Draft Supplemental Environmental Assessment

Upper Barataria Basin
Modifications to Reach G East
Louisiana
2025

Prepared by St. Paul District
On behalf of New Orleans District

US Army Corps of Engineers

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1 Introduction

1.1 Background

Coastal Louisiana experiences localized flooding from both excessive rainfall events, which leads to riverine flooding, and storm surge events from tropical storms and hurricanes. Between 1851 and 2019, the National Oceanic and Atmospheric Administration (NOAA) reported 73 tropical events making landfall near the Upper Barataria Basin (UBB) project area which includes communities in the following seven southeast Louisiana parishes: Ascension, Assumption, Jefferson, Lafourche, St Charles, St. James, and St. John the Baptist Parishes (Figure 1). The project area is also subject to rapid local sea level change. The flooding results in damages to industrial, commercial, and agricultural facilities as well as residential structures and critical evacuation routes such as US Highway 90 in the basin.

The project area is bounded on the north and east by the Mississippi River and Tributaries Project, Mississippi River Levee, on the west by Bayou Lafourche, and to the south, the project area extends slightly past U.S. Highway 90. It is part of the larger Barataria Basin watershed covering approximately 760 square miles and characterized by low, flat terrain with numerous navigation channels, drainage canals, and natural bayous that drain into Lake Salvador and eventually the Gulf of America. Areas of development located within the project area are mostly un-leveed or have inadequate levee systems, are dependent on gravity drainage, and are subject to the effects of interior rainfall flooding and riverine flooding. The southern half of the project area is also subject to tidal flooding due to hurricanes and other storms. The area is mostly wetland and agricultural lands with numerous communities located adjacent to major highways and adjacent to the Mississippi River and Bayou Lafourche. Before construction of the Mississippi River levees, the area was subjected to rainfall, tidal, and hurricane flooding from the Mississippi River resulting in structural, agricultural, and environmental damages. Flood damages are aggravated by the long duration of the high stages due to conveyance constrictions. The UBB is a diverse ecosystem inhabited by a variety of species of birds, mammals, reptiles, amphibians, as well as fresh, brackish, and saltwater fish.

A feasibility study was undertaken with the objective to:

- Reduce the risk to human life, health, and safety by reducing flood impacts to structures, evacuation routes, and critical infrastructure.
- Reduce the risks of economic impacts due to storm inundation of structures, evacuation routes, and critical infrastructure in the study area.
- Increase community resiliency before, during, and after flooding events.

The Final Integrated Feasibility Report with Environmental Impact Statement (IFR/EIS) for the UBB was completed by the New Orleans District (MVN) in December 2021. This

report documented the analysis of proposed actions related to the feasibility of flood risk reduction measures within the UBB and resulted in a Recommended Plan.

2021 UBB Recommended Plan Overview

The Recommended Plan for the UBB project was defined as a structural alignment constructed to a one percent annual exceedance probability (AEP; 100-year future design) totaling approximately 30.6 miles in length separated into eight reaches (Figure 2) spanning between the Mississippi River Levee through the Davis Pond Diversion Structure West Guide Levee and connecting to high ground near Raceland. The first three reaches, (Reaches A-C) improve upon and update deficiencies in the St. Charles Parish Levee; Reaches D-E include levees constructed atop the existing Sunset Levee and floodwalls; Reach F consists of earthen levee, culverts, and a 270-foot barge gate structure constructed across the Bayou Des Allemands; and Reaches G-H include new levee constructed in lifts, culverts for hydraulic connectivity, floodwalls spanning pipelines, and a new bridge across the Godchaux Canal. Of the approximately 1,074 acres of land needed for the Recommended Plan, approximately 292 acres of bottomland hardwood forest (BLH), 168 acres of cypress-tupelo swamp, 267 acres of fresh marsh, and 95 acres of water bottom would be impacted as a result of construction (total = 822 acres).

2021 IFR/EIS Recommended Plan - Reach G

The first segment to move forward into more detailed design is Reach G. As defined in the 2021 IFR/EIS, Reach G begins on the southern bank of the Petit Lac Des Allemands and continues parallel to U.S. Highway 90 through the existing marsh measuring approximately 31,000 feet in length. There are no existing levees located in this reach. To reduce the footprint, geotextile reinforcement would be incorporated into the levee design. The first lift for Reach G would be constructed to an elevation of 14-feet with a second lift to an elevation of 16-feet proposed approximately 30-years later to maintain the one percent AEP design elevation over the authorized 50-year period of analysis. Five sets of culverts consisting of four 6-foot x 6-foot box culverts with sluice gates would be included to maintain the hydraulic flows in and out of the marsh through small tributaries and canals on the southern side of the alignment.

Access to Reach G would be from US Highway 90 via a newly constructed permanent 7,925-foot access route southwest of Dufrene Pons surfaced with crushed stone. The access road would include construction of a permanent bridge across Godchaux Canal providing access for future operations and maintenance. The proposed staging area, approximately 2.3 acres, would be on the northeast corner where Godchaux Canal and the permanent access route intersect. Structures would be constructed using a temporary access route located along the levee alignment within the right of way.

2025 Updated Plan – Reach G East

To work within current funding available, Reach G was divided into Reach G East and Reach G West. This Supplemental Environmental Assessment (SEA) and Section 404(b)(1) evaluation have been prepared to address the potential effects associated with the proposed modifications and additions to Reach G East, located between the Reach F barge gate structure and the junction of the Midway Canal and the Godchaux Canal. The proposed modifications for Reach G East would consist of the following:

- 5-year staged levee construction where the levee would be constructed to 11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, and maintenance lifts up to 16 feet.
- Toe to toe levee footprint increase from 170 feet to approximately 258 feet.
- Access road shifted to the southwest of Midway Canal.
- More detailed bridge design.
- New staging area

See Section 2.2 for more information regarding the modifications analyzed in this SEA. Information presented in the 2021 IFR/EIS is incorporated by reference and a copy can be found at https://cdxapps.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=354774. The 2021 design would have resulted in impacts to 10.74 acres of fresh water, 42.71 acres of fresh marsh, and 10.5 acres of BHF, whereas the current design would impact 7.69 acres of fresh water, 66.59 acres of fresh marsh and 0 acres of BHF.

This SEA is not intended to cover any actions or in-kind work to be undertaken by the Non-Federal sponsor, and those working on the sponsor's behalf, for the UBB project, some of which work may occur within the same geographical vicinity as the proposed action assessed under this SEA. As a part of receiving any credit for the project, the Non-Federal Sponsor will be required to complete or assure completion of all necessary environmental coordination and obtaining all applicable Federal, State, and local permits prior to initiating construction of the UBB project.

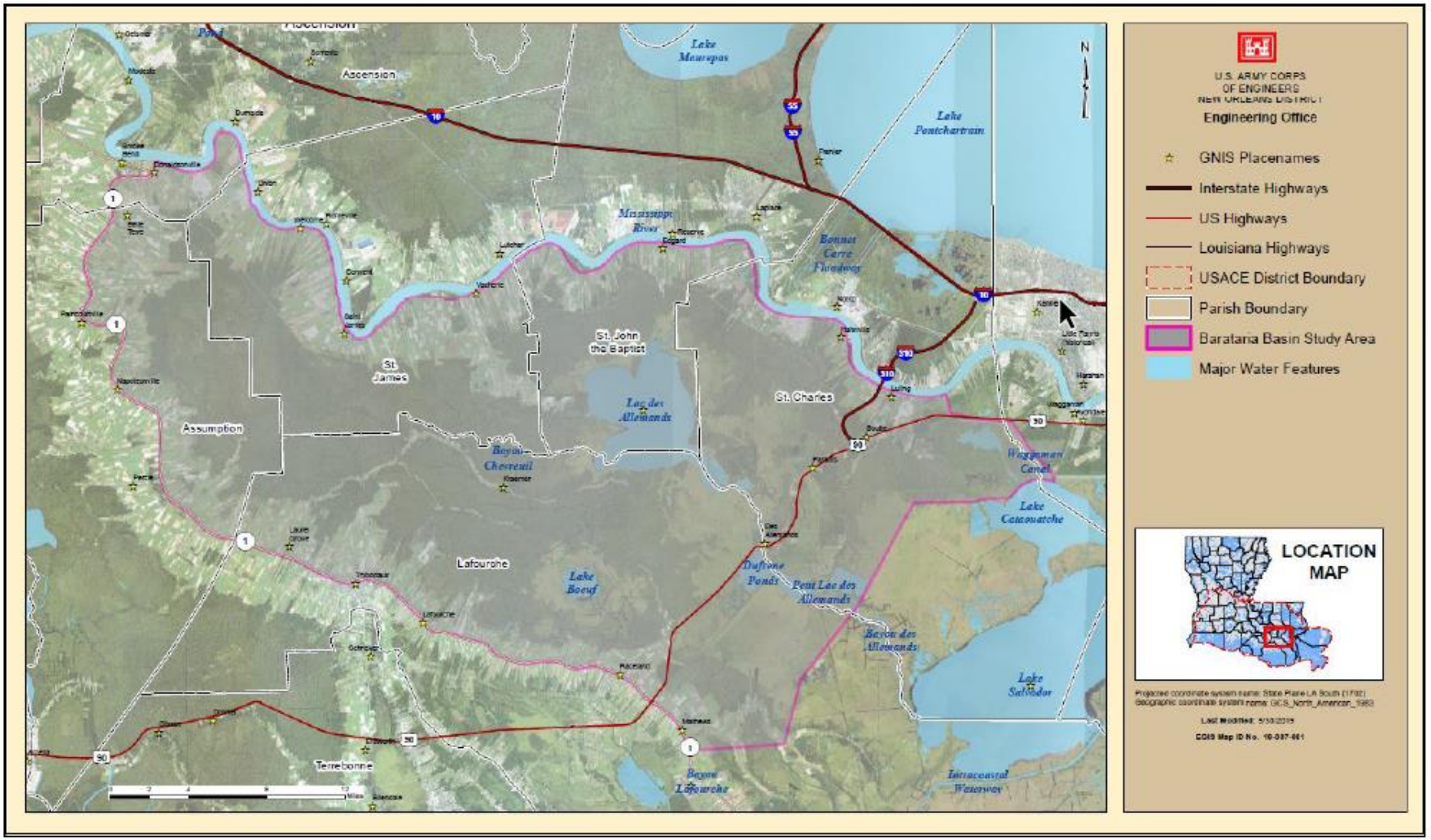

Figure 1. Upper Barataria Basin Project Area

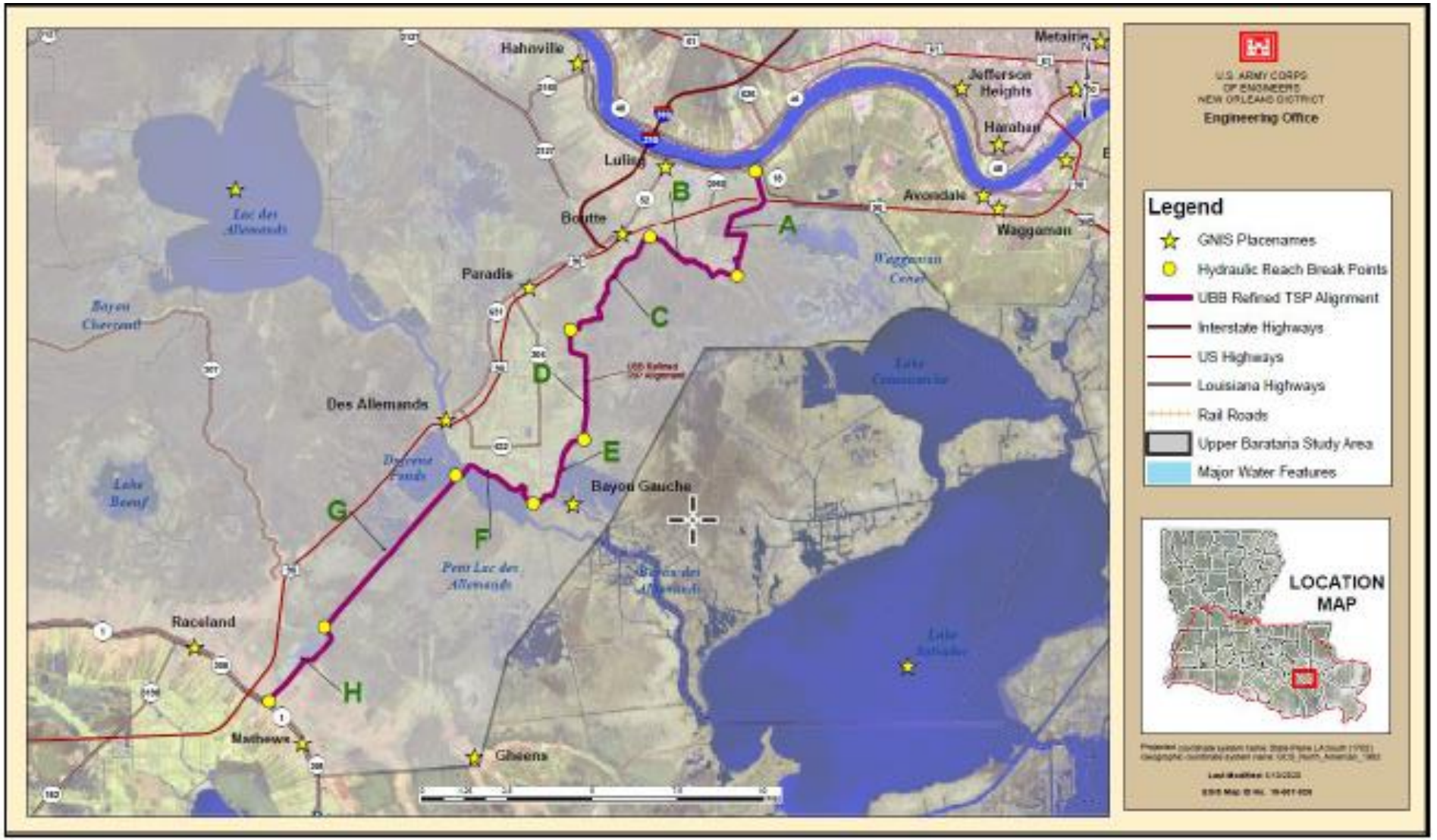

Figure 2. Hydraulic Reaches A through H

1.2 Purpose and Need

Per the authority referenced in Section 1.3, the overall UBB study purpose is to address damages to structural facilities and evacuation routes associated with excessive rainfall events and storm surge from tropical storms and hurricanes in addition to rapid local sea level change. Advanced engineering and design studies identified the need to modify several aspects of the project design to optimize the function and constructability of the project.

1.3 Authority

The UBB study was authorized by a 1998 House Committee Resolution and funded by the Bipartisan Budget Act of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV (BBA 2018). BBA 2018 provided supplemental funding for certain feasibility studies that predominately focused on flood and storm damage risk reduction, as well as comprehensive studies and watershed studies that are predominately for flood and storm damage risk reduction.

Under the BBA 2018, the usual cost-sharing requirements for feasibility studies pursuant to Section 105(a) of the Water Resources Development Act (WRDA) of 1986 (33 U.S.C. 2215(a)) were waived, allowing these studies to be conducted at full Federal expense if funded by the act. The feasibility cost sharing agreement for the UBB Study between the Department of the Army and the Coastal Protection and Restoration Authority Board of Louisiana was executed on October 9, 2018. The UBB study was conducted in accordance with Sections 1001 and 1002 of the Water Resources Reform and Development Act of 2014 and incorporated SMART Planning principles, ensuring alignment with existing USACE regulations and guidance.

The UBB feasibility study was completed in December 2021. A Record of Decision for the project's Environmental Impact Statement was signed on May 8, 2023. The Report of the Chief of Engineers for UBB approved the recommended plan on January 28, 2022. The project was subsequently authorized for construction in Section 8401 of WRDA 2022. A design agreement was signed on September 26, 2022. Pursuant to Division B, Title IV of Disaster Relief Supplemental Appropriations Act of 2022, PL 117-43, the costs for design are at full Federal expense.

1.4 Related National Environmental Policy Act (NEPA) Documentation

USACE. 2021. Upper Barataria Basin, Louisiana. Final Integrated Feasibility Report with Environmental Impact Statement.

USACE. 2010. Final Individual Environmental Report #31. Contractor-furnished Borrow Material #7. East Baton Rouge, Jefferson, LaFourche, Plaquemines, St. Bernard, and St. Tammany Parishes, Louisiana and Hancock County, Mississippi.

2 Alternatives

2.1 No Action Alternative

The No Action Alternative would be to proceed with construction of Reach G between the Reach F barge gate structure and the junction of the Midway Canal and the

Godchaux Canal per the Recommended Plan as summarized in Section 1.1 and as described in Section 4.9.2.7 of the 2021 IFR/EIS.

2.2 Proposed Alternative

Design for Reach G East for the proposed alternative includes a levee to the design height of approximately 14 feet and all associated features including a new access road and construction of a new bridge across Godchaux Canal. No hydraulic structures are included in this reach. On the eastern end, Reach G East connects to the Reach F barge gate structure spanning Bayou Des Allemands and runs southwest for 8,500 linear feet. Reach G East terminates on the western side of the junction between the Midway Canal and the Godchaux Canal (Figure 3).

Since completion of the 2021 IFR/EIS, several modifications to the design of Reach G East have occurred and are described in the below paragraphs and summarized in Table 1. Initial construction is expected to occur over 5 years and will be executed through multiple separate design efforts and construction contracts. Subsequent levee lifts would be executed through separate construction contracts. The first effort and subsequent contract would focus on construction of the access road. Solicitation of the first construction contract is tentatively scheduled for the summer of 2026. Due to funding constraints, design and modifications of the levee and access bridge features were tentatively paused at approximately 35% level of design and would be re-started following award of the first construction contract.

Table 1. Comparison of 2021 and 2025 Project Features in Reach G East

		2021	**2025**
Levee	Length	8,500 ft	8,500 ft
	Toe-to-toe	170 ft	258 ft 300 ft with berms
	Initial construction elevation	14 ft	11 ft
	Lifts	16 ft by year 28	11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, maintenance lifts up to 16 feet afterward
	Side slopes	NA*	1:4
Access Road	Length	7,925 ft	7,380 ft
	# of lanes	NA	2

	Width	40	32
	Side slopes	NA	1:6 on left 1:5 on right
	Elevation	NA	4 ft
	Turn off area	0	1 every 1,000 ft
	Turnaround area	0	1
Bridge	Type	NA	three span prestressed concrete beam supported by piers with concrete columns and a pile-supported foundation
	Elevation	NA	8.4 ft + freeboard
	# of lanes	NA	2
Staging		2.3 acres	0.5 acre

*Details not included in the feasibility level design.

2.2.1 Levee

The Reach G East levee would be 8,500 linear feet in length and would maintain the same alignment as the 2021 design (Figure 3). The toe-to-toe levee footprint presented in the 2021 IFR/EIS was 170 feet; however, recent geotechnical analysis indicates the levee would now need a toe-to-toe width of approximately 258 feet, not including maintenance berms, and approximately 300 feet including the maintenance berms. Side slopes would be 1:4 horizontal: vertical. The Reach G East levee would transition to a shallow sloped berm that terminates at the existing ground surface allowing for levee tie-in for the completion of the Reach G levee.

Per the 2021 IFR/EIS, the levee in Reach G would be constructed to an elevation of 14 feet in the first construction event. However, recent soil borings within the levee footprint indicate the area consists of very soft peat and organic deposits overlying soft fat clay soils with silt and sand lenses. These soft soil conditions would limit the practical top of levee elevation for the first lift to less than 14 feet. Therefore, staged levee construction is anticipated to allow strength gain in the foundation soils between subsequent lifts to mitigate the soft soil conditions. The levee would now be constructed to 11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, and maintenance lifts up to 16 feet afterward as shown on Figure 4. In addition to staged construction, the levee would include stability berms and a high-tensile strength geotextile to provide reinforcement to the levee section.

Figure 3. Proposed Alternative Features

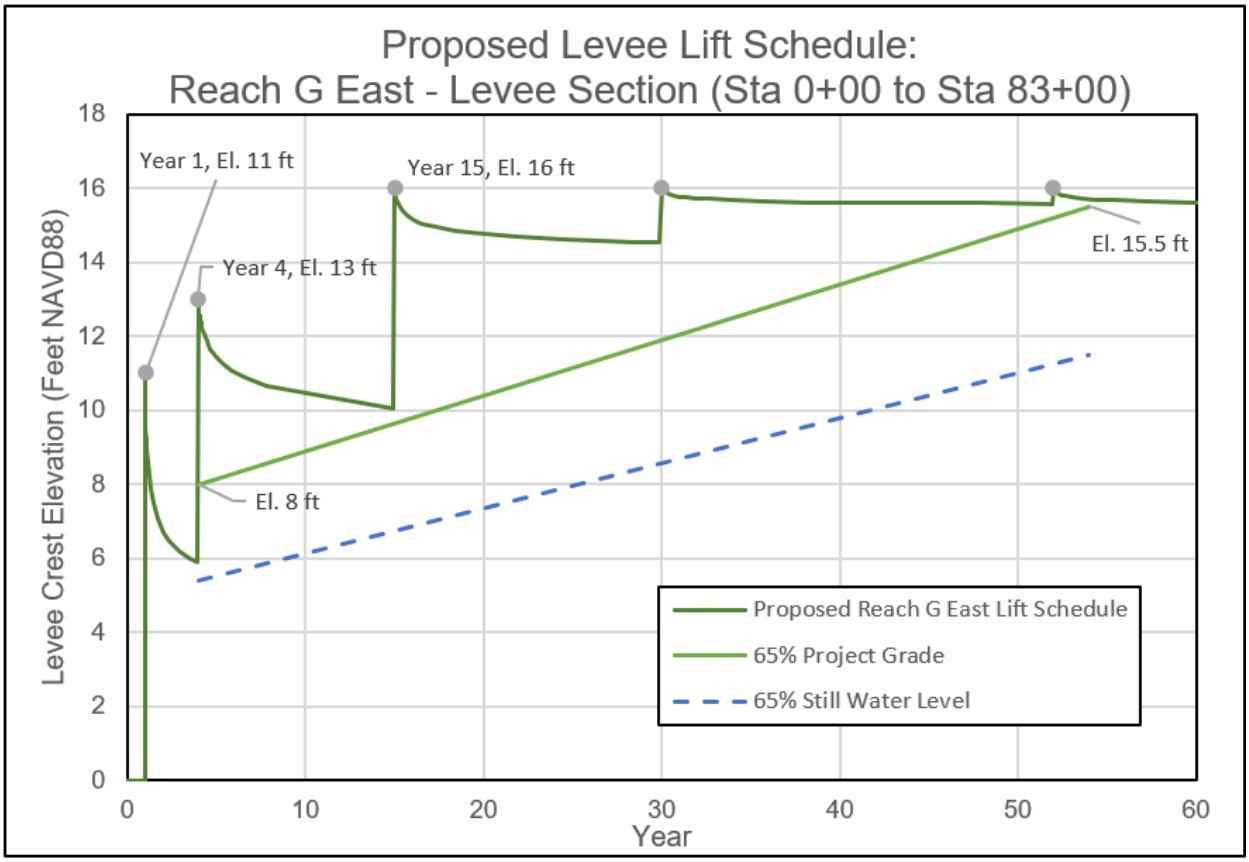

Figure 4. Levee Lift Schedule

2.2.2 Access Road

The 2021 IFR/EIS identified an access road/bridge from US Highway 90 down to the Reach G levee just southwest of the Dufrene Ponds. The original length of the road was 7,925 feet. Since 2021, the location of the access road has shifted slightly to the southwest of the Midway Canal (Figure 3), the length and width have been reduced, and the design includes more details. The 7,380-foot-long access road would now run parallel to Midway Canal and connect US Highway 90 to the Godchaux Canal. The Godchaux Canal runs parallel to Reach G. The access road would be designed to an elevation of 4.0 feet (NAVD88) for two lanes of traffic and would not serve as a flood protection feature. The access road includes construction of a permanent bridge across the Godchaux Canal to gain access to the alignment for construction and future operation and maintenance.

