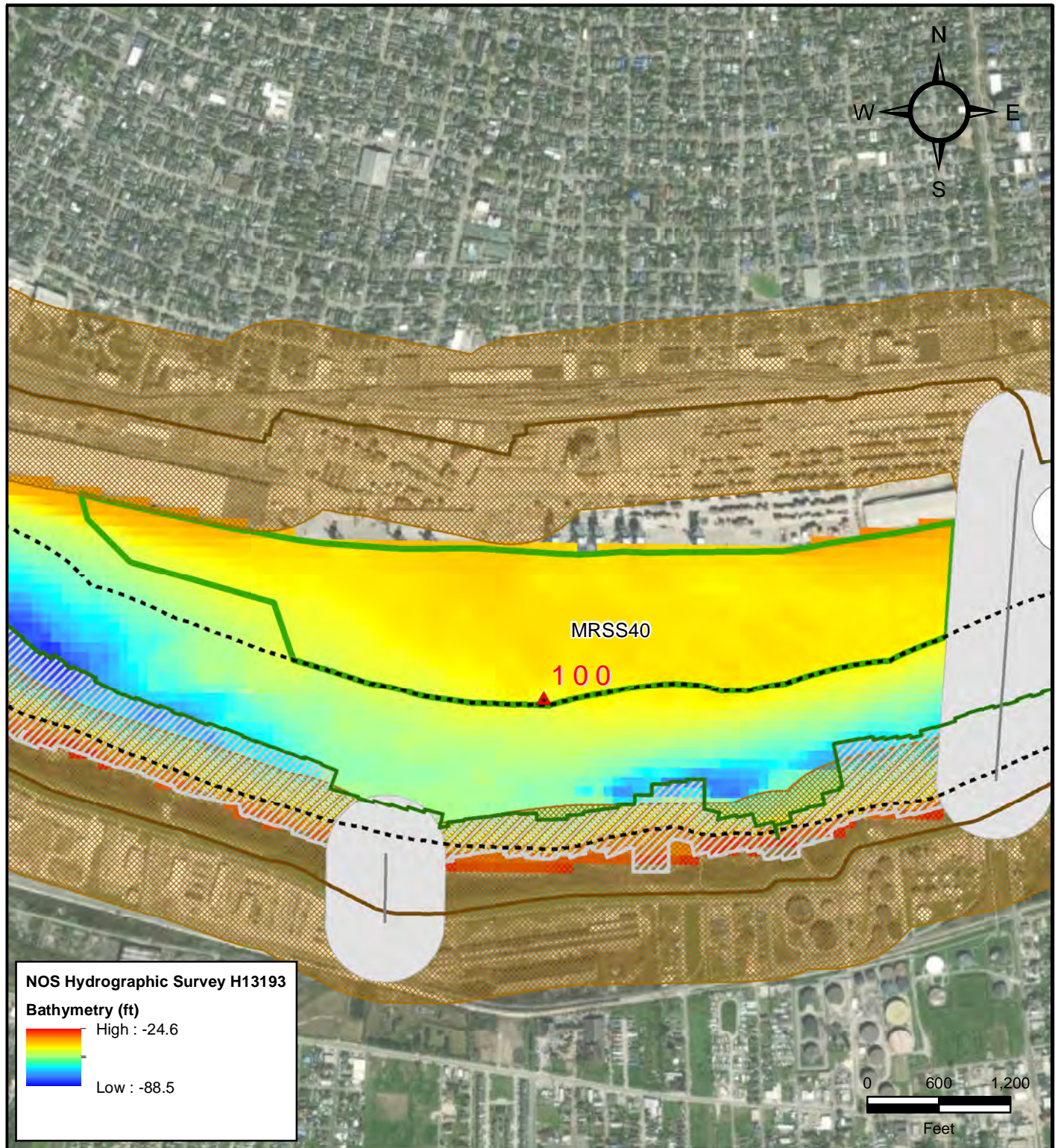
1. Background Imagery credits: ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGrid, IGN and the GIS User Community.
2. Multibeam bathymetric data collected in 2019 (NOS Hydrographic Surveys H13193, H13194, H13195, H13196, and H13212), obtained through the NCEI in BAG format was used to digitize bar formations that potentially contain sand.
3. Per "Limits of Permissible Excavation in River" (USACE, 1974), a federal levee offset of 750 ft from the levee centerline was applied to each potential sand resource.
4. Potential sand resource delineations provide for a 1,200 ft wide shipping lane, as defined as the distance between the outside edge of the sand resource and the -45 ft NAVD88 contour on the opposite river bank.
5. A 300 ft buffer between the edge of each sand resource and each navigation aid was applied.
6. A 500 ft buffer between the edge of each potential sand resource and any pipelines was applied.
7. An offset equal to the horizontal distance between the toe of the revetment and the intersection of a 1V:6H slope from the toe of the revetment and proposed dredge cut elevation was applied.

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft cut  
Cover Sheet

FIGURE  
NUMBER

**Map 1 of 41**



**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

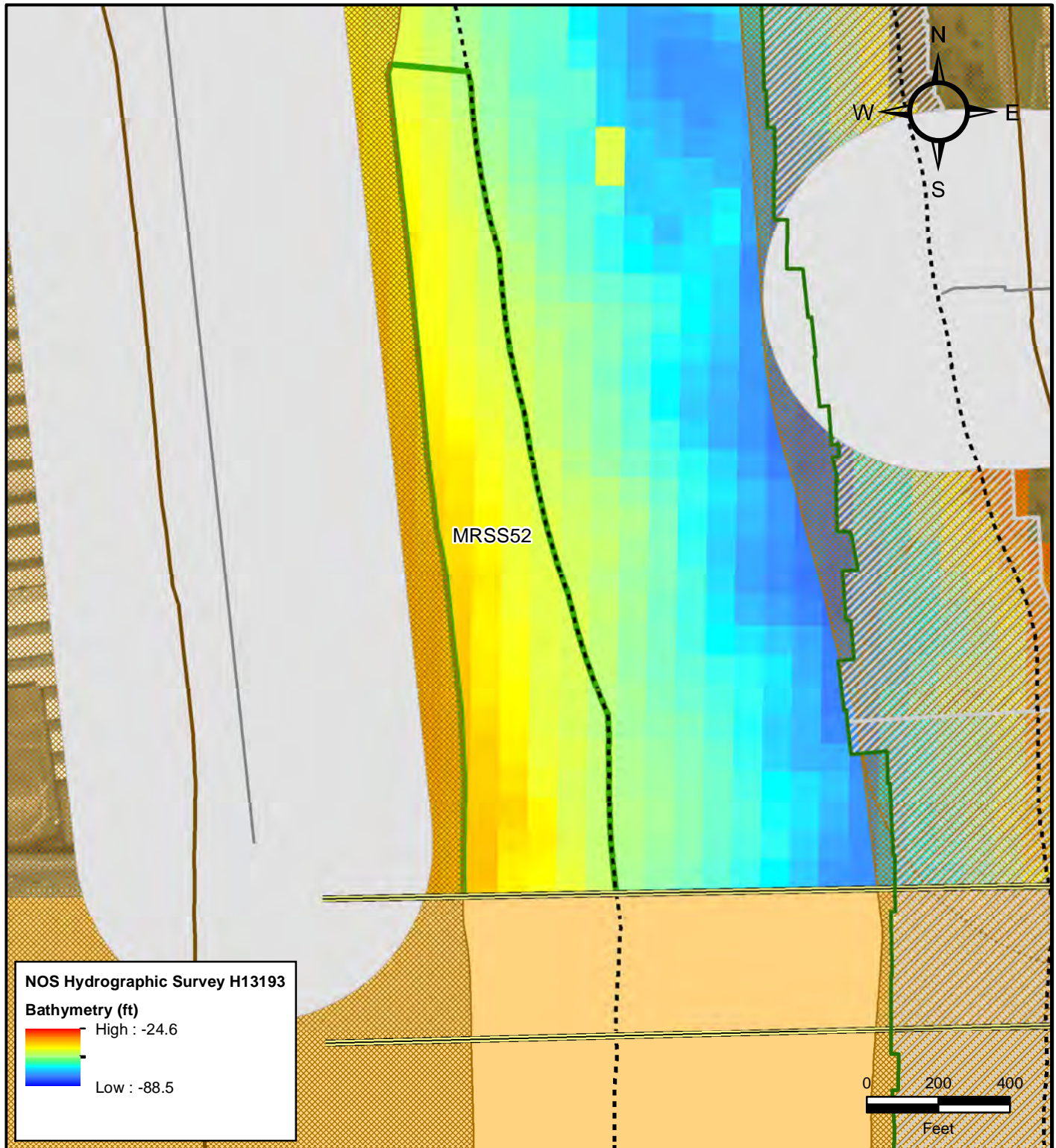
FIGURE  
NUMBER

**Map 2 of 41**



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**Legend**

- Pipeline
- Revetment Toe
- Bridge
- Levee Centerline
- - - Navigation Channel Setback
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- 4000 ft Bridge Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

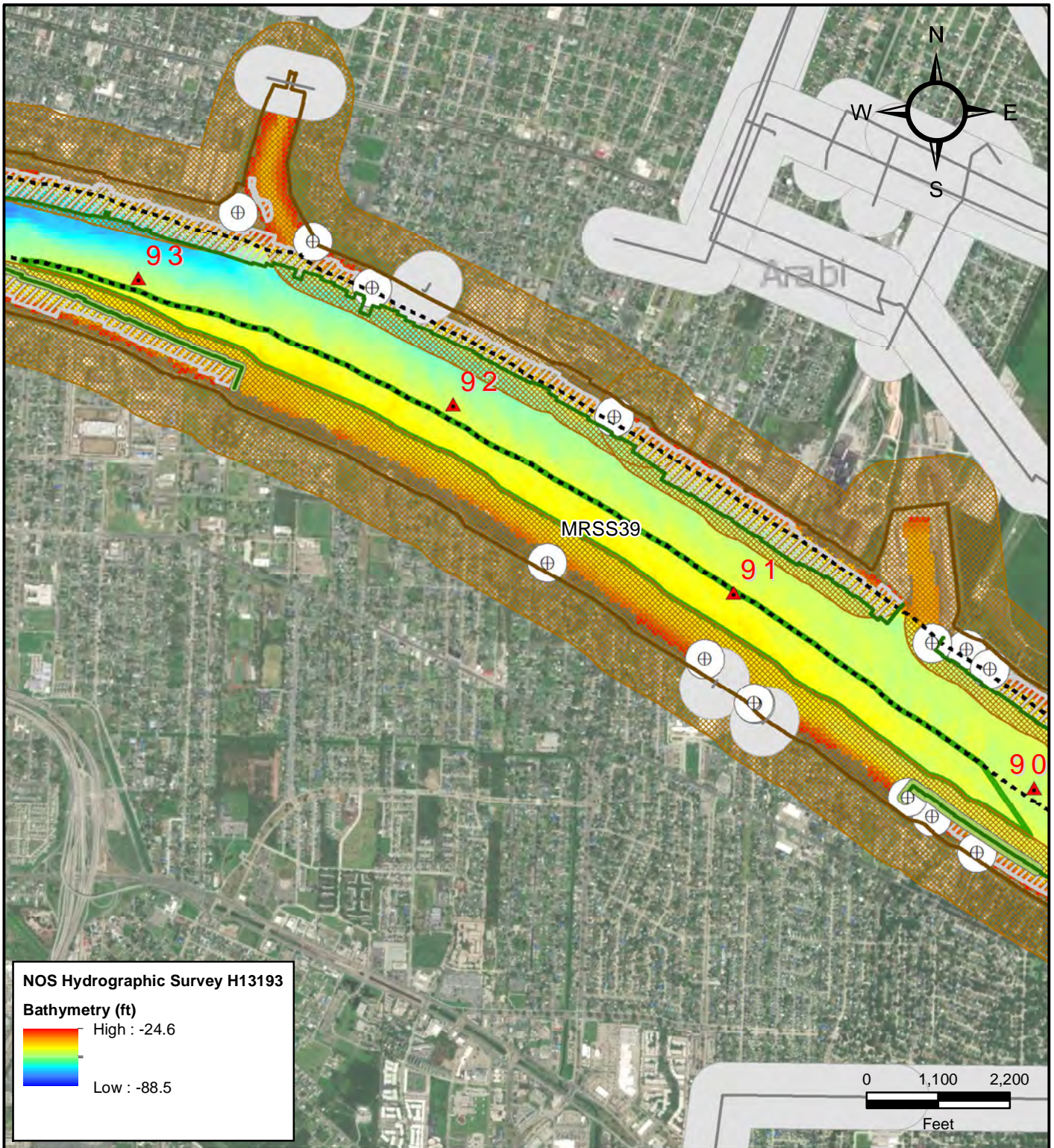
FIGURE  
 NUMBER

**Map 3 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- 4000 ft Bridge Buffer
- ▨ Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

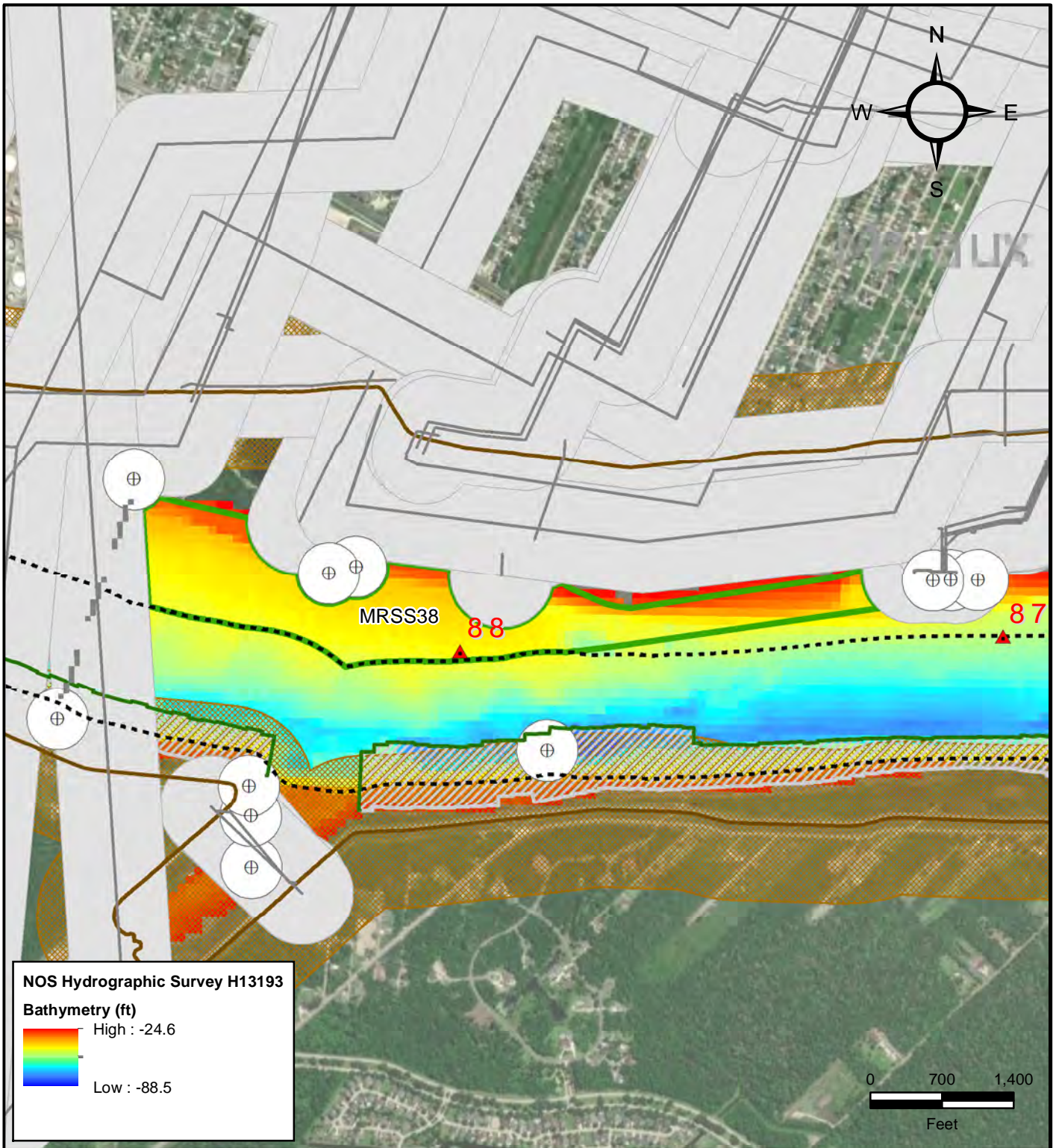
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FIGURE NUMBER

**Map 4 of 41**

---

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**NOS Hydrographic Survey H13193**  
**Bathymetry (ft)**  
 High : -24.6  
 Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

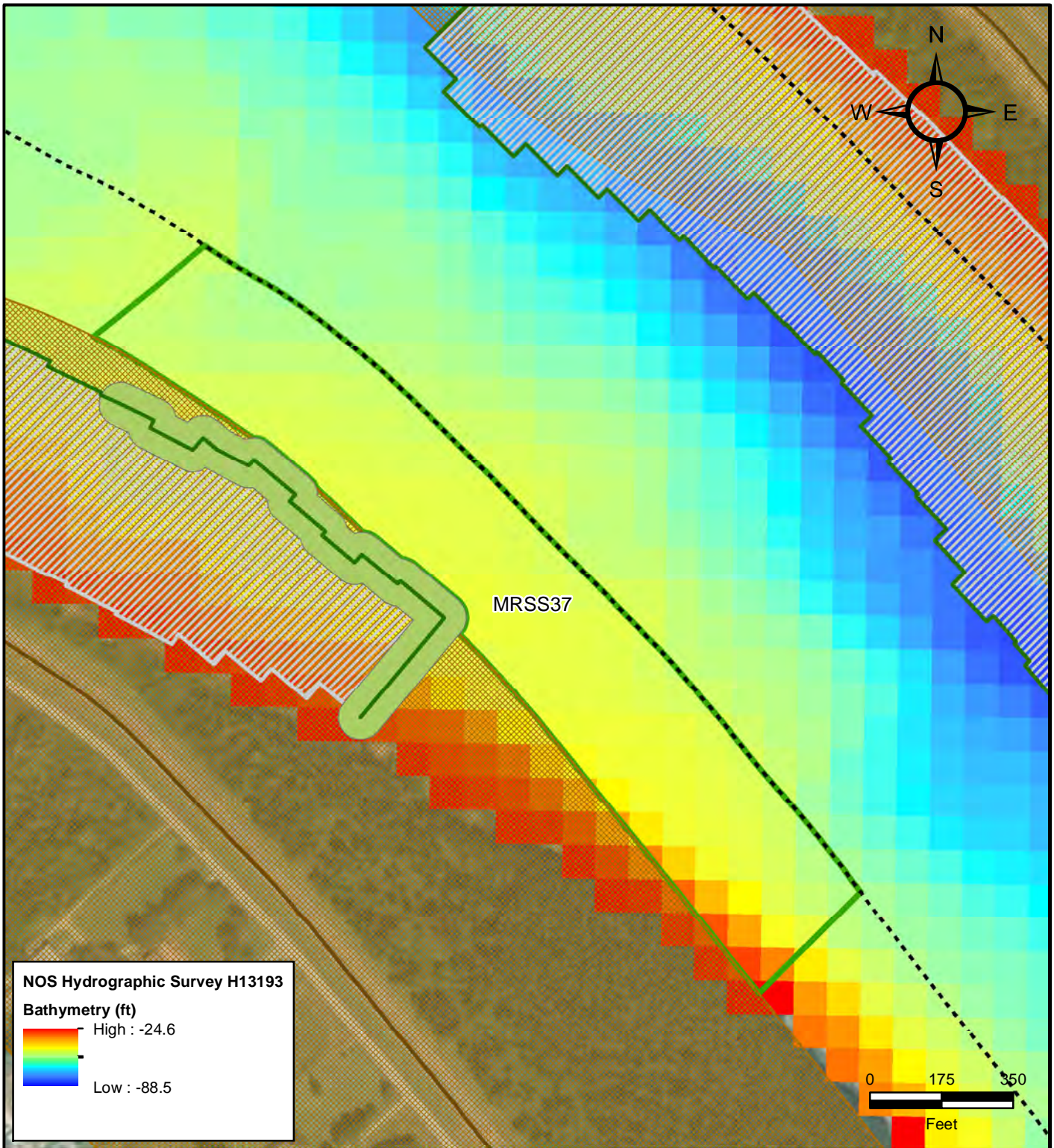
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FIGURE NUMBER

**Map 5 of 41**

---

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	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	Revetment Footprint
	750 Ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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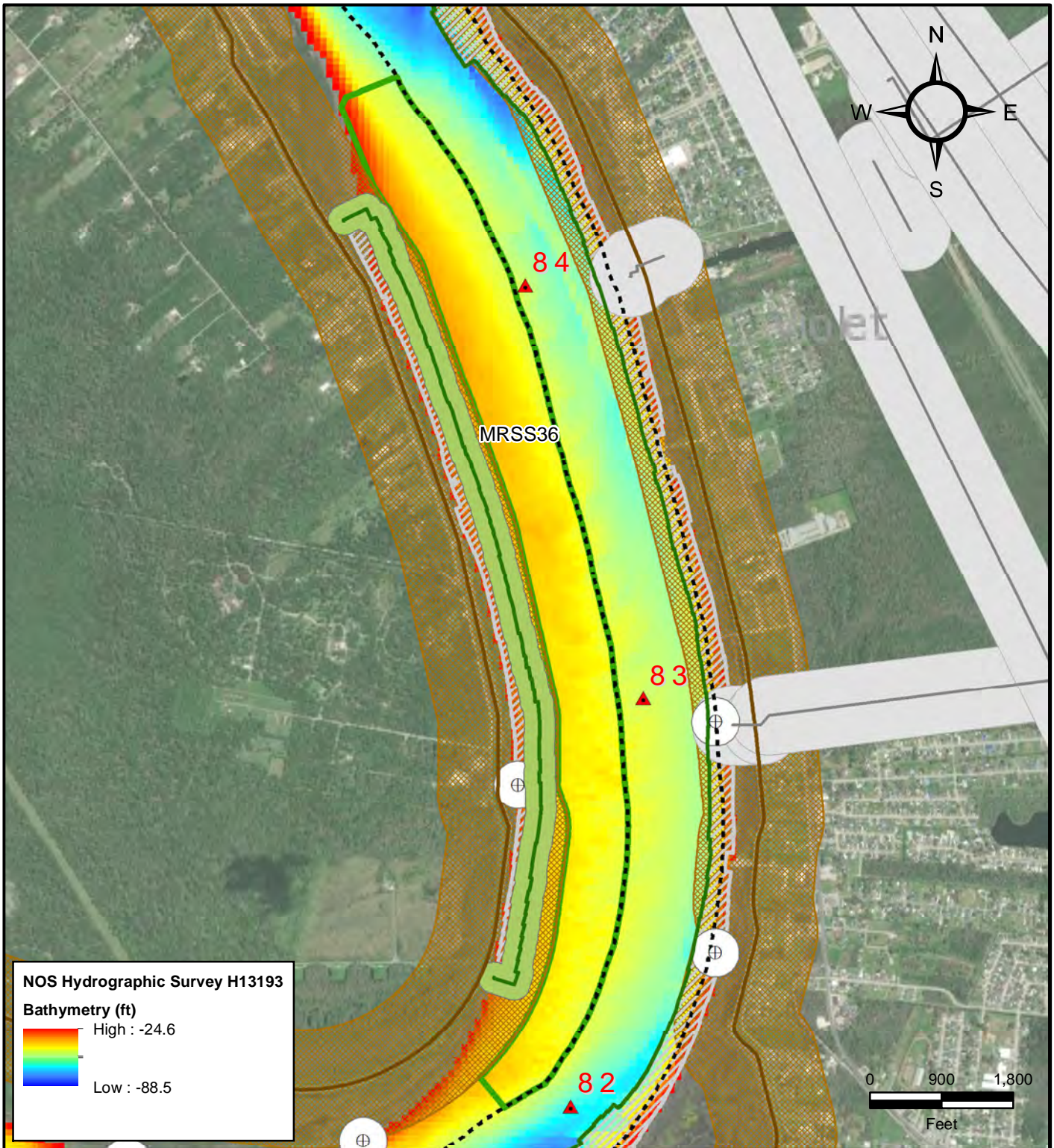
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

---

FIGURE NUMBER  
**Map 6 of 41**

---

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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

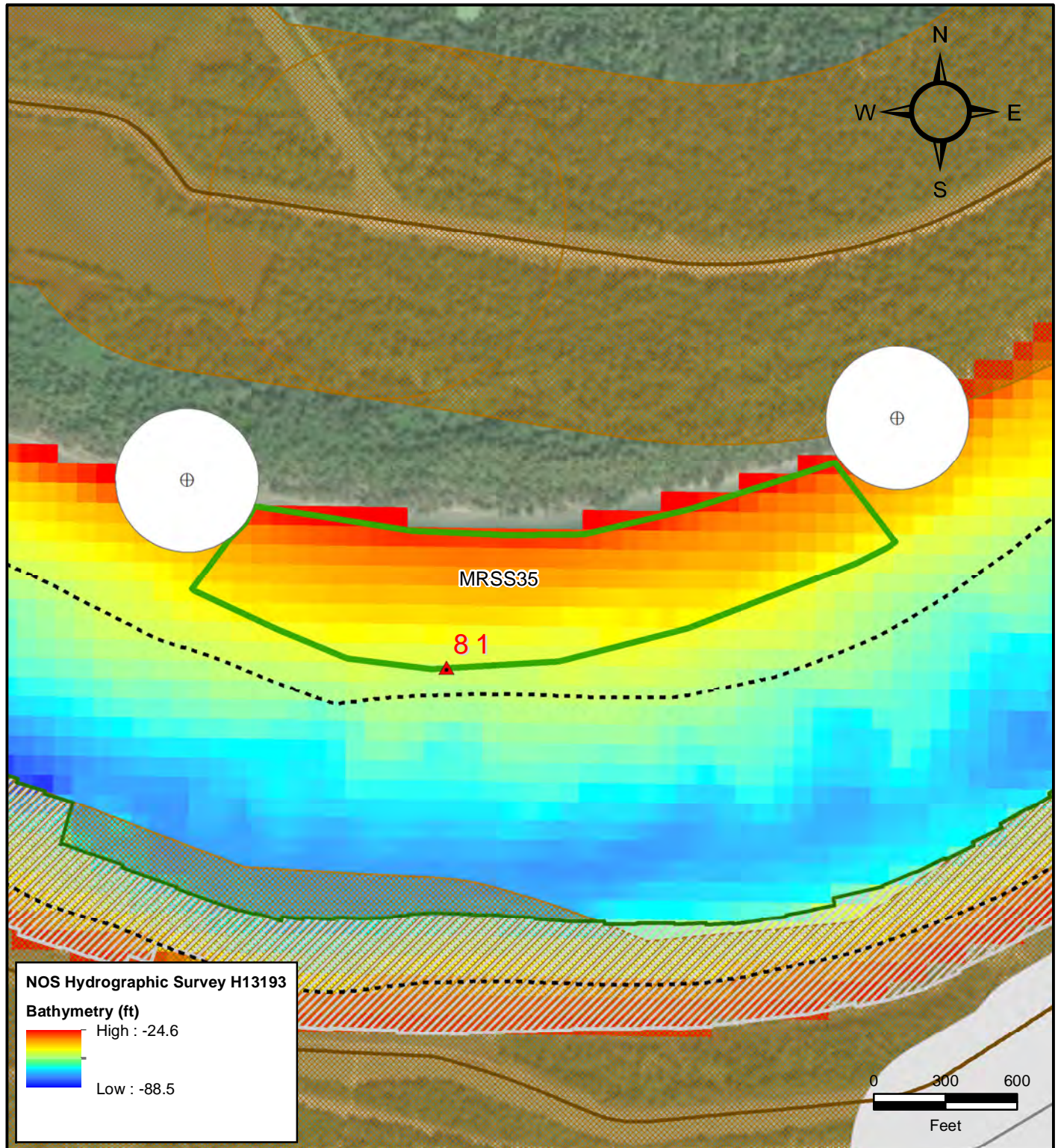
Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE  
NUMBER

**Map 7 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

---

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

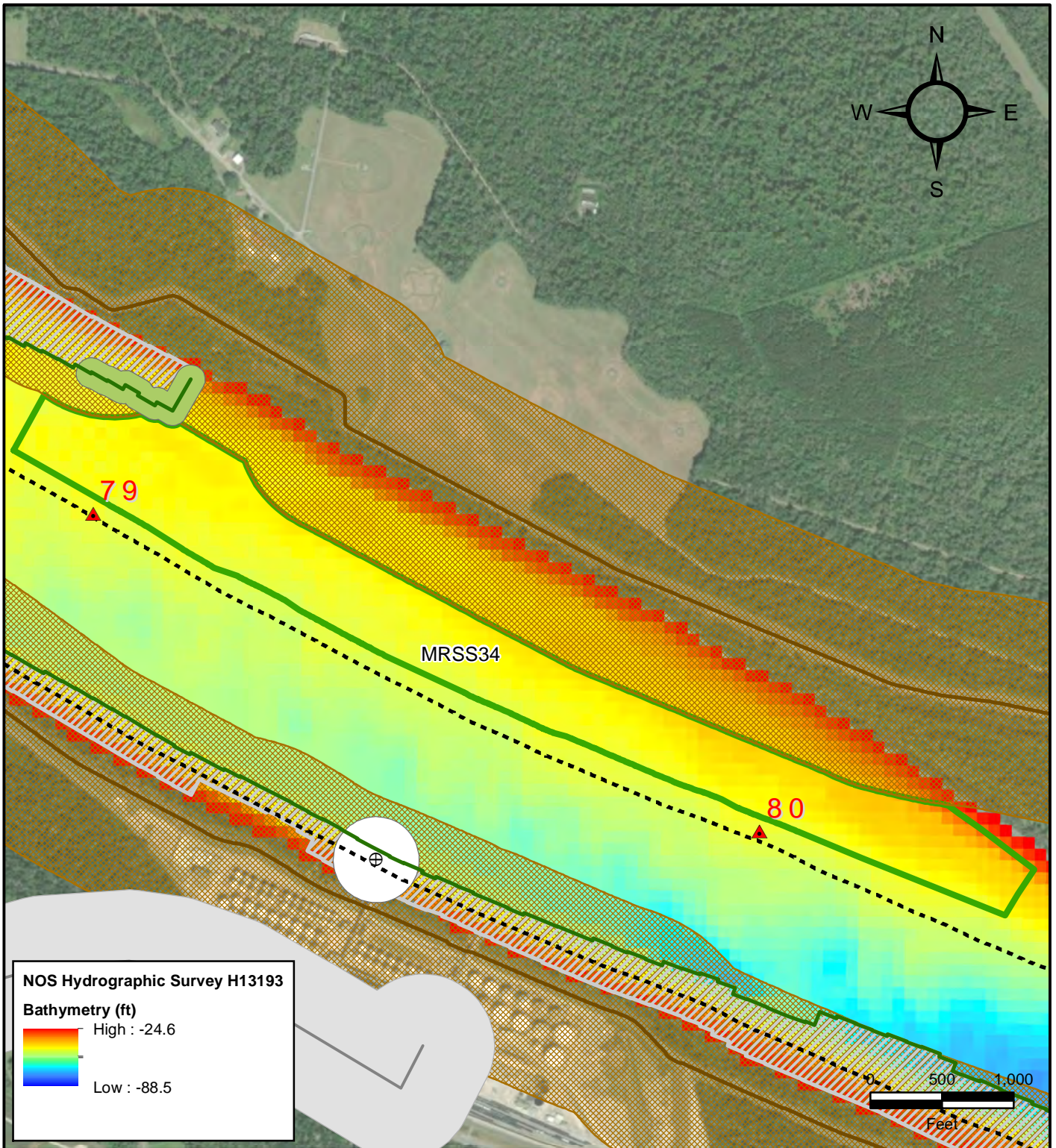
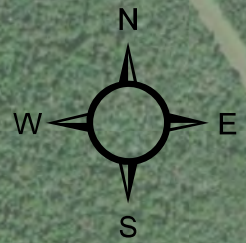
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FIGURE NUMBER

**Map 8 of 41**

---

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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6  
Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

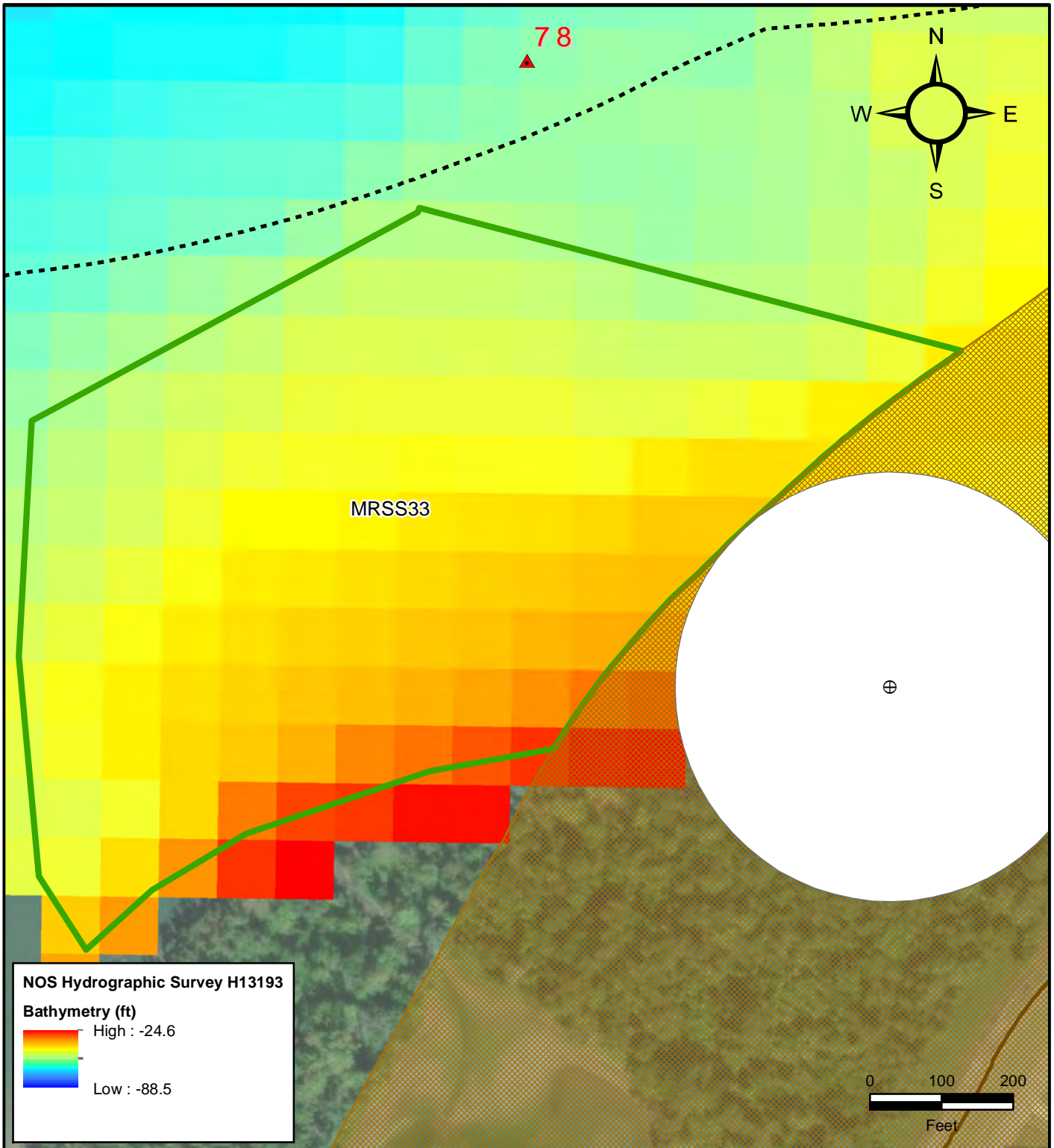
Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE  
NUMBER

**Map 9 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

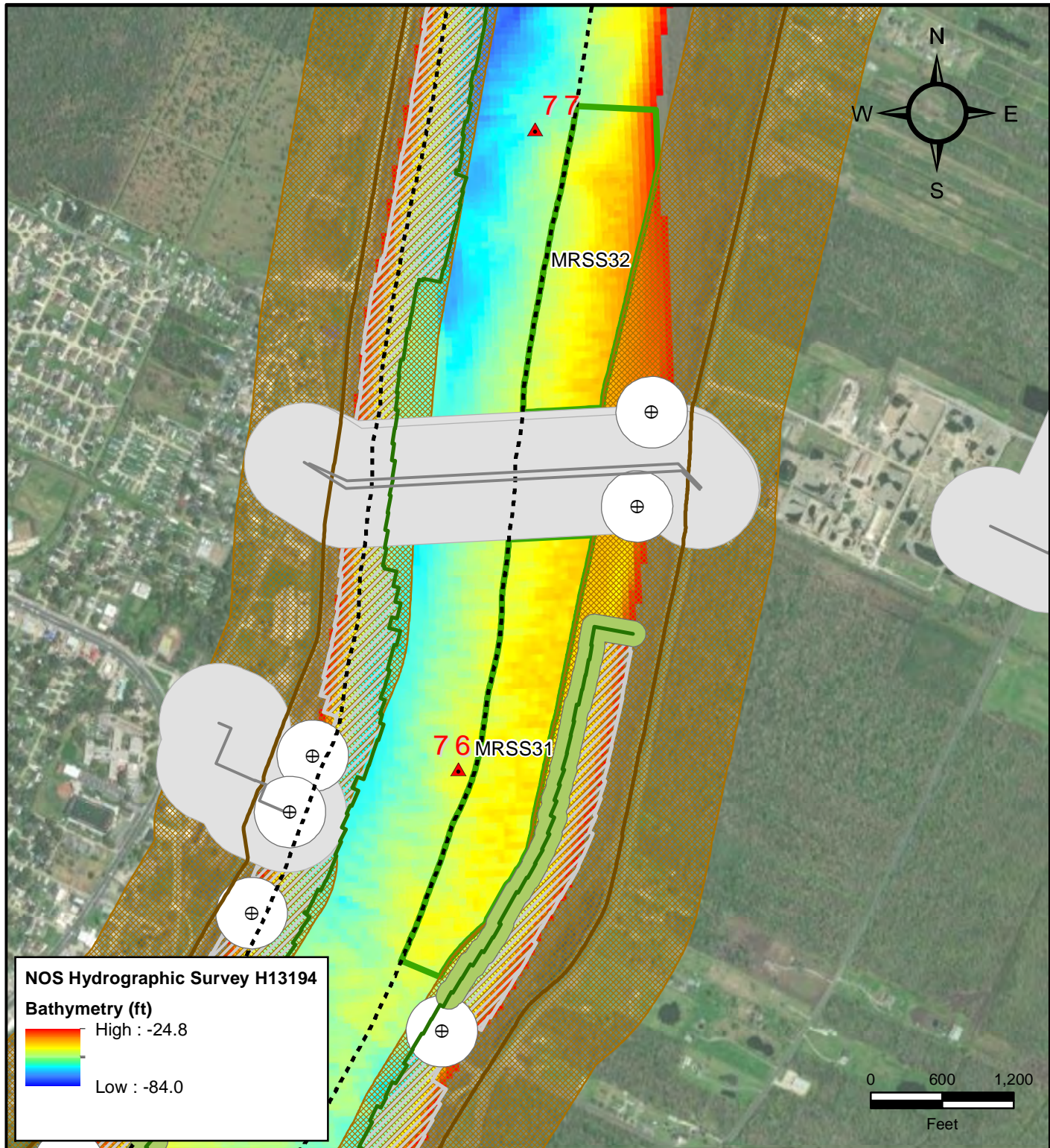
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FIGURE NUMBER **Map 10 of 41**

---

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

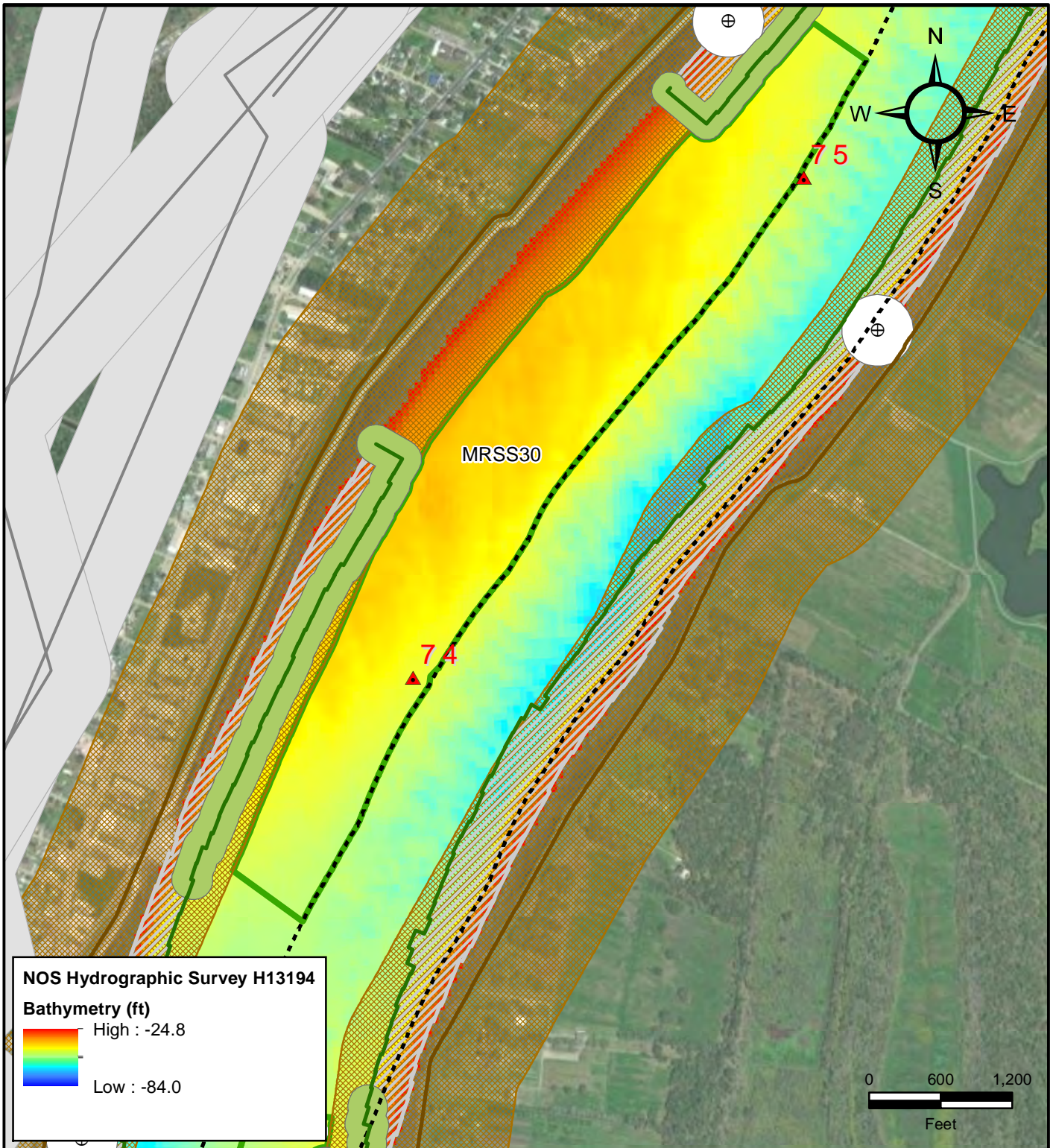
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 11 of 41**

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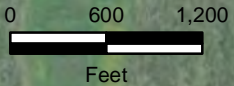


**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0



**Legend**

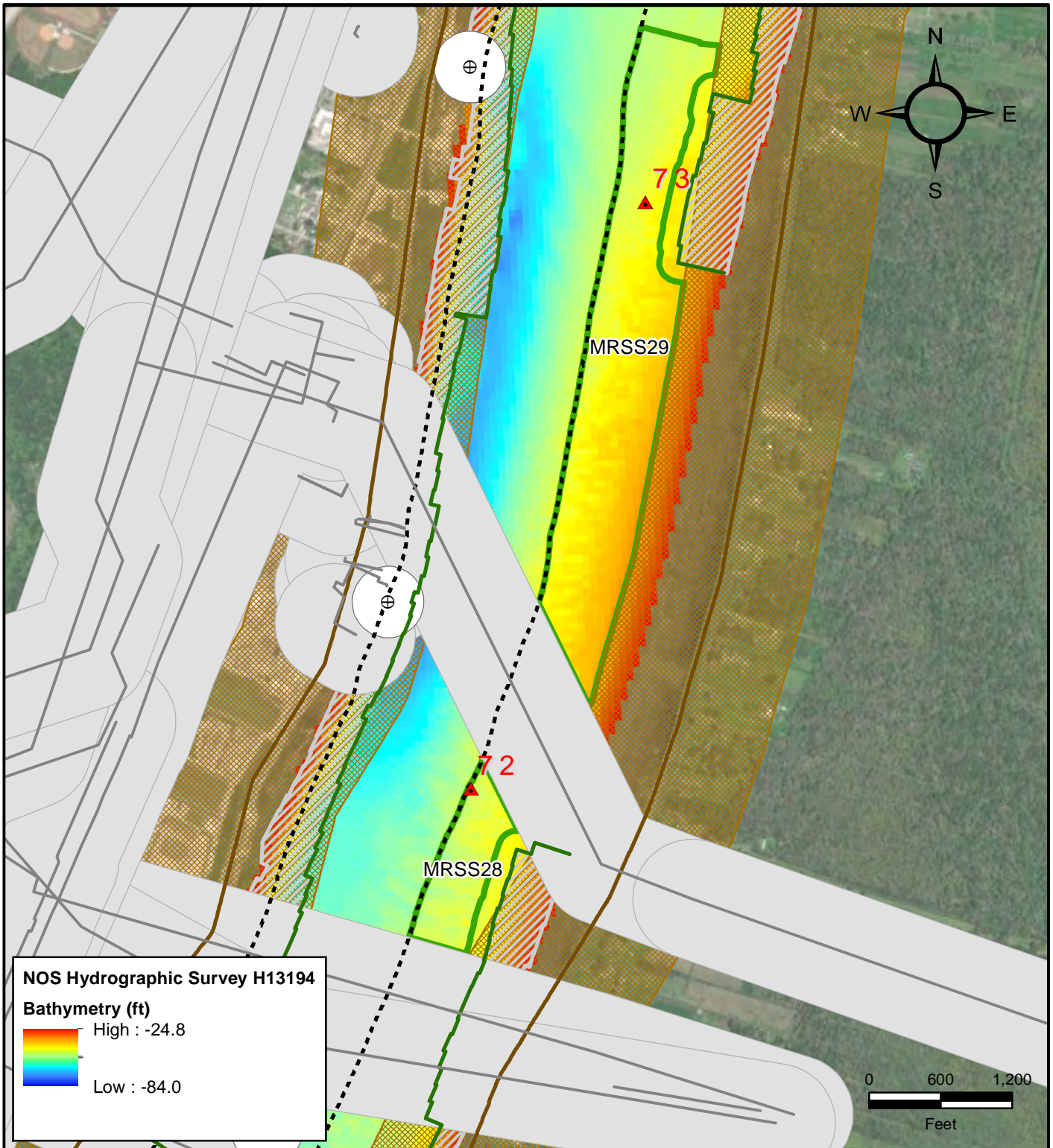
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 12 of 41**



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

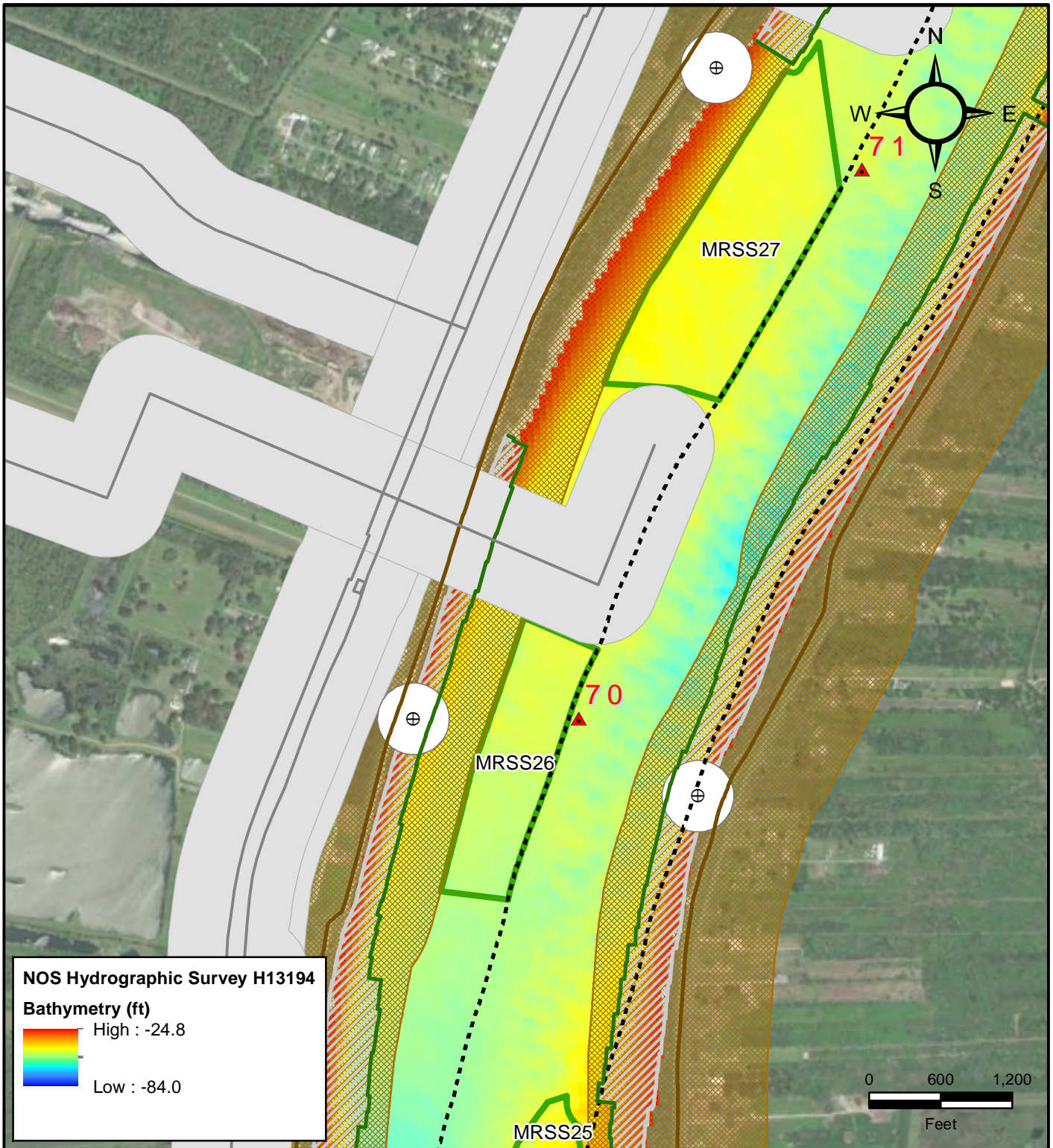
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 13 of 41**

