U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT

Draft Supplemental Programmatic Environmental Assessment #556A

Categorical Permissions to Alter U.S. Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408

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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), New Orleans District (District) has constructed, and continues to construct, numerous civil works projects within its geographical area of responsibility in the southern portion of Louisiana. The District receives numerous requests each year from private interests and local and state agencies for permission to perform activities that would affect or alter these USACE civil works projects. When requests are received, they are evaluated to determine if the proposed alteration would impair the usefulness of the USACE project or be injurious to the public interest. Engineering Circular (EC) 1165-2-220, titled *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 U.S. Code (USC) 408*, provides guidance to process such requests, known as Section 408 requests. The EC is available at: https://www.publications.usace.army.mil/Portals/76/Publications/EngineerCirculars/EC_1165-2-220.pdf?ver=2018-09-07-115729-890. The indefinite extension to this EC can be found at: https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll11/id/6583.

EC 1165-2-220, Paragraph 10.a., states that, in order to simplify the review process for Section 408 requests, USACE districts may develop "categorical permissions" for proposed alterations that are similar in nature and have similar impacts.

The District is updating the Final Programmatic EA #556, Categorical Permissions to Alter U.S. Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408, dated October 2017, to evaluate the environmental impacts of proposed new and revised categories of requested alterations to determine whether those actions may appropriately be designated as categorical permissions. Designation of a type of proposed action as a categorical permission would continue to allow expedited NEPA review of the proposed action to validate application of the categorical permission and to identify and specify any special conditions that may apply on a site-specific basis. If validated, this expedited review would result in preparation of a Memorandum for Record documenting the use of the categorical permission in lieu of preparation of an EA or EIS. If approved by the District Commander, categorical permissions would be applicable to certain categories of requests to alter Federal flood control and flood risk reduction projects and navigation projects within the boundaries of the District.

Preparation of this Supplemental Programmatic Environmental Assessment (SPEA) follows the President's Council on Environmental Quality (CEQ) guidance for Effective Use of Programmatic NEPA Reviews. It evaluates "a suite of ongoing, proposed, and reasonably foreseeable actions that share a common geography or timing, such as multiple activities within a defined boundary" as described in the CEQ guidance. The purpose of this SPEA is to develop categorical permissions as described in EC 1165-2-220 to cover potential alterations that are similar in nature, have similar impacts that would not individually or cumulatively impact the usefulness of the USACE project(s), have any significant effect on the human environment, or be injurious to the public interest. If

approved, the respective categorical permissions will be reviewed on a regular basis to ensure that, based on on-going experience, those types of activities continue to not impair the usefulness of the applicable USACE project(s), not be injurious to the public interest, and have only minimal environmental impacts, and that circumstances have not changed that would impact the analyses and conclusions reached in this document.

This document provides the necessary information to fully address the potential environmental impacts of implementing categorical permissions for Section 408 as required under the NEPA of 1969, as amended (42 USC 4321 et seq.); CEQ Regulations (40 Code of Federal Regulations (CFR) 1500 – 1508) (CEQ, 2022); and USACE Engineer Regulation (ER) 200-2-2 (33 CFR 230) (USACE, 1988). ER 200-2-2 contains the USACE's procedures for implementing NEPA.

1.1 33 USC Section 408 Authority and Guidance

The authority to grant permission for temporary or permanent alterations to Federally authorized civil works projects is contained in Section 14 of the Rivers and Harbors Act of 1899, codified at 33 USC § 408, titled *Taking possession of, use of, or injury to harbor or river improvements*. It states:

"*It shall not be lawful for any person or persons to take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, or in any manner whatever impair the usefulness of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States, or any piece of plant, floating or otherwise, used in the construction of such work under the control of the United States, in whole or in part, for the preservation and improvement of any of its navigable waters or to prevent floods, or as boundary marks, tide gauges, surveying stations, buoys, or other established marks, nor remove for ballast or other purposes any stone or other material composing such works: Provided, That the Secretary of the Army may, on the recommendation of the Chief of Engineers, grant permission for the temporary occupation or use of any of the aforementioned public works when in his judgment such occupation or use will not be injurious to the public interest: Provided further, That the Secretary may, on the recommendation of the Chief of Engineers, grant permission for the alteration or permanent occupation or use of any of the aforementioned public works when in the judgment of the Secretary such occupation or use will not be injurious to the public interest and will not impair the usefulness of such work.*"

Specific USACE guidance for implementation of 33 USC § 408 ("Section 408") is provided by EC 1165-2-220. The expiration date on the EC was September 30, 2020, but has been indefinitely extended "until such a time EC 1165-2-220 is superseded by rulemaking" (Belk, 2023). Until then, EC 1165-2-220 will continue to be the guidance and policy that is in place and will be utilized for processing requests to alter USACE Civil Works Projects. EC 1165-2-220 defines the use of the terms "alteration" and "alter" as

any action by any entity other than USACE that builds upon, alters, improves, moves, occupies, or otherwise affects the usefulness or the structural or ecological integrity of a USACE project. This definition is also being used in this document as well. The entity or individual requesting permission to alter the USACE project, hereafter referred to as the requester, is responsible for acquiring all other needed permissions, authorizations, and permits. This includes any permits needed from the USACE Regulatory Program, specifically Rivers and Harbors Act Section 10 and Clean Water Act Section 404 permits.

EC 1165-2-220 contains USACE policy statements concerning environmental compliance for Section 408 permissions. "USACE has jurisdiction under Section 408 only over the specific activities or portions of activities that have the potential to alter, occupy, or use a USACE project." Therefore, generally "[t]he scope of analysis for environmental and cultural resources compliance for the Section 408 review should be limited to the area of the alteration and those adjacent areas that are directly or indirectly affected by the alteration." The EC also recognizes that in some circumstances, a larger area should be subject to environmental review.

1.2 Scope of the Supplemental Programmatic Environmental Assessment

The District's geographical area of responsibility for civil works projects is shown in Figure 1. USACE districts are defined mainly by drainage basins. The District includes the drainage basin of the Mississippi River within Louisiana generally south of the Old River Control Complex near Simmesport, and nearly all of the coastal streams and rivers draining into the Gulf of America within Louisiana, but it does not include the Sabine River Basin or the Pearl River Basin. The Galveston District has responsibility for the Sabine River Basin and the Vicksburg District has responsibility for the Pearl River Basin. The Vicksburg District also has responsibility for the Red and Ouachita River Basins in central and north Louisiana.

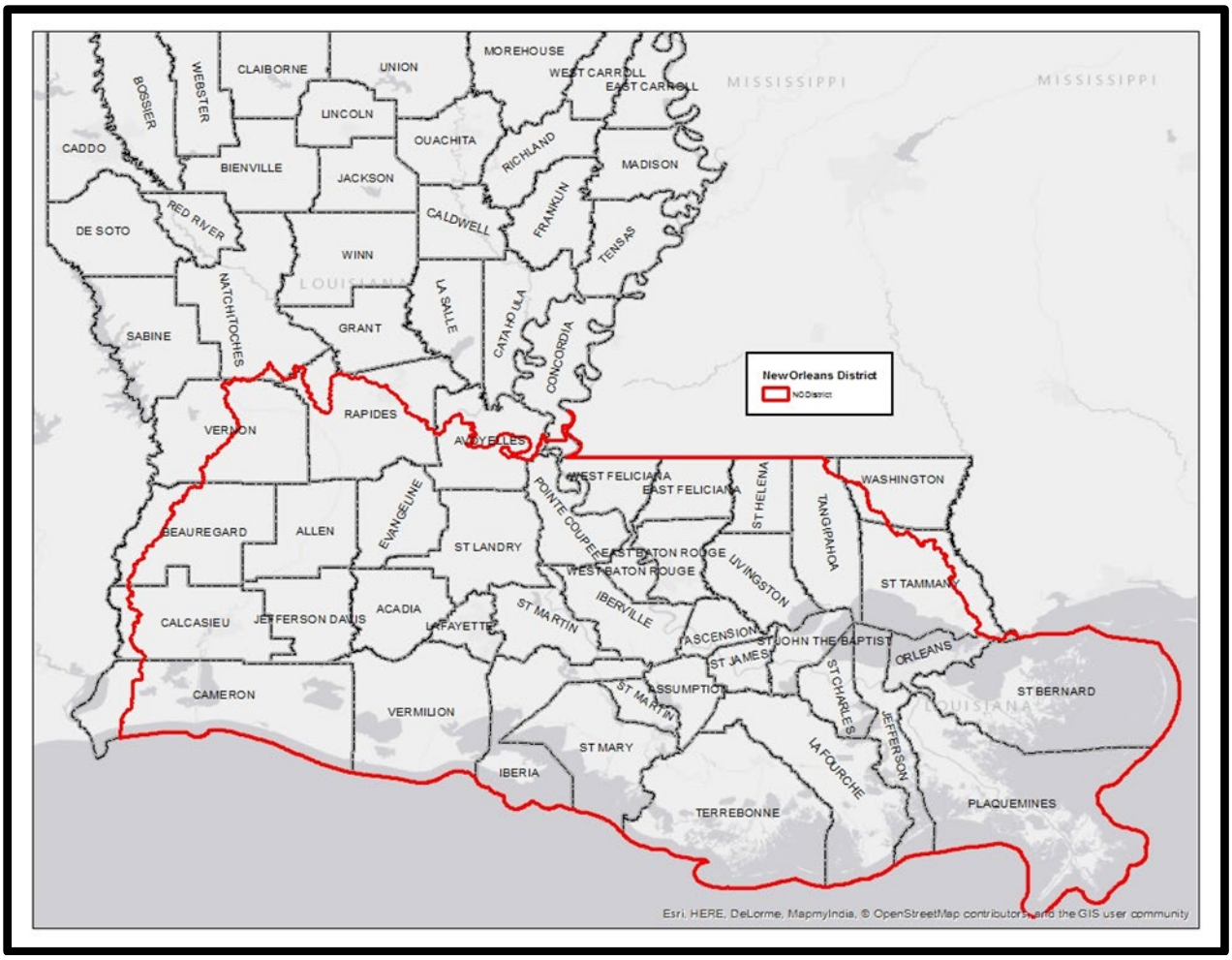

Figure 1: The New Orleans District geographical boundary.