The access road is designed with a 14-inch base course roadway placed over layers of embankment compacted fill and sand fill. The roadway would include two lanes of traffic with 2-foot shoulders, 14-foot lanes, and a crest elevation of 5.3 feet. The roadway would be graded to a 2.5 percent cross slope to allow drainage. The roadway would be installed over a layer of geogrid and geotextile separator fabric placed over the embankment compacted fill. The side slopes of the access road are 1V:6H on the left

slope and 1V:5H on the right slope. A six-inch layer of topsoil would be placed over the compacted fill side slopes to promote establishment of grass. These features would all be installed over a sand fill base that would be installed in water to an elevation of 1.5 feet. Substantial settlement is expected due to the existing conditions and the existing midway berm is composed of poor material. Due to these concerns the access road is designed with an overbuild component. The roadway would be built to 5.3 feet with the expectation the roadway would settle to the design elevation of 4.0 feet.

To facilitate larger vehicles for maintenance activities, turn off areas have since been included every 1000 feet along the roadway. The purpose of these turn off areas are for vehicles to safely pull over and allow for larger vehicles to pass, allow smaller vehicles to perform a multipoint turn, and have locations for inspectors to safely park their vehicles when accessing the site. The turn off areas would be 150-feet long and extend the roadway shoulder from 2 feet to 12 feet.

The access road would terminate with a truck turnaround area which has also been added since the feasibility level design. The turnaround would allow for inspection vehicles and maintenance equipment to safely navigate a complete turn and provide a staging area in anticipation of future construction activities. The turnaround area would be 130 feet long by 121 feet wide. The right roadway lane would transition from 14-foot lanes to a 107-foot top width via a 54-foot curve. Turning is only permitted from the right lane due to constraints with Midway Canal. Attempting to widen the left lane and create a symmetrical turnaround area would completely block off the Midway Canal from the Godchaux Canal, creating hydraulic and erosion concerns. To promote drainage a vertical grade of two percent has been designed into the turnaround area.

2.2.3 Godchaux Canal Bridge

The 2021 design included construction of a permanent bridge across the Godchaux Canal to gain access to the levee alignment for construction and future operation and maintenance; however, no specifics were included regarding the bridge design. The 2025 design still includes a bridge to connect the Midway Canal access road to the Reach G East levee (Figure 3), but more design details are now available.

The bridge would be constructed above the future 2081 condition which is currently estimated to be elevation 8.4, plus wave and freeboard. The bridge would consist of two lanes, with a clear distance of 26 feet and concrete barriers on each side. The concrete bridge deck would be a continuous surface consisting of a three span prestressed concrete beam supported by piers with concrete columns and a pile-supported foundation. Bridge piers will consist of concrete columns bearing on the pile cap to support the prestressed concrete girders and pier cap. The concrete pile cap will be supported by deep, square precast concrete piles. Due to potential corrosive environment, concrete piles are the preferred deep foundation. Each bridge span would be 104 feet. The Godchaux Canal is not anticipated to be a navigable channel, and vessel traffic is not expected to pass underneath the bridge. Hydraulic connection along the Godchaux Canal would be maintained underneath the structure. Due to its construction, maintenance, and access-only purpose, there would be no separate public, pedestrian, or recreational features at this time.

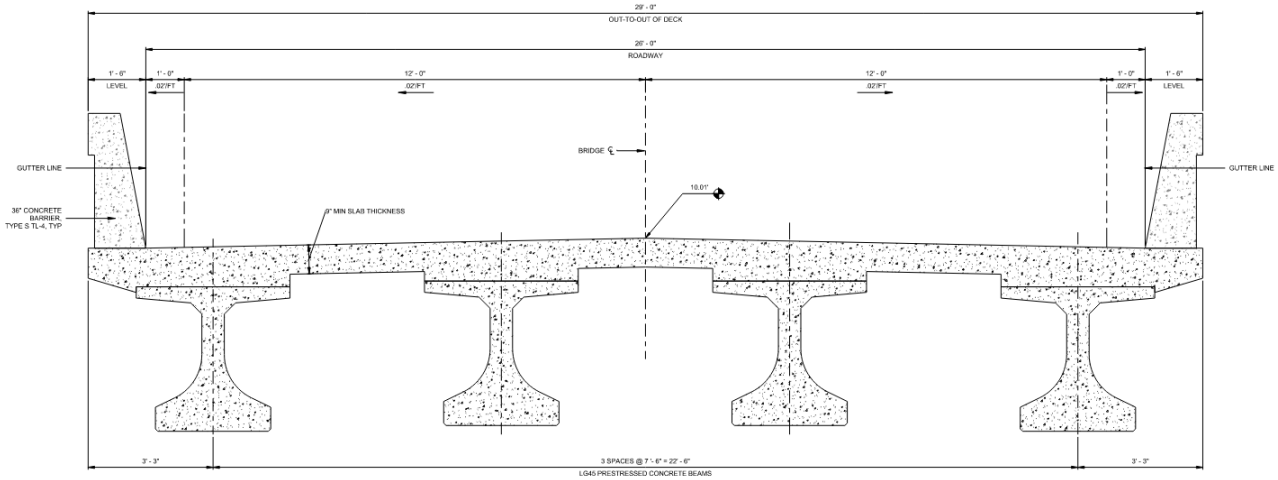

Figure 5. Typical Transverse Section

2.2.4 Staging Areas

The 2021 IFR/EIS identified a 2.3 acre staging area located on the northeast corner of where the Godchaux Canal and access road intersect. The staging area has since been minimized to 0.5 acres and is located on the southwest corner of the access road (Figure 3). This staging area would be restored to pre-construction conditions following the five-year construction contract. The area would be seeded with an appropriate seed mix for the area. Additional staging would occur within turnaround area where the access road terminates as well as in the levee footprint.

2.2.5 Borrow Area

The 2021 IFR/EIS identified potential soil borrow in the agricultural fields near the levee alignment in Reach H; however, the parcel is no longer available for borrow. The new borrow area proposed was previously reviewed by MVN in 2010 and is shown in Figure 6. As the environmental effects and necessary compliance associated with use of this borrow site have been previously documented, no additional analysis will be provided in this document. The 2025 Department of Defense NEPA Implementing Procedures allow for the reliance on existing environmental documents to ensure efficient environmental reviews. The 2010 document was reviewed to determine if any land use changes have occurred over the last 15 years. In 2010, the potential borrow sites were used for sugar cane farming. In 2025, a portion of each site is currently being used for borrow and the remainder for sugar cane farming. The effects of utilizing these sites for borrow or continuing to farm for sugar cane were documented in the 2010 environmental document listed in Section 1.4 and there would be no change to the effects previously discussed therein. Effects to the human environment, including effects to historic properties and endangered species were non-existent or less than significant primarily because these sites were modified for sugar cane production.

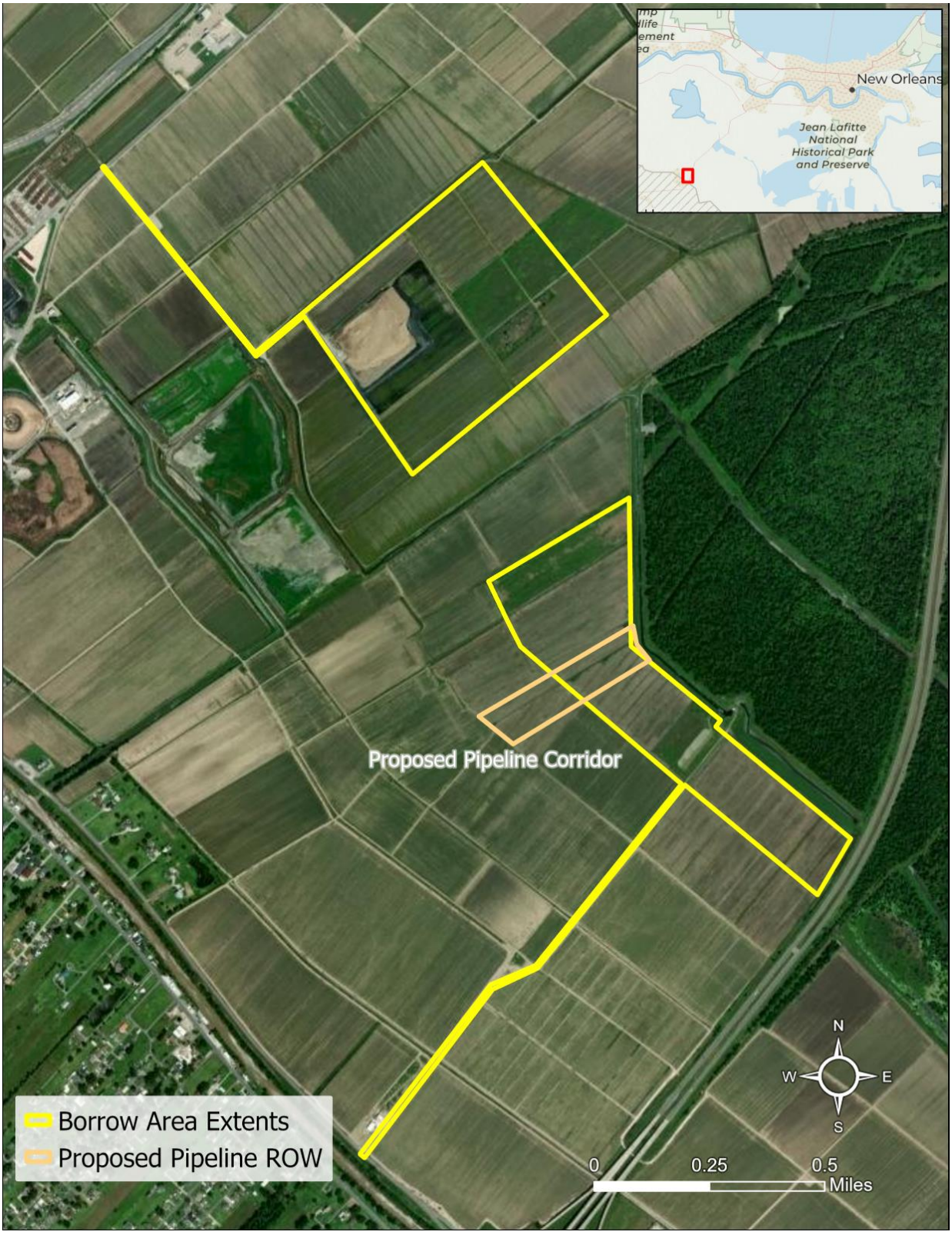

Figure 6. New Proposed Borrow Area

2.3 Other Alternatives Considered

Alternatives to the Recommended Plan were evaluated in Section 4 of the IFR/EIS. This SEA addresses proposed modifications and additions to Reach G East. As this SEA is intended to be a concise document, alternatives considered and dismissed, as well as the analysis of those alternatives, are addressed in the IFR/EIS. The No Action and Proposed Alternatives are described above.

3 Affected Environment and Environmental Consequences

The affected environment and environmental consequences are described in detail in Sections 3 and 5 of the 2021 IFR/EIS. This section will provide any additional information that has become available and describe any differences in the affected environment and environmental consequences due to project modifications since the 2021 IFR/EIS. If no change in effects is discussed, the proposed modifications do not alter the environmental effects for that category of impact. Effects of the No Action Alternative were discussed in the 2021 IFR/EIS as the Recommended Plan. Typical complex construction equipment would be used including but not limited to cranes, backhoes, dozers, pile drivers, and rollers. Initial construction would occur over five years.

3.1 Future, Weather-Driven Risks and Relative Sea Level Rise

An updated literature review was conducted to provide context of weather-driven impacts on the Upper Barataria Project. Projected temperatures in the Lower Mississippi River (LMR) Region show a sharp increasing trend over the next century for both low and high emission scenarios, with the largest projected increase in temperature occurring primarily in summer months (USACE 2015; Hayhoe et al. 2018). The increased annual temperatures and fewer cool nights may result in greater evaporation rates and increased drought severity within the LMR basin.

Precipitation-related stressors that are increasing in intensity in the LMR basin include extreme precipitation events, persistence, and periods of little or no rain, occurrences of tropical cyclones and decreases in the intensity and frequency of disruptive cold seasons events like snowfall that seasonally send a pulse of water through the LMR as the northern states thaw from the winter season.

Studies examined during the USACE Climate Synthesis for the LMR region have supported a mild upward trend in river flow during the last century, but a few authors found no significant trends for streamflow during the same time period (USACE, 2015). More recent studies, such as USACE (2025), indicate the LMR is receiving more flow from the Missouri, Ohio, and Upper Mississippi Rivers, resulting in an increase in annual average streamflow since the beginning of the 20th century.

The sea level rise estimates were updated from the 2021 IFR/EIS by adjusting the economic base year to 2031 when the proposed project is expected to be fully complete. Sea level rise estimates were derived from the closest Tidal gage on Bayou Barataria at Barataria (MVN gage 82750). Table 2 summarizes the relative sea level rise estimates for the base year, 50-year economic life, and 100-year project life. Sea

level rise estimates were utilized to determine the levee and access road heights and to ensure performance of the project in future years.

Table 2. Relative Sea Level Rise Estimates in Future Years

Gage	Intermediate sea level rise at baseline	Intermediate sea level rise at end of construction	Intermediate sea level rise at 50 years	Intermediate sea level rise at 100 years	High sea level rise at 50 years	High sea level rise at 100 years
Year	**2017**	**2031**	**2081**	**2131**	**2081**	**2131**
Barataria	0.6 ft (0.2 m)	1.03 ft (0.3 m)	2.75 ft (0.8 m)	4.91ft (1.5 m)	4.98 ft (1.5 m)	10.36 ft (3.2 m)

3.2 Natural Resources

3.2.1 Geology and Soils

Affected Environment - Since the 2021 IFR/EIS, subsurface explorations along the levee and access road alignments, as well as the proposed borrow area were completed. Samples taken from the borrow area have been tested and are suitable as impervious fill material. Results from soil borings taken along the levee and access road alignments indicate soils are generally very soft peat and organic deposits at the surface overlying soft fat clay soils with silt and sand lenses. The soft fat clay material increases in undrained shear strength with depth until a silty sand layer is encountered near elevation -75 feet. With most of the access road embankment to occur below water, soft organic shallow soils are anticipated near the ground surface.

Environmental Consequences - These soil conditions would result in approximately three feet of settlement. Time rate settlement calculations indicate that approximately two feet of the settlement would occur within 60 days, so it was assumed that half of the settlement would occur with the sand fill placement. The road includes an overbuild of approximately one foot to account for long-term settlement. The toe-to-toe width of the levee has also been increased to account for the softer soils within the project area. The levee width has increased from 170 feet to approximately 258 feet, not including maintenance berms, and approximately 300 feet including the maintenance berms. Due to the subgrade being irregular the settled surface would likely not be consistent so future fine-grading and crushed stone placement would be needed to provide drainage and address wear from future construction projects.

3.2.1.1 Hazardous, Toxic, and Radioactive Waste

No change in the affected environment or environmental consequences from what is described in the 2021 IFR/EIS. A Phase I Environmental Site Assessment (ESA) was

conducted on January 27, 2021 (Report 20-11), in accordance with ER-1165-2-132, Water Resource Policies and Authorities HTRW Guidance for Civil Works Projects. Based on the desktop search and on-site inspection, this assessment revealed no recognized environmental conditions were present. In addition, two previous Phase 1 ESAs were performed in the project area (Reports 19-08 and 10-08) that also did not identify any recognized environmental conditions. These analyses covered the proposed footprint changes, and no additional Phase 1 review is needed. Therefore, USACE does not recommend a Phase II assessment. There are no known HTRW sites at the project area and therefore no HTRW concerns for the Proposed Alternative. The design agreement between USACE and the non-federal sponsor, the Coastal Protection and Restoration Authority Board of Louisiana, assigns responsibility for undertaking investigations for HTRW to the non-federal sponsor. The non-federal sponsor will coordinate and update documents to meet HTRW needs through the course of the project.

3.2.2 Wetlands

Affected Environment - No change in the affected environment regarding wetlands has occurred since the IFR/EIS (see Section 3.1.5.1.2), including the presence of invasive plant species.

Environmental Consequences - Total wetland impacts have increased by approximately ten acres since 2021 (Table 3). While the current design includes a shorter access road which reduces wetland impacts by approximately 13 acres, the wider levee footprint has increased wetland impacts by almost 25 acres. The updated access road design also avoids 10.5 acres of impacts to bottomland hardwood forest. The 2025 acreages shown in Table 3 are based on 65 percent design of the access road and 35% design of the bridge and levee and are the best estimates at this stage. If needed, acreages would be revised at final design; however, they are not expected to change by more than 20 percent in either direction and if they do change, it would not substantially affect the impact analyses. If substantial new impacts are identified later in the design process, additional NEPA would be completed.

The effects of the wetland impacts are the same as those described in Section 5.2.2.1.1 of the 2021 IFR/EIS. The wetland impact area is a smaller portion of a much larger basin that extends outside of the project area. Wetlands outside of the project area would continue to provide services such as water quality protection and wildlife habitat. Best management practices would be used to minimize effects to wetlands immediately outside the project area. Additional effects to wetlands as a result of the proposed project are discussed further in Section 3.2.7.

Temporary impacts within the 0.5 acre staging area would be impacted during construction; however, this area would be restored (i.e. returned to pre-construction contours and elevations and seeded with native species) following the initial 5-year construction contract as well as after subsequent lifts. Due to the length of time the staging area would be in place, it is being considered a permanent impact.

Figure 7 identifies the location and extent of the impacted environmental resources that were quantified using the Wetland Value Assessment (WVA) model for fresh marsh. The WVA models operate under the assumption that optimal conditions for fish and wildlife habitat within a given coastal wetland type can be characterized, and that

existing or predicted conditions can be compared to that optimum to provide an index of habitat quality. Habitat quality is estimated and expressed using mathematical models developed specifically for each wetland type. The WVA models assess the suitability of each habitat type for providing resting, foraging, breeding, and nursery habitat to a diverse assemblage of fish and wildlife species. This standardized, multi-species, habitat-based methodology facilitates the assessment of project-induced impacts on fish and wildlife resources. Results are annualized over the period of analysis (50 years) to determine the Average Annual Habitat Units (AAHUs) available for each habitat type. The change (increase or decrease) in AAHUs between future projections of the project and the No Action Alternative provided a measure of anticipated impacts. A net gain in AAHUs indicates that the project is beneficial to the habitat being evaluated; a net loss of AAHUs indicates that the project is damaging to that habitat type. For simplification, in determining future with project conditions, all project-related direct (construction) impacts were assumed to occur in Target Year 1, regardless of implementation schedule. The WVA model results are presented in Table 3. Wetland impacts would be mitigated through the purchase of tidally influenced fresh marsh credits equaling 36.52 AAHUs. For more information on mitigation, see Section 3.5.1.

The Proposed Alternative is not anticipated to result in the spread of invasive species not currently present within the study area. Contractors will be required to clean previously used equipment and watercraft prior to bringing it onto the project site and prior to removing it from the site to prevent the spread of invasive species. Equipment and watercraft are required to be inspected to ensure they are free from soil residuals, egg deposits from plant pest, noxious weeds, plant seeds, aquatic plants and animals and residual water. If at any point, equipment or watercraft are found to be contaminated with invasive species, they will immediately be placed on dry land and decontaminated until all invasive species have been removed.

3.2.3 Aquatic Resources and Water Bottoms

Affected Environment – No change in the affected environment regarding aquatic resources and water bottoms has occurred since the IFR/EIS (see Section 3.1.5.1.5).

Environmental Consequences – Per Section 5.2.2.1.2 of the 2021 IFR/EIS, impacts to open water and water bottoms were only associated with the construction of the barge gate and protection of the pump stations which are features not included in Reach G East. However, recent analysis has indicated water bottoms are present within Reach G East and would be impacted by construction of the access road and bridge. Approximately 0.05 acres of water bottoms and water column would be lost due to construction of the bridge and 7.64 acres for the access road (Table 3). Effects to aquatic resources and water bottoms as a result of the proposed project are discussed further in Section 3.2.7. No AAHUs were calculated for estuarine water bottoms or estuarine water column. Per previous conversations with NFMS, mitigation would not be required for these two habitat types because USACE removed potential water control structures within Reach G during feasibility.

Table 3. Wetland and Aquatic Habitat Impacts

Feature	Habitat	Acreage 2021	Acreage 2025	Average Annual Habitat Units (2025)
Staging Area	Fresh Marsh	2.04	0.44	-0.23
Access Road (includes ROW)	Fresh Marsh	7.56	7.69	-6.53
	Estuarine Water Bottoms	10.21	7.64	
	Estuarine Water Column	10.21	7.64	
	Bottomland Hardwood Forest	10.5	0	0
Bridge	Fresh Marsh	0	0.62	-0.37
	Estuarine Water Bottoms	0.47	0.05	
	Estuarine Water Column	0.47	0.05	
Levee	Fresh Marsh	33.17	57.84	-29.39
Totals	**Fresh Marsh**	**42.77**	**66.59**	**-36.52**
	Estuarine Water Bottoms	**10.68**	**7.69**	
	Estuarine Water Column	**10.68**	**7.69**	
	Bottomland Hardwood Forest	**10.5**	**0**	

Figure 7. Habitat Types Within the Project Area

3.2.4 Water Quality

Affected Environment - The Louisiana Department of Environmental Quality (LDEQ) published a revised 303(d) impaired waters list in 2024. Reach G East is located in "Bayou Des Allemands – From US-90 to Lake Salvador (Scenic)" subsegment LA020301 which is still designated as a 303(d) listed impaired water by LDEQ in 2024. Impairments include fish and wildlife propagation and outstanding natural resource waters. Turbidity was identified as the water quality parameter that did not meet state specific water quality standards leading to the listed impairments. Sources of turbidity could include forced drainage pumping and sediment resuspension; however, these sources have not been confirmed. Subsegment LA020301 is listed as "good" for both primary and secondary contact recreation whereas in 2018, only secondary contact recreation was good. A Total Maximum Daily Load (TMDL) was completed in 2004 to address dissolved oxygen, nitrate/nitrite (nitrite + nitrate as n), non-native aquatic plants, noxious aquatic plants, nutrients, organic enrichment/low dissolved oxygen, and phosphorus (USEPA 2024a).

Environmental Consequences - The effects of construction on water quality are the same as those discussed in Section 5.2.2.1.9 of the 2021 IFR/EIS. Water quality certification (WQC) pursuant to Section 401 of the Clean Water Act was obtained from the LDEQ on December 4, 2020. USACE coordinated the proposed project changes with LDEQ on July 23, 2025. LDEQ responded via email on July 31, 2025, stating the original water quality certification would remain in effect (Appendix A).

Actions disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the re-establishment of vegetation or other permanent cover. The construction contractor will be required to comply with all conditions of the Section 401 WQC and the Stormwater General Permit for Large Construction Activities issued by LDEQ. The construction contractor will also be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the USACE. The contractor will also be required to utilize Best Management Practices (BMPs) to reduce impacts to water quality. These could include sediment fencing and floating silt curtain (or equivalent) to prevent movement of soil and sediment as well as managing construction materials and debris such that no debris, garbage, or fuel enters the water. Visual monitoring for excessive turbidity, floating debris, trash, or oil sheen would be continuously performed to ensure water quality is being protected.