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



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0


**Legend**

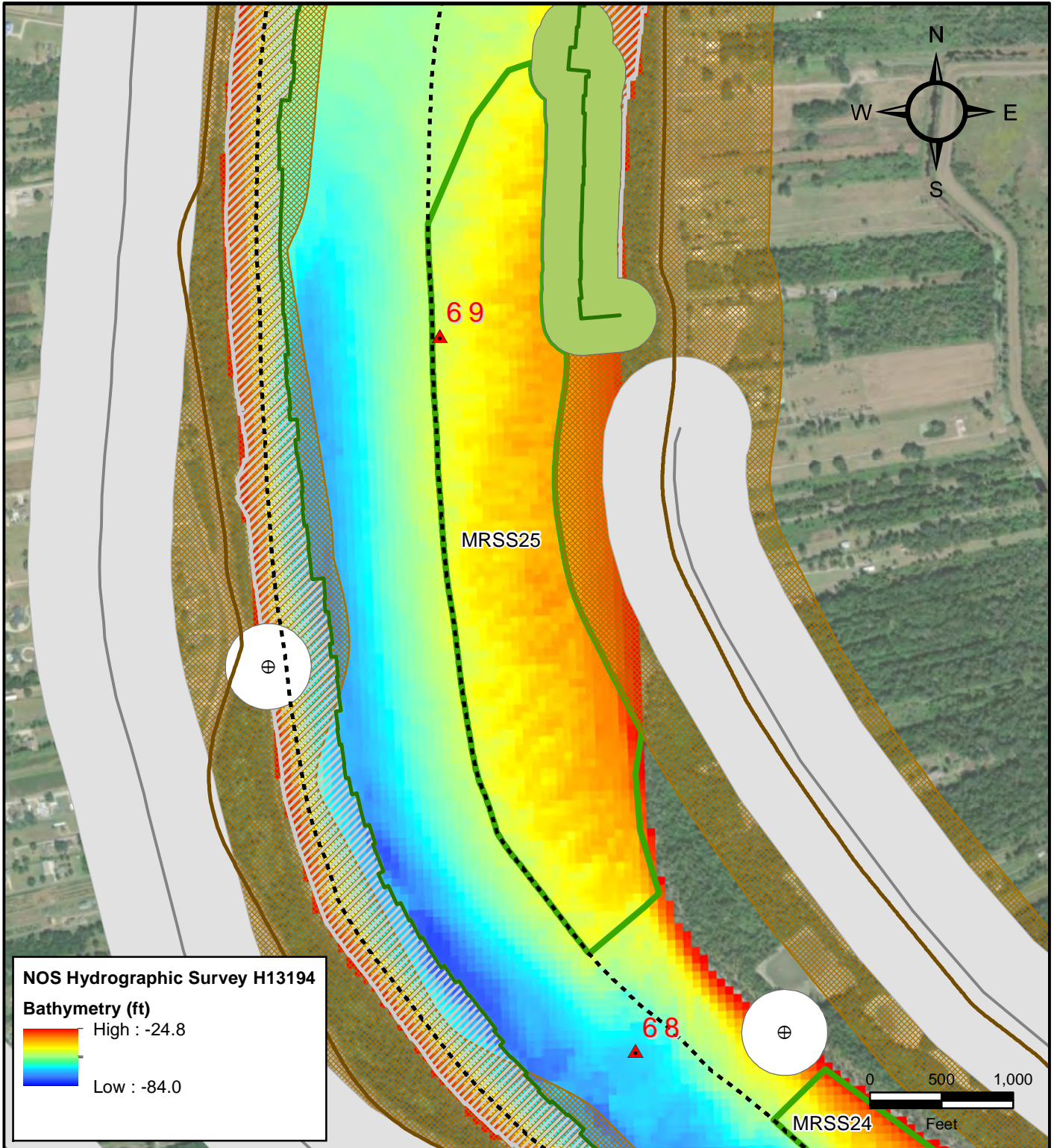
-  Mississippi River Mile
-  Navigation Aid
-  Pipeline
-  Revetment Toe
-  Levee Centerline
-  Navigation Channel Setback
-  300 ft Navigation Aid Buffer
-  500 ft Pipeline Buffer
-  Revetment Footprint
-  750 Ft Levee Offset
-  Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER **Map 14 of 41**

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

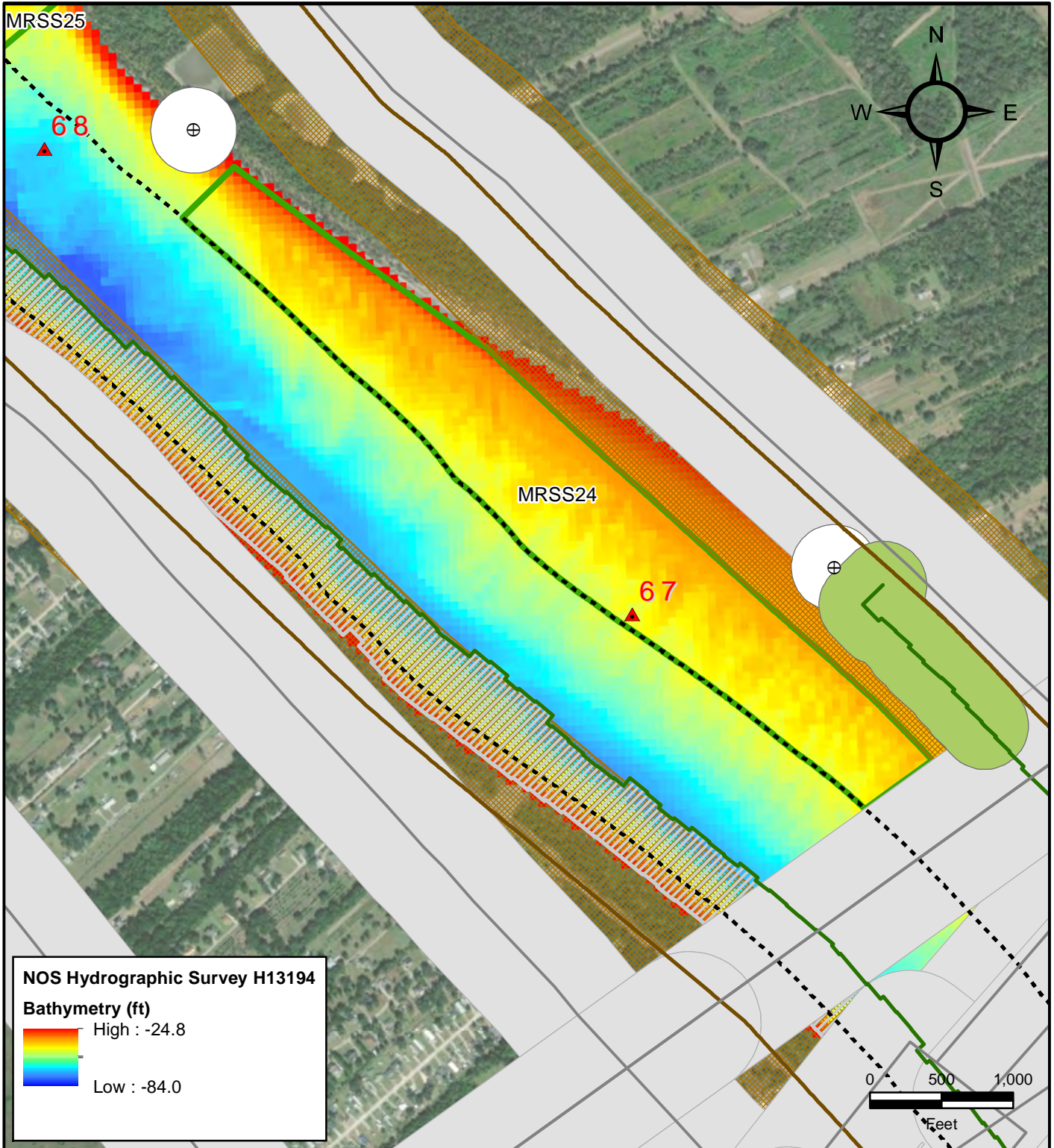
---

FIGURE NUMBER

**Map 15 of 41**

---

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

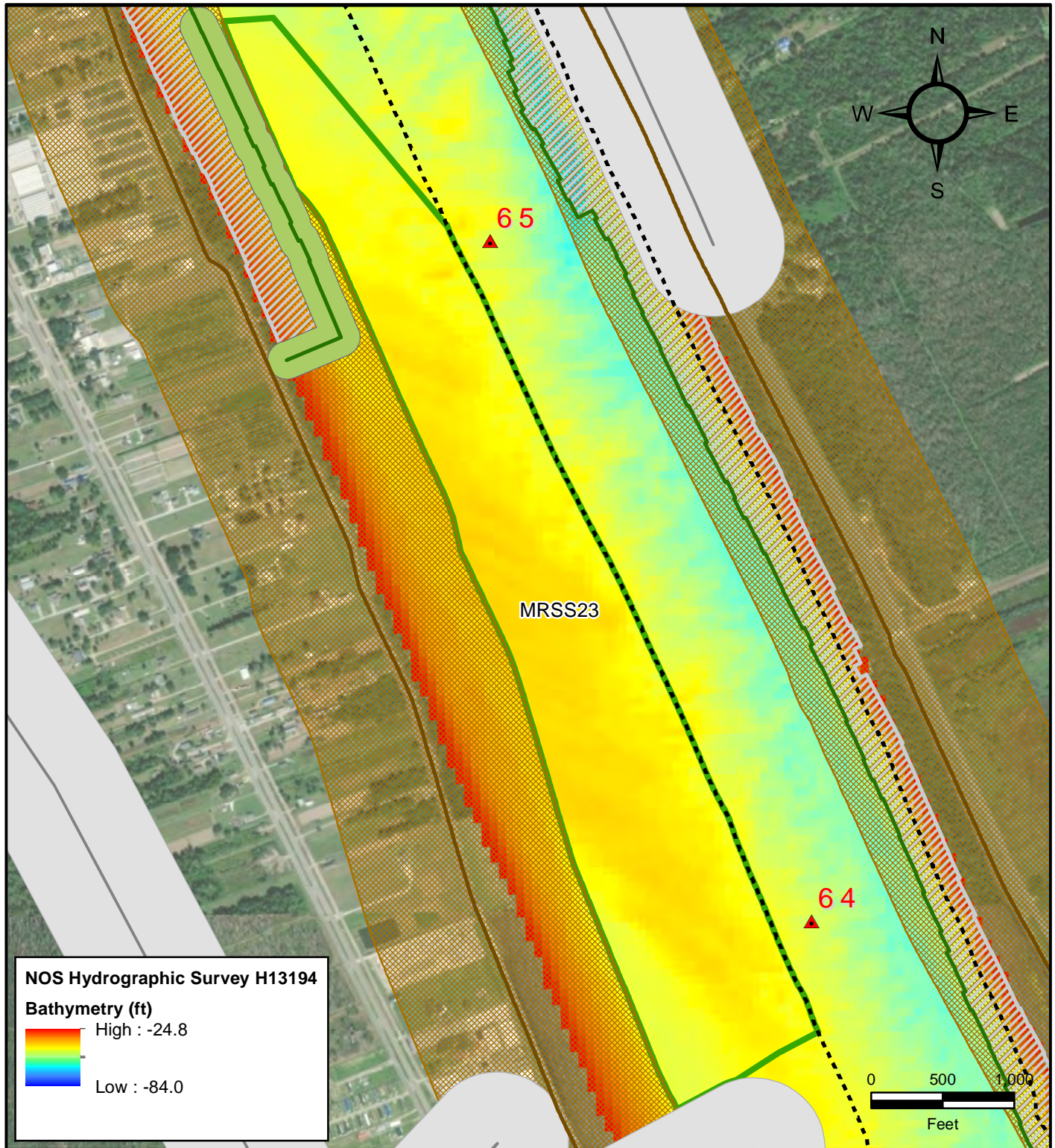
---

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

---

FIGURE NUMBER

**Map 16 of 41**



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

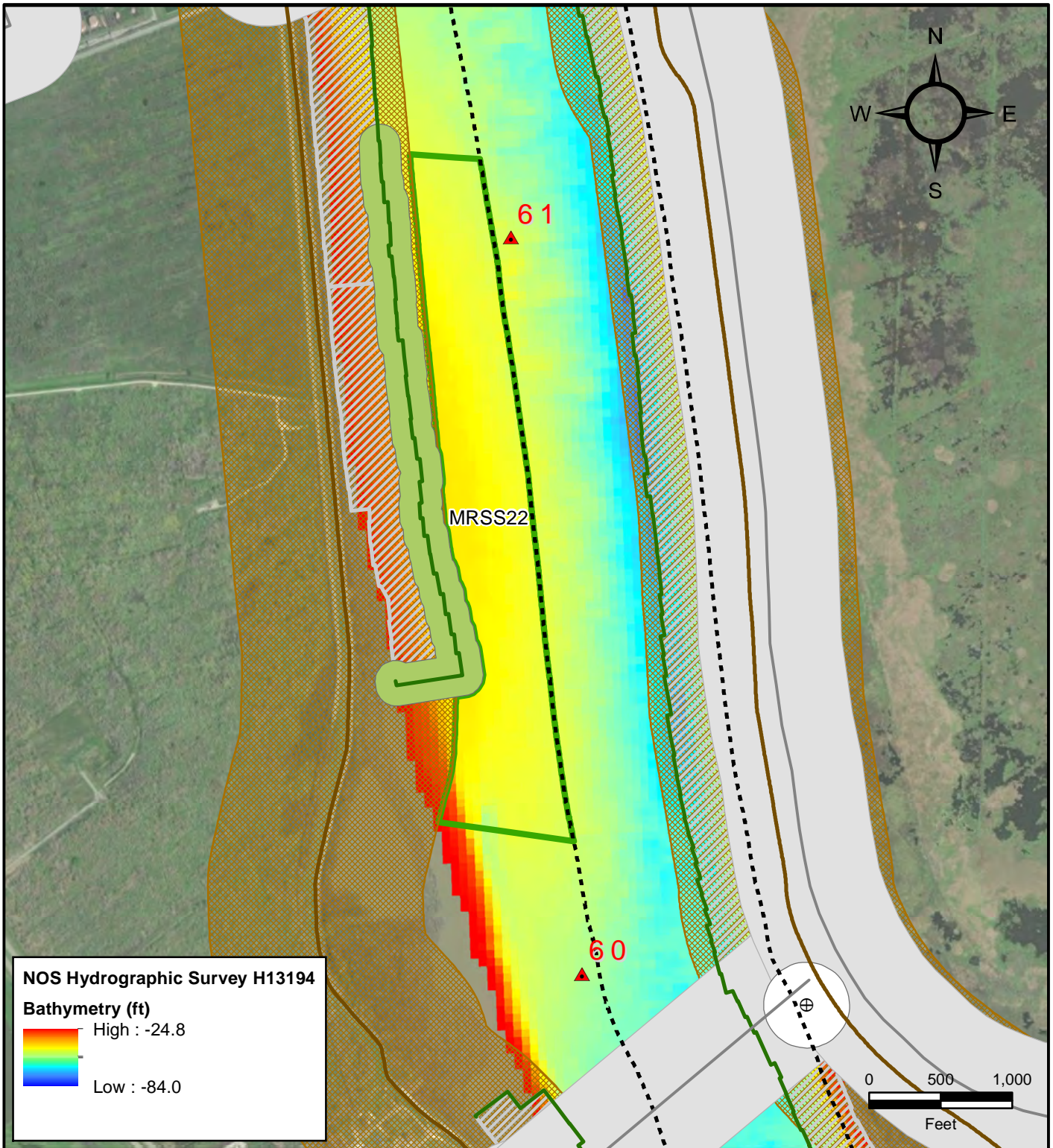
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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

---

FIGURE NUMBER

**Map 17 of 41**



**NOS Hydrographic Survey H13194**  
**Bathymetry (ft)**  
 High : -24.8  
 Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

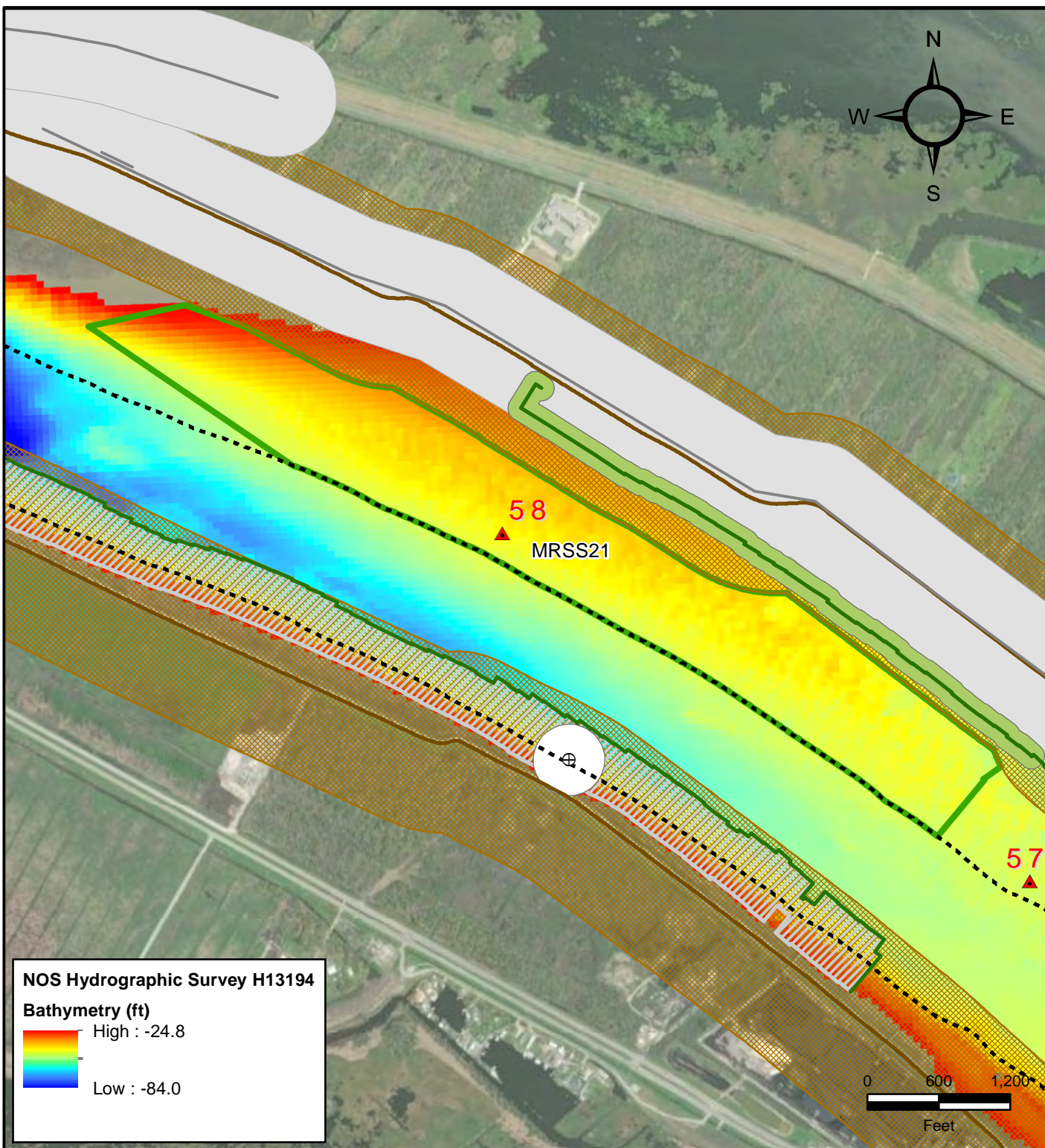
FIGURE  
 NUMBER

**Map 18 of 41**

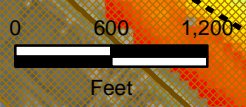


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**NOS Hydrographic Survey H13194**  
**Bathymetry (ft)**  
High : -24.8  
Low : -84.0



**Legend**

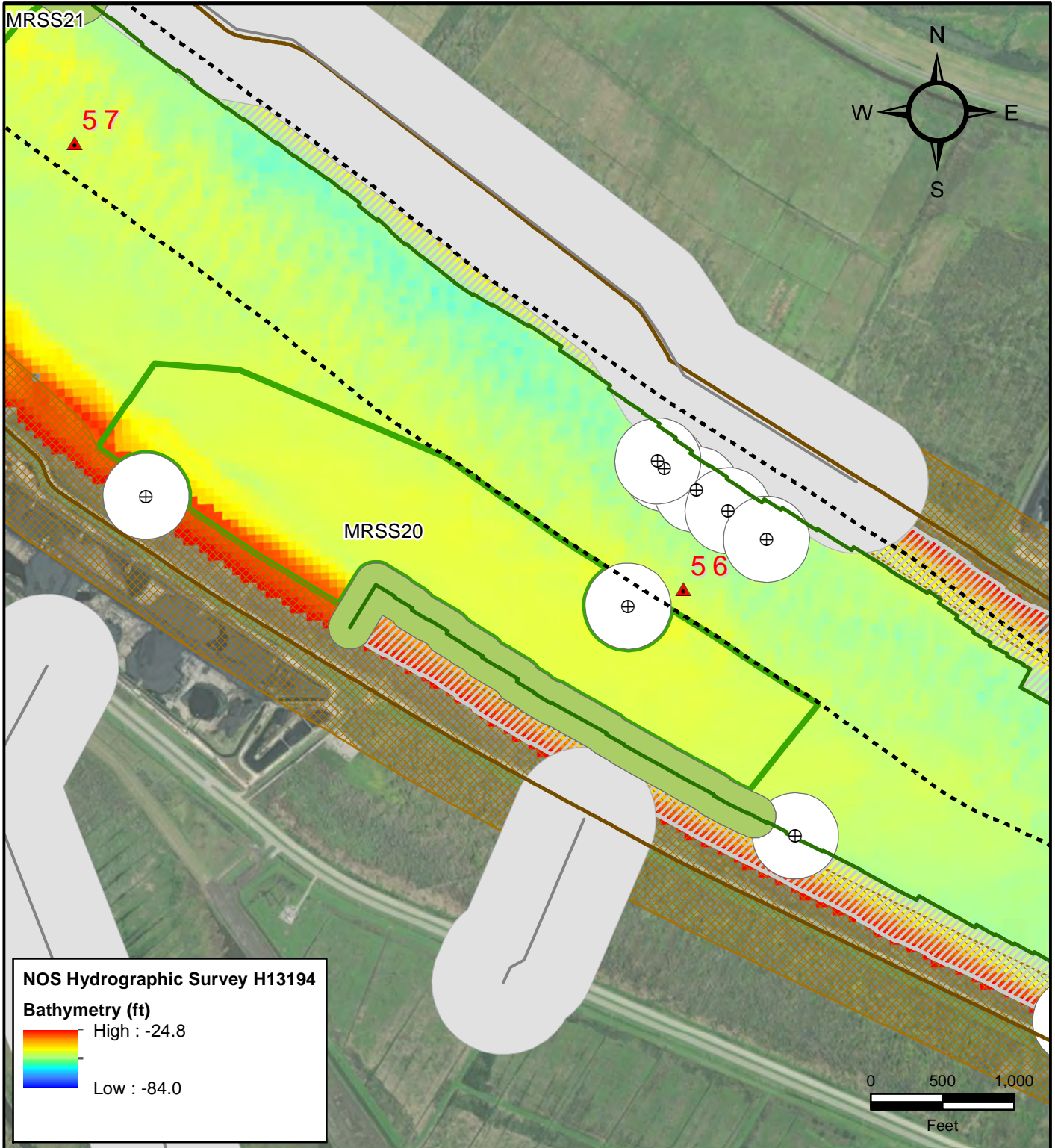
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER  
**Map 19 of 41**

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

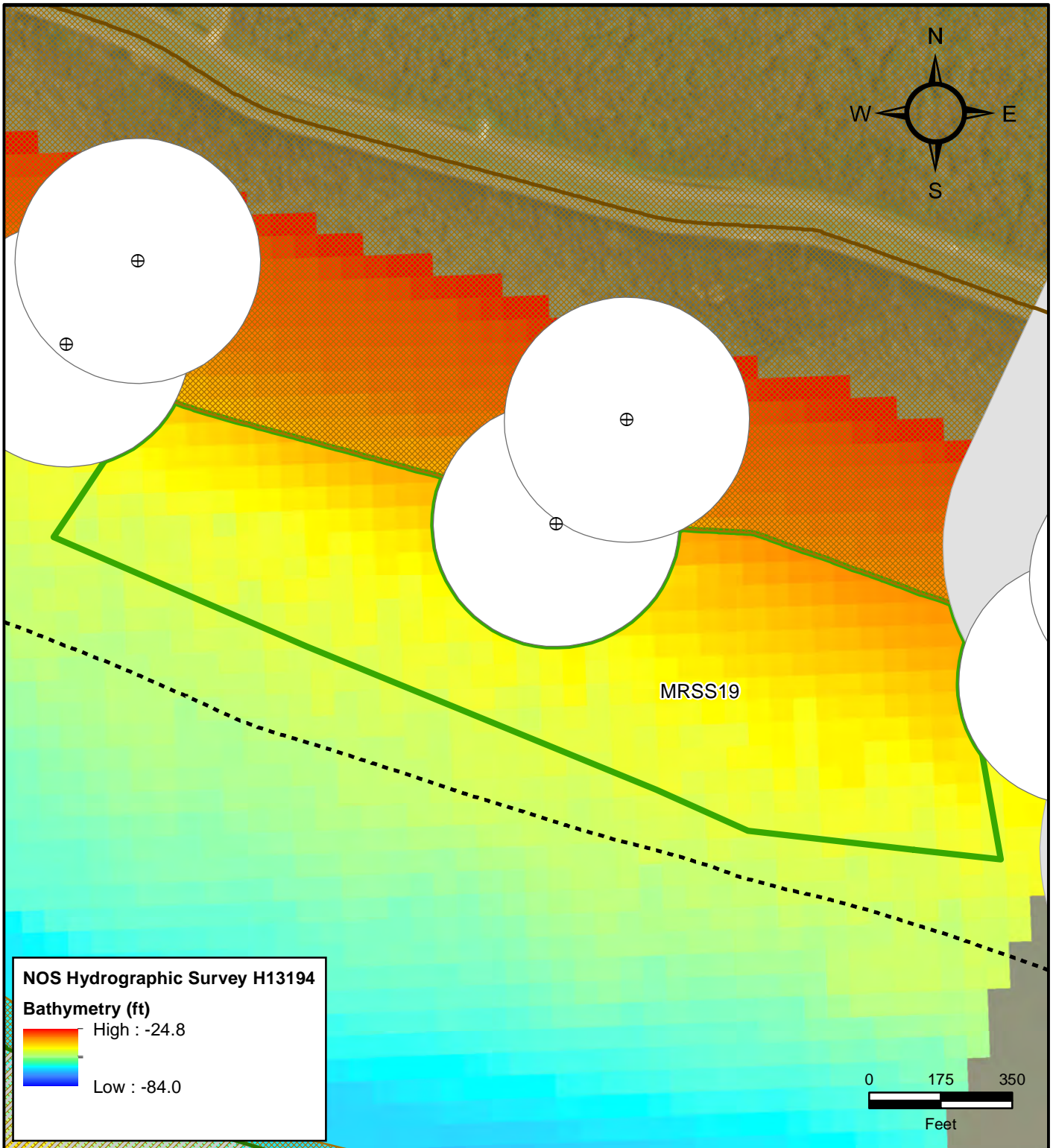
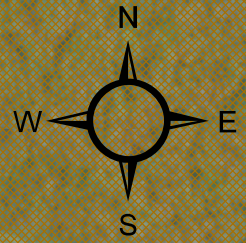
---

FIGURE NUMBER

**Map 20 of 41**

---

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**  
High : -24.8  
Low : -84.0

**Legend**

- Navigation Aid
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

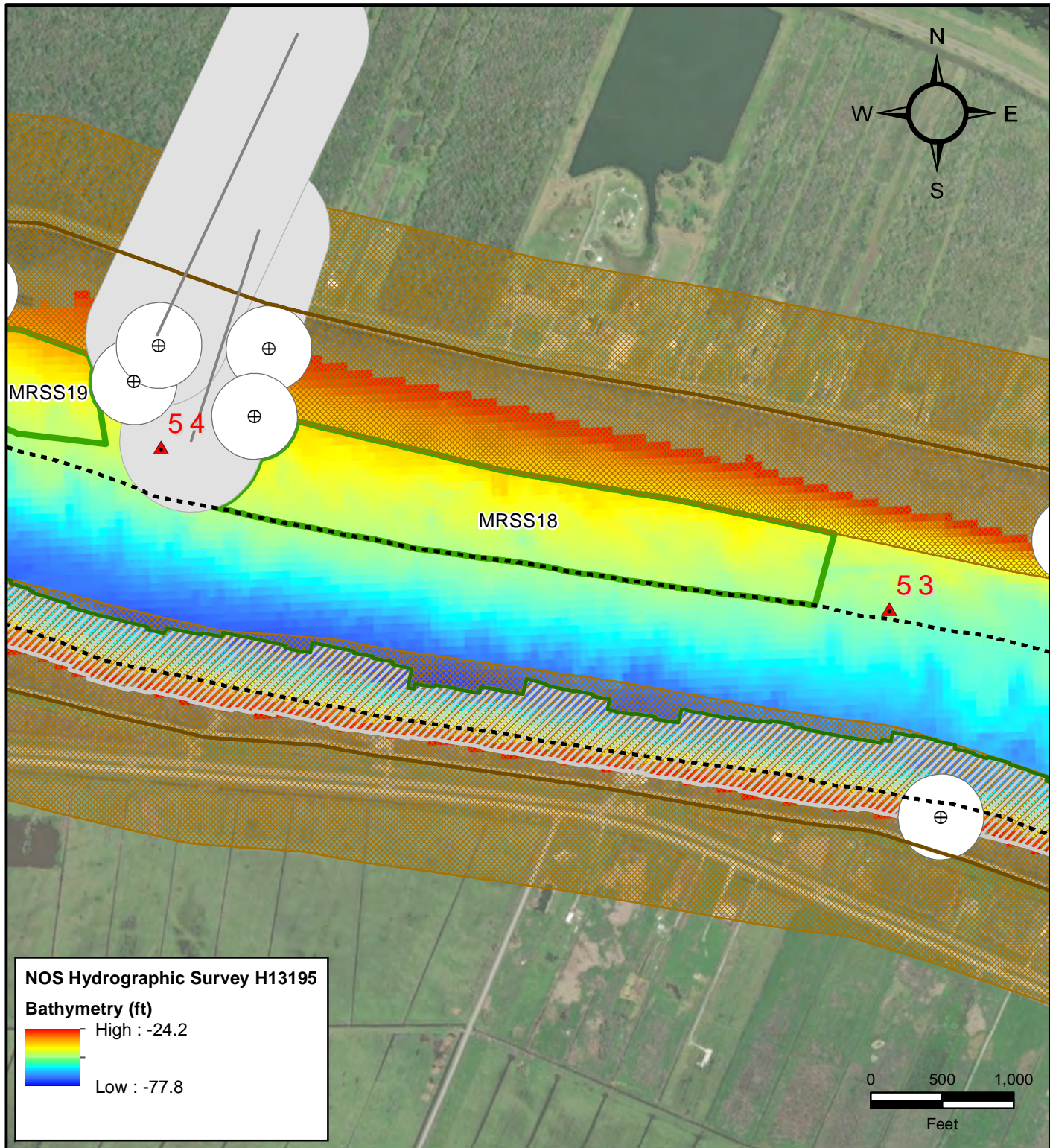
Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE  
NUMBER

**Map 21 of 41**



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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

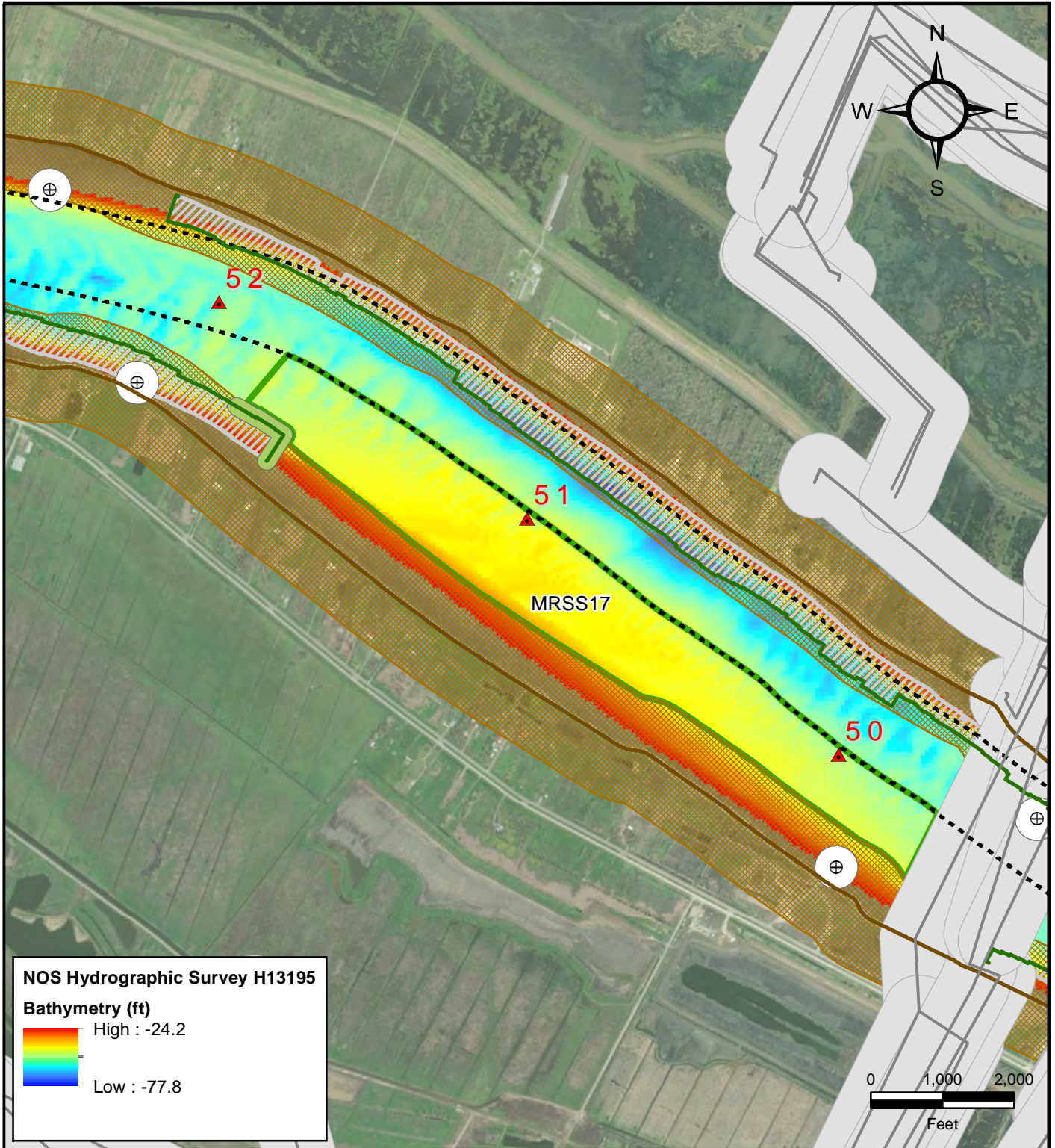
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER **Map 22 of 41**

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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

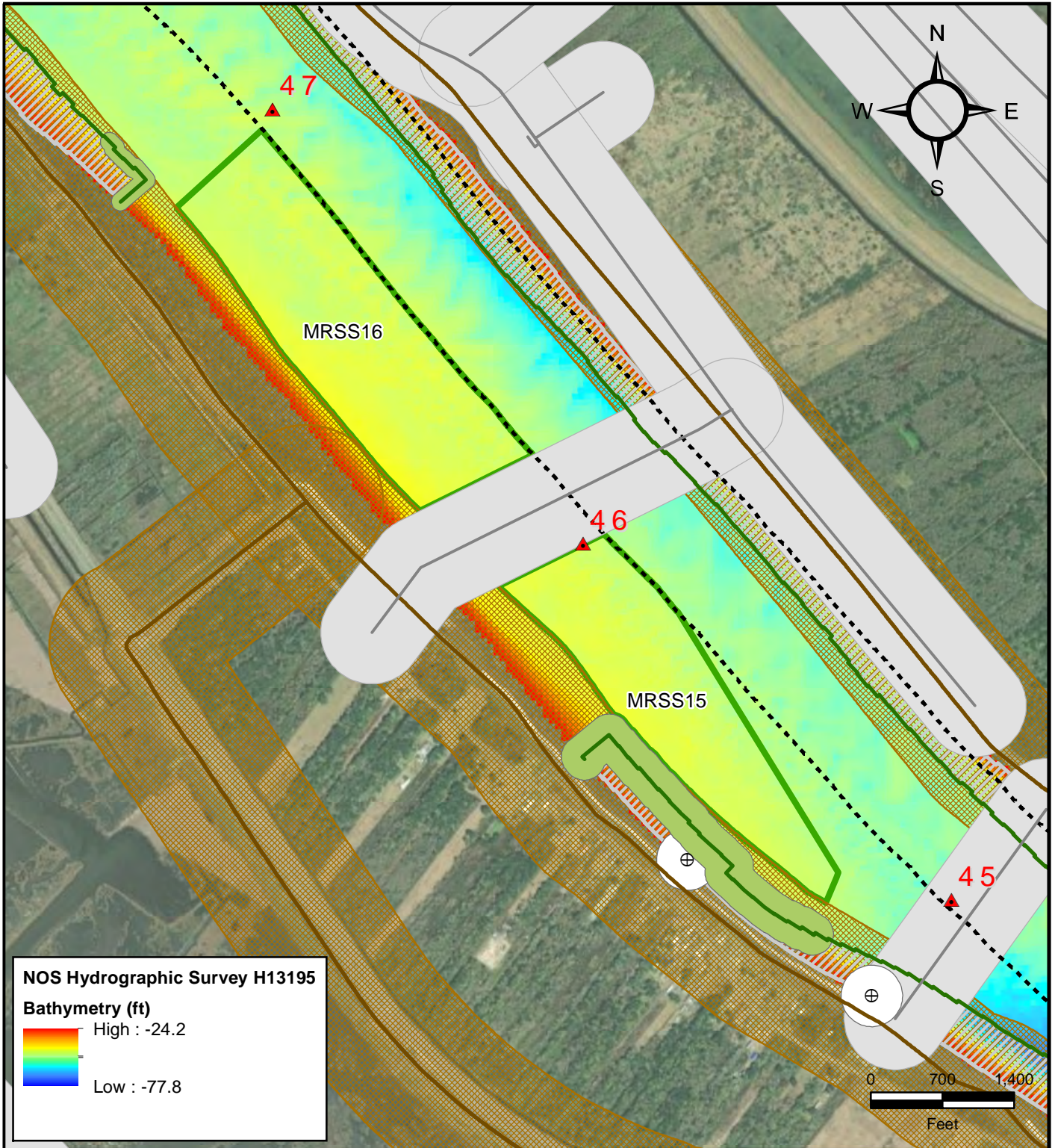
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER **Map 23 of 41**

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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

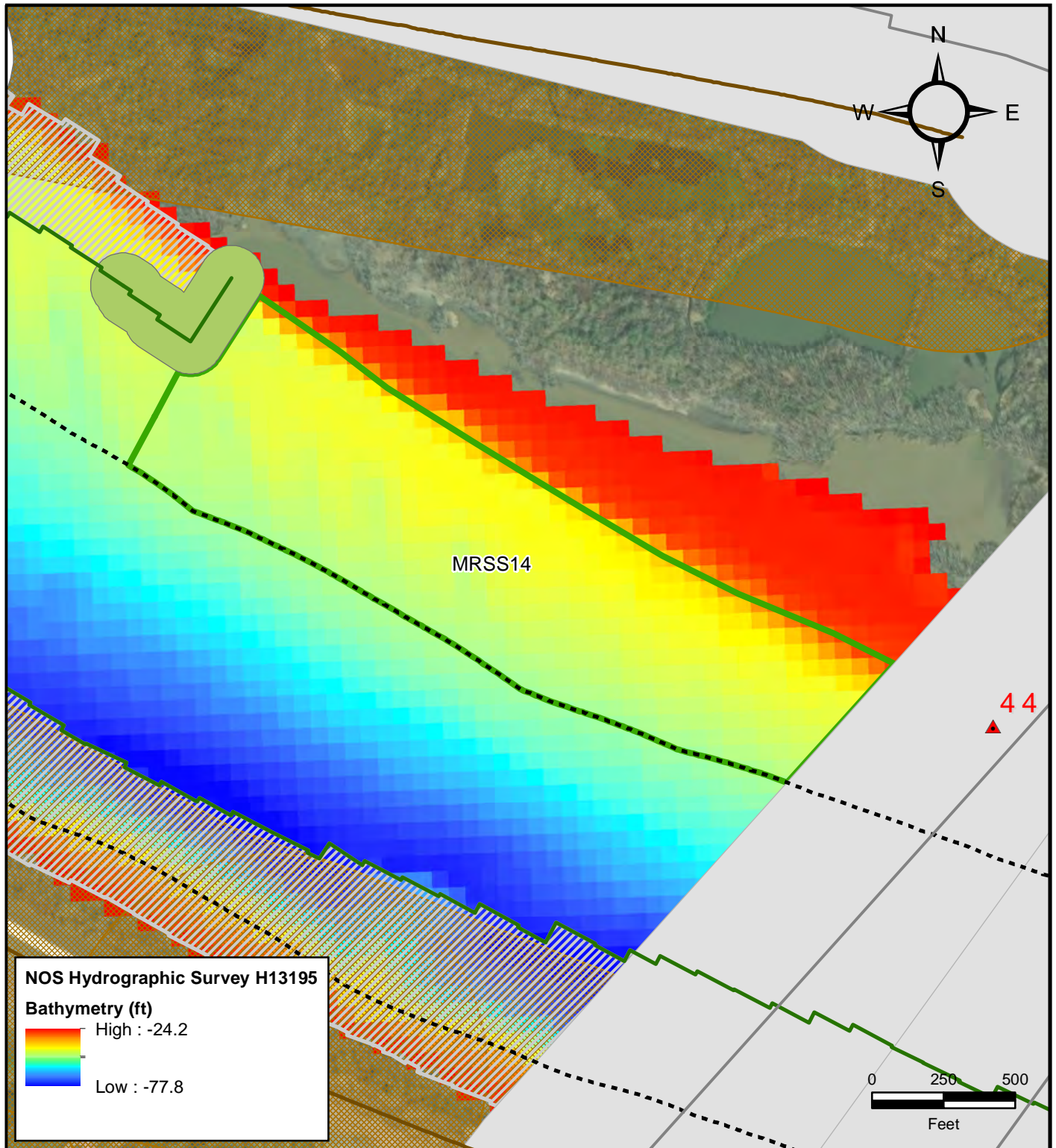
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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

---

FIGURE NUMBER

**Map 24 of 41**



**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

- Legend**
- Mississippi River Mile
  - Pipeline
  - Revetment Toe
  - Levee Centerline
  - Navigation Channel Setback
  - 300 ft Navigation Aid Buffer
  - 500 ft Pipeline Buffer
  - Revetment Footprint
  - 750 Ft Levee Offset
  - Revetment Toe Buffer
  - Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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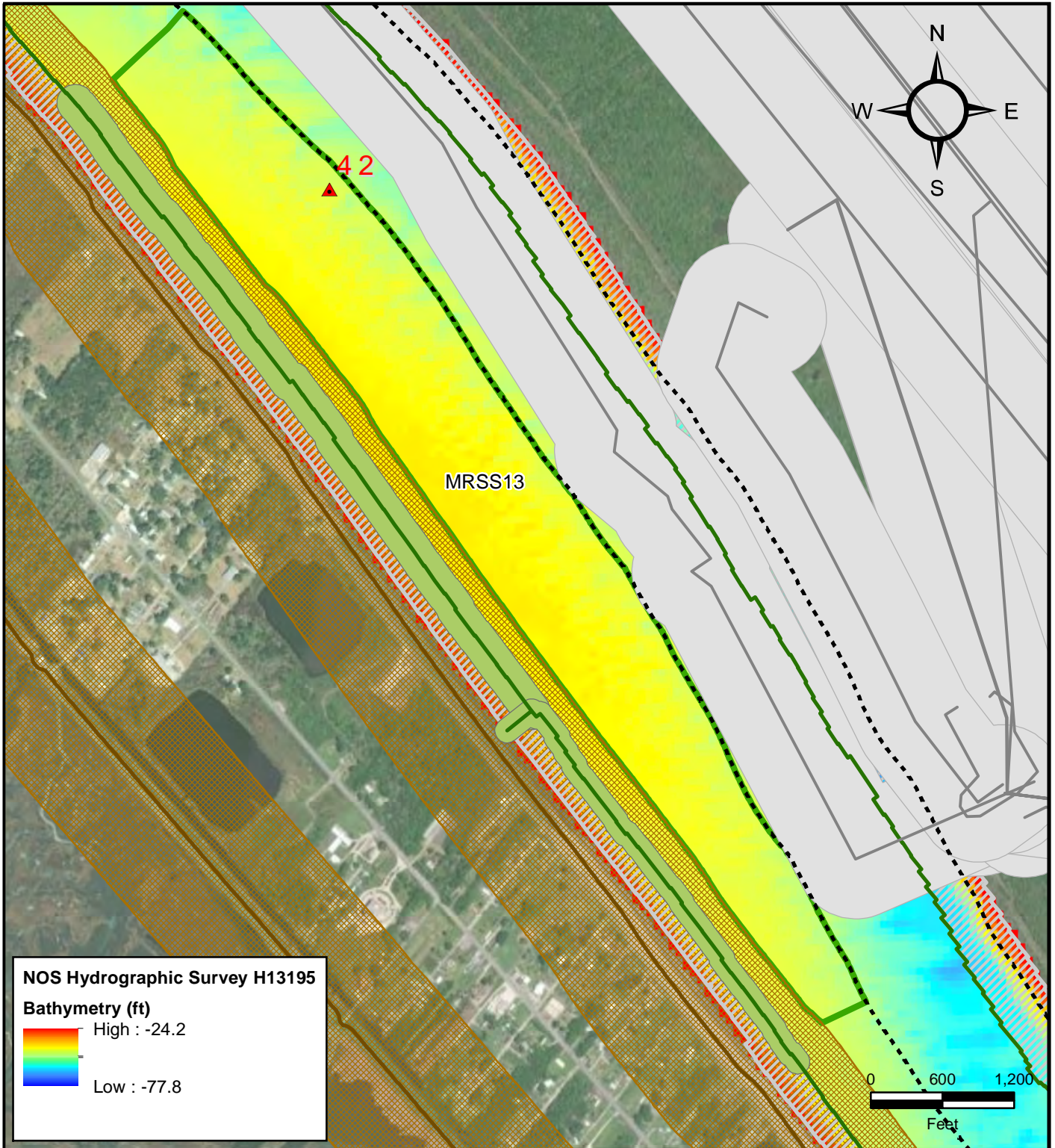
Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

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FIGURE NUMBER **Map 25 of 41**

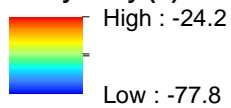
---

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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**



**Legend**

- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 500 Ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE  
NUMBER