If a proposed alteration is part of a larger project that extends beyond the USACE project boundaries, the District staff would determine what portions or features of the larger project USACE has control and responsibility over to warrant inclusion as part of the evaluation, as described in EC 1165-2-220. Requests to alter projects other than Federal flood risk reduction, flood control projects (Mississippi River and Tributaries Project), and Federal navigation projects, and alteration types not considered in this SPEA, will be evaluated for NEPA compliance separately. Either a categorical exclusion as provided under ER 200-2-2, an EA with a FONSI, or an EIS with a record of decision (ROD) would be prepared for those requests.

The lead paragraph of EC 1165-2-220 states that the EC applies to Federally authorized Civil Works projects. There are several large Federal projects within the District that are Congressionally-authorized for construction, but construction, as part of a Federal project has not been completed. In some cases, project cost-share agreements have not been executed between the USACE and the non-Federal project sponsors, and in some cases

the projects have not received “new start” construction funding from Congress. When USACE has jurisdiction over the project area under another authority (such as the Clean Water Act §404 or Rivers and Harbors Act §10), the District will evaluate proposed actions that would alter these authorized but not-yet-completed projects in the same manner as proposals to alter constructed projects are evaluated, while considering that real estate acquisition to establish project boundaries has not yet occurred.

The establishment of categorical permissions would not change the engineering and real estate reviews conducted for every Section 408 request. The District’s Engineering Division conducts, and would continue to conduct, a thorough evaluation of every Section 408 request to assure that the usefulness of the USACE project(s) is not impaired and that the alteration would not be injurious to the public interest. The USACE Regional Real Estate Division would also continue to evaluate every Section 408 request to assure that the USACE project’s real estate interests are not adversely affected. These two District technical divisions would continue to work with the requesters to modify the requests as needed to assure the Section 408 actions do not adversely affect USACE projects. All Section 408 requests also undergo an agency technical review or ATR, as required by EC 1165-2-220. The District has developed and utilizes an overarching review plan, called a procedural review plan, which established the review procedures to be used for requests that are similar in nature and that have similar impacts. The District’s procedural review plan applies to generally the same categories of requests as this supplemental programmatic EA. Individual review plans are developed and used for the types or categories of requests that are not covered under the procedural review plan.

1.2.1 Federal Flood Risk Reduction and Flood Control Projects

There are several large-scale flood risk reduction projects within the District. The project providing hurricane storm surge risk reduction to most of Orleans Parish (New Orleans) and the parts of Jefferson, St. Bernard, and St. Charles Parishes that lie on the east bank of the Mississippi River, is the Lake Pontchartrain and Vicinity project. The West Bank and Vicinity project provides hurricane storm surge risk reduction to parts of Jefferson, St. Charles and Orleans Parishes that lie on the west bank of the Mississippi River. Both projects are designed to provide risk reduction from storms with a one percent chance of occurring in any single year, otherwise known as the 100-year level of risk reduction. The New Orleans to Venice project provides hurricane storm surge risk reduction to parts of Plaquemines Parish, generally the higher lands bordering both banks of the Mississippi River. The Larose to Golden Meadow project provides hurricane storm surge risk reduction to parts of Lafourche Parish, generally the higher lands bordering both banks of Bayou Lafourche. All of these projects consist primarily of earthen levees, along with concrete floodwalls, concrete barriers, navigable floodgates, vehicular floodgates, and pumping stations.

The Mississippi River and Tributaries (MR&T) Project’s flood control plan employs a variety of engineering techniques, including an extensive levee system to prevent

disastrous overflows on developed alluvial lands; floodways to safely divert excess flows past critical reaches so that the levee system will not be unduly stressed; channel improvements and stabilization features to protect the integrity of flood control measures and to ensure proper alignment and depth of the navigation channel; and tributary basin improvements, to include levees, headwater reservoirs and pumping stations, that maximize the benefits realized on the main stem by expanding flood protection coverage and improving drainage into adjacent areas within the alluvial valley. Major features of the MR&T project lie within the District. The most notable feature is the mainline levees along the banks of Mississippi River. Within the District, the west bank levee is continuous, except for floodwalls, floodgates, and water control structures from the upstream limit of the District near Old River to Venice. On the east bank, the levee runs from Baton Rouge to Bohemia in Plaquemines Parish, with interspersed floodwalls, floodgates, and water control structures. Major project features along the Mississippi River include the Bonnet Carre diversion structure and spillway, the Morganza diversion structure, the Old River Control Complex, which includes three major water control structures (Low Sill, Auxiliary, and Overbank Structures), and the Old River Lock. The Atchafalaya Basin Flood Control project is also a major feature of the MR&T project. The Atchafalaya Basin Flood Control project consists of levees along both banks of the Atchafalaya River from Old River downstream to approximately Butte La Rose and basin protection levees on the east and west sides of the Atchafalaya Basin Floodway down to the vicinity of Morgan City, and the Levees West of Berwick which provide river flood protection to cities, towns and communities along Bayou Teche and Bayou Sale. In addition to these levees, the project includes many floodgates, several pumping stations, several navigation locks, navigable floodgates, gravity drainage structures, and channel dredging for flood control and navigation.

The MR&T project also includes a channel improvement program which prevents migration of the Mississippi and Atchafalaya Rivers. Under this program, dikes, revetment, and dredging are used to stabilize the river channel and its banks. These channel improvement features provide both navigation and flood risk reduction benefits by maintaining an efficient channel alignment, providing the required flood-carrying capacity, and protecting the adjacent levee system.

One additional, notable flood risk reduction project is the Comite River Diversion project under construction in East Baton Rouge Parish which, when operational, will divert flood flows from the Comite River to the Mississippi River. Appendix A contains annotated tables of the flood risk reduction and MR&T projects within the District.

1.2.2 Federal Navigation Projects

The New Orleans District of USACE likely has the densest concentration of navigation projects in the U.S. The most heavily used deep draft channel is the Mississippi River which is currently a 45 ft channel from Baton Rouge to mile 175 and a 50 ft channel from mile 175 to the Gulf of America. Dredging is required to maintain the navigation channel

from the bar channel in the Gulf of America at the entrance to Southwest Pass, through Southwest Pass to the vicinity of Venice. Dredging is also required at several locations between Baton Rouge and New Orleans, known as crossings, where the deep, natural channel of the river crosses from one side of the river to the other.

The Calcasieu River and Pass project in southwest Louisiana provides a 41 feet Mean Lower Low Water deep navigation channel from the Gulf of America to the Port of Lake Charles, with side channels and turning basins. The Atchafalaya River and Bayous Chene, Boeuf and Black project provides a 20 feet deep channel from the Gulf of America, through the Atchafalaya River and Bayou Chene, up to the industrial fabrication facilities located along Bayous Boeuf and Black near Morgan City. Other notable coastal waterways that have USACE-maintained navigation channels are Mermentau River, Freshwater Bayou, Houma Navigation Canal, Port Fourchon (Bayou Lafourche), Barataria Bay Waterway, Tiger Pass, and Baptiste Collette Bayou. All of these channels provide for navigation between the Gulf of America and inland, land-based facilities.

The primary navigation channel running parallel to the Louisiana coast is the Gulf Intracoastal Waterway or GIWW. The GIWW provides for shallow-draft, inland navigation from Brownsville, Texas to the vicinity of Apalachicola, Florida. Within the District, the main stem of the GIWW runs from the western to the eastern borders of the District. An alternate route runs from the main stem near Morgan City to the Port Allen Lock on the west bank of the Mississippi River near Baton Rouge. The GIWW is heavily used for the transportation of liquid petroleum and petroleum products. This project is unlike nearly all other USACE projects in the District because it does not have a non-Federal project sponsor who is responsible for acquisition of lands, easements, right-of way, and disposal areas. All real estate interests required for the GIWW project are in the name of the Federal Government. Appendix A contains annotated tables of the navigation projects within the District.

2 Purpose and Need

2.1 USACE Policy Guidance

Engineering Circular 1165-2-220, Section 10.a, states that USACE districts have the ability to develop categorical permissions for compliance with Section 408 to cover potential alterations that are similar in nature and that have similar impacts in order to simplify the NEPA review process. While the District has established categorical permissions for common types of requests that experience has shown to not typically cause any more than minimal environmental impacts the District still has received numerous requests that have resulted in review and preparation of EAs and FONSIs for requests that did not meet the criteria for a categorical permission contained under PEA #556 or the criteria for a categorical exclusion contained under ER 200-2-2. Each of these requests resulted in a finding of no significant impact on the human environment made by the USACE, New Orleans District Commander. Through this supplemental

programmatic EA, the District proposes to establish additional categorical permissions for the type of actions that are common in the District.

Updating the categorical permissions would continue to simplify the review process for the majority of the Section 408 requests that are received and allow the District to expedite environmental reviews while continuing to provide an adequate level of environmental review meeting NEPA requirements. The majority of future requests, based on requests received in the past, are expected to have minimal to minor, but not significant, levels of adverse environmental impacts on the environment within USACE project boundaries and adjacent areas indirectly affected. Expedited reviews would benefit both the Government and requesters by reducing the time and expense related to processing the Section 408 requests, while continuing to fully comply with USACE NEPA implementing regulations and USACE Section 408 policy guidance. Further, it would free personnel resources to process environmental reviews of the remaining requests which require the preparation of EAs or EISs, within a reasonable amount of time.

The purpose of this document is to update the categorical permissions as described in EC 1165-2-220 to cover potential alterations that are similar in nature and have similar impacts and that do not have the potential for individually or cumulatively significant impacts in order to simplify the Section 408 review process. This aligns with guidance from CEQ concerning development of programmatic NEPA reviews for multiple actions that are similar in nature (CEQ, 2014). Also, a programmatic document allows for a more comprehensive evaluation of potential cumulative impacts that may result from numerous alterations within the District.

2.2 Procedures and Limitations

The following general requirements are applicable to all Section 408 requests received by the District:

1. Design and construction specifications must be signed and sealed by a Louisiana-registered professional engineer and, if applicable, a Louisiana-registered geologist.
2. The proposed alteration must not negatively impact typical inspections, operations, and maintenance of the USACE project.
3. The proposed alteration must not impact any flood-fighting operations that may be conducted at the USACE project.
4. The proposed alteration must not result in any increase in operation and maintenance costs to the USACE.