Earth-moving activities during construction disturb soils and can create indirect water quality effects in the event of uncontrolled runoff or poor sediment control practices during construction. Adherence to permit requirements, best management practices (BMPs), and an approved sediment control plan by the construction contractor would minimize the risk of these indirect water quality effects.

3.2.5 Wildlife

No change in the affected environment or environmental consequences from what is described in Sections 3.1.5.1.3 and 5.2.2.1.4 of the IFR/EIS. Wildlife would be displaced during construction due to noise and construction activity. Migratory waterfowl and other avian species would also be temporarily displaced from the project area during construction. These species would be expected to move to existing adjacent habitat

during construction activities. Levee and access road construction would reduce wetland habitat in the area; however, similar habitats adjacent to the project area could be utilized by birds and other wildlife species. Project effects to wildlife are expected to be minor as there is additional habitat in the area for wildlife to utilize.

3.2.6 Threatened and Endangered Species and Other Protected Species

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) website was consulted on June 13, 2025 to identify changes in the potential presence of federally listed threatened and endangered species within the action area compared to 2021 (Table 4). Since 2021, three additional species have been proposed for listing, tricolor bat, alligator snapping turtle and monarch. No critical habitat for any of these species exists in or near the action area.

Table 4. Federally listed species

	Common Name	Scientific Name	Status	2021*	2025
Mammals	Tricolor bat	*Perimyotis subflavus*	Proposed Endangered		X
	West Indian manatee	*Trichechus manatus*	Threatened	X	X
Birds	Eastern black rail	*Laterallus jamaicensis ssp. jamaicensis*	Threatened	X	X
Fish	Pallid sturgeon	*Scaphirhynchus albus*	Endangered	X	
Reptiles	Alligator snapping turtle	*Macrochelys temminckii*	Proposed Threatened		X
Insects	Monarch	*Danaus plexippus*	Proposed Threatened		X

*Species list was generated for the entire UBB action area

3.2.6.1 2020 Endangered Species Act Consultation

Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, USFWS issued a biological opinion, dated 18 November 2020, that determined that the recommended plan will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: the West Indian manatee, the eastern black rail, and the pallid sturgeon. All terms and conditions, conservation measures, and reasonable and prudent measures resulting from these consultations will be implemented in order to minimize take of endangered species and avoid jeopardizing

the species. The proposed modifications would have no additional effect to these species beyond those consulted on for the original design.

Although they are not expected to occur in the project area, the proposed action would include Standard Manatee Conditions for In-Water Activities, with the contractor instructing all personnel of the potential presence of manatees in the project area, and the need to avoid collisions with these animals. If a manatee(s) is sighted within 100 yards of the project area, moving equipment must be kept at least 50 feet away from the manatee or shut down. There would be restrictions on vessel operation, restrictions on the use of siltation barriers, and mandatory signage designed to avoid any harm to manatees in the project area. More specific information would be contained in any dredging contracts for activities associated with construction of the barge gate.

3.2.6.2 2025 Endangered Species Determinations

Tricolored bat

The tricolored bat is one of the smallest bats native to North America. They inhabit a wide variety of forested or wooded habitats where they roost in trees and forage for insects. Female tricolored bats exhibit high site fidelity, returning year after year to the same summer roosting locations. Reproductive female tricolored bats form maternity colonies and switch roost trees regularly whereas, non-reproductive females and males roost singly. In southern Louisiana, the tricolor bat is active year-round and commonly roosts in culverts as well as treed areas. Suitable TCB roost trees include both live and dead trees with live and dead leaf clusters, large live pines with clusters of dead pine needles, and trees containing Spanish moss (*Tillandsia usneoides*).

Approximately 0.2 acres of trees would be cleared as part of the project to allow for construction access. Although 0.2 acres of potential roosting habitat would be removed, there is additional roosting habitat near the project area and there is no known hibernacula located within 0.5 miles of the proposed project area. To minimize impacts to tricolor bats, tree removal would be completed outside of the pup season which is May 1 to July 15 for the state of Louisiana. Overall, the proposed project would result in a minor short-term impact to the tricolor bat.

The proposed alternative may affect but is not likely to adversely affect tricolor bat. The USACE initiated informal consultation with USFWS via the Northern Long-eared Bat and Tricolored Bat Rangewide Determination Key (DKey) on January 23, 2025. Pursuant to the established consultation procedures for the tricolor bat, USFWS had 15 days to verify this determination, after which concurrence can be presumed. The DKey utilized in making the effects determination can be found in Appendix A.

Alligator snapping turtle

The alligator snapping turtle is the largest freshwater turtle in the United States and prefers deep water habitat of large rivers, but can also be found in streams, canals, lakes, and swamps. It favors features such as stumps, submerged trees, tree root masses and high canopy forested areas. However, hatchlings prefer shallow water and abundant canopy and vegetation. The alligator snapping turtle has a small worm-like part of its tongue that serves as a lure for prey.

The alligator snapping turtle could be present in canals located within the project area. To avoid adverse effects to the alligator snapping turtle when working in waters having

a water depth of at least three feet, USACE will require the construction contractor to have a qualified herpetologist survey the project area for suitable nesting habitat and train workers in the identification of the turtle. Although equipment-use, noise, and other pre-construction activities would likely cause alligator snapping turtles to leave the area before the start of construction, construction activities would be suspended if an alligator snapping turtle is observed within the work zone. Work would not resume until the alligator snapping turtle has left the work area. To discourage the presence of nests during the alligator snapping turtle nesting season (May through July), USACE will require its contractor to install turtle exclusion fencing along the bank in areas where suitable nesting habitat is present prior to the nesting season and maintain the exclusion fencing through the end of construction. The proposed project would have a minor, short-term effect on the alligator snapping turtle as the species would avoid the project area during construction; however, if one does remain or enters the project area, mitigation measures will be utilized to avoid potential impacts.

USACE has determined that the proposed action may affect but is not likely to adversely affect and initiated consultation with USFWS on June 16, 2025. USFWS concurred with USACE's determination on July 14, 2025. A copy of the consultation documentation can be found in Appendix A.

Monarch butterfly

Monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant, and larvae emerge after two to five days. Larvae develop over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks. Monarchs can be found in fields, roadside areas, open areas, and wet area or anywhere milkweed and flowering plants are present. USACE has determined that the proposed action would not affect the monarch butterfly as no suitable habitat is present within the action area.

3.2.7 Essential Fish Habitat (EFH)

Affected Environment - There is no change in EFH from what is described in Section 3.1.5.1.6 of the 2021 IFR/EIS.

Environmental Consequences - The proposed borrow areas consists entirely of disturbed, upland areas that would have no effect on EFH.

The proposed modifications would result in the loss of 66.59 acres of fresh marsh, 7.69 acres of EWB, and 7.69 acres of EWC (Table 3 and Figure 7)Figure 7. Habitat Types Within the Project Area. Fresh marsh impacts are predominantly due to construction of the levee, access road, and staging area. The initial construction of the levee would have the widest footprint, and subsequent lifts would not result in additional loss of fresh marsh. The access road would also result in a loss of EWB and EWC and the bridge would result in the loss of EWB and EWC. Stressors to EFH resulting from construction of the proposed features within Reach G East include physical habitat alteration, benthic community disturbance, turbidity, and impacts to prey species.

Physical Habitat Alteration – Construction of the levee, access road, and bridge would permanently remove 74.28 acres of the physical habitat within the project area. Although the staging area is not a permanent feature, it would be present for the first five years of construction and then again for subsequent lifts. The 0.5 acre staging area would be restored after construction is complete. Due to the length of time the staging area would be in place, it is being considered a permanent impact.

Permanently removing EFH within the project area would impact larval and juvenile red drum, brown shrimp, and white shrimp by reducing the amount of available habitat for foraging, resting, and cover. Construction of the levee and access road would not only result in a loss of habitat and connectivity. The project would result in a long-term, permanent loss of EFH; however, these impacts would be considered minimal when compared with the size of the Upper Barataria Basin and similar EFH located in the project vicinity. Red drum, brown shrimp, and white shrimp are expected to continue to inhabit the area following construction and it is not expected that the proposed project would result in significant or long-term effects to these species populations. Because hydrologic connection is maintained in the Godchaux canal beneath the bridge there are no fish access impacts for Reach G East.

Benthic Community Disturbance – The discharge of fill material to construct the proposed project features would result in the burial and mortality of benthic organisms such as worms and small crustaceans which are fed on by red drum, brown shrimp, and white shrimp. Juveniles of these species feed along EWB and could be killed if not able to move out of the way while fill material is being discharged. Benthic organisms would continue to exist outside of the project area in adjacent, unaffected habitat and be available as a food source.

Turbidity – In-water construction activities would result in a temporary increase in turbidity in the immediate vicinity of construction. Sediment suspension and turbidity during construction would negatively affect EWC habitats; however, Bayou des Allemands is a naturally turbid environment and resident species have likely adapted to turbid conditions. Increased turbidity levels would impact light attenuation in the water column thereby limiting biological productivity of plankton species which brown and white shrimp, as well as other species, feed on. Turbidity would have a short-term, minor effect on EWC during construction; however, turbidity levels would return to baseline levels following construction.

Impacts to Prey Species – Prey species would be affected similar to red drum, brown shrimp, and white shrimp as discussed above. Prey species would be impacted by the loss of physical habitat for foraging, resting, and cover. They could also be buried and killed if unable to move out of the areas where project features are being constructed and/or would be impacted by the loss of benthic organisms as a food source. Due to the potential for increased turbidity in the vicinity of the project area during construction, red drum, brown shrimp, and white shrimp may have a more difficult time finding prey species to consume. Due to the size of the basin and EFH in the vicinity of the project area, impacts to prey species are not anticipated to be negatively affect long-term.

3.3 Socioeconomics

No change to the affected environment or environmental consequences from what is described in Sections 3.1.5.3 and 5.2.2.2.1 of the IFR/EIS. The area is undeveloped, and construction of the levee would not lead to a separation of communities.

3.3.1 Transportation

No change to the affected environment or environmental consequences from what is described in Sections 3.1.5.3.1 and 5.2.2.2.2 of the IFR/EIS. There would be minor, temporary, direct impacts to transportation during construction in the form of increased traffic on streets and highways in the study area from workers and construction vehicles. This increased traffic could result in increased congestion on the roadways during construction.

3.3.2 Recreation Resources

No change to the affected environment or environmental consequences from what is described in Sections 3.1.7 and 5.2.2.1.7 of the IFR/EIS. During construction, there could be short-term indirect impacts to recreational resources along the immediate levee area, and staging areas. Mobile wildlife species associated with hunting and fishing may attempt to move from the area during construction. Non-consumptive recreation resources relating to sports and leisure could be impacted by noise and/or dust associated with construction activity.

3.3.3 Aesthetics

No change to the affected environment and environmental consequences from what is described in Sections 3.1.8 and 5.2.2.1.8 of the IFR/EIS. Direct impacts to visual resources would be minimal as all of Reach G East is remote and public access is limited.

3.3.4 Air Quality

No change to the affected environment or environmental consequences from what is described in Sections 3.1.9 and 5.2.1.10 of the IFR/EIS. Reach G East is located within Lafourche Parish which is still classified as an attainment area for each of the six contaminants under the National Ambient Air Quality Standards (NAAQS) and is therefore not a region of impaired ambient air quality (USEPA 2024c). The operation of heavy equipment during construction, such as dump trucks, and excavators, would temporarily increase vehicle emissions and slightly degrade air quality in the immediate vicinity of the project area. However, impacts would be short-term and negligible and are not expected to violate air quality standards. To minimize air emissions, the USACE requires contractors to meet or exceed all applicable federal, state, and local air resource requirements. Once construction is complete, air quality would return to pre-construction conditions.

3.4 Cultural Resources

MVN, the Louisiana State Historic Preservation Officer, and the Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA) that would govern USACE's Section 106 review process for this Undertaking. The PA was executed and filed with the Advisory Council on Historic Preservation on March 11, 2021. All terms and conditions resulting from the agreement shall be implemented in order to minimize

adverse impacts to historic properties. A letter of coordination with a determination of No Historic Properties Affected for the activities discussed in this SEA was sent to SHPO and Federal Tribes, on April 26, 2024. Responses of agreement were received from the SHPO on May 21, 2024, and the Choctaw of Oklahoma on May 31, 2024. No other responses were received.

3.5 Mitigation

3.5.1 Compensatory Mitigation

Proposed mitigation includes the purchase of mitigation bank credits either prior to or concurrent with impacts. Purchase of credits relieves USACE and the non-federal sponsor of the responsibility for monitoring and of demonstrating mitigation success. Credits purchased from a mitigation bank, must be in compliance with the requirements of the USACE Regulatory Program and the bank's Mitigation Banking Instrument (MBI), which specifies the management, monitoring, and reporting required to be performed by the bank. Impacts would be mitigated through the purchase of tidally influenced fresh marsh credits equaling 36.52 AAHUs. The same version of the WVA model that was used to assess the impacts of constructing the proposed action would be run on the mitigation banks to ensure that the assessment of the functions and services provided by the mitigation bank match the assessment of the lost functions and services as the impacted site. Credits would be purchased from a mitigation bank within the deltaic plain service area.

No particular bank is proposed for use at this time. The bank(s) from which credits would be purchased would be selected through a solicitation process, through which any mitigation bank meeting eligibility requirements and having the appropriate resource type of credits could submit a proposal to sell credits. If appropriate and cost-effective, USACE may choose to purchase mitigation bank credits from more than one bank to fulfill the compensatory mitigation requirements for marsh habitat type. The solicitation for mitigation bank bids will include requirements that the banks are Office of Coastal Management approved, and within the same or adjacent Coastal Wetlands Planning, Protection, and Restoration Act defined hydrologic basin as the impacts.

If mitigation bank credits were not available, USACE-constructed mitigation would be considered and presented to the public through a supplemental NEPA document. Refined project specific monitoring, reporting and success criteria for the mitigation features would be required. USACE would monitor the complete mitigation site, on a cost-shared basis with the Non-federal Sponsor, to determine whether additional construction, invasive species control and/or plantings would be necessary to achieve mitigation success. USACE would undertake additional actions necessary to achieve mitigation success in accordance with cost-sharing applicable to the project and subject to the availability of funds.

3.5.2 Mitigation Measures

- **Invasive Species Prevention.** Prior to transportation along roads into or out of the worksite, or between water bodies within the project area, all equipment must be free of any aquatic plants, water, and prohibited invasive species.
    1. The Contractor shall clean each previously used piece of construction equipment and watercraft prior to bringing it onto the project site and

prior to removing it from the site to prevent the spread of invasive species.

2. The Contractor shall ensure that the equipment and watercraft is free from soil residuals, egg deposits from plant pests, noxious weeds, plant seeds, aquatic plants, and animals, and residual water.
3. Cleaning of equipment and watercraft shall be in accordance with the Environmental Protection Plan submitted by the Contractor and approved by the USACE.
4. If construction equipment or watercraft brought to the project site is found to be contaminated with invasive species, despite implementation of Best Management Practices, the Contractor shall not use the construction equipment or watercraft in its present state.
    I. Any contaminated construction equipment or watercraft in water shall immediately be placed on dry land.
    II. The Contractor shall follow decontamination protocols as identified in the environmental protection plan.
        i. Contaminated equipment shall be decontaminated on site if there is an area that meets decontamination protocols.
        ii. If this is not possible, the equipment shall be quarantined on site until a decontamination plan is approved by the Contracting Officer.
    III. Such equipment shall not be used on site until all invasives have been removed and documentation verifying the results of the cleaning is provided.

- **Water Quality.** All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur in designated non-sensitive upland areas. These areas will implement best management practices to prevent runoff carrying toxic substances from entering waters. If a spill occurs outside of a designated area, the cleanup will be immediate and documented.
- **NPDES and 401 WQC.** The construction contractor will be required to follow the general construction Louisiana Pollutant Discharge Elimination System permit and accompanying Stormwater Pollution Prevention Plan and comply with all conditions of the Section 401 Water Quality Certification issued by the Louisiana Department of Environmental Quality. The contractor will also be required to utilize Best Management Practices (BMPs) to reduce impacts to water quality. These could include sediment fencing and floating silt curtain (or equivalent) to prevent movement of soil and sediment as well as managing construction materials and debris such that no debris, garbage, or fuel enters the water. Visual monitoring for excessive turbidity, floating debris, trash, or oil sheen would be continuously performed to ensure water quality is being protected.
- **Air Quality.** To minimize air emissions, USACE requires contractors to meet or exceed all federal, state, and local air resource requirements.
- **Birds.** USACE will require the construction contractor to have a qualified ornithologist survey the project area during construction for the presence of documented and undocumented wading bird colonies and bald eagles. Colonial

nesting wading birds (including but not limited to heron, egrets and ibis) and bald eagles may be found at the project site and should be avoided to reduce the risk of injuring birds. The nesting activity period general extends from February 15 through October 31 for wading birds and September to May for bald eagles. If nests of these birds are present at the work area, a no work distance restriction of 1000 feet for colonial nesting wading birds and 660 feet for nesting bald eagles will be implemented. Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds.

For colonies containing nesting gulls, terns, and/or black skimmers, all project activity occurring within 400 meters (700 meters for brown pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).

- **Manatees.** All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:
    - All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in- water work can resume under careful observation for manatee(s).
    - If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at “no wake/idle” speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.
    - If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.
- **Tricolored bats.** To avoid impacts to tricolor bats, tree removal would be completed outside of the pup season which is May 1 to July 15 for the state of Louisiana.
- **Alligator snapping turtles.** To avoid adverse effects to the alligator snapping turtle when working in waters having a water depth of at least three feet, USACE will require the construction contractor to have a qualified herpetologist survey the project area for suitable nesting habitat and train workers in the identification of the turtle. Although equipment-use, noise, and other pre-construction activities would likely cause alligator snapping turtles to leave the area before the start of construction, construction activities would be suspended if an alligator snapping turtle is observed within the work zone. Work would not resume until the alligator snapping turtle has left the work area. To discourage the presence of nests during the alligator snapping turtle nesting season (May through July), USACE will require its contractor to install turtle exclusion fencing along the bank in areas

where suitable nesting habitat is present prior to the nesting season and maintain the exclusion fencing through the end of construction.

4 Environmental Compliance

4.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA; 42 USC § 4321 et seq.) establishes the broad national framework for protecting our environment. NEPA's basic policy is to assure proper consideration of the environment prior to undertaking any major federal action. Two alternatives have been presented, and the significance of the project's impacts have been evaluated. The document will be distributed to agencies, the public and other interested parties to gather any comments or concerns. If no significant impacts to the environment are found, a Finding of No Significant Impact (FONSI) will be signed by the New Orleans District commander.

4.2 Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) requires that "each federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs." In accordance with Section 307, a Consistency Determination was prepared for the proposed project and submitted to the Louisiana Department of Natural Resources (LDNR). In a letter dated December 17, 2020, LDNR determined the proposed project is consistent with the Louisiana Coastal Resources Program. USACE coordinated the proposed project modifications with LDNR on July 22, 2025. In a letter dated September 3, 2025, LDNR determined the proposed modifications are consistent with the Louisiana Coastal Resources Program. CZMA documentation can be found in Appendix A.

4.3 Clean Air Act

The Clean Air Act (CAA) sets goals and standards for the quality and purity of air. It requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The project area is currently in attainment of NAAQS. The Louisiana Department of Environmental Quality is not required by the CAA and Louisiana Administrative Code, Title 33 to grant a general conformity determination.

4.4 Clean Water Act

The Clean Water Act (CWA; 33 USC §1251 *et seq*.) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

Section 404 of the CWA regulates the discharge of dredged or fill material into waters of the United States and is administered by USACE. USACE does not issue permits to itself but complies with the provisions of the Act. A programmatic individual 404(b)(1) evaluation was completed for the project in 2021 and a supplemental individual 404(b)(1) evaluation was completed for additional aquatic impacts associated with Reach G East and can be found in Appendix B.

Section 401 water quality certification is required for actions that may result in a discharge of a pollutant into waters of the United States to ensure that the discharge complies with applicable water quality standards. The Louisiana Department of Environmental Quality (LDEQ) is the agency responsible for issuing Clean Water Act Section 401 water quality certification. Section 401 water quality certification has been issued without conditions. A copy of the 401 water quality certification can be found in Appendix A. The proposed project modifications were coordinated with LDEQ on July 23, 2025. LDEQ responded via email on July 31, 2025, stating the original water quality certification would remain in effect.

4.5 Endangered Species Act

The Endangered Species Act (16 USC § 1531 et seq.) provides for the conservation of threatened and endangered plants and animals and the habitats in which they are found. Pursuant to Section 7 of the Endangered Species Act of 1973, as amended, USFWS issued a biological opinion, dated 18 November 2020, that determined that the recommended plan will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: the West Indian manatee, the eastern black rail, and the pallid sturgeon. All terms and conditions, conservation measures, and reasonable and prudent measures resulting from these consultations will be implemented in order to minimize take of endangered species and avoid jeopardizing the species. The proposed modifications would have no additional effect to these species beyond those consulted on for the original design.

Since 2021, three additional species have been proposed for listing, tricolor bat, alligator snapping turtle and monarch. No critical habitat for any of these species exists in or near the action area. The Proposed Alternative may affect but is not likely to adversely affect tricolor bat. USACE initiated informal consultation with USFWS via the Northern Long-eared Bat and Tricolored Bat Rangewide Determination Key (DKey) on January 23, 2025. Pursuant to the established consultation procedures for tricolor bat, USFWS had 15 days to verify this determination, after which concurrence can be presumed. USFWS did not respond. USACE has also determined that the Proposed Alternative may affect but is not likely to adversely affect the alligator snapping turtle and initiated informal consultation with USFWS on June 16, 2025. USFWS concurred with the USACE's determination on July 14, 2025. A copy of the consultation documentation can be found in Appendix A. USACE determined the proposed action would have no effect on the monarch butterfly.

4.6 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA; 16 USC 661–667e) requires federal agencies to coordinate with the U.S. Fish and Wildlife Service and applicable state agencies when a stream or body of water is proposed to be modified. The USFWS provided a Final FWCA Report on 27 October 2021. The proposed project modifications were coordinated with USFWS on July 18, 2025, and a draft supplemental report received August 25, 2025 (see Appendix A). The USFWS provided the following recommendations:

1. The USACE should continue coordinating closely with the Service and other fish and wildlife conservation agencies throughout the project life as needed to

ensure features are designed, constructed, and operated consistent with wetland restoration and associated fish and wildlife resource needs.

USACE: Concur.

2. Full, in-kind compensation (quantified as Average Annual Habitat Units [AAHUs]) is recommended for unavoidable direct impacts to approximately 74 acres (-37 AAUHs) of fresh marsh and water. To help ensure that the proposed mitigation features meet their goals, the Service provides the following recommendations:

    a. If applicable, a General Plan should be developed by the USACE, LDWF, NMFS and the Service in accordance with Section 3(b) of the Fish and Wildlife Coordination Act for mitigation lands.
    b. Mitigation measures should be constructed concurrently with the flood damage reduction features that they are mitigating (i.e., mitigation construction should be initiated no later than 18 months after levee construction has begun).
    c. If mitigation is not implemented concurrent with levee construction, the amount of mitigation needed should be reassessed and adjusted to offset temporal losses.
    d. The USACE should remain responsible for the required mitigation until the mitigation is demonstrated to be fully compliant with interim success and performance criteria. At a minimum, this should include compliance with the requisite vegetation, elevation, acreage, and dike gapping criteria.
    e. The acreage restored and/or managed for mitigation purposes and adjacent affected wetlands should be monitored over the project life. This monitoring should be used to evaluate mitigation project impacts, the effectiveness of the compensatory mitigation measures, and the need for additional mitigation should those measures prove insufficient.

    USACE: Concur. See Section 3.5.1 for the mitigation plan.

