DRAFT ENVIRONMENTAL ASSESSMENT

PORT OF NEW ORLEANS ACCESS CHANNEL DEEPENING FEASIBILITY STUDY

PROJECT NUMBER: EA #577

ORLEANS PARISH, LOUISIANA

April, 2020

U.S. Army Corps of Engineers
Mississippi Valley Division
Regional Planning and Environment Division South
New Orleans District

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1 INTRODUCTION

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division (MVD), Regional Planning and Environment Division South (RPEDS), prepared this Draft Environmental Assessment (EA) for the Port of New Orleans (PONO) Access Channel Deepening Study. The non-Federal sponsor is the Port of New Orleans (PORT). A Feasibility Cost Sharing Agreement was executed on February 27, 2019. The report and the Tentatively Selected Plan (TSP) reflect sponsor, agency, stakeholders, and public input. It presents solutions to deepen the access channel to the PORT from the Mississippi River and reduce shipping and transportation cost to the PORT.

This EA has been prepared in accordance with the National Environmental Policy Act of 1969 and the Council on Environmental Quality's Regulations (40 CFR 1500-1508), as reflected in the USACE Engineering Regulation ER 200-2-2. This EA provides sufficient information on the potential adverse and beneficial environmental effects to allow the District Commander, New Orleans District, to make an informed decision on the appropriateness of an Environmental Impact Statement or a Finding of No Significant Impact (FONSI).

1.1 PROPOSED ACTION

The USACE, New Orleans District (CEMVN) proposes, as the TSP, to deepen the approach channel between B/L Station 41+22.67 and Station 78+49.49 by dredging to a depth of 50 feet Low Water Reference Plane (LWRP) from the existing PONO wharf 1,500 feet out into the Mississippi River. The remainder of the study area would be maintained at the currently authorized 35 feet LWRP. The PORT would continue to dredge the 160-foot wide berthing area (between B/L Station 41+22.67 and Station 78+49.49). The other alternatives evaluated within the accompanying feasibility study all involved dredging within the same geographical area. The only difference between alternatives was the depth of dredging and the corresponding derived economic benefits. All dredging alternatives would have similar environmental effects. Therefore, all dredging alternatives will be evaluated and discussed within this EA as the "Dredging Alternative". The "No Action" alternative will be considered separately in this evaluation.

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

1.2.1 The scope of the associated feasibility study includes evaluation of alternatives, including the No Action alternative, to provide deep draft access along the PONO at incremental depths from 40 to 50 feet LWRP. Per the Water Resources Development Act 2016 authority, the evaluation of alternatives was limited to a depth of the existing Mississippi River Ship Channel (MRSC), which is currently justified to 50 feet Mean Lower Low Water (MLLW) in depth. Implementation is driven by the need to safely dock New Panamax deep draft ships (ships with a draft deeper than 49 feet). The feasibility study will identify the depth that creates the greatest net benefits, up to a depth of 50 feet LWRP. The report identifies a TSP, which reflects sponsor, agency, stakeholders, and public input. It presents solutions to deepen the access channel to the PONO and reduce shipping and transportation cost to the PORT. The PORT is in support of the TSP.

Per USACE Guidance, the TSP for Navigational projects should be the plan that maximizes net benefits, which is also called the National Economic Development (NED) Plan. In order to determine which alternative is the NED Plan, the costs and benefits for the Final Array of Alternatives are compared. The alternative with the greatest net benefits is the apparent NED Plan, and thus the TSP.

The Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana 1983 Chief's Report identified the navigation problems resulting from inadequate channel dimensions to accommodate deep draft vessels. The 1983 Chief's Report also identified the need for dry bulk carriers and tankers to light load in

order to navigate the channel and reach the ports along the Mississippi. Per the 1983 Chief's Report, "[a]s smaller, obsolete vessels are replaced with larger and more efficient ships, the percentage of light-loaded traffic will increase under existing channel dimensions. There is a need to achieve higher economic efficiency and savings in transportation costs by providing larger navigation channels to the Ports of Baton Rouge and New Orleans." The 1983 Chief's Report led to the authorization to deepen the channel to 55 feet MLLW, and the implementation of the first and second phase of construction to deepen to 45 feet MLLW, with the exception of the access channel to the New Orleans Harbor where the authorized depth remained at 40 feet LWRP.

Since the completion of the 1983 Chief's Report, projections of future vessels and fleet size indicate that fleet and future vessels will continue to grow larger; therefore, the problems and needs identified in the 1983 Chief's Report still apply. The current depths of the MRSC result in the need for ships to light load, which will be further exacerbated as the fleet and vessel size continues to grow. The 1981 Deep-Draft Access to the Ports of New Orleans and Baton Rouge, Louisiana Feasibility Report identified the opportunity, "…for a substantial savings in the transportation costs of the oceangoing cargo moving over the Mississippi River by the provision of larger access channels to the facilities in the river." As future vessel and fleet size continue to grow, the same opportunity exists today.

As the data from Waterborne Commerce Statistics Center (WCSC) indicates, vessels drafting greater than the constructed depth of the channel are already calling on the ports of Plaquemines, New Orleans, South Louisiana, and Baton Rouge (probably due to a combination of high water events, light loading and advanced maintenance dredging). The vast majority of these vessels are bulk carriers and, to a lesser extent, oil tankers. WCSC data additionally shows excess capacity for these vessels as well as conversations with the ports also point to bulk carriers and oil tankers as vessels that will be able to utilize the extra depth of a deeper channel. Vessels that could utilize extra depth are already calling on the four ports and are having to light-load to safely traverse the channel. With a greater depth, these vessels would be able to more fully utilize their capacity by loading more cargo which would, in effect, generate efficiencies in cost savings.

1.3 AUTHORITY

Water Resources Development Act (WRDA) 2016, Section 1202(d) MISSISSIPPI RIVER SHIP CHANNEL, GULF TO BATON ROUGE, LOUISIANA. "The Secretary shall conduct a study to determine the feasibility of modifying the project for navigation, Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana, authorized by section 201(a) of the Harbor Development and Navigation Improvement Act of 1986 (Public Law 99–662; 100 Stat. 4090), to

deepen the channel approaches and the associated area on the left descending bank of the Mississippi River between mile 98.3 and mile 100.6 Above Head of Passes (AHP) to a depth equal to the Channel."

1.4 PRIOR REPORTS

A number of studies and reports on water resources development in the study area have been prepared by the USACE, other Federal, state, and local agencies, research institutes, and individuals. Previous Federal and non-Federal studies have established an extensive database for this report. The more relevant studies, reports, and projects conducted in the area are described in the following paragraphs.

Letter from the Chief of Engineers "Mississippi River at New Orleans, La" dated 19 April 1938 (1938 Chief's Report): This report describes among other things dredging within the PONO, a channel depth of 35 feet Mean Low Gulf (MLG) and maximum width of 1,500 feet measured from a line generally 100 feet from the face of the left bank wharves, but not closer than 100 feet to the wharves.

Letter from the Chief of Engineers "Mouth of the Mississippi River, La" dated 15 March 1939 (1939 Chief's Report authorized under the 1945 RHA), this report describes that the existing projects for the Mississippi River, Baton Rouge to New Orleans; Mississippi River, South Pass; and Mississippi River, Southwest Pass be modified, combined and a project covering Mississippi River from New Orleans to the Head of Passes be added to provide a single project, Mississippi River, Baton Rouge to the Gulf of Mexico with the following channel dimensions:

- Baton Rouge to New Orleans, 35 feet deep MLG by 500 feet wide.
- Port limits of New Orleans, 35 feet deep MLG by 1,500 feet wide.
- New Orleans to Head of Passes, 40 feet deep MLG by 1,000 feet wide.

Letter from the Chief of Engineers "Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana" dated 17 July 1961 (1961 Chief's Report): This report describes a channel 40 feet MLG deep and 500 feet wide from 0.1 mile below the Louisiana Highway Commission Bridge at Baton Rouge to the upper limits of the PORT, and also (within the main navigation channel) 40 feet deep and 500 feet wide within the presently authorized approach channel) 35 feet MLG by 1,500 feet channel in the port limits.

The Feasibility Report titled Deep-Draft Access to the Ports of New Orleans and Baton Rouge, Louisiana, dated July 1981 (1981 Feasibility Report): This feasibility report presents the results of a re-evaluation of the existing Mississippi River navigation channel between Baton Rouge, Louisiana and the Gulf of

Mexico. The report recommended deepening the Mississippi River navigation channel to a 55 feet MLLW depth from Baton Rouge to the Gulf of Mexico, with the exception of that portion of the project within South Pass (which was previously authorized to a depth of 30 feet MLLW) and within the authorized approach channel for the PONO which was recommended and is authorized to a depth of 40 feet MLG (as distinguished from the authorized main navigation channel within the vicinity of the PONO which was recommended in the 1981 Feasibility Report, and subsequently authorized, to be constructed to a 55 feet MLLW depth) .

The Report of the Chief of Engineers, titled Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana, dated April 9, 1983 (1983 Chief's Report): This report substantially approved the recommendations of the 1981 Feasibility Report, and the findings, conclusions and recommendations of the Board of Engineers, dated April 1, 1982, which identified the following key features of the project:

- Enlargement of the existing channel in Southwest Pass from the Head of Passes (mile 0) to deep water in the Gulf of Mexico at about mile 22 Below Head of Passes (BHP) to a project depth of 55 feet MLLW and a bottom width of 750 feet; Enlargement of the existing channel in the Mississippi River from the Head of Passes (mile 0) to within the Port of Baton Rouge, which is mile 233.0 Above Head of Passes (AHP), to a project depth of 55 feet MLLW and bottom width of 750 feet;

- A turning basin with a project depth of 55 feet MLLW, a bottom width of 1,600 feet, and length of 4,000 feet, at the end of the enlarged channel in Baton Rouge (mile 233.0 AHP to 233.8 AHP); (this turning basin has not been constructed and the reach between River Mile (RM) 233.0 AHP to RM 233.8 AHP is maintained to a depth of 40 feet MLG and width of 500 feet as described in the 1961 Chief's Report).

- Enlargement of the existing 35-foot channel along the left bank of the Mississippi River at New Orleans (mile 86.7 AHP to 104.5 AHP) to a project depth of 40 feet MLG at the existing 1,500-feet bottom width (this feature of the project was not implemented and the approach channel to the New Orleans Harbor is maintained to a depth of 35 feet MLG beginning 100 feet from the face of the wharves as described in the 1938 Chief's Report).

Mississippi River Ship Channel Gulf to Baton Rouge General Design Memorandum and Supplements (in chronological order of completion): Design Memorandum No. 1 August 1983: This Design Memorandum recommended the following modifications for implementation of the project as recommended in the 1983 Chief's Report:

- The enlargement of the existing Southwest Pass Bar Channel from a depth of 40 feet MLLW over a bottom width of 600 feet from RM 17.8 BHP to the Gulf of Mexico;

- The enlargement of the existing 40 feet MLLW channel in the SWP from RM 0 at Head of Passes (HoP) to RM 17.8 BHP to a project depth of 55 feet MLLW over a bottom width of 750 feet; The enlargement of the 40 feet MLLW channel from RM 0 at HoP and RM 233.0 to a project depth of 55 feet MLLW over a bottom width of 750 feet,

- The enlargement of 12 wharf areas of the Mississippi River in New Orleans Harbor between RM 86.7 AHP to RM 104.5 AHP from a depth of 35 feet MLG to a depth of 40 feet MLG.

Design Memorandum No. 1 Supplement No. 1 August 1986 (approved by Mississippi Valley Division Commander on 16 October 1987): This first supplement to the GDM recommended construction of a 45 feet MLLW deep channel from Venice, La through New Orleans Harbor up to RM 181 and the enlargement of berthing areas at 12 wharves of the Mississippi River in the New Orleans Harbor between RM 86.7 AHP to RM 104.5 AHP from a 35 foot MLG depth to a 40 foot MLG depth.

Design Memorandum No. 1 Supplement No. 2 December 1992: This supplement covered Phase 2 of construction of the MRSC for the construction of a 45 feet MLLW deep by 500 feet wide channel from RM 181 AHP to RM 232.4 AHP. It showed that Phase 2 was incrementally justified and provided design for dredging seven crossings to the project dimensions and implementation of training works in four of the seven crossings.

Integrated General Reevaluation Report & Supplement III to the Final Environmental Impact Statement, Mississippi River Ship Channel, Baton Rouge to the Gulf, Louisiana Project (2018): This document justified deepening the MRSC from the Gulf of Mexico to Baton Rouge, LA to 50 feet MLLW.

2 ALTERNATIVES TO THE PROPOSED ACTION

2.1 ALTERNATIVE 1 – NO ACTION

The “no-action” alternative to the proposed action was considered. In the future without project condition (No Action), the dredging depth would not be increased, and the project area would continue to be maintenance dredged to 35 feet LWRP.