The following engineering and environmental conditions have been developed to assist in determining if proposed alterations would be injurious to the public interest:

1. Proposed alterations must not adversely affect any threatened or endangered

species, including their critical habitat, listed or designated under the Endangered Species Act.
2. Proposed alterations must not result in the “take” of migratory birds as defined in the Migratory Bird Treaty Act.
3. Proposed alterations must incorporate best management practices to control storm water runoff or any point source discharges in accordance with any required National Pollutant Discharge Elimination System (NPDES) permits.
4. Proposed alterations must not encourage additional development within the floodplain, or adversely affect floodplain values or the base flood elevation.
5. Proposed alterations must not adversely affect any significant cultural resources and be in compliance with the National Historic Preservation Act (NHPA) Section 106.
6. Proposed alterations must meet other conditions as described in Section 5, Environmental Consequences.
7. Proposed alterations must not cause a public health or safety issue, or a navigation safety issue.

All 408 requests are reviewed for compliance with these requirements. Any alterations that are approved as categorical permissions will continue to be evaluated for compliance with these requirements. Additionally, in order to qualify for use of a categorical permission, the request must meet the following requirements:

1. The activity must not result in more than minor impacts to the environment.
2. The activity must have a small footprint.
3. The activity must not be likely to adversely affect a listed species or designated critical habitat under the Endangered Species Act.
4. The activity must not have the potential to result in disproportionate adverse impacts to low income or minority populations.
5. The activity must not adversely affect prime and unique farmlands, state-designated scenic streams or socioeconomic resources.
6. The activity must have no or only temporary adverse impacts to recreational resources.
7. The activity must not impinge upon the value (habitat, hydrology, etc.) of any National Wildlife Refuge, National Forest, areas administered the National Park Service of the U.S. Department of Interior, areas administered by the Louisiana Departments of Natural Resources or Wildlife and Fisheries, or similarly held areas administered by federal, state, or local governmental authority, unless special permission from these agencies is submitted with the application.

Proposed activities not meeting these requirements will be evaluated for NEPA compliance through the usage of a categorical exclusion or preparation of an EA or EIS, as appropriate.

Generally, the requester is responsible for conducting all necessary environmental and

cultural resources studies and analyses, obtaining necessary permits, and providing copies to USACE for review. If the environmental conditions listed above are met and the request would not result in more than minor impacts to the environment, then the proposed alteration would be determined to not be injurious to the public interest, from an environmental perspective, unless extraordinary circumstances are involved.

Detailed engineering criteria and requirements for some proposed alterations have been developed by the Districts' Engineering Division to assist in determining if the proposed alteration would impair the usefulness of the USACE project. Requesters are required to comply with these criteria and requirements. These engineering criteria and requirements are provided as Appendix B and are available on the District's website at: https://www.mvn.usace.army.mil/Portals/56/docs/Section%20408/Section%20408%20Criteria%20for%20website.pdf.

3 Alternatives

For this EA, categories or types of requests are the alternatives. Two new action alternatives along with revisions to an already approved alternative were evaluated in detail, in addition to the no-action alternative.

The following general requirements apply to all of the action alternatives:

The requester conducts all necessary environmental and cultural resources surveys and provides the information to the District staff. The requester obtains all necessary permits and approvals from other agencies, including State water quality certification and a State coastal use permit, when applicable. The District staff conducts Endangered Species Act Section 7 review and as necessary consultation with the USFWS and/or the National Marine Fisheries Service (NMFS), conducts Essential Fish Habitat consultation with the NMFS as necessary, and conducts cultural resources review and NHPA Section 106 coordination with the Louisiana State Historic Preservation Officer (SHPO) and interested Tribes.

Once the above environmental compliance is complete and if the request would not result in more than minor impacts to the environment, then absent unusual or extraordinary circumstances, the appropriate categorical permission(s) would be applied to the request and a Memorandum for Record would be prepared to document that determination.

3.1 Alternative 1 – No-Action

Under the no action alternative, the New Orleans District would continue utilizing the existing Categorical Permission process that's in place. The current process has been valuable in streamlining the review process of the Section 408 requests. It has reduced the administrative burden on both requesters and USACE and has also increased the timeliness of the Section 408 requests review. However, there are some Section 408

requests that have been similar in nature and had similar impacts as the other alternatives, but the proposed actions weren't covered in the original PEA. Therefore, individual environmental assessments still had to be completed for those requests that did not meet the criteria for a categorical permission. This alternative would not meet the purpose and need of continuing to simplify and expedite the Section 408 request environmental review process for activities with individually and cumulatively minor impacts. The District would continue to expend valuable time and resources processing EAs for activities with no potential for significant impacts.

Listed below (Table 1) are the multiple Section 408 requests that has been reviewed and approved as a Categorical Permission since the last FONSI was signed on 03 November 2017.

Table 1: Categorical Permissions Approved since Signed Programmatic EA #556 FONSI (November 2017)

Approved Categorical Permission Categories	Number of Categorical Permissions
Alternative 2 – Pipeline Crossings including Horizontal Directional Drills, Open Cuts, Ramp-Overs, and Floodwall Penetrations	31
Alternative 3 – Utility Lines including Fiber Optic, Water, Natural Gas, and Electricity, Both Aerial and Underground, Including Associated Structures and Support Poles	25
Alternative 4 – Bulk Material Conveyor Systems	1
Alternative 5 – Culverts, Drainage Pipes, and Drainage Ditches	4
Alternative 6 – Vehicle and Pedestrian Bridges	2
Alternative 7 – Bank Stabilization and Erosion Control Features	2
Alternative 8 – Bulkheads, Docks, Wharfs, Mooring Pilings, and Dolphins	21
Alternative 9 – Barge Fleeting Operations in Channels with Existing Barge Fleeting Operations	0
Alternative 10 – Cattle Guards, Fences, and other Ranching Activities on Easement Lands	7
Alternative 11 – Trails, Signage, Lighting, and other similar operational, recreational, and decorative features	6
Alternative 12 – Soil Investigations and Seismic Surveys, Including Borings, Piezometers, and Inclinometers	0
Alternative 13 – Levee Ramps and Crossings	25
Alternative 14 – Alterations that meet Engineering Requirements and Environmental Conditions (Recommended Plan)	

3.7 Alternative 7 – Revision of Categorical Permission for Bank Stabilization and Erosion Control Features

This alternative would result in a categorical permission for alterations that includes up to 1,000 feet of bank stabilization and erosion control features if it has been determined to have minimal individual and cumulative adverse environmental effect. This would be an increase of 500 feet from the previous PEA. Typical techniques are vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization techniques. The surface soils and sediments that make up coastal Louisiana are mostly alluvial sediment carried downstream by the Mississippi and other rivers and reworked since the last Ice Age. This material is generally highly erodible, and bank and shoreline erosion is an all-too-common problem along navigation channels and natural waterways.

The most common method for addressing shoreline erosion is armoring bank lines and shorelines with quarry stone. Another common method is placing quarry stone a short distance out from the shoreline to form a dike, often referred to as a foreshore dike. This method is used when geotechnical and other conditions, such as expected wave energy allow, and when avoidance of direct impacts to the shoreline is a priority. In some documented cases, enough suspended sediment has been captured in the stilled water behind such dikes that the shoreline naturally extends itself out to the foreshore dike. Other materials that may be used for shoreline erosion are articulated concrete mattress, poured concrete, broken concrete (rip-rap), and earthen material excavated from nearby areas or hauled from remote locations. Construction is usually accomplished using equipment positioned on barges or other vessels in the waterway. Dredging to provide access for barges and other vessels to construction sites may also be necessary. Commonly used dredging equipment includes a barge-mounted hydraulic excavator or a crane with a clamshell-type bucket. Typically, the dredged material either is deposited on the shoreline before surfacing material is placed over it or it is deposited adjacent to the access channel, and then is used to fill in the access channel once the shoreline work is completed.

To determine if a request for a bank stabilization or erosion control feature is appropriate to consider as a categorical permission, criteria found in the USACE's Nationwide General Permit (NGP) #13 (Bank Stabilization) will be used as in the original Programmatic Environmental Assessment with the exception of criteria (b.) and (c.) which is the following:

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects (an exception is for bulkheads – the district engineer cannot issue a waiver for a bulkhead that is greater than 1,000 feet in length along the bank);

(c) The activity will not exceed an average of one cubic yard per running foot, as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

Bank stabilization projects which conform to the criteria found in NGP #13 have been determined, through the USACE Regulatory permitting process, to neither individually nor cumulatively have significant adverse impacts. If the requested action does not comply, or cannot be modified to comply with the criteria in the NGP, the request would not be processed as a categorical permission.

3.15 Alternative 15 – Categorical Permission for Minor Dredging (New Alternative)

This alternative would result in a categorical permission for alterations that include minor dredging of no more than 40,000 cubic yards of dredge material, under USACE New Orleans Programmatic General Permit (PGP) for Section 10 and 404 actions. Activities authorized under this permission would be required to occur in existing waterbodies. This would not authorize the dredging or degradation through sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist but may not be present each year), anadromous fish spawning areas, wetlands, or the connection of canals or other artificial waterways to navigable waters of the United States.

3.16 Alternative 16 – Categorical Permission for Concrete Slope Pavement (New Alternative)

This alternative would result in a categorical permission for alterations for slope stabilization. Concrete Slope Paving is the primary slope stabilization method. It involves using concrete to create a continuous, rigid surface on levees. The concrete pavement acts as a protective layer, preventing erosion and maintaining the stability of the underlying soil. It offers durability, resistance to high flow velocities, and precise design and installation capabilities. This alternative is known for its low maintenance requirements and long lifespan, making it a cost-effective solution in the long run. However, other methods of slope stabilization such as broken concrete (rip-rap), gabions, articulated concrete blocks or similar materials would be also allowable under this alternative.

4 Affected Environment

This section describes the affected environment in terms of relevant resources for the Federal flood protection project (MR&T), flood risk reduction projects, and navigation projects within the District. Because of the broad geographical scope covered by this

programmatic document, it is not practical to describe the site-specific affected environment for each USACE project. Instead, this section describes the existing conditions at a regional scale with some limited site-specific details.