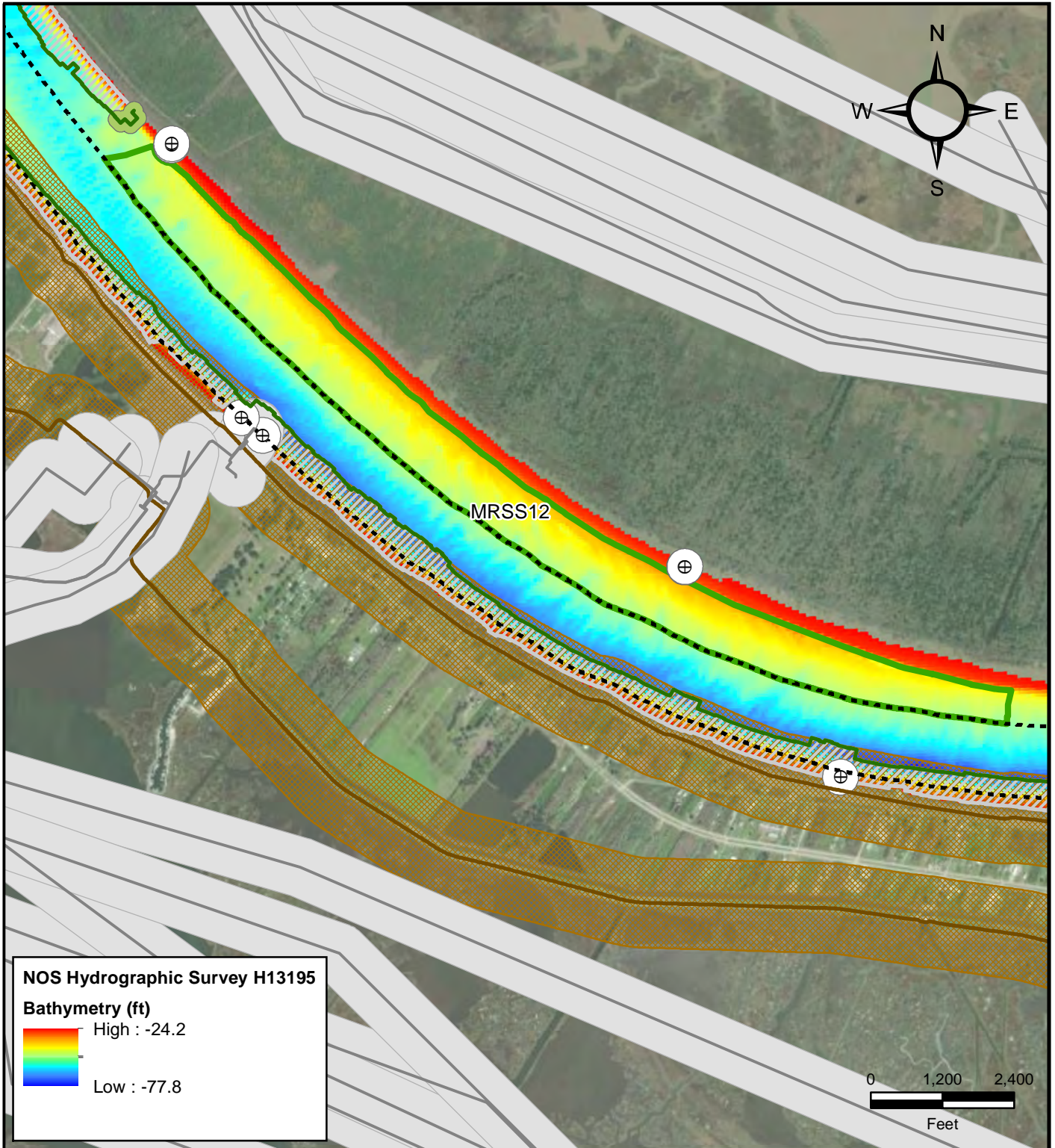
**Map 26 of 41**



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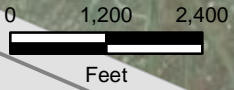


**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8



<b>Legend</b>	
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	750 Ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

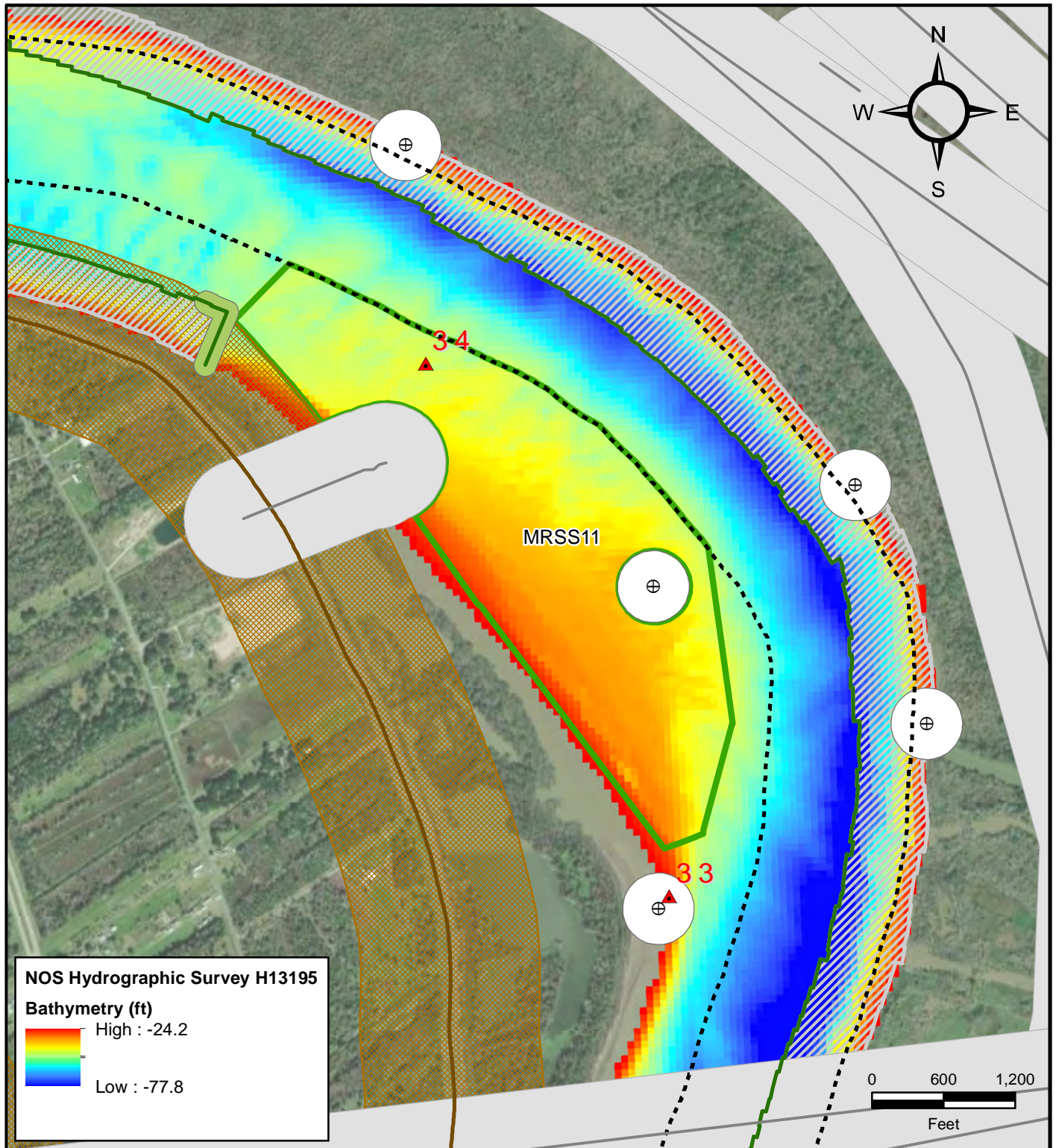
---

FIGURE NUMBER

**Map 27 of 41**

---

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**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- ▬ Revetment Toe Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

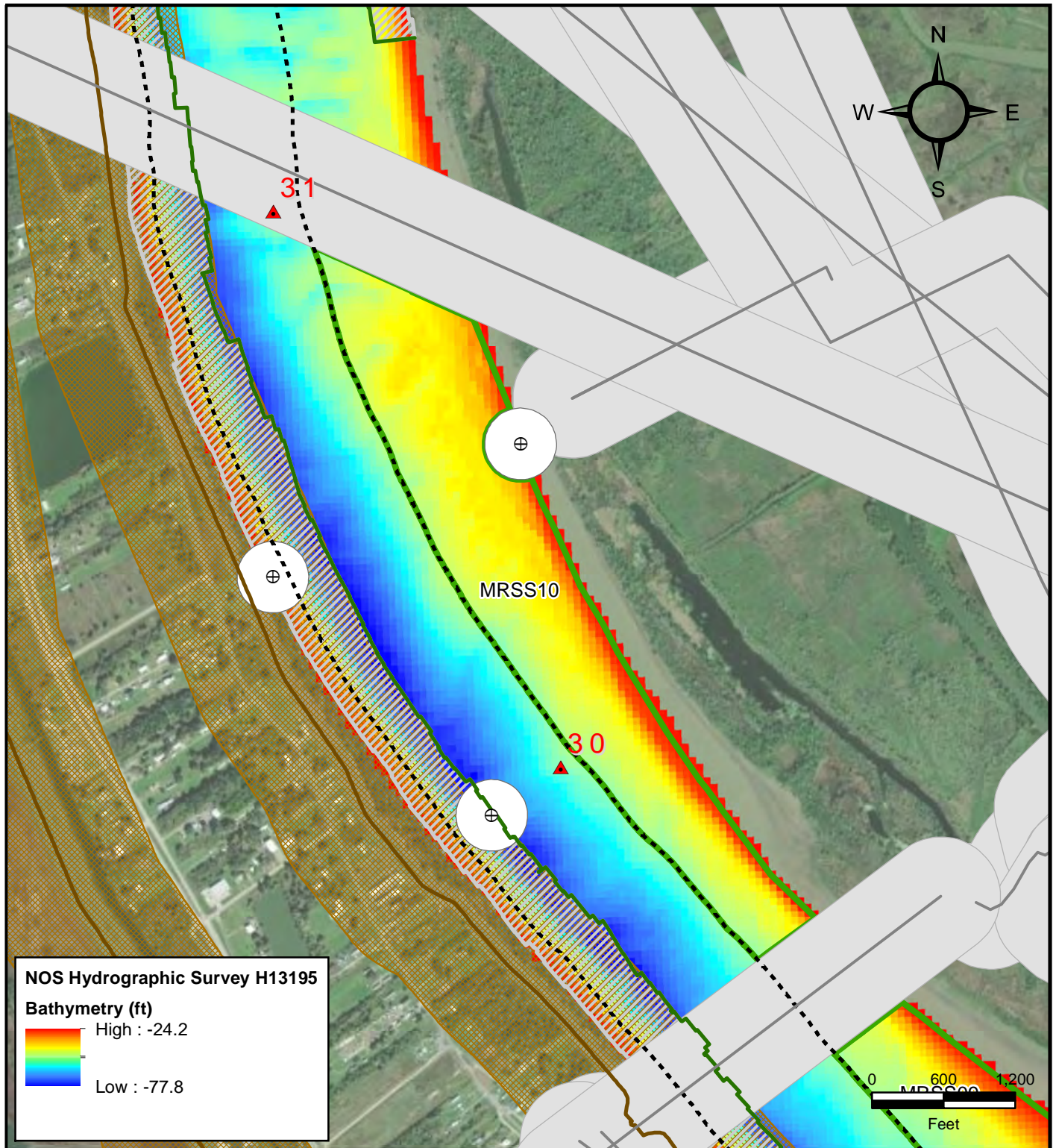
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 28 of 41**



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**NOS Hydrographic Survey H13195**  
**Bathymetry (ft)**  
 High : -24.2  
 Low : -77.8

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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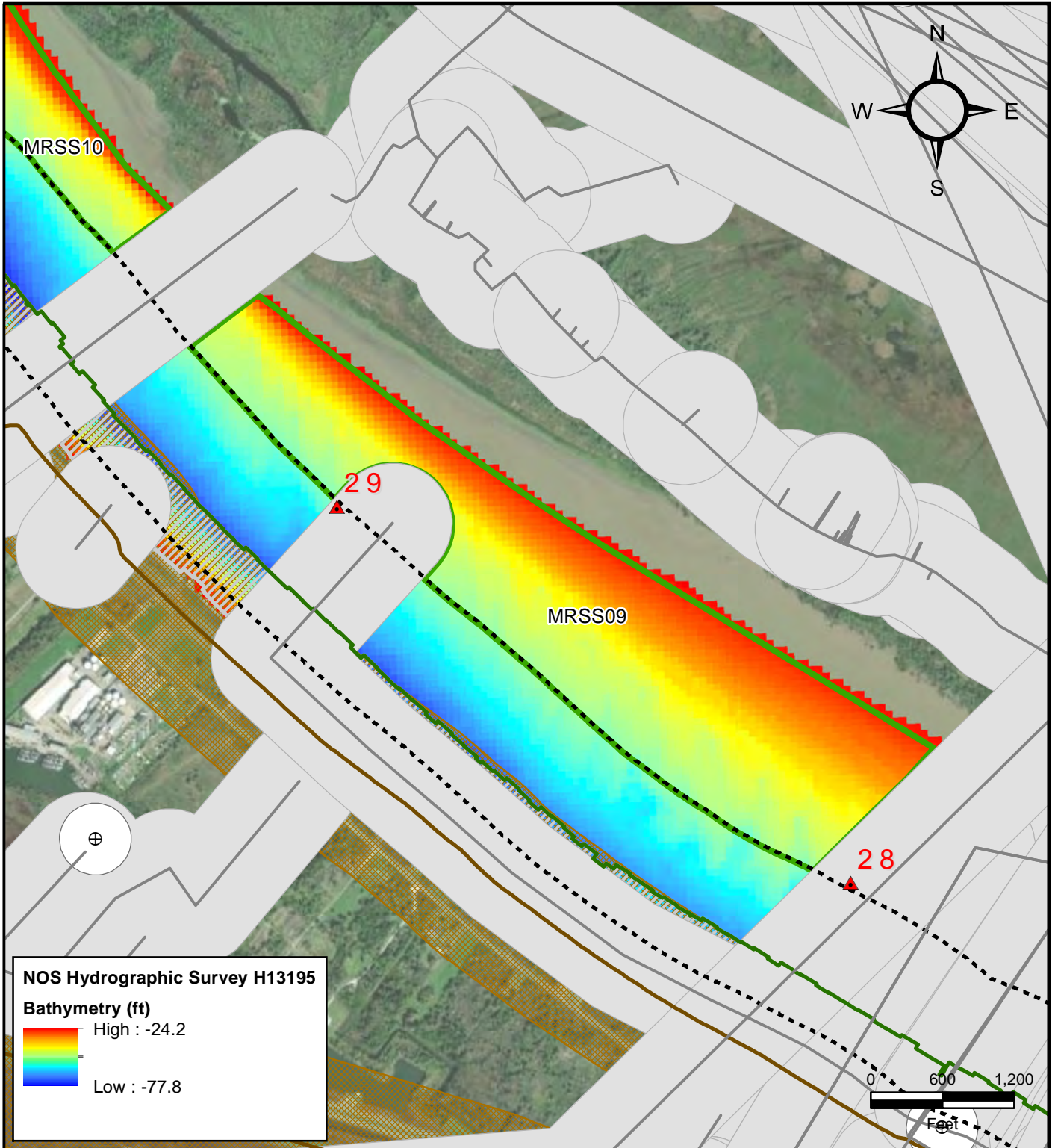
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

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FIGURE NUMBER **Map 29 of 41**












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**NOS Hydrographic Survey H13195**  
**Bathymetry (ft)**  
 High : -24.2  
 Low : -77.8

**Legend**

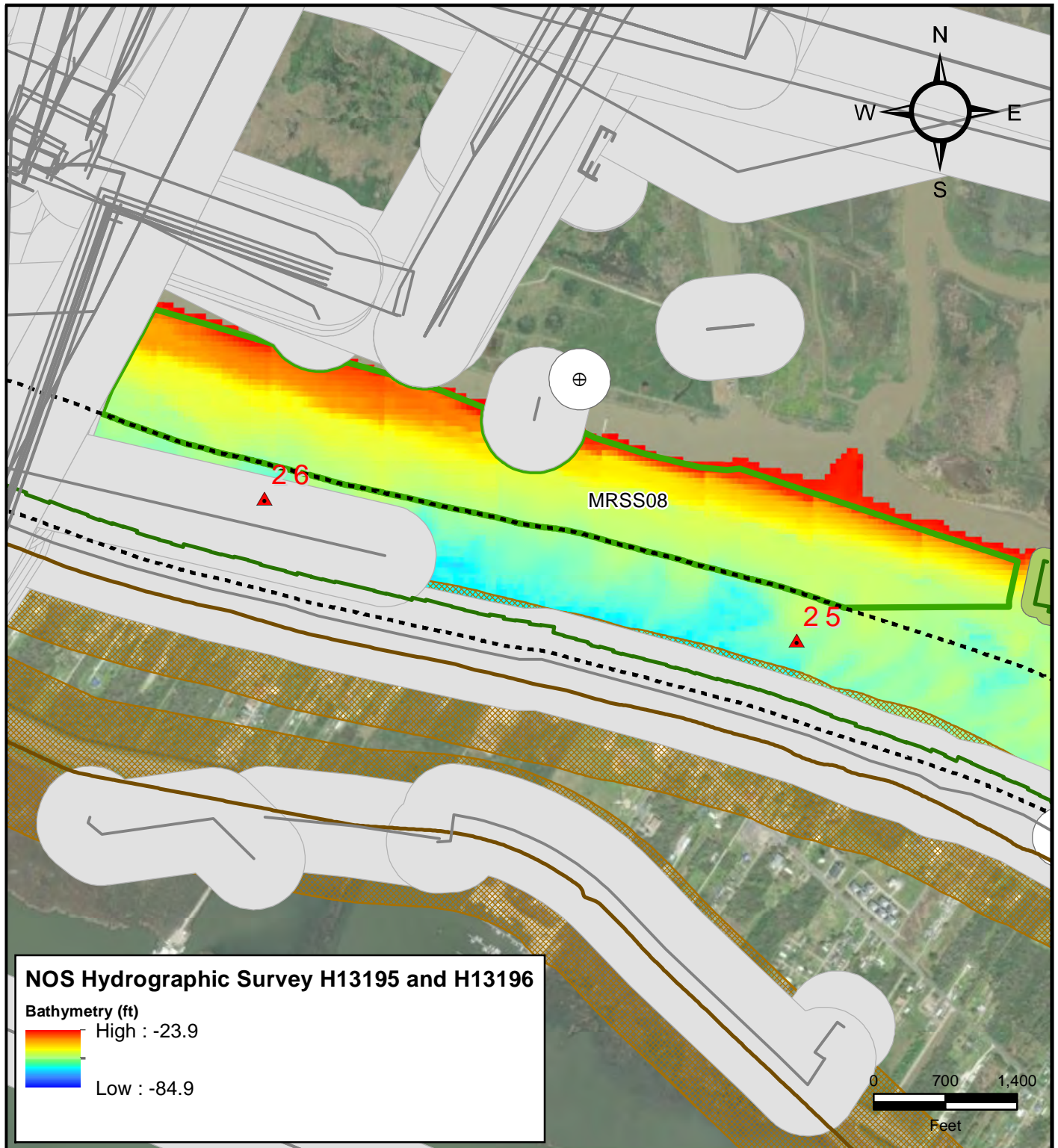
-  Mississippi River Mile
-  Navigation Aid
-  Pipeline
-  Revetment Toe
-  Levee Centerline
-  Navigation Channel Setback
-  300 ft Navigation Aid Buffer
-  500 ft Pipeline Buffer
-  Revetment Footprint
-  750 Ft Levee Offset
-  Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 30 of 41**



**NOS Hydrographic Survey H13195 and H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

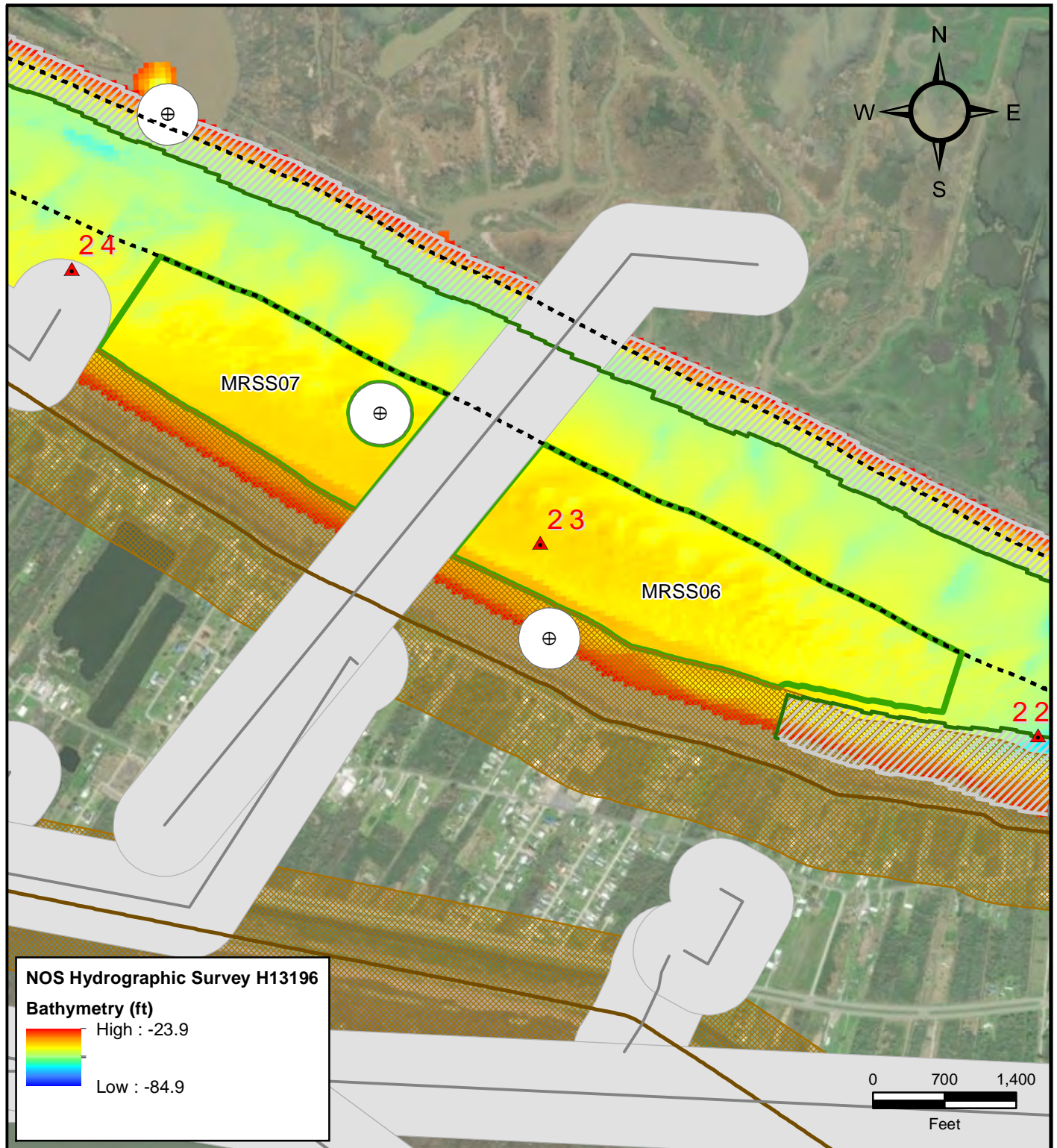
Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	750 Ft Levee Offset
	Inferred Sand Deposit
	Revetment Toe Buffer

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER **Map 31 of 41**

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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

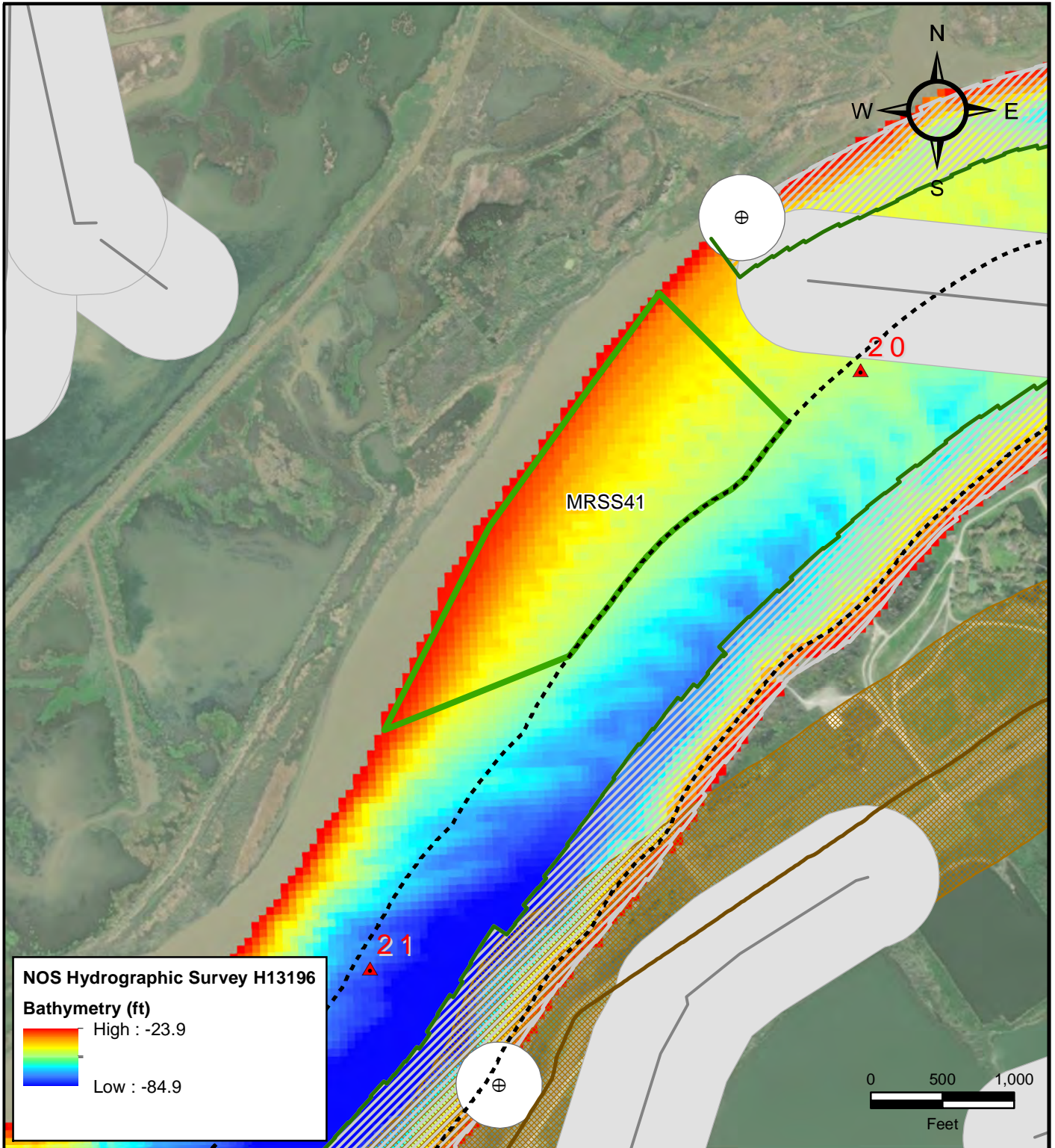
- Legend**
- Mississippi River Mile
  - Navigation Aid
  - Pipeline
  - Revetment Toe
  - Levee Centerline
  - Navigation Channel Setback
  - 300 ft Navigation Aid Buffer
  - 500 ft Pipeline Buffer
  - Revetment Footprint
  - 750 Ft Levee Offset
  - Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 32 of 41**



**NOS Hydrographic Survey H13196**  
**Bathymetry (ft)**  
 High : -23.9  
 Low : -84.9

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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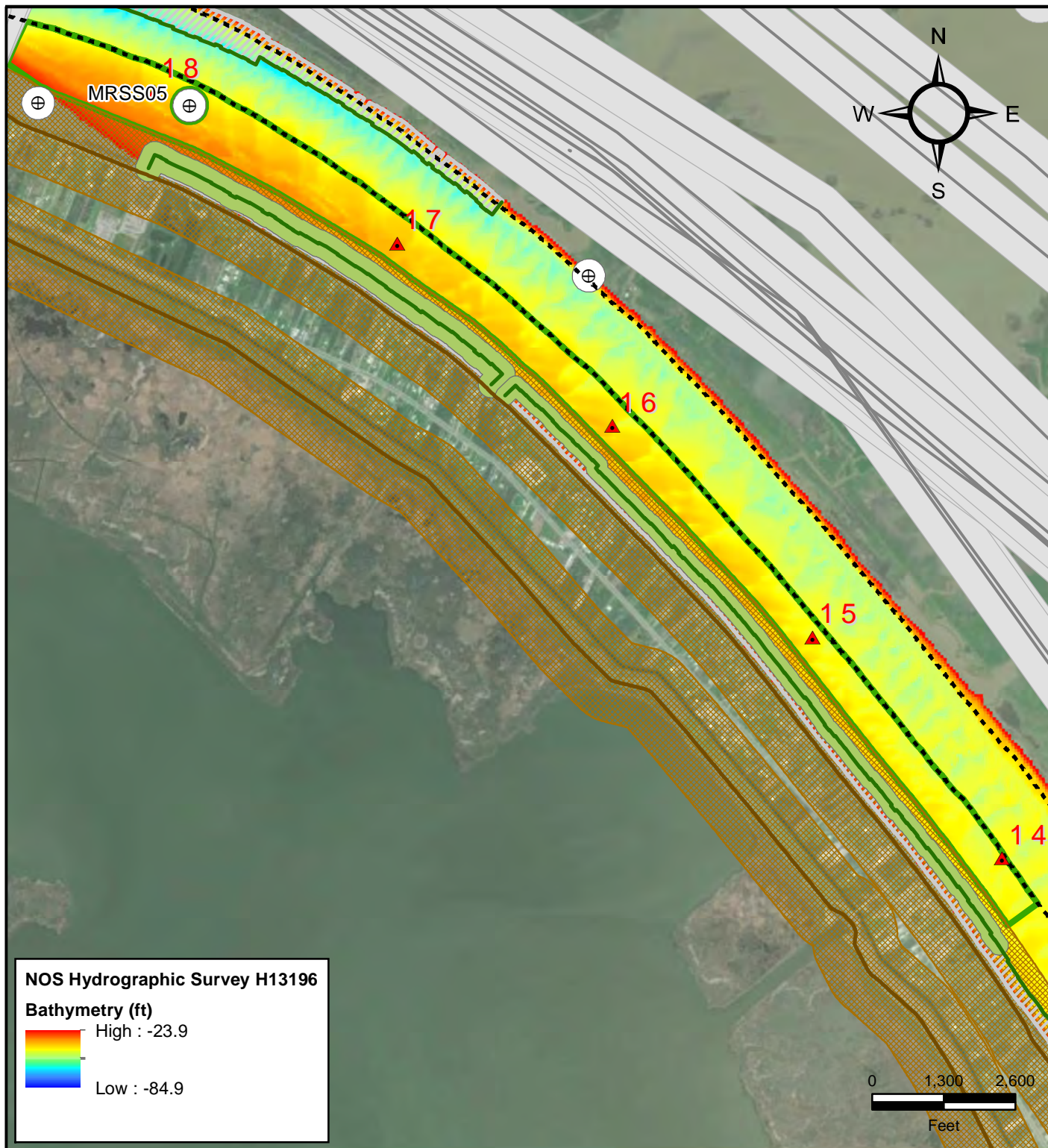
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

---

FIGURE NUMBER **Map 33 of 41**

---

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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 750 Ft Levee Offset
- Inferred Sand Deposit
- Revetment Toe Buffer

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

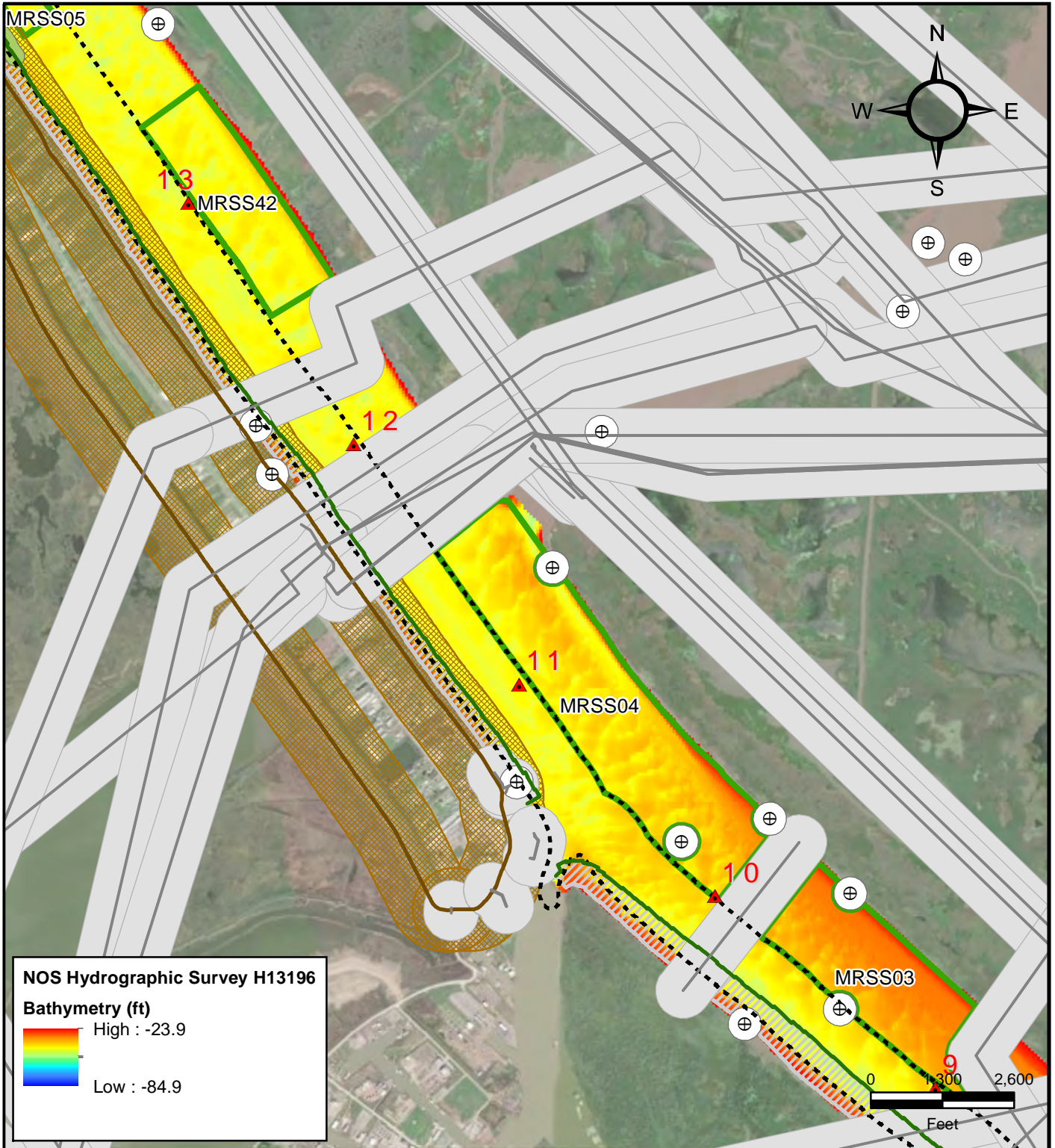
FIGURE  
NUMBER

**Map 34 of 41**



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**NOS Hydrographic Survey H13196**  
**Bathymetry (ft)**  
 High : -23.9  
 Low : -84.9

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 750 Ft Levee Offset
- Inferred Sand Deposit
- Revetment Toe Buffer

Louisiana Surficial Sediment Distribution Maps

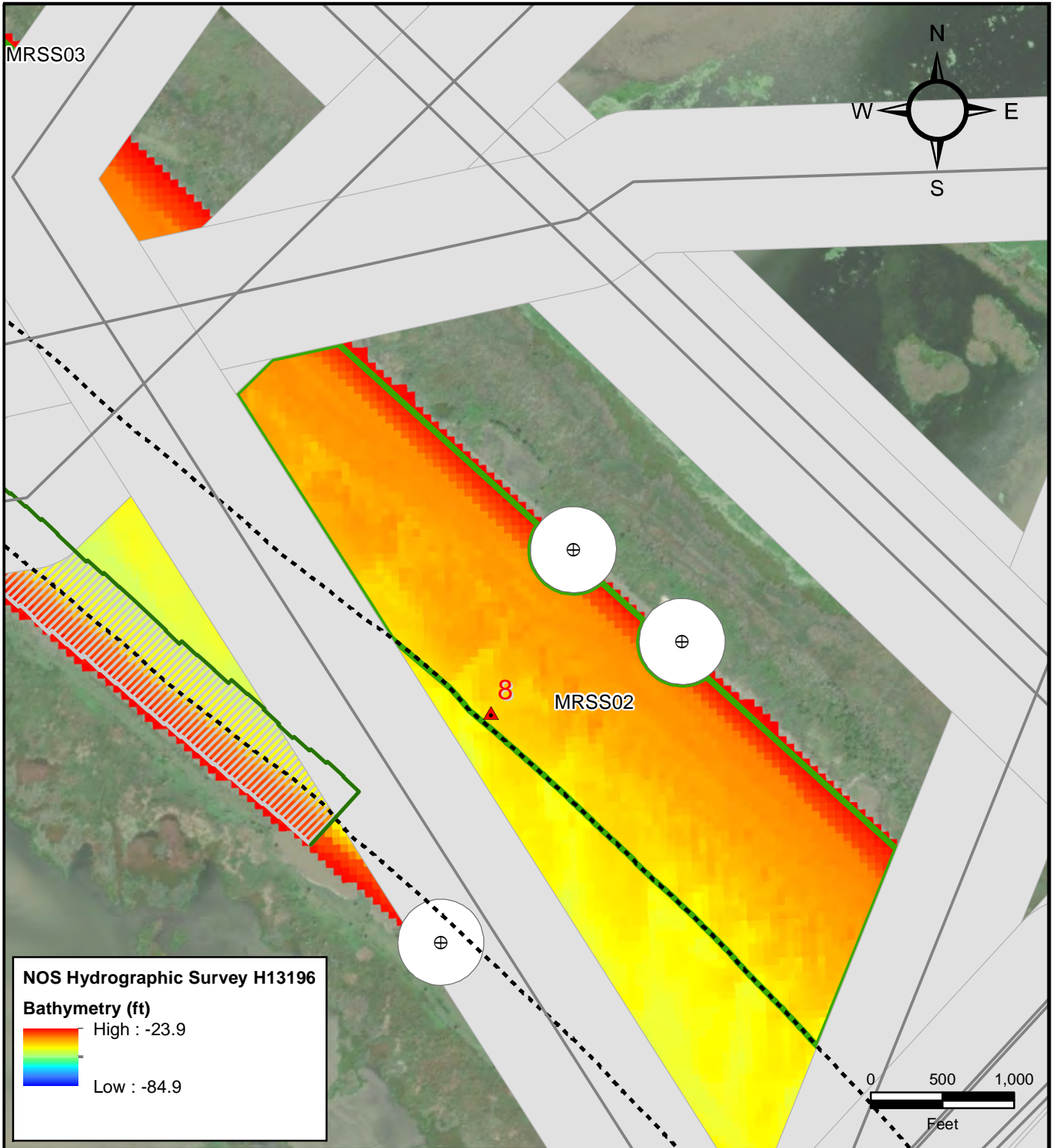
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 35 of 41**



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**NOS Hydrographic Survey H13196**  
**Bathymetry (ft)**  
 High : -23.9  
 Low : -84.9

<b>Legend</b>	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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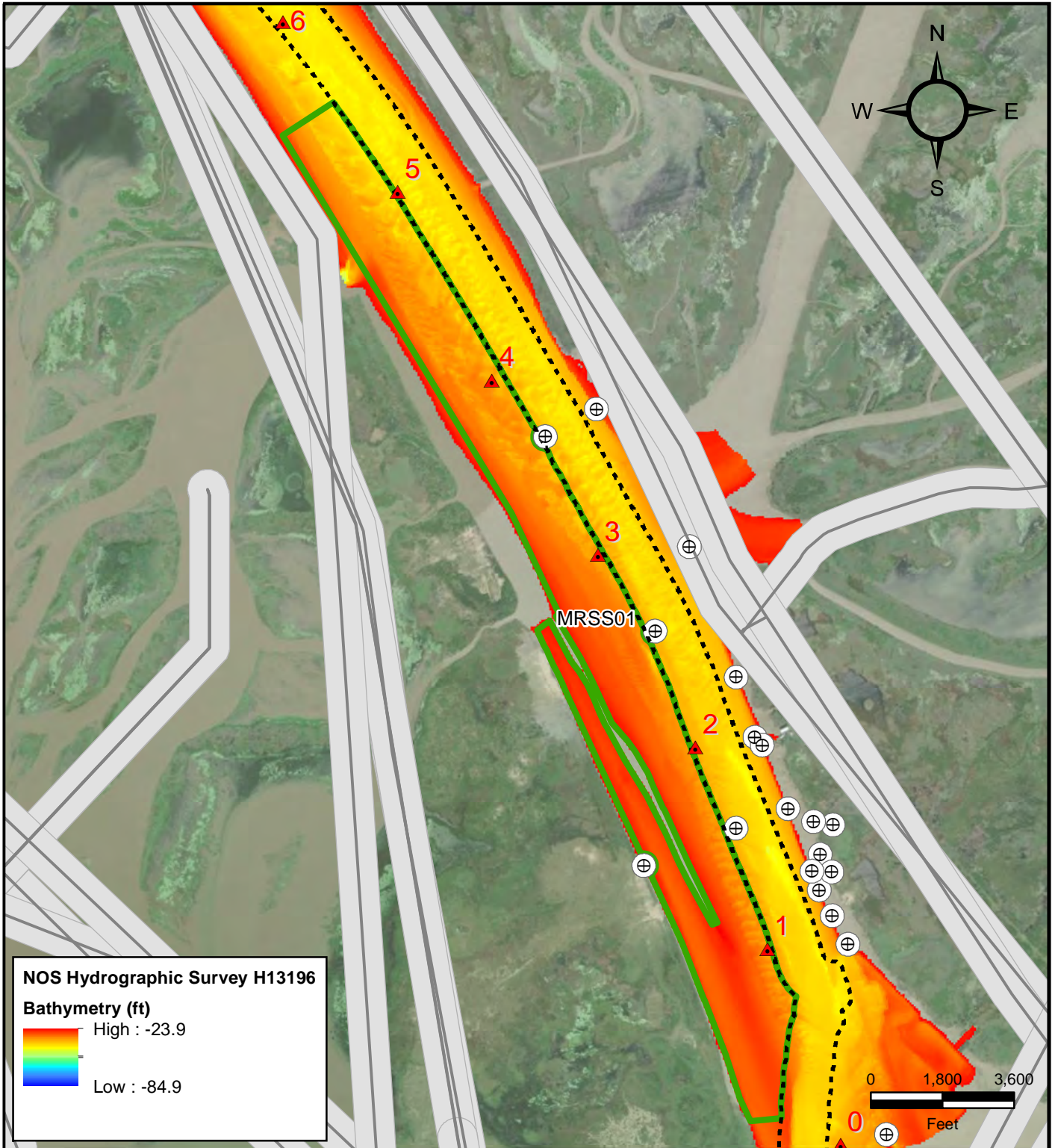
Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

---

FIGURE NUMBER  
**Map 36 of 41**

---

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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

**Legend**

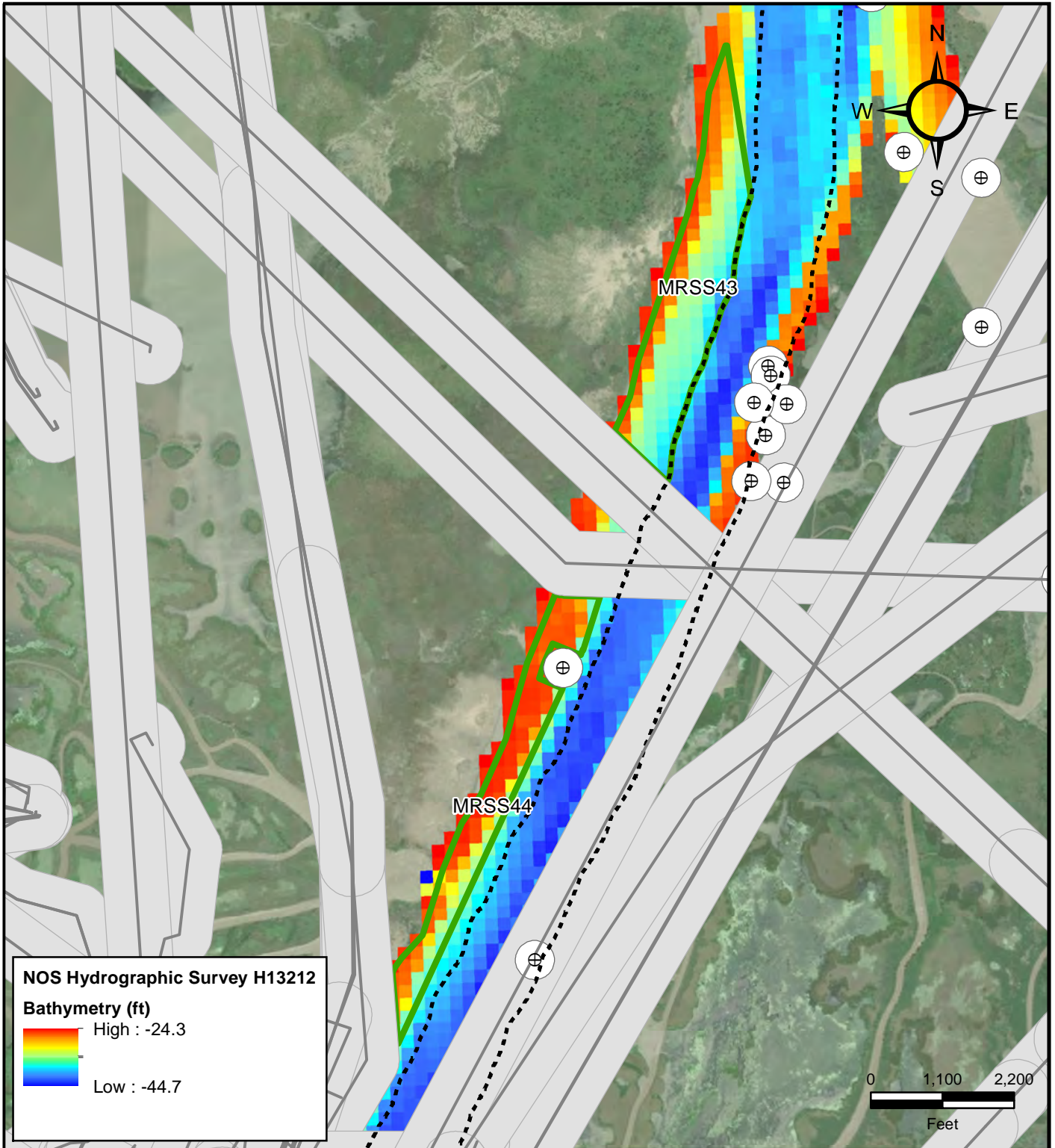
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 37 of 41**



**NOS Hydrographic Survey H13212**

**Bathymetry (ft)**  
 High : -24.3  
 Low : -44.7

**Legend**

- ⊕ Navigation Aid
- Pipeline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