2.2 ALTERNATIVE 2 – ACTION ALTERNATIVE

The dredge depth would be increased to a maximum depth of 50 feet LWRP plus allowable over depth and advanced maintenance. The proposed dredging to deepen the approach channel would occur between B/L Station 41+22.67 and Station 78+49.49 from the existing wharf 1,500 feet out into the Mississippi River. The remainder of the study area would be maintained at the currently authorized 35 feet LWRP. The LWRP is 0.6 feet higher than North American Vertical Datum 1988 (NAVD88). The PORT would be responsible for dredging the berthing area, riverward from the face of the wharf 160 feet, (between B/L Station 41+22.67 and Station 78+49.49). All material would be removed via hydraulic dredge, and discharged unconfined into the adjacent deeper areas of the Mississippi River in a manner consistent with current dredging practices as discussed below. This "Action Alternative" incorporates all dredging alternatives from the accompanying feasibility study as environmental effects from all alternatives would be substantively the same. Particular attention was given to the TSP (Alternative 4) in preparation of this EA as it is the TSP and would also result in the greatest dredge depth. Alternative 4 is also the "environmentally preferred alternative" and "National Economic Development alternative." CEMVN determined that evaluating the dredge alternatives separately would have unnecessarily made this EA difficult to follow and extremely repetitive in nature.

The decision to combine all dredging alternatives was made after a preliminary evaluation of the dredging alternatives potential environmental effects. The differences are minor in nature and have no appreciable variation in environmental effects. The initial construction quantities (Table 2-1) and the estimated annual shoaling quantities (Table 2-2) that will have to be removed during maintenance dredging events for the "Action Alternative" are shown below.

Table 2-1. Construction Dredge Quantities

Alternative (Alt.)	Alt. Depth + 2' Advance Quantities	Additional 2' Over Depth* Quantities
40ft Alternative 2	125,000 CY (to El. -41.4 NAVD88)	109,000 CY (El. -41.4' to 43.4' NAVD88)
43ft Alternative 2a	321,500 CY (to El. -44.4 NAVD88)	155,000 CY (El. -44.4' to 46.4' NAVD88)
45ft Alternative 3	500,000 CY (to El. -46.4' NAVD88)	177,000 CY (El. -46.4' to -48.4' NAVD88)
48ft Alternative 3a	784,500 CY (to El. -49.4' NAVD88)	220,000 CY (El. -49.4' to -51.4' NAVD88)
50ft Alternative 4 (TSP)	1,000,000 CY (to El. -51.4' NAVD88)	240,000 CY (El. -51.4' to -53.4' NAVD 88)
*Over depth not included in dredge quantities, but considered to time production rate and cubic yard unit cost for estimates.		

Table C-3 – Estimated Shoaling Quantities

Alternative	Estimated Annual Shoaling Quantity
40ft Alternative 2	344,000 CY
43ft Alternative 2a	345,500 CY
45ft Alternative 3	347,000 CY
48ft Alternative 3a	381,000 CY
50ft Alternative 4 (TSP)	414,000 CY

The disposal of dredged material for construction and subsequent maintenance will be discharged at the naturally occurring -55.5-foot NAVD88 contour in the river via floating and/or submerged pipelines. The disposal elevation is determined at the elevation below the MRSC 50 foot authorized depth and the additional 6 feet depth of advance maintenance, elevation -49.4 feet NAVD88 (LWRP) and elevation -55.4 feet NAVD88 (MLWRP) respectively. Dredging and dredged material disposal for construction and maintenance will be accomplished by the same type of dredging equipment similar to that utilized for the current maintenance dredging of the current 35 foot authorized project. The project study limits are shown in Figure 2-1.

Figure 2-1: Project Study Limits

2.3 CONSTRUCTION OUTSIDE THE SCOPE OF THIS EVALUATION:

The construction of the deepened berthing area identified as “Reach 1” in the accompanying Feasibility Study would commence at the start of Phase I after USACE has completed the deepened approach channel dredging. Because, the PORT is responsible for additional dredging between 48.5 feet and 50 feet depth below the LWRP at the “Reach 1” berthing area, the construction of “Reach 1” would be required by the PORT, and would need to be in compliance with environmental clearances issued to the PORT. The construction of the deepened berthing area identified as “Reach 2” in the accompanying Feasibility Study will commence as part of Phase II by the PORT. Phase II is assumed to be 5 years after the commencement of Phase I. At that time the PORT would proceed with the bracing of the wharfs piles at Nashville B Wharf to provide suitable structural integrity of the facility in order to deepen the “Reach 2” berthing area up to a depth of 50 feet below the LWRP. Construction will be completed by the PORT utilizing the PORT’s dredging contractor. The PORT will maintain the berthing areas to the authorized depths by the current means and methods they employ for maintaining the required depths. The PORT will typically maintenance dredge the berthing areas after the USACE maintenance dredging of the access channel is completed, and as required throughout the year based on shoaling conditions adjacent to the wharfs. Because, the PORT employs contract dredges year round, and as needed, they will typically not conduct advance maintenance dredging. The PORT may conduct various pile bracing of the existing wharves and remove accumulated materials under those wharves as required to maintain slope stability. These actions were considered in evaluation of the potential for cumulative effects below in Section 4.9.

3 AFFECTED ENVIRONMENT

3.1 ENVIRONMENTAL SETTING

The project site is located in and adjacent to an area currently used by the PONO to load and unload cargo from commercial vessels. The project area is located within the Mississippi River, which is characterized by high water volume, velocities, and a high sediment load. The project area is currently maintenance dredged by both the PORT and USACE, typically annually, depending upon availability of funds.

3.1.1 DESCRIPTION OF THE WATERSHED

A watershed is an area of land drained by a particular set of streams and rivers. The Mississippi River has the third largest drainage basin in the world, exceeded in size only by the watersheds of the Amazon and Congo Rivers. It drains 41 percent of the 48 contiguous states of the United States. The basin covers more than 1,245,000 square miles, includes all or parts of 31 states and 2 Canadian provinces, and roughly resembles a funnel which has its spout at the Gulf of Mexico. Waters from as far east as New York and as far west as Montana contribute to flows in the lower river.

The lower alluvial valley of the Mississippi River is a relatively flat plain of about 35,000 square miles bordering on the river which would be overflowed during time of high water if it were not for man-made protective works. This valley begins just below Cape Girardeau, Missouri, is roughly 600 miles in length, varies in width from 25 to 125 miles, and includes parts of seven states—Missouri, Illinois, Tennessee, Kentucky, Arkansas, Mississippi, and Louisiana.

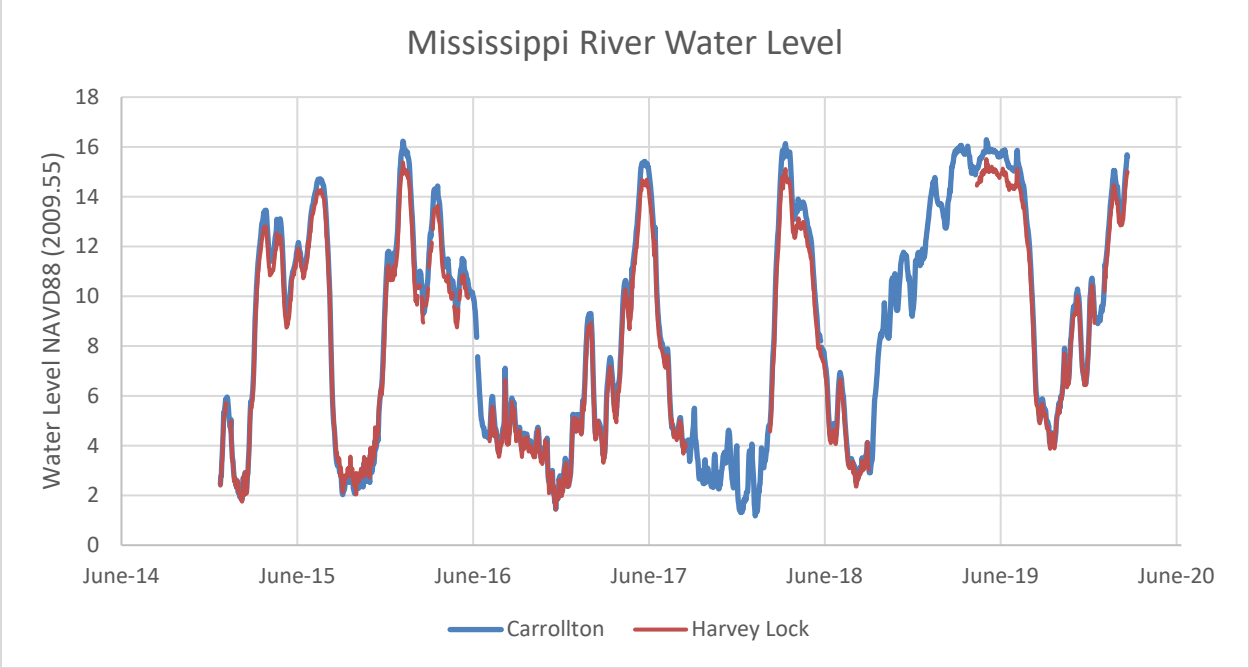
The Mississippi River is the mainstem of the world's most highly developed waterway system, about 12,350 miles in length. The Mississippi River discharges the headwater flows from about 41 percent of the contiguous 48 states. Discharge at Baton Rouge ranges from 1,500,000 cubic feet per second (cfs) once every 16 years, on average, to a low of 75,000 cfs recorded once during the period 1930 to the present, and average annual discharge is 450,000 cfs. Southwest Pass of the Mississippi River discharges roughly one-third of the river's total flow, with an average discharge of about 145,000 cfs. South Pass of the Mississippi River discharges roughly one-sixth of the river's total flow, with an average discharge of about 78,000 cfs. Pass a Loutre of the Mississippi River discharges almost one-third of the river's total flow or slightly less than the Southwest Pass flow. The average discharge through Pass a Loutre is just under 145,000 cfs. The combined discharge of Southwest Pass, South Pass, and Pass a Loutre is approximately 80 percent of the total river flow into the Gulf

of Mexico. The remaining flow is distributed through minor passes upstream of Head of Passes.

Deep-draft navigation is a major component of waterborne traffic on the river. There is extensive urban and industrial development near the Baton Rouge and New Orleans metropolitan areas. The remaining areas adjacent to the river are developed primarily for agriculture; however, industrial and urban development in these areas does occur. The Mississippi River is a source for drinking water, recreation, and commerce.

The project site lies along the left descending bank of the Mississippi River between RM 99.2 AHP to RM 100.5 AHP. Water level is recorded by the USACE at Harvey Lock on the right descending bank at RM 98.3 AHP and at the Carrollton gage at RM 102.8 AHP on the left descending bank. Observed water level at the two locations relative to NAVD88 (2009.55) for the period from 2015-2020 is plotted in Figure 3-1.

Figure 3-1: Observed water level



3.1.2 CLIMATE

The climate in the study area is humid, subtropical with a strong maritime character. Warm, moist southeasterly winds from the Gulf of Mexico prevail throughout most of the year, with occasional cool, dry fronts dominated by northeast high pressure systems. The influx of cold air occurs less frequently in

autumn and only rarely in summer. Tropical storms and hurricanes are likely to affect the area 3 out of every 10 years, with severe storm damage approximately once every 2 or 3 decades. Summer thunderstorms are common, and tornadoes strike occasionally. Average annual temperature in the area is 67°F, with mean monthly temperatures ranging from 82°F in August to 52°F in January. Average annual precipitation is 57.0 inches, varying from a monthly average of 7.5 inches in July, to an average of 3.5 inches in October. (http://www.srcc.lsu.edu/).

The 2014 USACE Climate and Resiliency Policy Statement states the "USACE shall continue to consider potential climate change impacts when undertaking long-term planning, setting priorities, and making decisions affecting its resources, programs, policies, and operations." A healthy and resilient coastal complex is dynamic, not static, and is subject to the ebb and flow of the various effects, adverse or beneficial, that impact conditions at any given point in time. The most significant adverse potential impact on coastal areas as a product of climate change is sea-level change (rise).

ER1100-2-8162 provides guidance for incorporating direct and indirect physical effects of projected future sea level change (SLC) across the project life cycle in managing, planning, engineering, designing, constructing, operating, and maintaining USACE projects and systems of projects. Potential relative sea level change must be considered in every USACE coastal activity as far inland as the extent of estimated tidal influence.

Research by climate science experts predict continued or accelerated climate change for the 21st century and possibly beyond, which would cause a continued or accelerated rise in global mean sea level. The resulting local SLC will likely impact USACE coastal project and system performance. As a result, managing, planning, engineering, designing, operating, and maintaining for SLC must consider how sensitive and adaptable natural and managed ecosystems and human and engineered systems are to climate change and other related global changes. Planning studies and engineering designs over the project life cycle, for both existing and proposed projects, will consider alternatives that are formulated and evaluated for the entire range of possible future rates of SLC. However, as this is a navigation project, sea-level rise would be easily addressed by adjustment of the vertical datum or the specific maintenance dredging events.

3.1.3 GEOLOGY

The project areas fall within the Central Gulf Coastal Plain. More specifically, the area is situated on the Deltaic Plain of the Mississippi River in a region of extremely low relief. Dominant physiographic features in the vicinity of the project area include the Gulf of Mexico, the Mississippi River and its levees and abandoned distributaries, and the marshlands and bodies of water that lie between the levees.

The Mississippi River Delta complex was formed by river deposits between 700 and 7,400 years ago. The United States Department of Agriculture, Natural Resources Conservation Service (NRCS) classifies soils within the lower Mississippi River as typically peat, mucks, and clays mixed with organic matter, and silts derived from river deposits. The soil composition is subject to change as floodwaters and storm surges deposit new sediments.