There are several resources that are not expected to occur or be adversely affected within the boundaries of USACE projects, by any of the types of actions under consideration for categorical permissions, including prime and unique farmlands, state designated scenic streams, and socioeconomic resources. Socioeconomic resources are generally expected to be benefitted by the Section 408 actions requested since most requests are for improvements to commercial, industrial, or governmental infrastructure. Floodplain values and functions are not expected to be adversely affected by any of the alternatives under consideration. If any of the above-mentioned resources are located within the USACE project boundary or have a possibility of being adversely affected by actions proposed under a Section 408 request, that request would not be processed as a categorical permission.

4.1 Air Quality

Federal air quality policies are regulated through the Clean Air Act. In accordance with this act, the U.S. Environmental Protection Agency (USEPA) has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants considered harmful to public health and the environment. 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 (0_3) 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 USEPA is required to designate counties or air basins as in attainment or nonattainment for each criteria pollutant. If an area is in nonattainment, the state must develop an implementation plan to achieve compliance. Once in compliance with NAAQS, the area becomes a maintenance area.

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 NAAQS pollutants. A conformity assessment requires 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.

The Final Conformity Rule requires Federal agencies to ensure that Federal actions in designated nonattainment or maintenance areas conform to an approved or promulgated state implementation plan or Federal implementation plan to ensure that a Federal action would not cause a new violation of the NAAQS, contribute to any increase in the frequency or severity of violations of existing NAAQS, or delay the timely attainment of any NAAQS interim or other attainment milestones. If a project would result in a total net increase in pollutant emissions that is less than the applicable *de minimis* threshold established in 40 CFR 93.153(b), detailed conformity analyses are not required.

There are two areas within the District that are designated as nonattainment: A portion of Evangeline Parish was designated on April 9, 2018. On June 2, 2010, EPA strengthened the primary NAAQS for Sulfur Dioxide (SO_2). EPA revised the primary SO_2 NAAQS by establishing a new 1-hour standard at a level of 75 parts per billion (ppb). As a result, the EPA designated a portion of Evangeline Parish as nonattainment for the new NAAQS on April 9, 2018, as part of the Data Requirements Rule (DRR). St. Bernard Parish was designated as nonattainment for sulfur dioxide under the 1-hour standard on October 4, 2013. All other areas in the District are classified as in attainment of air quality standards.

4.2 Water Quality

Individual states have jurisdiction for managing water quality within their states. The State of Louisiana's Department of Environmental Quality (LDEQ) developed the State's water quality assessment methods and prepares biennial Integrated Reports in order to meet reporting requirements of the Federal Water Pollution Control Act (33 U.S.C. §1313 and 40 CFR Chapter 1 §130.7), commonly known as the Clean Water Act (CWA). Specifically, assessment results for the Integrated Reports satisfy requirements of §303(d) and §305(b) of the CWA.

Section 303(d) of the CWA requires states to identify waterbodies that do not meet water quality standards and to develop total maximum daily loads for those pollutants suspected of preventing the waterbodies from meeting those standards. Total maximum daily loads are the maximum amount of a given pollutant that can be discharged into a water body from all natural and anthropogenic sources including both point and non-point source discharges. Section 305(b) of the CWA requires, among other items, a description of all navigable waters in each state and the extent to which these waters provide for the protection and propagation of fish and wildlife and allow for recreational activities in and on the water (33 U.S.C. §1315(b) et seq.), assessments of the state's water pollution control activities toward achieving the CWA goal of having water bodies that support recreational activities and fish and wildlife propagation, estimates of the costs and benefits of implementing the CWA, and descriptions regarding the nature and extent of nonpoint sources of pollution and recommendations for programs to address nonpoint source pollution.

Louisiana Water Quality Standards define eight designated uses for surface waters: primary contact recreation, secondary contact recreation, fish and wildlife propagation, drinking water supply, oyster propagation, agriculture, outstanding natural resource, and limited aquatic life and wildlife use. Designated uses have a specific suite of ambient water quality parameters used to assess their support. Data and information collected from within or immediately downstream of a water body sub-segment is used to evaluate each sub-segment's designated uses. Where more than one parameter and criterion define a designated use, support for each use is defined by the designated use's poorest performing parameter (most severely impaired). Likewise, where data from more than one sample station were available, the most severely impaired station was used to make the assessment.

The State's surface water quality monitoring program provides baseline data on individual waterbodies to monitor long-term trends in water quality. Information on each waterbody can be found at: https://www.deq.louisiana.gov/assets/docs/Water/Integrated_Report/2022_Integrated_Report/22_IR1_Master_Text_FINAL_For_ATTAINS_Corrections_8-19-22.pdf. Appendix A of the FINAL Louisiana Water Quality Inventory: Integrated Report (IR) (305(b)/303(d)) for each biennial reporting year provides information related to water body types, water body sizes, designated water body uses, and IR categories and suspected causes of impairment.

According to the 2022 Integrated Report, the percentage of water body sub-segments in Louisiana that were fully supporting their designated uses of primary contact recreation (swimming) was 48%, and the percentage of water body sub-segments supporting secondary contact recreation (SCR) was 95%. The figure for primary contact recreation (PCR) was down from 51% of assessed water body subsegments in the 2020 IR and down from 69% in the 2018 Integrated Report. Much of the decline in PCR support was due to the implementation of a new enterococci criterion for the PCR use. This resulted in new enterococci testing of many water bodies and the subsequent addition of impairments not previously identified. Of the 247 subsegments impaired for PCR use, 51.0% (126 of 247 impaired subsegments) are due to elevated fecal coliform densities, while 44.9% (111 of 247 impaired subsegments) are due to elevated enterococcus densities. The remaining PCR impairments are due to elevated water temperature (4.4% or 11 of 247) or chemical contamination (0.8% or 2 of 249 subsegments). For SCR use, 100% (24 of 24 subsegments) of the impairments are due to fecal coliforms and 4.2% (1 of 24 subsegments) are due to chemical contamination of some sort. Fish and wildlife propagation (FWP) use support also remained essentially unchanged with 30% of assessed subsegments fully supporting the designated use. Low FWP use support continues to be due in part to the large number of water quality parameters and information used to assess the use. LDEQ currently uses data and information on DO, chlorides, sulfates, total dissolved solids, turbidity, non-native aquatic plants, pH, oil and grease, seven different metals, and dozens of organic compounds, including pesticides,

when assessing water quality for the designated use. In addition to these monitored parameters, the presence of fish consumption advisories due to mercury or organic chemicals also results in impairment to this designated use.

4.3 Wetlands and Other Waters

Wetlands are lands that transition between terrestrial and aquatic systems. Wetlands are characterized by three attributes: hydric soils, vegetation adapted to such soils, and soils that are saturated or inundated with water for long periods during the growing season. Wetlands serve a variety of important functions, including wildlife habitat, fish breeding and foraging habitat, nutrient/sediment trapping, flood control, and recreation.

Louisiana's wetlands and associated water bodies support an abundance of fish and wildlife resources. Important freshwater species targeted by recreational fishermen with rod and reel are largemouth bass, black and white crappie, bluegill sunfish, redear sunfish, blue catfish, channel catfish, and flathead catfish. The catfish species are also caught with trot lines, limb lines and jug lines. Commercial fishermen harvest blue catfish, channel catfish, flathead catfish, garfish, and three species of buffalo fish primarily with hoop nets, trot lines, and gill nets. Other important fisheries are the commercial and personal-use harvest of crawfish, blue crabs, and white and brown shrimp. The primary area for the harvest of wild crawfish is within the Atchafalaya River Floodway, but some fishing occurs in other river basins and wetlands. Blue crabs and white and brown shrimp are harvested in the coastal estuarine waters, primarily by commercial fishermen, although personal-use harvest of these species is very common in some areas.

Wetlands, especially swamps and bottomland hardwood forests, provide habitat for mammals such as gray squirrel, fox squirrel, swamp rabbit, red fox, gray fox, and coyote. Common wetland furbearers include nutria, mink, muskrat, beaver, otter, and raccoon. White-tailed deer is a common species found in the floodplain. Many reptile and amphibian species also occur in wetland habitats. Waterfowl are very common in Louisiana's wetlands due in part to the state lying in the core of the Mississippi Flyway. Common dabbling duck species include mallard, wood duck, northern shoveler, northern pintail, gadwall, blue-winged teal, green-winged teal, and American widgeon. Wood ducks and mottled ducks are probably the most common nesting species in the area. Common species of diving ducks are ring-necked, lesser scaup, redhead, common golden-eye, and bufflehead. Other waterfowl in the study area include hooded merganser, common merganser, red-breasted merganser, Canada geese, snow geese, and white-fronted geese. Wading birds such as great blue heron, great egret, tri-colored heron, snowy egret, black-crowned and yellow-crowned night heron, and green heron are examples of common wading birds. Neotropical migrants are the largest group of migratory bird species within the study area and include thrushes, warblers, flycatchers, vireos, hummingbirds, swallows, wrens, tanagers, orioles, sparrows, as well as others. Hawks, falcons, eagles, vultures, and owls are also found in floodplain habitats. Bald eagles have become increasingly common within much of the District and breeding

occurs in many areas within the District.

The District has numerous navigable waterways and a large number of them serve as federally-maintained navigation channels. These waterways are very important to the economy of the area. The larger, deeper channels are used by ocean-going vessels primarily transporting raw materials and products internationally. Barge tows also utilize these deeper channels as well as numerous smaller channels. Some of the smaller channels also service large numbers of commercial fishing vessels, as well as recreational fishermen and boaters.

4.4 Upland Habitats

The most common upland habitats found in areas where Section 408 actions are located include non-wetland bottomland hardwood forest, scrub-shrub land, and developed land. Non-wetland bottomland hardwood typically contains a large variety of dominant and understory trees and shrubs including various oaks, hickories, elms, sweet pecan, black willow, sycamore, rough-leaf dogwood, and box elder. Chinese tallow, an invasive exotic species sometimes colonizes and dominates areas where native bottomland hardwood forest has been removed or disturbed. Native bottomland hardwood forest, even when jurisdictionally non-wetland, provides suitable habitat for a variety of mammals, reptiles, and birds. The suitability of such habitats for particular species is at least partially dependent upon the size of the tract and the level of disturbance from surrounding areas. Scrub-shrub areas occur primarily on disturbed ground and is composed of woody species such as eastern *Baccharis*, wax myrtle and various young trees typical of bottomland hardwood forest. Also included as upland habitat, although of lesser value for many species, is mowed areas such as levees, levee berms, powerline and pipeline rights-of-ways. These areas provide feeding habitat for some species of birds and mammals.