3. To the greatest degree practical, the proposed levees and borrow pits should be located to avoid and minimize direct impacts to emergent wetlands. Efforts should be made to further reduce those direct impacts by hauling in fill material, using sheetpile for the levee crest, deep soil mixing, or other alternatives.

    USACE: Thank you for the recommendation, although not included in scope of the first contract, these considerations will be evaluated when the design of the levee and borrow pits are advanced. Selection of the Raceland Raw Sugar borrow pit for the access road was determined based on Individual Environmental Report (IER) #31.

4. If organic soils must be removed from the construction site, that material should be used to create or restore emergent wetlands to the greatest extent practicable. If that is not practicable, then use of that material to improve borrow pit habitat quality (e.g., construct bank slopes, reduce depths, etc.) should be examined.

USACE: We are not anticipating removing organic soils. We will be clearing and grubbing vegetation and larger roots, but we are not removing any topsoil under the current design. Topsoil is anticipated to be stripped from the borrow site before excavation, but that material will be placed back in the same area after the borrow material is pulled out.

5. Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.

   USACE: Concur. Language will be added to the specifications to restrict tree clearing to fall or winter, if practicable.

6. Avoid adverse impacts to bald eagle nesting locations and wading bird colonies through careful design of project features and timing of construction. During project construction, a qualified biologist should inspect the proposed construction site for the presence of documented and undocumented wading bird nesting colonies and bald eagles.

   a. All construction activity during the wading bird nesting season (February through October 31 for wading bird nesting colonies, exact dates may vary) should be restricted within 1,000 feet of a wading bird colony. If restricting construction activity within 1,000 feet of a wading bird colony is not feasible, CPRA should coordinate with FWS to identify and implement alternative best management practices to protect wading bird nesting colonies.
   b. During construction activities, if a bald eagle nest is within or adjacent to the proposed project area, the applicant should follow the bald and golden eagle guidelines found on-line at https://www.fws.gov/library/collections/bald-and-golden-eagle-management to determine whether disturbance will occur and/or an incidental take permit is needed.

   USACE: Concur. Language is already included in the project specification.

7. The Service recommends that the USACE contact the Service for additional Endangered Species Act section 7 consultation if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat, 3) the action is modified in a manner that causes effects to listed species or designated critical habitat, or 4) a new species is listed or critical habitat designated. Additional consultation as a result of any of the above conditions or for changes not covered in this consultation should occur before changes are made or finalized.

   USACE: Additional ESA consultation has already been completed. See Section 4.5.

4.7 Magnuson-Stevens Fishery Conservation and Management Act

As required by the Magnuson-Stevens Fishery Conservation and Management Act, all marine and estuarine waters of the northern Gulf of America have been designated as EFH through regulations promulgated by the NMFS and the Gulf Council. The proposed project modifications were coordinated with NMFS on July 24, 2025, and an EFH

assessment was submitted to NMFS on August 13, 2025. NMFS responded on September 8, 2025, and provided the following recommendation:

> If the purchase of tidally influenced wetland credits from an USACE approved mitigation bank within the Deltaic Plain is not available then the USACE should develop, in coordination with NMFS, a permittee responsible mitigation and monitoring (PRMM) plan which fully compensates for all unavoidable impacts to EFH. Implementation of the PRMM plan should be concurrent with the construction of the project to avoid additional mitigation for temporal impacts.
>
> USACE: Concur. Permittee responsible mitigation is currently being considered as stated in the EFH assessment. See also Section 3.5.1 of this SEA. A response to NMFS was sent via letter on September 9, 2025.

4.8 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703-712) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the U.S. Fish and Wildlife Service. Based on review of existing data, site visits, and with the use of USFWS guidelines, USACE determined that implementation of the proposed project would have no effect on colonial nesting water/wading birds or shorebirds. A qualified biologist would survey the proposed project area before construction to confirm whether nesting activity is occurring and/or the potential for nesting exist within the project area. If active nesting exists within 1,000 feet (water birds) or 1,300 feet (shorebirds) of construction activities then USACE, in coordination with USFWS, would develop specific measures to avoid adverse impacts to those species. A detailed nesting prevention plan may be necessary in order to deter birds from nesting within the aforementioned buffer zones of the project footprint, in order to avoid adverse impacts to these species. If a nesting prevention plan is necessary, it would be prepared in coordination with USFWS.

4.9 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone from taking, possessing, or transporting an eagle, or the parts, nests, or eggs of such birds without prior authorization. Disturbing an eagle to a degree that causes, or is likely to cause injury to an eagle, decrease productivity or cause nest abandonment are considered forms of take. Activities that directly or indirectly lead to take are prohibited without a permit.

A qualified biologist would survey for nesting birds prior to the start of construction. The USFWS recommends maintaining a buffer of at least 660 feet between project activities and active eagle nests. Construction in areas within this buffer of active nests would be scheduled outside of the nesting timeframe (nesting typically occurs between February 1 – July 15) if practicable. Further coordination with the USFWS would be conducted in the construction phase, and an incidental eagle take permit may be requested if avoidance measures are not practicable.

4.10 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended by Public Law 96-515 (94 Stat. 2987), established national policy for historic preservation, authorized the Secretary of the Interior to expand and maintain a National Register of Historic Places, and created the Advisory Council on Historic Preservation. Section 106 specifies that

federal agencies, must consider the effect of the action on any property included in or eligible for the National Register of Historic Places.

MVN, the Louisiana State Historic Preservation Officer, and the Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA) that would govern USACE's Section 106 review process for this Undertaking. The PA was executed and filed with the Advisory Council on Historic Preservation on March 11, 2021. All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties. A letter of coordination with a determination of No Historic Properties Affected for the activities discussed in this EA was sent to SHPO and Federal Tribes, on April 26, 2024. Responses of agreement were received from the SHPO on May 21, 2024, and the Choctaw of Oklahoma on May 31, 2024. No other responses were received. Consultation documents can be found in Appendix A.

4.11 Executive Order 11990 Protection of Wetlands

Executive Order 11990 directs federal agencies to protect wetlands by avoiding actions that would destroy or degrade them whenever possible. It requires agencies to minimize harm to wetlands and, if damage is unavoidable, to take steps to compensate for the loss through restoration or mitigation. The order emphasizes the importance of wetlands for environmental benefits like flood control, water purification, and wildlife habitat, and mandates early public notification and involvement in decisions affecting wetlands. USACE has minimized wetland impacts in Reach G East to the extent practicable and will mitigate for unavoidable impacts via the purchase of mitigation bank credits, if available.

4.12 Executive Order 11988 Floodplain Management

Executive Order 11988 (EO 11988) was issued in 1977 with the intent to avoid floodplain development, to reduce hazards and risk associated with floods and to restore and preserve natural floodplain values. USACE must comply with EO 11988 when designing or permitting projects. Executive Order 11988 requires federal agencies to avoid direct or indirect support of floodplain development wherever there is a practicable alternative, and then to minimize impacts to the floodplain.

The UBB project plans are to develop flood risk management infrastructure within the regulated 1%-annual-exceedance-probability (100-year) floodplain and floodway. The 2021 IFR/EIS demonstrated that a structural alignment is the only feasible concept that will sufficiently reduce flooding in the UBB. Therefore, there is not a practicable alternative located outside the floodplain, and locating the project in the floodplain is necessary to achieve the project purpose. The primary planning objective is to reduce coastal storm damages to UBB. The 2021 Recommended Plan significantly reduced coastal storm damage to the UBB. Any floodplain impacts created by the Recommended Plan have been minimized, and will continue to be minimized, during the design phase of the project. The Recommended Plan is in compliance with EO 11988. Modifications to Reach G East have not affected compliance with EO 11988.

4.13 Executive Order (EO) 13175 Consultation and Coordination With Indian Tribal Governments

In accordance with MVN's responsibilities under NEPA, NHPA, and E.O. 13175, USACE initiated the Tribal Consultation process by inviting Tribes to participate as

cooperating agencies in the development of the Draft EIS, via letter on April 24, 2019. This correspondence was directed to the leadership of each of the Tribal governments whose aboriginal and historic territories or historic removal routes extended to the lands where the proposed activities would occur (i.e., the Alabama Coushatta Tribe of Texas ACTT, Chitimacha Tribe of Louisiana CTL, Choctaw Nation of Oklahoma CNO, Chitimacha Tribe CT, Jena Band of Choctaw Indians JBCI, Mississippi Band of Choctaw Indians MBCI, Muscogee Creek National MCN, Seminole Tribe of Florida STF, Seminole Nation of Oklahoma SNO, and Tunica-Biloxi Tribe of Louisiana TBTL). No responses were received.

Following an invitation to participate to all Federal Tribes with Area of Interest inside MVN boundaries, the MVN, Louisiana State Historic Preservation Officer, and the Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA) that would govern USACE's Section 106 review process for this Undertaking. The PA was executed and filed with the Advisory Council on Historic Preservation on March 11, 2021. All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties.

USACE also shared progress on this project via a monthly tribal conference call in July, September, and October of 2020, providing updates to participating tribal representatives. USACE intends to keep the lines of communication open throughout the study, relying on the Section 106 process to capture significant tribal concerns regarding historic properties, but remains open to the need to undertake Government-to-Government consultation, as necessary.

5 Agency Coordination and Public Involvement

Public involvement is an important part of planning and decision-making. Agencies, nongovernmental organizations, and citizens provided valuable input for the final recommendation. NEPA provides people, organizations, and governments the opportunity to review and comment on proposed major Federal actions. Engaging and receiving input from the public, interested parties, stakeholders, government agencies, and nongovernmental organizations regarding the content of this SEA in all stages is critical to achieving the USACE objective of enhancing trust and understanding with customers, stakeholders, teammates, and the public through strategic engagement and communication.

Preparation of this draft SEA and draft FONSI has been coordinated with appropriate Congressional, Federal, state, and local interests, as well as environmental groups and other interested parties. The following agencies and Tribal Partners, as well as other interested parties, received copies of the draft SEA and draft FONSI:

- Louisiana Department of Environmental Quality, Water Permits Division
- Louisiana Department of Energy and Natural Resources, Office of Coastal Management
- Louisiana Department of Wildlife and Fisheries

- Louisiana Office of Cultural Development, Louisiana State Historic Preservation Officer
- Choctaw Nation of Oklahoma
- U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Region
- U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Habitat Conservation Division
- U.S. Fish and Wildlife Service, Louisiana Ecological Services Field Office
- U.S. Environmental Protection Agency, Region VI
- U.S. Federal Emergency Management Agency, Region VI
- U.S. Natural Resources Conservation Service, State Conservationist

This draft SEA and FONSI is being made available for a 30-day public review and comment period. The document can be viewed at: http://www.mvn.usace.army.mil/Environmental/NEPA/

Questions on the project or comments on the Supplemental Environmental Assessment can be submitted to CEMVP_Planning@usace.army.mil. Please address all formal written correspondence on this project to District Engineer, St. Paul District, Corps of Engineers, ATTN: Regional Planning and Environment Division North, 332 Minnesota Street, Suite E1500, St. Paul, Minnesota 55101.

6 Conclusion

The Proposed Action consists of constructing 8,500 feet of earthen levee and 7,925 feet of access road/bridge in Lafourche Parish, LA. Construction of the levee and access road would result in an unavoidable loss of 66.59 acres of fresh marsh, 7.69 acres of EWB, and 7.69 acres of EWC totaling -37 AAHUs. Impacts from the construction of the Proposed Action would be mitigated in-kind and concurrent with construction in accordance with the Clean Water Act, Section 404(b)(1) and the Water Resources Development Act of 1986, Section 906, as amended, and as detailed in the Compensatory Mitigation Plan described in Section 3.5.1. Direct impacts to tidally influenced fresh marsh from implementation of the Proposed Action would be offset through the purchase of mitigation bank credits.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties may be adversely affected by the proposed project. The Corps, Louisiana State Historic Preservation Office, and Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA), dated 11 March 2021. All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties. A letter of coordination with a determination of No Historic Properties Affected for the activities discussed in this EA was sent to SHPO and Federal Tribes, on April 26, 2024. Responses of agreement were received from the SHPO on May 21, 2024, and the Choctaw of Oklahoma on May 31, 2024. No other responses were received.

This office has assessed the environmental impacts of the Proposed Action and has determined that the Proposed Action would have no significant adverse impact on the human and natural environment with implementation of the compensatory mitigation plan and the mitigation meeting its success criteria.

7 References

Hayhoe, K., J. Edmonds, R.E. Kopp, A.N. LeGrande, B.M. Sanderson, M.F. Wehner, and D.J. Wuebbles. 2017. Climate models, scenarios, and projections. *Climate Science Special Report: Fourth National Climate Assessment, Volume I.*

U.S. Army Corps of Engineers (USACE). 2015. Recent Climate Change and Hydrology Literature Applicable to U.S. Army Corps of Engineers Missions – Lower Mississippi River Region 08. Civil Works Technical Report, CWTS-2015-01, USACE, Washington, DC. https://www.usace.army.mil/corpsclimate/Recent_CC_HydrologyLit_Applicable_USACE_Missions/

2025. Greater Mississippi River Basin Precipitation Trends. https://www.mvk-wc.usace.army.mil/mvd/MS-river-basin-report-508.pdf

U.S. Environmental Protection Agency. 2024a. How's My Waterway. https://mywaterway.epa.gov/waterbody-report/LADEQWPD/LA020301_00/2024. Accessed September 24, 2024.

2024c. Green Book National Area and County-Level Multi-Pollutant Information. 2024. https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information. Accessed September 24, 2024.

8 Acronyms

AAHU	Average Annual Habitat Unit
AEP	Annual Exceedance Probability
BMP	Best Management Practice
CAA	Clean Air Act
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DKey	Determination Key
EFH	Essential Fish Habitat
EO	Executive Order
EWB	Estuarine Water Bottoms
EWC	Estuarine Water Column
FWCA	Fish and Wildlife Coordination Act
HTRW	Hazardous, Toxic, And Radioactive Waste
IER	Individual Environmental Report
IFR/EIS	Integrated Feasibility Report and Environmental Impact Statement
IPaC	Information for Planning and Conservation
LDNR	Louisiana Department of Natural Resources
LDEQ	Louisiana Department of Environmental Quality
LMR	Lower Mississippi River
MBI	Mitigation Banking Instrument
MBTA	Migratory Bird Treaty Act
MVN	New Orleans District
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PA	Programmatic Agreement
SHPO	State Historic Preservation Office
ROW	Right-of-way
SEA	Supplemental Environmental Assessment
SWPPP	Stormwater Pollution Prevention Plan

TCB	Tricolor Bat
TMDL	Total Maximum Daily Load
UBB	Upper Barataria Basin
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
WRDA	Water Resources Development Act
WQC	Water Quality Certification
WVA	Wetland Value Assessment

Upper Barataria Basin Modifications to Reach G East

Appendix A – Correspondence

US Army Corps
of Engineers®
St. Paul District

From:	Glomski, Lee Ann M CIV USARMY CEMVP (USA)
To:	james.bondy@la.gov
Cc:	Clark, Steven J CIV USARMY CEMVP (USA); Cook, James P CIV USARMY CEMVP (USA); Schmit, Brian A CIV USARMY CEMVP (USA)
Subject:	USACE Upper Barataria CZMA
Date:	Tuesday, July 22, 2025 8:59:00 AM
Attachments:	Coastal Zone Determination from LDNR (2020 12 17).pdf UBB modifications to Reach G East.docx

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Good morning,

A consistency letter was issued by LDNR on December 17, 2020 for the Upper Barataria Basin project (C20200150 attached). The UBB project consists of hydraulic reaches A through H. The Corps St. Paul District is currently designing Reach G East on behalf of the New Orleans District. Several modifications to the original design have been made and are summarized below. For additional details regarding the project and individual features see attached word document.

- Levee: toe-to-toe footprint has increased from 170 feet to 300 feet based on recent geotechnical analysis
- Access road: shifted slightly to the southwest of the Midway Canal, length reduced by over 500 feet, turn off and turnaround areas added
- Godchaux Canal bridge: more detailed design since 2021
- Staging Area: reduced from 2.3 acres to 0.5 acre
- Borrow Area: new area identified

We are requesting a review for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act. If you need any additional information, please let us know.

Thank you,
LeeAnn Glomski
Biologist
St. Paul District

JOHN BEL EDWARDS
GOVERNOR

CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

DEC 0 4 2020

Ms. Patricia Naquin
US Army Corps of Engineers, New Orleans District
Regional Planning and Environmental Division, South
CEMVN-PDN-CEP
7400 Leake Avenue
New Orleans, LA 70118

AI No.: 101235
Activity No.: CER20200007

RE: USACE-NOD – Upper Barataria Basin, Louisiana Feasibility Study, Louisiana
Water Quality Certification WQC 201203-02
Ascension, Assumption, Jefferson, Lafourche, St. Charles, St. James, and St. John the Baptist Parishes

Dear Ms. Naquin:

The Louisiana Department of Environmental Quality, Water Permits Division (LDEQ), has reviewed the application for construction of levees, floodwall, a barge gate and roller gate in the Upper Barataria Basin for the purposes of flood-risk reduction located in Ascension, Assumption, Jefferson, Lafourche, St. Charles, St. James, and St. John the Baptist Parishes.

The information provided in the application has been reviewed in terms of compliance with State Water Quality Standards, the approved Water Quality Management Plan and applicable state water laws, rules and regulations. LDEQ determined that the requirements for a Water Quality Certification have been met. LDEQ concludes that the deposit of spoil will not violate water quality standards as provided for in LAC 33:IX.Chapter 11. Therefore, LDEQ hereby issues USACE-NOD – Upper Barataria Basin, Louisiana Feasibility Study, Louisiana Water Quality Certification, WQC 201203-02.

Should you have any questions concerning any part of this certification, please contact Elizabeth Hill at (225) 219-3225 or by email at elizabeth.hill@la.gov. Please reference Agency Interest (AI) number 101235 and Water Quality Certification 201203-02 on all future correspondence to this Department to ensure all correspondence regarding this project is properly filed into the Department's Electronic Document Management System.

Sincerely,

Scott Guilliams
Administrator
Water Permits Division

c: IO-W

ec: Patricia Naquin
patricia.leroux@usace.army.mil
dnrocmintake@la.gov

TYLER PATRICK GRAY
SECRETARY

DUSTIN H. DAVIDSON
DEPUTY SECRETARY

KEITH O. LOVELL
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AMANDA MCCLINTON
ASSISTANT SECRETARY
ENERGY

MARK NORMAND, JR.
UNDERSECRETARY

MANNY ACOSTA
OIL SPILL COORDINATOR

ANDREW B. YOUNG
ASSISTANT SECRETARY
MINERAL RESOURCES

STEVEN M. GIAMBRONE
INTERIM DIRECTOR
CONSERVATION

DEPARTMENT OF ENERGY AND NATURAL RESOURCES

September 3, 2025

LeeAnn Glomski
Corps of Engineers
332 Minnesota Street, Suite E1500
St. Paul, Minnesota 55101
Via email: LeeAnn.M.Glomski@usace.army.mil

RE: **C20200150 Mod 02,** Coastal Zone Consistency
New Orleans District, Corps of Engineers (COE)
Direct Federal Action
Upper Barataria Basin Project Mod 02 - Design Changes to Reach G East
Lafourche Parish, Louisiana

Dear Ms. Glomski:

The above referenced project modification has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the modification application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Jim Bondy of the Consistency Section at (225) 342-3870 or james.bondy@la.gov.

Sincerely,

/S/ Charles Reulet
Administrator
Interagency Affairs/Field Services Division

CR/MH/jab

cc: Dave Butler, LDWF
Megan Dufrene, Lafourche Parish
Rod Pierce, OCM FI

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

December 17, 2020

Patricia S. Naquin
Biologist/Environmental Resource Specialist, Coastal Environmental Planning Section
US Army Corps of Engineers-New Orleans District CEMVN-PDS-C
7400 Leake Ave
New Orleans, LA 70118
Via email: Patricia.Leroux@usace.army.mil

RE: **C20200150,** Coastal Zone Consistency
New Orleans District, Corps of Engineers (COE)
Direct Federal Action
Upper Barataria Basin Draft Feasibility Study with Intergrated Environmental Impact Statement
St. Charles & St. James Parishes, Louisiana

Dear Ms. Naquin:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in this application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Jim Bondy of the Consistency Section at (225) 342-3870 or james.bondy@la.gov.

Sincerely,

/S/ Charles Reulet
Administrator
Interagency Affairs/Field Services Division

CR/MH/jab

cc: Dave Butler, LDWF
Earl Matherne, St. Charles Parish
Amanda Voisin, Lafourche Parish
Kirk Kilgen, OCM FI

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

August 13, 2025

Virginia Fay
National Marine Fisheries Service
Southeast Division
263 13th Avenue South
St. Petersburg, FL 33701-5505

Dear Ms. Fay:

The U.S. Army Corps of Engineers, St. Paul District on behalf of the New Orleans District, is requesting initiation of Essential Fish Habitat (EFH) consultation under the Magnuson-Stevens Fishery Conservation and Management Act in accordance 50 CFR 600.920(l) for the proposed modifications to Reach G East. In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act, Federal action agencies which fund, permit, or carry out activities that may adversely impact essential fish habitat (EFH) are required to consult with NMFS regarding the potential effects of their actions on EFH.

Project and Consultation History
In 2021, the Recommended Plan for the Upper Barataria Basin project was defined as a structural alignment constructed to a one percent annual exceedance probability (100-year future design) height totaling approximately 30.6 miles in length and separated into eight reaches (Figure 1). The project would span from the Mississippi River Levee through the Davis Pond Diversion Structure West Guide Levee and connect to high ground near Raceland. Reaches A through C improve upon and update deficiencies in the St. Charles Parish Levee; Reaches D and E include levees constructed atop the existing Sunset Levee and floodwalls; Reach F consists of an earthen levee, culverts, and a 270-foot barge gate structure constructed across the Bayou Des Allemands; and Reaches G and H include new levee constructed in lifts, culverts for hydraulic connectivity, floodwalls spanning pipelines, and a new bridge across the Godchaux Canal.

USACE initiated consultation via letter dated November 29, 2019. The letter indicated the draft EIS represented the initiation of EFH consultation. In a letter dated January 13, 2020, NMFS stated the draft EIS was insufficient to complete EFH consultation, requested additional information, and recommended conservation measures. USACE sent a second letter to NMFS on December 11, 2020, stating that the second draft of the EIS represented the initiation of EFH consultation. NMFS, in a letter dated January 28, 2021, again stated that the draft EIS was insufficient to complete EFH consultation and requested additional information. USACE responded to NMFS's comments on March 13, 2021.

Figure 1. Upper Barataria Basin Project Reaches A through H

Current Action

The first reach to move forward into detailed design is Reach G. However, to work within current funding limitations, Reach G has been divided into Reach G East and Reach G West. Reach G East is currently being designed and is located within Lafourche Parish. On the eastern end, Reach G East connects to the Reach F barge gate structure spanning Bayou Des Allemands and runs southwest for 8,500 linear feet. Reach G East terminates on the western side of the junction between the Midway Canal and the Godchaux Canal (Figure 2). Reach G East includes 8,500 linear feet of levee with a toe-to-toe footprint of 300 feet, a 7,380-foot access road, a two-lane bridge across the Godchaux Canal, a 0.5 acre staging area, and two borrow areas. Each of these features are discussed in detail in the attached EFH assessment.