Geologic profiles have been developed for the project study area. The study area is located within a point bar deposit. Generally, from the existing ground surface to approximately elevation -20, alternating layers of silt (ML), clay (CH-CL), and sands (SP-SM) were encountered. Below elevation -20, a stratum of fine sand (SP) extends approximately to elevation -90, where a stiff Pleistocene clay was found.

3.2 RELEVANT RESOURCES

This section contains a description of relevant resources in the study area that could be impacted by the proposed project. The important resources described are those recognized by laws, executive orders, regulations, and other standards of national, state, or regional agencies and organizations; technical or scientific agencies, groups, or individuals; and the general public. Institutional recognition means that the importance of an environmental resource is acknowledged in the laws, adopted plans, and other policy statements of public agencies, Federally-recognized Tribes, or private groups. Public recognition means that some segment of the general public recognizes the importance of an environmental resource. Technical recognition means that the importance of an environmental resource is based on scientific or technical knowledge or judgment of critical resource characteristics. Table 3-1 provides summary information of the institutional, technical, and public importance of these resources.

A wide selection of resources were initially considered and determined not to be affected by the project due mainly to the nature of the project and location being within a routinely dredged area of open water.

Table 3-1. Relevant Resources and Their Institutional, Technical, and Public Importance

Resource	Institutionally Important	Technically Important	Publicly Important
Socioeconomics (Environmental Justice Included)	USACE ER 1105-2-100, Executive Order 12898 of 1994 and National Environmental Policy Act of 1969	When an environmental document is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental document will discuss all of these effects on the human environment.	Government programs, policies and projects can cause potentially significant changes in many features of the socioeconomic environment.
Aquatic Resources (Fisheries/Benthic Invertebrates)	Fish and Wildlife Coordination Act of 1958, as amended; Clean Water Act of 1977, as amended; Coastal Zone Management Act of 1972, as amended; and the Estuary Protection Act of 1968.	They are a critical element of many valuable freshwater and marine habitats; they are an indicator of the health of the various freshwater and marine habitats; and many species are important commercial resources. State and Federal agencies recognize the value of water bottoms for the production of benthic organisms.	The high priority that the public places on their esthetic, recreational, and commercial value.
Essential Fish Habitat (EFH)	Magnuson-Stevens Fishery Conservation and Management Act of 1996, Public Law 104-297	Federal and state agencies recognize the value of EFH. The Act states, EFH is "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity."	Public places a high value on seafood and the recreational and commercial opportunities EFH provides.
Wildlife	Fish and Wildlife Coordination Act of 1958, as amended and the Migratory Bird Treaty Act of 1918	They are a critical element of many valuable aquatic and terrestrial habitats; they are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Threatened and Endangered Species	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald Eagle Protection Act of 1940.	USACE, USFWS, NMFS, NRCS, EPA, LDWF, and LDNR cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.

Resource	Institutionally Important	Technically Important	Publicly Important
Cultural and Historic Resources	National Historic Preservation Act (NHPA), as amended, and Section 106 and 110 of the NHPA; the Native American Graves Protection and Repatriation Act of 1990; the Archeological Resources Protection Act of 1979; and USACE's Tribal Consultation Policy (2012).	Federal, State, and Tribal stakeholders document and protect cultural resources including archaeological sites, districts, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and/or sites of religious and cultural significance based on their association or linkage to past events, to historically important persons, to design and construction values, and for their ability to yield important information about prehistory and history.	Preservation groups and private individuals support protection and enhancement of historical resources.
Air Quality	Clean Air Act of 1963, Louisiana Environmental Quality Act of 1983.	State and Federal agencies recognize the status of ambient air quality in relation to the NAAQS.	Virtually all citizens express a desire for clean air.
Water Quality	Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Mgt Act of 1972, and Louisiana State & Local Coastal Resources Act of 1978.	USACE, USFWS, NMFS, NRCS, EPA, and State DNR and wildlife/fishery offices recognize value of fisheries and good water quality and the national and state standards established to assess water quality.	Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water.

The following resources were considered and found not to be affected by any of the alternatives under consideration: Gulf water bottoms; beaches; floodplains; terrestrial resources, including prime and/or unique farmlands; recreation; aesthetics, wetlands, and noise.

3.2.1 SOCIOECONOMIC RESOURCES (Including Environmental Justice)
Socioeconomic resources include land use, traffic, navigation, population, transportation, oil and gas, environmental justice, environmental health and safety, community cohesion, desirable community growth, tax revenues, property values, public facilities and services, business activity and employment, and displacement of people. The relevant socioeconomic resources are discussed in detail within the associated PONO Feasibility Study and Appendices (see Table 3-5 of the Feasibility Study and Section 2.1 of Appendix C). All socioeconomic details found within the PONO Deepening Feasibility Study and Appendices are hereby incorporated by reference. That information will be evaluated and summarized below in Section 4.1 of this EA.

3.2.2 AQUATIC RESOURCES/FISHERIES

The Mississippi River plays an important role in the distribution of fishes across the state because it provides suitable habitat for many species and it also divides the state into ecologically different areas (Douglas 1974). Douglas (1974) is one of the first most comprehensive studies on the diversity of freshwater fishes in Louisiana with at least 148 freshwater species in Louisiana's waters. Douglas (1974) attributes the large number of species to the diverse freshwater habitats found in Louisiana. The Mississippi River found the river supports one of the most diverse fisheries in the world with at least 183 species of freshwater fish in the Mississippi River Delta. There are three species of mussels, and 13 species of crawfish found within the Mississippi Basin in Louisiana. Data suggests that fish in the lower Mississippi River have non-random depth distributions that vary seasonally and according to species. Species richness was highest in shallow water, with about 50 percent of the species no longer collected in water deeper than 8 meters and about 75 percent no longer collected in water deeper than 12 meters. Several factors could be involved in influencing this pattern, including low illumination, increased water pressure and habitat organization (Miranda and Killgore 2013). Shovelnose sturgeon, Pallid sturgeon, Flathead catfish, Blue catfish, Channel catfish, Freshwater drum, Paddlefish, Goldeye, Gizzard shad, Threadfin shad, Channel shiner, Silverband shiner, Silver chub, Speckled chub, River carpsucker, Stonecat, and Sauger are among the most common fish species in the river.

The State Management Plan for Aquatic Invasive Species in Louisiana (2005) identifies several established finfish and mollusks within the state (Tulane and Xavier 2005). The management plan focuses not on all invasive species in Louisiana, but on those inhabiting aquatic environments and those spread via aquatic pathways. Established finfish include Rio Grande cichlid (*Cichlasoma cyanoguttatum*), common carp (*Cyprinus carpio*), grass carp (*Ctenopharyngodon idella*), silver carp (*Hypophthalmichthys molitrix*), and bighead carp (*Hypophthalmichthys nobilis*). The network of interconnected waterways within the state makes it easy for fish to relocate, constantly changing their ranges. Two mollusks are known as invasive in Louisiana, the zebra mussel (*Dreissena polymorpha*) and the Asian clam (*Corbicula fluminea*). These species are predominantly freshwater mollusks, and, in general, are confined to river drainages. Zebra mussels and Asian clams are established in the three largest rivers in Louisiana (Mississippi, Red, and Atchafalaya) and; therefore, are considered extensively established. (Tulane and Xavier 2005).

The project area consists entirely of open water that is currently dredged at frequent intervals to maintain access to existing port facilities. It experiences significant sediment deposition and relocation during high water events. No vegetated wetlands are located within the proposed project area, and the area does not contain suitable habitat for submerged aquatic vegetation. The area is

a highly turbid, dynamic riverine environment on the largest river in North America.

3.2.3 ESSENTIAL FISH HABITAT

An amendment to the Magnuson-Stevens Act in 1996 strengthened the ability of the National Marine Fisheries Service (NMFS) and associated councils to protect and conserve the habitat of certain marine, estuarine, and anadromous finfish, mollusks, and crustaceans. These specific habitats have been deemed Essential Fish Habitat (EFH). EFH can be broadly defined as "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity." All species managed under this authority are marine species preferring salt water for most of their life cycle. The Mississippi River at this location is fresh water with no suitable habitat for marine species managed by NMFS.

3.2.4 WILDLIFE

The proposed project area consists entirely of open water habitat. This prohibits most terrestrial wildlife utilization of the area. Species adapted to riverine habitat are likely to inhabit or frequent the project area and include a few mammals, birds, reptiles, and some amphibians. Mammals inhabiting the area could include otter, and nutria although this is unlikely given the developed nature of the adjacent shore. Some reptiles such as the cottonmouth, western and southern water snake, snapping turtle, eastern box turtle and the American alligator may be found in limited numbers within the proposed project area. The area is likely frequented most often by various ducks, teal, and other waterfowl. Occasionally, brown pelicans may also utilize the project area. Various raptors such as barred owls, red-shouldered hawks, northern harriers (marsh hawks), American kestrel, eagles and red-tailed hawks may be present above the proposed project area (hunting potential prey). Passerine birds likely to transit the areas may include sparrows, vireos, warblers, mockingbirds, grackles, red-winged blackbirds, wrens, blue jays, cardinals, and crows.

3.2.5 THREATENED OR ENDANGERED SPECIES

Three federally threatened or endangered species are either known to or may possibly occur in Orleans Parish Louisiana. Of those three, West Indian manatee (*Trichechus manatus*) (threatened) and Pallid sturgeon (*Scaphirhynchus albus*) (endangered) may be found within the project area. Atlantic Sturgeon (*Acipenser oxyrhynchus desotoi*) are listed by the USFWS as being within Orleans Parish; however, they are unlikely to be found within the proposed project area.

Pallid Sturgeon: The pallid sturgeon (*Scaphirhynchus albus*) was first recognized as a species different from shovelnose sturgeon by S. A. Forbes and R. E.

Richardson in 1905. They named this new species *Parascaphirhynchus albus*. Later reclassification assigned it to the genus Scaphirhynchus where it has remained. Pallid sturgeon are a bottom-oriented, large river obligate fish inhabiting the Missouri and Mississippi rivers and some tributaries from Montana to Louisiana. The pallid sturgeon is adapted to large, free-flowing, turbid rivers with a diverse assemblage of physical characteristics that are in a constant state of change. Detailed habitat requirements of this fish are not known, but it is believed to spawn in Louisiana. Habitat loss through river channelization and dams has adversely affected this species throughout its range. Juvenile pallid sturgeon appear to be at risk for entrainment in hydraulic dredges, because of their benthic holding behavior and their relatively low burst swimming speed (Hoover et al. 2005). The density of pallid sturgeon in the lower Mississippi River Delta is thought to be low; however, sampling efforts in that area have not been extensive so population estimates in these areas are uncertain. Critical habitat has not been designated for this species.

West Indian Manatee: Manatees are also protected under the Marine Mammal Protection Act, which prohibits the take (i.e., harass, hunt, capture, or kill) of all marine mammals. Manatees are found in marine, estuarine, and freshwater environments. The West Indian manatee, *Trichechus manatus*, includes two distinct subspecies, the Florida manatee (*Trichechus manatus latirostris*) and the Antillean manatee (*Trichechus manatus manatus*). While morphologically distinctive, both subspecies have many common features. Manatees have large, seal-shaped bodies with paired flippers and a round, paddle-shaped tail. They are typically grey in color (color can range from black to light brown) and occasionally spotted with barnacles or colored by patches of green or red algae. The muzzle is heavily whiskered and coarse, single hairs are sparsely distributed throughout the body. Adult manatees, on average, are about nine feet long (3 meters) and weigh about 1,000 pounds (200 kilograms). At birth, calves are between three and four feet long (1 meter) and weigh between 40 and 60 pounds (30 kilograms). Manatee are not routinely found in the Mississippi River. Substantial food sources (submerged or floating aquatic vegetation) are not found in or near the project area. Given the region and the paucity of food sources in the project area, it is unlikely that a manatee would be found in or near the project area. Further, the proposed project area is located outside designated critical habitat for this species.

Atlantic (Gulf) Sturgeon: The threatened Atlantic sturgeon (*Acipenser oxyrhynchus desotoi*) is found in river systems from Louisiana to Florida, in nearshore bays and estuaries, and in the Gulf of Mexico. Gulf sturgeons are primitive, anadromous fish that annually migrate from the Gulf of Mexico into freshwater streams to spawn. Subadults and adults spend eight to nine months each year in rivers. Atlantic sturgeon have been documented in the upper reaches of the Pearl River and Lake Pontchartrain tributaries. Critical habitat has been designated along Louisiana river systems, nearshore bays and estuaries, and in the Gulf of Mexico (Figure 3-1; NOAA). The project area is not critical

habitat for the Atlantic sturgeon and is not routinely frequented by Atlantic Sturgeon. The USFWS (February 29, 2020 Species List) did not identify Atlantic Sturgeon nor critical habitat as occurring within the boundary of the proposed project.