4.5 Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, established procedures designed to identify, conserve, and enhance essential fish habitat (EFH) for those species regulated under a Federal fisheries management plan. EFH regulations require Federal agencies to prepare assessments to evaluate the effects of proposed actions that may adversely affect EFH and to provide those assessments to the National Marine Fisheries Service for comments and recommendations. Specific categories of essential fish habitat that could occur in areas where Section 408 actions are proposed include estuarine waters and substrates (mud, sand, shell, rock, and associated biological communities), including the sub-tidal vegetation (seagrasses and algae) and inter-tidal vegetation (marshes and mangroves). The Gulf of America Fishery Management Council, through the generic amendment of the Fishery Management Plans for the Gulf of America, lists the following Federally-managed species as commonly occurring in coastal Louisiana: brown shrimp, white

shrimp, red drum, gray snapper, Spanish mackerel, and several species of sharks. Brown shrimp, white shrimp and red drum are, by far, the most likely species to occur in areas where Section 408 actions are proposed due to their occurrence in low salinity habitats and along the water/wetland interface. Table 2 lists these common species and their essential fish habitats that could be found in areas of proposed Section 408 actions.

Table 2: Common Managed Species and Their Essential Fish Habitats		
Species	Life Stages	Essential Fish Habitat
Brown shrimp	*Post larvae, Juveniles*	*Marsh edge, inner marsh, submerged aquatic vegetation, tidal creeks*
	Subadults	*Estuarine mud bottoms, marsh edge*
White shrimp	*Post Larvae, Juveniles, Subadults*	*Marsh edge, inner marsh, marsh ponds, submerged aquatic vegetation, oyster reefs*
Red Drum	*Post larvae, Juveniles*	*Submerged aquatic vegetation, estuarine mud bottoms, marsh/water interface*
	Subadults	*Estuarine mud bottoms, oyster reefs*

4.6 Threatened and Endangered Species

Within the District there are 34 animal and 3 plant species listed as either threatened or endangered under the Endangered Species Act, plus critical habitat designated for three species (Appendix C). Most of these species are under the purview of the U.S. Fish and Wildlife Service (USFWS). The USFWS and the NMFS share responsibility for the Atlantic sturgeon (previously named Gulf sturgeon), with the USFWS having the lead role in freshwater areas and the NMFS having the lead in estuarine and marine areas. The NMFS has the lead role for sea turtles unless the turtles are nesting, in which case the USFWS has the lead role. The NMFS has responsibility for whales, however no habitat suitable for or utilized by whales is expected in areas where USACE projects exist in the District. There have been no instances so far in the District when Endangered Species Act, Section 7 consultation with the NMFS has been required for Section 408 requests. Species under their purview would very rarely occur in areas where Section 408 actions are proposed. A list of threatened and endangered species by parish is provided as Appendix C. Based on Section 408 permissions issued by the District, the species that are most likely to occur in areas of Section 408 actions are pallid sturgeon which occur in the Mississippi and Atchafalaya Rivers, and West Indian manatee, which occur in coastal rivers and estuaries, primarily east of the Mississippi River.

In addition to listed species, designated critical habitats for several species occur within the District. Critical habitat has been designated for Atlantic sturgeon (formerly Gulf sturgeon), red knot (a shorebird), piping plover (a shorebird), and dusky gopher frog.

The USFWS developed the application of Information for Planning and Consultation (IPaC) to assist the District's Regulatory Functions Branch in complying with the consultation requirements of Section 7(a)2 of the Endangered Species Act for Section 404 and 10 permitting. The USFWS has also endorsed the use of IPaC for the District's Section 408 permission process, and it has been in use for evaluating Section 408 requests since it was released in Louisiana on September 25, 2019. IPaC is a digital project planning tool that provides information to project proponents to help determine whether a project will have effects on federally listed species or designated critical habitat, as well as other sensitive resources managed by the USFWS. As a decision-support tool, IPaC improves the consultation process by informing more accurate and consistent determinations. The determinations can lead to three possible findings for each species: 1) No Effect, 2) May Affect, But Not Likely to Adversely Affect (with or without conditions), and 3) May Affect, and Likely to Adversely Affect. "May affect, is likely to adversely affect" means that adverse effects may occur to federally-listed species or designated critical habitat from the proposed action and the effect is not insignificant, discountable, or completely beneficial. Adverse effects can result from habitat loss, habitat alteration, or impacts to the species life history needs. Before making this "May Affect" determination, it is recommended the requestor contact the USFWS first to explore additional actions or modifications to the proposed project that could minimize or avoid adverse effects on federally-listed species or designated critical habitat. If a "May Effect" determination is reached, formal or informal consultation under established Section 7 consultation procedures must take place between the District and USFWS, potentially delaying or preventing the proposed Section 408 activity.

4.7 Cultural Resources

The consideration of impacts to historic and cultural resources is mandated under §101(b)(4) of NEPA as implemented by 40 CFR Parts 1501-1508. NEPA calls for the consideration of a broad range of historic and cultural resources, including American Indian Cultural Sites. Compliance with Section 106 of the NHPA is also mandated, but takes a narrower focus on historic properties, while requiring federal agencies to allow the Advisory Council on Historic Preservation an opportunity to comment. As an additional consideration, it is the policy of the Federal government to consult with Indian Tribal Governments as required in the USACE Updated Tribal Consultation Policy (2023), Executive Order 13175. Projects involving Federal land, funds, or permitting are subject to compliance with these laws, regulations, and policies.

Cultural resources include historic properties, archeological resources, and Native American resources including sacred sites and traditional cultural properties. They are a broad pattern of material and non-material sites or objects that represent contemporary, historic, and pre-historic human life ways or practices. Common cultural resource sites include prehistoric Native American archeological sites, historic archeological sites, shipwrecks, and structures such as bridges and buildings. Historic properties have a narrower meaning and are defined in § 101(a)(1)(A) of NHPA; they include districts, sites

(archaeological and religious/cultural), buildings, structures, and objects that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). Historic properties are identified by qualified agency representatives in consultation with the SHPO, affected Tribes, and other consulting parties.

The District contains all or part of 40 parishes (see Figure 1), and thus includes all or part of each of the five terrestrial management units defined by the Louisiana Comprehensive Archaeological Plan found at:

https://www.crt.state.la.us/Assets/OCD/archaeology/CRM-Resources/Section106/Comprehensive%20Plan%202022.pdf.

Specifically, the District includes all of Management Units III and V, the majority of Management Unit IV, and small portions of Management Units I and II. This means that the permissions envisioned as part of this Programmatic EA have the potential to span the full range of history and prehistory, and potentially address any of the current relevant research questions posed by the Louisiana Comprehensive Archaeological Plan. Based on USACE's review of existing documentation, data on known or existing historic sites provided by the Louisiana SHPO and historic maps, it is clear that the majority of archaeological sites are outside the boundaries of the typical types of civil works projects that would be proposed for alteration under this EA; however there still remains potential to affect significant historic properties such as burial areas, prehistoric mound sites, historic plantation sites, submerged watercraft, and National Register of Historic Places (NRHP)-listed structures such as navigation locks and spillways.

Pursuant to 36 CFR 800.4(b)(2), *Phased Identification and Evaluation*, and 36 CFR 800.8, *Coordination with the NEPA*, the District has notified the Louisiana SHPO, affected Tribes, and Consulting parties that USACE intends to develop a Programmatic Agreement to address the "Section 408 Permissions." The agreement is intended to facilitate the streamlined review of individual requests relative to the civil works structures and the individual cultural resources.

4.8 Recreational Resources

This resource is institutionally important because of the Federal Water Project Recreation Act of 1965, as amended and the Land and Water Conservation Fund Act of 1965, as amended. Recreational resources are technically important because of the high economic value recreational activities contribute to local, state, and National economies. Recreation resources are publicly important because of the high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana, and the large per-capita number of recreational boat registrations in Louisiana. The number of recreational licenses are significantly higher in the District compared to the upper portion of Louisiana not within the District (Table 3).

Table 3: Boater Registration, Fishing/Hunting Licenses Issued in the MVN District

64 Total Parishes	Fishing License				Hunting License		Boater Registrations
	Resident - Freshwater	Resident - Saltwater	Non-Resident - Freshwater	Non-Resident - Saltwater	Resident	Non-Resident	
Within District*	284,432	209,747	1,813	1,477	100,809	192	244,262
Out of District*	64,823	6,159	258	35	45,669	82	67,458
% Within District*	81%	97%	88%	98%	69%	70%	78%
State Total	349,255	215,906	2,071	1,512	146,478	274	311,720

*Numbers are approximate based on data available at the parish level. This is due to District boundaries not always corresponding to parish boundaries.

Source: Louisiana Department of Wildlife and Fisheries 2019

The District encompasses, either totally or partially, forty parishes and boasts a diverse number of recreational opportunities. Consumptive recreational resources in the District include fishing and hunting while non-consumptive recreational resources include: boating, camping, hiking, wildlife viewing, canoeing, and kayaking. Additionally, numerous National Wildlife Refuges (NWRs) and Wildlife Management Areas (WMAs) contain rich wetlands and wildlife habitats that support activities like nature photography, bird watching, and ecotourism. Water-based recreation centers around the District's extensive waterways, including the Gulf of America, bayous, rivers, manmade canals and lakes. Well-maintained National and State Parks throughout the District offer places for family picnics, sports, and community events which not only add to the quality of life for local communities but also attract those outside of the District seeking diverse and scenic environments which contribute to the local economy and foster a sense of cultural identity.