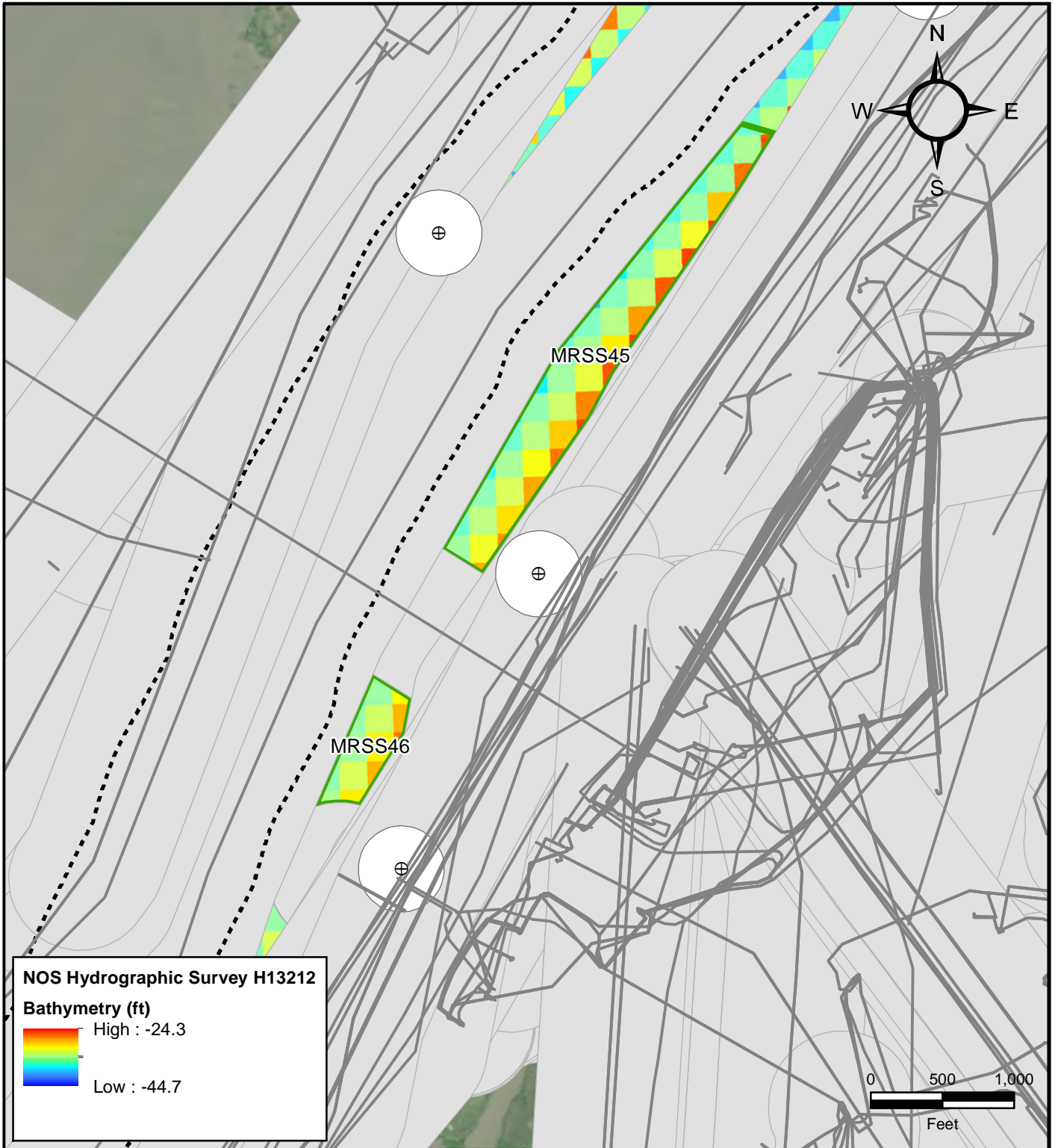
FIGURE  
 NUMBER

**Map 38 of 41**



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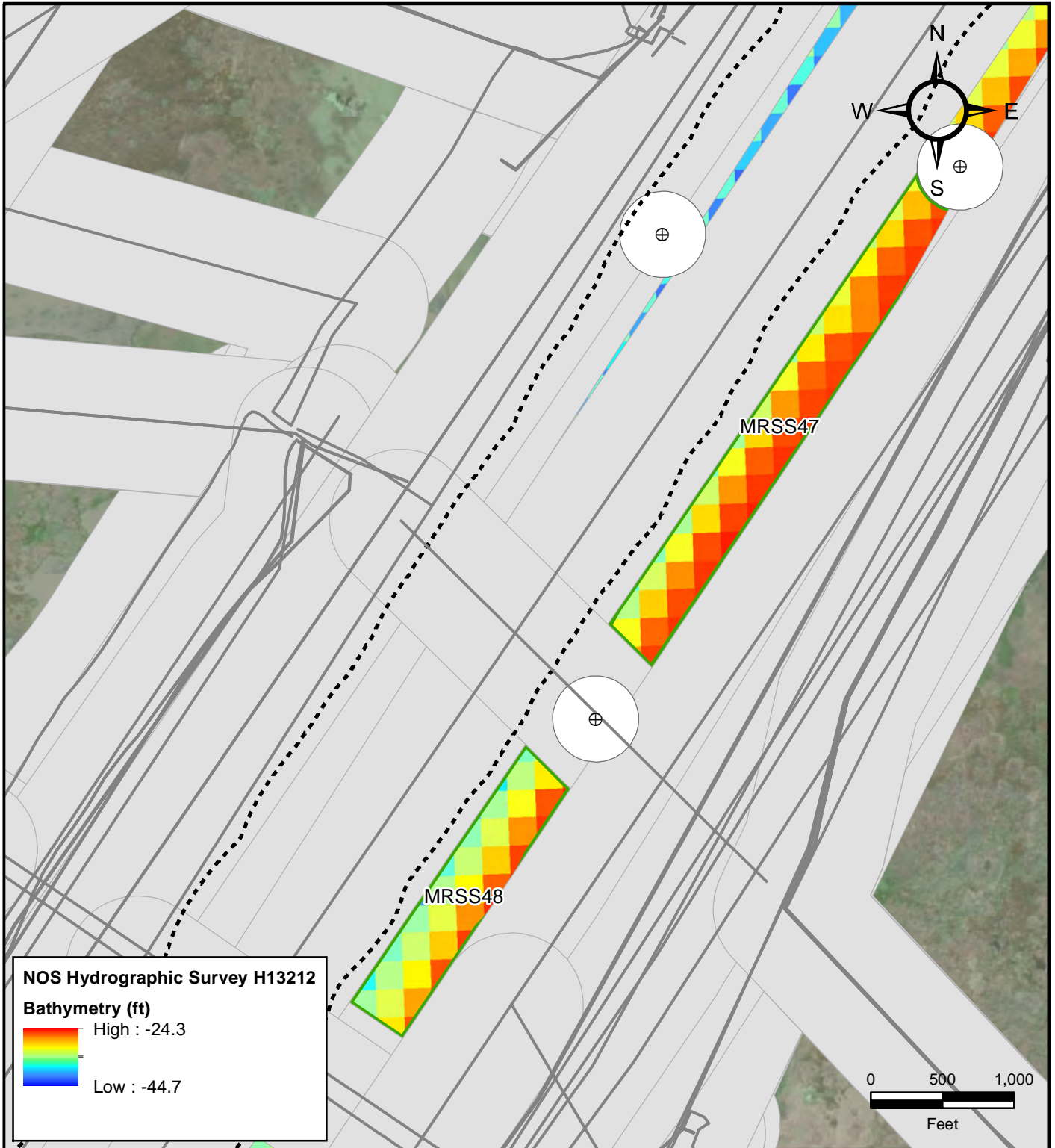


**NOS Hydrographic Survey H13212**  
**Bathymetry (ft)**  
 High : -24.3  
 Low : -44.7

**Legend**

- ⊕ Navigation Aid
- Pipeline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps  
 Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut  
 FIGURE NUMBER  
**Map 39 of 41**



**NOS Hydrographic Survey H13212**

**Bathymetry (ft)**

High : -24.3

Low : -44.7

**Legend**

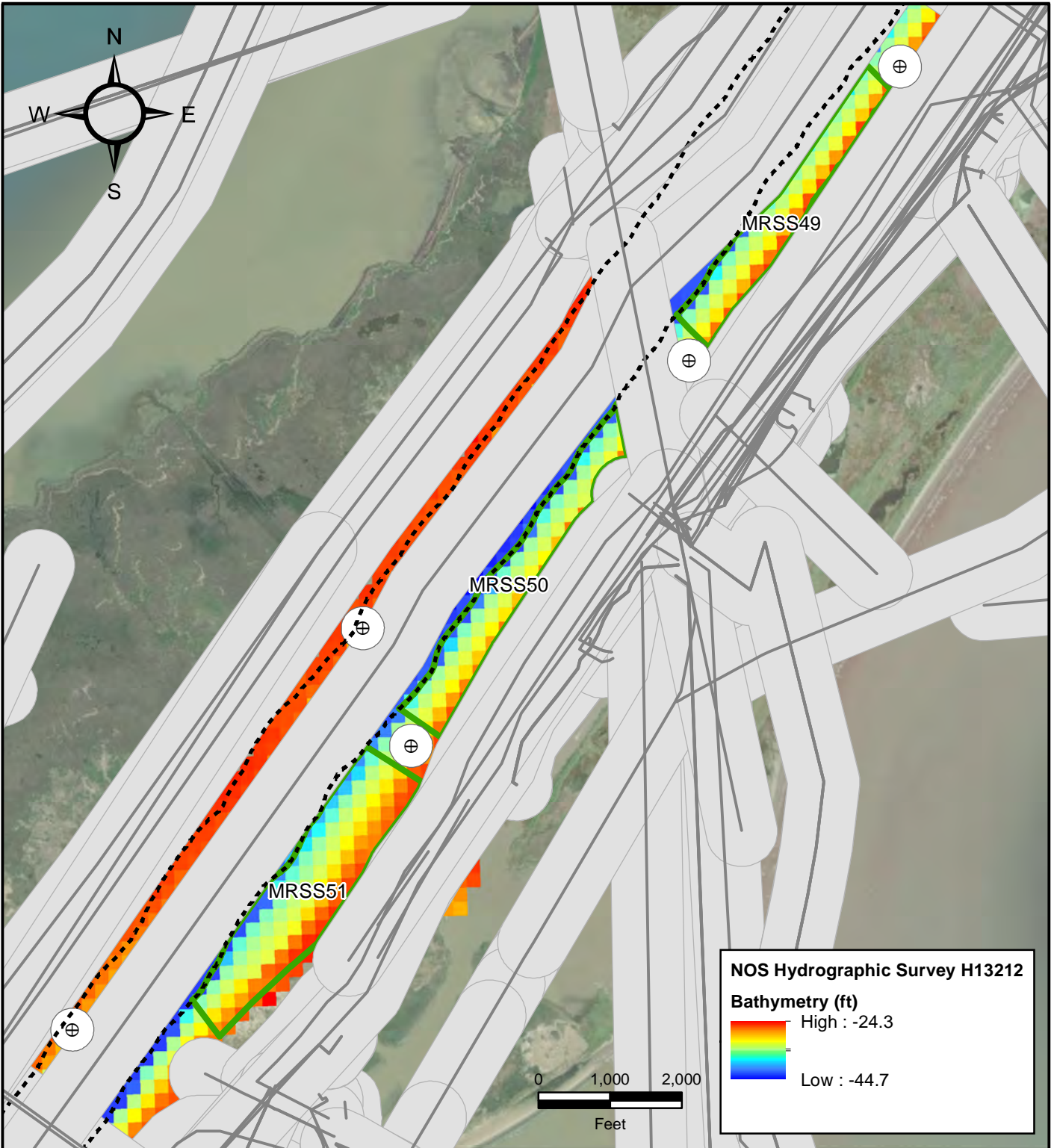
- ⊕ Navigation Aid
- Pipeline
- ⊖ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-70 ft NAVD88 cut

FIGURE NUMBER

**Map 40 of 41**



**Legend**

- ⊕ Navigation Aid
- Pipeline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -70 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 41 of 41**



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**Attachment 4**  
**Lower Mississippi River SSD Maps -90 ft NAVD88 Cut**

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**Notes:**

1. Background Imagery credits: ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGrid, IGN and the GIS User Community.
2. Multibeam bathymetric data collected in 2019 (NOS Hydrographic Surveys H13193, H13194, H13195, H13196, and H13212), obtained through the NCEI in BAG format was used to digitize bar formations that potentially contain sand.
3. Per "Limits of Permissible Excavation in River" (USACE, 1974), a federal levee offset of 400 ft from the levee centerline was applied to each potential sand resource.
4. Potential sand resource delineations provide for a 1,200 ft wide shipping lane, as defined as the distance between the outside edge of the sand resource and the -45 ft NAVD88 contour on the opposite river bank.
5. A 300 ft buffer between the edge of each sand resource and each navigation aid was applied.
6. A 500 ft buffer between the edge of each potential sand resource and any pipelines was applied.
7. An offset equal to the horizontal distance between the toe of the revetment and the intersection of a 1V:6H slope from the toe of the revetment and proposed dredge cut elevation was applied.

Louisiana Surficial Sediment Distribution Maps

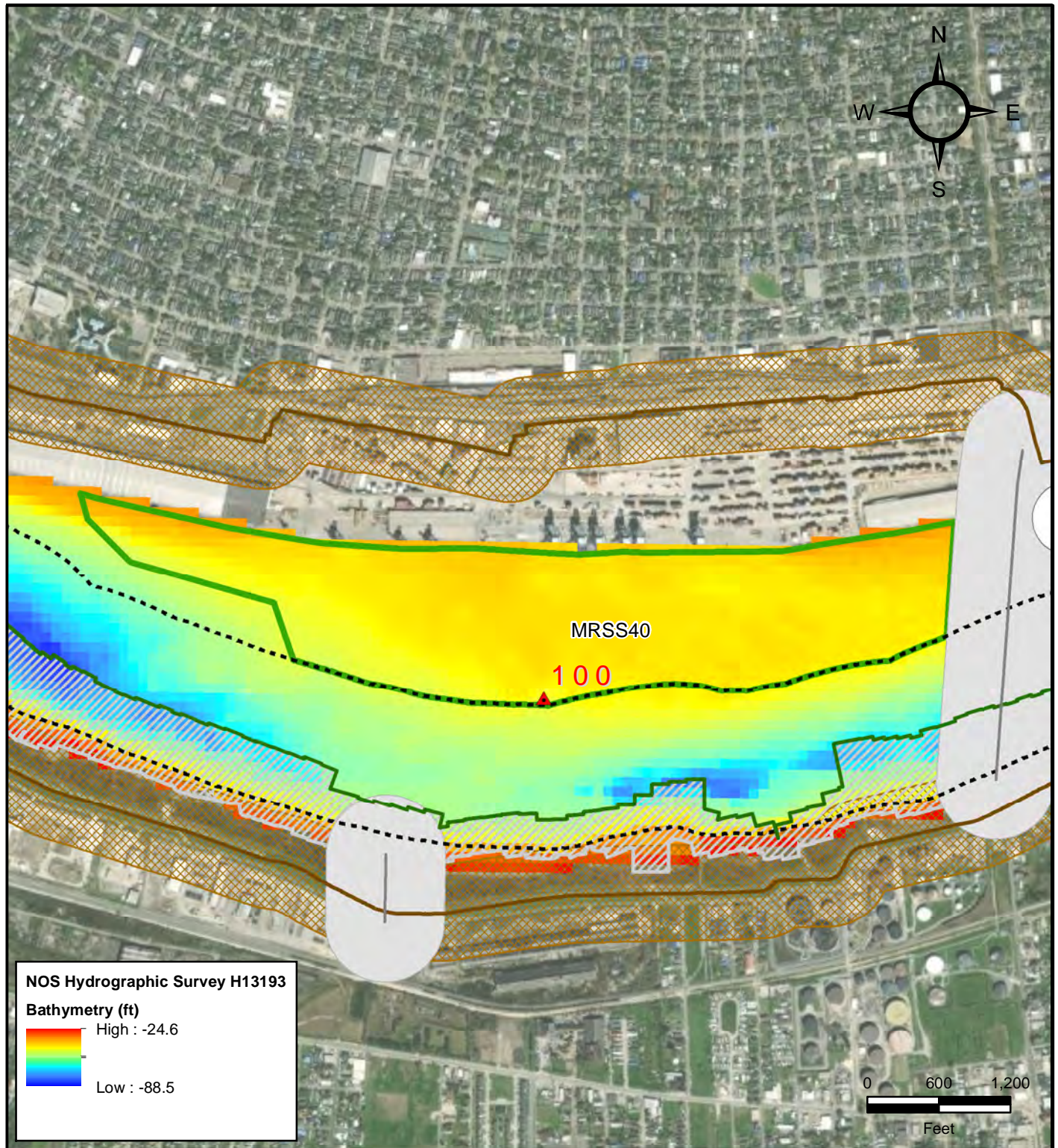
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 1 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- 400 ft Levee Offset
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

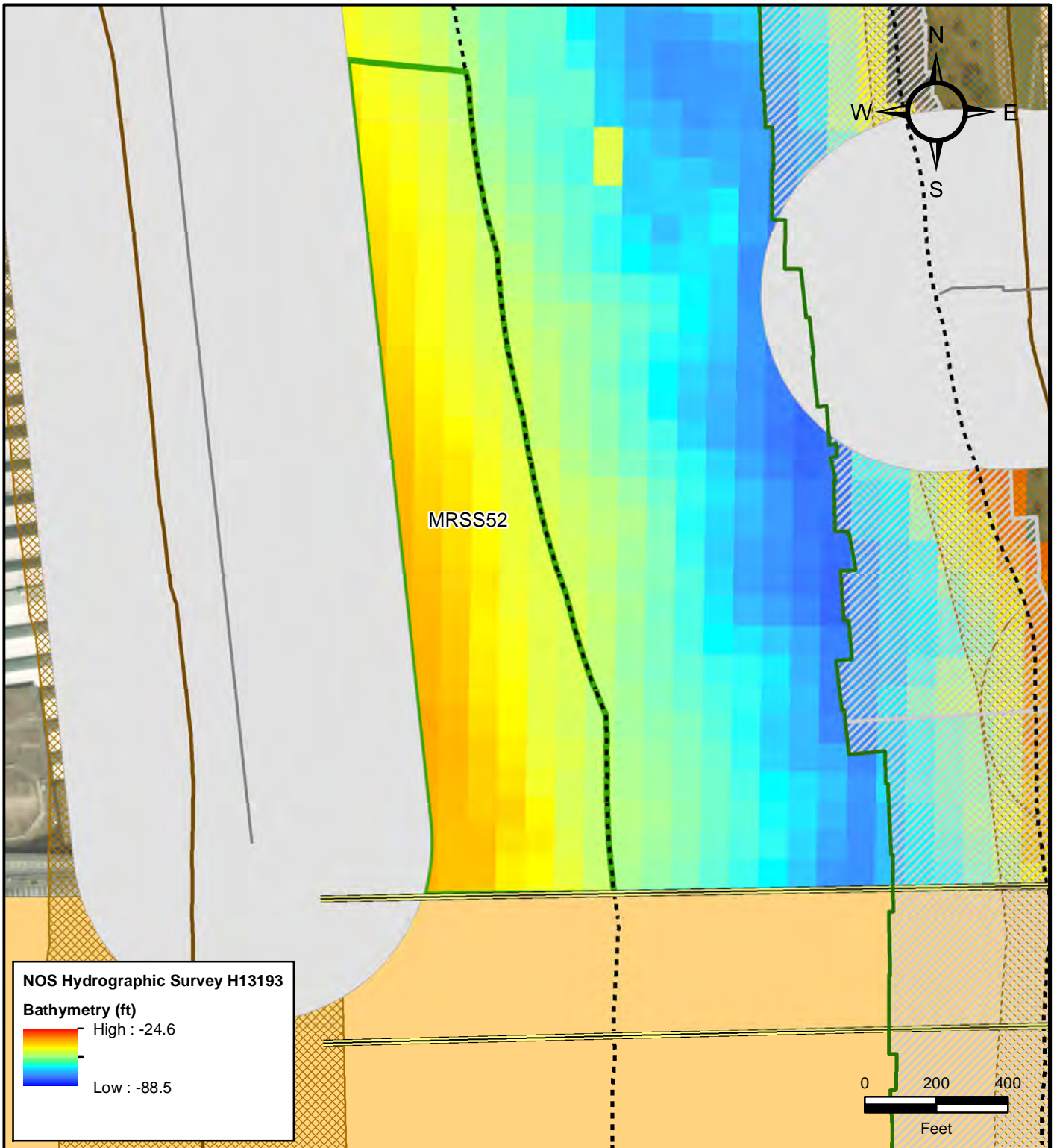
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 2 of 41**



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**Legend**

Pipeline	500 ft Pipeline Buffer
Revetment Toe	Revetment Footprint
Bridge	4000 ft Bridge Buffer
Levee Centerline	Inferred Sand Deposit
Navigation Channel Setback	
400 ft Levee Offset	

Louisiana Surficial Sediment Distribution Maps

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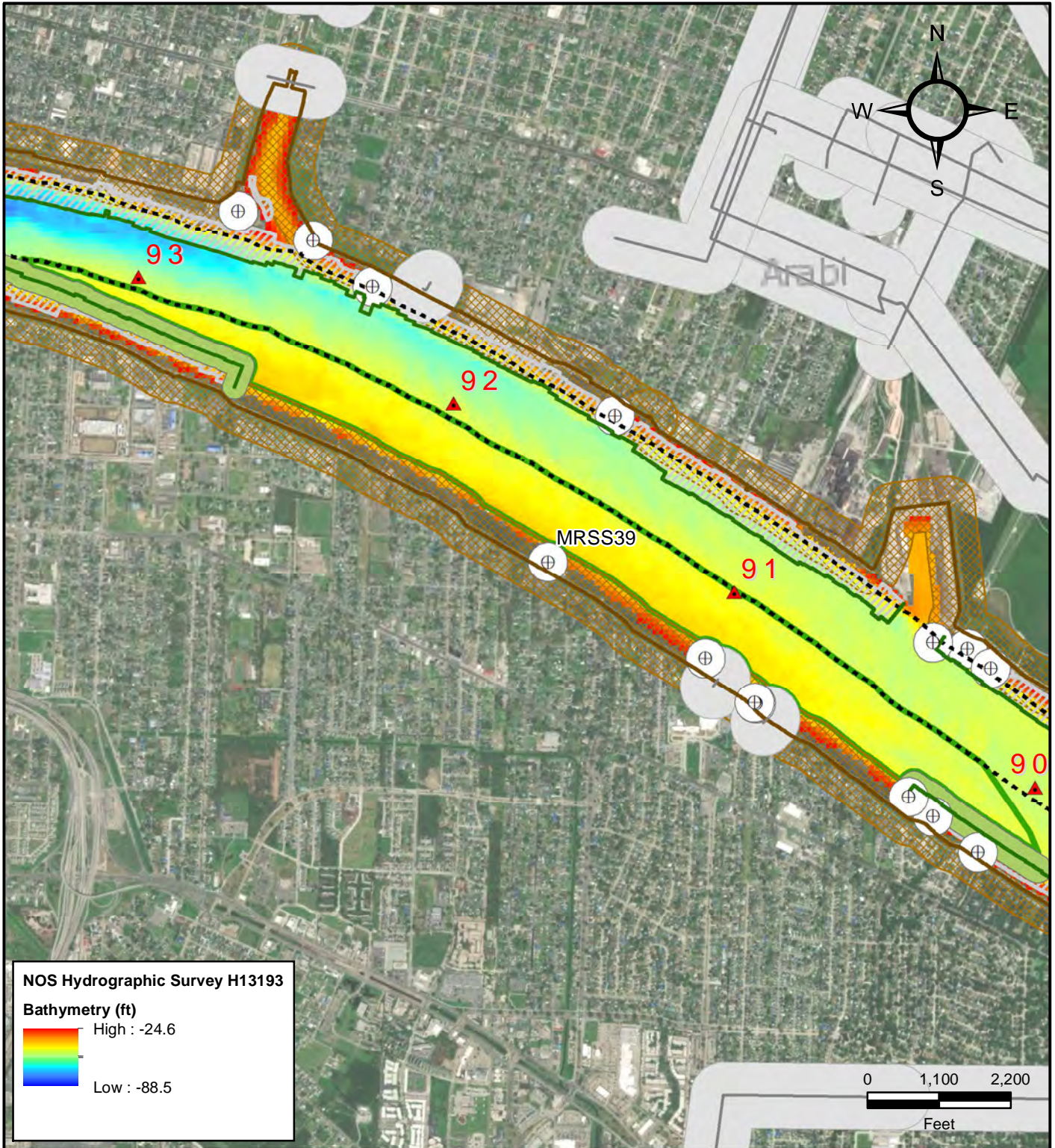
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

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FIGURE NUMBER **Map 3 of 41**

---

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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- 4000 ft Bridge Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

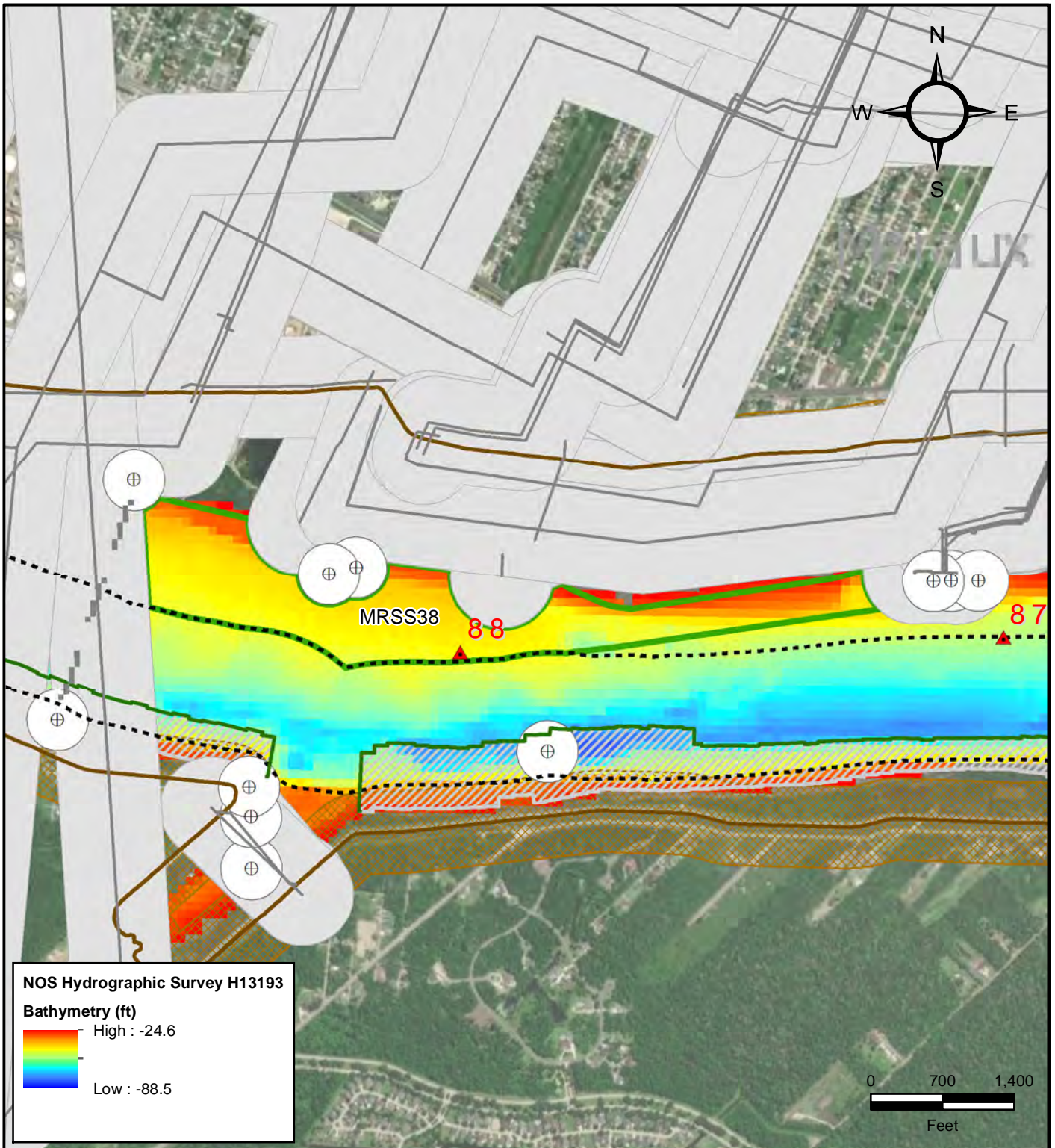
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 4 of 41**



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**NOS Hydrographic Survey H13193**  
**Bathymetry (ft)**  
 High : -24.6  
 Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 400 ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

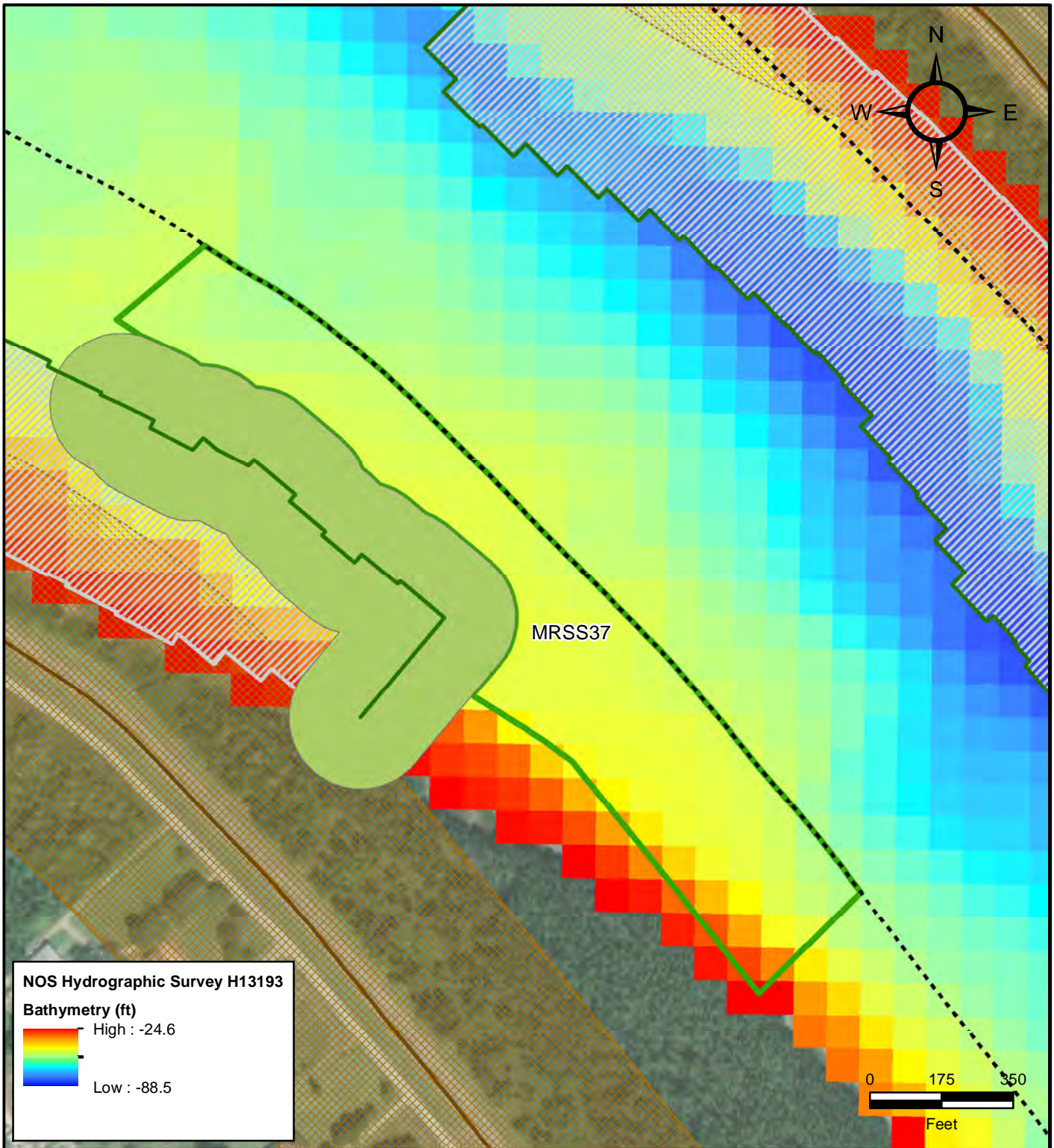
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 5 of 41**










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**NOS Hydrographic Survey H13193**  
**Bathymetry (ft)**  
 High : -24.6  
 Low : -88.5

**Legend**

-  Revetment Toe
-  Levee Centerline
-  Navigation Channel Setback
-  400 ft Levee Offset
-  Revetment Toe Buffer
-  Revetment Footprint
-  Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

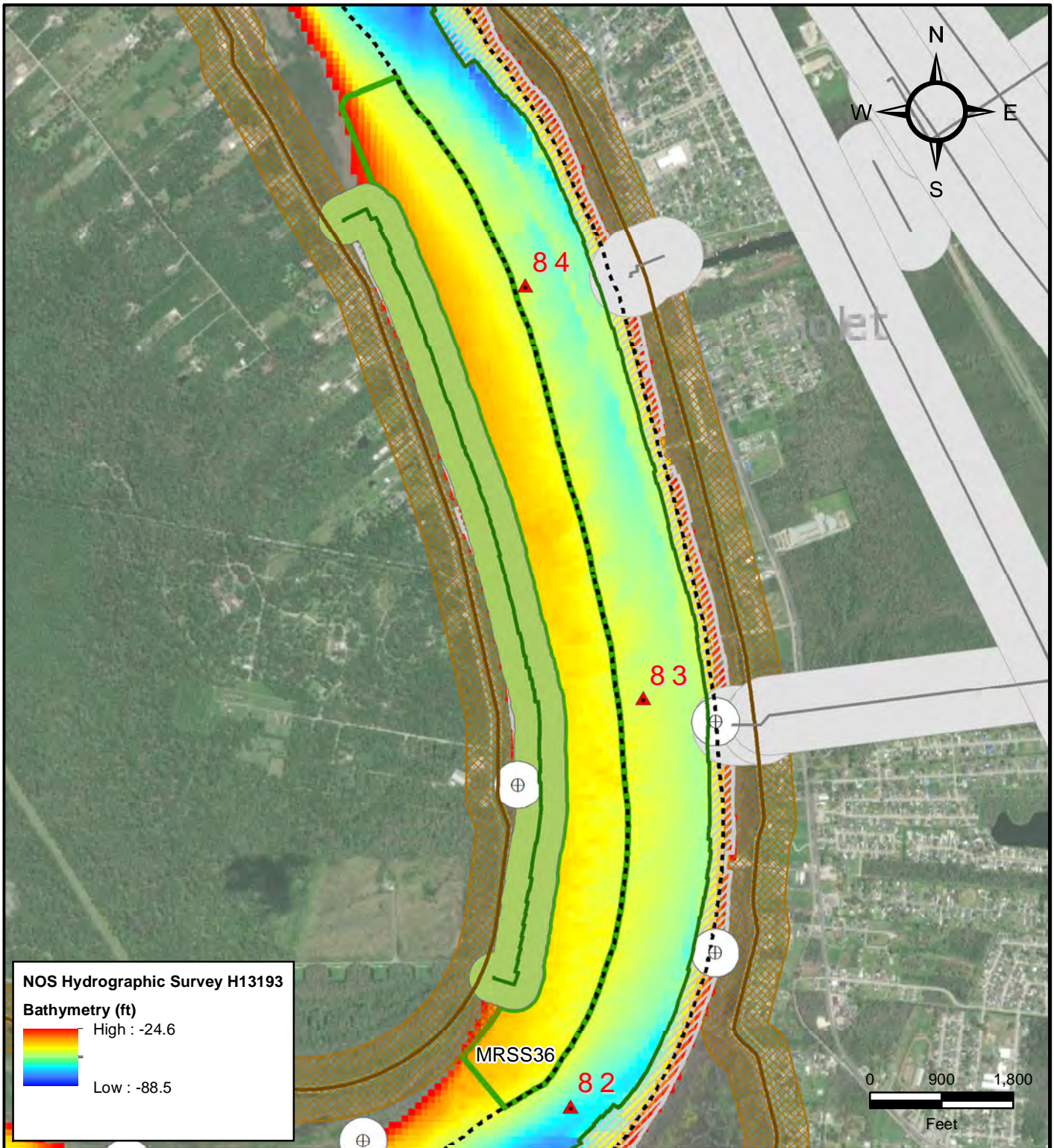
FIGURE  
 NUMBER

**Map 6 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▭ Inferred Sand Deposit
- ▭ Revetment Toe Buffer

Louisiana Surficial Sediment Distribution Maps

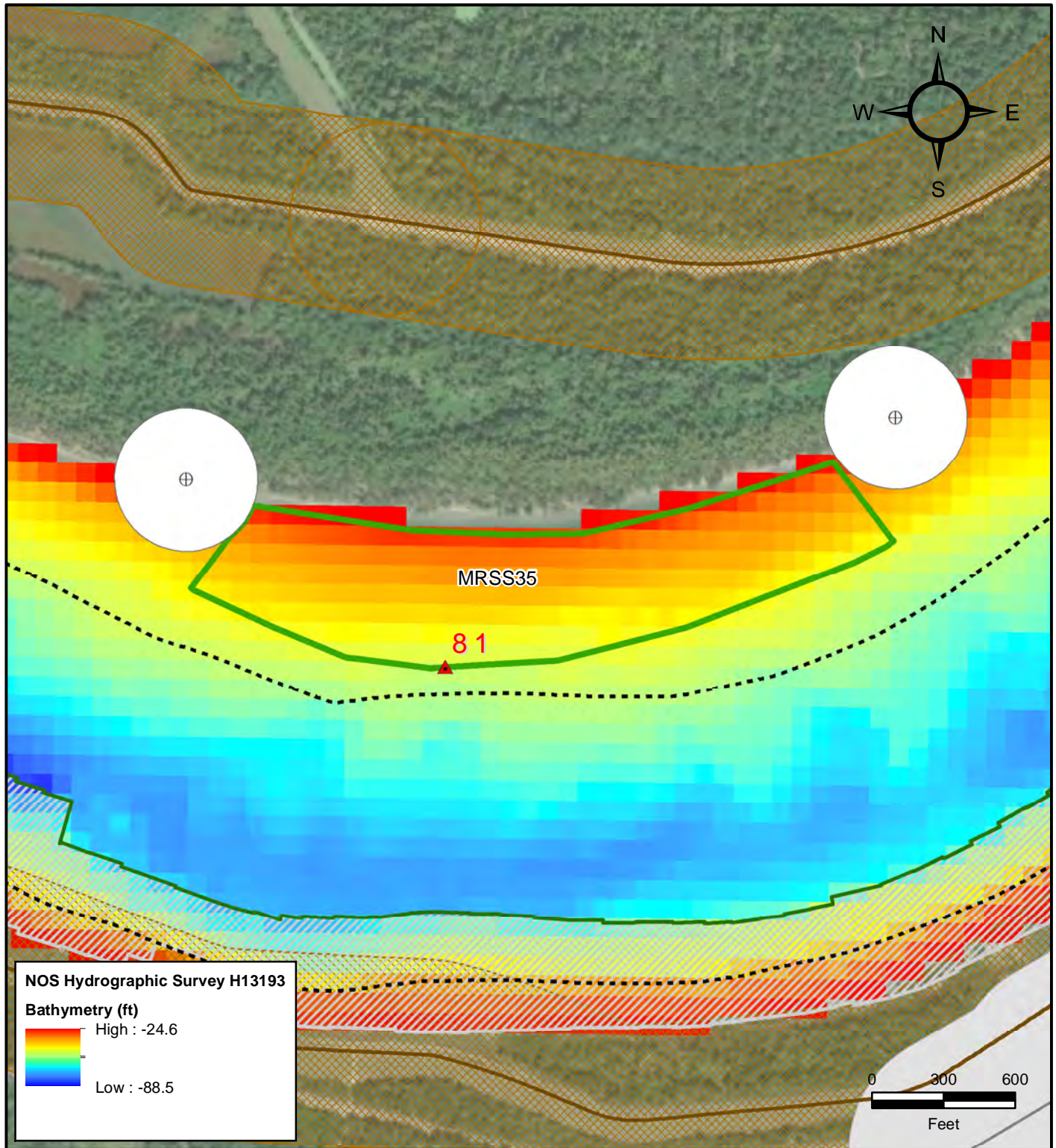
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 7 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

High : -24.6

Low : -88.5

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- 400 ft Levee Offset
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

---

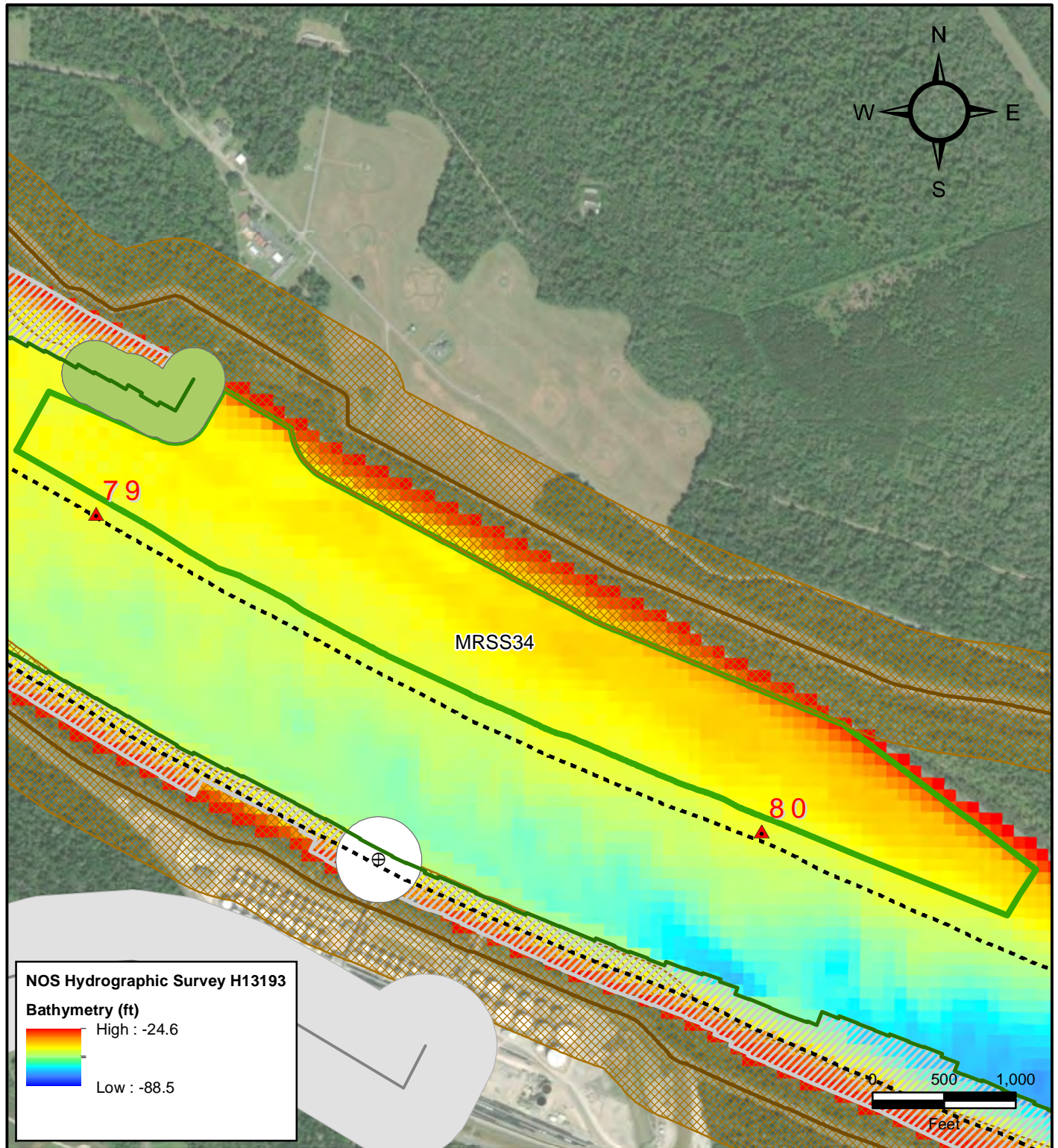
FIGURE NUMBER

**Map 8 of 41**

---

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**NOS Hydrographic Survey H13193**  
**Bathymetry (ft)**  
 High : -24.6  
 Low : -88.5

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- Revetment Toe Buffer
- ▨ 400 ft Levee Offset
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

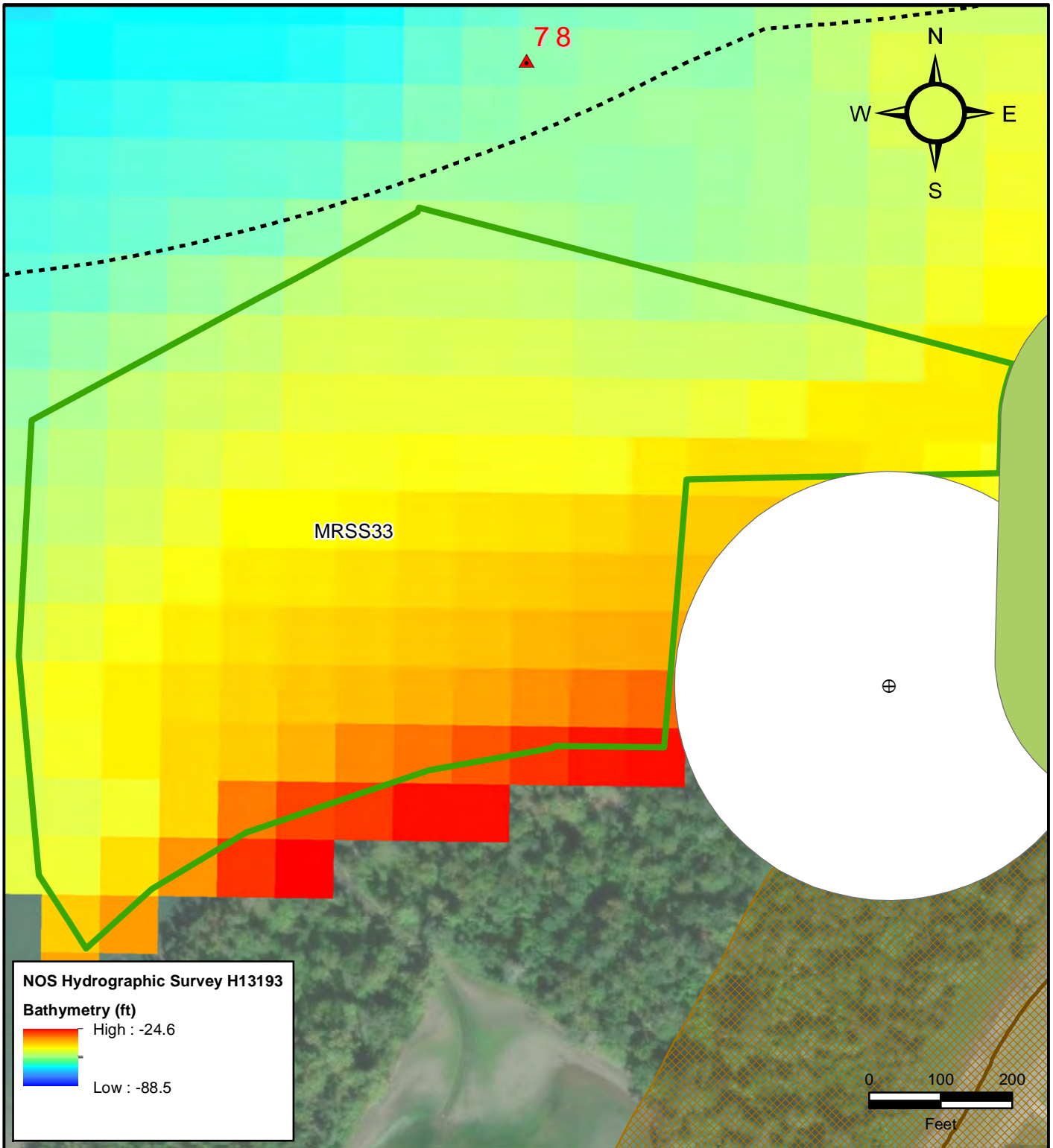
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 9 of 41**



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**NOS Hydrographic Survey H13193**

**Bathymetry (ft)**

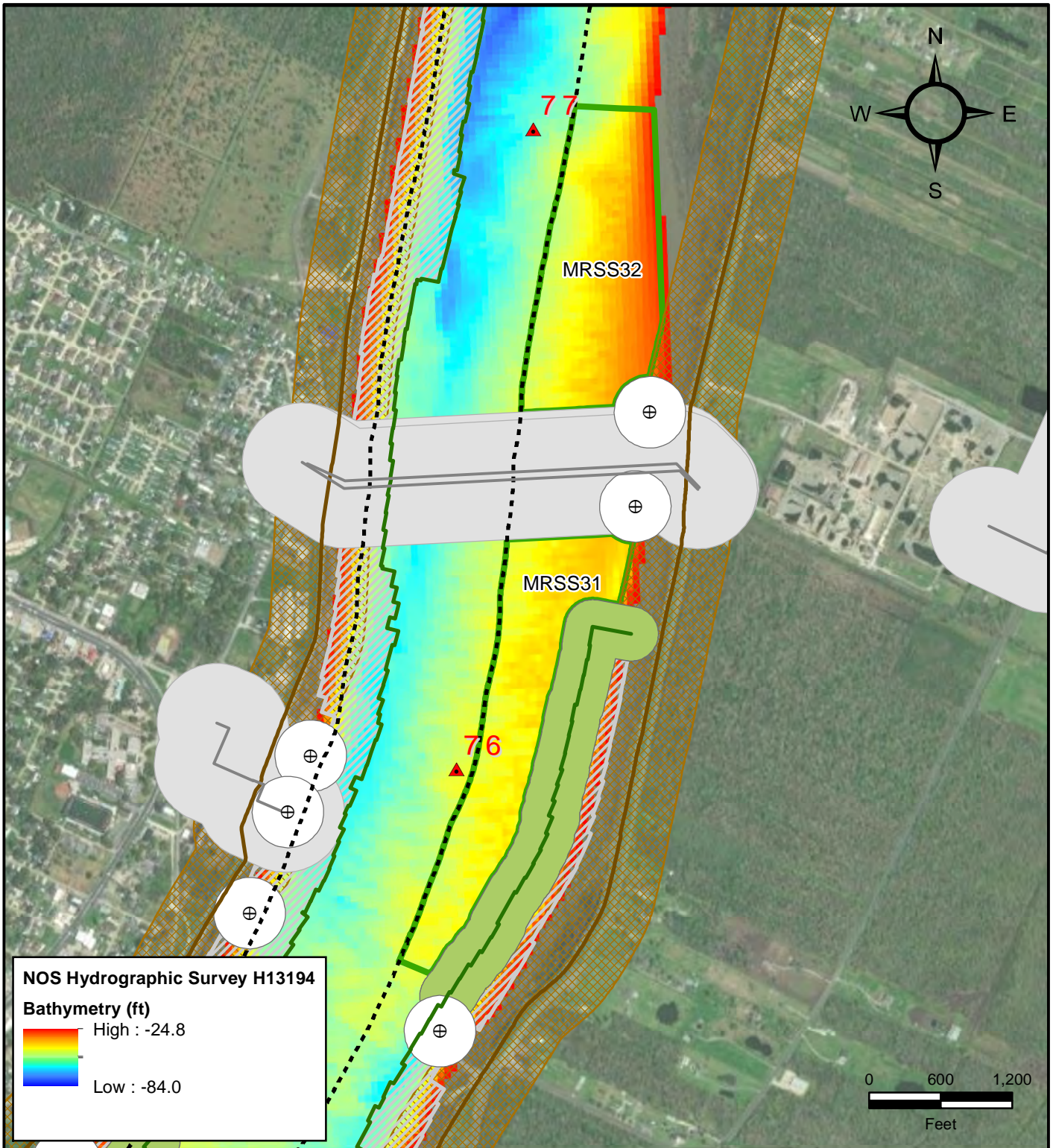
High : -24.6  
Low : -88.5

- Mississippi River Mile
- Navigation Aid
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER  
**Map 10 of 41**



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 400 ft Levee Offset
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