3.2.6 CULTURAL RESOURCES

The project area consists entirely of open water that is currently dredged at frequent intervals to maintain access to existing port facilities. It experiences significant sediment deposition and relocation during high water events. The Area of Potential Effect (APE) for the proposed PONO dredging action is located on the Orleans Parish side of the Mississippi River between river mile 98.3 and 100.6 Above Head of Passes (AHP). A series of document and archival resources reviews (SHPO reports 22-0918, 22-4166) and archaeological surveys (SHPO reports 22-053, 22-1170, 22-2358) have been conducted in this reach of the Mississippi River in Jefferson and Orleans Parishes. The Louisiana Cypress Company Warf (16JE208) is near mile 98.1 AHP on the Jefferson Parish side of the river as reported by Christopher Goodwin and Associates (SHPO report 22-1351). National Register of Historic Places (NRHP) has not been determined for 16JE208, and the site would not be affected by the proposed undertaking. The brickyard (16JE207) that is also in Jefferson Parish near mile 98.6 has not had NRHP eligibility determination, and would not be affected by the proposed undertaking. A landfill and city dump (16OR181) that extends from river mile 102 to 103 AHP on the Orleans Parish side has been determined not NRHP eligible. A shipwreck concentration extends upstream from Shipwreck #18 (16OR206) at mile 101.95 to mile102.36 (Shipwreck #1, 16OR189). These wrecks are all outside of the APE for this undertaking and have been determined not eligible for listing to the NRHP. Shipwreck (19OR199) at river mile 102.12 has been determined potentially eligible for listing to the NRHP, but is outside of the APE for the proposed undertaking. The underwater obstructions between river mile 99 and 101 on a November 2019 New Orleans Harbor chart that are depicted on the SHPO Cultural Resources Map have been identified or removed, and none are significant historic properties. There are no NRHP eligible historic properties in the APE.

There are no tribal lands, nor are there specific tribal treaty rights related to access or traditional use of the natural resources in Orleans Parish. There are many protected tribal resources within the parish. For example there are many recorded pre-contact archaeological sites in Orleans Parish, such as Spanish Fort, along the mouth of Bayou St. John, Big and Little Oak Islands in New Orleans East, in what were once marshes. Additionally, there are contact and historic period (1718 A.D.-1860 A.D.) occupations documented along the natural levee of the Mississippi River Jackson Barracks to Carrollton, with some of the best recorded sites in the French Quarter. However there is no evidence of them being in the study area.

To augment CEMVN's background research into the interested Federally-recognized Tribes and the types of tribal resources that have the potential to be within the study area, CEMVN consulted with Federally-recognized Tribes on actions having the potential to significantly affect protected tribal resources, tribal rights, or Indian lands via teleconference on October 24, 2019. CEMVN indicated that a "No Historic Properties Affected" NHPA Section 106 letter would be sent for consultation. No Tribal concerns or objections were raised at the time of the conference call to this course of action. Letters with a determination of no historic properties affected were sent to the SHPO and Tribes on March 9, 2020, for a 30-day review period.

3.2.7 AIR QUALITY

The U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards has set National Ambient Air Quality Standards for six principal pollutants, called "criteria" pollutants. They are carbon monoxide, nitrogen dioxide, ozone, lead, particulates of 10 microns or less in size (PM-10 and PM-2.5), and sulfur dioxide. Ozone is the only parameter not directly emitted into the air but forms in the atmosphere when three atoms of oxygen (O3) are combined by a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of sunlight. Motor vehicle exhaust and industrial emissions, gasoline vapors, and chemical solvents are some of the major sources of nitrogen and volatile organic compounds, also known as ozone precursors. Strong sunlight and hot weather can cause ground-level ozone to form in harmful concentrations in the air. The Clean Air Act General Conformity Rule (58 FR 63214, November 30, 1993, Final Rule, Determining Conformity of General Federal Actions to State or Federal Implementation Plans) dictates that a conformity review be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more National Ambient Air Quality Standards. A conformity assessment would require quantifying the direct and indirect emissions of criteria pollutants caused by the Federal action to determine whether the proposed action conforms to Clean Air Act requirements and any State Implementation Plan. However, Orleans Parish is designated as in attainment for all criteria pollutants; therefore, these activities do not require a review for conformity with the CAA.

3.2.8 WATER QUALITY

The Clean Water Act (CWA) established a process for states to assess water quality. Section 305(b) requires states to develop a surface water quality monitoring program, and a report describing the water quality status of state waterbodies with respect to support of designated uses. Section 303(d) requires states to develop and list Total Maximum Daily Loads (TMDLs) for impaired waterbodies (waterbodies with water quality unsupportive of one or more

designated uses). A TMDL is the maximum amount of the pollutant(s) contributing to impairment that can enter a waterbody from all sources (including nonpoint sources) and still meet water quality criteria. LDEQ implements a watershed-based approach to reduce pollutant loads in the waterbodies where TMDLs have been established, through the Louisiana Pollutant Discharge Elimination System (LPDES) and Louisiana Nonpoint Source (NPS) programs. For the purpose of state water quality assessment, Louisiana is divided into 12 major basins, which are further divided into waterbodies known as subsegments. The 2018 Louisiana Water Quality Inventory: Integrated Report is the biennial publication prepared by the Louisiana Department of Environmental Quality (LDEQ) on the status of Louisiana waters in accordance with Sections 305(b) and 303(d) (LDEQ 2018). The river within the study limits are fully supporting the assigned designated uses.

River water quality varies due to factors such as seasonality, changing farming practices, and rainfall patterns. As this relates to agricultural runoff and suspended sediment, fertilizer and pesticide concentrations in the river are dependent on their physiochemical properties, timing of application and subsequent rainfall, crop selection, and Federal farm policy, while suspended sediment concentration, load, and grain size distribution are dependent on factors such as river discharge, time between flood events, and water depth (Meade 1995, Allison et al. 2010).

Anthropogenically-induced changes in Mississippi River water quality are primarily related to population increases within the river's watershed and development practices, including the adoption of agricultural soil conservation practices beginning in the 1930s; the construction of major river engineering works during the 20th century; increasing use of fertilizers and pesticides, particularly for industrial farming; and insufficient regulation of point source pollution prior to effective enforcement of the CWA. Figure 3-2, adapted from Garrison (1998), includes a water quality summary for three long-term (periods of record ranging from 1905-1995) monitoring stations in the Mississippi River.

The salt water in the Gulf of Mexico is denser than the fresh water flowing in the Mississippi. Therefore, at low river flows, the Gulf's salt water migrates upstream along the bottom of the River underneath less dense river fresh water. This wedge is blocked under extreme low water conditions by construction of a temporary saltwater barrier/sill at River Mile 64. Therefore, the saltwater wedge never reaches the project area.

Figure 3-2. Water Quality Summary

Group	Parameter	Units	Mississippi River at New Orleans, Louisiana (8)			Mississippi River at Violet, Louisiana (9)			Mississippi River at Belle Chasse, Louisiana (10)		
			Percentile			Percentile			Percentile		
			25th	50th (Median)	75th	25th	50th (Median)	75th	25th	50th (Median)	75th
Physical properties	Specific Conductance	µmhos/cm	346	406	462	324	358	450	332	402	461
	pH	SU	7.3	7.6	7.9	7.4	7.6	7.8	7.3	7.6	7.8
	Water Temperature	°C	11.5	19	28	10.5	17.5	26.2	11	19.2	26.5
	Dissolved Oxygen	mg/L	6.5	8	9.5	7.1	8.1	9.6	6.8	7.9	10.2
	Dissolved Solids		208	245	275	201	220	254	214	249	286
Major cations	Calcium (Dissolved)	mg/L	36	41	45	35	38	44	35	39	43
	Magnesium (Dissolved)		9.7	12	13	9.6	11	13	9.8	12	14
	Sodium (Dissolved)		16	22	28	15	18	26	15	20	28
	Potassium (Dissolved)		2.8	3.3	3.5	2.5	2.9	3.3	2.8	3.3	3.6
Major Anions	Alkalinity (Total, as $CaCO_3$)	mg/L	90	106	118	89	98	115	88	105	120
	Sulfate (Dissolved)		44	53	62	40	46	57	38	48	59
	Chloride (Dissolved)		19	25	30	18	22	29	20	26	32
Nutrients	Ammonia + Organic Nitrogen (Total, as N)	mg/L	0.5	0.7	0.9				0.5	0.7	1
	Nitrate + Nitrite (Total, as N)		0.88	1.2	1.6	0.85	1.2	1.4	1.1	1.4	1.7
	Phosphorus (Total, as P)		0.18	0.24	0.31	0.2	0.24	0.3	0.14	0.2	0.27
Biological Constituents	Fecal coliform	Col/100 mL	170	280	460	2,000	3,100	3,600	140	310	800
	Fecal streptococcus		200	440	880				120	280	750
	Phytoplankton	Cells/mL	760	1,400	2,800				880	1,800	4,100
Metals	Iron (Dissolved)	µg/L	*BDL*	20	40	*BDL*	*BDL*	30	*BDL*	20	29
	Zinc (Dissolved)		*BDL*	*BDL*	20	*BDL*	*BDL*	*BDL*	*BDL*	*BDL*	*BDL*
Organic Compounds	2,4-D (Total)	µg/L	*BDL*	*BDL*	0.2	*BDL*	*BDL*	*BDL*			
	Phenols (Total)					*BDL*	1	2			
	Oil and Grease (Total Recoverable)	mg/L				*BDL*	*BDL*	1			
	Organic Carbon (Total)		3.6	5.6	7.7	6	6.2	8.5	5.2	6.7	8.9

* Mississippi River water quality summary, from Garrison (1998) (BDL = Below Detection Limit)

4 ENVIRONMENTAL CONSEQUENCES

4.1 SOCIOECONOMIC RESOURCES

4.1.1 Future Conditions with No Action Alternative. No change to existing conditions were identified.

4.1.2 Future Conditions with Proposed Action. Socioeconomic resources, including land use, population, transportation, oil and gas, environmental health and safety, community cohesion, desirable community growth, tax revenues, property values, public facilities and services, employment, and displacement of people, would not be adversely affected by the proposed project. The purpose of the TSP is to improve navigation within the proposed project area by increasing navigational depth. Some minor inconvenience to local vessel traffic may occur during the initial or subsequent maintenance events. This would be short-lived and easily resolved given the size of the Mississippi River at the proposed project location. Vessels could easily avoid dredging activities.

An Environmental Justice (EJ) Analysis was not prepared for the PONO study as EJ is not considered a relevant resource. Impacts from the PONO project are

expected to occur within the Mississippi River and PORT none of which are expected to impact EJ communities. According to the economic analysis, an increase in vessel traffic is not anticipated from the deepening of the PONO. Currently, vessels that cannot currently dock at the Port off-load in areas of the river that are currently deep enough, or the PORT will dredge for a vessel so it can enter the PONO. Assuming there is no increased ship traffic, compared to future without-project conditions, then there will not be an increase in the amount of cargo and therefore in the number of trucks moving through the adjacent neighborhoods. There would be no direct, indirect or cumulative impacts to EJ communities.

The proposed action was identified to have the positive economic benefits identified in Table 4-1. Increases in revenue typically result in corresponding increases in tax revenue generated. A detailed summary of economic benefits derived from the proposed action can be found within the accompanying feasibility study and is hereby incorporated by reference.

Table 4-1. Economic Comparison of Final Array

Port of New Orleans Deepening Average Annual Benefits and Costs (2.75%)					
Access Channel Alternative	**Alternative 2 (40')**	**Alternative 2a (43')**	**Alternative 3 (45')**	**Alternative 3a (48')**	**Alternative 4 (50')**
First Cost of Construction	$5,457,488	$5,918,257	$6,885,191	$8,451,087	$8,909,315
Interest During Construction	$74,532	$80,824	$94,029	$115,414	$121,672
Total Investment	$5,532,020	$5,999,081	$6,979,220	$8,566,501	$9,030,987
Average Annual Construction Cost	$206,641	$223,941	$260,405	$320,851	$339,863
Average Annual Increm. O&M	$126,642	$126,642	$138,257	$259,183	$391,530
Total Average Annual Cost	$333,283	$350,583	$398,662	$580,034	$731,393
Total Average Annual Benefits	N/A*	$1,859,116	$3,893,117	$26,979,887	$35,860,251
Net Excess Benefits	N/A*	**1,508,578**	**$3,494,455**	**$26,399,853**	**$35,128,251**
B/C Ratio	N/A*	**5.3**	**9.8**	**46.5**	**49.0**

4.2 AQUATIC RESOURCES/FISHERIES/BENTHIC

4.2.1 Future Conditions with No Action Alternative. With no action, continued dredging of the study area under existing authorizations would have the same temporal impacts as currently exist. It should be noted that the impact of the No Action is practically the same as the "Proposed Action" Alternative for this resource. Both involve dredging within the same project area since maintenance dredging would continue under the no action alternative. All impacts to benthic organisms would likely occur in the first few inches of dredging. The depth of dredging after that initial cut is unlikely to add additional impacts. The primary difference in potential impacts is with the surface area dredged. The deeper "Proposed Action" plan may require additional acreage be dredged as a result of increased depths and sideslopes compared to the no action.