4.9 Visual Resources (Aesthetics)

This resource is institutionally important because of the laws and policies that affect visual resources, most notably NEPA. The 1988 USACE Visual Resource Assessment Procedure (VRAP) provides a technical basis for identifying the project's significant visual resources and are used to determine if the alternatives would have an adverse effect to the resources available. Public importance is based on professional analysis of the project area. The following VRAP criteria are used to identify significant visual resource considerations in the study area:

1. Important urban landscapes including visual corridors, monuments, sculptures, landscape plantings, and greenspace.
2. Area is easily accessible by a major population center.
3. Project is highly visible and/or requires major changes in the existing landscape.

4. Areas with low scenic quality and limited visibility
5. Historic or archeological sites designated as such by the National Register or State Register of Historic places.
6. Parkways, highways, or scenic overlooks and vistas designated as such by a Federal, Tribal, State, or municipal government agency.
7. Visual resources that are institutionally recognized by Federal, Tribal, State, or local policies.
8. Tourism is important in the area's economy.
9. Area contains parks, forest preserves, or municipal parks.
10. Wild, scenic, or recreational water bodies designated by government agencies.
11. Publicly or privately operated recreation areas.

The visual resources available in the District are characterized by a blend of natural, urban, and rural landscapes. The District is laced with Scenic Byways and Waterways and dotted with WMAs, NWRs, and National Parks and Forests. The Mississippi River and its tributaries define much of the landscape, complimented by coastal features such as barrier islands and marshlands along the Gulf of America. Urban areas such as New Orleans, industrial zones along the levees, and cultural landmarks contribute to the visual diversity. The District contains a network of ecoregions, stretching from pine forests and bottomland hardwoods to wetlands and swamps, creating a dynamic and aesthetically engaging environment.

5 Environmental Consequences

The impact analyses in this Supplemental Programmatic EA were developed based on experience in evaluating and processing Section 408 requests, including public and agency comments on public notices and preparation and review of previous NEPA documents. If a proposed request to modify a USACE project within the scope of this document would result in impacts in excess of what is described in this section, a stand-alone EA or EIS would be prepared to evaluate that request.

In accordance with the NEPA regulations' goal for clear, concise environmental documents, only significant environmental issues are discussed below. See 40 CFR §§1500.2 and 1500.4.

5.1 Air Quality

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous alternatives would continue to be covered and would produce no more than minimal air emissions from construction equipment during project construction within NAAQS attainment area. With the exception of Evangeline Parish and St. Bernard Parish, all of the projects that are within the scope of this

programmatic environmental assessment would be in NAAQS attainment areas.

Alternatives 7, 15, and 16: It is expected that actions covered under these alternatives would produce no more than more than minimal air emissions from construction equipment during project construction within NAAQS attainment areas. No analysis of air emissions for requests for actions in attainment areas would be performed. The actions covered under these alternatives are not expected to cause air emissions that exceed *de minimus* discharge levels within non-attainment areas within the District. These conclusions are based on the numerous Section 408 requests that have been reviewed and covered under previous NEPA documents within the District. This is taking into consideration that, unless the District determines that it has effective control over more of the project, only direct and indirect impacts of those components of the overall action that lie within USACE project boundaries are considered with respect to air emissions. Typically, emissions of Nitrogen Oxides and particulate matter would result from the use of construction equipment such as earthmoving equipment, drill rigs, concrete trucks, and delivery trucks during project construction. If, during evaluation of an individual request for coverage under a categorical permission, there is reason to believe that the proposed action could exceed the established *de minimus* discharge levels within a non-attainment area, a conformity determination would be conducted and a separate stand-alone NEPA document would be prepared if the calculations indicate the possibility of exceeding *de minimus* emissions levels. Individual requests would be evaluated on a case-by-case basis for potential impacts to air quality, especially for actions proposed within non-attainment areas, through preparation of an EA or EIS, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

5.2 Water Quality

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to water quality through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable. The requester would be responsible for obtaining all necessary Clean Water Act permits, including permits to comply with Sections 401, 402, and 404, as applicable. The District would condition any applicable permissions granted with the requirement for the requester to obtain state water quality certification prior to initiating construction activities.

Alternatives 7, 15, and 16: It is expected that actions covered under these alternatives would produce no more than more than minimal, localized impacts to water quality. For Alternative 16, Concrete Slope Pavement, there will be no impacts on the water quality within the different projects. Impacts of individual actions would typically be in the form of disturbance to water bottoms resulting in suspension of bottom sediments, thereby increasing turbidity levels. This type of impact is usually unavoidable due to the type of

construction involved. For Alternative 7 (bank stabilization) the installation of pilings and/or the placement of rock on water bottoms would permanently alter small areas of the water bottom at those specific locations. For Alternative 15 (minor dredging), it is expected that there would be an indirect impact to water quality through a temporary increase in turbidity, suspended solids concentrations, and a reduction in light penetration in the immediate vicinity; however, since the project area is a naturally turbid environment and resident biota are generally adapted to, and very tolerant of, high suspended sediment concentrations, the effects would be negligible. A reduction in light penetration may indirectly affect phytoplankton (i.e., primary) productivity in the area as the amount of photosynthesis carried out by phytoplankton is reduced. Localized temporary pH changes, as well as a reduction in dissolved oxygen levels, may also occur during construction efforts. Water quality is expected to return to pre-construction conditions soon after the completion of disposal activities associated with the proposed project.

Temporary and sometimes permanent impacts to wetlands may occur under these alternatives. Any and all impacts to wetlands, whether within or outside of the USACE project boundary would be addressed under the USACE Section 404 permitting process, with avoidance, minimization, and compensatory mitigation required as appropriate for each situation. No discharge of hazardous or toxic chemicals or other substances is anticipated from any of these alternatives; however, individual requests will be analyzed to determine whether or not the dredge material removed from the project area has hazardous or historical characteristics that might affect dredge material disposal options.

The District would condition any applicable permissions granted with the requirement for the requester to obtain state water quality certification prior to initiating construction activities.

5.3 Wetlands and Other Waters

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to wetlands and other waters through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Regardless of whether categorical permissions are established, the requester would be responsible for obtaining all necessary CWA permits, including permits to comply with Section 404, as applicable. As part of the CWA Section 404 permitting process, unavoidable wetland impacts would be evaluated using the District's Regulatory Division's established procedures. Section 404 permittees provide compensatory mitigation on USACE projects for wetland impacts that occur on those properties.

Alternatives 7, 15, and 16: These alternatives are not expected to result in significant impacts to wetlands or waters of the U.S. within the property interests of USACE projects due mainly to the anticipated small footprints of these types of activities within the USACE project boundaries. The non-motile benthic community within the project area would be adversely impacted as a result of the dredging. However, these impacts will not result in significant impacts to the local ecosystem since the areas will re-colonize with similar benthic species within a few months upon completion of the project. Most of the motile species present within the project area will abandon the area during dredging and disposal operations. These impacts are expected to be local and short-term in duration as similar habitat should be readily available within the vicinity of the proposed project areas. Upon completion of the project the species will return to the area. Every effort would be made to avoid incidental fallback during the minor dredging projects. The discharge of dredged material would be in navigable waters of the U.S. Thus, a Section 404(b)(1) Evaluation will be prepared for the proposed action, and a Section 401 water quality application for certification will be completed and sent to the State of Louisiana for the proposed dredge activities. There would be no change in the Section 404 permitting process for impacts to wetlands if these categorical permissions for Section 408 requests are established. The District's Section 10/404 permitting process would run concurrent with the 408 permission process, however the Section 408 process would be completed prior to the Section 10/404 process, as stated in EC 1165-2-220. The requester would be responsible for obtaining all necessary CWA permits, including permits to comply with Section 404, as applicable. Unavoidable wetland impacts would be evaluated using the District, Regulatory Division's established procedures.

Some of the Section 408 requests processed by the District affect navigable waters, and navigation channels in particular, especially those requests that fall under Alternative 15 (minor dredging). It is possible that a requester may propose an activity that could cause a navigation safety issue. In the unlikely event that navigation channels could be more than minimal or adversely affected by a Section 408 proposed action, the request would not be processed as a categorical permission, and a separate EA or EIS would be prepared to evaluate the request.

5.4 Upland Habitats

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to upland habitats through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16: All of these activities could often affect upland habitats. In some cases, engineering requirements may dictate re-vegetation of disturbed area to minimize erosion. Generally, upland habitats such as mowed land and scrub/shrub have

less fish and wildlife habitat value than aquatic habitats and wetlands, although non-wetland bottomland hardwood forest can provide quality wildlife habitat. Impacts to quality forested habitat on USACE-owned property from Section 408 activities would be avoided and minimized as much as practical. If more than minor impacts to upland habitats within a USACE project boundary are identified during the evaluation of a Section 408 request, a separate NEPA document would be prepared.

There may be minor impacts to wildlife as a result of land disturbances during project construction. It is expected that wildlife that normally use the USACE project area would move to other nearby locations during construction. Because USACE project areas have typically been heavily disturbed in the past, they are not known to contain unique habitats for wildlife that are not available in other nearby locations. Upon completion of the projects, it is anticipated that these disturbed upland habitats will eventually return to more-favorable pre-construction conditions that can be utilized by wildlife and livestock.

5.5 Essential Fish Habitat

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to essential fish habitat through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16

Concrete Slope Pavement (Alternative 16) should not impact in this area. With implementation of Minor Dredging, it is possible that existing fisheries resources could be impacted from the dredging. It is expected that there would be a temporary increase in turbidity within the immediate vicinity. Considering the amount of flow passing through the associated waterbodies, recolonization of macroinvertebrates via drift and return of displaced fish would likely happen quickly upon the completion of dredge activities. 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. The overall fisheries and other aquatic resources within the project area would likely return to a condition similar to what existed prior to construction. Impacts to vertebrate species (Fisheries) should be *de minimis* given the high mobility of the various species within the associated water body 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 39.37 feet (12 meters) in depth.

With implementation of the proposed actions of bank stabilization, there would be some direct and indirect impacts to fisheries in the form of physically altered subaqueous riverbank and open water bottom habitat, and temporary increases in turbidity during construction activities.

It is anticipated that mobile fishery species would avoid proposed areas of construction, thereby minimizing direct and indirect impacts to those species. Sessile or slow-moving benthic organisms would be buried during placement, however, some of these organisms may recolonize the area as sediments accumulate on these new hard substrates over time. Sediment particles that become suspended due to construction activities may impact filter feeding benthic invertebrates by fouling feeding apparatus if the concentration of such particles is excessively high. Clams and oysters may experience a reduction in pumping rates with increased turbidity. Direct impacts caused by increases in suspended sediments during placement of stabilization materials would be minimal, localized, and short-lived.