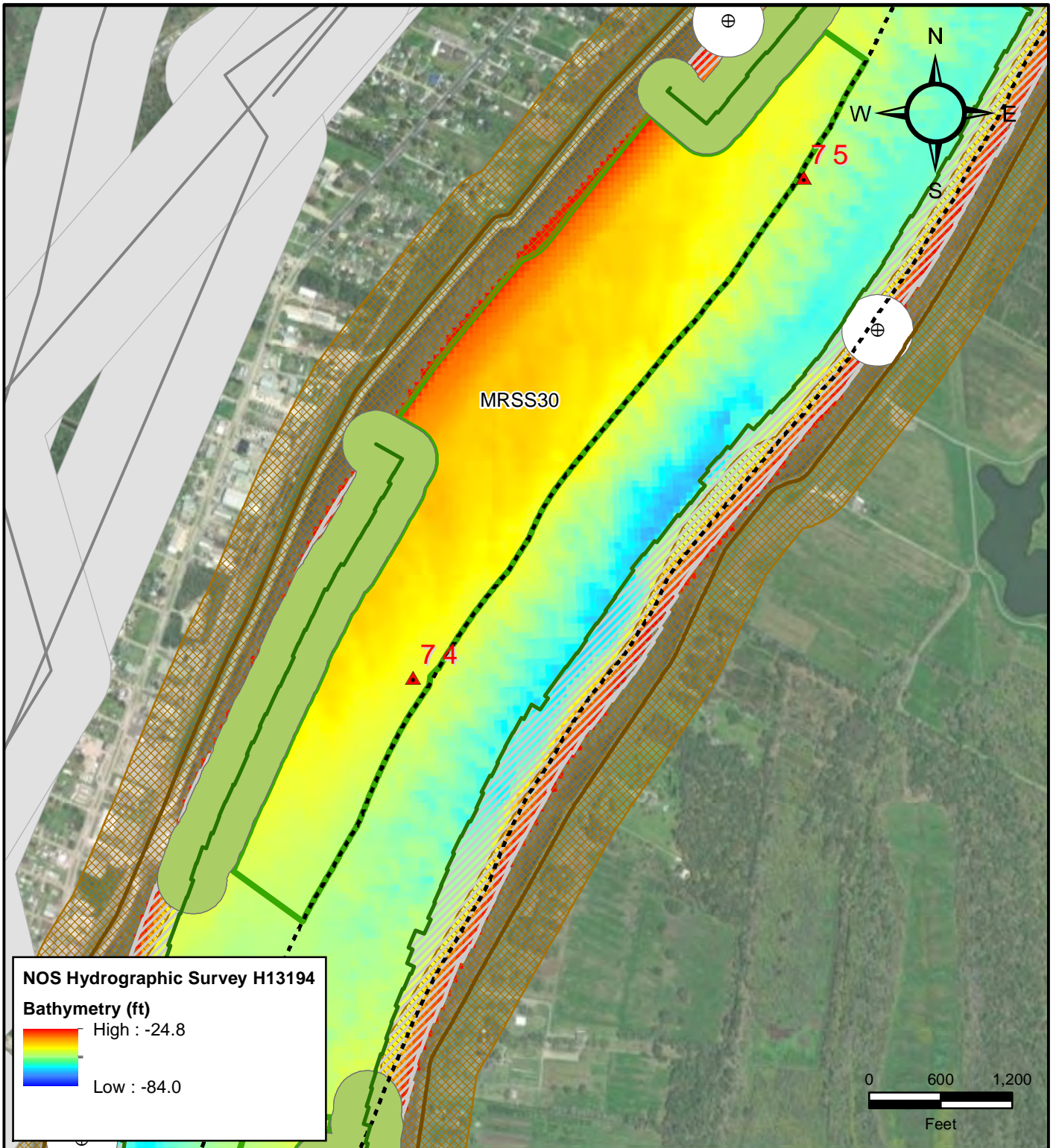
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FIGURE NUMBER

**Map 11 of 41**

---

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**NOS Hydrographic Survey H13194**  
**Bathymetry (ft)**  
 High : -24.8  
 Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 400 ft Levee Offset
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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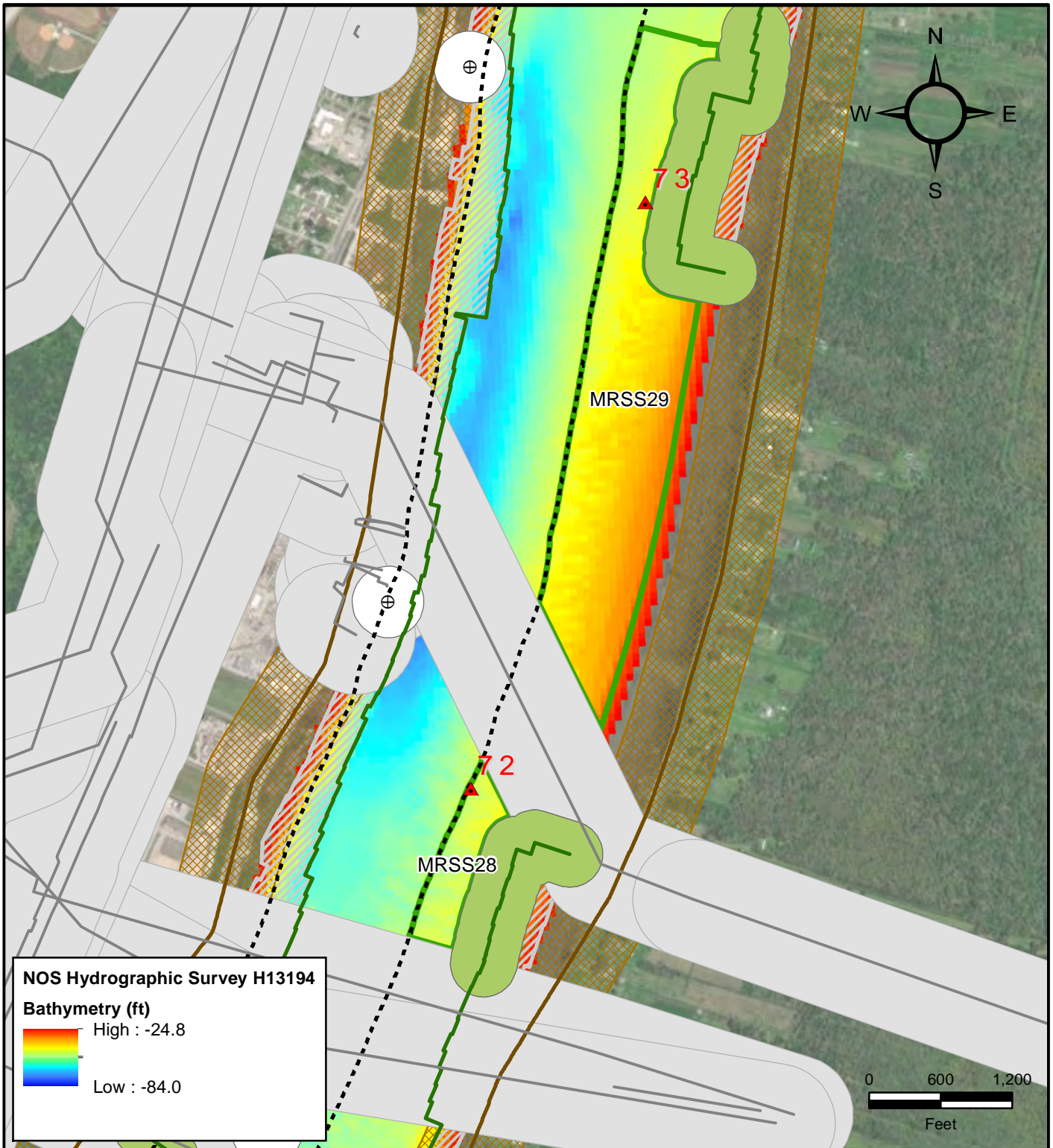
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

---

FIGURE NUMBER **Map 12 of 41**

---

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 400 ft Levee Offset
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

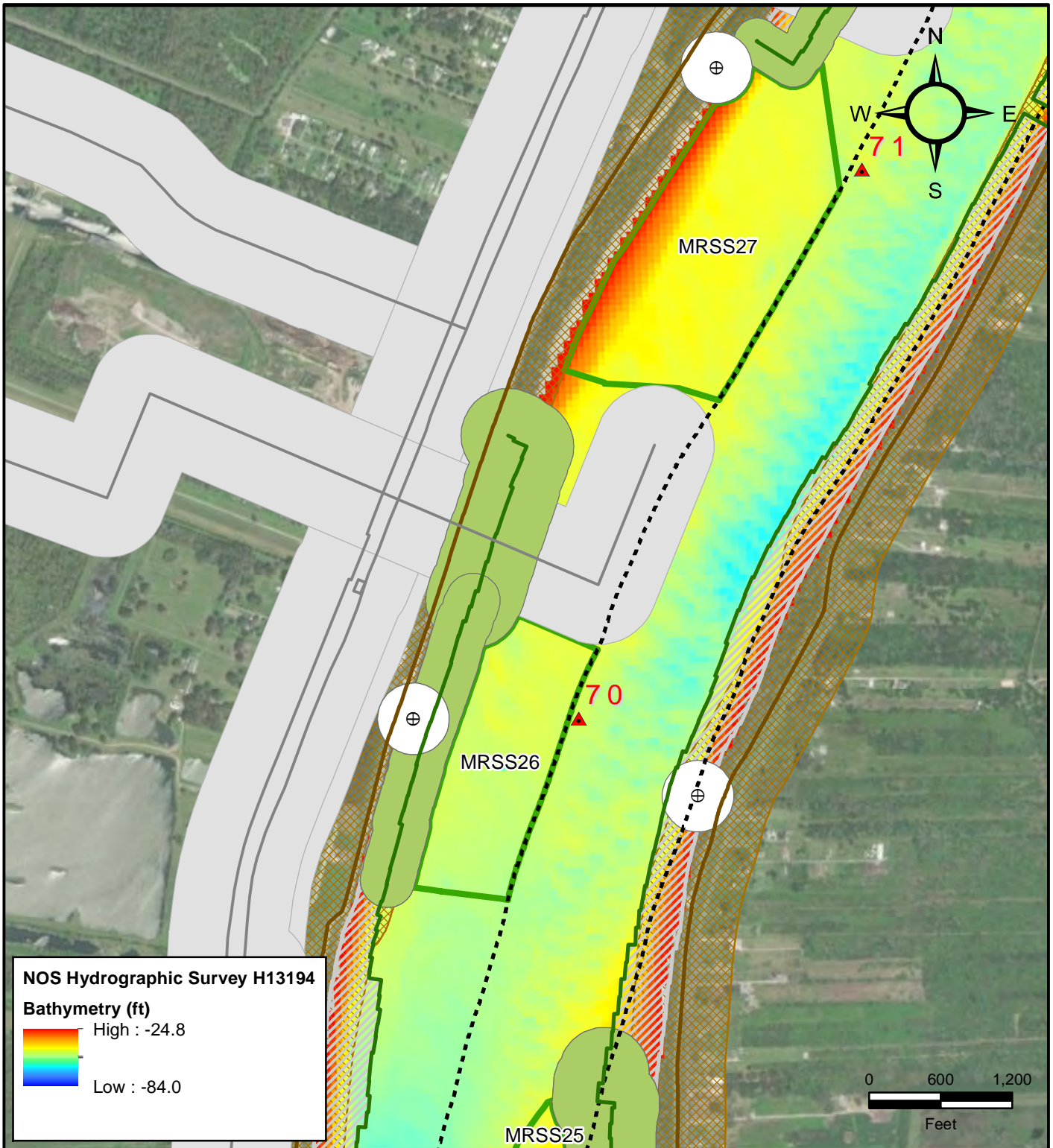
---

FIGURE NUMBER

**Map 13 of 41**

---

6401 Congress Avenue, Suite 140  
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www.APTIM.com



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- 400 ft Levee Offset
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

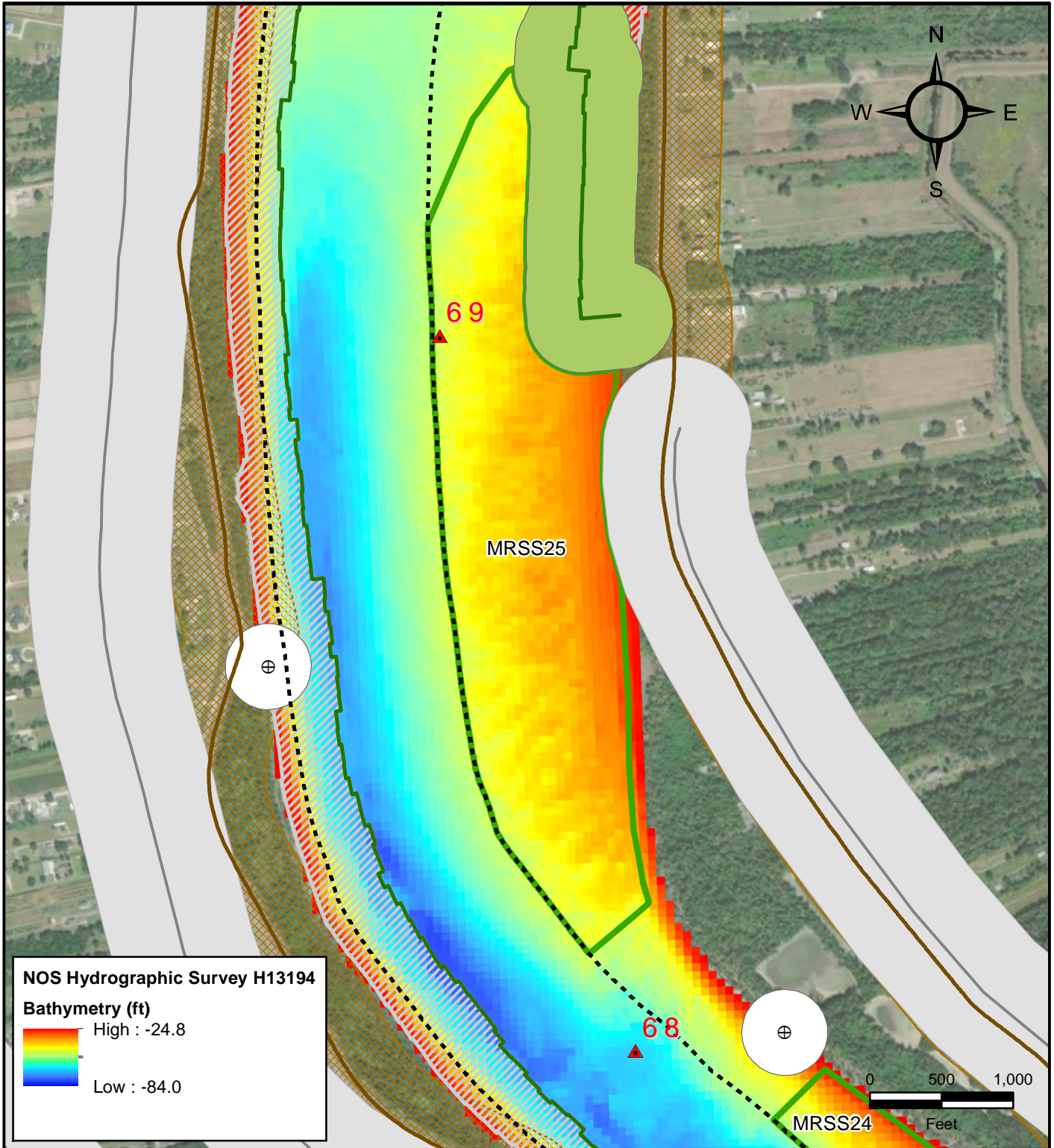
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 14 of 41**

**APTIM** 6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13194**  
**Bathymetry (ft)**  
 High : -24.8  
 Low : -84.0

**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 400 ft Levee Offset
- Revetment Toe Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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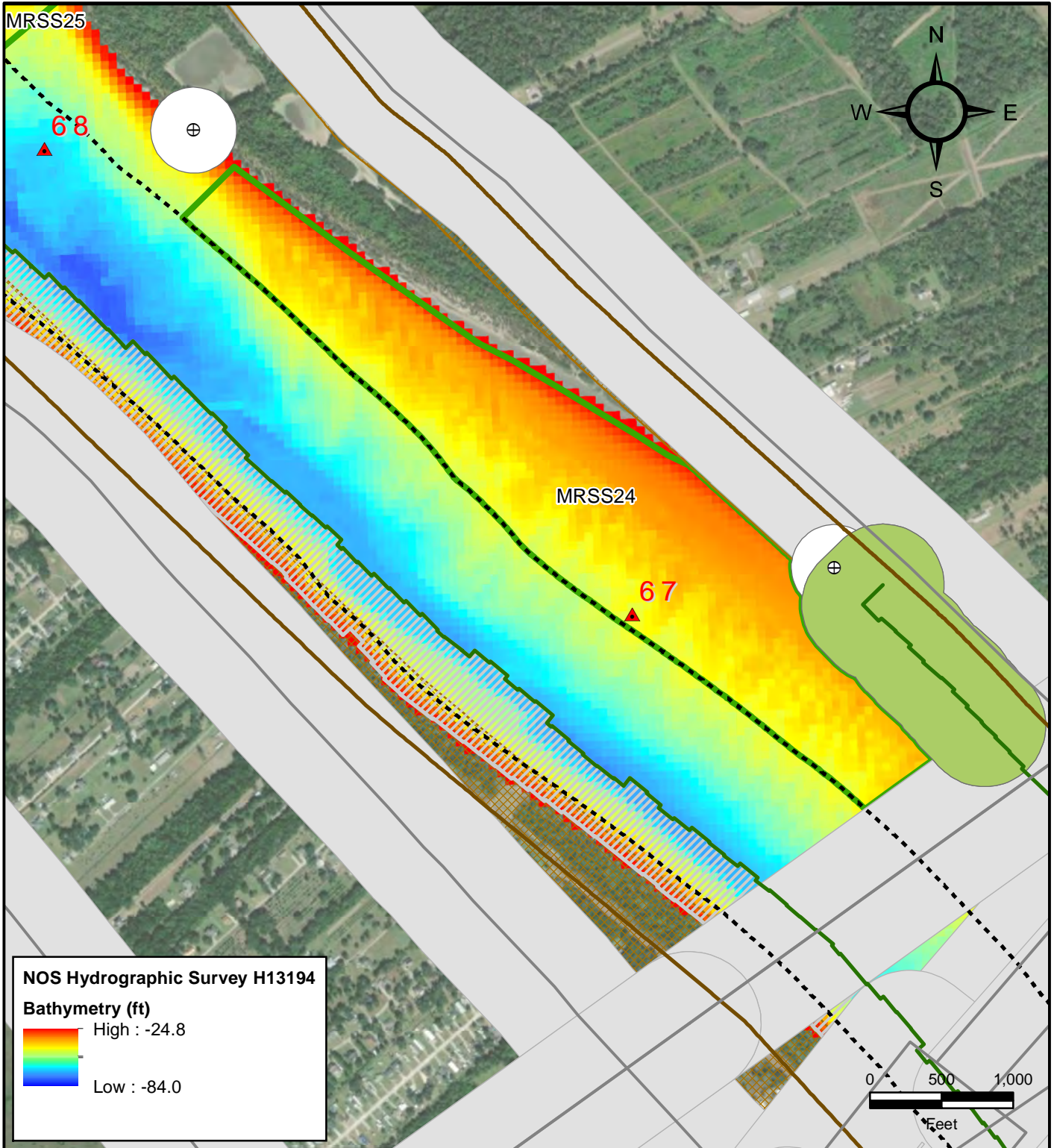
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

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FIGURE NUMBER **Map 15 of 41**

---

**APTIM** 6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

---

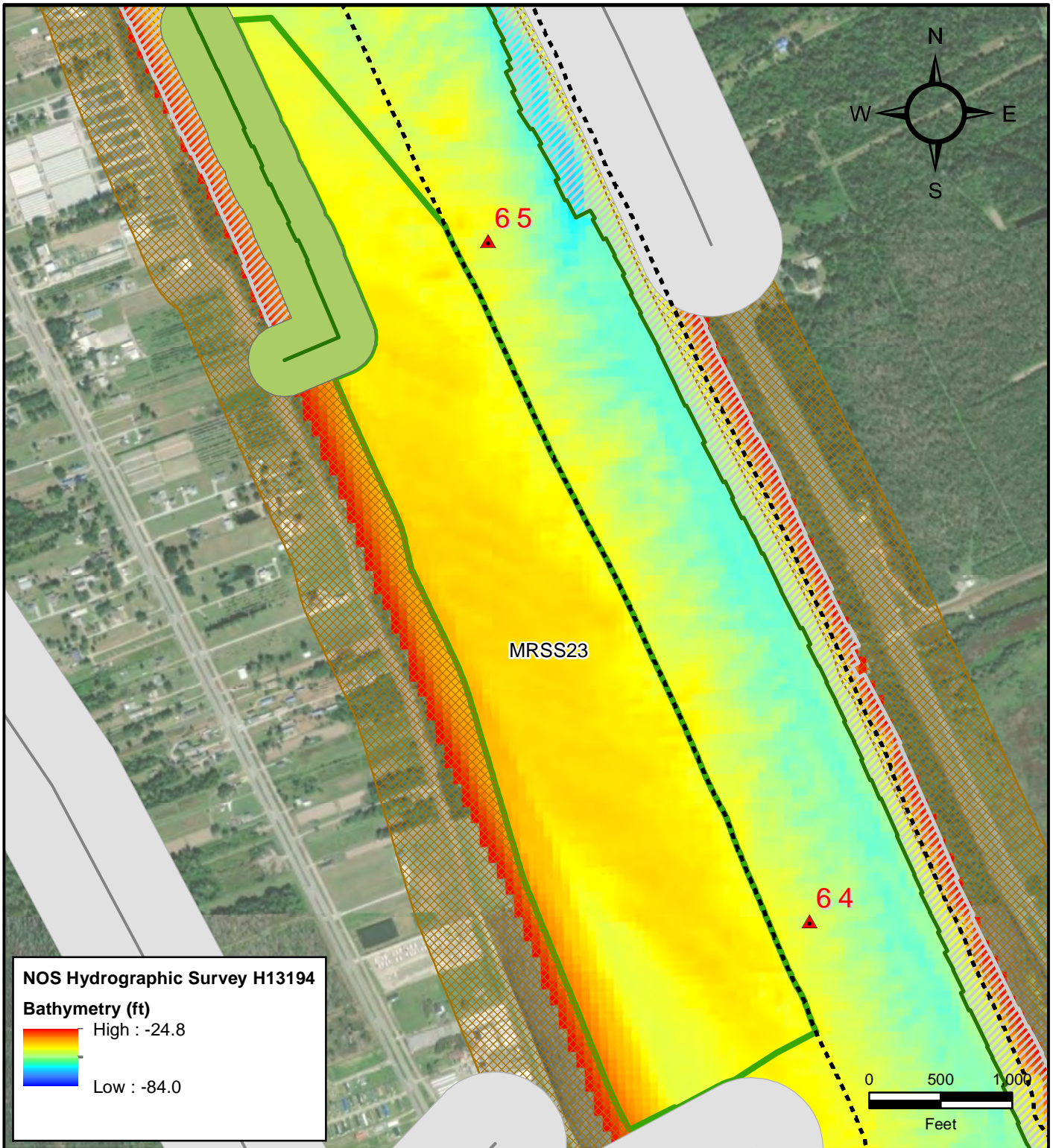
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

---

FIGURE NUMBER

**Map 16 of 41**





**Legend**

- ▲ Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

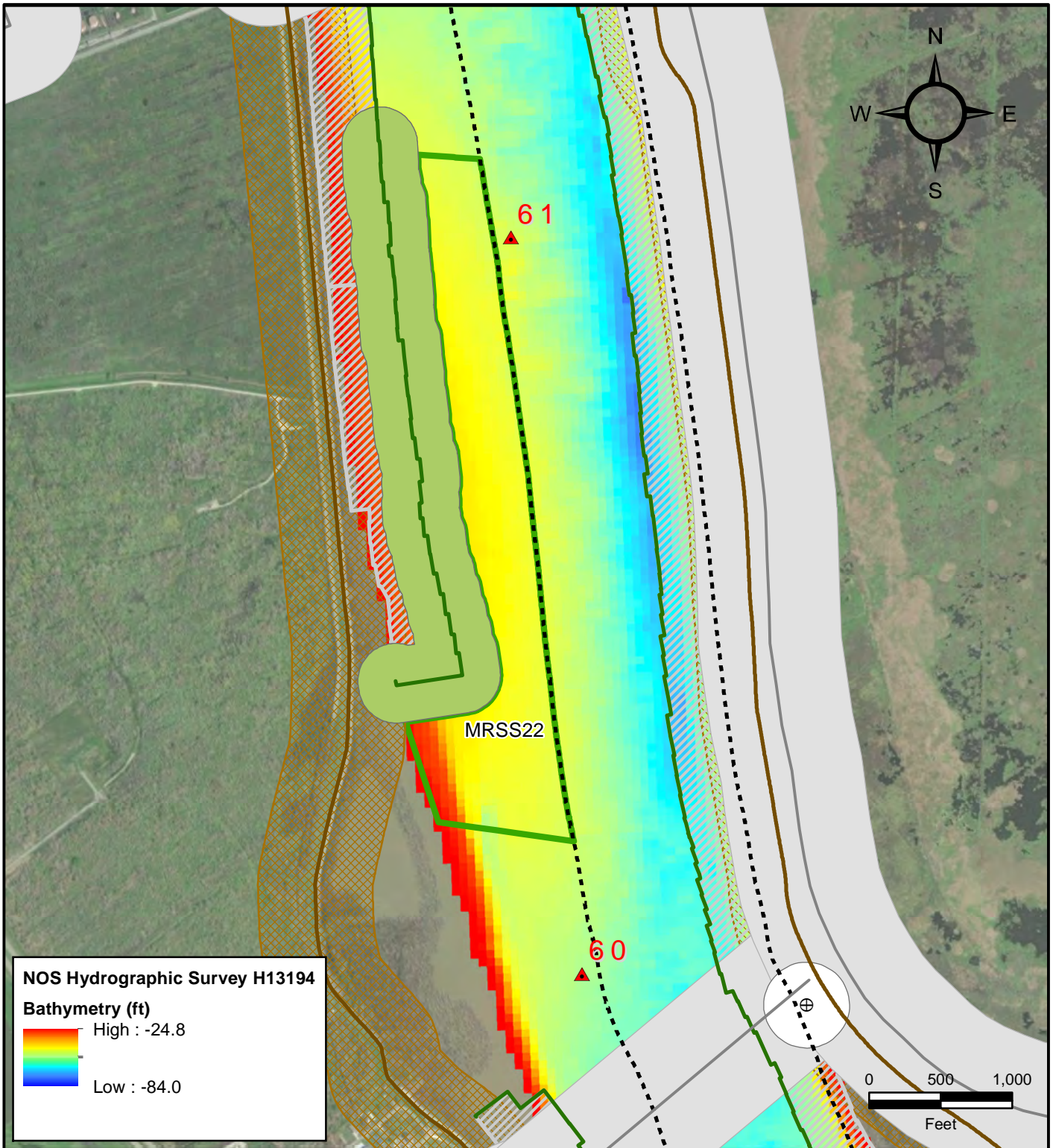
FIGURE  
 NUMBER

**Map 17 of 41**



**APTIM**

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

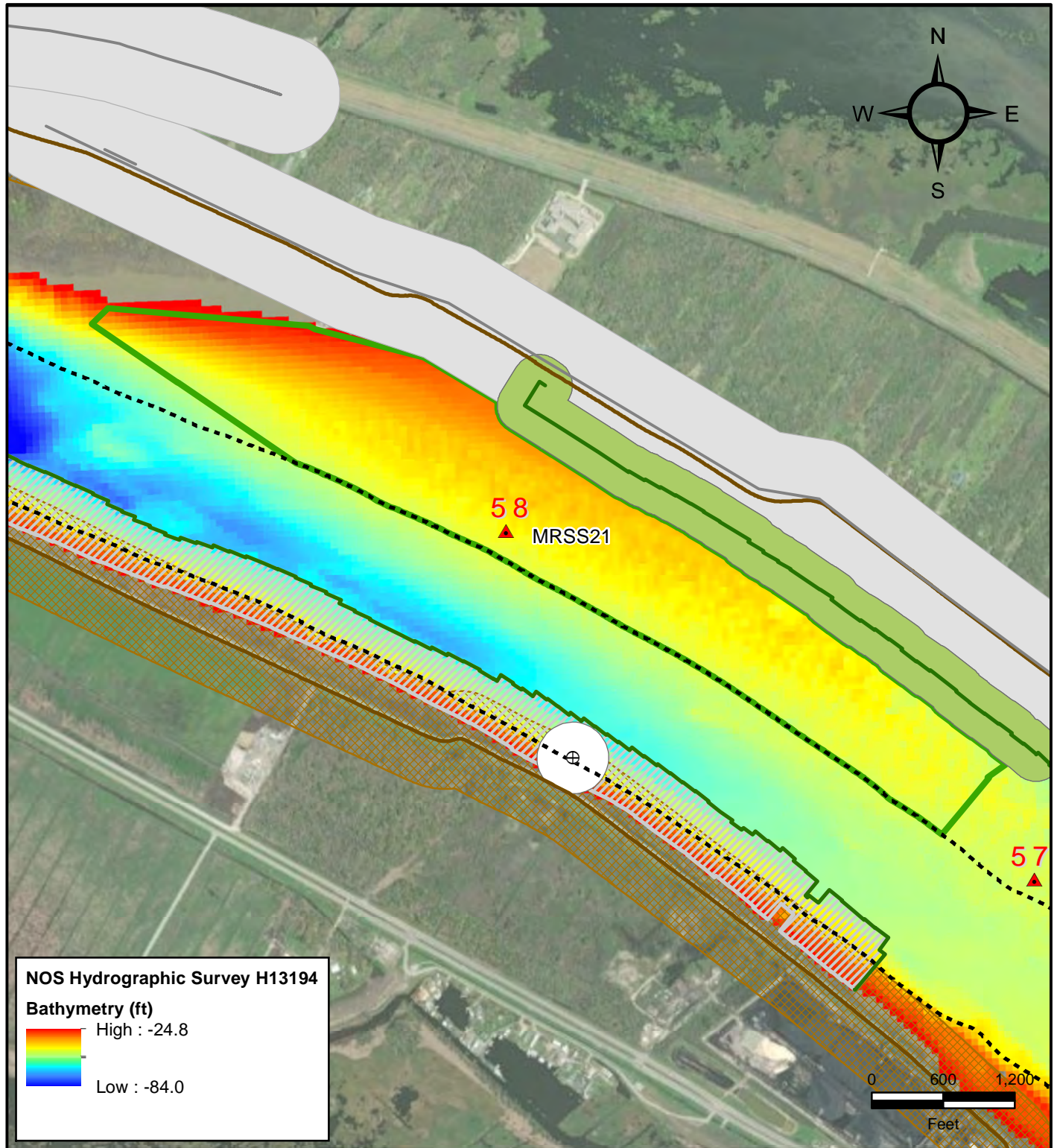
- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 18 of 41**



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

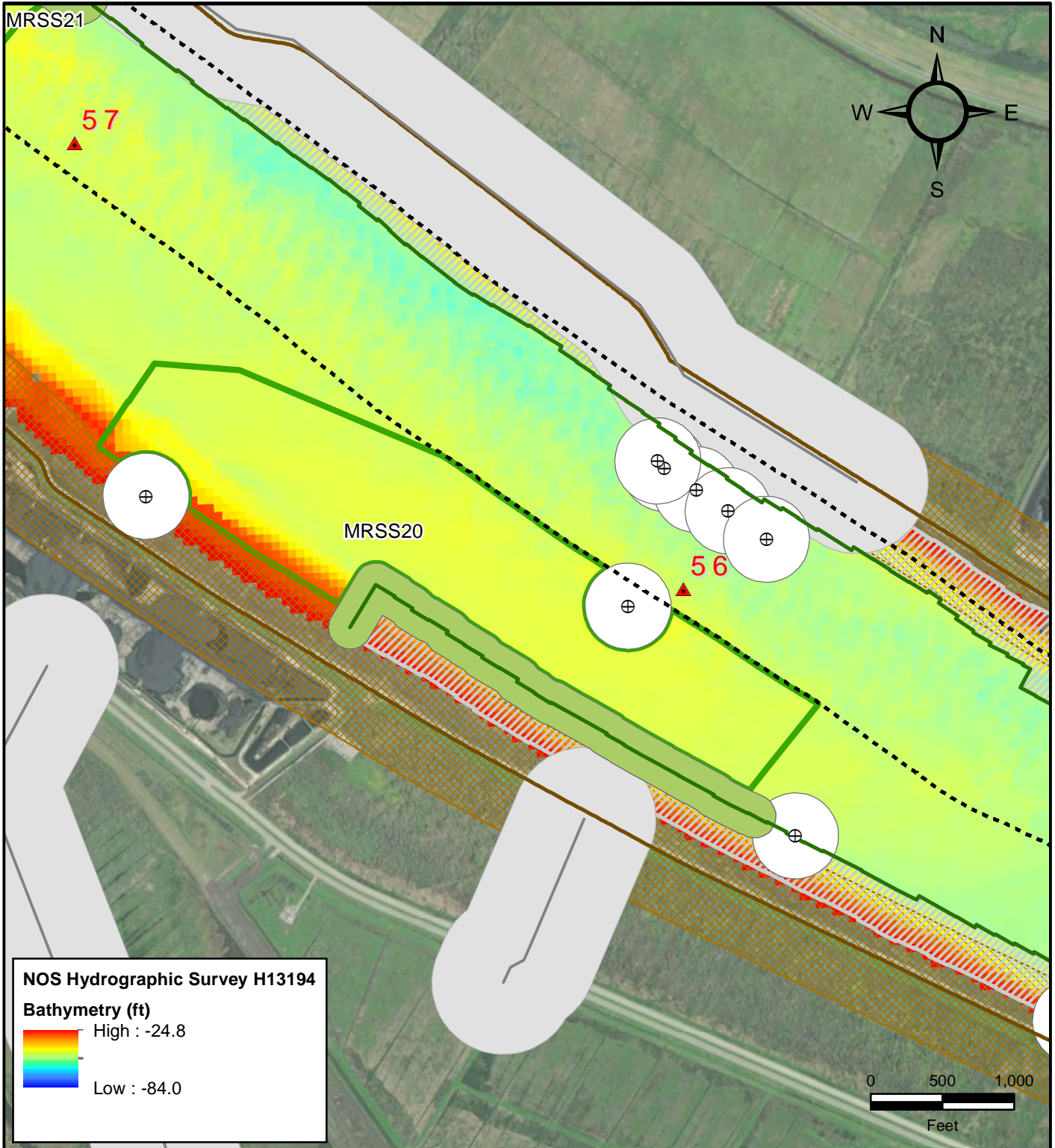
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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

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FIGURE NUMBER

**Map 19 of 41**



**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0

Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

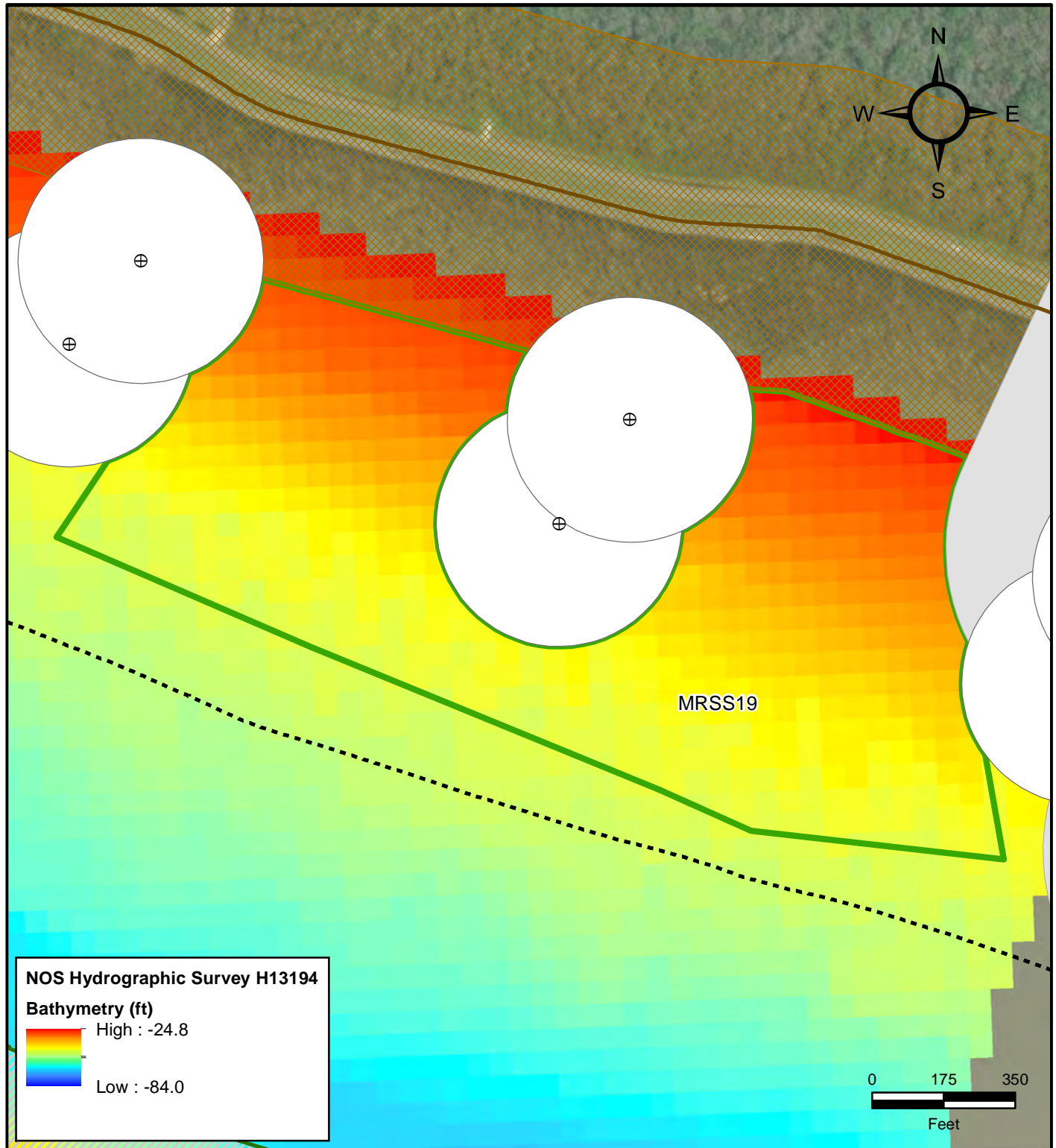
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 20 of 41**

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**NOS Hydrographic Survey H13194**

**Bathymetry (ft)**

High : -24.8

Low : -84.0



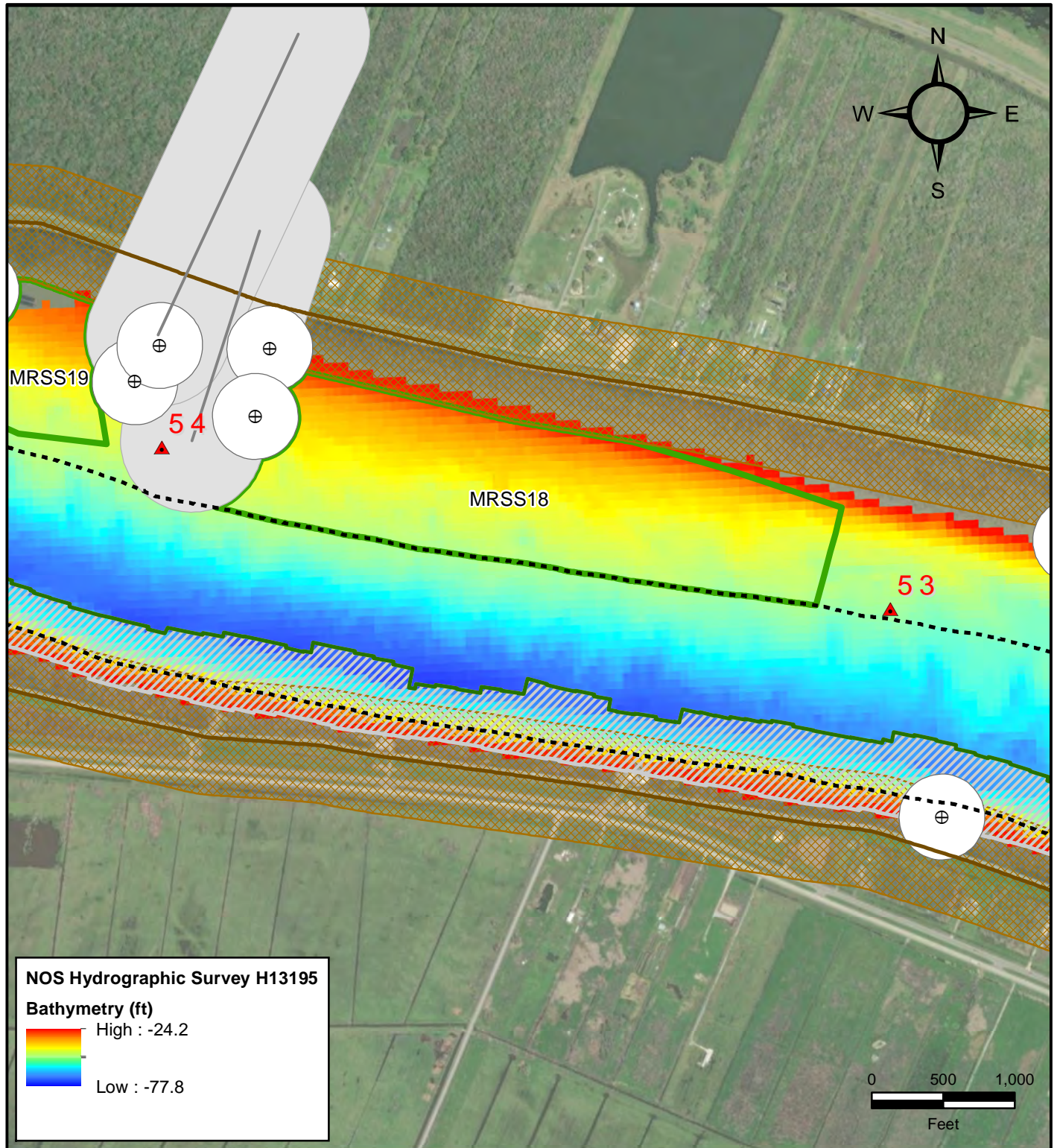
- Legend**
- ⊕ Navigation Aid
  - Revetment Toe
  - Levee Centerline
  - - - Navigation Channel Setback
  - 300 ft Navigation Aid Buffer
  - 500 ft Pipeline Buffer
  - ▨ Revetment Footprint
  - ▭ Inferred Sand Deposit
  - ▩ 400 ft Levee Offset

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 21 of 41**



**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

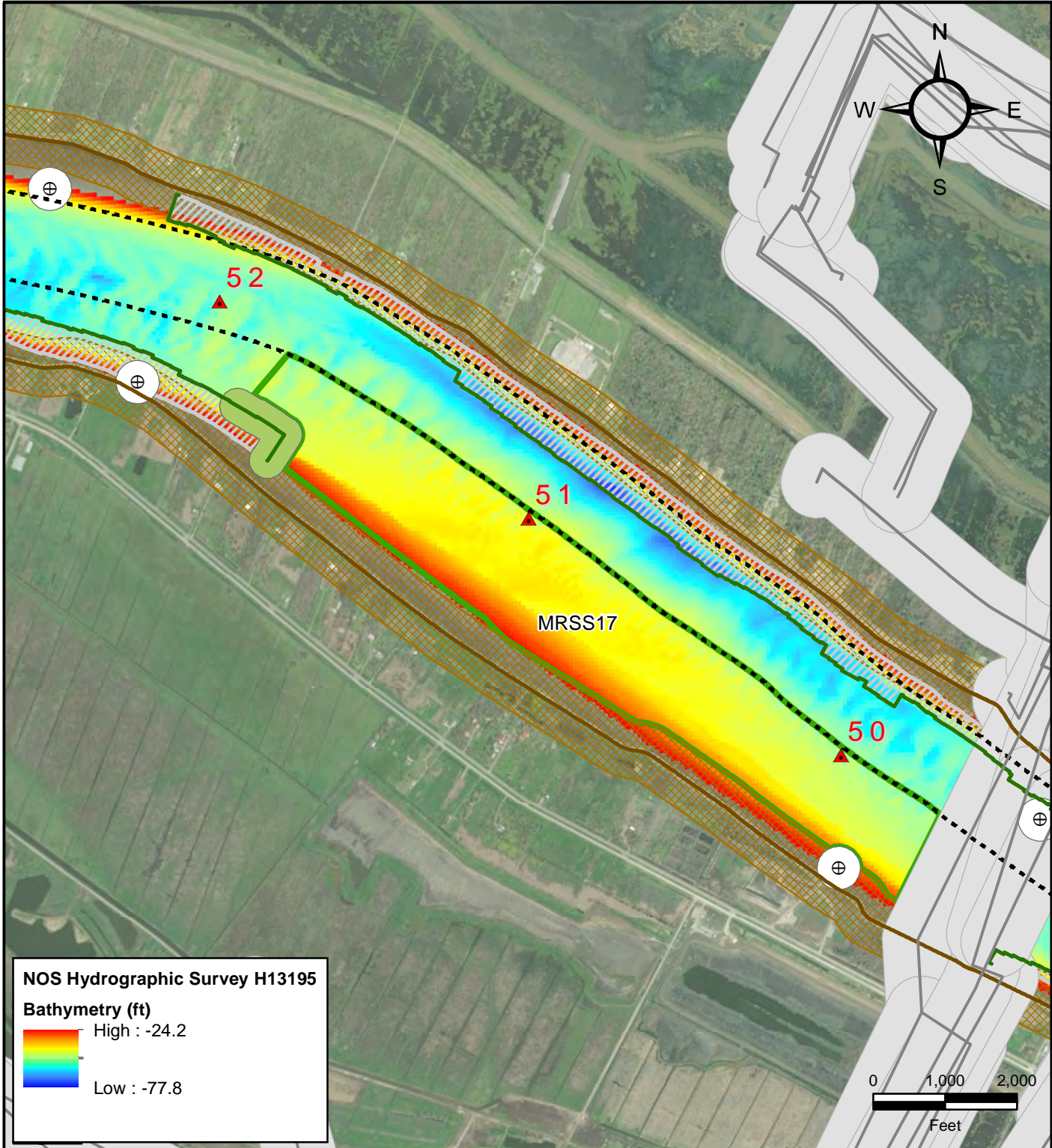
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 400 ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER **Map 22 of 41**

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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

- |  |                              |  |                        |
|--|------------------------------|--|------------------------|
|  | Mississippi River Mile       |  | 500 ft Pipeline Buffer |
|  | Navigation Aid               |  | Revetment Footprint    |
|  | Pipeline                     |  | Revetment Toe Buffer   |
|  | Revetment Toe                |  | Inferred Sand Deposit  |
|  | Levee Centerline             |  | 400 ft Levee Offset    |
|  | Navigation Channel Setback   |  |                        |
|  | 300 ft Navigation Aid Buffer |  |                        |

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

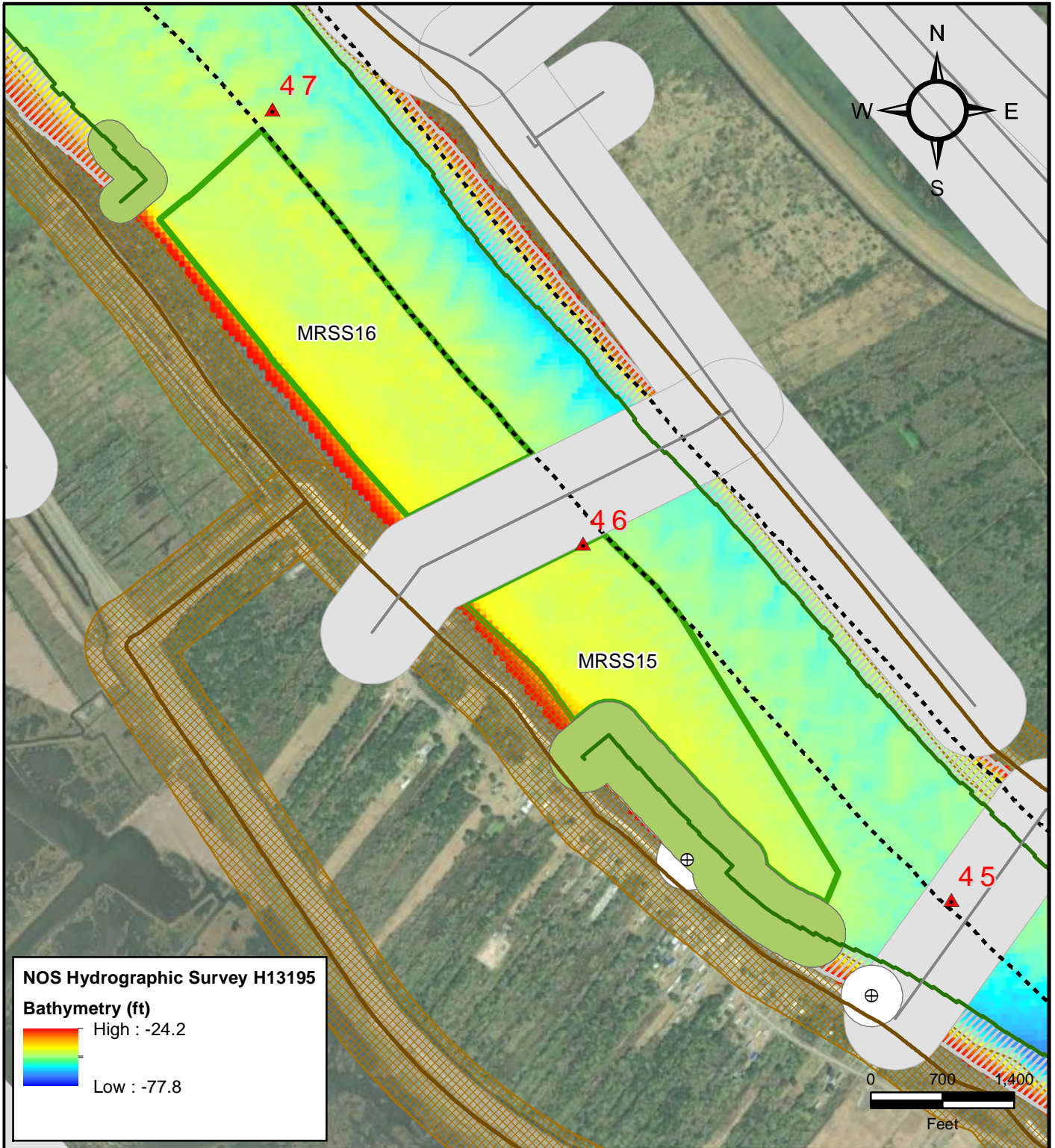
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FIGURE NUMBER

**Map 23 of 41**

---

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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps  
Version 7 (2022 Update)