4.2.2 Future Conditions with Proposed Action – Direct Impacts. A model study was conducted to evaluate possible shoaling increase as a result of deepening the maintenance depth at the PONO. Since the 45-foot alternative starting conditions would be almost identical to the 35 feet base conditions due to current maintenance practices, the model computed a small increase in shoaling between the 45 feet and 35 feet simulations. As shown in Figure 4-1, the 50 feet alternative simulation predicted a 21.2 percent increase in shoaling volume over the base 35 feet simulation. This would have the potential to reduce benthic productivity within the area of increased shoaling between dredging cycles. However, the increased shoal area constitutes a small percentage of the proposed project area. With the proposed action, it is possible that existing fisheries resources could be impacted from the dredging and disposal. It is expected that there would be a temporary increase in turbidity within the immediate vicinity. The initial increases in turbidity would likely be diminished by the swift moving currents of the river, and any free floating sediment would likely settle downstream. Direct impacts to aquatic resources would include the temporary relocation to adjacent available water habitat during construction. Direct impacts to benthic (bottom dwelling) species such as mussels, insect larvae, and various worms, would likely be minimal due to re-colonization of the dredged area as well as the availability of similar adjacent habitat. Most of these negative impacts would be short lived and expected to return to pre-project conditions shortly after construction is complete. Impacts to vertebrate species (Fisheries) should be *de minimis* given the high mobility of the various species within the River and the depths at which dredging is to occur. Depth distribution studies suggest that 75 percent of typical fish present within the Mississippi River are generally found in water less than 12 meters in depth.

Figure 4-1. Current Predicted Shoaling

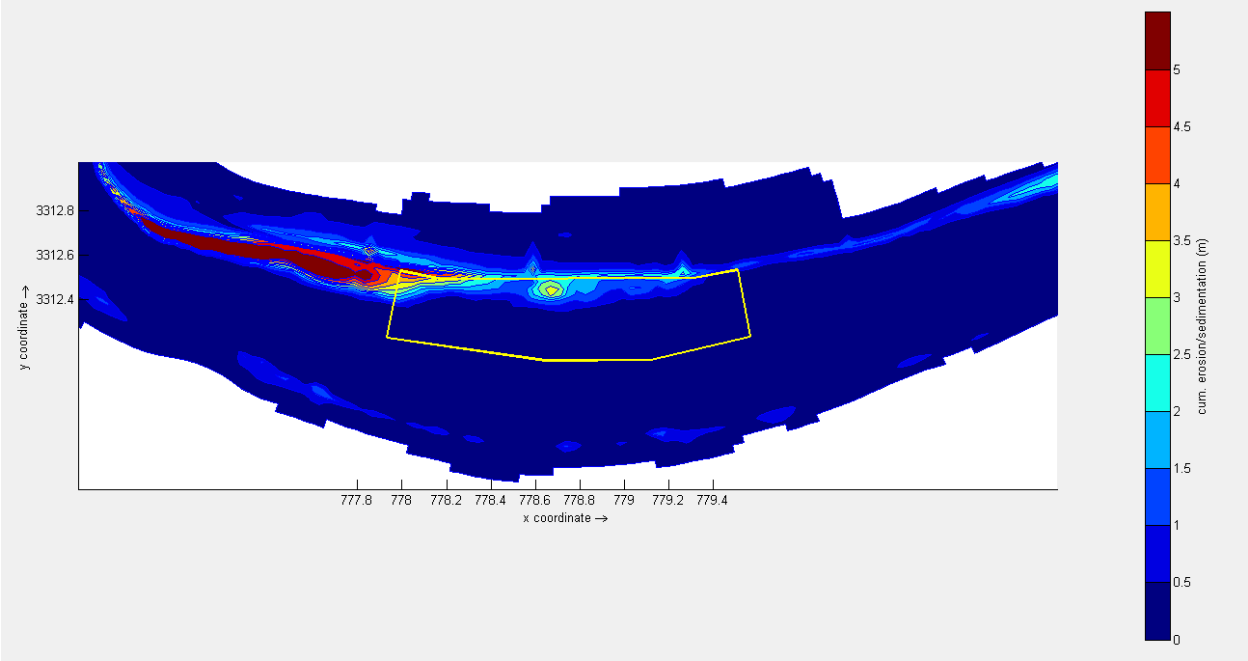
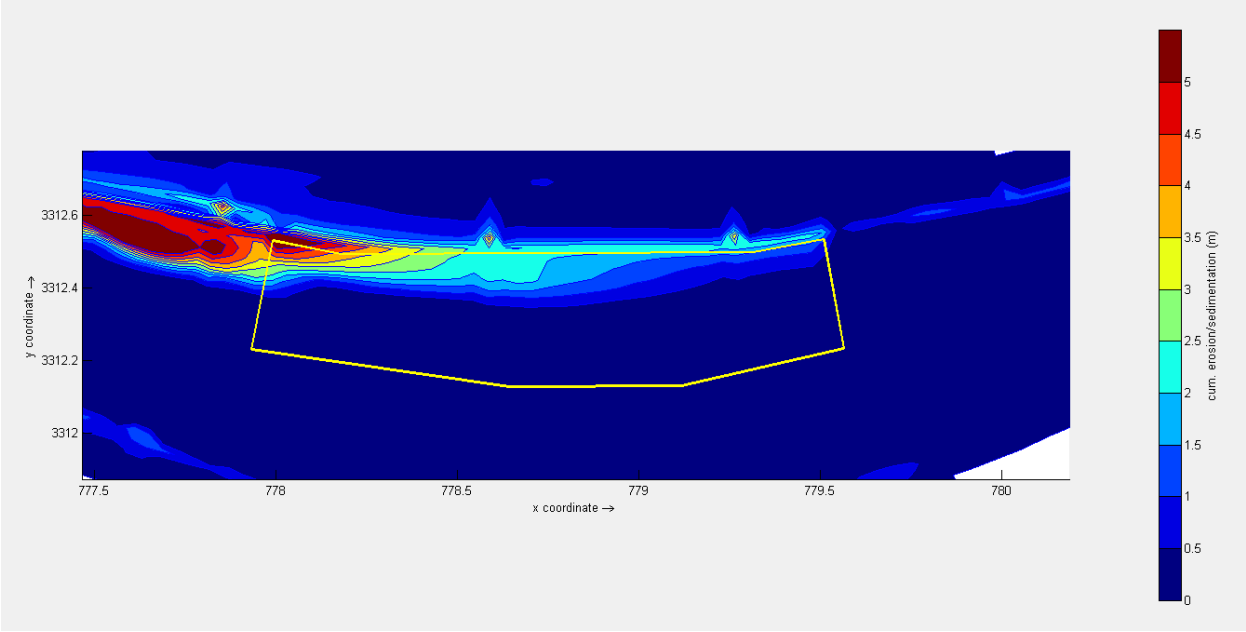


Figure 4-2. Potential area of increased shoaling with TSP



Indirect Impacts. The proposed action would have no indirect impacts on aquatic resources. The proposed action is in an area that is currently dredged (typically annually). Further, it is located in a very dynamic riverine system with lots of natural and anthropogenic processes occurring.

4.3 ESSENTIAL FISH HABITAT (EFH)

4.3.1 Future Conditions with No Action Alternative.
With no action, continued maintenance of the PONO access area to current project dimensions would have no effect on EFH.

4.3.2 Future Conditions with Proposed Action.
CEMVN, through early consultation with NMFS (Ms. January Murray) on March 2, 2020, confirmed that the proposed action would have no effect on EFH as none is present within the proposed project area.

4.4 WILDLIFE

4.4.1 Future Conditions with No Action Alternative. With no action, wildlife that presently exists within the proposed project area will continue to inhabit the area. It is likely that wildlife would avoid the area to some degree during existing authorized dredging operations.

4.4.2 Future Conditions with the Proposed Action – Direct Impacts. With the proposed action, direct impacts to wildlife would be minimal. The direct loss would be considered temporary, due to the similar habitat available adjacent to the proposed project area. The primary impacts would result from equipment noise and movements that would temporarily displace most wildlife species within and adjacent to the proposed project site.

Indirect Impacts. The proposed action would have no indirect impacts on wildlife. The proposed action is in a highly developed area that is currently dredged. Further it is located in a very dynamic riverine system with lots of natural and anthropogenic activities occurring.

4.5 THREATENED OR ENDANGERED SPECIES

4.5.1 Future Conditions with No Action Alternative. With no action, impacts to threatened and endangered species in the area would not change from current conditions.

4.5.2 Future Conditions with the Proposed Action. The proposed project may effect, but is not likely to adversely affect any federally listed threatened or

endangered species managed by the USFWS, including the West Indian manatee or the Pallid sturgeon. The USFWS concurred with the Corps' determination that implementation of the proposed project is not likely to adversely affect the West Indian manatee or pallid sturgeon in correspondence dated February 29, 2020. No critical habitat for any threatened, endangered, or candidate species has been designated within the project area. No indirect impacts to listed species were identified.

4.5.2.1 Standard manatee protection conditions would be included within the project plans and specifications. Further, there is an extremely low likelihood of manatee being found within the proposed project area. In order to minimize the potential for effects to Pallid sturgeon, which are likely found within the project area, the following cutterhead/suction dredge operational parameters would be included in the project plans and specifications: 1) The cutterhead must remain completely buried in the bottom material during dredging operation. If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate will be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased. 2) During dredging, the pumping rates will be reduced to the slowest speed possible while the cutterhead is descending to the channel bottom.

4.5.2.2 The USACE concluded that no threatened or endangered species or designated critical habitat under the purview of the National Marine Fisheries Service, Protected Resources Division, exist within the proposed project area, and that the project would result in a no effect to listed species under NMFS' jurisdiction.

4.6 CULTURAL RESOURCES

4.6.1 Future Conditions with No Action Alternative. With no action, dredging activities would continue as in the past, and no new direct or indirect impacts to cultural resources would be expected.

4.6.2 Future Conditions with the Proposed Action.
The proposed action is in a highly developed area that is periodically dredged. No significant cultural resources eligible for or listed on the National Register of Historic Places were identified within the footprint of the proposed action. The USACE has determined that there would be no historic properties affected with implementation of the proposed action.

While Orleans Parish has a long history of occupation by Native American communities, prior to its establishment and throughout its history, there are currently no protected tribal resources, tribal rights, or Indian lands that have the potential to be significantly affected by the proposed actions within in the study

area. Therefore, CEMVN has determined that no tribal resources, rights, or lands will be significantly affected by implementing this action.

4.7 AIR QUALITY

4.7.1 Future Conditions with No Action Alternative. With no action, the status of non-attainment of air quality would remain unchanged from current conditions.

4.7.2 Future Conditions with the Proposed Action. Under the proposed action, dredge equipment would emit exhaust and fumes during operation, which would be expected to dissipate quickly and would be limited to the immediate vicinity of the equipment. The ambient air quality would not noticeably change from current conditions, and the status of attainment with air quality standards for the parish would not be altered. Orleans Parish is designated as in attainment for all criteria pollutants; therefore, the proposed action does not require a review for conformity with the CAA.

4.8 WATER QUALITY

4.8.1 Future Conditions with No Action Alternative. With no action, no new direct or indirect impacts to water quality would be expected.

4.8.2 Future Conditions with the Proposed Action. With implementation of the proposed action, it is expected that there would be an indirect impact to water quality through a temporary increase in turbidity within the waterway directly surrounding any construction activity. Any increases in turbidity would likely be diminished by the swift moving currents of the river, and any free floating sediment would likely settle downstream. No additional indirect impacts were identified.

4.8.2.1 A Clean Water Act Section 401/404 Public Notice will be published and circulated for 30-day public review prior to completion of the Section 404 (b)(1) evaluation. Additionally, CEMVN would apply for a Sec. 401 Water Quality Certificate from the Louisiana Department of Environmental Quality. This certification would be required prior to finalization of the FONSI.

4.8.2.2 Subpart G of the 404(b)(1) guidelines requires the use of available information to make a preliminary determination concerning the need for testing of the material proposed for dredging. This principle is commonly known as "reason to believe". The decision to not perform testing based on prior information must be documented in order to provide a "reasonable assurance that the proposed discharge material is not a carrier of contaminants" (by virtue of the fact that it is sufficiently removed from sources of pollution) [230.60(b)]. The reason to believe that no testing is required is based on the type of material

to be dredged and/or its potential to be contaminated. In this case the dredged material is found in an area of high velocity currents. The material deposited in this location is identical to the sediment deposited elsewhere in this reach of the Mississippi River. Further, the dredged material will be disposed of in adjacent deep water which has been receiving similar depositional material. In addition, the proposed dredging site is not known to be in close proximity to any potential sources of contamination. Further, the proposed initial dredge event (from 35 feet to 50 feet) would relocate “pre-industrial” material that doesn’t have potential for contamination. CEMVN has concluded that there is no reason to believe that contaminants are present; therefore, no need for testing of dredged material for contaminants exist. This general evaluation comprises procedures found in Tier I of the inland testing manual's (EPA-823-B-98-004, February 1998) tiered-testing framework.

4.9 CUMULATIVE IMPACTS

4.9.1 The Council on Environmental Quality’s (CEQ) regulations (40 CFR 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 et seq.) define cumulative effects as “…the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7)”. Cumulative Effects can result from individually minor but collectively significant actions taking place over a period of time.

4.9.2 The proposed action will enhance access to the PONO allowing more efficient utilization of the PORT facilities. However, no increased traffic to the PORT is immediately anticipated. It is possible that future growth of the PORT would be enhanced by the TSP. This is speculative and outside the scope of this evaluation, but the PORT is serviced by excellent rail lines with capacity for continued growth. Given that no immediate increase in traffic is anticipated and future growth is uncertain, no cumulative impacts from increases in PORT traffic are identified. With implementation of the proposed action, there will be some disturbances to water quality in the immediate vicinity of the dredge and disposal areas; however, the increase in turbidity should primarily be confined to the project vicinity and blend with the naturally occurring turbidity levels of the Mississippi River. Given that the proposed advanced maintenance associated with the TSP is likely to reduce the frequency of dredging cycles, no cumulative impacts to water quality are anticipated. This dredging will provide a connection between the USACE maintained MRSC and the PORT maintained berth area. Both of those projects are routinely dredged and have similar impacts to those identified by the proposed action. All dredging within the general vicinity were

evaluated and found to have *de minimus* cumulative and indirect impacts to all relevant resources.