5.6 Threatened and Endangered Species

Alternative 1 – No-Action: The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to threatened and endangered species through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16: Every Section 408 request will be subjected to Endangered Species Act, Section 7 consultation requirements. For species and critical habitats under the purview of the USFWS, IPaC, described under the Existing Conditions section, would be used. For the projects that fall under the new alternatives, we will have an IPaC performed to see if TE critical habitat would be affected and coordination with the USFWS would occur. USFWS special conditions for a TE species affected would be made part of the Categorical permission for the applicant to carry out. Using IPaC for activities under these alternatives, possible outcomes are:

- Determination of “No Effect” – There will be no impacts, positive or negative, to federally-listed species or designated critical habitat from the proposed action. This determination is usually not appropriate if suitable habitat, designated critical habitat, or species are present in the action area. No further action is required beyond including the determination in the categorical permission memo and including the completed IPaC determination letter in the project file.
- Determination of “May Affect, But Not Likely to Adversely Affect” - No further action is required beyond including the determination in the categorical permission memo and including the completed IPaC determination letter in the project file.

- Determination of “May Affect, But Not Likely to Adversely Affect” with Conditions - The IPaC determination is documented in the categorical permission memo and the completed IPaC determination letter are included in the project file. Species-specific conditions provided by the USFWS are included as conditions of the Section 408 permission. The requester is required to comply with the conditions under their Section 408 letter of permission.
- Determination of “May Affect and Likely to Adversely Affect” - The initial action in this case would be for District staff to contact the requester and notify them of the issue. Using Standard Louisiana Operating Procedures, District staff would work with the requester to determine if they would be willing to modify their request so that a “May Affect, But Not Likely to Adversely Affect” determination could be made. If the requester modifies their request to bring the proposed action within the scope of a not likely to adversely affect determination, the consultation is completed, with appropriate conditions included in the permission letter to assure the action is not likely to adversely affect listed species. If the requester is unwilling or unable to modify their request so that a “May Affect, But Not Likely to Adversely Affect” determination cannot be made, the categorical permission process is terminated since potential adverse effects to listed species or critical habitats is an extraordinary circumstance, making the request unsuitable for categorical permission. The requester is notified that their action may affect a listed species or critical habitat, and that an EA or EIS will be required, including consultation as required by regulations promulgated by the USFWS and NMFS (50 CFR 402).

None of the Section 408 requests reviewed by the District resulted in a determination of May Affect and Likely to Adversely Affect. Since most of the Section 408 requests have been for actions in south Louisiana, and several species, including Gulf sturgeon, pallid sturgeon, and West Indian manatee could occur in the areas where these proposed actions would be located, most of the determinations have been May Affect, but Not Likely to Adversely Affect, either with or without conditions included in the Section 408 permission documents to support the determinations. The remainder of the determinations were No Effect.

Listed species or critical habitats under the NMFS’ purview could be located in an area where a Section 408 activity is requested. The species that may occur in Section 408 project areas are Atlantic sturgeon (formerly Gulf sturgeon), loggerhead sea turtles, and Kemp’s ridley sea turtles. Although some species of whales and three other species of sea turtles are listed as occurring in the waters of Louisiana’s coastal parishes, these species are normally found only in open offshore waters and highly unlikely to be affected by Section 408 actions. Nevertheless, impacts to these species would be considered for any Section 408 action proposed in coastal waters.

Critical habitat for Atlantic sturgeon occurs in and near Lakes Pontchartrain and Borgne in southeast Louisiana. District staff would determine if each Section 408 request would be located in areas where these species or critical habitat may be affected.

5.7 Cultural Resources

Alternative 1 – No Categorical Permission (No-Action): The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to cultural resources through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16: With these alternatives, each request to modify a USACE project within the scope of this document would be evaluated on a case-by-case basis under the terms of the Programmatic Agreement (PA), *Programmatic Agreement Among The U.S. Army Corps Of Engineers, New Orleans District, The Louisiana State Historic Preservation Officer, The Advisory Council For Historic Preservation, and Tribes For Section 408 Permissions within the Boundaries of the New Orleans District of USACE,* because these actions individually and cumulatively have some potential to adversely affect historic properties. The "Section 106 process" outlined in the proposed district-wide Agreement provides for the use of Programmatic Allowances where the project scope meets certain pre-defined actions. Where the work does not meet these pre-defined actions, the "Section 106 process" in the PA requires the identification of historic properties/cultural resources that may be affected by the proposed action or alternatives within the project's area of potential effects (APE). Depending upon the specific action's potential to affect a cultural resource, USACE would coordinate their findings with the Louisiana SHPO, affected Tribes, and other consulting parties. All requirements of the NHPA Section 106 would be met.

It is not expected that these alternatives would typically affect cultural resources because the requests to alter USACE projects would typically be located on lands that have already been heavily impacted as a result of constructing the USACE project. In many cases, cultural resource surveys have already been completed in these locations. At the same time, foreseeable potential effects to historic properties include damage, alteration or removal of historic engineering features and materials that contribute to the historic significance of individual properties, and damage or removal of intact archaeological deposits. Indirect effects to surrounding historic properties could potentially result from vibration created through extended construction activity. If a specific request was identified as being likely to affect any cultural resources, then a separate stand-alone environmental assessment that included mitigation measures, or an environmental impact statement would be prepared. If any cultural resources were inadvertently discovered during construction of an approved alteration, work would be stopped and the Louisiana SHPO and affected Tribes would be consulted to determine the NRHP-eligibility and to resolve any potential effects.

The Requesters must comply with all of the following general NHPA conditions. Specific conditions, if necessary, will be presented with each request.

- Requester must provide a written Scope of Work to USACE for individual requests that includes a description of the proposed work including duration of construction activities, extent of ground disturbance, and proposed actions to monitor and minimize damage to surrounding structures, trees and vegetation.
- Requester will modify the Scope of Work in response to conditions recommended by USACE to avoid adverse effects to historic properties. Applicant will explain to USACE in writing why any such modifications are not feasible and include a description of any other feasible alternatives that may avoid the adverse effect.
- Requester will perform all Treatment Measures identified by USACE through the Section 106 review to offset any adverse effects, as assigned by the USACE.
- Requester will implement an **Inadvertent Discovery and Unexpected Effects Clause** to account for unanticipated discoveries and unexpected effects. It shall read: "If during the course of work, archaeological artifacts (prehistoric or historic) are discovered or unexpected effects to historic properties, including architecture, architectural elements, and/or archaeology, are identified, the applicant shall stop work in the general vicinity of the discovery or unexpected effect and take all reasonable measures to avoid or minimize harm to the finds or affected property. The Requester will ensure that the discovery or unexpected effects are secured and stabilized, as necessary, and access to the area is restricted. The Requester shall inform their Operations Division (OD) contacts at USACE, who will in turn contact Planning Division (PD) staff. The Requestor will not proceed with work until USACE PD completes consultation with the Louisiana SHPO, and others, as appropriate."
- Requester will implement a **Louisiana Unmarked Human Burial Sites Preservation Act** discovery provision, as well. It shall read: "If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The Requestor shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four hours of the discovery. The Requestor shall also notify USACE and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two hours of the discovery."

5.8 Recreational Resources

Alternative 1 – No Categorical Permissions (No-Action):

The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to recreational resources through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16:

With these alternatives, each request to modify a USACE project within the scope of this document would be evaluated on a case-by-case, because these actions individually and cumulatively have some potential to adversely affect recreational resources. Recreational resources would be temporarily impacted in the vicinity of the activity during the construction phase. Additionally, noise from construction activities could cause temporary but minimal impact to recreational use. The conditions would restore to normal after the construction activity is completed. Because some areas may be subjected to long term impacts, mitigation efforts would be implemented to not impede travel in these areas permanently. Conditions will be included in the Section 408 permission documents to support the determinations. Impacts to and from construction might be noticeable to individuals who use the levee crowns for walking or access to bank fishing.

5.9 Visual Resources (Aesthetics)

Alternative 1 – No Categorical Permissions (No-Action):

The No-Action alternative would result in no new categorical permissions being established or updated to provide NEPA compliance for actions that would alter USACE projects. The previous established alternatives would continue to be covered and would be evaluated on a case-by-case basis for potential environmental impacts to visual resources through preparation of Categorical Permissions, unless a categorical exclusion as provided by 33 CFR 230.9 is applicable.

Alternatives 7, 15, and 16:

With these alternatives, each request to modify a USACE project within the scope of this document would be evaluated on a case-by-case basis. When seeking 408 permissions, the Corps assesses the impact of proposed alterations on visual aspects, such as landscape aesthetics and scenic quality using the VRAP criteria, because these actions individually and cumulatively have the potential to affect visual resources. If scenic byways are present in areas subject to Section 408 permissions, the evaluation process becomes more crucial. Scenic trails and byways are designated routes recognized for their exceptional visual and cultural qualities. When considering alterations such as the above alternatives, the goal would be to minimize any potential adverse visual impacts, whether temporary or permanent, on the visual experience for travelers on these scenic routes or waterways.

6 Cumulative Impacts

The CEQ Regulations defines cumulative impacts as “effects on the environment that result from the incremental effects of the action when added to the effects of other past,

present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions." "Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time." The cumulative impacts addressed in this document consist of the impacts of multiple actions that result in similar effects on the natural resources.

The geographic analysis area for cumulative effects consists of the USACE federal projects within the New Orleans District. As we continue to streamline the Section 408 review process through implementation of the previously approved Categorical Permissions and the proposed/updated Categorical Permissions, this could result in the issuance of a slightly higher number of Section 408 permissions per year. The issuance of more Section 408 permissions could result in the construction of more alterations per year. Because of the broad geographical scope of this document, it is not practical to describe the affected environment or detailed environmental consequences for each specific USACE project. For programmatic NEPA reviews, CEQ guidance states that a broad regional or landscape description may suffice for characterizing the affected environment and directs agencies to focus reviews on the broad environmental consequences that are relevant at the programmatic level (CEQ 2014). Additionally, CEQ guidance states that "site- or project-specific impacts need not be fully evaluated at the programmatic level when the decision to act on a site development or its equivalent is yet to be made" (CEQ 2014). Additionally, CEQ guidance states that "the depth and detail in programmatic analyses will reflect the major broad and general impacts that might result from making broad programmatic decisions" (CEQ 2014).