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

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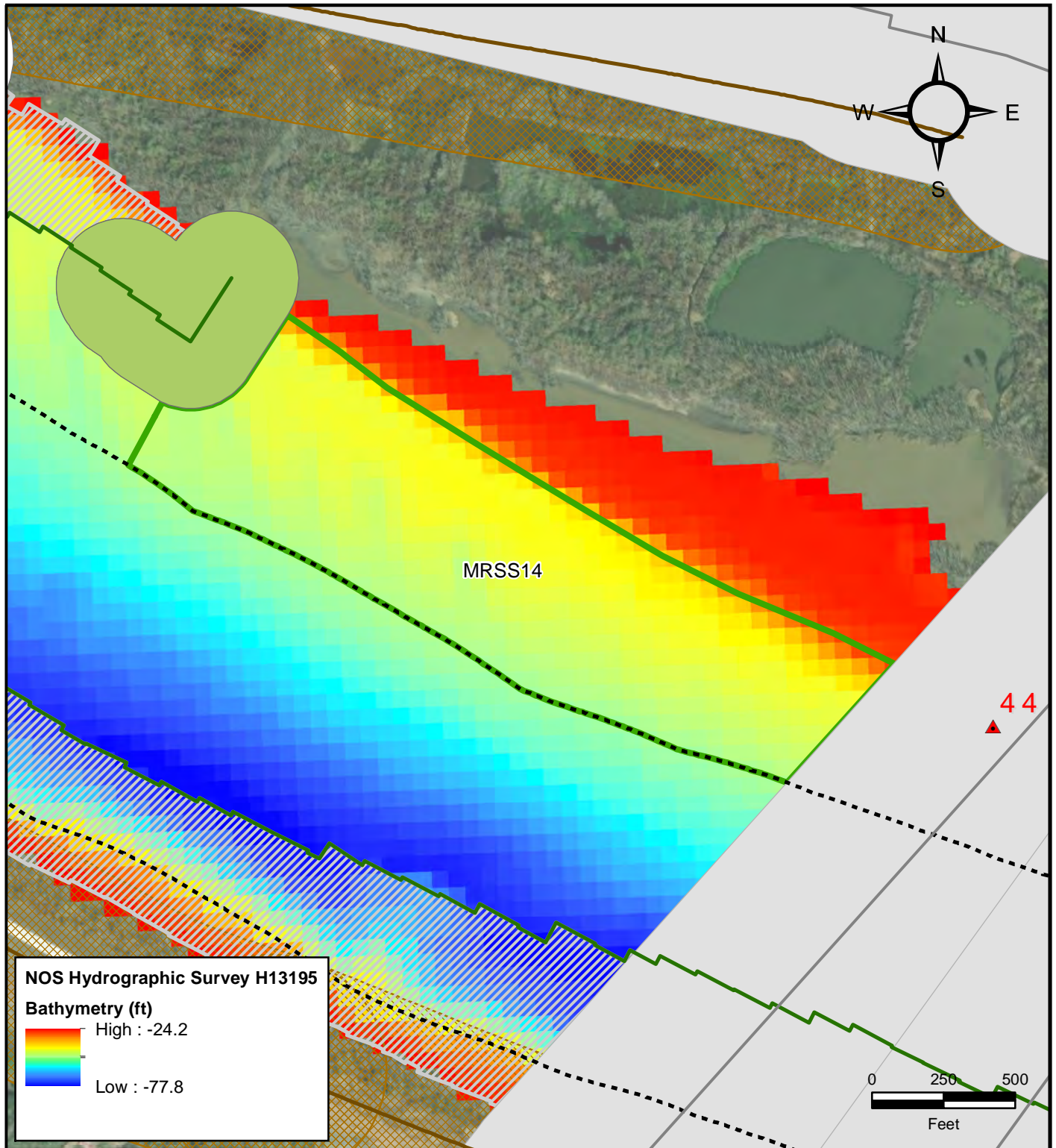
FIGURE NUMBER

**Map 24 of 41**

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**APTIM** 6401 Congress Avenue, Suite 140  
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**Legend**

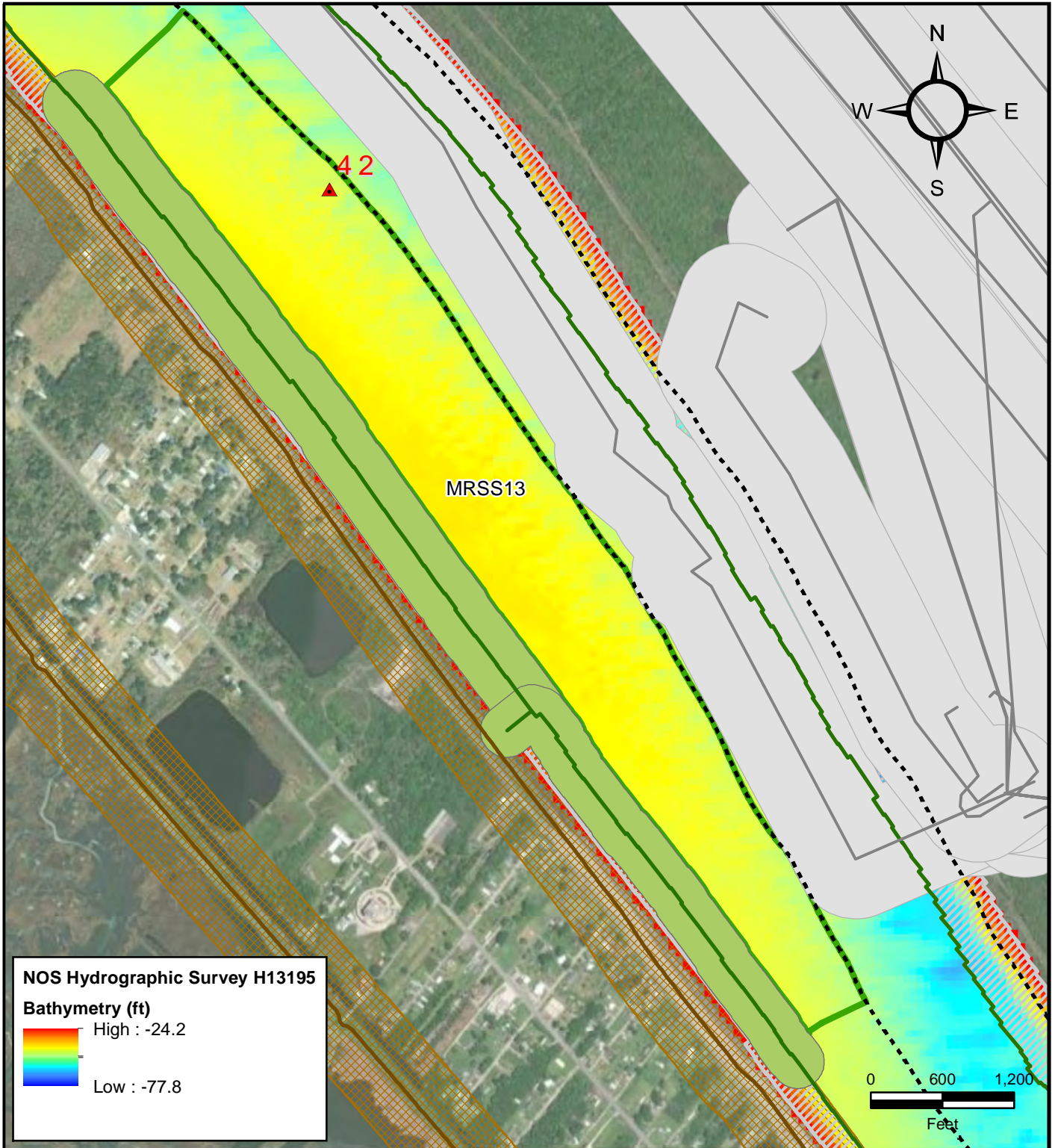
- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

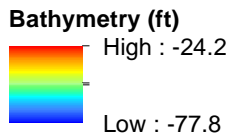
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

FIGURE  
 NUMBER

**Map 25 of 41**



**NOS Hydrographic Survey H13195**



**Legend**

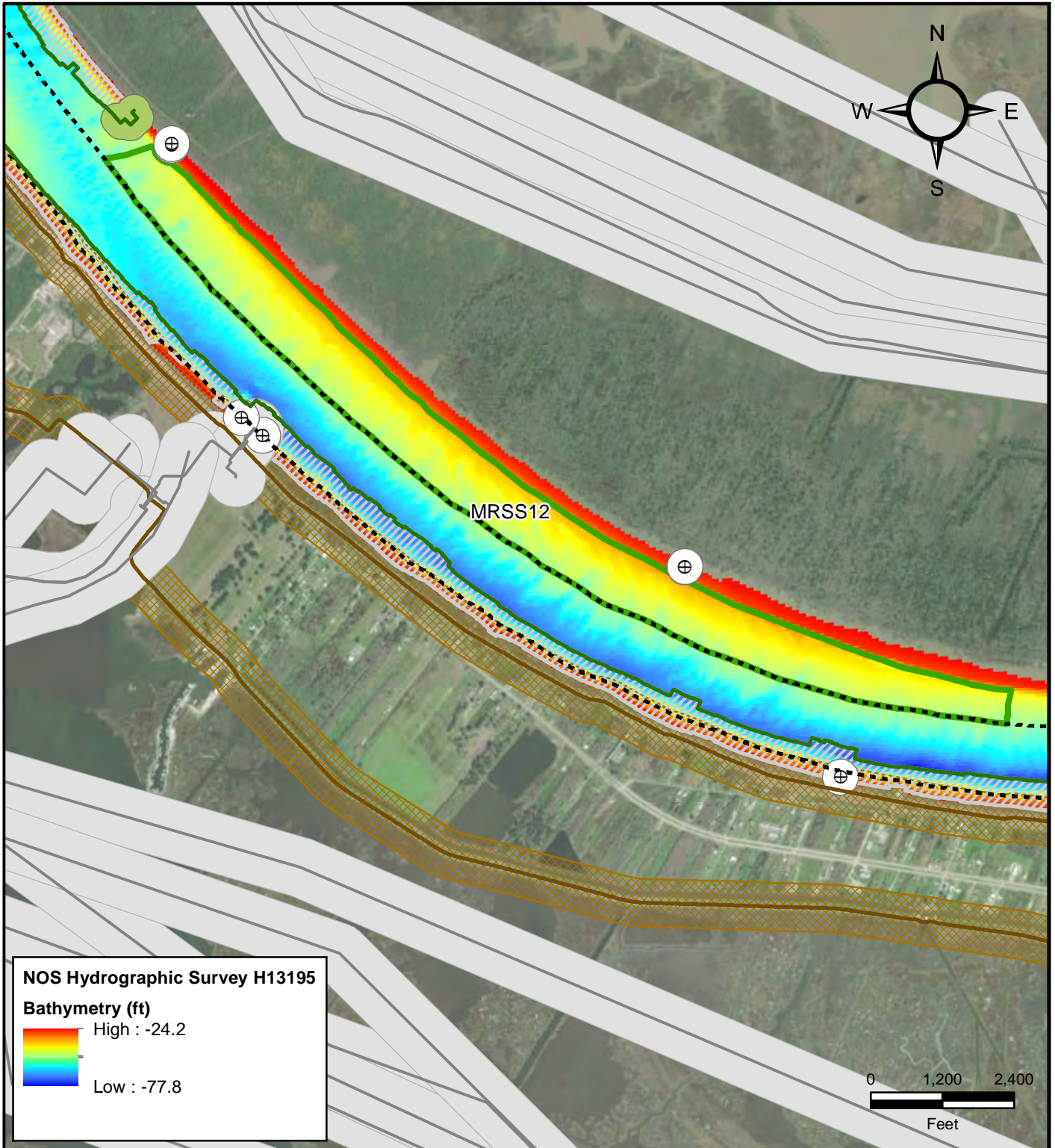
- Mississippi River Mile
- Pipeline
- Revetment Toe
- Levee Centerline
- Navigation Channel Setback
- 500 ft Pipeline Buffer
- Revetment Footprint
- 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 26 of 41**

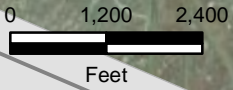


**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8



**Legend**

- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Revetment Toe Buffer
- Inferred Sand Deposit

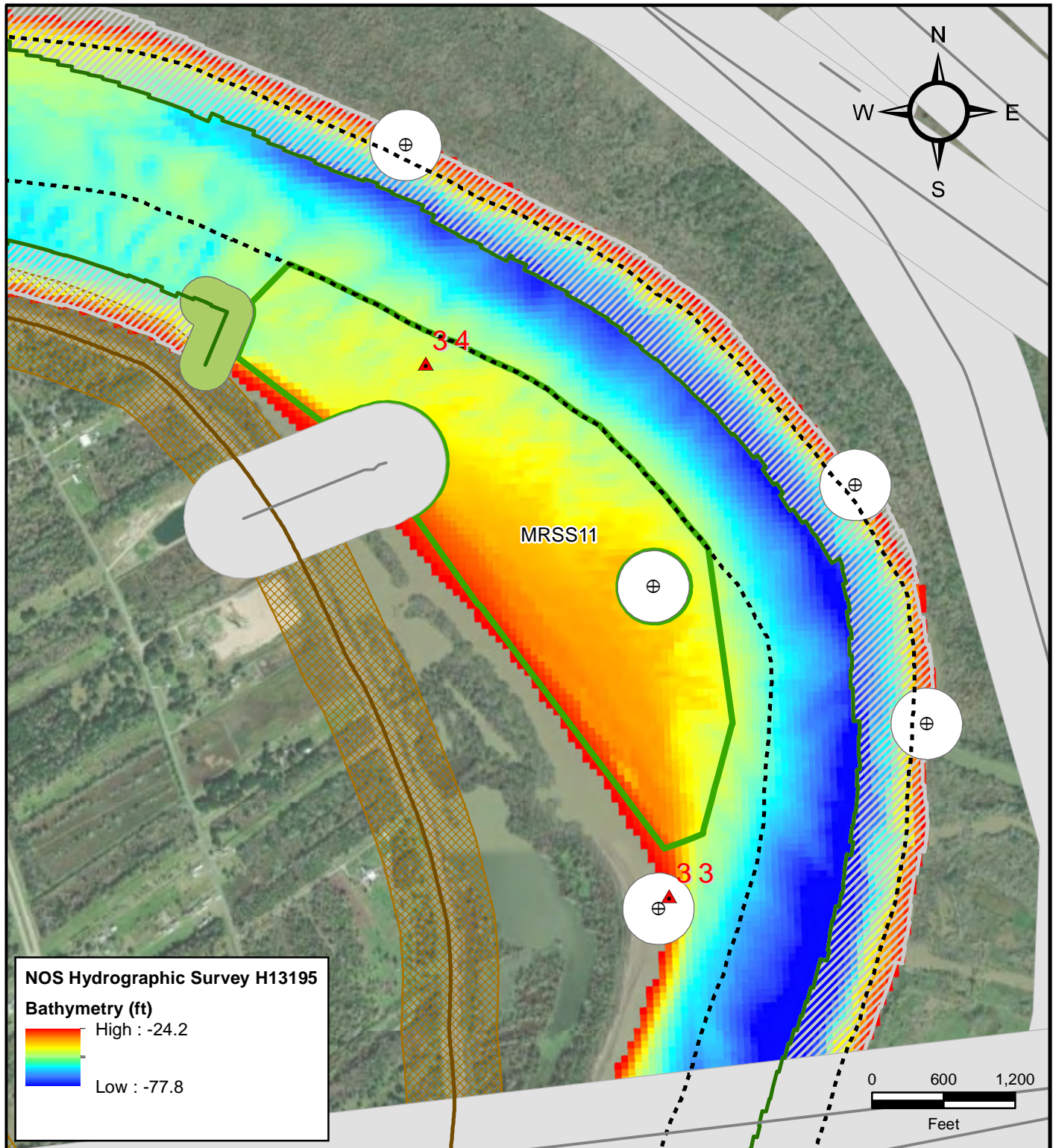
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 27 of 41**

6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

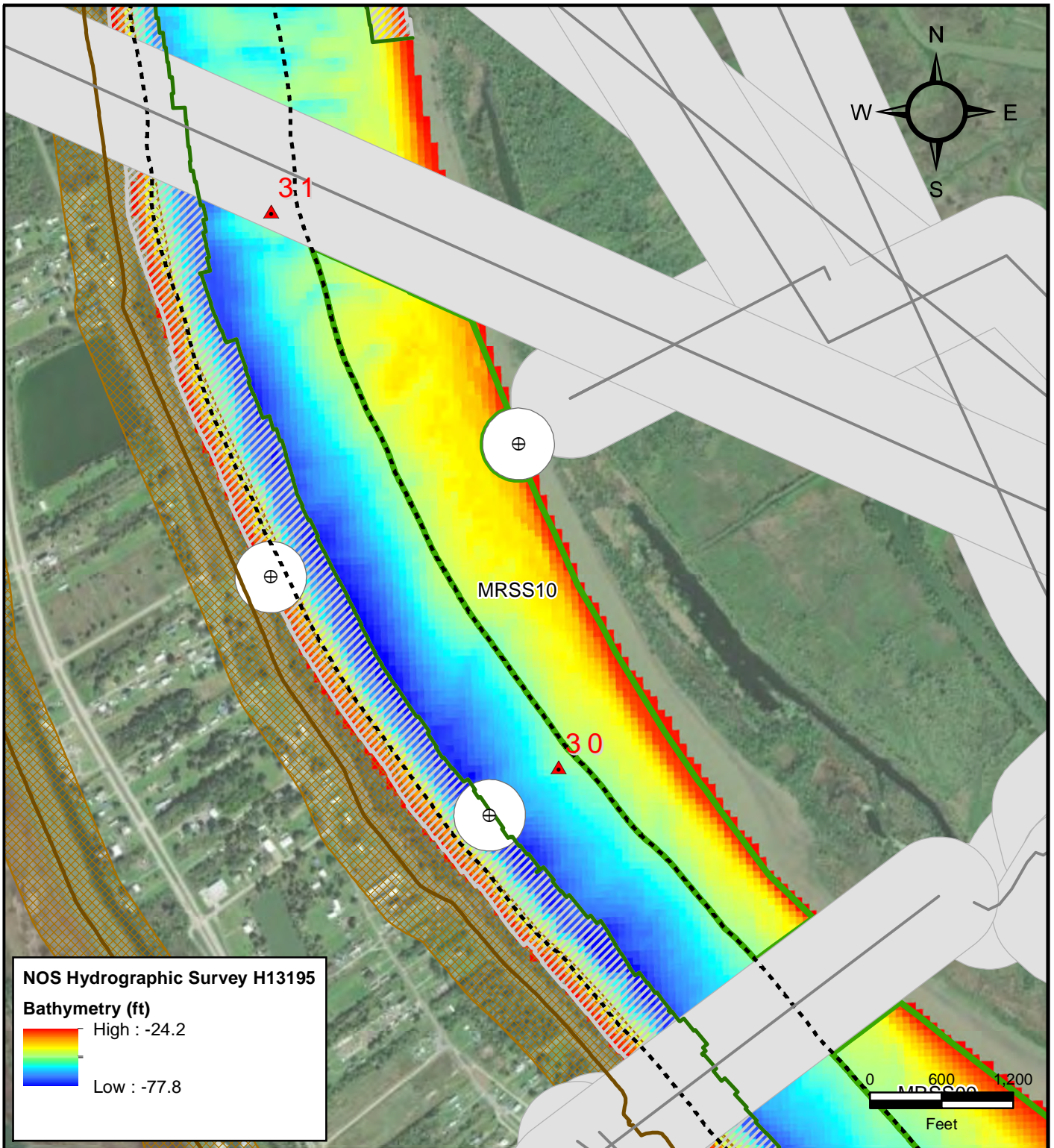
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 28 of 41**

6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13195**

**Bathymetry (ft)**

High : -24.2

Low : -77.8

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

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Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

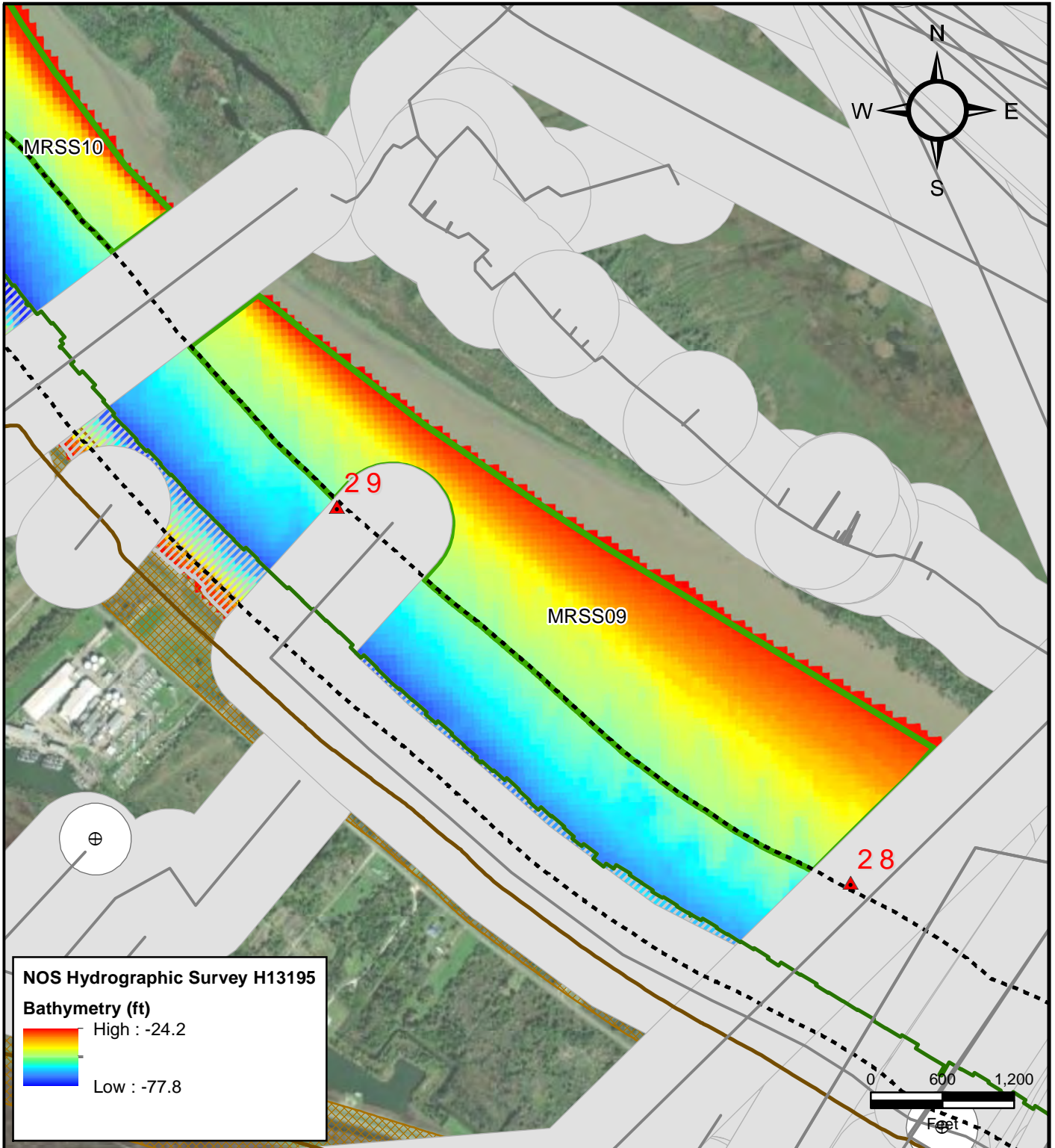
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FIGURE NUMBER

**Map 29 of 41**

---

6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13195**  
**Bathymetry (ft)**  
 High : -24.2  
 Low : -77.8

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▨ Revetment Footprint
- ▩ 400 ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

---

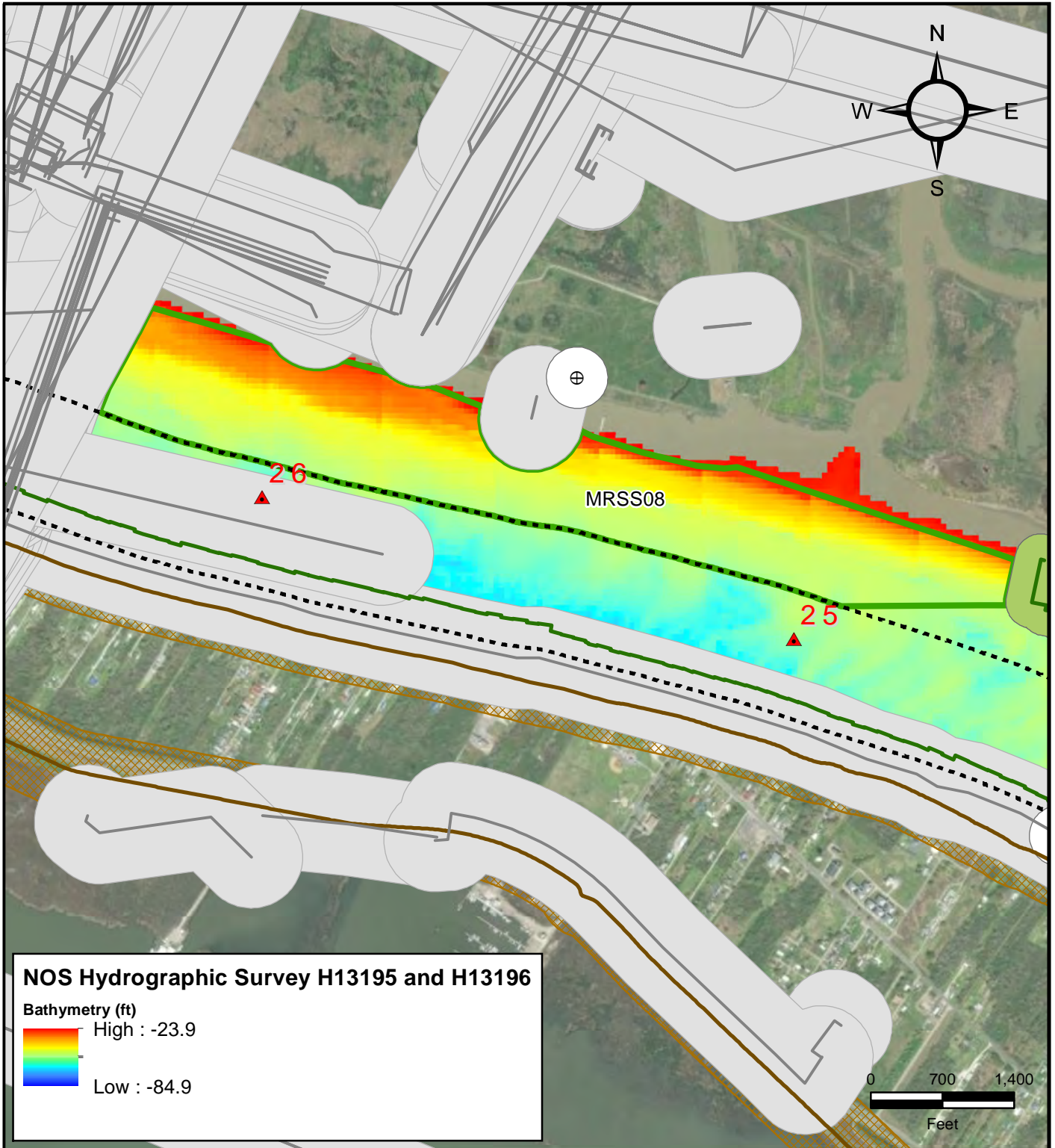
Lower Mississippi River Surficial Sediment Distribution Maps  
 -90 ft NAVD88 cut

---

FIGURE NUMBER  
Map 30 of 41

---

**APTIM** 6401 Congress Avenue, Suite 140  
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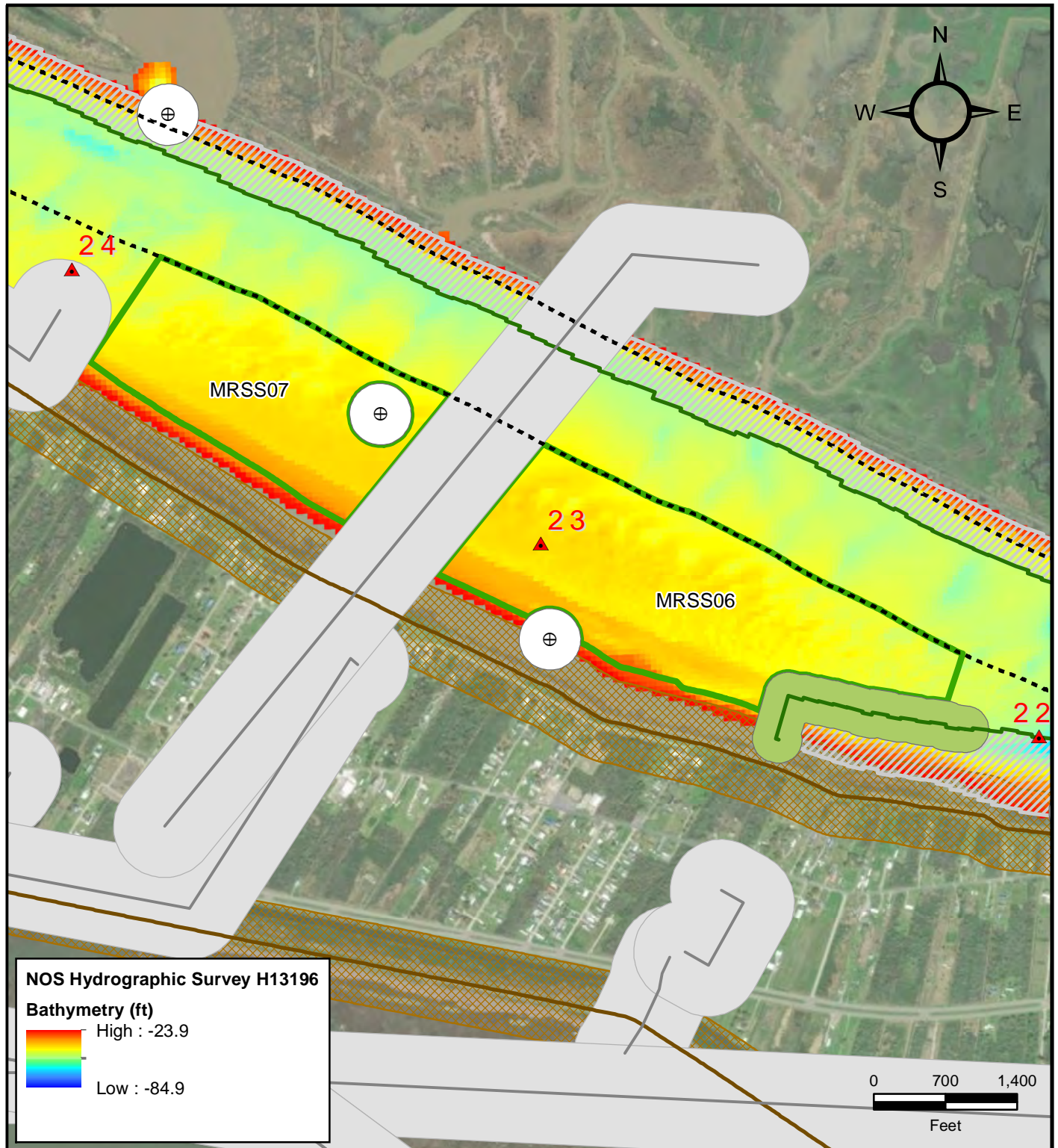
Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER **Map 31 of 41**

6401 Congress Avenue, Suite 140  
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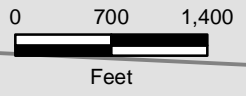


**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9



Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

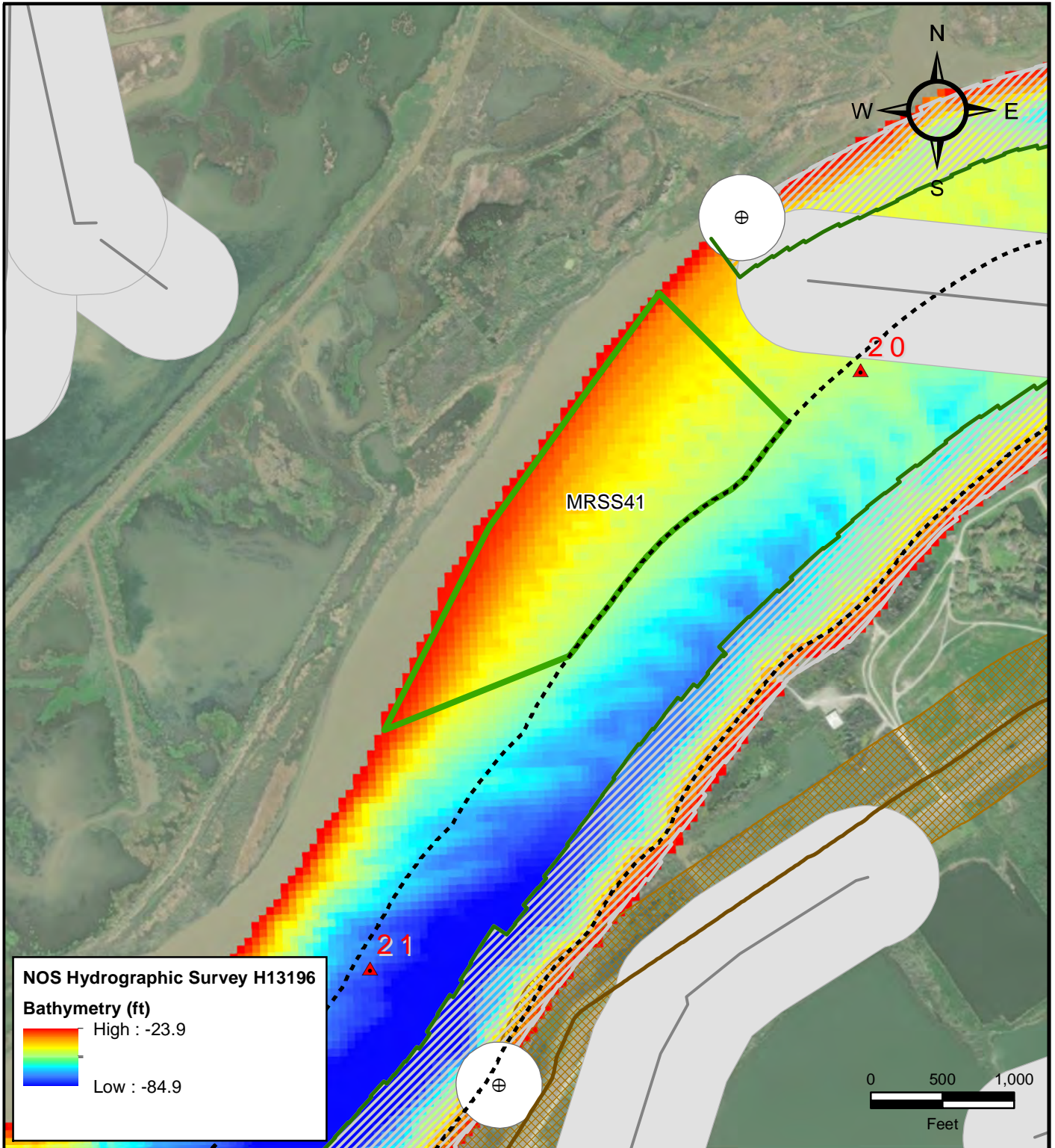
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 32 of 41**





**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

**Legend**

- ▲ Mississippi River Mile
- ⊕ Navigation Aid
- Pipeline
- Revetment Toe
- Levee Centerline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- 400 ft Levee Offset
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

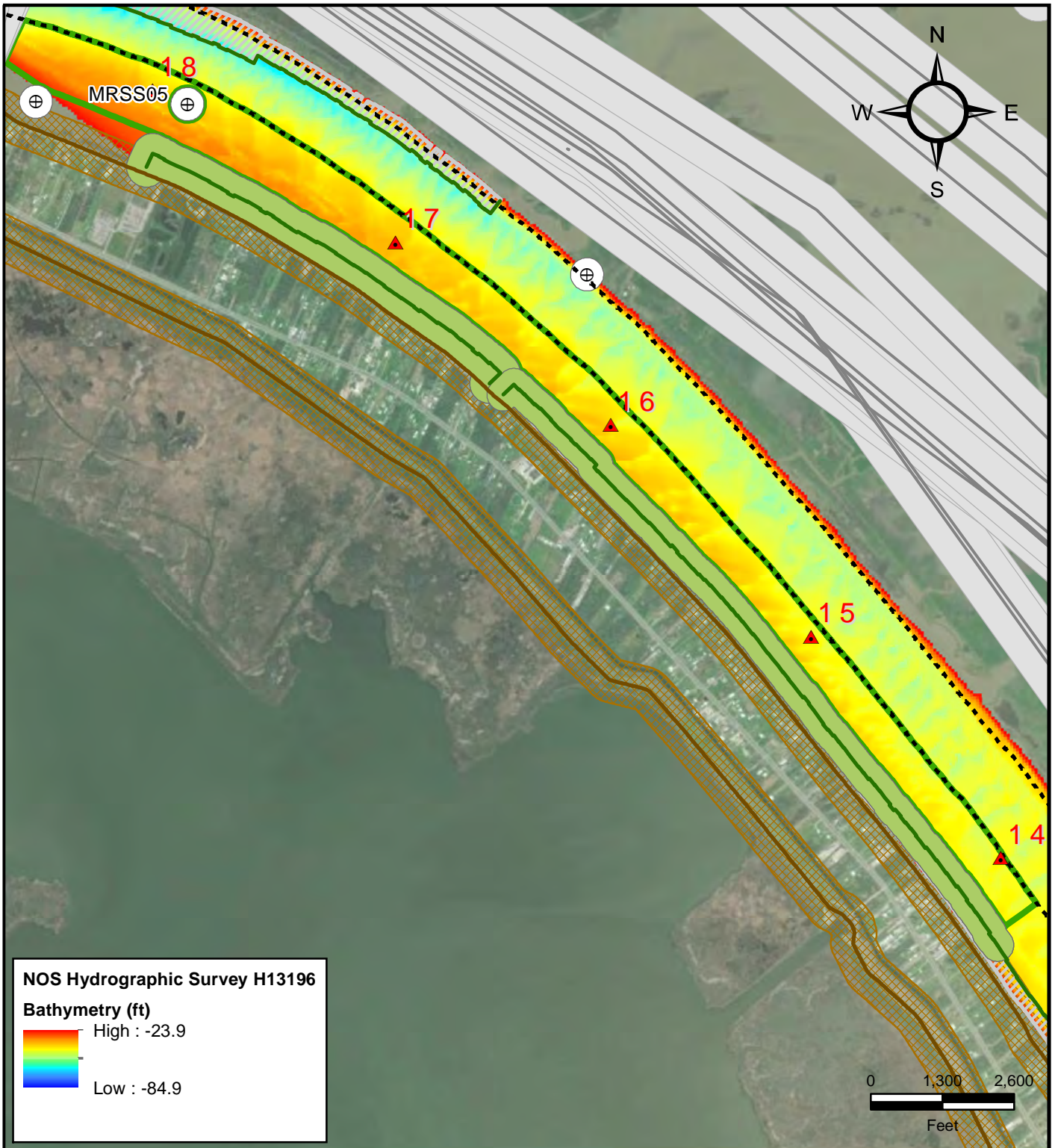
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 33 of 41**



6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

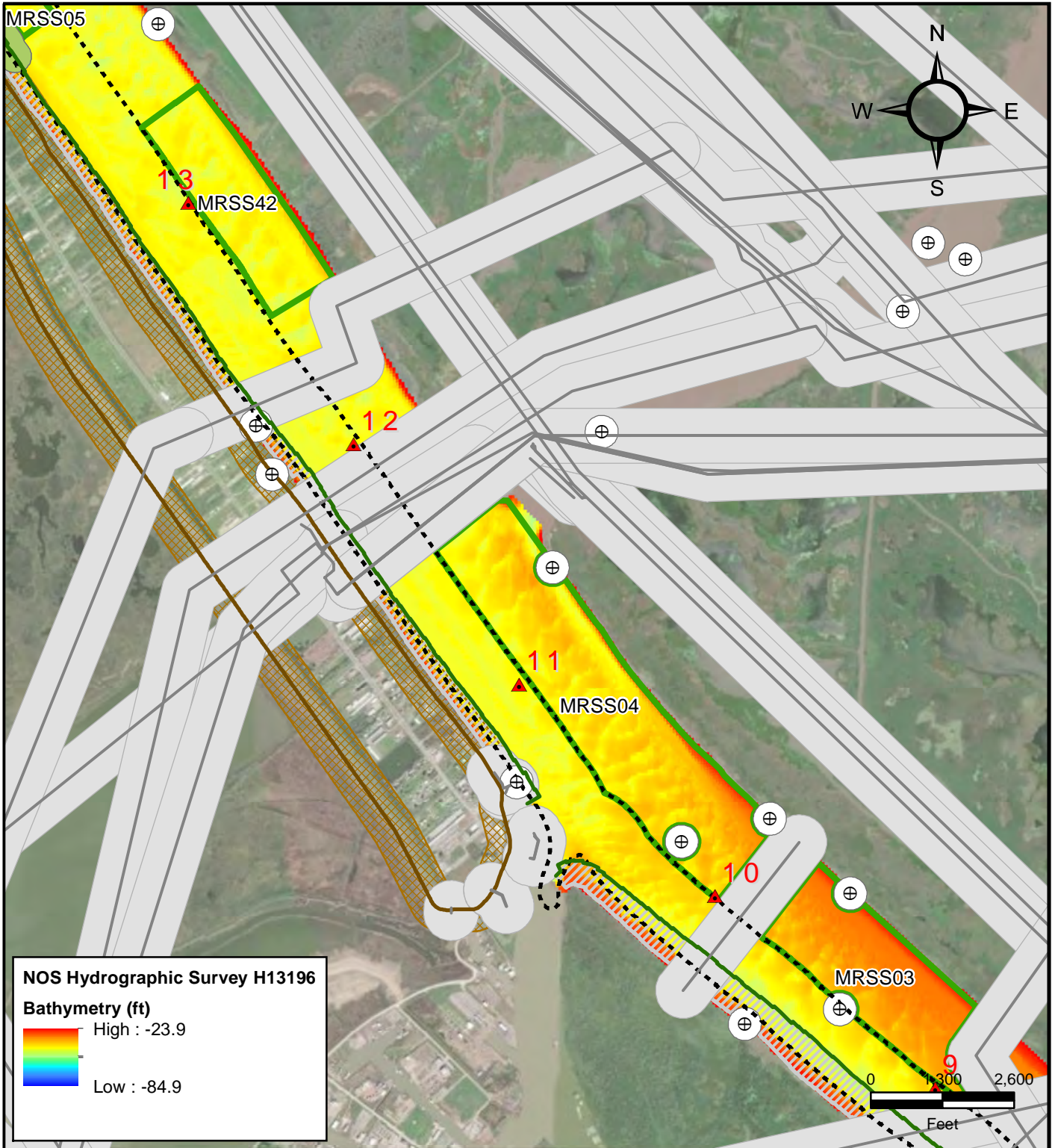
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 34 of 41**

6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

Legend	
	Mississippi River Mile
	Navigation Aid
	Pipeline
	Revetment Toe
	Levee Centerline
	Navigation Channel Setback
	300 ft Navigation Aid Buffer
	500 ft Pipeline Buffer
	Revetment Footprint
	400 ft Levee Offset
	Revetment Toe Buffer
	Inferred Sand Deposit

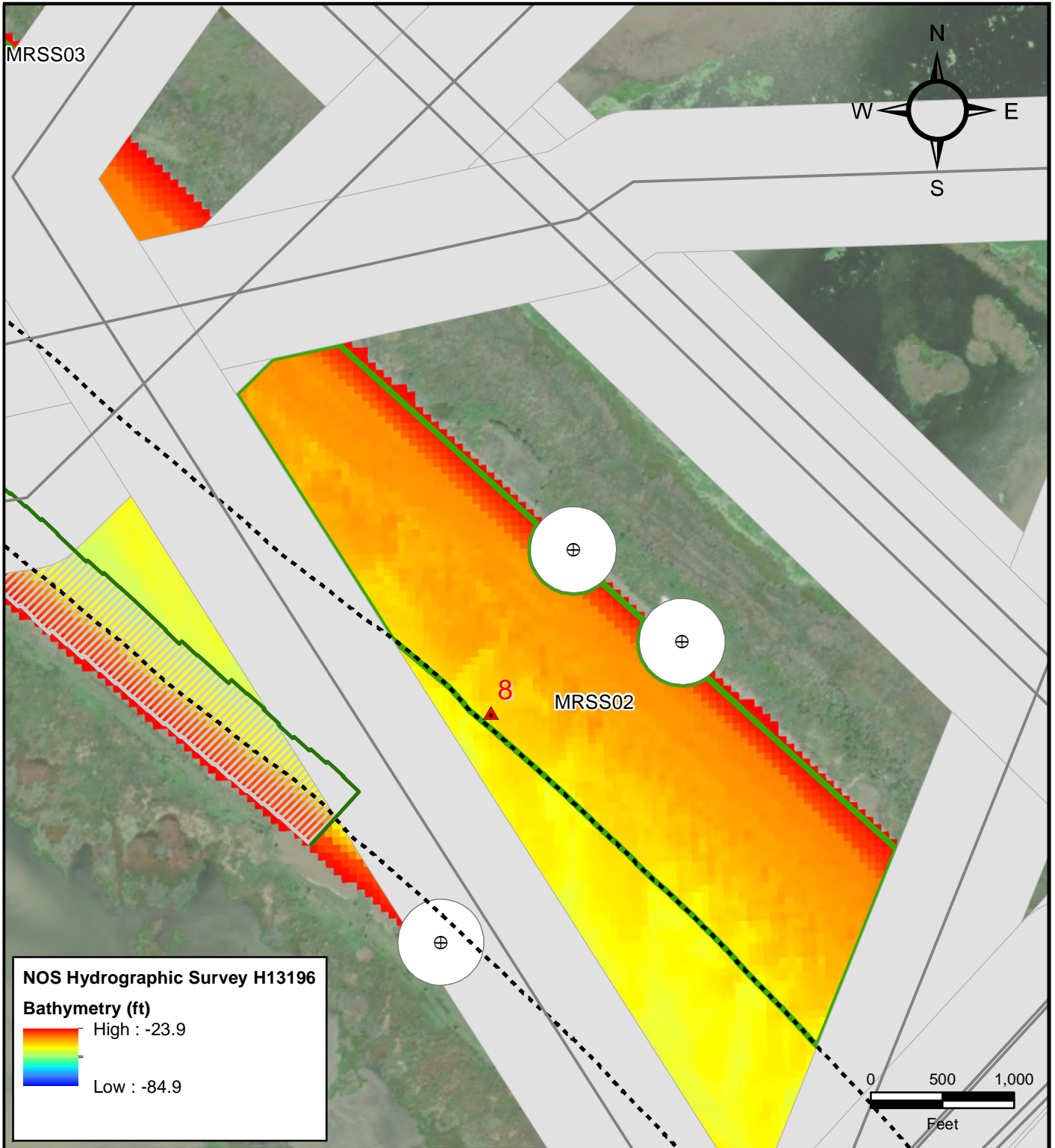
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 35 of 41**

6401 Congress Avenue, Suite 140  
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**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

**Legend**

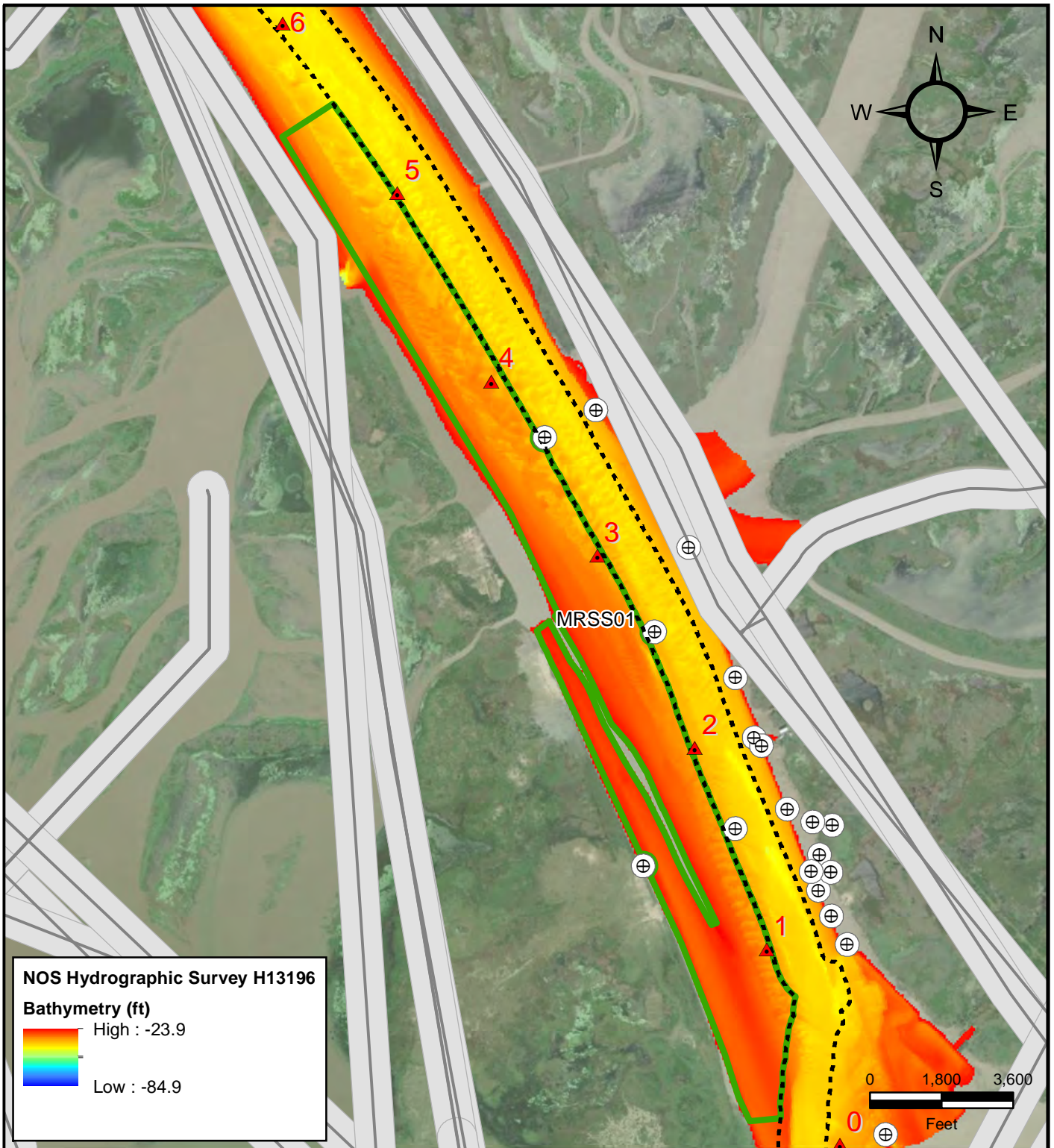
- Mississippi River Mile
- Navigation Aid
- Pipeline
- Revetment Toe
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Revetment Footprint
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 36 of 41**