If the TSP is constructed, the PORT would be required to take all actions necessary to provide for slope stability between stations 68 and 79 in Reach 1. They would also be required to maintain all berthing areas to 50 feet LWRP. It is likely that bracing for the wharf in Reach 2 would also be required. The proposed TSP, when considered in addition to these activities of the PORT, is still unlikely to have more than a *de minimus* cumulative impact on relevant resources.

5 COORDINATION AND PUBLIC INVOLVEMENT

Preparation of this EA and associated FONSI is being coordinated with appropriate Congressional, Federal, state, local interests, and Federally-recognized Tribes, as well as environmental groups and other interested parties. The following Federal and state agencies, non-governmental organizations, as well as other interested parties are receiving copies of the draft Environmental Assessment and the draft FONSI:

U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency, Region VI
U.S. Department of Commerce, National Marine Fisheries Service
U.S. Natural Resources Conservation Service, State Conservationist
U.S. Department of Homeland Security, Federal Emergency Management Agency
Advisory Council on Historic Preservation
Louisiana Department of Wildlife and Fisheries
Louisiana Department of Natural Resources (LADNR), Coastal Management Division
Louisiana Department of Environmental Quality
Louisiana State Historic Preservation Officer

In advance of the official EA coordination, CEMVN published a Notice of General Scoping dated October 23, 2019 soliciting public comment. The Notice was also provided to the relevant State and Federal Resource Agencies. The only relevant comment received was from LDWF requesting to review the plans once the TSP was selected, and they will receive a copy of this Draft EA and the Feasibility Study for review. Details including all applicable certifications will be detailed in this section of the Final EA.

6 MITIGATION

The proposed alternative (including the TSP) has no long term adverse impacts requiring compensatory mitigation. No wetland impacts are associated with the

TSP. The impacts to water bottoms are essentially no different than the current maintenance dredging occurring within the project area. CEMVN evaluated alternatives for beneficial use of the dredged material, but could not identify any feasible alternatives to disposal in the River below MRSC depth. The dredging is occurring adjacent to a developed area with no opportunities for beneficial use. Transportation of the dredged material to distant wetland creation sites is cost prohibitive, impractical and outside the scope of the Project Authority.

7 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Federal projects must comply with environmental laws, regulations, policies, rules, and guidance. The project delivery team coordinated with Federal and state resource agencies during planning for both the navigation dredging and disposal areas associated with the project. Compliance is achieved upon review of this report by appropriate agencies and the public, and with the signing of a FONSI. Prior to signing of the FONSI, all applicable laws and regulations will be in compliance. Coordination with the relevant State and Federal resource agencies is on-going.

7.1 Executive Order (E.O.) 11988 Floodplain Management

Executive Order 11988 directs Federal agencies to reduce flood loss risk; minimize flood impacts on human safety, health, and welfare; and restore and preserve the natural and beneficial values served by flood plains. Agencies must consider alternatives to avoid adverse and incompatible development in the flood plain. If the only practical alternative requires action in the flood plain, agencies must design or modify their action to minimize adverse impacts. The proposed action represents the least environmentally damaging alternative to accomplish the needed risk reduction system modifications. The proposed action is in compliance with this E.O. as the proposed action will have no appreciable effect upon the capacity of the Mississippi River.

7.2 Protection of Wetlands

The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands". To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. The proposed action does not impact wetlands. The proposed action will discharge dredged material into Waters of the United States as by the Clean Water Act and is discussed in Section 7.4 below.

7.3 Clean Air Act of 1970

The Clean Air Act (CAA) sets goals and standards for the quality and purity of air. It requires the Environmental Protection Agency to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health

and the environment. The project area is in Orleans Parish, which is currently in attainment of NAAQS. The Louisiana Department of Environmental Quality is not required by the CAA and Louisiana Administrative Code, Title 33 to grant a general conformity determination.

7.4 Clean Water Act of 1972 – Sections 401 and 404
The Clean Water Act (CWA) sets and maintains goals and standards for water quality and purity. Section 401 requires a Water Quality Certification from the Louisiana Department of Environmental Quality (LDEQ) certifying that the proposed project does not violate established effluent limitations and water quality standards. Coordination with LDEQ for a State Water Quality Certification will be completed prior to signing the FONSI.

As required by Section 404(b)(1) of the CWA, an evaluation to assess the short- and long- term impacts associated with the placement of fill materials into waters of the United States resulting from the TSP is currently ongoing. The Section 404(b)(1) public notice would be later mailed for concurrent public and agency review with final report. This evaluation will be completed prior to signing the FONSI.

7.5 Endangered Species Act of 1973
Section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended, requires that "Each Federal agency shall, in consultation with and with the assistance of the secretary, insure that any action authorized, funded, or carried out by such agency….Is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species…" CEMVN received concurrence from the USFWS on February 29, 2020 that the proposed action "may affect, but not likely to adversely affect" (NLAA) the Pallid sturgeon and the West Indian manatee. Conservation recommendations will be incorporated into the project plans and specifications to reduce effects to those listed species. USFWS indicated that, "…if the action proceeds as described and no additional information about the action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the species listed above." Of course, any change in project scope would be coordinated with the USFWS.

7.6 Fish and Wildlife Coordination Act of 1934
The Fish and Wildlife Coordination Act (FWCA) of the United States was enacted March 10, 1934 to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The USFWS found on March 25, 2020 that, "The proposed project would not significantly impact Federal trust fish and wildlife resources." Therefore, the Service does not object

to the implementation of the proposed Port of New Orleans Deepening project as currently described.

7.7 Hazardous, Toxic, and Radioactive Waste

The discharge of dredged material into waters of the United States is regulated under the Clean Water Act (CWA). In the absence of a known Hazardous, Toxic, and Radioactive Waste (HTRW) concern, the Proposed Action would not qualify for an HTRW investigation. The USACE Engineer Regulation, ER 1165-2-132, Hazardous, Toxic, and Radioactive Waste for Civil Works Projects, states that dredged material and sediments beneath navigable waters proposed for dredging qualify as HTRW only if they are within the boundaries of a site designated by the EPA or a state for a response action (either a removal or a remedial action) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or if they are a part of a National Priority List (NPL) site under CERCLA (NPL is also known as Superfund). No portion of the project area proposed for dredging and disposal is included in the NPL. A Tier 1 review as specified in the Inland Testing Manual (EPA-823-B-98-004 February 1998) was completed for the proposed action. CEMVN has no reason to believe the proposed dredged material to be unsuitable for open water disposal.

7.8 Migratory Bird Treaty Act

The project area is not known to support colonial nesting wading/water birds (e.g., herons, egrets, ibis, night-herons and roseate spoonbills) and shorebirds (terns and gulls). Based on review of existing data and site conditions, the CEMVN finds that implementation of the proposed actions would have no effect on colonial nesting water/wading birds or shorebirds.

The bald eagle was removed from the List of Endangered and Threatened Species in August 2007, but continues to be protected under the Bald and Golden Eagle Protection Act (BGEPA) and the Migratory Bird Treaty Act of 1918, as amended (MBTA). Eagles may hunt within the project area, but would be accustomed to ships and activity in this area. So, no impacts to Eagles are anticipated. Migratory waterfowl frequent the area, but would not be significantly affected by the proposed action.

7.9 E.O. 12898 - Environmental Justice

An Environmental Justice (EJ) Analysis has not been prepared for the PONO study as EJ is not considered a relevant resource. Impacts from the PONO project are expected to occur within the Mississippi River and PORT, none of which are expected to impact EJ communities. According to the economic analysis, an increase in vessel traffic is not anticipated from the deepening of the PONO. Currently, vessels that cannot currently dock at the PORT off-load in areas of the river that are currently deep enough, or the PORT will dredge for a

vessel so it can utilize the PORT facilities. Assuming there is no increased ship traffic, compared to future without-project conditions, then there will not be an increase in the amount of cargo and therefore in the number of trucks moving through the adjacent neighborhoods. There would be no direct, indirect or cumulative impacts to EJ communities.

7.10 National Historic Preservation Act of 1966

In compliance with Section 106 of the National Historic Preservation Act and its implementing regulation found at 36 CFR Part 800, Federal agencies must take into account the effects of their actions on historic properties. Historic properties include any prehistoric or historic district, site, building, structure, or object that is included in, or eligible for inclusion in, the National Register of Historic Places. A Federal agency shall consult with any Federally-recognized Indian Tribe that attaches religious and cultural significance to such properties. Agencies shall afford the State Historic Preservation Officer (SHPO) and Indian tribes a reasonable opportunity to comment before decisions are made. The CEMVN has determined that no significant historic properties are present within the Area of Potential Effect for the proposed action. Letters with a determination of no historic properties affected were sent to the Louisiana SHPO and Tribes on March 9, 2020 for a 30-day review period.

7.11 Tribal Consultation

It is the policy of the federal government to consult with Federally-recognized Tribal Governments on a Government-to-Government basis as required in EO 13175 (“Consultation and Coordination with Indian Tribal Governments;” U.S. President 2000). The requirement to conduct coordination and consultation with Federally-recognized Tribes on and off of Tribal lands for “any activity that has the potential to significantly affect protected tribal resources, tribal rights (including treaty rights), and Indian lands” finds its basis in the constitution, Supreme Court cases, and is clarified in later planning laws. The USACE Tribal Consultation Policy, 1 Nov 2012, specifically implemented this E.O. and later Presidential guidance. The 2012 USACE Tribal Consultation Policy and Related Documents provide definitions for key terms, such as tribal resources, tribal rights, Indian lands, consultation, as well as guidance on the specific trigger for consultation.

While Orleans Parish has a long history of occupation by Native American communities, prior to its establishment and throughout its history, there are currently no protected tribal resources, trial rights, or Indian lands that have the potential to be significantly affected by the proposed actions within in the study area. However, in accordance with CEMVN’s responsibilities under the NHPA Section 106 process, CEMVN will offer the following Federally-recognized Indian tribes the opportunity to review and comment on the proposed action: Alabama-Coushatta Tribe of Texas, Chitimacha Tribe of Louisiana, Choctaw Nation of

Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, Seminole Nation of Oklahoma, Seminole Tribe of Florida, and Tunica-Biloxi Tribe of Louisiana. The outcome of this consultation will be included in the Final EA.

7.12 Coastal Zone Management Act of 1972
CEMVN certifies that the proposed action is consistent to the maximum extent practicable with the Louisiana Coastal Resources Program. Concurrence with this determination will be requested from the Louisiana Department of Natural Resources, Office of Coastal Management, and will be resolved prior to signature of the FONSI.

7.13 Marine Mammal Protection Act (MMPA) of 1972
All marine mammals are protected under the MMPA. The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S. It is possible for manatee to be found within the project area, but that is extremely unlikely to occur. In any event, conditions will be put into the project plans and specifications to protect manatee. Other marine mammals are not expected in the proposed project area as it is not a marine habitat.

8 CONCLUSION

8.1 This office has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no significant impact upon relevant biological resources, and that it may affect but is not likely to adversely affect the West Indian Manatee and the Pallid sturgeon.

8.2 The proposed project has been found to have an overall beneficial effect on the human environment by improving access to the PONO. While there would be temporary impacts from placement of the dredged material, these impacts would be considered temporary and minimal as the Mississippi River is a turbid and dynamic waterway. All dredging alternatives have similar environmental effects. The TSP offers the greatest economic benefit with no appreciable increase in environmental effects. Even the “No Action” alternative has environmental effects similar to those identified for the TSP.

8.3 NEPA requires that environmental analysis include identification of “any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.” Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the use of these resources have on future generations. Irreversible effects primarily result from use or destruction of a specific resource (e.g., energy

and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site). The Action Alternative (TSP) has no irreversible or irretrievable commitment of resources. If future maintenance dredging stops for some unforeseen reason, the river would likely restore the project area to a natural profile.

9 PREPARED BY

Environmental Assessment #577 and the associated Finding of No Significant Impact were prepared by Mr. Howard Ladner, Biologist, with relevant sections and contributions prepared by: Mr. Jason Emery (Cultural Resources); and Andrew Perez (EJ).

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SUPPORTING DOCUMENTATION FOR EA #577

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS, LOUISIANA 70118-3651

October 23, 2019

NOTICE OF GENERAL SCOPING

Solicitation of Public Involvement for the Port of New Orleans Deepening Feasibility Study New Orleans, Louisiana

SUMMARY. The U.S. Army Corps of Engineers (USACE), New Orleans District, is preparing the Port of New Orleans Deepening Feasibility Study to assess alternatives that would reduce the transportation cost to the Port of New Orleans by increasing the depth of the port's access channel to allow larger deep draft vessels to enter the port safely. Pursuant to the National Environmental Policy Act (NEPA), an evaluation will be integrated into the feasibility study to document the existing condition of environmental, cultural, and socio-economic resources in and around the proposed project area (Figure 1) and the potential impacts on those resources. NEPA provides for an early and open public process for determining the scope of issues, resources, impacts, and alternatives to be addressed. The purpose of this notice is to inform the public about the proposed feasibility study, and solicit input from interested parties to help define existing problems, needs, and opportunities. This information will enable the Government to determine the effort for the investigation and thereby the level of NEPA required. Comments received will be considered in preparation of the feasibility study and integrated NEPA document. This 15-day comment period will allow for an informal scoping period prior to the Notice of Intent being published in the Federal Register.