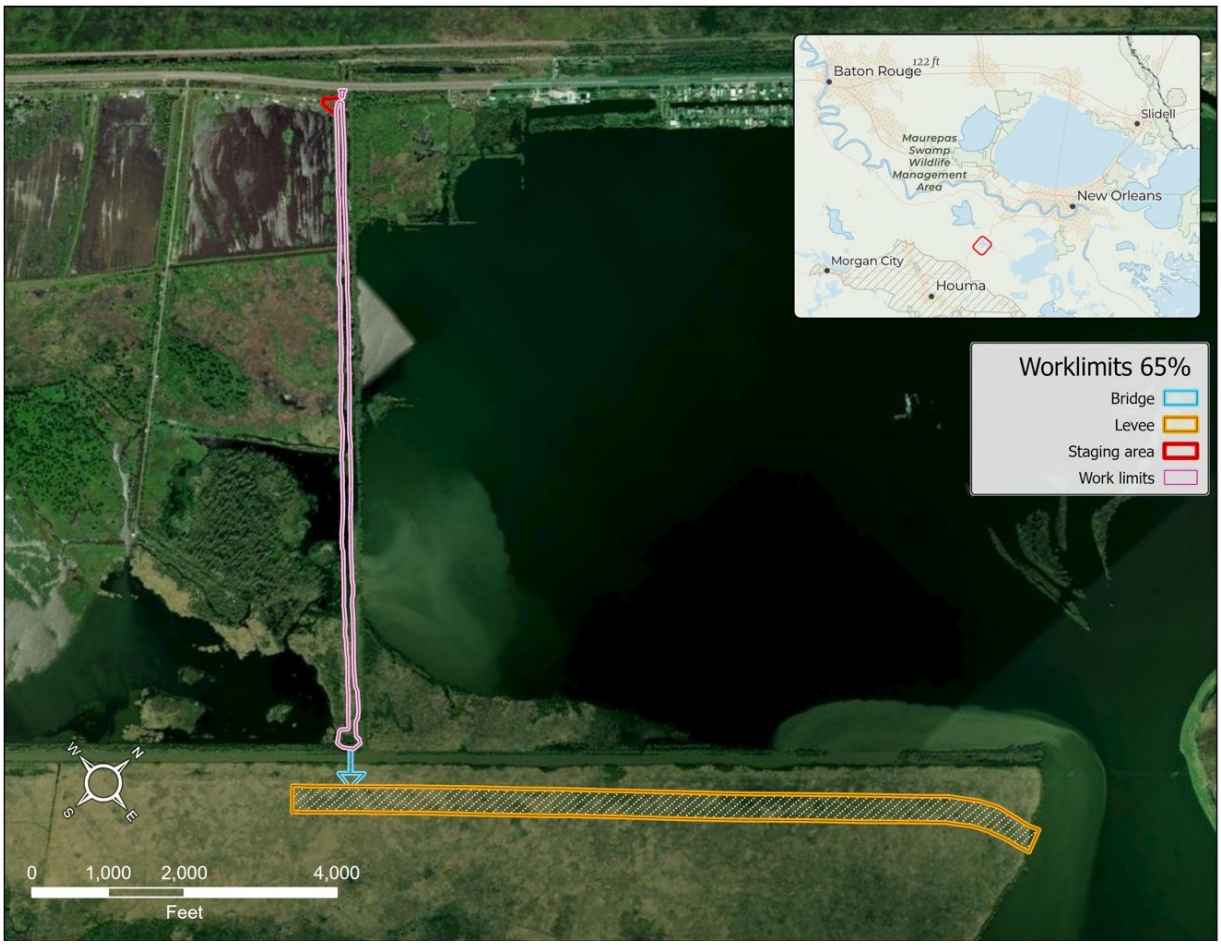

Figure 2. Reach G East Features

Essential Fish Habitat

The Reach G East project area includes EFH for red drum, brown shrimp, and white shrimp as well as nursery and foraging habitats for economically important marine fishery species such as blue crab, gulf menhaden, bay anchovy, Atlantic croaker, southern flounder, and striped mullet. Some of these species, such as mackerels, snappers, and groupers, serve as prey for other fish species managed by the Gulf Council as well as highly migratory species such as billfishes and sharks.

The USACE has determined that the proposed modifications to Reach G East would have an adverse effect on EFH due to the permanent loss of 66.59 acres of tidally influenced fresh marsh habitat, 7.69 acres of estuarine water bottoms and 7.69 acres of estuarine water column. However, these impacts would be considered minimal when compared to the size of the Upper Barataria Basin and similar EFH located in the project vicinity. The USACE's supporting analysis is provided in the enclosed EFH assessment.

USACE will offset impacts resulting in the loss of fresh marsh. Mitigation was quantified using the Wetland Value Assessment (WVA) model for fresh marsh. Total mitigation required to offset impacts to fresh marsh in Reach G East is -36.52 average annual habitat units (AAHUs). Proposed mitigation includes the purchase of mitigation bank credits either prior to or concurrent

with impacts. Additional details regarding mitigation can be found in the attached EFH assessment.

Conclusion
We are requesting your concurrence with our determination that **the proposed modifications to Reach G East would have an adverse effect on EFH**. USACE is not initiating consultation on the entire Upper Barataria project or on the indirect effects of the barge gate at this time. If you have questions about the project or the content of this letter, please contact Steve Clark at (651) 290-5278 or steven.j.clark@usace.army.mil.

Sincerely,

Jonathan J. Sobiech
Deputy Chief, Regional Planning
and Environment Division North

Enclosure

cc:
January Murray, NMFS
Cathy Breaux, USFWS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
200 Dulles Drive
Lafayette, Louisiana 70506

November 18, 2020

Mr. Kevin Harper
U.S. Army Corps of Engineers
New Orleans District
7400 Leake Avenue
New Orleans, LA 70118-3651

Dear Mr. Harper:

Please reference the recently submitted Biological Assessment (BA) on the Upper Barataria Basin Risk Management Feasibility Study. In that BA, it is determined that the proposed measures, consisting of structural flood risk reduction measures, would be "Not Likely to Adversely Affect" the West Indian manatee, the eastern black rail, and the pallid sturgeon and its critical habitat.

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

If you have any further questions, please contact Mr. Ronny Paille of this office (337-291-3117).

Sincerely,

Joseph A. Ranson
Field Supervisor
Louisiana Ecological Services Office

Biological Assessment
Upper Barataria Basin, Louisiana Feasibility Study with Integrated Environmental Impact Statement

Project Description

The proposed action is a structural alignment constructed to a 1 percent AEP (100-year future design) and totaling a little over 161,300 feet (30.6 miles) in length. The system starts in Luling where it connects the Mississippi River Levee through the Davis Pond Diversion Structure West Guide Levee. Continuing south, the proposed action improves upon and updates deficiencies in the St. Charles Parish Levee, crosses Bayou Des Allemands with a 270-feet barge gate structure, and continues parallel to US Highway 90 before it ties into high ground across the Barataria Basin near Raceland. The proposed levee is designed to HSDRRS specifications with a 1V:4H and a 10 foot crown, with multiple levee lifts authorized over the initial 50 years. Reaches A-H are shown in Figure 1. The smaller structures along the alignment were captured in the detailed map in Figure 2 and Figure 3.

Borrow material for construction is proposed to come from sites estimated to be within 15 miles of where US Highway 90 crosses Bayou Des Allemands. Existing Government borrow sites were not available within the designated distance. Potential borrow sites on farm lands (avoiding swamp and marsh lands) were identified in Raceland and can be seen in Figure 4. A total of 5,200,400 cubic yards of soil is needed for the first lift in 2026 and a grand total of 8,812,700 cubic yards is needed over the entire authorized 50 year period to sustain the 1 percent AEP design elevations out to year 2076. It was assumed that 10-15 feet of usable material could be found in these sites. The borrow pit needed for the quantity of soil would be approximately 500 acres.

List of structures associated with Figures 2 and 3:

1. River Road crossing ramp
2. Union Pacific Railroad crossing
3. BNSF Railroad crossing
4. US Highway 90 Crossing Ramp
5. Davis Pond Pump Station frontage protection
6. Willowdale Pump Station, two new tidal exchange structures
7. Willowridge Pump Station frontage protection
8. Cousins Pump Station frontage Protection
9. T-wall section for East Gas Pipeline
10. Kellogg Pump Station frontage protection
11. T-wall section for West Gas Pipeline
12. Ellington Pump Station Frontage Protection
13. T-wall section for Magnolia Pipeline
14. Magnolia Ridge Pump Station Frontage Protection
15. Existing Paradise Control Structure

16. Floodwall section in Hydraulic Reach D TOW El. 15.0
17. Floodwall section in Hydraulic Reach E TOW El. 18.5
    a. Floodwall type T-1 TOW El. 18.5
    b. Floodwall type T-2 TOW El. 18.5
    c. Floodwall type T-3 TOW El. 18.5
18. 45 foot Highway 306 (Bayou Gauche) Roller Gate TOW El. 18.5
19. Crawford Canal P.S. Fronting Protection TOW El 18.5 (50 LF of wall)
20. 270 foot Barge Gate crossing Bayou Des Allemands TOW El. 18.5
21. Environmental structures on either side of the Bayou Des Allemands Barge Gate, 12-15 X 20 foot box culverts with sluice gates
22. Godchaux Canal Bridge TOW El. 9.5
23. Drainage Structure – 4-6 X 6 foot RC box culverts with sluice gates in 3 locations
24. Drainage Structure – 4-6 X 6 foot RC box culverts with sluice gates
25. Drainage Structure – 4-6 X 6 foot RC box culverts with sluice gates
26. Drainage Structure – 2-84 inch RCP culverts with sluice gates
27. Drainage Structure – 1-60 inch RCP culvert with sluice gates
28. T-wall section, Enterprise and Shell Pipeline Crossing (Davis Pond Crossing #1)
29. T-wall section, Bridgeline Enlink Pipeline Crossing (Davis Pond Crossing #2)

Note: Screens are not being implemented in culverts with sluice gates.

Proposed Design for Construction by Reach

All listed access routes to access reaches A-H would have a 40 feet path width. There is a designated staging and access route for each reach listed below. The staging area totals approximately 20 acres and the access routes total approximately 40 acres. Table 6.1 provides all details of footprint width and ROW required to construct the proposed alignment. Also, note that the term frontage protection at existing pump stations entail T-walls with the pump outlet pipes going through the wall, pipe supports, and riprap.

Table 1. Earthen Levee Footprint Widths

	Existing Levee	2026 Construction		Final Lift Construction	
Reach	**Levee including ROW (ft)**	**Toe-To-Toe (ft)**	**Levee including ROW (ft)**	**Toe-To-Toe (ft)**	**Levee including ROW (ft)**
A, Davis Pond	285	125	190	173	238
A	100	125	190	236	301
B	100	125	190	236	301
C	100	125	190	236	301
D	100	125	190	173	238
E	75	122	187	244	309
F	130	169	234	244	309
G	0	170	250	170	250
H	0	170	250	170	250

Reach A

Reach A begins at the Mississippi River levee and extends approximately 24,700 feet south. The proposed earthen levee, with a centerline shifted away from the canals, would build off the existing Davis Pond West Guide Levee and the existing St. Charles Levee. All of the existing levee footprints, including ROW, would be incorporated into the proposed levee design.

From the Mississippi River Levee, the alignment continues south where it crosses River Road, the Union Pacific Rail Road track, the BNSF Rail Road track, and US Highway 90. Ramps would be constructed for the River Road and US Highway crossings and 2 railway gates would be constructed where the Union Pacific Rail Road track and the BNSF Rail Road track cross the alignment. Continuing south, the existing Davis Pond pump station would receive new frontage protection. At the Willowdale Pump Station, two existing tidal exchange structures, located on either side of the structure, would need to be replaced. New T-wall sections, one measuring 152 feet and one measuring 298 feet, would be constructed to allow the Enterprise/Shell Pipeline and the Bridgeline Enlink Pipeline to pass through the levee alignment without impacting the integrity of the alignment.

Approximately 11,000 feet from the Mississippi River Levee, along the Davis Pond Diversion West Guide Levee, the alignment then turns into the St. Charles Parish Levee which would be elevated with the centerline being shifted away from the canal.

Reach A would be accessed from US Highway 90 to Willowdale Boulevard and then to Lafayette Drive. Three staging areas are proposed for use during the construction of the alignment and structures within Reach A. The first staging area is located off Willowdale Boulevard and measures approximately 0.7 acres in size. A second staging area, approximately one (1) acre in size is located along Willowdale Boulevard, and the third staging area, approximately one (1) acre in size is located next to River Road. Staging area 3 would be utilized for construction of the ramp over the levee for River Road and the 2 Railroad roller gate structures (Union Pacific to the north and the BNSF to the south). Refer to Figure 6-4 for the locations of the staging areas.

Reach B

Reach B begins at Willowdale Pump Station and measures approximately 17,100 feet in length. The proposed new construction centerline of Reach B would be shifted away from the existing canal, similar to Reach A. All of the existing levee footprint, including ROW, has been incorporated into the proposed levee design.

Continuing southwest from the Willowdale Pump Station, along the St. Charles Parish Levee, frontage protection would be needed at the Willowridge, Kellogg and Cousins pump stations. Due to the design elevation requirements, T-wall sections would be constructed in order to accommodate both the East Gas Pipeline and the West Gas Pipeline. The T-wall would allow the gas pipelines to pass through the alignment while maintaining the integrity of the alignment.

Reach B would be accessed from the same access route outlined in Reach A. A second access route for Reach B would be from US Highway 90 to River Ridge Drive and then to Primrose Street. There is one approximately one (1) acre staging area, located off Lafayette Drive, next to the alignment, proposed for Reach B. Please reference Figure 6 for access and staging areas.

Reach C

Reach C begins at the Ellington Pump Station, and measures approximately 22,600 feet in length and continues to elevate the St. Charles Levee. The proposed new centerline of Reach C would be shifted away from the existing canal similar to previously defined Reaches A and B. All of the existing levee footprint, including ROW, has been incorporated into the proposed levee design.

Continuing from the Ellington Pump Station, along the St. Charles Parish Levee footprint, the levee alignment turns back south along the St. Charles Parish Levee. Fronting protection would be placed at the Ellington Pump Station and a new T-wall section, measuring approximately, 135 feet would be constructed to allow the Magnolia pipeline to pass through the levee alignment without impacting the integrity of the alignment.

Reach C would be accessed from US Highway 90 and then to Magnolia Ridge Road. The proposed staging area for Reach C would be located off Magnolia Ridge Road and would be approximately 1.6 acres in size. Please reference Figure 7 for access and staging areas.

Reach D

Reach D begins just south of the Paradise Control Structure at the end of Reach C, and measures approximately 19,000 feet in length. This reach would be constructed atop the existing Sunset Levee. The proposed new centerline of Reach D continues south and would be shifted away from the existing canal similar to previously discussed reaches. All of the existing levee footprint, including ROW, has been incorporated into the proposed levee design.

Within Reach D there is one section of T-wall, measuring approximately 2,700 feet which would be constructed in order to avoid existing houses and utilities along the levee alignment. The T-wall would have a 10 feet base slab, with an 80 feet construction easement, and an elevation of 15 feet. The T-wall would be constructed via the right of way from the land side.

Reach D would be accessed from Bayou Gauche Road (Highway 306) and then to Grand Bayou Road using a 1,527 feet long temporary access route. The 40 feet across access road would be constructed using crushed stone for the road surface that cuts across a local field to the alignment. The proposed staging area for Reach D would be located off of Grand Bayou Road and is approximately 2.2 acres in size. Please reference Figure 8 for the staging area and access route.

Reach E

Reach E begins just south of Grand Bayou Road and is a combination of earthen levee and floodwalls which total approximately 14,600 feet. The earthen levee portion measures approximately 3,340 feet in length while the floodwall section measures approximately 11,230 feet in length. The earthen levee portion of the reach would be constructed atop the existing Sunset Levee, with a newly proposed centerline shifted away from the existing canal, similar to previously defined reaches, All of the existing levee footprint, including ROW, have been incorporated into the proposed levee design.

Due to the minimal room for construction between the canal and the existing structures along the canal, the proposed floodwall portion (T-wall design) would be constructed to an elevation of 18.5 feet with a 10-20 feet wide concrete slab at the base. Within the T-wall section, where the alignment crosses highway 306, a roller gate would be constructed in the alignment. This roller gate would remain open during normal day to day operations and would only be closed proceeding a hurricane or tropical storm even. A 400 foot section of T-wall will also be needed for a pipeline crossing just west of the Crawford Canal where Reach E ties into Reach F.

Reach E would be accessed directly from Bayou Gauche Road with a proposed, approximately 2 acre staging area also located off of Bayou Gauche Road. Reference Figure 9 for the access route and staging area location. A new access route would be constructed for the community outside the system at the end of Badeaux Lane because the floodwall cuts off access to the community. The permanent route would go from highway 306, just outside the T-wall, and allow access to the community with a 30 feet wide road.

Reach F

Reach F begins just past the Crawford Canal Pump Station and measures approximately 15,400 feet in length. This reach would be constructed atop the existing Sunset Levee. The newly proposed centerline of Reach F continues south and would be shifted away from the bayou similar to previously defined reaches. All of the existing levee footprint of the Sunset Levee, including ROW, would be incorporated into the proposed levee design.

Reach F consists of mostly earthen levee and includes a 270 feet barge gate structure and culverts with sluice gates (Figures 10 through 12). The barge gate would be constructed across the Bayou Des Allemands crossing and would incorporate (6)15 feet X 20 feet box culverts on each side of the gate for a total of twelve culverts with sluice gates (no screens on the culverts). The channel where the structure would be placed would require dredging in order to achieve a sill depth around negative 14-19 feet.

Access for Reach F would be via an approximately 4,575 linear foot temporary crushed stone access route, 40 feet wide, constructed from the end of Down the Bayou Road to the barge gate crossing on top of the existing Sunset Levee. Access to this route will be via US Highway 90 to the eastern side of Bayou Des Allemands via Down the Bayou Road near the proposed barge gate placement site. The temporary access road would

be removed and the area returned to pre-construction conditions once construction has been completed.

Reach F has two proposed staging areas. The first one is located west of the Crawford Canal Pump Station with a second proposed staging area located on the east bank of Bayou Des Allemands where the alignment crosses the bayou. Both proposed staging areas are approximately 2.2 acres in size. Please reference Figure 13 for the locations of the staging and access routes.

Reach G

Reach G begins on the southern bank of Petit Lac Des Allemands and continues parallel to US Highway 90 through the marsh. Reach G measures approximately 31,000 feet in length and there are currently no existing levees located in this reach. Refer to Appendix A for this sections cross-sectional drawings for this new construction. Geotechnical fabric has been incorporated into the levee design to reduce the footprint in this reach.

The proposed action for Reach G includes construction of a new levee which would parallel US Highway 90 through the marsh. The newly constructed levee would incorporate five sets of culverts, 4-6 X 6 foot box culverts with sluice gates (no screens), which are needed to maintain the hydraulic flows in and out of the marsh (through small tributaries and oil and gas line canals) on the southern side of the alignment.

Access to Reach G would be from U.S. Highway 90 via a newly constructed permanent access route just southwest of Dufrene Ponds. The new access road would measure approximately 7,925 feet in length and would be surfaced with crushed stone. The access road includes construction of a permanent bridge across the Godchaux canal in order to gain access to the alignment for construction and future operation and maintenance. The proposed staging area for Reach G, approximately 2.3 acres in size, would be located on the north-east corner of where the Godchaux Canal and the access route intersect. Reference Figure 6-10 for the access route and staging area locations. These structures would be constructed using the temporary access route located along the alignment within the right of way. Refer to Figure 14 for the locations of these hydraulic structures.

Reach H

Reach H begins where Gibbons Road meets the alignment and continues to parallel US Highway 90 through the marsh and follow next to Amarada Hess Rd. Reach H measures approximately 16,900 feet in length and there is currently no existing levee in place. Geotechnical fabric has been incorporated into the levee design to reduce the footprint in this reach.

The proposed construction for Reach H includes construction of a new levee which would parallel US Highway 90 through the marsh. The newly constructed levee would incorporate two sets of culverts for hydraulic exchange from the north to the south of the alignment. These are 2-84 inch in diameter culverts with sluice gates and a 1-60 inch in diameter culvert with sluice gate (no screens).

Reach H and a portion of G would be accessed using Amarada Hess Rd. For access along the project site, it is assumed access would be for the length of the reach, a 40 feet wide access road positioned at least 15 feet from the levee toe is proposed. A two acre staging area is proposed along the intersection of highway 308 and Amarada Hess Rd. Reference Figure 15 for the locations of the staging area. These structures would be constructed using the temporary access route located along the alignment within the right of way.

Description of Proposed Action Requiring Consultation

Implementation of the proposed action would result in direct, permanent impacts to approximately 725 acres of wetlands in Reaches A through H during initial construction (the first levee lift) of the levees and floodwalls, which would occur in the year 2026. A second levee lift for reaches A, B, C, D, F, AR, and G, which is required to reach the 100 year level of protection, would result in direct, permanent impacts to approximately 344 additional acres. A third and final lift for Reach E would impact approximately another 5 acres. Although there is currently no estimated schedule for the second and third lifts, constructed in its entirety, the proposed action would impact a total of approximately 1,074 acres. Of the approximately 1,074 acres of impact associated with the proposed action, there would be approximately 292 acres of bottomland hardwood forest (BLH) impacts, 168 acres of cypress-tupelo swamp impacts, 267 acres of swamp impacts, and 95 acres of water bottom impacts as a result of construction. BLH impacts would occur within the forced drainage area of the Sunset Drainage District. A small acreage of the Paradis Mitigation Bank, located within that forced drainage district, would be impacted. Swamp and BLH on the flood side of the St. Charles levee would also be impacted.

Marsh impacts would occur primarily southwest of Bayou Des Allemands where a new levee would be constructed across the marsh. Small amounts of fresh marsh impacts would occur along the St. Charles levee, where inundation has converted former BLH to marsh.

Action Area

The project is located within the Barataria Basin, an irregularly shaped area located in south-central Louisiana. (Figure 17) It is bounded on the north and east by the Mississippi River, on the south by the Gulf of Mexico, and on the west by Bayou Lafourche. The basin itself encompasses approximately 1,565,000 acres and contains approximately 152,120 acres of swamp, 173,320 acres of fresh marsh, 59,490 acres of intermediate marsh, 102,720 acres of brackish marsh, and 133,600 acres of saline marsh. The study area (upper portion of the basin) covers 800 square miles within the basin and covers multiple parishes in Louisiana including, Assumption, Ascension, St. James, Lafourche, St. John the Baptist, St. Charles, Jefferson, Plaquemines, and Orleans. It is also divided into nine subbasins: Fastlands, Des Allemands, Salvador, Central Marsh, Grande Cheniere, L'Ours, North Bay, Bay, and Empire.

Species Considered and Critical Habitat

MVN has assessed the environmental impacts of the proposed action on threatened and endangered species in the project vicinity. There are two threatened or endangered species and three at-risk species that are known to occur within the study area. Information regarding those species and their preferred habitats are provided below.

West Indian Manatee (*Trichechus manatus*)

The West Indian manatee is one of the largest coastal mammals in North America. Manatees are classified as a marine species but they require access to deep water and freshwater, and thus can be found in inland rivers, coastal estuaries, seagrass beds, and marinas (Marmontel et al., 1997). Preferred habitats include areas near the shore featuring underwater vegetation like seagrass and eelgrass.

Based on data maintained by the Louisiana Natural Heritage Program (LNHP), over 80 percent of reported manatee sightings (1999-2011) in Louisiana have occurred from the months of June through December. Manatee occurrences in Louisiana appear to be increasing and they have been regularly reported in the Amite, Blind, Tchefuncte, and Tickfaw Rivers, and in canals within the adjacent coastal marshes of southeastern Louisiana. Manatees range widely in between fresh, brackish, and marine waters throughout the Gulf of Mexico, Caribbean, and South America. They are known to regularly occur in Lakes Pontchartrain and Maurepas and their associated coastal waters and streams.