The NEPA Compliance conducted in this document has shown that the Categorical permissions may result in impacts. The cumulative impacts include minimal air emissions from construction equipment, disturbance to water bottoms increasing turbidity levels, insignificant impacts to wetlands due to small footprints, minimal impacts to upland habitats, temporary impacts to recreational resources and their activity during construction phase, and could, at times, adversely affect the area where the project may occur. Each project would be evaluated on a case-by-case basis. In most cases with these alternatives, minimal impacts would occur because most of the sites have been previously disturbed, and the environment would return back to its original state. It is expected that no significant adverse cumulative impacts would occur as a result of implementation of any of the Work. Overall, the proposed actions, in comparison to the past, present, and reasonably foreseeable future actions, would not incrementally contribute adversely to the geographical area. In the event that proposed work could be more than minimal or adversely affected by a Section 408 proposed action, the request would not be processed as a categorical permission, and a separate EA or EIS would be prepared to evaluate the request.

This office has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no significant adverse impact upon air quality, water quality, wetland and other waters, upland habitats, essential fish habitat,

threatened and endangered species, cultural resources, recreational resources, and aesthetics (visual resources).

6.1 Past Actions

All of the project areas covered by this supplemental programmatic environmental assessment have been altered to some degree in the past as a result of constructing a USACE project or will be altered once the USACE project is constructed. The degree of impact varies widely by USACE project and relationship of the proposed alteration to the USACE project. The District has a high density of Federally-constructed levee systems subject to Section 408. Generally speaking, Federal levees provide important socioeconomic benefits by providing flood damage risk reduction to populated and developed areas. However, levees to address river flooding disconnect river systems from their floodplains which can negatively impact the natural structure and functions of rivers and adjacent backwater and coastal habitats. The levees along the Mississippi River have been cited in a multitude of studies as contributing to coastal wetland loss in Louisiana due to the prevention of overbank flows that would nourish wetlands in a riverine environment with only naturally high banks. Coastal levee systems built to provide risk reduction from tropical weather events also isolate wetlands and other important fish and wildlife habitats from estuarine processes. Those are tradeoffs that were not well known and appreciated when earlier levees systems were built. These levee systems also allowed residential, commercial, agricultural, and industrial development in areas that were previously more vulnerable to flooding, indirectly causing widespread loss of fish and wildlife habitats. Those are unavoidable cumulative and indirect adverse impacts to the environment from the construction of USACE flood and storm surge risk reduction projects. However, residential, commercial, and industrial use of these lands would be tenuous, at best, with no form of flood or storm surge risk reduction systems in place.

The District also has numerous navigation projects that have collectively caused a variety of direct and indirect impacts to the environment. Nearly all coastal rivers from the Calcasieu on the west side to the rivers draining into Lake Pontchartrain on the east side, have been modified in some manner by USACE projects. Note that the Sabine and Pearl Rivers are not mentioned since they are in the Galveston and Vicksburg Districts, respectively. Natural bayous and distributary passes of the Mississippi River have also been dredged and straightened. The Gulf Intracoastal Waterway cuts completely across the District, almost entirely through what was previously coastal wetlands. These projects have collectively brought significant direct adverse impacts to fish and wildlife habitats, although beneficial use of dredged materials partially compensates for adverse impacts. Indirectly, some of these waterways have allowed saltier waters to enter freshwater swamps and marshes killing those habitats and causing significant loss of these coastal wetlands.

While USACE navigation, flood control, and flood risk reduction projects have been widely

cited as having caused significant adverse impacts within the District, Section 408 requests to alter these projects have not been identified as causing significant impacts. Table 1 shows a total of 124 categorical permissions were processed as a result of the past PEA. It was valuable in streamlining the review process of the Section 408 requests and allowed a more simplified and expeditious process. However, there are some Section 408 requests that have been similar in nature and had similar impacts as the other alternatives, but the proposed actions weren't covered in the original PEA.

6.2 Present and Future Actions

Following Hurricanes Katrina and Rita in 2005, the USACE began major upgrades to the storm surge risk reduction projects in southeast Louisiana and continues to add resilience to the system. The efforts at upgrading the project are nearly complete, except for the New Orleans to Venice project in Plaquemines Parish which still has considerable construction underway. Upgrading these flood risk reduction systems has caused significant unavoidable impacts to valuable fish and wildlife habitats requiring mitigation. Compensatory mitigation for impacts to valuable fish and wildlife habitats, including swamps, wetland and non-wetland bottomland hardwood forest, and coastal marshes has occurred and continues to be implemented at mitigation banks, a National wildlife refuge, a National park, and other locations in southeast Louisiana.

The Congressional authorizations for the upgrading of the risk reduction systems provided funding for construction, but not major maintenance. Southeast Louisiana rests upon alluvial sediments which tend to compress and sink. Since the recently upgraded levees are expected to lose elevation over time through subsidence, additional levee maintenance events or "lifts" are expected to be required over time. During the course of upgrading the earthen levee system, the USACE determined that resilience needed to be built into the levees in the case of overtopping during a storm. The USACE decided upon an armoring system composed of geotextile material with a grass cover. Once installed, this armoring system would be very expensive to remove and replace for the purpose of a levee lift. The non-Federal sponsor for the projects, who will be responsible for all project maintenance, requested permission to raise the levees before armoring is placed to account for future subsidence. A series of Section 408 requests were submitted and processed to allow the levee "lifts" to occur before the levee armoring was installed. The earthen material used for the levee lifts is being obtained from sources that had been environmentally cleared earlier during the upgrading of the levee systems. Some levee lifts have been completed, some remain underway, and the remainder will begin soon. The requests for the levee lifts represents the most significant alterations of USACE projects by Section 408 actions in recent years. None of the levee lifts would have been covered by any of the existing categorical permissions or those under consideration in this SPEA.

USACE has completed major upgrades to the storm surge risk reduction projects in southeast Louisiana and continues to add resilience to the system. Upgrading these

flood risk reduction systems has caused significant unavoidable impacts to valuable fish and wildlife habitats requiring mitigation. Compensatory mitigation for impacts to valuable fish and wildlife habitats, including swamps, wetland and non-wetland bottomland hardwood forest, and coastal marshes has occurred and continues to be implemented at mitigation banks, a National Wildlife Refuge, a National park, and other locations in southeast Louisiana.

7 Agency Coordination and Public Comments

On March 26, 2025, this draft SPEA #556A and the associated public notice were posted on the District's website and distributed to Federal, state, and local businesses, organizations, and individuals for a 30-day review and comment period (Appendix D). All comments will be addressed and included in the final version of this SPEA (Appendix E).

8 Conclusion

The proposed new alternatives and revised alternative being designated as categorical permissions would continue to allow expedited NEPA review. The current process has been valuable in streamlining the review process of the Section 408 requests. It has reduced the administrative burden on both requesters and USACE and has also increased the timeliness of the Section 408 requests review without posing a risk to the public interest and without controversy. The NEPA Compliance conducted in this document has shown that the Categorical permissions may result in impacts. At times there may be adverse impacts, but only temporarily. The non-motile benthic community within the project area would be adversely impacted as a result of the dredging. However, these impacts will not result in significant impacts to the local ecosystem since the areas will re-colonize with similar benthic species within a few months upon completion of the project. Most of the motile species present within the project area will abandon the area during dredging and disposal operations. These impacts are expected to be local and short-term in duration as similar habitat should be readily available within the vicinity of the proposed project areas. All Section 408 applications will be rigorously evaluated according to the procedures and limitations criteria listed in Section 2 of this SPEA. Section 106 of the NHPA would comply with an executed programmatic agreement for Section 408 categorical permissions. These categorical permissions would be applicable to certain categories of requests to alter Federal flood control and flood risk reduction projects and navigation projects within the boundaries of the District.

9 Preparers

This Supplemental Environmental Assessment #556A and the associated Finding of No Significant Impact were prepared by Ms. Samantha Martin, Environmental Protection Specialist, with relevant sections and contributions prepared by: Noah Fulmer (Cultural Resources); Jason Emery (Cultural Resources); and Shaun Hebert (Recreation/Aesthetics). The address of the preparers is: U.S. Army Corps of Engineers, New Orleans District; Regional Planning and Environment Division South, CEMVN-PDC-C; 7400 Leake Avenue; New Orleans, Louisiana 70118.

APPENDIX A

Navigation, Flood Risk Reduction, and Mississippi River and Tributaries Projects within the New Orleans District

APPENDIX B

Engineering Criteria and Requirements for Section 408 Requests

APPENDIX C

Threatened and Endangered Species by Parish within the Geographical Boundary of the New Orleans District

APPENDIX D

Public Notice of Proposed Programmatic EA

APPENDIX E

Public and Agency Comments

APPENDIX F:

ABBREVIATIONS AND ACRONYMS

LIST OF ABBREVIATIONS, ACRONYMS, AND GLOSSARY OF COMMON TERMS

APE	(Cultural) Area of Potential Effect
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DRR	Data Requirements Rule
EA	Environmental Assessment
EC	Engineering Circular
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ER	Engineering Regulation
FONSI	Finding of No Significant Impact
Ft	Feet
FWP	Fish and Wildlife Propagation
FONSI	Finding of No Significant Impact
GIWW	Gulf Intracoastal Waterway
HTRW	Hazardous, toxic and radioactive waste
IPaC	Information for Planning and Consultation
IR	Integrated Report
LDEQ	Louisiana Department of Environmental Quality
MR&T	Mississippi River and Tributaries
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWR	National Wildlife Refuges
PCR	Primary Contact Recreation
PEA	Programmatic Environmental Assessment
PGP	Programmatic General Permit
PM	Particulate Matter
ROD	Record of Decision
SCR	Secondary Contact Recreation
SHPO	State Historic Preservation Officer
SPEA	Supplemental Programmatic Environmental Assessment
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Services
VRAP	Visual Resource Assessment Procedure

WMA	Wildlife Management Area