Figure 1: Study Area and Existing Conditions

STUDY AUTHORITY. This study effort is authorized by Water Resources Development Act (WRDA) 2016, section 1202(d) MISSISSIPPI RIVER SHIP CHANNEL, GULF TO BATON ROUGE, LOUISIANA. The Secretary shall conduct a study to determine the feasibility of modifying the project for navigation, Mississippi River Ship Channel, Gulf to Baton Rouge, Louisiana, authorized by section 201(a) of the Harbor Development and Navigation Improvement Act of 1986 (Public Law 99-662; 100 Stat. 4090), to deepen the channel approaches and the associated area on the left descending bank of the Mississippi River between mile 98.3 and mile 100.6 Above Head of Passes to a depth equal to the Channel. The non-federal sponsor is the Port of New Orleans.

NEED FOR ACTION. With the pending opening of the deepened Panama Canal and the authorized deepening of the Mississippi River, the port will not be able to accommodate the deeper draft vessels that will begin traversing the enlarged Panama Canal and deepened River. Currently the study area is maintained by the USACE to a minimum draft of 35 feet. The Port of New Orleans maintains a portion of the study area as needed to assure the availability of a 45 foot draft. A consistent deeper draft is needed to accommodate the deeper draft vessels that will begin traversing the deepened River.

PUBLIC ACTION REQUESTED. The public is asked to comment on alternatives, important issues, resources, and impacts that should be considered in the study. This informal scoping period will be followed by the issuance of a Notice of Intent to further scope and evaluate the intended feasibility study. Comments on the study and associated NEPA document may be submitted by mail, or e-mail to the person identified below within 15 days of this notification. The Notice of Intent is scheduled to be published in December 2019. The draft Feasibility Study is scheduled to be available to the public in April 2020.

USACE CONTACT. Questions or comments should be addressed to Mr. Howard Ladner, US Army Corps of Engineers (PDC-C), 7400 Leake Avenue, New Orleans, LA 70118, telephone (504) 862-2021, Mr. Ladner's e-mail address is Howard.W.Ladner@usace.army.mil

[redacted]

Marshal K. Harper
Chief, Environmental Planning Branch

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services Field Office
200 Dulles Drive
Lafayette, LA 70506
Phone: (337) 291-3100 Fax: (337) 291-3139

In Reply Refer To: February 29, 2020
Consultation Code: 04EL1000-2020-I-0632
Event Code: 04EL1000-2020-E-01423
Project Name: Port of New Orleans Deepening Feasibility Study - USACE

Subject: Verification letter for the project named 'Port of New Orleans Deepening Feasibility Study - USACE' for specified threatened and endangered species that may occur in your proposed project location pursuant to the Louisiana Endangered Species Act project review and guidance for other federal trust resources key.

Dear Howard Ladner:

The U.S. Fish and Wildlife Service (Service) received on February 29, 2020 your effects determination for the 'Port of New Orleans Deepening Feasibility Study - USACE' (the Action) using the Louisiana Endangered Species Act project review and guidance for other federal trust resources key within the Information for Planning and Consultation (IPaC) system. This system was developed in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based on the answers provided, the proposed Action is consistent with a determination of "no effect" or "may affect, but not likely to adversely affect (NLAA)" for the following species as outlined in the Service's Louisiana Endangered Species Act project review and guidance for other federal trust resources key.

Threatened West Indian Manatee (*Trichechus manatus*)	NLAA
Endangered Pallid sturgeon (*Scaphirhynchus albus*)	NLAA

Species protective measures (contained within this application) will be used by the applicant and will be incorporated into any special conditions of a DA permit; therefore the Service concurs with the U.S. Army Corps of Engineers "may affect, not likely to adversely affect" determination(s) for the species listed above.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the species listed above.

The Service recommends that your agency contact the Service for additional consultation if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made and or finalized.

Please Note: If the Federal Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) may be required. Please contact Ulgonda Kirkpatrick (phone: 321/972-9089, e-mail: ulgonda_kirkpatrick@fws.gov) with any questions regarding potential impacts to bald or golden eagles.

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

1. Name

Port of New Orleans Deepening Feasibility Study - USACE

2. Description

The following description was provided for the project 'Port of New Orleans Deepening Feasibility Study - USACE':

> USACE Feasibility Study to Deepen Port of New Orleans Access- New Orleans District USACE

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/29.91235130834631N90.10977745056147W

Qualification Interview

1. Is this a Federal project?
   Yes

2. Have you determined that the project will have "no effect" on federally listed species? (If unsure select "No")
   No

3. Are you with the U.S. Army Corps of Engineers Regulatory Division?
   No

4. Are you with the U.S. Army Corps of Engineers Planning Division?
   Yes

5. Is the action part of a Civil Works project?
   Yes

6. Does the action result in the discharge of fill into wetlands that meets the *de minis* standard?
   Yes

7. [Hidden Semantic] Does the project intersect the west indian manatee AOI?
   Automatically answered
   Yes

8. (Semantic) Is the project located within the manatee consultation zone, excluding the Mississippi River?
   Automatically answered
   Yes

9. Is the water depth within the project greater than 2 feet (at mean high tide)?
   Yes

10. Will the project occur during the months of June through November?
    No

11. [Hidden Semantic] Does the project intersect the pallid sturgeon AOI?
    Automatically answered
    Yes

12. Will the project result in riverine pathway obstruction (such as construction of dams, hydropower plants, etc.)?

    No

13. Will the project include the addition of or modification to water intake structures?

    No

14. Will the project involve modifications to existing or construction of new diversion structure or turbines?

    No

15. Is this an instream sand and gravel mining project in Concordia, Tensas, Madison, or East Carroll Parishes?

    No

16. Will the project involve dredging activities?

    Yes

17. Will the project involve bucket dredging only?

    No

18. Will the following cutterhead/suction dredge operational parameters be included as **permit conditions**? 1) The cutter head must remain completely buried in the bottom material during dredging operation. If pumping water through the cutterhead is necessary to dislodge material or to clean the pumps or cutterhead, etc., the pumping rate will be reduced to the lowest rate possible until the cutterhead is at mid-depth, where the pumping rate can then be increased. 2) During dredging, the pumping rates will be reduced to the slowest speed possible while the cutterhead is descending to the channel bottom.

    Yes

19. (Semantic) Does the project intersect the Louisiana black bear Range?

    Automatically answered

    No

Project Questionnaire

1. How many cubic yards will be dredged as part of the action?
   Undetermined

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Louisiana Ecological Services
200 Dulles Drive
Lafayette, Louisiana 70506
March 25, 2020

Colonel Stephen Murphy
District Commander
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Colonel Murphy:

Please reference the Port of New Orleans Deepening Feasibility Study conducted by the U.S. Army Corps of Engineers, with the Port of New Orleans (PONO) acting as the non-federal sponsor. The Water Resources Development Act 2016, Section 1202(d) Mississippi River Ship Channel, Gulf of Mexico to Baton Rouge, Louisiana directed the Corps of Engineers (Corps) to conduct a study to determine the feasibility of modifying the area for navigation. This project is authorized by section 201(a) of the Harbor Development and Navigation Improvement Act of 1986 (Public Law 99–662; 100 Stat. 4090), which allows the Corps to deepen the channel approaches and the associated area on the left descending bank of the Mississippi River between mile 98.3 and mile 100.6 Above Head of Passes to a depth equal to the channel. This draft letter-report does not constitutes the final report of the Secretary of the Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). A copy of this letter has been provided to the Louisiana Department of Wildlife and Fisheries; their comments, if any, will be forwarded under separate cover.

The project site is located in and adjacent to an area currently used by the PONO to load and unload cargo from commercial vessels. The project area is located within Orleans Parish, in the Mississippi River, which is characterized by high water volume, velocities and a high sediment load. The project area is currently maintenance dredged, typically annually depending upon availability of funds. The proposed project involves deepening the approach channel to the PONO between B/L Station 41+22.67 and Station 78+49.49 by dredging to an increased depth of minus 50 feet Mean Low Water Reference Plane (MLWRP) from the existing PONO wharf 1,500 feet out into the Mississippi River. The remainder of the study area would be maintained at the currently authorized minus 35 feet. The PONO would continue to dredge the 160-foot wide berthing area (between B/L Station 41+22.67 and Station 78+49.49). All material would be removed via hydraulic dredge, and discharged unconfined into the adjacent deeper areas of the Mississippi River in a manner consistent with current dredging practices

The project area consists entirely of open water that is currently dredged at frequent intervals to maintain access to existing port facilities. The area is a highly turbid, dynamic riverine environment and experiences significant sediment deposition and relocation during high water events. No vegetated wetlands are located within the proposed project area.

1

The area of direct project impacts provides minimal fish and wildlife habitat value. Dredging activities are expected to continue either with or without the project. Aquatic species in the Mississippi River include pallid sturgeon, shovelnose sturgeon, paddlefish, blue catfish, channel catfish, freshwater drum, various turtles and numerous other species. Wildlife species that may be found within the proposed project area include pelicans, anhingas, double-crested cormorants and various gulls, terns and ducks. Species in the project area may be temporarily disturbed by the noise associated with the proposed work, but these impacts are temporary in nature. Further, individuals are likely to move to adjacent areas of suitable habitat during project implementation.

On February 29, 2020, the Service concurred with the Corps' determination that implementation of the project as proposed is not likely to adversely the West Indian manatee or pallid sturgeon. If the proposed action proceeds as described and no additional information about the action's effects on species protected under the Endangered Species Act becomes available, no further coordination with the Service is required.

In summary, the Service does not object to the implementation of the proposed Port of New Orleans Deepening project as currently described. The proposed project would not significantly impact Federal trust fish and wildlife resources. We appreciate the opportunity to comment on the proposed project; any future planned modifications to the project should be coordinated with our office. If your staff have any questions regarding our comments, please have them contact Karen Soileau of this office at (337) 291-3132.

Sincerely,

[redacted]

Joseph A. Ranson
Field Supervisor
Louisiana Ecological Services Office

cc: Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVE
NEW ORLEANS LA 70118-3651

No known historic properties will be affected by this undertaking. Therefore, our office has no objection to the implementation of this project. This effect determination could change should new information come to our attention.

Kristin P. Sanders
State Historic Preservation Officer
Date 04/09/2020

Regional Planning and
Environment Division, South
Environmental Planning Branch
Attn: CEMVN-PDS-N

Kristin Sanders, SHPO
LA State Historic Preservation Officer
P.O. Box 44247
Baton Rouge, LA 70804-4241

RE: Section 106 Review Consultation
Undertaking: Port of New Orleans
Jefferson and Orleans Parishes, Louisiana
Lat. 29.916° N, 90.086° W to 29.913° N, 90.130° W
Determination: No Historic Properties Affected

Dear Ms. Sanders:

The U.S. Army Corps of Engineers, New Orleans District (CEMVN) is planning to deepen the channel approaches and associated area on the Mississippi River between mile 98.3 and mile 100.6 Above Head of Passes (AHP). As part of CEMVN's evaluation and in partial fulfillment of responsibilities of the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA), CEMVN offers you the opportunity to review and comment on the potential of the proposed action described in this letter to affect historic properties.

Description of the Undertaking

The proposed undertaking will deepen the Port of New Orleans (PONO) channel from 35 feet to 52 feet between river miles 98.3 and 100.6 to within 100 feet of the docks (Figure 1). Dredging of this part of the river began in January 1996 and continued annually henceforth.

Area of Potential Effect (APE)

The proposed PONO dredging action on the Orleans Parish side of the Mississippi River between river mile 98.3 and 100.6 AHP to a maximum depth of 52 feet is the APE.

Identification and Evaluation

A series of document and archival resources (SHPO reports 22-0918, 22-4166) and archaeological surveys (SHPO reports 22-053, 22-1170, 22-2358) have been conducted in this reach of the Mississippi River in Jefferson and Orleans parishes. The Louisiana Cypress Company Warf (16JE208) is near mile 98.1 AHP on the Jefferson

Parish side of the river as reported by Christopher Goodwin and Associates (SHPO report 22-1351). National Register of Historic Places (NRHP) has not been determined for 16JE208, and the site would not be effected by the proposed undertaking. The brickyard (16JE207) that is also in Jefferson Parish near mile 98.6 has not had NRHP eligibility determination, and would not be effected by the proposed undertaking. A landfill and city dump (16OR181) that extends from river mile 102 to 103 AHP on the Orleans Parish side has been determined not NRHP eligible. A shipwreck concentration extends upstream from Shipwreck #18 (16OR206) at mile 101.95 to mile102.36 (Shipwreck #1, 16OR189). These wrecks are all outside of the APE for this undertaking and have been determined not eligible for listing to the NRHP. Shipwreck (19OR199) at river mile 102.12 has been determined potentially eligible for listing to the NRHP, but is outside of the APE for the proposed undertaking. The underwater obstructions between river mile 99 and 101 on a November 2019 NEW ORLEANS HARBOR chart that are depicted on the SHPO GIS database have been identified or removed. None are historic properties. There are no NRHP eligible historic properties in the APE.