Manatees can be found less regularly in other Louisiana coastal areas, most likely while the average water temperature is warm as they are unable to tolerate water temperatures below 68 degrees Fahrenheit for extended periods of time. During the winter months, colder temperatures keep the population concentrated in peninsular Florida. (USFWS) Many manatees rely on the warm water from natural springs and they are known to sometimes congregate in and around water control structures and the warm wastewater discharge of power plants. During the summer, manatees expand their range, and on rare occasions are seen as far north as Massachusetts on the Atlantic coast and as far west as Texas on the Gulf coast.

Cold weather and outbreaks of red tide may adversely affect these animals. However, human activity is the primary cause for declines in species number due to collisions with boats and barges, entrapment in flood control structures, poaching, habitat loss, and pollution. Encounters with recreational and commercial watercraft significantly reduced the population levels of manatees along the Gulf coast and in 1967, the manatee was listed under the Endangered Species Act with critical habitat designated in 1976.

On March 30, 2017, the manatee was reclassified from “endangered” to “threatened” in response to a rebound in population. Manatees are also protected under the Marine Mammal Protection Act, which prohibits the take (i.e., harass, hunt, capture, or kill) of all marine mammals.

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.

Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable. We recommend the inclusion of the following measures into construction plans and specifications to minimize potential impacts to manatees in areas where they are potentially present:

- All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in- water work can resume under careful observation for manatee(s).

- If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at “no wake/idle” speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

- If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

Pallid sturgeon (*Scapirhynchus albus*)

The pallid sturgeon is listed as a federally endangered species. It is an ancient species of fish that requires large, turbid, free-flowing riverine habitat with rocky or sandy substrate. They are usually found on the bottoms of the rivers on sand flats or gravel bars, and appear to prefer areas with strong currents in or near the main channel. The pallid sturgeon is one of the largest and rarest fish in the Mississippi and Missouri River basins. Pallid sturgeon are opportunistic feeders and forage on insects, crustaceans, mollusks, annelids, fish and eggs of other fish. Scant information exists on the range and habitat preferences of pallid sturgeon for this part of the Mississippi River. Most of the collected data is from populations in upper Missouri and other Midwest rivers, as well as the Atchafalaya River in Louisiana, however, it is possible that limited numbers of the species also exist in the Red River.

At-Risk Species

An “at risk species” is defined as those species that are:

1) Proposed for listing under the ESA by the USFWS;
2) Candidates for listing under the ESA, which means the species has a "warranted but precluded 12-month finding"; or
3) Petitioned for listing under the ESA, which means a citizen or group has requested that the USFWS add them to the list of protected species. Petitioned species include those for which the USFWS has made a substantial 90-day finding as well as those that are under review for a 90-day finding.

Discussed below are species currently designated as “at-risk” that may occur within the project area. While not all species identified as at-risk will become ESA listed species, typically their reduced populations warrant their identification and attention in mitigation planning.

Alligator Snapping Turtle (*Macrochelys temminckii*)

The alligator snapping turtle occurs in waterways that drain into the Gulf of Mexico. Although the species range is large, population densities are likely low throughout the range. They occur in various habitats including rivers, oxbows, lakes, and backwater swamps adjacent to large rivers. It is most common in freshwater lakes and bayous, but also found in coastal marshes and sometimes in brackish waters near river mouths. Typical habitat is mud bottomed waterbodies having some aquatic vegetation. The alligator snapping turtle is slow growing and long lived. Sexual maturity is reached at 11 to 13 year of age. Because of this and its low fecundity, loss of breeding females is thought to be the primary threat to the species. Threats include habitat alteration, exploitation by trappers, pollution, and pesticide accumulation (IUCNredlist.org).

Golden-Winged Warbler (*Vermivora chrysoptera*)

The golden-winged warbler breeds in higher elevations of the Appalachian Mountains and northeastern and north-central U.S. with a disjunct population occurring from southeastern Ontario and adjacent Quebec northwest to Minnesota and Manitoba. Wintering populations occur in Central and South America. The loss of wintering habitat in Central and South America and migratory habitat may also contribute to its decline. The golden-winged warbler is also known to hybridize with the blue-winged warbler (*Vermivora cyanoptera*).

This species may be found in forested habitats throughout Louisiana during spring and fall migrations. This imperiled songbird is dependent on forested habitats along the Gulf, including coastal Louisiana, to provide food and water resources before and after trans-Gulf and circum-Gulf migration. Population declines correlate with both loss of habitat owing to succession and reforestation and with expansion of the blue-winged warbler into the breeding range of the golden-winged warbler.

Threatened and Endangered Species

The ESA defines a threatened species as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Threatened species receive protections through separate regulations issued under Section 4(d) of the ESA. Unlike endangered species, when a species is listed as threatened, the prohibitions identified in section 9 of the ESA do not automatically apply to that species. Under section 9 of the ESA, it is illegal to import, export, or take endangered species for any purpose, including commercial activity.

Eastern Black Rail (*Laterallus jamaicensis ssp*.)

The USFWS listed the status of the eastern black rail status as threatened, effective November 9, 2020. A summary of the final report to the LDWF may be found in Appendix C.

The eastern black rail is the smallest of North America's rail species. It has a broad distribution inhabiting higher elevations of tidal marshes and freshwater wetlands throughout the Americas. The eastern black rail breeds from New York to Florida along the Atlantic Coast and in Florida and Texas along the Gulf Coast. There is little known about the spring and fall migration as well as wintering distribution of the eastern black rail, but it has been documented to winter on the Gulf Coast from southeast Texas to Florida.

Winter habitat for the eastern black rail is presumed to be similar to breeding habitat. They are found in a variety of salt, brackish, and freshwater marsh habitats that can be tidally or non-tidally influenced. Plant structure is considered more important than plant species composition in predicting habitat suitability (Flores and Eddleman, 1995). In Louisiana, occurrences have been documented in high brackish marsh vegetated with saltgrass (*Distichlis spicata),* sea oxeye *(Borrichia frutescens)*, gulf cordgrass (*Spartina spartinae*) and saltmeadow cordgrass (*S. patens)* and often interspersed with shrubs such as marsh elder (*Iva frutescens*) or saltbush (*Baccharis hamilifolia*). The high marsh is only inundated during extreme high tide events. In general, the character of the high marsh is a short grassy savannah. It may also occur in working wetland habitats such as rice fields.

Migratory Birds and Other Trust Resources

MVN has assessed the environmental impacts of the proposed action on species found in the project area that are protected under the Marine Mammal Protection Act of 1972, Bald and Golden Eagle Protection Act (BGEPA), the Migratory Bird Treaty Act of 1918 (MBTA), and Migratory Bird Conservation Act of 1929.

Bald Eagle (*Haliaeetus leucocephalus*)

The proposed project area may provide nesting habitat for the bald eagle, which was officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the MBTA and BGEPA. Comprehensive bald eagle survey data have not been collected by the Louisiana Department of Wildlife and Fisheries (LDWF) since 2008, and new active, inactive, or

alternate nests may have been constructed within the proposed project area since that time.

Bald eagles typically nest in large trees located near coastlines, rivers, or lakes that support adequate foraging from October through mid-May. In southeastern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants. Furthermore, bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

The USFWS developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf.

Those Guidelines recommend:

(1) Maintaining a specified distance between the activity and the nest (buffer area);
(2) Maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and
(3) Avoiding certain activities during the breeding

Birds

As the study area is located within the Mississippi Flyway, it supports various species of shore birds, wading birds and songbirds and experiences significant seasonal migrations of waterfowl species, which are of particular interest to recreational hunters.

In a recent survey conducted by MVN biologists, the following species were identified as utilizing the shrubs and/or waters adjacent to the proposed project sites: the little blue heron, the great blue heron, green-backed heron, yellow-crowned night heron, black-crowned night heron, great egret, snowy egret, cattle egret, white-faced ibis, white ibis and roseate spoonbill. Mudflats and shallow-water areas provide habitat for numerous species of shorebirds and seabirds. Shorebirds include the killdeer, black-necked stilt, and common snipe. Wading bird nesting colonies may occur within in the study. Other nongame birds such as boat-tailed grackle, red-winged blackbird, northern harrier, bald eagle, belted kingfisher, and sedge wren. Foraging and roosting were the only activities exhibited during the duration of the surveys. Although none of these birds were observed nesting, the potential for nesting and suitable habitat exist within the project area. MVN has determined that, with use of guidelines from USFWS and a nesting bird abatement plan, the proposed action would have no adverse impacts on protected birds.

Conclusion and Determination of Effects

Based on the above information, the MVN has determined that the proposed action are not likely to adversely affect the West Indian manatee or the Pallid Sturgeon or their critical habitat; and would not adversely impact the recently listed Eastern Black Rail or other protected species that could potentially be found in the project area. The project area is outside of those locations the West Indian manatee is known to be found, which includes in Gulf waters along the Louisiana coast, Lake Pontchartrain and the Amite, Tchefuncte, Blind and Tickfaw Rivers. In the event that a manatee would occur in the project area at the time of construction, the manatee best management conditions listed herein should preclude harm to the manatee. The Pallid Sturgeon is a riverine species, however no work will be taking place in the Mississippi River, where the Pallid Sturgeon is known to occur. In Louisiana, the eastern black rail is known to occur in high elevation saltmarshes of Cameron Parish that are located near the Gulf of Mexico shore. Project area marshes are freshwater floating marshes in southeastern Louisiana, and not located near the Gulf shoreline. Additionally, the project area marshes are of low elevation, and may be continuously flooded during the winter months when floating marshes tend to float at lower elevation than during the summer months. Given that these marshes are very dissimilar to the high elevation saltwater marshes were the eastern black rail is known to occur, we have concluded that project construction is not likely to adversely impact the eastern black rail. Please provide your opinion on our determination.

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Preparers

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Upper Barataria Basin - Modifications to Reach G East

Essential Fish Habitat Assessment

1. Introduction

The larger Upper Barataria Basin (UBB) project area is bounded on the north and east by the Mississippi River and Tributaries Project, Mississippi River Levee, on the west by Bayou Lafourche, and to the south, the project area extends slightly past U.S. Highway 90. It is part of the larger Barataria Basin watershed covering approximately 760 square miles and characterized by low, flat terrain with numerous navigation channels, drainage canals, and natural bayous that drain into Lake Salvador and eventually the Gulf of America (Figure 1).

Figure 1. Hydraulic Reaches A through H

As defined in the 2021 EIS, the Reach G levee begins on the southern bank of the Petit Lac Des Allemands and continues parallel to U.S. Highway 90 through the existing marsh measuring approximately 31,000 feet in length. There are no existing levees located in this reach. To reduce the footprint, geotextile reinforcement would be incorporated into the levee design. The first levee lift for Reach G would be constructed to an elevation of 14-feet with a second lift to an elevation of 16-feet proposed approximately 30-years later to maintain the one percent AEP design elevation over the authorized 50-year period of analysis. Five sets of culverts consisting of four 6-foot x 6-foot box culverts with sluice gates would be included to

maintain the hydraulic flows in and out of the marsh through small tributaries and canals on the southern side of the alignment.

Proposed access to Reach G would be from US Highway 90 via a newly constructed permanent 7,925-foot access route southwest of Dufrene Pons surfaced with crushed stone. The access road would include construction of a permanent bridge across Godchaux Canal providing access for future operations and maintenance. The proposed staging area, approximately 2.3 acres, would be on the northeast corner where Godchaux Canal and the permanent access route intersect. Structures would be constructed using a temporary access route located along the levee alignment within the right of way.

2. EFH Consultation History for Reaches A - H

In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act, Federal action agencies which fund, permit, or carry out activities that may adversely impact essential fish habitat (EFH) are required to consult with NMFS regarding the potential effects of their actions on EFH and respond in writing to NMFS's recommendations. EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1801(10)).

USACE initiated consultation via letter dated November 29, 2019. The letter indicated the draft EIS represented the initiation of EFH consultation. In a letter dated January 13, 2020, NMFS stated the draft EIS was insufficient to complete EFH consultation, requested additional information, and recommended conservation measures. USACE sent a second letter to NMFS on December 11, 2020, stating that the second draft of the EIS represented the initiation of EFH consultation. NMFS, in a letter dated January 28, 2021, again stated that the draft EIS was insufficient to complete EFH consultation and requested additional information. USACE responded to NMFS's comments on March 13, 2021.

2.1. 2025 EFH Consultation – Modifications to Reach G East

To work within current funding available, Reach G was divided into Reach G East and Reach G West. Design for Reach G East includes a levee to the design height of approximately 14 feet and all associated features including a new access road and constructing a new bridge across Godchaux Canal. No hydraulic structures are included in this reach. On the eastern end, Reach G East connects to the Reach F barge gate structure spanning Bayou Des Allemands and runs southwest for 8,500 linear feet. Reach G East terminates on the western side of the junction between the Midway Canal and the Godchaux Canal (Figure 2). Since completion of the 2021 IFR/EIS, several modifications to the design of Reach G East have occurred and are described in the following section. Initial construction is expected to occur over 5 years. Solicitation of the first construction contract is tentatively scheduled for the summer of 2026. Typical construction equipment would be used including but not limited to cranes, backhoes, dozers, pile drivers, and rollers. Table 1 compares impacts to EFH from the 2021 design to the 2025 modified design and Table 2 provides a comparison of the project features from 2021 and 2025. **The EFH consultation request is for modification to Reach G East, not the entire project (Reaches A-H).**

Figure 2. Reach G East Features

Table 1. Essential Fish Habitat Impacts

Feature	**Habitat**	**Acreage 2021**	**Acreage 2025**
Staging Area	Fresh Marsh	2.04	0.44
Access Road (includes ROW)	Fresh Marsh	7.56	7.69
	Estuarine Water Bottoms	10.21	7.64
	Estuarine Water Column	10.21	7.64
	Bottomland Hardwood Forest	10.5	0
Bridge	Fresh Marsh	0	0.62
	Estuarine Water Bottoms	0.47	0.05
	Estuarine Water Column	0.47	0.05
Levee	Fresh Marsh	33.17	57.84
Totals	**Fresh Marsh**	**42.77**	**66.59**
	Estuarine Water Bottoms	**10.68**	**7.69**
	Estuarine Water Column	**10.68**	**7.69**
	Bottomland Hardwood Forest	**10.5**	**0**

2.1.1. Proposed Action

Reach G East includes the Godchaux Canal levee and bridge, an access road, as well as staging and borrow areas. The modifications to these features are described below.

Godchaux Canal Levee

The Reach G East levee would be 8,500 linear feet in length and would maintain the same alignment as the feasibility design (Figure 2). The toe-to-toe levee footprint presented in the 2021 EIS was 170 feet; however, recent geotechnical analysis indicates the levee would need a toe-to-toe width of approximately 258 feet, not including maintenance berms, and approximately 300 feet including the maintenance berms. Side slopes would be 1:4 vertical:horizontal. The Reach G East levee would transition to a shallow sloped berm that terminates at the existing ground surface allowing for levee tie-in for the completion of the Reach G levee.

Per the 2021 EIS, the levee in Reach G would be constructed to an elevation of 14 feet in the first construction event. However, recent soil borings within the levee footprint indicate the area consists of very soft peat and organic deposits overlying soft fat clay soils with silt and sand lenses. These soft soil conditions would limit the practical top of levee elevation for the first lift to less than 14 feet. Therefore, staged levee construction is anticipated to allow strength gain in the foundation soils between subsequent lifts to mitigate the soft soil conditions. The levee would be constructed to 11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, and maintenance lifts up to 16 feet afterward as shown on Figure 3. In addition to staged construction, the levee would include stability berms and a high-tensile strength geotextile to provide reinforcement to the levee section.

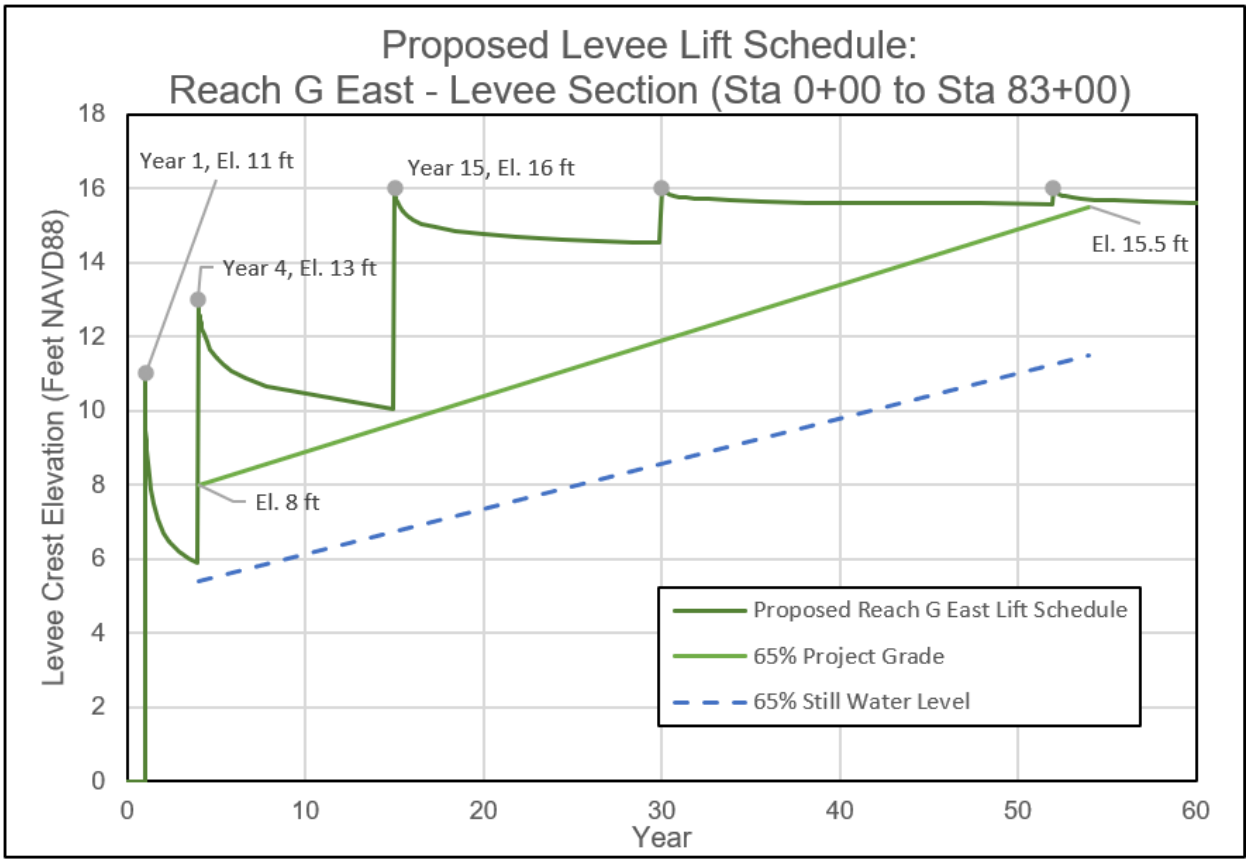


Figure 3. Levee Lift Schedule

Access Road

The 2021 EIS identified an access road/bridge from US Highway 90 down to the Reach G levee just southwest of the Dufrene Ponds. The location of the access road has shifted slightly to the southwest of the Midway Canal (Figure 2). The access road has been reduced from 7,925 feet to 7,380 feet and would run parallel to Midway Canal and connect US Highway 90 to the Godchaux Canal. The Godchaux Canal runs parallel to Reach G. The access road would be designed to an elevation of 4.0 feet (NAVD88) for two lanes of traffic and would not serve as a flood protection feature. The access road includes construction of a permanent bridge across the Godchaux Canal in order to gain access to the alignment for construction and future operation and maintenance.

The access road is designed with a 14-inch base course roadway placed over layers of embankment compacted fill and sand fill. The roadway would include two lanes of traffic with 2-foot shoulders, 14-foot lanes, and a crest elevation of 5.3 feet. The roadway would be graded to a 2.5 percent cross slope to allow drainage. The roadway would be installed over a layer of geogrid and geotextile separator fabric placed over the embankment compacted fill. The side slopes of the access road are 1V:6H on the left slope and 1V:5H on the right slope. A six-inch layer of topsoil would be placed over the compacted fill side slopes to promote establishment of grass. These features would all be installed over a sand fill base that would be installed in water

to an elevation of 1.5 feet. Substantial settlement is expected due to the existing conditions and the existing midway berm is composed of poor material. Due to these concerns the access road is designed with an overbuild component. The roadway would be built to 5.3 feet with the expectation the roadway would settle to the design elevation of 4.0 feet.

To facilitate larger vehicles for maintenance activities, turn off areas have since been included every 1000 feet along the roadway. The purpose of these turn off areas are for vehicles to safely pull over and allow for larger vehicles to pass, allow smaller vehicles to perform a multipoint turn, and have locations for inspectors to safely park their vehicles when accessing the site. The turn off areas would be 150-feet long and extend the roadway shoulder from 2 feet to 12 feet.

The access road would terminate with a truck turnaround area which has also been added since the feasibility level design. The turnaround would allow for inspection vehicles and maintenance equipment to safely navigate a complete turn and provide a staging area in anticipation of future construction activities. The turnaround area would be 130 feet long by 121 feet wide. The right roadway lane would transition from 12-foot lanes to a 107-foot top width via a 54-foot curve. Turning is only permitted from the right lane due to constraints with Midway Canal. Attempting to widen the left lane and create a symmetrical turnaround area would completely block off the Midway Canal from the Godchaux Canal, creating hydraulic and erosion concerns. To promote drainage a vertical grade of 2 percent has been designed into the turnaround area.

Godchaux Canal Bridge

The bridge would connect the Midway Canal access road to the Reach G East levee (Figure 2). The bridge would be constructed above the future 2081 condition which is currently estimated to be elevation 8.4, plus wave and freeboard. The bridge would consist of two lanes, with a clear distance of 26 feet and concrete barriers on each side. The concrete bridge deck would be a continuous surface consisting of a three span prestressed concrete beam supported by piers with concrete columns and a pile-supported foundation. Bridge piers will consist of concrete columns bearing on the pile cap to support the prestressed concrete girders and pier cap (Figure 4). The concrete pile cap will be supported by deep, square precast concrete piles. Due to potential corrosive environment, concrete piles are the preferred deep foundation. Each bridge span would be 104 feet. The Godchaux Canal is not anticipated to be a navigable channel, and vessel traffic is not expected to pass underneath the bridge. Hydraulic connection along the Godchaux Canal would be maintained underneath the structure. Due to its construction, maintenance, and access-only purpose, there would be no separate public, pedestrian, or recreational features at this time.