**NOS Hydrographic Survey H13196**

**Bathymetry (ft)**

High : -23.9

Low : -84.9

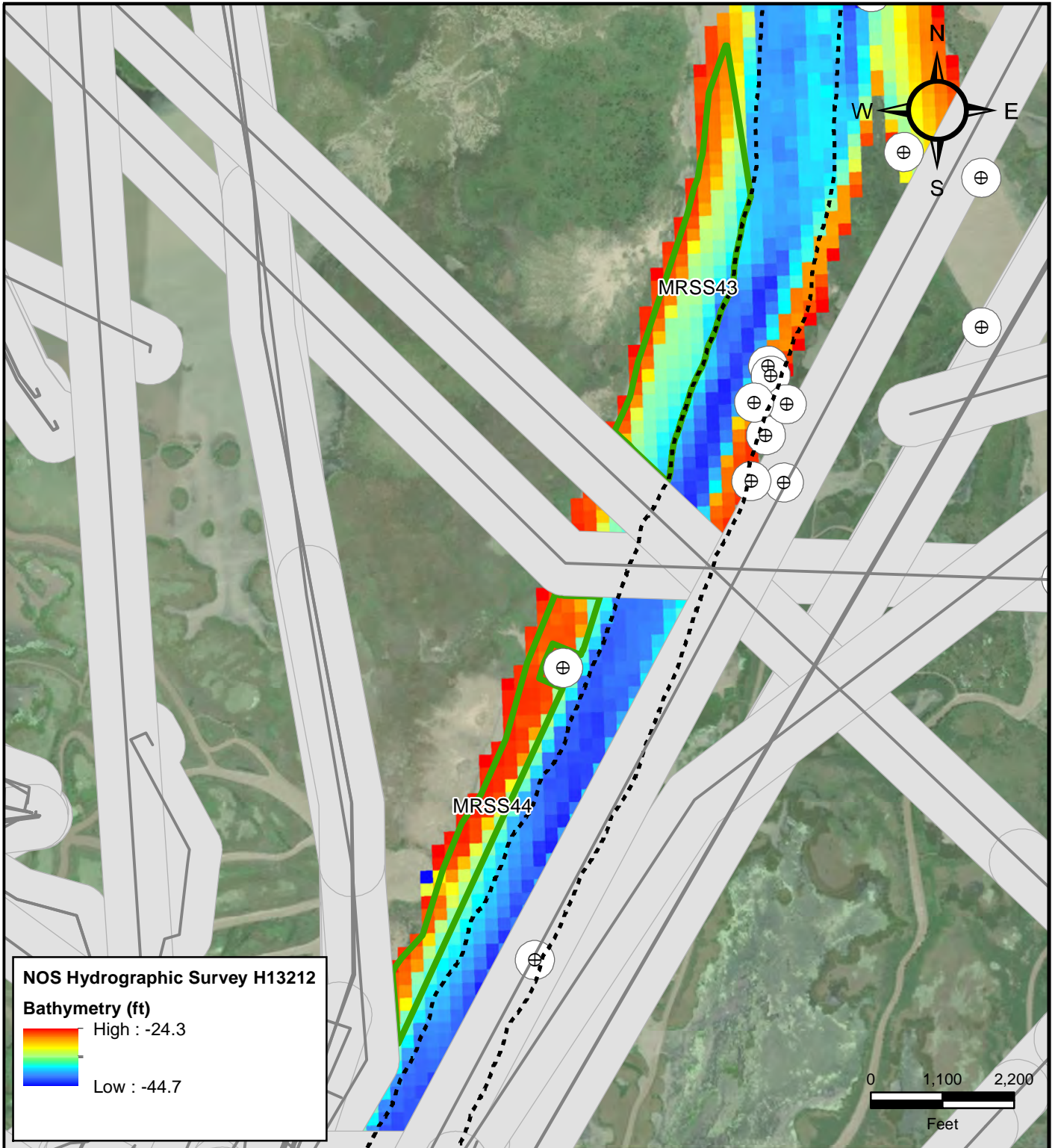
**Legend**

- Mississippi River Mile
- Navigation Aid
- Pipeline
- Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER **Map 37 of 41**



**NOS Hydrographic Survey H13212**

**Bathymetry (ft)**

High : -24.3

Low : -44.7

**Legend**

- ⊕ Navigation Aid
- Pipeline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

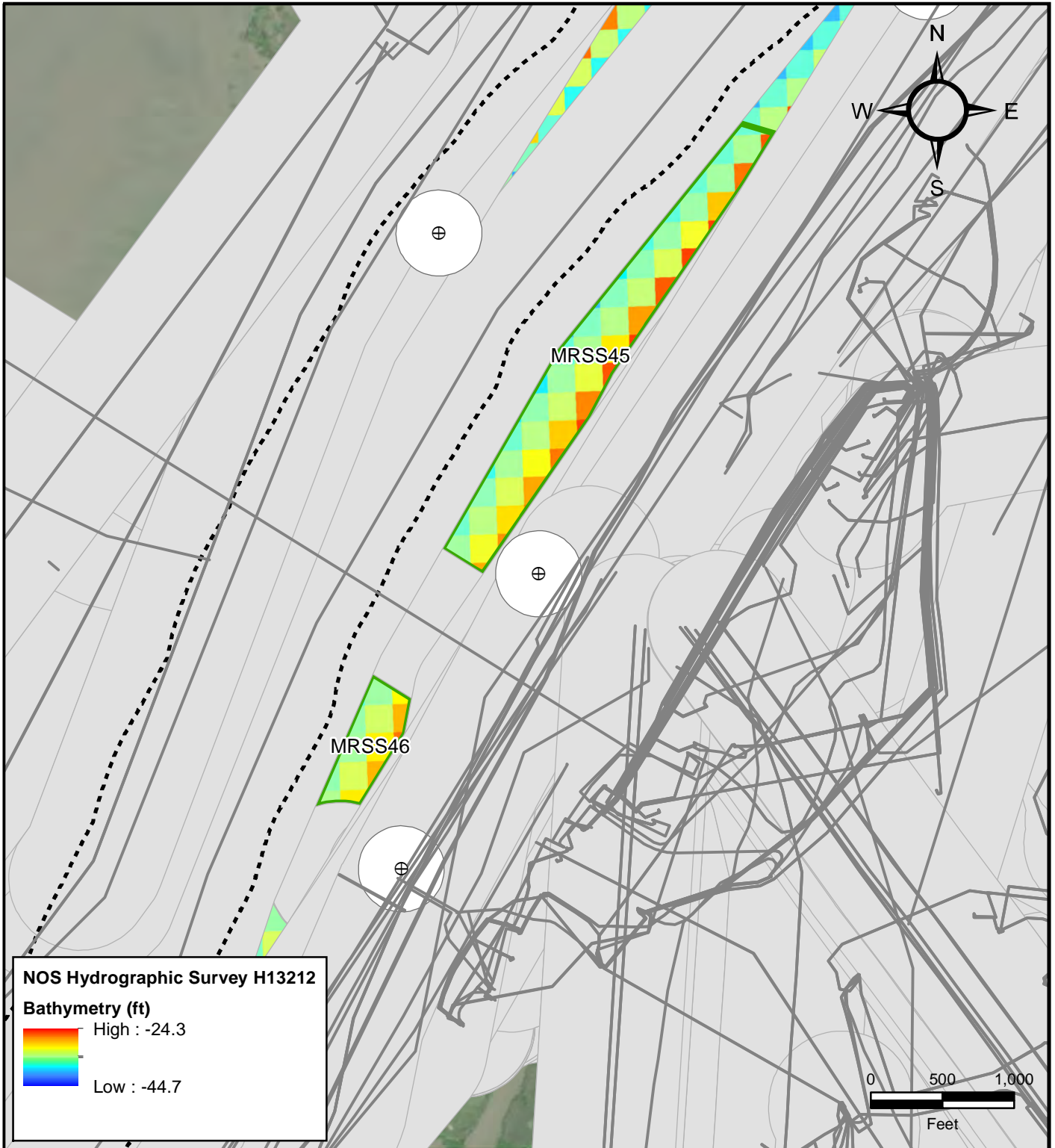
Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 38 of 41**



6401 Congress Avenue, Suite 140  
Boca Raton, FL 33487  
www.APTIM.com



**NOS Hydrographic Survey H13212**

**Bathymetry (ft)**

High : -24.3  
Low : -44.7

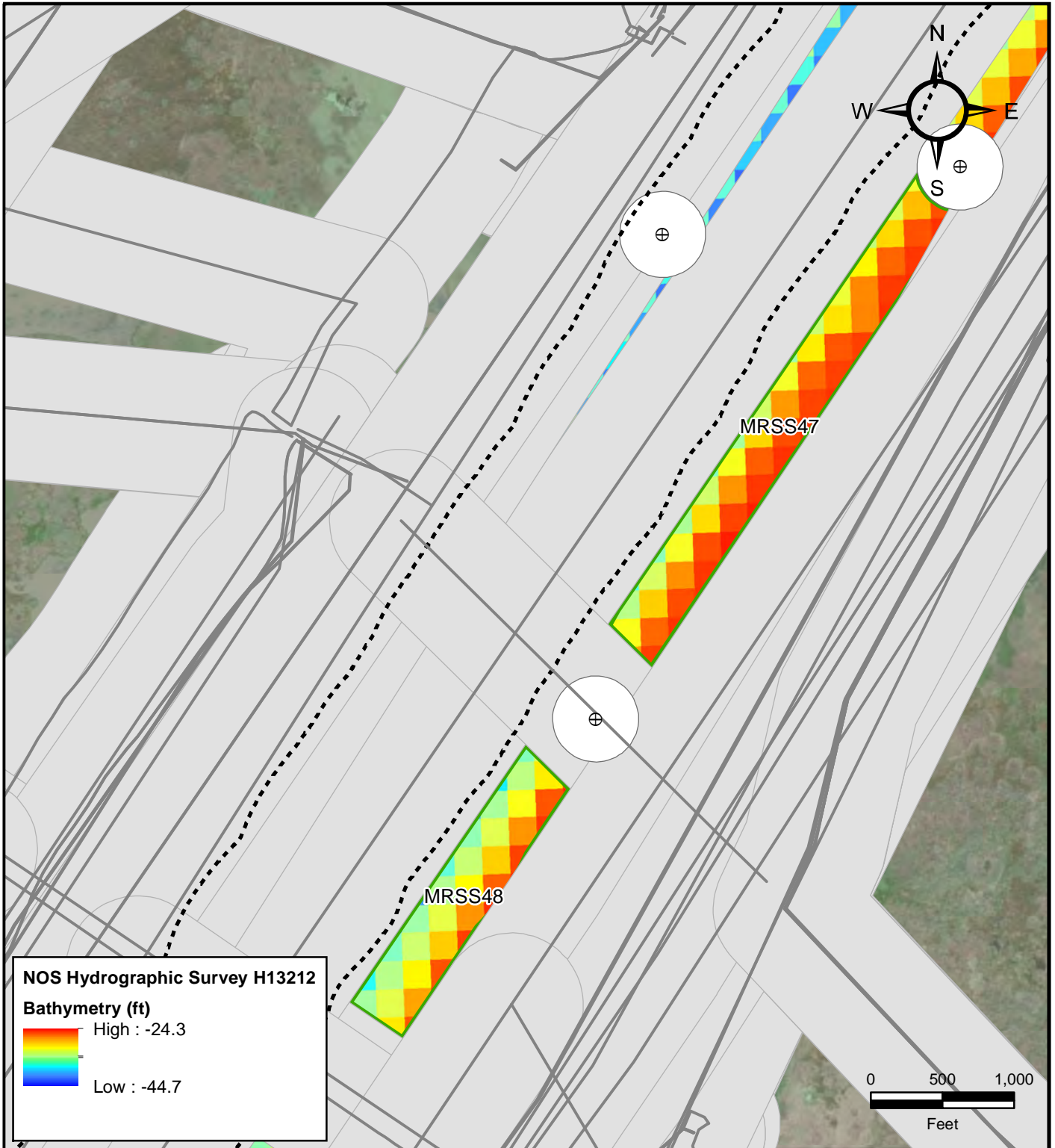
**Legend**

- ⊕ Navigation Aid
- Pipeline
- ⋯ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER **Map 39 of 41**



**NOS Hydrographic Survey H13212**

**Bathymetry (ft)**

High : -24.3

Low : -44.7

**Legend**

- ⊕ Navigation Aid
- Pipeline
- - - Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- Inferred Sand Deposit

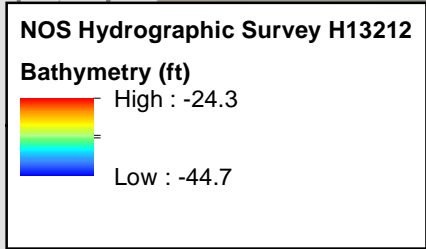
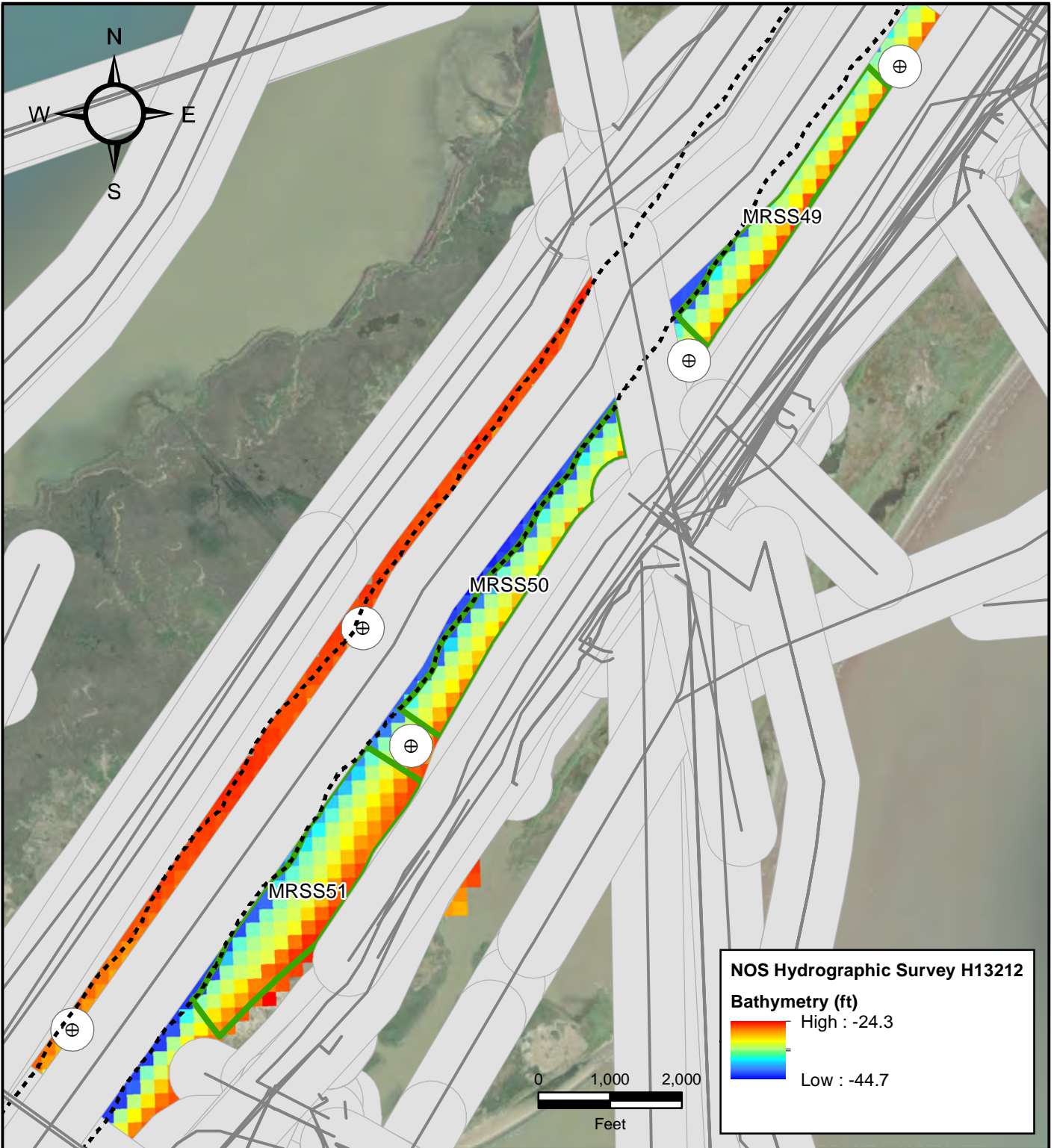
Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE NUMBER

**Map 40 of 41**





**Legend**

- ⊕ Navigation Aid
- Pipeline
- ⊖ Navigation Channel Setback
- 300 ft Navigation Aid Buffer
- 500 ft Pipeline Buffer
- ▭ Inferred Sand Deposit

Louisiana Surficial Sediment Distribution Maps

Lower Mississippi River Surficial Sediment Distribution Maps  
-90 ft NAVD88 cut

FIGURE  
NUMBER

**Map 41 of 41**

**Attachment 5**  
**Offshore Volume Estimates**

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Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
IM001	Inferred Mixed Sediment	698,535	3,243,792	104,857.00	260,909,381	10	0	10	96,633,104	86,969,794	9,663,310	-
IM002	Inferred Mixed Sediment	702,674	3,236,663	174,040.00	197,809,827	10	0	0	73,262,899	73,262,899	-	-
IM003	Inferred Mixed Sediment	701,551	3,221,883	412,439.00	1,312,771,972	10	0	24	486,211,841	369,520,999	116,690,842	6,823,639
IM004	Inferred Mixed Sediment	721,061	3,222,287	18,209.00	23,812,270	10	0	25	8,819,359	6,614,519	2,204,840	-
IM005	Inferred Mixed Sediment	726,190	3,220,657	134,979.00	262,401,378	10	0	59	97,185,696	39,846,135	57,339,560	-
IM006	Inferred Mixed Sediment	741,018	3,239,042	91,090.00	416,025,910	10	0	32	154,083,670	104,776,896	49,306,774	-
IM007	Inferred Mixed Sediment	766,695	3,234,516	12,536.00	10,184,774	10	0	19	3,772,139	3,055,432	716,706	-
IM008	Inferred Mixed Sediment	749,742	3,244,092	58,869.00	191,908,520	10	0	6	71,077,229	66,812,596	4,264,634	-
IM009	Inferred Mixed Sediment	750,411	3,237,479	32,678.00	65,494,873	10	0	0	24,257,360	24,257,360	-	-
IM010	Inferred Mixed Sediment	765,684	3,238,535	70,798.00	46,459,516	10	0	26	17,207,228	12,733,349	4,473,879	-
IM011	Inferred Mixed Sediment	755,010	3,228,105	900,695.00	2,767,963,053	10	0	31	1,025,171,501	707,368,336	317,803,165	-
IM012	Inferred Mixed Sediment	821,339	3,329,582	399,997.00	649,178,209	10	0	35	240,436,374	156,283,643	84,152,731	-
IM013	Inferred Mixed Sediment	827,282	3,281,439	20,321.00	8,426,753	10	0	16	3,121,020	2,621,656	499,363	-
IM014	Inferred Mixed Sediment	828,174	3,282,899	6,643.00	2,059,141	10	0	9	762,645	694,007	68,638	-
IM015	Inferred Mixed Sediment	829,250	3,281,947	16,508.00	6,312,976	10	0	89	2,338,139	257,195	2,080,944	-
IM016	Inferred Mixed Sediment	842,650	3,289,575	6,514.00	2,748,941	10	0	44	1,018,126	570,151	447,976	-
IM017	Inferred Mixed Sediment	836,977	3,286,919	9,260.00	3,110,179	10	0	1	1,151,918	1,140,399	11,519	-
IM018	Inferred Mixed Sediment	838,240	3,285,999	6,417.00	2,140,398	10	0	0	792,740	792,740	-	-
IM019	Inferred Mixed Sediment	840,090	3,285,538	10,264.00	3,502,715	10	0	0	1,297,302	1,297,302	-	-
IM020	Inferred Mixed Sediment	841,421	3,285,129	7,616.00	2,445,760	10	0	0	905,837	905,837	-	-
IM021	Inferred Mixed Sediment	841,997	3,283,015	38,098.00	21,204,463	10	0	0	7,853,505	7,853,505	-	-
IM022	Inferred Mixed Sediment	841,357	3,280,514	43,744.00	23,487,001	10	0	2	8,698,889	8,524,911	173,978	-
IM023	Inferred Mixed Sediment	839,413	3,276,346	109,690.00	70,441,133	10	0	63	26,089,308	9,653,044	16,436,264	-
IM024	Inferred Mixed Sediment	839,039	3,272,554	30,315.00	11,915,323	10	0	29	4,413,083	3,133,289	1,279,794	-
IM025	Inferred Mixed Sediment	837,638	3,269,293	71,771.00	41,886,878	10	0	23	15,513,659	11,945,517	3,568,141	-
IM026	Inferred Mixed Sediment	833,774	3,266,098	5,304.00	1,837,099	10	0	13	680,407	591,954	88,453	-
IM027	Inferred Mixed Sediment	835,024	3,270,912	42,230.00	18,486,807	10	0	12	6,846,966	6,025,330	821,636	-
IM028	Inferred Mixed Sediment	834,968	3,274,096	22,501.00	10,737,825	10	0	71	3,976,972	1,153,322	2,823,650	-
IM029	Inferred Mixed Sediment	836,474	3,276,330	44,597.00	22,493,157	10	0	71	8,330,799	2,415,932	5,914,867	-
IM030	Inferred Mixed Sediment	834,062	3,276,786	8,576.00	3,923,829	10	0	0	1,453,270	1,453,270	-	-
IM031	Inferred Mixed Sediment	833,162	3,275,598	7,275.00	3,248,353	10	0	0	1,203,094	1,203,094	-	-
IM032	Inferred Mixed Sediment	833,546	3,273,263	15,699.00	8,703,612	10	0	0	3,223,560	3,223,560	-	-
IM033	Inferred Mixed Sediment	833,667	3,271,089	5,905.00	2,322,663	10	0	0	860,246	860,246	-	-
IM034	Inferred Mixed Sediment	828,954	3,276,162	15,968.00	9,900,618	10	0	2	3,666,895	3,593,558	73,338	-
IM035	Inferred Mixed Sediment	830,841	3,276,355	27,440.00	12,246,299	10	0	44	4,535,666	2,539,973	1,995,693	-
IM036	Inferred Mixed Sediment	824,473	3,277,990	3,949.00	934,467	10	0	0	346,099	346,099	-	-
IM037	Inferred Mixed Sediment	828,617	3,278,040	16,626.00	6,425,834	10	0	0	2,379,939	2,379,939	-	-
IM038	Inferred Mixed Sediment	834,854	3,279,885	61,726.00	47,404,213	10	0	90	17,557,116	1,755,712	15,801,404	-
IM039	Inferred Mixed Sediment	838,151	3,280,449	8,240.00	3,128,078	10	0	0	1,158,547	1,158,547	-	-
IM040	Inferred Mixed Sediment	832,675	3,282,350	89,610.00	83,341,522	10	0	42	30,867,230	17,902,994	12,964,237	-
IM041	Inferred Mixed Sediment	835,794	3,285,049	7,150.00	2,966,700	10	0	0	1,098,778	1,098,778	-	-
IM042	Inferred Mixed Sediment	419,993	3,256,166	321,207.00	1,426,268,169	10	0	27	528,247,470	385,620,653	142,626,817	122,578,791
IM043	Inferred Mixed Sediment	714,963	3,218,079	33,356.00	20,431,895	10	0	50	7,567,369	3,783,684	3,783,684	-
IM044	Inferred Mixed Sediment	827,609	3,232,099	83,695.00	87,157,803	10	0	55	32,280,668	14,526,301	17,754,367	9,856,324
IM045	Inferred Mixed Sediment	829,134	3,228,200	18,784.00	11,470,941	10	0	53	4,248,497	1,996,793	2,251,703	2,142,477
IM046	Inferred Mixed Sediment	829,868	3,232,129	32,363.00	16,649,255	10	0	56	6,166,391	2,713,212	3,453,179	2,736,205
IM047	Inferred Mixed Sediment	830,586	3,235,145	8,165.00	2,325,885	10	0	100	861,439	-	861,439	834,042
IM048	Inferred Mixed Sediment	828,905	3,238,145	18,453.00	7,561,672	10	0	56	2,800,619	1,232,272	1,568,347	1,572,767
IM049	Inferred Mixed Sediment	831,475	3,239,938	10,172.00	2,360,304	10	0	1	874,187	865,445	8,742	-

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IM050	Inferred Mixed Sediment	832,719	3,239,705	4,862.00	982,881	10	0	0	364,030	364,030	-	-
IS001	Inferred Sand	801,385	3,254,774	621,490.00	1,470,250,984	10	0	43	544,537,401	310,386,319	234,151,083	-
IS002	Inferred Sand	790,547	3,264,273	23,528.00	11,666,230	10	0	97	4,320,826	129,625	4,191,201	-
IS003	Inferred Sand	784,466	3,262,614	5,713.00	932,702	10	0	0	345,445	345,445	-	-
IS004	Inferred Sand	786,983	3,262,918	6,253.00	1,026,947	10	0	0	380,351	380,351	-	-
IS005	Inferred Sand	785,645	3,262,517	8,143.00	2,010,470	10	0	0	744,619	744,619	-	-
IS006	Inferred Sand	784,446	3,261,779	3,493.00	874,976	10	0	0	324,065	324,065	-	-
IS007	Inferred Sand	785,289	3,259,150	4,879.00	941,347	10	0	0	348,647	348,647	-	-
IS008	Inferred Sand	789,927	3,257,427	6,943.00	1,689,431	10	0	33	625,715	419,229	206,486	-
IS009	Inferred Sand	787,180	3,254,184	9,240.00	2,240,784	10	0	100	829,920	-	829,920	-
IS010	Inferred Sand	796,174	3,261,428	14,042.00	9,826,653	10	0	39	3,639,501	2,220,096	1,419,405	-
IS011	Inferred Sand	785,329	3,255,560	10,313.00	2,995,116	10	0	40	1,109,302	665,581	443,721	-
IS012	Inferred Sand	798,367	3,264,781	12,821.00	5,983,713	10	0	58	2,216,190	930,800	1,285,390	-
IS013	Inferred Sand	770,067	3,269,726	5,481.00	1,108,454	10	0	0	410,539	410,539	-	-
IS014	Inferred Sand	774,272	3,274,050	3,880.00	395,319	10	0	94	146,415	8,785	137,630	-
IS015	Inferred Sand	789,027	3,252,311	21,230.00	11,571,381	10	0	9	4,285,697	3,899,984	385,713	-
IS016	Inferred Sand	789,022	3,254,389	7,972.00	1,723,397	10	0	100	638,295	-	638,295	-
IS017	Inferred Sand	787,835	3,242,193	402,719.00	861,223,504	10	0	25	318,971,668	239,228,751	79,742,917	-
IS018	Inferred Sand	779,716	3,234,836	41,453.00	42,446,639	10	0	0	15,720,977	15,720,977	-	-
IS019	Inferred Sand	779,601	3,232,215	74,249.00	76,428,527	10	0	28	28,306,862	20,380,940	7,925,921	-
IS020	Inferred Sand	779,349	3,245,560	140,780.00	163,893,810	10	0	21	60,701,411	47,954,115	12,747,296	-
IS021	Inferred Sand	801,529	3,266,124	4,699.00	638,027	10	0	0	236,306	236,306	-	-
IS022	Inferred Sand	784,608	3,246,665	7,650.00	2,562,033	10	0	52	948,901	455,473	493,429	-
IS023	Inferred Sand	781,800	3,249,904	15,035.00	2,731,460	10	0	0	1,011,652	1,011,652	-	-
IS024	Inferred Sand	780,100	3,249,260	9,051.00	1,887,329	10	0	0	699,011	699,011	-	-
IS025	Inferred Sand	780,867	3,248,686	10,937.00	2,649,994	10	0	0	981,479	981,479	-	-
IS026	Inferred Sand	781,791	3,247,740	2,276.00	256,828	10	0	0	95,122	95,122	-	-
IS027	Inferred Sand	801,224	3,267,944	15,477.00	3,946,344	10	0	0	1,461,609	1,461,609	-	-
IS028	Inferred Sand	813,035	3,263,281	23,311.00	8,637,547	10	0	0	3,199,091	3,199,091	-	-
IS029	Inferred Sand	837,305	3,240,776	14,420.00	6,219,631	10	0	93	2,303,567	161,250	2,142,317	-
IS030	Inferred Sand	837,035	3,243,988	26,036.00	32,929,894	10	0	43	12,196,257	6,951,867	5,244,391	-
IS031	Inferred Sand	810,648	3,255,513	50,431.00	109,946,138	10	0	100	40,720,792	-	40,720,792	-
IS032	Inferred Sand	815,344	3,252,720	188,131.00	340,293,457	10	0	55	126,034,614	56,715,576	69,319,038	-
IS033	Inferred Sand	828,529	3,252,938	86,348.00	189,066,613	10	0	56	70,024,671	30,810,855	39,213,816	-
IS034	Inferred Sand	825,696	3,246,977	79,159.00	96,798,147	10	0	20	35,851,165	28,680,932	7,170,233	-
IS035	Inferred Sand	840,589	3,242,838	27,910.00	44,656,955	10	0	3	16,539,613	16,043,425	496,188	-
IS036	Inferred Sand	828,166	3,245,896	18,896.00	13,147,526	10	0	86	4,869,454	681,724	4,187,730	-
IS037	Inferred Sand	823,026	3,253,390	6,370.00	1,515,603	10	0	2	561,335	550,108	11,227	-
IS038	Inferred Sand	416,214	3,303,645	10,291.00	6,436,864	10	0	78	2,384,024	524,485	1,859,538	-
IS039	Inferred Sand	414,949	3,302,658	2,876.00	413,493	10	0	99	153,146	1,531	151,614	-
IS040	Inferred Sand	416,763	3,302,809	2,247.00	264,167	10	0	100	97,840	-	97,840	-
IS041	Inferred Sand	422,103	3,301,679	6,307.00	1,404,233	10	0	13	520,086	452,475	67,611	-
IS042	Inferred Sand	422,125	3,312,330	5,023.00	590,141	10	0	86	218,571	30,600	187,971	-
IS043	Inferred Sand	422,993	3,314,475	10,081.00	3,379,159	10	0	100	1,251,541	-	1,251,541	-
IS044	Inferred Sand	423,265	3,315,995	9,865.00	2,260,099	10	0	100	837,074	-	837,074	-
IS045	Inferred Sand	461,057	3,303,101	43,847.00	29,982,410	10	0	8	11,104,596	10,216,228	888,368	-
IS046	Inferred Sand	465,545	3,305,656	4,623.00	694,673	10	0	76	257,286	61,749	195,538	-
IS047	Inferred Sand	463,605	3,301,875	18,236.00	2,915,985	10	0	39	1,079,994	658,797	421,198	-
IS048	Inferred Sand	468,361	3,303,080	16,247.00	2,296,365	10	0	0	850,505	850,505	-	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
IS049	Inferred Sand	593,006	3,275,508	2,600.00	159,524	10	0	0	59,083	59,083	-	-
IS050	Inferred Sand	597,563	3,277,060	33,784.00	27,197,380	10	0	0	10,073,104	10,073,104	-	-
IS051	Inferred Sand	602,651	3,281,144	18,875.00	26,768,112	10	0	28	9,914,116	7,138,163	2,775,952	-
IS052	Inferred Sand	607,269	3,285,233	9,342.00	4,619,492	10	0	33	1,710,923	1,146,318	564,605	-
IS053	Inferred Sand	631,497	3,273,802	63,353.00	67,776,155	10	0	17	25,102,280	20,834,892	4,267,388	-
IS054	Inferred Sand	633,893	3,266,303	179,961.00	184,852,270	10	0	35	68,463,804	44,501,472	23,962,331	1,405,769
IS055	Inferred Sand	640,947	3,259,465	7,822.00	3,499,927	10	0	41	1,296,269	764,799	531,470	-
IS056	Inferred Sand	646,727	3,259,878	134,280.00	156,554,363	10	0	45	57,983,098	31,890,704	26,092,394	-
IS057	Inferred Sand	656,878	3,263,283	45,802.00	48,284,085	10	0	74	17,882,995	4,649,579	13,233,416	-
IS058	Inferred Sand	656,667	3,260,681	17,868.00	9,464,658	10	0	34	3,505,429	2,313,583	1,191,846	-
IS059	Inferred Sand	657,617	3,259,042	11,574.00	6,697,855	10	0	0	2,480,687	2,480,687	-	-
IS060	Inferred Sand	656,987	3,256,381	15,985.00	9,322,442	10	0	36	3,452,756	2,209,764	1,242,992	-
IS061	Inferred Sand	660,527	3,251,453	261,949.00	474,591,801	10	0	13	175,774,741	152,924,025	22,850,716	-
IS062	Inferred Sand	667,608	3,248,582	6,032.00	2,157,330	10	0	0	799,011	799,011	-	-
IS063	Inferred Sand	647,273	3,253,638	31,306.00	18,507,214	10	0	59	6,854,524	2,810,355	4,044,169	-
IS064	Inferred Sand	649,299	3,251,065	49,937.00	40,191,480	10	0	47	14,885,733	7,889,439	6,996,295	-
IS065	Inferred Sand	649,332	3,247,818	33,079.00	19,375,189	10	0	52	7,175,996	3,444,478	3,731,518	-
IS066	Inferred Sand	647,624	3,255,727	32,634.00	17,906,005	10	0	26	6,631,854	4,907,572	1,724,282	-
IS067	Inferred Sand	628,141	3,254,091	17,569.00	14,094,637	10	0	0	5,220,236	5,220,236	-	-
IS068	Inferred Sand	623,260	3,259,059	19,757.00	14,515,491	10	0	60	5,376,108	2,150,443	3,225,665	-
IS069	Inferred Sand	622,177	3,256,093	54,624.00	59,367,284	10	0	18	21,987,883	18,030,064	3,957,819	1,349,508
IS070	Inferred Sand	616,274	3,256,070	10,796.00	4,104,363	10	0	77	1,520,134	349,631	1,170,503	-
IS071	Inferred Sand	752,683	3,245,166	7,533.00	1,863,117	10	0	93	690,043	48,303	641,740	-
IS072	Inferred Sand	769,782	3,271,926	9,554.00	4,425,728	10	0	5	1,639,158	1,557,200	81,958	-
IS073	Inferred Sand	772,499	3,269,059	11,062.00	4,370,621	10	0	83	1,618,749	275,187	1,343,561	-
IS074	Inferred Sand	776,526	3,264,972	115,420.00	109,634,431	10	0	42	40,605,345	23,551,100	17,054,245	-
IS075	Inferred Sand	781,515	3,263,842	44,812.00	27,908,653	10	0	22	10,336,538	8,062,500	2,274,038	-
IS076	Inferred Sand	777,622	3,270,125	63,072.00	36,522,607	10	0	64	13,526,891	4,869,681	8,657,211	-
IS077	Inferred Sand	864,599	3,345,645	85,777.00	160,686,588	10	0	0	59,513,551	59,513,551	-	-
IS078	Inferred Sand	794,366	3,262,781	3,958.00	443,146	10	0	44	164,128	91,912	72,216	-
IS079	Inferred Sand	794,775	3,242,028	5,574.00	1,618,147	10	0	100	599,314	-	599,314	-
IS080	Inferred Sand	834,111	3,248,221	23,152.00	6,417,339	10	0	78	2,376,792	522,894	1,853,898	-
IS081	Inferred Sand	840,086	3,239,867	24,480.00	30,881,912	10	0	13	11,437,745	9,950,838	1,486,907	-
IS082	Inferred Sand	841,453	3,239,670	13,571.00	7,490,429	10	0	30	2,774,233	1,941,963	832,270	-
IS083	Inferred Sand	780,927	3,241,428	13,347.00	5,869,395	10	0	0	2,173,850	2,173,850	-	-
IS084	Inferred Sand	686,309	3,198,653	144,574.00	714,698,577	10	0	33	264,703,177	177,351,128	87,352,048	61,137,618
IS085	Inferred Sand	623,500	3,262,615	8,290.00	3,133,681	10	0	86	1,160,622	162,487	998,135	-
IS086	Inferred Sand	627,565	3,262,832	7,720.00	2,782,454	10	0	12	1,030,539	906,874	123,665	114,471
IS087	Inferred Sand	620,042	3,259,119	17,139.00	10,590,133	10	0	12	3,922,271	3,451,599	470,673	-
IS088	Inferred Sand	647,423	3,252,390	14,513.00	11,254,931	10	0	64	4,168,493	1,500,657	2,667,835	-
IS089	Inferred Sand	665,858	3,244,909	6,027.00	2,286,874	10	0	0	846,990	846,990	-	-
IS090	Inferred Sand	661,066	3,245,548	7,444.00	3,073,926	10	0	0	1,138,491	1,138,491	-	-
IS091	Inferred Sand	828,467	3,229,179	92,667.00	168,292,148	10	0	59	62,330,425	25,555,474	36,774,951	28,040,317
IS092	Inferred Sand	440,369	3,263,160	99,156.00	150,790,252	10	0	44	55,848,242	31,275,015	24,573,226	19,426,286
IS093	Inferred Sand	580,428	3,245,931	446,137.00	1,138,315,727	10	0	33	421,598,417	282,470,940	139,127,478	111,364,964
IS094	Inferred Sand	628,680	3,222,472	200,203.00	866,455,608	10	0	30	320,909,484	224,636,639	96,272,845	63,402,953
IS095	Inferred Sand	457,233	3,262,788	59,662.00	58,116,376	10	0	0	21,524,584	21,524,584	-	-
IS096	Inferred Sand	624,656	3,233,413	114,406.00	326,485,974	10	0	26	120,920,731	89,481,341	31,439,390	26,675,868
IS097	Inferred Sand	616,371	3,230,396	23,060.00	12,588,188	10	0	0	4,662,292	4,662,292	-	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
IS098	Inferred Sand	620,351	3,264,307	32,097.00	23,027,698	10	0	0	8,528,777	8,528,777	-	-
IS099	Inferred Sand	829,040	3,237,603	14,799.00	8,088,710	10	0	74	2,995,819	778,913	2,216,906	2,214,837
IS100	Inferred Sand	831,275	3,239,613	21,203.00	13,392,367	10	0	32	4,960,136	3,372,893	1,587,244	565,752
IS101	Inferred Sand	829,273	3,234,728	6,780.00	1,742,910	10	0	58	645,522	271,119	374,403	371,651
PM001	Potential Mixed Sediment	454,412	3,280,030	159,625.00	398,537,160	10	0	41	147,606,355	87,087,750	60,518,606	19,214,956
PM002	Potential Mixed Sediment	423,710	3,267,914	33,336.00	36,981,450	10	0	66	13,696,834	4,656,923	9,039,910	8,993,056
PM003	Potential Mixed Sediment	810,583	3,174,730	13,702.00	3,354,425	10	0	79	1,242,380	260,900	981,480	-
PM004	Potential Mixed Sediment	618,828	3,219,239	162,654.00	1,211,061,154	10	0	29	448,541,168	318,464,229	130,076,939	88,100,040
PM005	Potential Mixed Sediment	838,991	3,332,679	498,243.00	2,334,960,022	10	0	14	864,800,008	743,728,007	121,072,001	-
PM006	Potential Mixed Sediment	701,128	3,236,686	23,803.00	33,736,169	10	0	0	12,494,877	12,494,877	-	-
PM007	Potential Mixed Sediment	697,595	3,219,306	12,271.00	3,204,680	10	0	0	1,186,918	1,186,918	-	-
PM008	Potential Mixed Sediment	805,161	3,236,005	40,586.00	41,889,751	6	0	31	9,308,833	6,423,095	2,885,738	-
PM009	Potential Mixed Sediment	708,609	3,205,652	109,882.00	110,921,288	10	0	57	41,081,958	17,665,242	23,416,716	8,082,309
PM010	Potential Mixed Sediment	720,191	3,205,722	126,270.00	247,903,975	10	0	77	91,816,287	21,117,746	70,698,541	67,267,454
PM011	Potential Mixed Sediment	824,009	3,314,724	215,726.00	309,902,070	10	0	9	114,778,544	104,448,475	10,330,069	-
PM012	Potential Mixed Sediment	575,892	3,247,252	31,018.00	29,025,864	13	0	0	13,975,416	13,975,416	-	-
PM013	Potential Mixed Sediment	873,054	3,259,248	55,966.00	42,977,721	10	0	64	15,917,674	5,730,363	10,187,312	-
PM014	Potential Mixed Sediment	416,068	3,304,857	276,455.00	445,407,774	10	0	42	164,965,842	95,680,188	69,285,654	-
PM015	Potential Mixed Sediment	806,324	3,340,138	28,115.00	23,315,968	10	0	20	8,635,544	6,908,435	1,727,109	-
PM016	Potential Mixed Sediment	791,020	3,338,643	26,193.00	14,929,522	10	0	29	5,529,452	3,925,911	1,603,541	-
PM017	Potential Mixed Sediment	701,190	3,205,316	81,321.00	169,975,815	10	0	56	62,954,005	27,699,762	35,254,243	29,061,141
PM018	Potential Mixed Sediment	789,036	3,352,419	36,114.00	51,466,523	10	0	0	19,061,675	19,061,675	-	-
PM019	Potential Mixed Sediment	828,575	3,233,405	34,105.00	30,564,706	8	0	75	9,056,209	2,264,052	6,792,157	4,919,922
PM020	Potential Mixed Sediment	772,711	3,341,879	17,236.00	3,967,852	10	0	0	1,469,575	1,469,575	-	-
PM021	Potential Mixed Sediment	777,046	3,264,658	22,413.00	19,516,414	20	0	42	14,456,603	8,384,830	6,071,773	-
PM022	Potential Mixed Sediment	792,676	3,346,966	30,349.00	21,114,203	10	0	0	7,820,075	7,820,075	-	-
PM023	Potential Mixed Sediment	784,478	3,333,263	35,566.00	8,478,862	10	0	0	3,140,319	3,140,319	-	-
PM024	Potential Mixed Sediment	786,963	3,344,115	27,706.00	18,352,694	10	0	0	6,797,294	6,797,294	-	-
PM025	Potential Mixed Sediment	767,625	3,334,141	17,923.00	10,869,528	10	0	97	4,025,751	120,773	3,904,978	-
PM026	Potential Mixed Sediment	943,293	3,299,165	765,810.00	15,014,575,627	10	0	12	5,560,953,936	4,893,639,464	667,314,472	444,877,572
PM027	Potential Mixed Sediment	755,900	3,337,590	34,458.00	15,675,746	10	0	0	5,805,832	5,805,832	-	-
PM028	Potential Mixed Sediment	801,563	3,342,372	35,934.00	42,975,449	10	0	7	15,916,833	14,802,655	1,114,178	-
PM029	Potential Mixed Sediment	737,055	3,195,580	205,660.00	427,030,441	10	0	35	158,159,423	102,803,625	55,355,798	40,768,038
PM030	Potential Mixed Sediment	733,334	3,208,266	222,375.00	446,090,133	10	0	27	165,218,568	120,609,555	44,609,013	14,221,730
PM031	Potential Mixed Sediment	816,893	3,319,763	153,749.00	170,861,942	10	0	23	63,282,201	48,727,295	14,554,906	-
PM032	Potential Mixed Sediment	900,677	3,314,505	40,389.00	44,631,632	13	0	0	21,489,304	21,489,304	-	-
PM033	Potential Mixed Sediment	832,775	3,228,231	34,597.00	33,108,039	10	0	91	12,262,237	1,103,601	11,158,635	7,436,871
PM034	Potential Mixed Sediment	860,950	3,283,856	90,378.00	180,779,768	10	0	22	66,955,470	52,225,266	14,730,203	-
PM035	Potential Mixed Sediment	856,178	3,272,631	133,095.00	169,194,402	10	0	65	62,664,593	21,932,608	40,731,986	-
PM036	Potential Mixed Sediment	849,600	3,342,590	125,660.00	279,905,118	10	0	0	103,668,562	103,668,562	-	-
PM037	Potential Mixed Sediment	820,965	3,334,952	8,101.00	3,747,193	10	0	0	1,387,849	1,387,849	-	-
PM038	Potential Mixed Sediment	423,486	3,316,206	82,443.00	92,190,832	10	0	56	34,144,752	15,023,691	19,121,061	-
PM039	Potential Mixed Sediment	825,139	3,240,961	64,130.00	117,258,762	3	0	43	13,028,751	7,426,388	5,602,363	2,891,461
PM040	Potential Mixed Sediment	900,650	3,319,466	29,106.00	29,345,625	11	0	0	11,955,625	11,955,625	-	-
PM041	Potential Mixed Sediment	838,379	3,224,863	29,459.00	32,398,938	20	0	43	23,999,213	13,679,551	10,319,662	1,599,445
PM042	Potential Mixed Sediment	836,700	3,229,023	22,029.00	12,154,986	13	0	78	5,852,400	1,287,528	4,564,872	788,131
PM043	Potential Mixed Sediment	867,127	3,341,649	164,485.00	574,542,028	10	0	2	212,793,344	208,537,477	4,255,867	-
PS001	Potential Sand	882,041	3,275,879	2,893.00	527,723	10	0	0	195,453	195,453	-	-
PS002	Potential Sand	947,985	3,331,797	390,835.00	3,506,972,050	16	0	15	2,078,205,659	1,766,474,811	311,730,849	147,442,021