Assessment of Effects

Based on the information presented in this letter, CEMVN has determined that there are no historic properties in the APE. Therefore CEMVN is making a determination of **No Historic Properties Affected** for this undertaking and is submitting it to you for your review and comment. This project will be subject to the standard change of scope of work, inadvertent discovery, and unmarked human burial sites act provisions. CEMVN requests your comments within 30 days.

We look forward to your concurrence with this determination. Should you have any questions or need additional information, please contact J. T. Penman, Archaeologist at (504) 862-1373, john.t.penman@usace.army.mil, U.S. Army Corps of Engineers, New Orleans District.

Sincerely,

[redacted]

MARSHALL K. HARPER
Chief, Environmental Planning Branch

CC: File
LA SHPO
An electronic copy of this letter with enclosures will be provided to the Section 106 Inbox, section106@crt.la.gov.

Figure 1. The Port of New Orleans Channel Deepening APE (River miles 98.3 AHP to 100.6 AHP).

References

George, Davis, Roger Saucier, Susan Barret Smith, Jeremy Pincoske, William Hayden, Rebecca Johnson, Ryan Crutchfield, William Barr, and William Athens
2000 Cultural Resource Study Supporting Supplement I to the Final Environmental Impact Statement, Mississippi River Main Line Levee. R. Christopher Goodwin & Associates, Inc. SHPO report 22-2358.

Goodwin, R. Christopher, Paul G. Armstrong, and Jeffrey Treffinger
1994 Cultural Resources Survey of West Bank Levee Construction Items, Waggaman to Gretna, Jefferson and Orleans Parishes, Louisiana. R. Christopher Goodwin & Associates, Inc. SHPO report 22-1170.

National Park Service
1984 Mississippi River: Cultural Resources Survey: A Comprehensive Study Phase I Component, A Thematic Historical Overview. National Park Service, Denver. SHPO report 22-0918.

Shenkel, J. Richard
1977 Cultural Resources Survey of the Nashville Avenue to Napoleon Avenue Floodwall, Mississippi River Levees, Item M-100-L, Orleans Levee District, Orleans Parish, Louisiana. Submitted to U.S. Army Corps of Engineers. New Orleans. SHPO report 22-53.

White, Andrea P.
2012 The Greater New Orleans Archaeological GIS Project: End of Grant Report. Office of Equal Opportunity. Washington, DC. SHPO report 22-4166.

Drawings for EA# 577

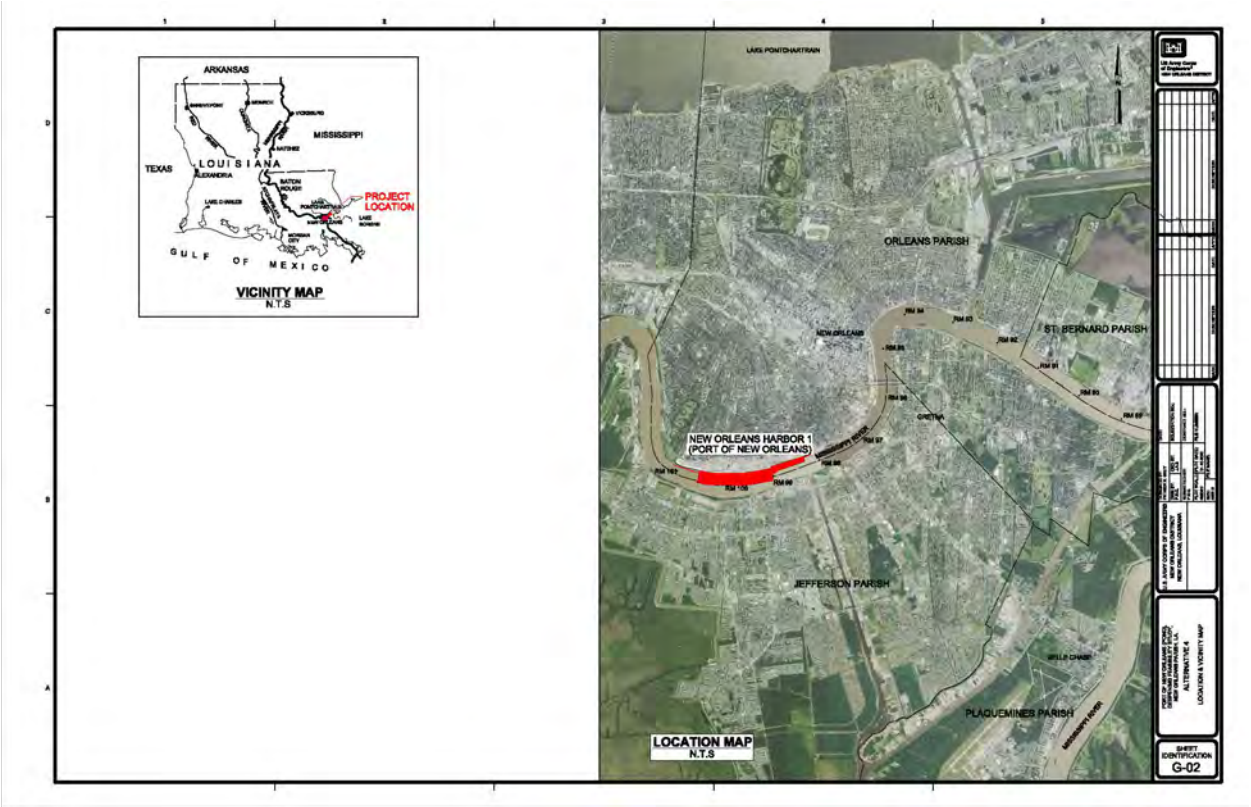

Figure 1 – Vicinity Map

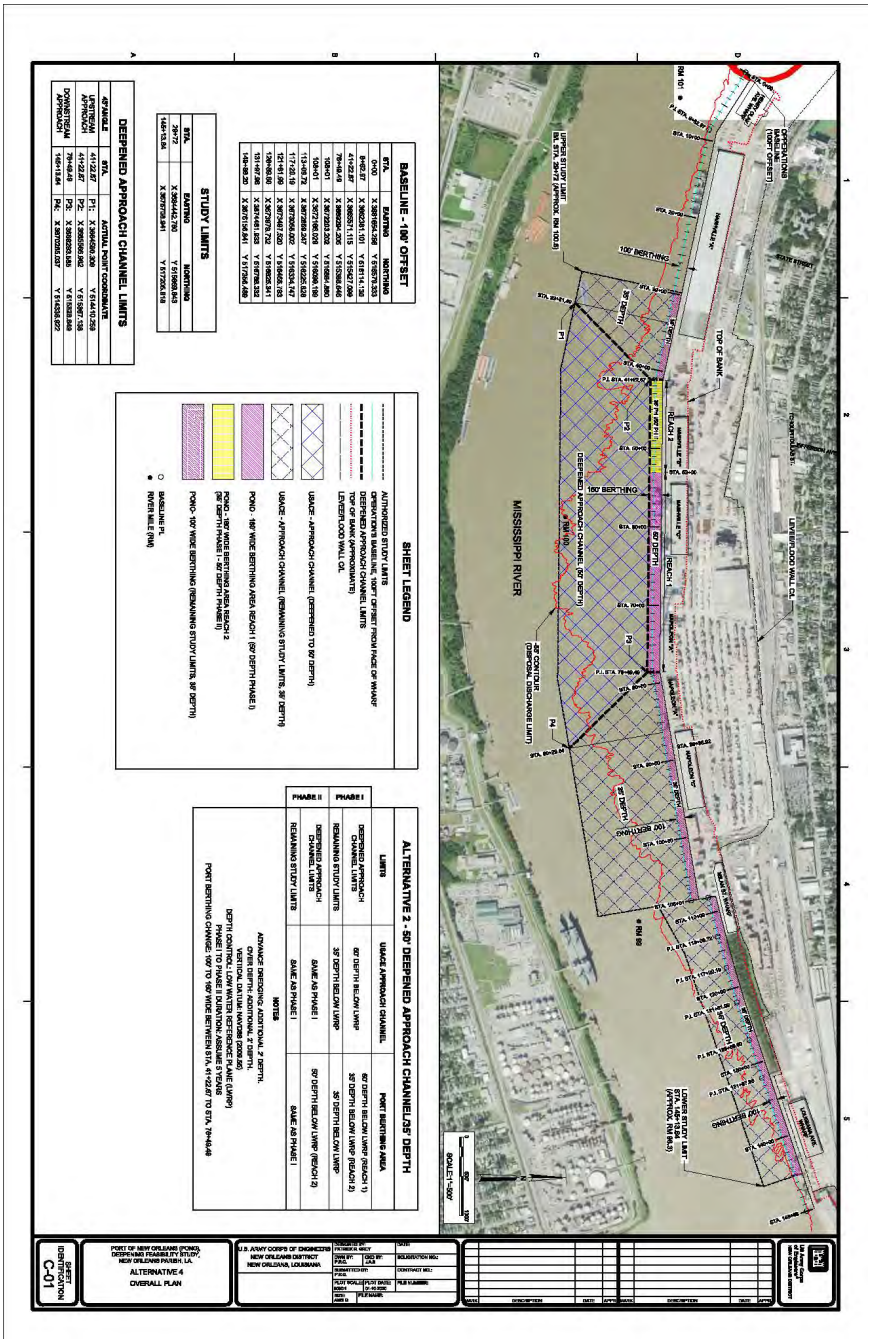

Figure 2 – Project Area

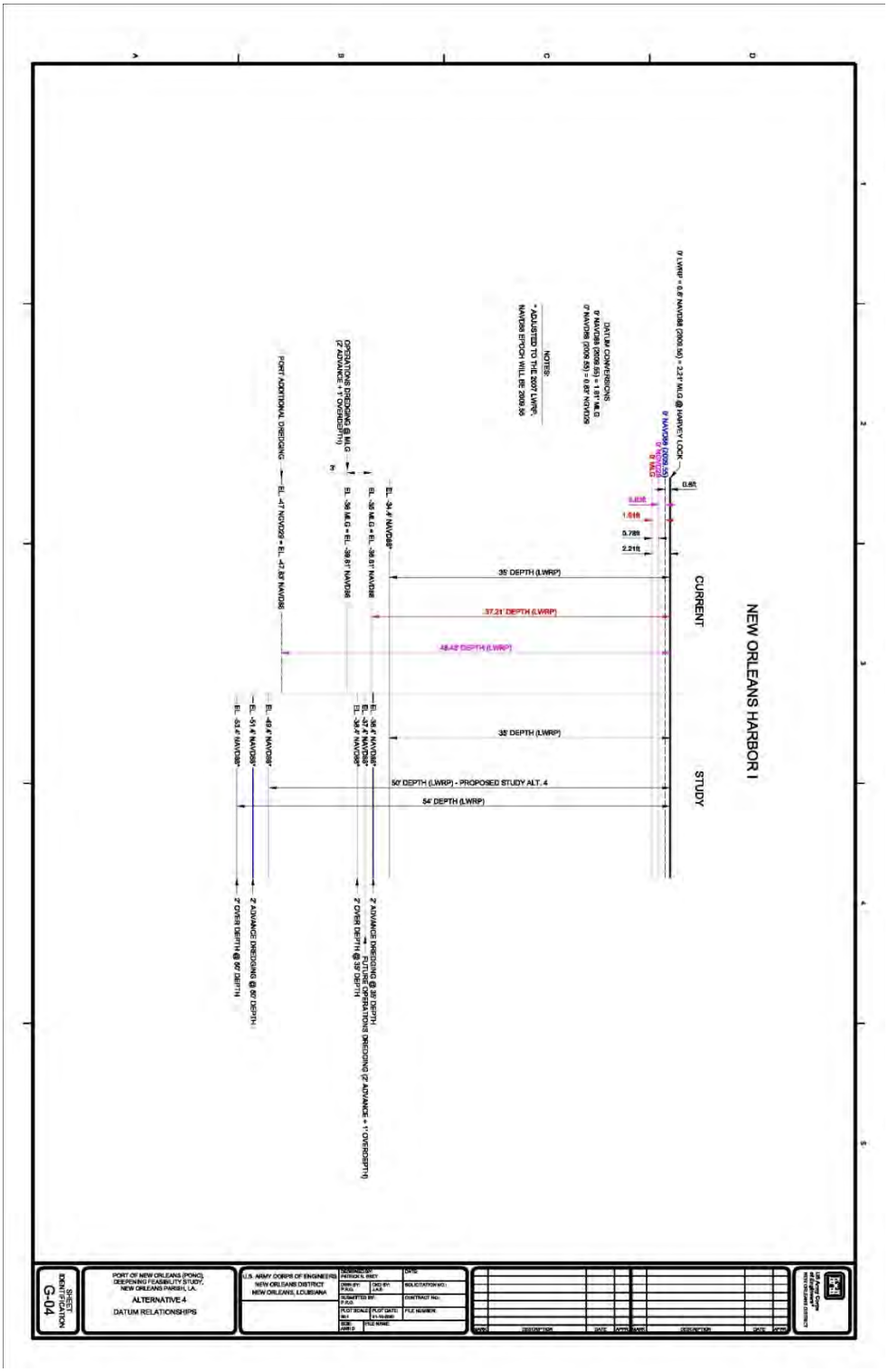

Figure 3: Comparison of Vertical Datums