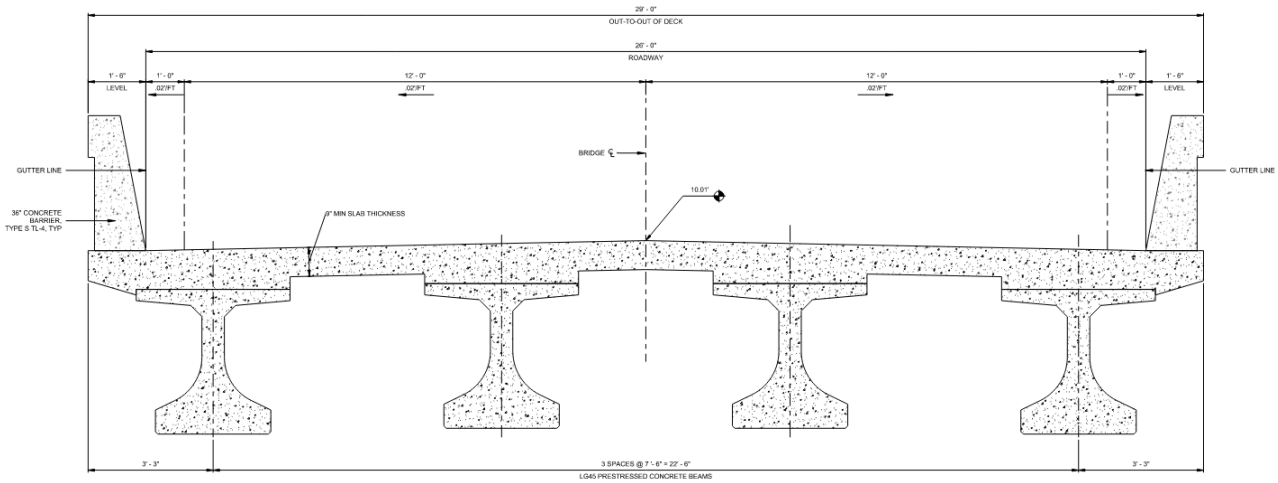


Figure 4. Typical Transverse Section

Staging Area

The 2021 EIS identified a 2.3 acre staging area located on the northeast corner of where the Godchaux Canal and access road intersect. The staging area has since been minimized to approximately 0.5 acres and is located on the southwest corner of the access road (Figure 2). The staging area would be restored to pre-construction conditions following the five-year construction contract. The staging area would be utilized again for the final two lifts and restored after each lift. The area would be seeded with an appropriate seed mix for the area.

Borrow Area

The 2021 IFR/EIS identified potential soil borrow in the agricultural fields near the levee alignment in Reach H; however, the parcel is no longer available for borrow. The new borrow areas proposed are shown in Figure 5.

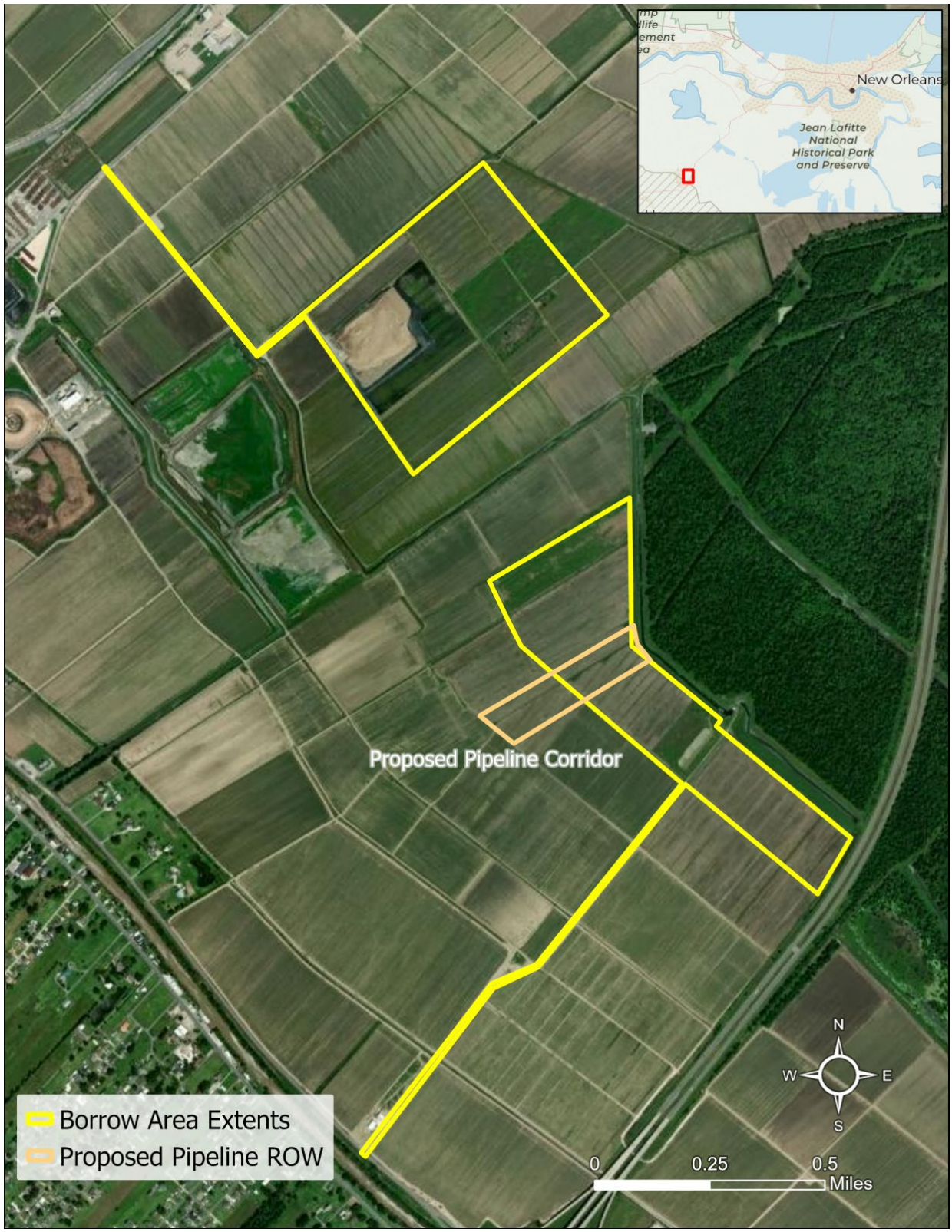


Figure 5. New Borrow Areas

Table 2. Comparison of 2021 and 2025 Project Features in Reach G East

		2021	**2025**
Levee	Length	8,500 ft	8,500 ft
	Toe-to-toe	170 ft	258 ft 300 ft w/berms
	Initial construction elevation	14 ft	11 ft
	Lifts	16 ft by year 28	11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, maintenance lifts to 16 feet afterward
	Side slopes		1:4
Access Road	Length	7,925 ft	7,380 ft
	# of lanes	NA*	2
	Side slopes	NA	1:6 on left 1:5 on right
	Elevation	NA	4 ft
	Turn off area	0	1 every 1,000 ft
	Turnaround area	0	1
Bridge	Type	NA	three span prestressed concrete beam supported by piers with concrete columns and a pile-supported foundation
	Elevation	NA	8.4 ft + freeboard
	# of lanes	NA	2
Staging		2.3 acres	0.5 acre

*Details not included in the feasibility level design.

3. Essential Fish Habitat Designations

EFH designations are shown below in Table 3. EFH habitat types within the Reach G East project area are identified as tidally influenced fresh marsh, estuarine water column (EWC), and estuarine water bottoms (EWB).

Table 3. EFH Designations (from 2021 EIS)

Species	Life Stage	EFH
Brown Shrimp *(Farfantepenaeus aztecus)*	Juvenile	<18m; SAV, sand/shell/soft bottom, emergent marsh, oyster reef
White Shrimp *(Litopenaeus setiferus)*	Larvae/post larvae	<82m; pelagic, soft bottom, emergent marsh
	Juvenile	<30m; soft bottom, emergent marsh
Red Drum *(Sciaenops ocellatus)*	Larvae/post larvae	all estuaries planktonic, SAV, sand/shell/soft bottom, emergent marsh
	Juvenile	GOM, <5m Vermilion Bay & E; all estuaries SAV, sand/shell/soft/hard bottom, emergent
	Adults	GOM 1-46 m Vermilion Bay & E; SAV, sand/shell/soft/hard bottom, emergent marsh

4. Affected Environment

Affected waterbodies within the project area include Bayou des Allemends, Godchaux Canal, and tidally influenced fresh marsh wetlands. Water quality is impaired. Reach G East is located in “Bayou Des Allemands – From US-90 to Lake Salvador (Scenic)” subsegment LA020301 which is designated as a 303(d) listed impaired water by LDEQ. Impairments include fish and wildlife propagation and outstanding natural resource waters. Turbidity was identified as the water quality parameter that did not meet state specific water quality standards leading to the listed impairments. Sources of turbidity could include forced drainage pumping and sediment resuspension; however, these sources have not been confirmed (2021 EIS). Soils within the project area are generally very soft peat and organic deposits at the surface overlying soft fat clay soils with silt and sand lenses.

The project area includes EFH for red drum, brown shrimp, and white shrimp as well as nursery and foraging habitats for economically important marine fishery species such as blue crab, gulf menhaden, bay anchovy, Atlantic croaker, southern flounder, and striped mullet. Some of these species, such as mackerels, snappers, and groupers, serve as prey for other fish species managed by the Gulf Council as well as highly migratory species such as billfishes and sharks. Wetlands in the project area are important to the overall productivity of the Upper Barataria Basin by producing nutrients and detritus which are important component of the aquatic food web. For additional details on the affected environment, see Section 3 of the 2021 EIS.

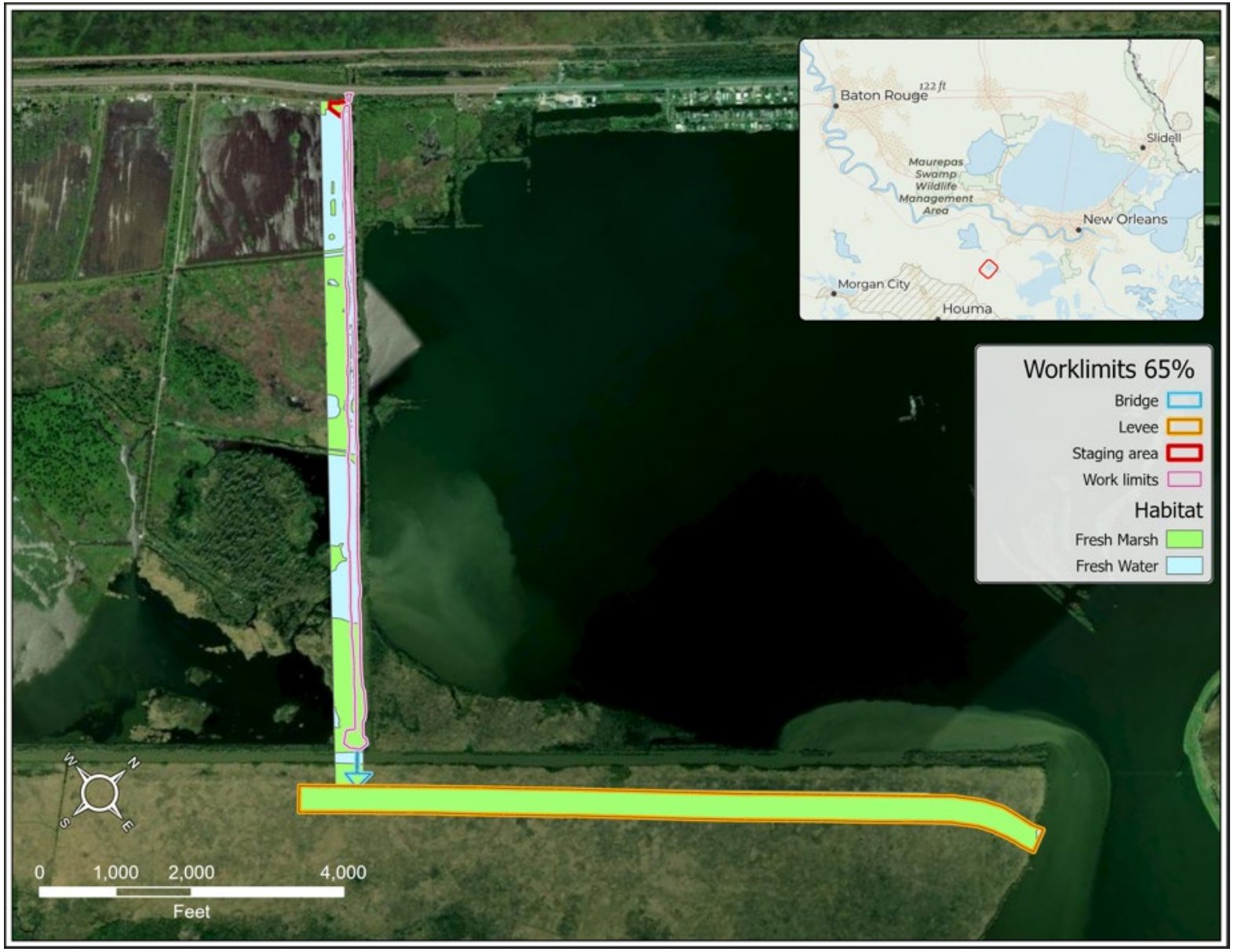


Figure 5. Habitat Types Within the Project Area

5. Effects to EFH

Adverse effect is defined as any impact which reduces the quality and/or quantity of essential fish habitat. Adverse effects may include direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality and/or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside of EFH and may include site specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. (50 CFR 600.910)

The proposed borrow areas consists entirely of a disturbed, upland area that would have no effects on EFH.

The proposed modifications would result in the loss of 66.59 acres of fresh marsh, 7.69 acres of EWB, and 7.69 acres of EWC (Table 1 and Figure 5). However, because of the proposed modifications, impacts to bottomland hardwood forest from the 2021 design were eliminated. Fresh marsh impacts are predominantly due to construction of the levee, access road, and staging area. The initial construction of the levee would have the widest footprint, and subsequent lifts would not result in additional loss of fresh marsh. The access road would also result in a loss of EWB and EWC and the bridge would result in the loss of EWB and EWC. Stressors to EFH resulting from construction of the proposed features within Reach G East include physical habitat alteration, benthic community disturbance, turbidity, and impacts to prey species. Impacts are through direct placement of fill material and no changes to area hydrology are anticipated that could have additional indirect effects.

Physical Habitat Alteration – Construction of the levee, access road, and bridge would permanently remove 74.28 acres (66.59 + 7.69 acres) of the physical habitat within the project area. Although the staging area is not a permanent feature, it would be present for the first five years of construction and then again for subsequent lifts. The staging area would be restored after the first five-year construction contract and then after each subsequent lift contract. Due to the length of time the staging area would be in place, it is being considered a permanent impact.

Permanently removing EFH within the project area would impact larval and juvenile red drum, brown shrimp, and white shrimp by reducing the amount of available habitat for foraging, resting, and cover. Construction of the levee and access road would not only result in a loss of habitat and connectivity. The project would result in a long-term, permanent loss of EFH; however, these impacts would be considered minimal when compared with the size of the Upper Barataria Basin and similar EFH located in the project vicinity. Because hydrologic connection is maintained in the Godchaux canal beneath the bridge there are no fish access impacts for Reach G East. Red drum, brown shrimp, and white shrimp are expected to continue to inhabit the area following construction and it is not expected that the proposed project would result in significant or long-term effects to these species populations.

Benthic Community Disturbance – The discharge of fill material to construct the proposed project features would result in the burial and mortality of benthic organisms such as worms and

small crustaceans which are fed on by red drum, brown shrimp, and white shrimp. Juveniles of these species feed along EWB and could be killed if not able to move out of the way while fill material is being discharged. Benthic organisms would continue to exist outside of the project area in adjacent, unaffected habitat and be available as a food source.

Turbidity – In-water construction activities would result in a temporary increase in turbidity in the immediate vicinity of construction. Sediment suspension and turbidity during construction would negatively affect EWC habitats; however, Bayou des Allemands is a naturally turbid environment and resident species have likely adapted to turbid conditions. Increased turbidity levels would impact light attenuation in the water column thereby limiting biological productivity of plankton species which brown and white shrimp, as well as other species, feed on. Turbidity would have a short-term, minor effect on EWC during construction; however, turbidity levels would return to baseline levels following construction.

Impacts to Prey Species – Prey species would be affected similar to red drum, brown shrimp, and white shrimp as discussed above. Prey species would be impacted by the loss of physical habitat for foraging, resting, and cover. They could also be buried and killed if unable to move out of the areas where project features are being constructed and/or would be impacted by the loss of benthic organisms as a food source. Due to the potential for increased turbidity in the vicinity of the project area during construction, red drum, brown shrimp, and white shrimp may have a more difficult time finding prey species to consume. Due to the size of the basin and EFH in the vicinity of the project area, impacts to prey species are not anticipated to be negatively affect long-term.

6. General Conservation Measures

The following conservation measures (CM) would be implemented by USACE to minimize impacts to EFH.

CM-1: Construction limits will be clearly marked with high visible markers or barriers. Construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to within the confines designated construction limits. The construction area(s) will be the minimal area necessary to complete the proposed project and will be specified in the construction plans.

CM-2: Invasive species prevention. Given the known adverse effects of invasive species on habitats, prior to transportation along roads into or out of the worksite, or between water bodies within the project area, all equipment must be free of any aquatic plants, water, and prohibited invasive species.

1. The Contractor shall clean each previously used piece of construction equipment and watercraft prior to bringing it onto the project site and prior to removing it from the site to prevent the spread of invasive species.

2. The Contractor shall ensure that the equipment and watercraft is free from soil residuals, egg deposits from plant pests, noxious weeds, plant seeds, aquatic plants and animals (including zebra mussels), and residual water.
3. Cleaning of equipment and watercraft shall be in accordance with the Environmental Protection Plan submitted by the Contractor and approved by the Corps.
4. If construction equipment or watercraft brought to the project site is found to be contaminated with invasive species, despite implementation of Best Management Practices, the Contractor shall not use the construction equipment or watercraft in its present state.
    a. Any contaminated construction equipment or watercraft in water shall immediately be placed on dry land.
    b. The Contractor shall follow decontamination protocols as identified in the environmental protection plan.
        i. Contaminated equipment shall be decontaminated on site if there is an area that meets decontamination protocols.
        ii. If this is not possible, the equipment shall be quarantined on site until a decontamination plan is approved by the Contracting Officer.
    c. Such equipment shall not be used on site until all invasives have been removed and documentation verifying the results of the cleaning is provided.

CM-3: All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other toxic substances will occur in designated non-sensitive upland areas. These areas will implement best management practices to prevent runoff carrying toxic substances from entering any waterway. If a spill occurs outside of a designated area, the cleanup will be immediate and documented.

CM-4: Actions disturbing one or more acres are required to have a permit to discharge stormwater runoff until the site is stabilized by the re-establishment of vegetation or other permanent cover. The construction contractor will be required to comply with all conditions of the Section 401 WQC and the Stormwater General Permit for Large Construction Activities issued by LDEQ. The construction contractor will also be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for review and approval by the USACE.

CM-5: The contractor will also be required to utilize Best Management Practices (BMPs) to reduce impacts to water quality. These could include sediment fencing and floating silt curtain (or equivalent) to prevent movement of soil and sediment as well as managing construction materials and debris such that no debris, garbage, or fuel enters the water. Visual monitoring for excessive turbidity, floating debris, trash, or oil sheen would be continuously performed to ensure water quality is being protected.

7. EFH Determination

The USACE has determined that the Proposed Action would have an adverse effect on EFH due to the permanent loss of 66.59 acres of tidally influenced fresh marsh habitat, 7.69 acres of

EWB and 7.69 acres of EWC. However, these impacts would be considered minimal when compared to the size of the Upper Barataria Basin and similar EFH located in the project vicinity.

8. Proposed Mitigation

USACE will offset impacts resulting in the loss of fresh marsh. Per previous conversations with NMFS, mitigation will not be required for estuarine water bottoms or estuarine water column because USACE removed potential water control structures within Reach G. Mitigation was quantified using the Wetland Value Assessment (WVA) model for fresh marsh. Mitigation needed per feature is shown in Table 4. Total mitigation required to offset impacts to fresh marsh in Reach G East is -36.52 AAHUs.

Table 4. Fresh Marsh Mitigation required

Feature	**AAHUs**
Staging Area	-0.23
Access Road	-6.53
Bridge	-0.37
Levee	-29.39
Total	**-36.52**

Per the 2021 EIS, preferred mitigation would be the purchase of mitigation bank credits either prior to or concurrent with impacts. Purchase of credits relieves USACE and the non-federal sponsor of the responsibility for monitoring and of demonstrating mitigation success. Credits purchased from a mitigation bank must comply with the requirements of the USACE Regulatory Program and the bank's Mitigation Banking Instrument (MBI), which specifies the management, monitoring, and reporting required to be performed by the bank. Impacts would be mitigated through the purchase of marsh credits equaling 36.52 AAHUs. The same version of the WVA model that was used to assess the impacts of constructing the proposed action would be run on the mitigation banks to ensure that the assessment of the functions and services provided by the mitigation bank match the assessment of the lost functions and services as the impacted site.

Mitigation banks with available fresh marsh credits are listed in Table 5. The bank(s) from which credits would be purchased would be selected through a solicitation process, through which any mitigation bank meeting eligibility requirements and having the appropriate resource type of credits could submit a proposal to sell credits. If appropriate and cost-effective, USACE may choose to purchase mitigation bank credits from more than one bank to fulfill the compensatory mitigation requirements for marsh habitat type. The solicitation for mitigation bank bids will include requirements that the banks are Office of Coastal Management approved, and within the

same or adjacent Coastal Wetlands Planning, Protection, and Restoration Act defined hydrologic basin as the impacts.

Table 5. Potential Mitigation Banks

Bank Name	Service Area	Fresh Marsh Credits Available in RIBITS as of 31 July 2025
Jesuit Bend Mitigation Bank	Deltaic Plain	73.15[1]
Kilgore Plantation Mitigation Bank	Deltaic Plain	37.4[2]
Cypremort Teche Mitigation Bank	Deltaic Plain	59.4

[1] Bank suspended on August 1, 2025. Credits may or may not be available at the time of purchase.

[2] Bank was not meeting success criteria in 2023. Adaptive management measures were recommended to be completed in 2024.

However, as noted in Table 5 the Jesuit Bend bank is currently suspended and unable to sell credits. It is unclear whether the bank would be able to sell credits when USACE is ready to purchase. The Kilgore Plantation bank was not meeting success criteria in 2023 and is therefore at risk of being suspended if adaptive management measures are not employed or successful. For these reasons, USACE-constructed mitigation would likely be needed. USACE has initiated internal conversations regarding funding and planning of a proposed mitigation site. USACE constructed mitigation would be planned in coordination with NMFS and presented to the public through a supplemental NEPA document. Planning and approval of USACE constructed mitigation would result in a temporal loss. USACE acknowledges that a temporal loss would result in addition impacts which would require additional mitigation. Refined project specific monitoring, reporting and success criteria for the mitigation features would be required. USACE would monitor the complete mitigation site, on a cost-shared basis with the Non-federal Sponsor, to determine whether additional construction, invasive species control and/or plantings would be necessary to achieve mitigation success. USACE would undertake additional actions necessary to achieve mitigation success in accordance with cost-sharing applicable to the project and subject to the availability of funds.

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

JUNE 16, 2025

Ms. Brigette Firmin
Field Supervisor
U.S. Fish and Wildlife Service
Louisiana Ecological Services
200 Dulles Drive
Lafayette, LA 70506

Dear Ms. Firmin,

The U.S. Army Corps of Engineers, St. Paul District on behalf of the New Orleans District, is requesting concurrence from the U.S. Fish and Wildlife Service (USFWS) that the proposed Upper Barataria Basin Reach G East project may affect but is not likely to adversely affect the alligator snapping turtle.

Project and Consultation History
In 2021, the Recommended Plan for the Upper Barataria Basin project was defined as a structural alignment constructed to a one percent annual exceedance probability (100-year future design) height totaling approximately 30.6 miles in length and separated into eight reaches (Figure 1). The project would span from the Mississippi River Levee through the Davis Pond Diversion Structure West Guide Levee and connect to high ground near Raceland. Reaches A through C improve upon and update deficiencies in the St. Charles Parish Levee; Reaches D and E include levees constructed atop the existing Sunset Levee and floodwalls; Reach F consists of an earthen levee, culverts, and a 270-foot barge gate structure constructed across the Bayou Des Allemands; and Reaches G and H include new levee constructed in lifts, culverts for hydraulic connectivity, floodwalls spanning pipelines, and a new bridge across the Godchaux Canal.