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
PS003	Potential Sand	915,092	3,274,772	72,986.00	331,157,223	5	0	61	61,325,412	23,916,911	37,408,501	29,239,032
PS004	Potential Sand	574,199	3,269,289	29,606.00	4,963,385	10	0	19	1,838,291	1,489,015	349,275	144,579
PS005	Potential Sand	871,601	3,295,910	111,472.00	315,914,846	10	0	4	117,005,499	112,325,279	4,680,220	-
PS006	Potential Sand	891,944	3,302,390	27,218.00	17,039,300	10	0	5	6,310,852	5,995,309	315,543	-
PS007	Potential Sand	743,988	3,198,976	61,691.00	87,997,696	10	0	53	32,591,739	15,318,118	17,273,622	13,630,825
PS008	Potential Sand	712,527	3,199,204	560,658.00	2,975,029,728	10	0	42	1,101,862,862	639,080,460	462,782,402	372,676,266
PS009	Potential Sand	418,251	3,313,317	55,615.00	96,967,546	10	0	12	35,913,906	31,604,237	4,309,669	-
PS010	Potential Sand	869,209	3,266,714	148,954.00	415,851,316	10	0	33	154,019,006	103,192,734	50,826,272	-
PS011	Potential Sand	579,945	3,233,624	431,860.00	2,216,169,237	4	0	13	328,321,368	285,639,591	42,681,778	35,680,632
PS012	Potential Sand	880,658	3,317,788	107,685.00	662,455,411	10	0	7	245,353,856	228,179,086	17,174,770	-
PS013	Potential Sand	692,278	3,219,976	68,534.00	73,862,021	10	0	55	27,356,304	12,310,337	15,045,967	8,405,142
PS014	Potential Sand	702,711	3,235,713	63,161.00	24,581,726	10	0	0	9,104,343	9,104,343	-	-
PS015	Potential Sand	875,003	3,261,784	69,735.00	195,258,560	10	0	68	72,317,985	23,141,755	49,176,230	14,019,890
PS016	Potential Sand	778,479	3,361,842	21,425.00	19,869,459	10	0	26	7,359,059	5,445,704	1,913,355	-
PS017	Potential Sand	773,823	3,361,918	33,771.00	11,789,585	10	0	0	4,366,513	4,366,513	-	-
PS018	Potential Sand	770,746	3,356,195	107,797.00	71,504,414	10	0	0	26,483,116	26,483,116	-	-
PS019	Potential Sand	779,553	3,346,306	56,428.00	86,843,030	10	0	0	32,164,085	32,164,085	-	-
PS020	Potential Sand	762,016	3,342,232	227,656.00	167,257,126	10	0	11	61,947,084	55,132,905	6,814,179	-
PS021	Potential Sand	767,297	3,332,592	17,328.00	9,139,686	10	0	61	3,385,069	1,320,177	2,064,892	-
PS022	Potential Sand	789,412	3,349,035	96,657.00	59,358,296	10	0	0	21,984,554	21,984,554	-	-
PS023	Potential Sand	793,879	3,338,934	90,508.00	60,843,488	10	0	4	22,534,625	21,633,240	901,385	-
PS024	Potential Sand	781,129	3,336,899	115,019.00	175,511,303	10	0	4	65,004,186	62,404,019	2,600,167	-
PS025	Potential Sand	896,014	3,294,255	55,119.00	82,157,631	3	0	8	9,128,626	8,398,336	730,290	629,416
PS026	Potential Sand	769,033	3,327,828	52,514.00	20,848,187	10	0	7	7,721,551	7,181,042	540,509	-
PS027	Potential Sand	754,607	3,334,006	29,518.00	13,948,677	10	0	0	5,166,176	5,166,176	-	-
PS028	Potential Sand	798,557	3,344,533	44,995.00	15,413,240	10	0	0	5,708,608	5,708,608	-	-
SF001	Fines	741,921	3,281,258	26,913,778.00	88,554,766,640	10	0	25	32,798,061,719	24,598,546,289	8,199,515,430	1,283,555,829
SM001	Mixed Sediment	780,739	3,227,055	307,097.00	287,849,713	10	0	49	106,611,005	54,371,612	52,239,392	6,895,517
SM002	Mixed Sediment	754,590	3,193,162	14,707.00	5,058,483	10	0	84	1,873,512	299,762	1,573,750	1,570,669
SM003	Mixed Sediment	466,753	3,293,332	1,859.00	268,823	10	0	100	99,564	-	99,564	-
SM004	Mixed Sediment	446,300	3,281,320	44,864.00	69,639,160	11	0	58	28,371,510	11,916,034	16,455,476	11,470,461
SM005	Mixed Sediment	712,391	3,211,648	219,175.00	529,061,307	9	0	59	176,353,769	72,305,045	104,048,724	23,715,070
SM006	Mixed Sediment	729,617	3,218,675	14,984.00	6,458,041	12	0	88	2,870,241	344,429	2,525,812	-
SM007	Mixed Sediment	725,574	3,218,978	11,185.00	7,346,062	12	0	78	3,264,917	718,282	2,546,635	-
SM008	Mixed Sediment	466,559	3,305,618	5,693.00	1,972,827	10	0	65	730,677	255,737	474,940	-
SM009	Mixed Sediment	466,751	3,304,599	11,899.00	6,085,340	20	0	56	4,507,659	1,983,370	2,524,289	-
SM010	Mixed Sediment	498,768	3,287,687	30,669.00	10,345,229	3	0	66	1,149,470	390,820	758,650	504,248
SM011	Mixed Sediment	812,701	3,337,196	11,771.00	4,221,285	1	0	0	156,344	156,344	-	-
SM012	Mixed Sediment	796,020	3,350,293	10,162.00	6,764,657	14	0	9	3,507,600	3,191,916	315,684	-
SM013	Mixed Sediment	657,520	3,251,052	15,430.00	6,862,432	10	0	0	2,541,642	2,541,642	-	-
SM014	Mixed Sediment	661,093	3,243,646	5,950.00	1,180,821	10	0	0	437,341	437,341	-	-
SM015	Mixed Sediment	702,285	3,212,156	11,693.00	2,900,791	10	0	21	1,074,367	848,750	225,617	-
SM016	Mixed Sediment	707,694	3,214,486	18,814.00	4,393,865	10	0	46	1,627,357	878,773	748,584	-
SM017	Mixed Sediment	709,992	3,214,158	6,306.00	1,575,104	10	0	0	583,372	583,372	-	-
SM018	Mixed Sediment	712,235	3,214,065	8,925.00	2,097,031	10	0	23	776,678	598,042	178,636	-
SM019	Mixed Sediment	766,564	3,222,749	28,704.00	27,091,988	14	0	4	14,047,698	13,485,790	561,908	-
SM020	Mixed Sediment	724,812	3,217,482	38,121.00	18,270,911	14	0	32	9,473,806	6,442,188	3,031,618	-
SM021	Mixed Sediment	811,578	3,342,128	51,354.00	41,046,651	10	0	0	15,202,463	15,202,463	-	-
SM022	Mixed Sediment	809,018	3,345,822	11,172.00	6,013,342	10	0	6	2,227,164	2,093,534	133,630	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
SM023	Mixed Sediment	699,350	3,245,639	13,439.00	11,752,608	11	0	0	4,788,099	4,788,099	-	-
SM024	Mixed Sediment	815,228	3,339,403	5,533.00	1,280,039	1	0	0	47,409	47,409	-	-
SM025	Mixed Sediment	904,803	3,325,363	23,062.00	19,335,482	12	0	0	8,593,547	8,593,547	-	-
SM026	Mixed Sediment	790,433	3,329,341	41,319.00	106,978,166	10	0	11	39,621,543	35,263,173	4,358,370	-
SM027	Mixed Sediment	785,358	3,326,968	10,367.00	5,813,792	10	0	4	2,153,256	2,067,126	86,130	-
SM028	Mixed Sediment	696,578	3,203,249	19,475.00	19,572,597	10	0	84	7,249,110	1,159,858	6,089,253	4,945,766
SM029	Mixed Sediment	754,016	3,329,373	23,152.00	14,307,260	10	0	49	5,298,985	2,702,482	2,596,503	-
SM030	Mixed Sediment	752,092	3,330,249	20,661.00	6,349,809	1	0	69	235,178	72,905	162,273	-
SM031	Mixed Sediment	759,052	3,353,812	17,136.00	15,007,758	10	0	21	5,558,429	4,391,159	1,167,270	-
SM032	Mixed Sediment	786,052	3,349,036	14,176.00	11,460,265	10	0	0	4,244,543	4,244,543	-	-
SM033	Mixed Sediment	780,309	3,351,960	12,936.00	10,354,072	10	0	0	3,834,841	3,834,841	-	-
SM034	Mixed Sediment	796,323	3,333,878	12,042.00	8,593,649	10	0	0	3,182,833	3,182,833	-	-
SM035	Mixed Sediment	801,328	3,347,280	15,767.00	8,988,755	2	0	0	665,834	665,834	-	-
SM036	Mixed Sediment	733,459	3,244,525	8,019.00	4,135,790	7	0	56	1,072,242	471,786	600,455	-
SM037	Mixed Sediment	763,515	3,225,291	19,000.00	11,971,437	19	0	11	8,424,345	7,497,667	926,678	-
SM038	Mixed Sediment	797,982	3,239,834	28,892.00	29,137,033	10	0	11	10,791,494	9,604,429	1,187,064	-
SM039	Mixed Sediment	766,032	3,239,205	16,642.00	13,295,977	15	0	0	7,386,654	7,386,654	-	-
SM040	Mixed Sediment	756,705	3,222,807	17,882.00	15,707,236	7	0	0	4,072,246	4,072,246	-	-
SM041	Mixed Sediment	761,538	3,224,466	54,974.00	61,421,842	14	0	32	31,848,362	21,656,886	10,191,476	-
SM042	Mixed Sediment	716,378	3,215,621	40,472.00	18,327,869	13	0	53	8,824,529	4,147,529	4,677,001	730,378
SM043	Mixed Sediment	899,993	3,325,283	14,900.00	11,296,873	9	0	0	3,765,624	3,765,624	-	-
SM044	Mixed Sediment	731,199	3,219,818	65,263.00	49,523,152	15	0	68	27,512,862	8,804,116	18,708,746	-
SM045	Mixed Sediment	759,166	3,223,075	24,088.00	19,622,739	7	0	20	5,087,377	4,069,901	1,017,475	-
SM046	Mixed Sediment	698,683	3,216,677	21,172.00	11,548,450	16	0	8	6,843,526	6,296,044	547,482	-
SM047	Mixed Sediment	737,564	3,221,502	14,040.00	12,410,835	16	0	55	7,354,569	3,309,556	4,045,013	-
SM048	Mixed Sediment	720,855	3,217,255	8,897.00	4,065,701	10	0	79	1,505,815	316,221	1,189,594	-
SM049	Mixed Sediment	837,767	3,235,721	7,555.00	2,735,346	8	0	8	810,473	745,635	64,838	-
SM050	Mixed Sediment	733,251	3,189,281	7,495.00	1,717,166	10	0	92	635,987	50,879	585,108	582,820
SM051	Mixed Sediment	725,997	3,212,800	45,177.00	38,101,108	10	0	36	14,111,522	9,031,374	5,080,148	2,012,860
SM052	Mixed Sediment	736,254	3,216,486	11,233.00	2,744,246	10	0	0	1,016,387	1,016,387	-	-
SM053	Mixed Sediment	740,108	3,217,713	4,568.00	989,034	10	0	33	366,309	245,427	120,882	-
SM054	Mixed Sediment	701,365	3,216,385	14,552.00	7,499,248	10	0	16	2,777,499	2,333,099	444,400	-
SM055	Mixed Sediment	719,275	3,214,861	2,964.00	547,060	10	0	0	202,615	202,615	-	-
SM056	Mixed Sediment	737,223	3,214,052	30,004.00	8,829,773	10	0	0	3,270,286	3,270,286	-	-
SM057	Mixed Sediment	740,122	3,216,015	36,550.00	11,128,502	10	0	37	4,121,668	2,596,651	1,525,017	-
SM058	Mixed Sediment	743,642	3,215,413	28,154.00	7,546,499	10	0	54	2,795,000	1,285,700	1,509,300	-
SM059	Mixed Sediment	749,861	3,218,806	16,109.00	10,226,676	7	0	40	2,651,360	1,590,816	1,060,544	-
SM060	Mixed Sediment	759,416	3,217,326	7,423.00	1,686,038	10	0	44	624,458	349,697	274,762	252,657
SM061	Mixed Sediment	751,892	3,214,515	92,454.00	41,699,931	10	0	4	15,444,419	14,826,642	617,777	-
SM062	Mixed Sediment	747,018	3,212,989	31,754.00	14,919,525	10	0	5	5,525,750	5,249,463	276,288	291,832
SM063	Mixed Sediment	778,424	3,215,927	10,877.00	3,044,272	10	0	99	1,127,508	11,275	1,116,233	252,524
SM064	Mixed Sediment	802,455	3,243,831	15,458.00	10,447,308	3	0	0	1,160,812	1,160,812	-	-
SM065	Mixed Sediment	805,929	3,316,674	22,510.00	11,436,177	32	0	16	13,553,988	11,385,350	2,168,638	-
SM066	Mixed Sediment	809,959	3,328,149	18,899.00	9,788,221	50	0	0	18,126,335	18,126,335	-	-
SM067	Mixed Sediment	806,777	3,326,425	14,630.00	3,853,208	10	0	0	1,427,114	1,427,114	-	-
SM068	Mixed Sediment	805,205	3,324,537	26,815.00	11,341,578	10	0	25	4,200,584	3,150,438	1,050,146	-
SM069	Mixed Sediment	805,526	3,321,887	3,395.00	741,081	10	0	0	274,474	274,474	-	-
SM070	Mixed Sediment	806,774	3,320,139	30,345.00	16,847,825	10	0	11	6,239,935	5,553,542	686,393	-
SM071	Mixed Sediment	808,487	3,318,806	12,943.00	12,055,584	10	0	41	4,465,031	2,634,368	1,830,663	-



Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
SM072	Mixed Sediment	808,082	3,320,311	7,707.00	4,029,885	10	0	67	1,492,550	492,542	1,000,009	-
SM073	Mixed Sediment	811,322	3,325,367	13,278.00	5,766,967	10	0	11	2,135,914	1,900,963	234,951	-
SM074	Mixed Sediment	813,566	3,325,358	22,933.00	17,334,285	10	0	94	6,420,106	385,206	6,034,899	-
SM075	Mixed Sediment	812,190	3,327,167	42,370.00	29,861,516	34	0	5	37,603,391	35,723,221	1,880,170	-
SM076	Mixed Sediment	830,854	3,330,600	12,441.00	5,032,010	10	0	0	1,863,707	1,863,707	-	-
SM077	Mixed Sediment	840,409	3,334,613	90,470.00	113,410,099	10	0	14	42,003,740	36,123,217	5,880,524	-
SM078	Mixed Sediment	835,082	3,342,812	23,995.00	19,047,172	10	0	44	7,054,508	3,950,525	3,103,984	-
SM079	Mixed Sediment	800,956	3,243,435	13,492.00	5,606,353	6	0	0	1,245,856	1,245,856	-	-
SM080	Mixed Sediment	848,745	3,203,641	7,117.00	444,304	10	0	0	164,557	164,557	-	-
SM081	Mixed Sediment	466,428	3,303,735	6,750.00	2,314,440	10	0	7	857,200	797,196	60,004	-
SM082	Mixed Sediment	773,718	3,263,832	19,090.00	12,779,153	15	0	10	7,099,530	6,389,577	709,953	-
SM083	Mixed Sediment	830,973	3,302,628	33,128.00	30,139,371	6	0	0	6,697,638	6,697,638	-	-
SM084	Mixed Sediment	875,867	3,213,650	7,817.00	2,065,457	10	0	0	764,984	764,984	-	-
SM085	Mixed Sediment	849,180	3,204,341	2,664.00	540,884	10	0	0	200,327	200,327	-	-
SM086	Mixed Sediment	849,511	3,205,013	5,979.00	1,422,157	10	0	0	526,725	526,725	-	-
SM087	Mixed Sediment	790,048	3,264,128	9,131.00	2,194,958	10	0	56	812,947	357,697	455,250	-
SM088	Mixed Sediment	787,116	3,234,085	34,752.00	9,054,115	14	0	86	4,694,726	657,262	4,037,465	-
SM089	Mixed Sediment	794,145	3,237,404	30,623.00	13,965,661	10	0	65	5,172,467	1,810,363	3,362,104	1,505,395
SM090	Mixed Sediment	799,366	3,241,594	23,493.00	7,195,296	13	0	64	3,464,402	1,247,185	2,217,217	-
SM091	Mixed Sediment	801,853	3,238,664	77,004.00	88,792,062	12	0	30	39,463,139	27,624,197	11,838,942	-
SM092	Mixed Sediment	806,042	3,239,464	26,243.00	37,927,359	7	0	28	9,833,019	7,079,774	2,753,245	-
SM093	Mixed Sediment	788,683	3,236,033	17,547.00	9,892,014	10	0	93	3,663,709	256,460	3,407,249	-
SM094	Mixed Sediment	805,816	3,243,427	11,369.00	7,011,191	10	0	0	2,596,737	2,596,737	-	-
SM095	Mixed Sediment	806,072	3,245,758	45,585.00	30,359,872	8	0	5	8,995,518	8,545,742	449,776	-
SM096	Mixed Sediment	830,168	3,239,156	6,638.00	1,987,414	11	0	77	809,687	186,228	623,459	476,315
SM097	Mixed Sediment	836,893	3,236,198	10,595.00	2,340,422	10	0	0	866,823	866,823	-	-
SM098	Mixed Sediment	810,939	3,244,638	45,139.00	39,230,427	8	0	0	11,623,830	11,623,830	-	-
SM099	Mixed Sediment	816,848	3,245,714	13,915.00	4,609,645	10	0	52	1,707,276	819,493	887,784	-
SM100	Mixed Sediment	839,780	3,233,961	15,789.00	4,041,429	10	0	59	1,496,826	613,699	883,127	93,429
SOB001	Sand =<10 ft Overburden	446,902	3,289,142	30,563.00	23,486,826	4	7	32	3,479,530	2,366,080	1,113,450	998,819
SOB002	Sand =<10 ft Overburden	447,818	3,286,315	17,824.00	7,888,360	9	5	55	2,629,453	1,183,254	1,446,199	1,305,817
SOB003	Sand =<10 ft Overburden	438,279	3,288,745	16,629.00	5,808,298	7	4	56	1,505,855	662,576	843,279	-
SOB004	Sand =<10 ft Overburden	438,495	3,286,826	7,310.00	2,455,598	6	2	47	545,688	289,215	256,474	-
SOB005	Sand =<10 ft Overburden	568,781	3,264,961	10,175.00	4,086,003	1	5	0	151,333	151,333	-	-
SOB006	Sand =<10 ft Overburden	716,756	3,215,799	11,251.00	1,922,364	6	8	61	427,192	166,605	260,587	-
SOB007	Sand =<10 ft Overburden	724,942	3,214,598	97,354.00	172,965,632	10	1	33	64,061,345	42,921,101	21,140,244	-
SOB008	Sand =<10 ft Overburden	724,638	3,218,175	56,365.00	34,221,879	6	7	60	7,604,862	3,041,945	4,562,917	-
SOB009	Sand =<10 ft Overburden	808,294	3,241,077	18,864.00	13,280,826	13	8	0	6,394,472	6,394,472	-	-
SOB010	Sand =<10 ft Overburden	439,340	3,237,578	10,435.00	4,050,817	5	5	55	750,151	337,568	412,583	412,031
SOB011	Sand =<10 ft Overburden	839,294	3,224,815	25,394.00	14,947,163	14	3	35	7,750,381	5,037,747	2,712,633	-
SOB012	Sand =<10 ft Overburden	837,325	3,226,784	28,514.00	14,505,670	12	3	49	6,446,965	3,287,952	3,159,013	1,247,478
SOB013	Sand =<10 ft Overburden	837,534	3,235,388	3,825.00	953,450	7	8	30	247,191	173,034	74,157	-
SOB014	Sand =<10 ft Overburden	830,273	3,238,105	49,228.00	37,227,702	3	4	45	4,136,411	2,275,026	1,861,385	516,372
SOB015	Sand =<10 ft Overburden	751,132	3,222,473	9,536.00	6,372,398	11	7	0	2,596,162	2,596,162	-	-
SOB016	Sand =<10 ft Overburden	720,566	3,216,956	39,769.00	27,253,495	8	5	39	8,075,110	4,925,817	3,149,293	-
SOB017	Sand =<10 ft Overburden	447,190	3,285,142	8,738.00	3,291,649	15	4	98	1,828,694	36,574	1,792,120	-
SOB035	Sand =<10 ft Overburden	745,613	3,220,901	17,425.00	21,494,593	13	7	98	10,349,248	206,985	10,142,263	-
SOB037	Sand =<10 ft Overburden	714,491	3,215,934	11,965.00	8,634,096	3	4	97	959,344	28,780	930,564	739,771
SOB038	Sand =<10 ft Overburden	718,116	3,216,978	7,798.00	4,271,572	7	7	0	1,107,445	1,107,445	-	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
SOB039	Sand =<10 ft Overburden	728,841	3,218,418	10,767.00	5,280,974	9	6	80	1,760,325	352,065	1,408,260	-
SOB040	Sand =<10 ft Overburden	734,545	3,244,272	18,411.00	14,175,297	3	10	42	1,575,033	913,519	661,514	-
SOB042	Sand =<10 ft Overburden	438,852	3,289,858	6,694.00	1,928,043	10	10	34	714,090	471,299	242,791	-
SOB045	Sand =<10 ft Overburden	907,331	3,334,817	71,158.00	67,321,063	16	10	0	39,893,964	39,893,964	-	-
SOB053	Sand =<10 ft Overburden	750,541	3,213,634	13,165.00	8,284,685	10	10	0	3,068,402	3,068,402	-	-
SOB054	Sand =<10 ft Overburden	751,889	3,215,469	6,332.00	2,623,299	10	10	0	971,592	971,592	-	-
SOB055	Sand =<10 ft Overburden	750,477	3,215,308	16,682.00	12,943,558	10	10	35	4,793,910	3,116,042	1,677,869	-
SOB056	Sand =<10 ft Overburden	731,839	3,216,123	125,053.00	176,742,393	10	10	64	65,460,146	23,565,652	41,894,493	679,933
SOB057	Sand =<10 ft Overburden	836,171	3,228,097	13,932.00	7,405,805	3	9	76	822,867	197,488	625,379	53,896
SOB058	Sand =<10 ft Overburden	799,163	3,255,598	58,804.00	108,783,797	10	10	19	40,290,295	32,635,139	7,655,156	-
SOB060	Sand =<10 ft Overburden	829,906	3,235,874	8,361.00	3,770,548	3	3	12	418,950	368,676	50,274	-
SOB062	Sand =<10 ft Overburden	809,719	3,245,651	27,292.00	17,426,450	3	8	0	1,936,272	1,936,272	-	-
SOB063	Sand =<10 ft Overburden	808,092	3,243,874	58,158.00	54,182,663	4	8	0	8,027,061	8,027,061	-	-
SOB064	Sand =<10 ft Overburden	718,790	3,212,957	14,799.00	3,743,557	7	8	38	970,552	601,742	368,810	-
SOB065	Sand =<10 ft Overburden	720,082	3,211,748	14,591.00	5,759,100	9	6	51	1,919,700	940,653	979,047	573,886
SOB018	Sand >10 ft Overburden	735,231	3,243,959	9,628.00	6,623,151	2	16	33	490,604	328,705	161,899	-
SOB019	Sand >10 ft Overburden	752,074	3,222,535	9,238.00	6,054,091	3	15	0	672,677	672,677	-	-
SOB020	Sand >10 ft Overburden	749,299	3,219,598	33,939.00	33,200,481	3	15	68	3,688,942	1,180,462	2,508,481	-
SOB021	Sand >10 ft Overburden	731,652	3,220,317	24,077.00	10,086,011	2	21	59	747,112	306,316	440,796	-
SOB022	Sand >10 ft Overburden	725,457	3,217,750	7,697.00	1,029,172	4	19	65	152,470	53,364	99,105	-
SOB023	Sand >10 ft Overburden	724,650	3,217,770	2,263.00	266,571	3	17	97	29,619	889	28,730	-
SOB024	Sand >10 ft Overburden	815,281	3,325,681	10,696.00	4,679,991	10	29	91	1,733,330	156,000	1,577,330	-
SOB025	Sand >10 ft Overburden	817,497	3,330,987	30,059.00	15,347,202	6	17	40	3,410,489	2,046,294	1,364,196	-
SOB026	Sand >10 ft Overburden	819,883	3,334,018	19,495.00	8,621,951	5	24	0	1,596,658	1,596,658	-	-
SOB027	Sand >10 ft Overburden	806,870	3,241,604	26,713.00	13,185,225	11	14	0	5,371,758	5,371,758	-	-
SOB028	Sand >10 ft Overburden	807,546	3,244,446	5,583.00	1,828,330	3	13	0	203,148	203,148	-	-
SOB029	Sand >10 ft Overburden	447,608	3,284,991	14,155.00	8,203,241	5	23	99	1,519,119	15,191	1,503,928	158,256
SOB030	Sand >10 ft Overburden	837,135	3,235,267	22,124.00	8,862,424	3	15	58	984,714	413,580	571,134	36,255
SOB031	Sand >10 ft Overburden	466,339	3,298,796	6,412.00	2,438,990	12	30	86	1,083,996	151,759	932,236	-
SOB032	Sand >10 ft Overburden	466,382	3,301,067	10,334.00	5,228,879	8	16	43	1,549,297	883,100	666,198	-
SOB033	Sand >10 ft Overburden	466,784	3,303,324	8,961.00	3,136,762	12	23	89	1,394,116	153,353	1,240,764	-
SOB034	Sand >10 ft Overburden	447,253	3,286,005	5,320.00	1,826,380	11	13	89	744,081	81,849	662,232	-
SOB036	Sand >10 ft Overburden	734,042	3,220,682	9,769.00	6,406,542	1	29	48	237,279	123,385	113,894	-
SOB041	Sand >10 ft Overburden	752,780	3,220,682	11,811.00	9,086,787	3	14	93	1,009,643	70,675	938,968	-
SOB043	Sand >10 ft Overburden	438,692	3,287,407	4,026.00	879,735	10	11	100	325,828	-	325,828	-
SOB044	Sand >10 ft Overburden	438,316	3,286,504	4,777.00	1,033,871	8	11	67	306,332	101,090	205,243	-
SOB046	Sand >10 ft Overburden	942,040	3,244,792	28,678.00	31,776,501	31	145	85	36,484,131	5,472,620	31,011,511	24,901,374
SOB047	Sand >10 ft Overburden	921,443	3,240,884	29,782.00	24,452,240	38	23	10	34,414,263	30,972,837	3,441,426	-
SOB048	Sand >10 ft Overburden	921,240	3,247,451	17,645.00	14,537,020	45	24	74	24,228,367	6,299,375	17,928,991	13,484,521
SOB049	Sand >10 ft Overburden	912,023	3,245,293	42,858.00	121,252,987	28	61	96	125,743,838	5,029,754	120,714,085	98,584,342
SOB050	Sand >10 ft Overburden	910,331	3,235,195	31,644.00	25,800,066	37	26	15	35,355,646	30,052,299	5,303,347	5,336,035
SOB051	Sand >10 ft Overburden	885,967	3,258,191	155,471.00	407,206,314	20	170	82	301,634,306	54,294,175	247,340,131	138,956,663
SOB052	Sand >10 ft Overburden	883,304	3,243,304	76,064.00	145,900,238	20	188	82	108,074,250	19,453,365	88,620,885	19,348,179
SOB059	Sand >10 ft Overburden	841,508	3,234,466	6,910.00	3,781,699	5	13	0	700,315	700,315	-	-
SOB061	Sand >10 ft Overburden	826,434	3,242,957	10,490.00	5,498,282	2	12	89	407,280	44,801	362,479	-
SOB066	Sand >10 ft Overburden	850,941	3,197,350	25,884.00	21,736,170	79	247	69	63,598,422	19,715,511	43,882,911	34,948,977
SOB067	Sand >10 ft Overburden	889,924	3,222,967	24,596.00	21,119,609	26	383	58	20,337,401	8,541,709	11,795,693	11,674,312
SOB068	Sand >10 ft Overburden	894,013	3,222,667	35,103.00	31,749,572	23	179	59	27,045,932	11,088,832	15,957,100	15,921,373
SS001	Sand	879,104	3,264,381	86,054.00	112,310,683	10	0	17	41,596,549	34,525,136	7,071,413	2,886,714

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SS002	Sand	879,396	3,272,490	17,700.00	22,450,209	10	0	0	8,314,892	8,314,892	-	-
SS003	Sand	577,368	3,244,048	115,666.00	191,735,076	3	0	21	21,303,897	16,830,079	4,473,818	3,160,532
SS004	Sand	901,464	3,320,502	621,475.00	1,173,699,488	11	0	2	478,173,866	468,610,388	9,563,477	-
SS005	Sand	922,000	3,285,518	210,749.00	220,146,954	9	0	9	73,382,318	66,777,909	6,604,409	960,674
SS006	Sand	804,335	3,250,284	6,243.00	1,792,594	1	0	0	66,392	66,392	-	-
SS007	Sand	703,321	3,199,826	76,383.00	129,154,550	15	0	4	71,752,528	68,882,427	2,870,101	2,693,789
SS008	Sand	728,203	3,200,238	40,220.00	75,675,931	13	0	35	36,436,559	23,683,763	12,752,796	12,060,613
SS009	Sand	732,202	3,200,627	30,743.00	48,298,081	14	0	19	25,043,450	20,285,194	4,758,255	229,654
SS010	Sand	839,267	3,237,662	8,308.00	1,987,929	10	0	0	736,270	736,270	-	-
SS011	Sand	835,935	3,239,072	26,057.00	12,863,109	10	0	16	4,764,115	4,001,856	762,258	-
SS012	Sand	830,408	3,240,840	47,859.00	12,999,461	3	0	76	1,444,385	346,652	1,097,732	275,289
SS013	Sand	831,045	3,238,777	16,614.00	6,688,158	3	0	23	743,129	572,209	170,920	-
SS014	Sand	736,680	3,202,270	29,438.00	26,875,652	6	0	0	5,972,367	5,972,367	-	-
SS015	Sand	716,967	3,214,543	17,500.00	11,907,904	10	0	29	4,410,335	3,131,338	1,278,997	-
SS016	Sand	714,508	3,214,650	4,539.00	931,731	10	0	100	345,086	-	345,086	309,019
SS017	Sand	840,191	3,224,981	27,269.00	15,901,727	23	0	0	13,545,915	13,545,915	-	-
SS018	Sand	828,651	3,242,622	9,476.00	2,774,689	10	0	13	1,027,663	894,066	133,596	-
SS019	Sand	896,564	3,299,743	29,969.00	20,303,259	8	0	32	6,015,780	4,090,731	1,925,050	542,289
SS020	Sand	782,899	3,228,481	2,478.00	369,669	10	0	0	136,915	136,915	-	-
SS021	Sand	776,721	3,216,628	9,536.00	3,515,837	10	0	69	1,302,162	403,670	898,492	737,629
SS022	Sand	819,323	3,245,218	166,943.00	121,123,945	3	0	43	13,458,216	7,671,183	5,787,033	-
SS023	Sand	807,121	3,245,469	133,532.00	99,895,216	6	0	20	22,198,937	17,759,150	4,439,787	-
SS024	Sand	825,817	3,235,267	15,981.00	14,348,085	3	0	9	1,594,232	1,450,751	143,481	108,345
SS025	Sand	800,124	3,242,764	225,864.00	186,128,268	5	0	37	34,468,198	21,714,965	12,753,233	-
SS026	Sand	796,651	3,239,255	27,869.00	31,412,554	4	0	54	4,653,712	2,140,707	2,513,004	320,384
SS027	Sand	421,721	3,285,560	22,526.00	17,711,165	10	0	2	6,559,691	6,428,497	131,194	-
SS028	Sand	453,120	3,293,017	50,218.00	26,239,261	10	0	60	9,718,245	3,887,298	5,830,947	-
SS029	Sand	470,541	3,293,085	58,673.00	52,943,090	10	0	19	19,608,552	15,882,927	3,725,625	-
SS030	Sand	794,249	3,238,340	6,451.00	1,602,317	10	0	86	593,451	83,083	510,368	-
SS031	Sand	720,141	3,214,928	6,831.00	1,762,389	10	0	0	652,737	652,737	-	-
SS032	Sand	728,821	3,218,712	30,765.00	14,791,550	14	0	70	7,669,693	2,300,908	5,368,785	-
SS033	Sand	731,942	3,203,603	15,605.00	11,245,860	10	0	19	4,165,133	3,373,758	791,375	-
SS034	Sand	793,147	3,237,734	2,770.00	379,871	10	0	39	140,693	85,823	54,870	-
SS035	Sand	792,043	3,236,920	3,989.00	647,717	10	0	24	239,895	182,320	57,575	-
SS036	Sand	790,834	3,236,148	4,297.00	682,616	10	0	26	252,821	187,087	65,733	-
SS037	Sand	788,685	3,234,516	2,858.00	395,381	10	0	100	146,437	-	146,437	-
SS038	Sand	732,904	3,215,903	59,437.00	68,199,997	9	0	49	22,733,332	11,594,000	11,139,333	-
SS039	Sand	788,341	3,232,716	27,023.00	30,254,520	3	0	50	3,361,613	1,680,807	1,680,807	-
SS040	Sand	786,632	3,234,140	4,527.00	874,577	9	0	100	291,526	-	291,526	-
SS041	Sand	889,990	3,285,939	268,017.00	547,963,265	10	0	26	202,949,357	150,182,524	52,766,833	2,727,648
SS042	Sand	787,172	3,231,768	2,783.00	247,791	10	0	0	91,775	91,775	-	-
SS043	Sand	786,927	3,232,443	1,518.00	151,311	10	0	0	56,041	56,041	-	-
SS044	Sand	786,216	3,231,870	6,622.00	1,896,391	10	0	0	702,367	702,367	-	-
SS045	Sand	785,699	3,231,525	4,232.00	832,969	10	0	0	308,507	308,507	-	-
SS046	Sand	784,578	3,230,620	7,186.00	1,554,730	10	0	30	575,826	403,078	172,748	-
SS047	Sand	777,822	3,225,842	1,671.00	191,397	10	0	100	70,888	-	70,888	-
SS048	Sand	779,584	3,226,003	1,382.00	134,212	10	0	9	49,708	45,234	4,474	-
SS049	Sand	726,803	3,215,904	107,169.00	91,964,734	10	0	42	34,061,013	19,755,387	14,305,625	357,392
SS050	Sand	780,710	3,226,818	1,393.00	151,585	10	0	98	56,143	1,123	55,020	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
SS051	Sand	780,356	3,225,552	2,505.00	428,523	10	0	49	158,712	80,943	77,769	-
SS052	Sand	779,045	3,226,590	4,062.00	706,839	10	0	100	261,792	-	261,792	-
SS053	Sand	439,199	3,238,250	16,286.00	9,764,121	13	0	31	4,701,244	3,243,858	1,457,386	1,470,293
SS054	Sand	780,082	3,227,498	2,460.00	321,948	10	0	100	119,240	-	119,240	-
SS055	Sand	780,380	3,227,608	6,202.00	1,544,010	10	0	89	571,856	62,904	508,952	-
SS056	Sand	781,158	3,228,378	1,504.00	142,414	10	0	100	52,746	-	52,746	-
SS057	Sand	781,541	3,228,088	3,661.00	815,241	10	0	34	301,941	199,281	102,660	-
SS058	Sand	782,506	3,228,974	1,806.00	257,045	10	0	26	95,202	70,449	24,752	-
SS059	Sand	875,409	3,211,539	27,367.00	33,220,868	14	0	32	17,225,635	11,713,432	5,512,203	-
SS060	Sand	783,420	3,230,170	1,983.00	264,004	10	0	100	97,779	-	97,779	-
SS061	Sand	783,579	3,229,807	1,856.00	270,782	10	0	28	100,290	72,209	28,081	-
SS062	Sand	441,962	3,264,073	41,569.00	60,128,697	8	0	9	17,815,910	16,212,478	1,603,432	922,415
SS063	Sand	427,359	3,260,012	27,336.00	24,350,481	13	0	2	11,724,306	11,489,820	234,486	180,014
SS064	Sand	455,908	3,263,942	27,796.00	43,105,960	8	0	0	12,772,136	12,772,136	-	-
SS065	Sand	776,999	3,225,209	2,499.00	408,278	10	0	100	151,214	-	151,214	-
SS066	Sand	584,938	3,252,139	28,688.00	25,989,566	7	0	0	6,738,036	6,738,036	-	11,261
SS067	Sand	900,285	3,322,696	6,819.00	2,003,510	10	0	0	742,041	742,041	-	-
SS068	Sand	858,688	3,255,671	53,994.00	16,549,545	3	0	80	1,838,838	367,768	1,471,071	-
SS069	Sand	880,827	3,266,763	12,290.00	8,038,638	10	0	0	2,977,273	2,977,273	-	-
SS070	Sand	742,497	3,218,155	309,428.00	472,798,277	7	0	58	122,577,331	51,482,479	71,094,852	-
SS071	Sand	708,505	3,216,205	6,782.00	1,212,118	5	0	0	224,466	224,466	-	-
SS072	Sand	903,160	3,295,368	21,573.00	18,475,185	2	0	28	1,368,532	985,343	383,189	-
SS073	Sand	754,725	3,217,051	163,879.00	281,523,013	7	0	31	72,987,448	50,361,339	22,626,109	1,466,007
SS074	Sand	829,782	3,236,434	35,259.00	13,358,070	5	0	23	2,473,717	1,904,762	568,955	162,011
SS075	Sand	466,291	3,301,868	11,893.00	4,330,738	13	0	78	2,085,170	458,737	1,626,433	-
SS076	Sand	530,317	3,275,212	1,892.00	201,229	10	0	0	74,529	74,529	-	-
SS077	Sand	579,988	3,272,115	30,504.00	13,241,549	10	0	35	4,904,277	3,187,780	1,716,497	638,116
SS078	Sand	663,747	3,240,076	22,406.00	8,275,242	10	0	1	3,064,904	3,034,255	30,649	-
SS079	Sand	916,507	3,239,019	33,941.00	27,758,406	10	0	44	10,280,891	5,757,299	4,523,592	-
SS080	Sand	670,884	3,235,433	56,364.00	13,385,758	10	0	15	4,957,688	4,214,035	743,653	-
SS081	Sand	680,115	3,233,363	7,491.00	1,598,876	10	0	0	592,176	592,176	-	-
SS082	Sand	683,408	3,232,684	19,001.00	4,205,736	10	0	0	1,557,680	1,557,680	-	-
SS083	Sand	717,735	3,215,583	7,230.00	1,886,670	10	0	0	698,767	698,767	-	-
SS084	Sand	718,979	3,214,717	12,317.00	4,277,712	10	0	0	1,584,338	1,584,338	-	-
SS085	Sand	721,476	3,215,577	2,350.00	244,089	10	0	100	90,403	-	90,403	-
SS086	Sand	723,213	3,213,311	21,229.00	17,761,785	2	0	0	1,315,688	1,315,688	-	-
SS087	Sand	810,584	3,340,975	29,216.00	19,933,036	10	0	15	7,382,606	6,275,215	1,107,391	-
SS088	Sand	812,359	3,342,121	20,097.00	6,767,185	10	0	0	2,506,365	2,506,365	-	-
SS089	Sand	808,358	3,344,527	17,462.00	15,268,343	10	0	0	5,654,942	5,654,942	-	-
SS090	Sand	806,092	3,343,605	55,517.00	53,426,466	14	0	86	27,702,612	3,878,366	23,824,246	-
SS091	Sand	785,834	3,326,189	3,650.00	751,423	10	0	90	278,305	27,830	250,474	-
SS092	Sand	773,071	3,327,704	8,913.00	5,971,618	10	0	59	2,211,711	906,801	1,304,909	-
SS093	Sand	751,030	3,330,064	29,761.00	11,465,308	10	0	98	4,246,410	84,928	4,161,482	-
SS094	Sand	753,046	3,328,526	15,295.00	9,218,241	10	0	93	3,414,163	238,991	3,175,172	-
SS095	Sand	753,282	3,330,138	18,697.00	7,193,660	10	0	82	2,664,318	479,577	2,184,741	-
SS096	Sand	776,262	3,345,788	200,835.00	215,405,593	10	0	19	79,779,849	64,621,678	15,158,171	-
SS097	Sand	769,585	3,174,606	34,308.00	12,504,248	10	0	41	4,631,203	2,732,410	1,898,793	1,905,658
SS098	Sand	785,786	3,336,732	9,713.00	5,314,265	10	0	51	1,968,246	964,441	1,003,806	-
SS099	Sand	760,054	3,353,818	10,088.00	1,534,079	10	0	0	568,178	568,178	-	-

Deposit ID	Deposit Classification	Easting (m)	Northing (m)	Perimeter (ft)	Area (sq ft)	Average Thickness of Deposit (ft)	Average Thickness of Overburden (ft)	Pipeline Coverage (%)	Total Available Volume (cy)	Total Volume Accessible (Excluding Pipeline Buffers) (cy)	Total Volume In Pipeline Buffer (cy)	Volume in Decommissioned Pipeline Buffers ONLY (cy)
SS100	Sand	767,358	3,221,048	23,595.00	12,319,023	17	0	0	7,756,422	7,756,422	-	-
SS101	Sand	763,615	3,221,023	59,203.00	37,337,332	5	0	85	6,914,321	1,037,148	5,877,173	-
SS102	Sand	751,943	3,221,432	22,570.00	20,011,977	7	0	33	5,188,290	3,476,155	1,712,136	-
SS103	Sand	732,657	3,220,689	27,734.00	15,381,884	3	0	46	1,709,098	922,913	786,185	-
SS104	Sand	805,629	3,346,137	1,995.00	307,924	10	0	2	114,046	111,765	2,281	-
SS105	Sand	768,810	3,220,211	11,492.00	2,940,886	10	0	96	1,089,217	43,569	1,045,648	-
SS106	Sand	776,585	3,224,158	5,880.00	1,089,346	10	0	65	403,462	141,212	262,250	-
SS107	Sand	775,286	3,223,848	27,916.00	7,396,407	10	0	100	2,739,410	-	2,739,410	-
SS108	Sand	774,731	3,222,467	4,554.00	1,031,730	10	0	97	382,122	11,464	370,659	-
SS109	Sand	773,780	3,222,311	7,350.00	1,454,625	10	0	100	538,750	-	538,750	538,750
SS110	Sand	772,460	3,221,809	11,259.00	3,442,336	10	0	100	1,274,939	-	1,274,939	497,343
SS111	Sand	771,234	3,221,129	7,416.00	1,362,324	10	0	92	504,564	40,365	464,199	-
SS112	Sand	901,237	3,316,100	70,488.00	55,042,417	6	0	0	12,231,648	12,231,648	-	-
SS113	Sand	901,883	3,311,117	23,644.00	13,948,605	10	0	0	5,166,150	5,166,150	-	-
SS114	Sand	715,809	3,216,585	25,592.00	12,037,736	10	0	3	4,458,421	4,324,668	133,753	-
SS115	Sand	716,964	3,216,034	2,923.00	516,625	11	0	62	210,477	79,981	130,496	-
SS116	Sand	718,302	3,216,648	15,314.00	9,323,778	12	0	0	4,143,901	4,143,901	-	-
SS117	Sand	711,643	3,214,474	41,097.00	23,152,031	10	0	12	8,574,826	7,545,847	1,028,979	-
SS118	Sand	700,351	3,215,466	223,389.00	272,223,786	6	0	26	60,494,175	44,765,689	15,728,485	-
SS119	Sand	723,889	3,217,700	5,784.00	2,140,155	14	0	90	1,109,710	110,971	998,739	-
SS120	Sand	921,925	3,243,711	11,900.00	8,831,268	11	0	74	3,597,924	935,460	2,662,464	949,581
SS121	Sand	837,221	3,226,879	6,158.00	1,129,355	10	0	12	418,280	368,086	50,194	-
SS122	Sand	761,097	3,219,109	25,200.00	23,128,712	10	0	100	8,566,190	-	8,566,190	2,378,582
SS123	Sand	837,460	3,231,493	8,265.00	4,383,908	10	0	95	1,623,670	81,183	1,542,486	-
UNK001	Unknown	729,283	3,233,590	31,809,169.00	419,736,086,264	10	0	26	155,457,809,727	115,038,779,198	40,419,030,529	20,942,816,853

**Attachment 6**  
**Riverine Volume Estimates**

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Volumes Calculated using a -70 ft NAVD88 cut elevation

Area ID	Easting (ft)	Northing (ft)	Minimum Thickness of Deposit (ft)	Maximum Thickness of Deposit (ft)	Average Thickness of Deposit (ft)	Useable Volume (cy)
MRSS01	2829550	10611979	29.0	45.2	38.9	71,131,200
MRSS02	2815788	10634807	27.7	45.2	35.5	8,780,700
MRSS03	2809916	10639729	29.9	45.2	36.9	8,625,200
MRSS04	2804909	10644654	22.2	45.0	31.8	14,948,600
MRSS05	2785166	10666266	23.9	44.7	31.2	22,755,100
MRSS06	2757387	10667425	21.5	34.2	29.1	6,077,900
MRSS07	2753116	10669437	22.2	35.1	29.5	3,988,600
MRSS08	2743805	10674107	19.5	45.1	29.3	9,052,400
MRSS09	2729346	10680479	19.6	44.9	32.1	8,742,300
MRSS10	2723407	10686541	19.9	44.9	30.4	6,066,000
MRSS11	2720703	10703059	20.5	44.8	31.9	8,424,100
MRSS12	2699696	10711194	19.3	40.5	28.8	17,178,900
MRSS13	2687099	10723095	21.2	32.0	29.1	9,663,200
MRSS14	2676273	10732624	22.1	42.5	27.9	1,709,600
MRSS15	2669849	10736117	22.6	29.3	26.6	3,552,900
MRSS16	2666643	10739680	23.3	30.3	27.0	4,742,300
MRSS17	2649639	10752838	19.6	38.9	28.7	13,106,900
MRSS18	2637017	10758944	22.3	34.1	27.9	2,594,700
MRSS19	2633008	10759954	22.6	36.7	28.2	1,118,100
MRSS20	2622687	10763712	21.1	27.2	24.1	3,327,500
MRSS21	2616019	10769246	20.8	44.7	28.5	7,060,600
MRSS22	2605869	10777990	19.9	44.0	26.9	2,793,000
MRSS23	2597124	10796475	23.5	31.5	28.5	7,524,600
MRSS24	2589860	10807527	17.5	44.3	30.7	5,038,300
MRSS25	2585384	10813454	20.3	44.3	29.6	5,609,100
MRSS26	2584921	10819584	14.1	25.4	22.5	1,183,300
MRSS27	2586721	10823923	20.3	29.5	25.8	2,478,700
MRSS28	2589956	10828578	18.3	27.5	23.2	562,600
MRSS29	2591230	10832837	20.1	36.0	28.1	3,495,500
MRSS30	2593580	10841114	19.1	33.8	28.0	8,276,100
MRSS31	2598832	10848326	20.5	32.5	27.5	2,256,300
MRSS32	2599481	10852444	17.1	43.8	28.8	2,007,500
MRSS33	2601009	10857018	18.2	41.4	26.6	714,300
MRSS34	2609209	10855951	22.4	39.7	27.3	4,050,600
MRSS35	2616967	10853204	23.4	44.0	32.5	1,695,900
MRSS36	2620357	10861264	17.9	44.1	28.1	11,722,400
MRSS37	2615218	10871112	17.9	41.4	23.4	639,800
MRSS38	2602714	10873801	16.7	44.2	30.1	4,604,900
MRSS39	2586449	10880513	19.8	29.6	25.6	7,725,800
MRSS40	2555027	10867364	21.6	35.4	28.6	7,556,200
MRSS41	2766642	10672018	18.8	45.0	31.0	3,558,500

Area ID	Easting (ft)	Northing (ft)	Minimum Thickness of Deposit (ft)	Maximum Thickness of Deposit (ft)	Average Thickness of Deposit (ft)	Useable Volume (cy)
MRSS42	2798168	10653623	24.0	44.8	28.8	5,912,900
MRSS43	2834292	10593204	30.4	44.8	37.4	6,922,400
MRSS44	2831339	10585289	34.3	44.8	41.6	5,376,000
MRSS45	2820126	10564865	33.6	43.6	37.6	1,778,200
MRSS46	2818553	10562119	35.7	39.8	37.2	465,100
MRSS47	2810496	10549703	36.6	44.8	42.0	2,335,300
MRSS48	2808319	10546392	33.3	43.5	38.1	1,431,500
MRSS49	2805109	10541625	29.9	44.3	38.3	3,463,900
MRSS50	2801422	10536427	29.4	43.1	36.6	3,616,300
MRSS51	2798633	10532138	28.9	44.8	38.2	5,633,600
MRSS52	2571657	10879082	19.1	31.7	25.4	663,000



Volumes Calculated using a -90 ft NAVD88 cut elevation

Area ID	Easting (ft)	Northing (ft)	Minimum Thickness of Deposit (ft)	Maximum Thickness of Deposit (ft)	Average Thickness of Deposit (ft)	Useable Volume (cy)
MRSS01	2829550	10611979	49.0	65.2	58.9	107,696,800
MRSS02	2815788	10634807	47.7	65.2	55.5	13,726,000
MRSS03	2809916	10639729	49.9	65.2	56.9	13,302,700
MRSS04	2804909	10644654	42.2	65.0	51.8	24,349,600
MRSS05	2785329	10666108	43.9	64.7	51.3	39,789,300
MRSS06	2757239	10667401	41.5	60.6	49.7	11,267,400
MRSS07	2753073	10669372	42.2	60.1	50.0	7,620,800
MRSS08	2743805	10674107	39.5	65.1	49.3	15,236,600
MRSS09	2729346	10680479	39.6	64.9	52.1	14,186,300
MRSS10	2723407	10686541	39.9	64.9	50.4	10,052,600
MRSS11	2720681	10703071	40.5	64.8	51.9	13,841,700
MRSS12	2699696	10711194	39.3	60.5	48.8	29,092,300
MRSS13	2687097	10723040	41.2	52.0	49.2	17,567,400
MRSS14	2676309	10732598	42.1	62.7	47.9	2,837,200
MRSS15	2669673	10736205	42.6	60.2	47.0	6,897,800
MRSS16	2666568	10739666	43.3	58.1	47.3	9,269,800
MRSS17	2649761	10752573	39.5	64.9	50.6	29,160,800
MRSS18	2637057	10759100	42.3	64.5	50.9	7,063,700
MRSS19	2633003	10760100	42.6	64.7	51.3	2,851,500
MRSS20	2622504	10763722	41.1	62.1	45.0	7,393,800
MRSS21	2615870	10769396	40.8	64.7	49.6	13,825,700
MRSS22	2605888	10777850	39.9	64.5	47.4	4,482,400
MRSS23	2597107	10796189	43.5	59.6	49.2	16,223,800
MRSS24	2589984	10807518	37.5	64.3	51.8	9,914,700
MRSS25	2585426	10813394	40.3	63.3	50.5	10,181,000
MRSS26	2584804	10819584	34.1	45.7	42.5	3,054,100
MRSS27	2586540	10823943	40.3	64.2	48.3	6,321,000
MRSS28	2589914	10828615	38.3	47.5	42.8	802,500
MRSS29	2591236	10832541	40.0	62.6	49.5	6,627,200
MRSS30	2593577	10841262	39.1	64.2	49.2	15,889,400
MRSS31	2598893	10848541	40.5	52.8	47.8	3,783,300
MRSS32	2599562	10852357	37.1	63.8	50.6	4,357,000
MRSS33	2601040	10857019	38.2	61.4	46.9	1,339,300
MRSS34	2609333	10856033	42.4	63.5	48.3	10,605,900
MRSS35	2616967	10853204	43.4	64.0	52.5	2,739,200
MRSS36	2620367	10861012	37.9	64.1	48.1	20,209,100
MRSS37	2615309	10871044	37.9	61.4	43.5	1,006,600
MRSS38	2602714	10873801	36.7	64.2	50.1	7,665,900
MRSS39	2586368	10880401	39.8	54.9	46.5	21,870,500
MRSS40	2555027	10867364	41.6	55.4	48.6	12,841,600
MRSS41	2766641.8	10672018	38.8	65.0	51.0	5,856,400

Area ID	Easting (ft)	Northing (ft)	Minimum Thickness of Deposit (ft)	Maximum Thickness of Deposit (ft)	Average Thickness of Deposit (ft)	Useable Volume (cy)
MRSS42	2798168.05	10653623	44.0	64.8	48.8	10,014,800
MRSS43	2834291.6	10593204	50.4	64.8	57.4	10,621,100
MRSS44	2831339.07	10585289	54.3	64.8	61.6	7,962,300
MRSS45	2820125.53	10564865	53.6	63.6	57.6	2,723,800
MRSS46	2818552.96	10562119	55.7	59.8	57.2	715,400
MRSS47	2810495.66	10549703	56.6	64.8	62.0	3,447,700
MRSS48	2808318.85	10546392	53.3	63.5	58.1	2,182,400
MRSS49	2805109.33	10541625	49.9	64.3	58.3	5,271,500
MRSS50	2801423.01	10536429	49.4	63.1	56.6	5,590,800
MRSS51	2798632.87	10532138	48.9	64.8	58.2	8,581,400
MRSS52	2571597.71	10879123	39.1	53.6	46.8	1,634,100