In 2020, the U.S. Army Corps of Engineers, New Orleans District, submitted a Biological Assessment for the Upper Barataria Basin, Louisiana Flood Risk Management Study. In a letter dated November 18, 2020, USFWS concurred that the proposed project will not jeopardize the continued existence of the West Indian manatee, eastern black rail and pallid sturgeon, or adversely modify their designated critical habitat. The Corps has agreed to implement all terms and conditions, conservation measures, and reasonable and prudent measures to minimize take of endangered species and avoid jeopardizing the species. Although they are not expected to occur in the project area, the proposed action would include Standard Manatee Conditions for In-Water Activities.

The ESA requires reinitiating consultation if any one of four conditions are met (50 CFR 402.16):

1. If the amount or extent of taking specified in the incidental take statement is exceeded.
2. If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered.
3. If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or
4. If a new species is listed or critical habitat designated that may be affected by the identified action.

Condition number 4 has been met with the listing of several new species within the project area.

Figure 1. Upper Barataria Basin Project Reaches A through H

Current Action

The first segment to move forward into more detailed design is Reach G. However, to work within current funding limitations, Reach G has been divided into Reach G East and Reach G West. Reach G East is currently being designed and is located within Lafourche Parish. On the eastern end, Reach G East connects to the Reach F barge gate structure spanning Bayou Des Allemands and runs southwest for 8,500 linear feet. Reach G East terminates on the western side of the junction between the Midway Canal and the Godchaux Canal (Figure 2).

Reach G East includes:

- Levee (8,500 linear feet, 58 acres): Recent soil borings have determined the project area consists of soft peat and organic deposits overlaying soft fat clay soils with silt and sand. Therefore, a 5-year staged levee construction is anticipated to allow strength gain in the foundation soils between subsequent lifts to mitigate for the soft soil conditions. The levee would be constructed to 11 feet in the first year of construction, 13 feet after two years, 16 feet after 15 years and maintenance lifts up to 16 feet afterward. In addition to staged construction, the levee would include stability berms and a high-tensile strength geotextile to provide reinforcement to the levee section. The approximate toe-to-toe width would be approximately 258 feet.

- Access road (7,500 linear feet, 15.5 acres): The access road would run parallel to the Midway Canal and connect US Highway 90 to the Godchaux Canal. The Godchaux Canal runs parallel to Reach G. The access road would be designed to an elevation of 4.0 feet (NAVD88) for two lanes of traffic and would not serve as a flood protection

feature. The access road would include construction of a permanent bridge across the Godchaux Canal in order to gain access to the alignment for construction and future operation and maintenance. The access road would have a 6H:1V slope on the northeast side facing Bayou Des Allemands and a 4H:1V slope on the southwest side facing Raceland, Louisiana. The access road would have an aggregate driving surface and would require future raises to account for sea-level rise to maintain access to the levee alignment.

- Godchaux Canal Bridge: The bridge would connect the Midway Canal access road to the Reach G East levee. The concrete bridge deck would be a continuous surface consisting of a three span prestressed concrete beam bridge supported by piers with concrete columns and a pile-supported foundation. Each bridge span would be 104 feet. The Godchaux Canal is not anticipated to be a navigable channel, and vessel traffic is not expected to pass underneath the bridge. Hydraulic connection along the Godchaux Canal would be maintained underneath the structure.

- Staging Area: The proposed staging area for Reach G East is approximately 0.5 acres in size and located near where the access route and US Highway 90 intersect.

Figure 2. Upper Barataria Basin Project Reach G East

Identified Listed Species and Critical Habitats
The USFWS Information for Planning and Conservation (IPaC) website was consulted on January 23, 2025 and again on June 13, 2025 to identify changes in the potential presence of federally listed species within the project area (Project Code: 2024-0123173). Table 1 compares the species listed in 2020 during initial consultation for the entire Upper Barataria Basin project and the current species list which is limited to Reach G East. Tricolor bat, alligator snapping turtle and monarch butterfly have been proposed for listing since the 2020 consultation and the Corps is requesting to conference on these new species. No critical habitat was identified within the action area for Reach G East in 2025.

Table 1. Federally listed species, 2020 and 2025

	Common Name	Scientific Name	Status	2020*	2025
Mammals	Tricolor bat	*Perimyotis subflavus*	Proposed Endangered		X
	West Indian manatee	*Trichechus manatus*	Threatened	X	X
Birds	Eastern black rail	*Laterallus jamaicensis ssp. jamaicensis*	Threatened	X	X
Fish	Pallid sturgeon	*Scaphirhynchus albus*	Endangered	X	
Reptiles	Alligator snapping turtle	*Macrochelys temminckii*	Proposed Threatened		X
Insects	Monarch butterfly	*Danaus plexippus*	Proposed Threatened		X

*species list was generated for the entire UBB action area

Tricolored Bat
Approximately 0.2 acre of trees would be cleared as part of the project to allow for construction access. The Corps determined the proposed action may affect but is not likely to adversely affect the tricolored bat. The Corps initiated consultation with USFWS via the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey) on January 23, 2025 (attached). USFWS had 15 days to verify this determination. To avoid impacts to tricolor bats, tree removal will be completed outside of the pup season which is May 1 to July 15 for the state of Louisiana.

Alligator Snapping Turtle
The Corps has determined that the proposed action may affect but is not likely to adversely affect the alligator snapping turtle as it could be present in canals located within the project area. To avoid adverse effects to the alligator snapping turtle when working in waters having a water depth of at least three feet, the Corps will require the construction contractor to have a qualified herpetologist survey the project area for suitable nesting habitat and train workers in the identification of the turtle. Although equipment-use, noise, and other pre-construction activities would likely cause alligator snapping turtles to leave the area before the start of construction, construction activities would be suspended if an alligator snapping turtle is observed within the work zone. Work would not resume until the alligator snapping turtle has left the work area. To discourage the presence of nests during the alligator snapping turtle nesting season (May through July), the Corps will require its contractor to install turtle exclusion fencing along the bank in areas where suitable nesting habitat is present prior to the nesting season and maintain the exclusion fencing through the end of construction.

Monarch butterfly
The Corps has determined that the proposed action will have no effect on the monarch butterfly as no suitable habitat is present within the action area.

Conclusion
We are requesting your concurrence with our determination that **the proposed project may affect but is not likely to adversely affect the alligator snapping turtle**. The Corps is not requesting to reinitiate consultation for the West Indian manatee, eastern black rail and pallid sturgeon. If you have questions about the project or the content of this letter, please contact Steve Clark at (651) 290-5278 or steven.j.clark@usace.army.mil.

Sincerely,

Jonathan J. Sobiech
Deputy Chief, Regional Planning
and Environment Division North

United States Department of the Interior

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

In Reply Refer To: 01/23/2025 15:42:26 UTC
Project code: 2024-0123173
Project Name: Upper Barataria Basin

Federal Nexus: yes
Federal Action Agency (if applicable): Army Corps of Engineers

Subject: Federal agency coordination under the Endangered Species Act, Section 7 for 'Upper Barataria Basin'

Dear LeeAnn Glomski:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on January 23, 2025, for 'Upper Barataria Basin' (here forward, Project). This project has been assigned Project Code 2024-0123173 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements may not be complete.**

Ensuring Accurate Determinations When Using IPaC

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key (DKey), invalidates this letter. ***Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid. Note that conservation measures for northern long-eared bat and tricolored bat may differ. If both bat species are present in the action area and the key suggests more conservative measures for one of the species for your Project, the Project may need to apply the most conservative measures in order to avoid adverse effects. If unsure which conservation measures should be applied, please contact the appropriate Ecological Services Field Office.***

Determination for the Northern Long-Eared Bat and Tricolored Bat

Based on your IPaC submission and a standing analysis completed by the Service, you determined the proposed Project will have the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

Federal agencies must consult with U.S. Fish and Wildlife Service under section 7(a)(2) of the Endangered Species Act (ESA) when an action *may affect* a listed species. Tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can *confer* under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a NE or NLAA determination from the key to confirm that the determination is still accurate.

Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that consultation on the Action is complete for northern long-eared bat and/or tricolored bat and no further action is necessary unless either of the following occurs:

- new information reveals effects of the action that may affect the northern long-eared bat or tricolored bat in a manner or to an extent not previously considered; or,
- the identified action is subsequently modified in a manner that causes an effect to the northern long-eared bat or tricolored bat that was not considered when completing the determination key.

15-Day Review Period

As indicated above, the Service will notify you within 15 calendar days if we determine that this proposed Action does not meet the criteria for a “may affect, not likely to adversely affect” (NLAA) determination for the northern long-eared bat and/or tricolored bat. If we do not notify you within that timeframe, you may proceed with the Action under the terms of the NLAA concurrence provided here. This verification period allows the identified Ecological Services Field Office to apply local knowledge to evaluation of the Action, as we may identify a small subset of actions having impacts that we did not anticipate when developing the key. In such cases, the identified Ecological Services Field Office may request additional information to verify the effects determination reached through the Northern Long-eared Bat and Tricolored Bat DKey.

Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination key for the northern long-eared bat and tricolored bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Alligator Snapping Turtle *Macrochelys temminckii* Proposed Threatened

- Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis* Threatened
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- West Indian Manatee *Trichechus manatus* Threatened

You may coordinate with our Office to determine whether the Action may affect the species and/or critical habitat listed above. Note that reinitiation of consultation would be necessary if a new species is listed or critical habitat designated that may be affected by the identified action before it is complete.

If you have any questions regarding this letter or need further assistance, please contact the Louisiana Ecological Services Field Office and reference Project Code 2024-0123173 associated with this Project.

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

1. Name

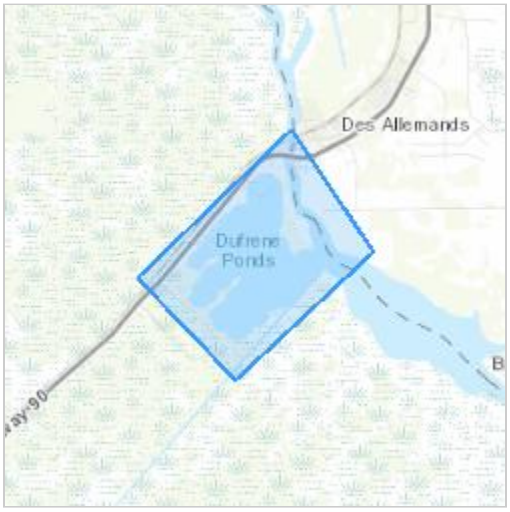
Upper Barataria Basin

2. Description

The following description was provided for the project 'Upper Barataria Basin':

CSRM

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.80349845,-90.48229776887966,14z



DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for a least one species covered by this determination key.

QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed bats or any other listed species?

   Note: Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

   No

2. Is the action area wholly within Zone 2 of the year-round active area for northern long-eared bat and/or tricolored bat?

   Automatically answered
   Yes

3. Your project overlaps with Zone 2 of the area where northern long-eared bats and tricolored bats may be present and roosting in trees year-round.

   Do you understand that your project may impact bats at any time during the year?

   Yes

4. Does any component of the action involve leasing, construction or operation of wind turbines? Answer 'yes' if the activities considered are conducted with the intention of gathering survey information to inform the leasing, construction, or operation of wind turbines.

   Note: For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

   No

5. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

   Yes

6. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

   No

7. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

   Note: This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

   Yes

8. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

   No

9. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

   No

10. [Semantic] Is the action area located within 0.5 miles of a known bat hibernaculum?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

11. Does the action area contain any winter roosts or caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating bats?

    No

12. Will the action cause effects to a bridge?

    Note: Covered bridges should be considered as bridges in this question.

    No

13. Will the action result in effects to a culvert or tunnel at any time of year?

    No

14. Are trees present within 1000 feet of the action area?

    Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

15. Does the action include the intentional exclusion of bats from a building or structure?

    Note: Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats or tricolored bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local Ecological Services Field Office to help assess whether northern long-eared bats or tricolored bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures.

    No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats?**

    No

17. Will the action cause construction of one or more new roads open to the public?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

18. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic permanently or temporarily on one or more existing roads?

    Note: For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

    No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

    For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

    No

20. Will the proposed Action involve the creation of a new water-borne contaminant source (e.g., leachate pond, pits containing chemicals that are not NSF/ANSI 60 compliant)?

    Note: For information regarding NSF/ANSI 60 please visit https://www.nsf.org/knowledge-library/nsf-ansi-standard-60-drinking-water-treatment-chemicals-health-effects

    No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

    No

22. Will the action include drilling or blasting?

    No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

    No

24. Will the proposed action involve the use of herbicides or other pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

    No

25. Will the action include or cause activities that are reasonably certain to cause chronic or intense nighttime noise (above current levels of ambient noise in the area) in suitable summer habitat for the northern long-eared bat or tricolored bat during the active season?

    Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time. Sources of chronic or intense noise that could cause adverse effects to bats may include, but are not limited to: road traffic; trains; aircraft; industrial activities; gas compressor stations; loud music; crowds; oil and gas extraction; construction; and mining.

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

26. Does the action include, or is it reasonably certain to cause, the use of permanent or temporary artificial lighting within 1000 feet of suitable northern long-eared bat or tricolored bat roosting habitat?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

27. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

    Yes

28. Will the proposed action occur exclusively in an already established and currently maintained utility right-of-way?

    No

29. Does the action include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property? See hazard tree note at the bottom of the key for text that will be added to response letters

    Note: A "hazard tree" is a tree that is an immediate threat to lives, public health and safety, or improved property.

    No

30. Does the project intersect with the 0- 9.9% forest density category?

    Automatically answered
    Yes

31. Does the project intersect with the 10.0- 19.9% forest density category map?

    Automatically answered
    Yes

32. Does the project intersect with the 20.0- 29.9% forest density category map?

    Automatically answered
    Yes

33. Does the project intersect with the 30.0- 100% forest density category map?

    Automatically answered
    No

34. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 0.5 acre in total extent?

    No

35. Will the action cause trees to be cut, knocked down, or otherwise brought down across an area greater than 5 acres in total extent?

    No

36. Will the proposed action result in the use of prescribed fire?

    Note: If the prescribed fire action includes other activities than application of fire (e.g., tree cutting, fire line preparation) please consider impacts from those activities within the previous representative questions in the key. This set of questions only considers impacts from flame and smoke.

    No

37. Does the action area intersect the tricolored bat species list area?

    Automatically answered
    Yes

38. [Semantic] Is the action area located within 0.25 miles of a culvert that is known to be occupied by northern long-eared or tricolored bats?

    Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency.

    Automatically answered
    No

39. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

    Has a presence/probable absence survey for the tricolored bat following the Service's Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines been conducted within the project area? If unsure, answer "No."

    No

40. Your project overlaps with an area where tricolored bats may be present and roosting in trees year-round.

    Is suitable tricolored bat habitat present within 1000 feet of project activities? Note: If there are trees within the action area that may provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pines) answer "Yes." Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

41. Do any of the trees proposed for cutting or other means of knocking down, bringing down, topping, or trimming provide potential roosts for tricolored bats (e.g., clusters of leaves in live and dead deciduous trees, Spanish moss (*Tillandsia usneoides*), clusters of dead pine needles of large live pine trees)?

    Note: Additional information defining suitable summer habitat for the northern long-eared bat and tricolored bat can be found in Appendix A of the USFWS' Range-wide Indiana Bat and Northern long-eared bat Survey Guidelines at: https://www.fws.gov/media/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    Yes

42. Will any tree cutting/trimming or other knocking or bringing down of trees be conducted during the Pup Season for tricolored bat?

    Note: Bat activity periods for your state can be found in Appendix L of the Service's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines.

    No

43. Do you have any documents that you want to include with this submission?

    No

PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

0.2

IPAC USER CONTACT INFORMATION

Agency:	Army Corps of Engineers
Name:	LeeAnn Glomski
Address:	180 Fifth Street E
Address Line 2:	Suite 700
City:	St. Paul
State:	MN
Zip:	55101
Email	leeann.m.glomski@usace.army.mil
Phone:	6512905324

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
332 MINNESOTA STREET, SUITE E1500
ST. PAUL, MN 55101-1323

September 9, 2025

Dr. Pace Wilber
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505

Dear Dr. Wilber,

On September 8, 2025, the U.S. Army Corps of Engineers, St. Paul District (USACE) received a National Marine Fisheries Service (NMFS) Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) Essential Fish Habitat response for modifications to Reach G East of the Upper Barataria Basin project located in Lafourche Parish, Louisiana. This letter provides the USACE response to the conservation recommendation contained in the response in accordance with Section 305(b)(4)(B) of the MSFCMA.

As part of the proposed action, USACE would be implementing environmental commitments to avoid and minimize impacts to Essential Fish Habitat. Your office has reviewed the project and provided one conservation recommendation to avoid, minimize, mitigate or otherwise offset the adverse effects of the proposed action on Essential Fish Habitat.

Conservation Recommendation
If the purchase of tidally influenced wetland credits from an USACE approved mitigation bank within the Deltaic Plain is not available then the USACE should develop, in coordination with NMFS, a permittee responsible mitigation and monitoring (PRMM) plan which fully compensates for all unavoidable impacts to EFH. Implementation of the PRMM plan should be concurrent with the construction of the project to avoid additional mitigation for temporal impacts.

USACE Response
USACE has initiated internal conversations regarding funding and planning of a proposed mitigation site in the event mitigation bank credits are not available. USACE constructed mitigation would be planned in coordination with NMFS and presented to the public through a supplemental NEPA document. Planning and approval of USACE constructed mitigation could result in a temporal loss. USACE acknowledges that a temporal loss would result in additional impacts which could require additional mitigation. Refined project specific monitoring, reporting and success criteria for the mitigation features would be required. USACE would monitor the complete mitigation site, on a cost-shared basis with the Non-federal Sponsor, to determine whether additional construction, invasive species control and/or plantings would be necessary to achieve mitigation success. USACE would undertake additional actions necessary to achieve mitigation success in accordance with cost-sharing applicable to the project and subject to the availability of funds.

USACE believes that it has met the intent of the law and considers this consultation with your office pursuant to the MSFCMA complete. We appreciate the time and careful consideration of NMFS staff in evaluating the proposed modifications and for providing Essential Fish Habitat conservation recommendations. We look forward to a continued productive partnership with NMFS on the Upper Barataria Basin project. Should you have any questions regarding our response, please contact Steve Clark at (651) 290-5278 or steven.j.clark@usace.army.mil.

Sincerely,

For:

Jonathan J. Sobiech
Deputy Chief, Regional Planning
and Environment Division North

From: DEQ Water Quality Certifications
To: Glomski, Lee Ann M CIV USARMY CEMVP (USA)
Subject: [Non-DoD Source] RE: USACE UBB project modifications
Date: Thursday, July 31, 2025 3:57:31 PM

LeeAnn,

The original certification shall remain in effect. Please let me know if you have any questions. Thanks!

From: Glomski, Lee Ann M CIV USARMY CEMVP (USA) <LeeAnn.M.Glomski@usace.army.mil>
Sent: Tuesday, July 22, 2025 9:53 AM
To: Jenniffer L. Sheppard <Jenniffer.Sheppard@LA.GOV>; DEQ Water Quality Certifications <DEQ-WaterQualityCertifications@la.gov>
Cc: Clark, Steven J CIV USARMY CEMVP (USA) <Steven.J.Clark@usace.army.mil>; Cook, James P CIV USARMY CEMVP (USA) <Jim.Cook@usace.army.mil>; Schmit, Brian A CIV USARMY CEMVP (USA) <Brian.A.Schmit@usace.army.mil>
Subject: USACE UBB project modifications

Good morning,

Section 401 water quality certification was issued by LDEQ on December 4, 2020 for the Upper Barataria Basin project (AI number 101235 and Water Quality Certification 201203-02 attached). The UBB project consists of hydraulic reaches A through H. The Corps St. Paul District is currently designing Reach G East on behalf of the New Orleans District. Several modifications to the original design have been made and are summarized below. We've also included a table to summarize the impact changes to waters of the US. For additional details regarding the project and individual features see attached word document.

- Levee: toe-to-toe footprint has increased from 170 feet to 300 feet based on recent geotechnical analysis
- Access road: shifted slightly to the southwest of the Midway Canal, length reduced by over 500 feet, turn off and turnaround areas added
- Godchaux Canal bridge: more detailed design since 2021
- Staging Area: reduced from 2.3 acres to 0.5 acre
- Borrow Area: new area identified

Feature	Habitat	Acreage 2021	Acreage 2025
Staging Area	Fresh Water	0	0.01
	Fresh	2.04	0.43

	Marsh		
Access Road (includes ROW)	Fresh Water	10.21	7.64
	Fresh Marsh	7.56	7.69
	BHF	10.5	0
Bridge	Fresh Water	0.47	0.05
	Fresh Marsh	0	0.62
Levee	Fresh Water	0.06	0.18
	Fresh Marsh	33.11	57.66
Totals	**Fresh Water**	**10.74**	**7.87**
	Fresh Marsh	**42.71**	**65.97**
	BHF	**10.5**	**0**
	combined	**63.95**	**73.84**

We are requesting a review of the proposed project changes to determine if the current 401 WQC can still be relied upon or if we must apply for new WQC. If you need any additional information, please let us know.

Thank you,
LeeAnn Glomski
Biologist
St. Paul District

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

April 26, 2024

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

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

Only an electronic version of this letter will be provided to the LA SHPO's Section 106 Inbox, section106@crt.la.gov.

RE: Section 106 Review Consultation
Undertaking: Reach G East Portion of Upper Barataria Basin Project, Lafourche Parish.
Determination: **No Historic Properties Affected**

Dear Ms. Sanders:

The U.S. Army Corps of Engineers (USACE), New Orleans District, proposes to begin construction of a portion of levee for the Upper Barataria Basin Project (UBB), identified as Reach G, East. USACE is evaluating the proposed features of Reach G construction for impacts to cultural resources.

As part of USACE's evaluation and in compliance with Stipulations V and VI of the executed Programmatic Agreement (PA) filed with the Advisory Council on Historic Preservation (ACHP), USACE offers you the opportunity to review and comment on the potential of the proposed action described in this letter to affect historic properties. Additionally, in accordance with the responsibilities of Executive Order 13175, USACE offers Federally-recognized Tribes the opportunity to review and comment on the potential of the proposed undertaking described in this letter to significantly affect protected tribal resources, tribal rights, or tribal lands.

Project Background

The UBB project consists of the construction of approximately 31 miles of levees (Figure 1). Numerous portions of levee would be constructed in swamp wetlands, with other portions utilizing improvement of existing smaller levees and flood control features.

Figure 1. Vicinity, Limits, and Reaches of the Upper Barataria Basin Project.

A Programmatic Agreement to comply with Section 106 of the National Historic Preservation Act was executed by the U.S. Army Corps of Engineers and the Louisiana SHPO in March of 2021. The Choctaw Nation of Oklahoma participated as an Invited Signatory, and the Louisiana Office of Coastal Protection and Restoration Authority Board participated as a Concurring Party. Stipulation V of the PA states that USACE will consult with SHPO and Tribes to define and document geographic area within which an undertaking may affect historic properties, and Stipulation VI states that USACE shall coordinate any determinations of effect that may be found as "No Historic Properties Affected" or "No Adverse Effect."

Description of the Undertaking (See Attachment Figures #2, #3, and #4)

UBB Project construction is expected to take place in a series of sequential construction contracts, the first of which is Reach G East (RGE) and includes construction of a 14-foot levee incorporating geotextile fabric to reduce footprint. RGE begins on the southern bank of Petit Lac Des Allemands and continues parallel to U.S. Highway 90 through the marsh for approximately 1.5 miles before this phase completes at the Access Road originating at U.S. Highway 90. The Right-of-Way (ROW) for the footprint is proposed to be 252 feet wide.

The access road from Highway 90 is proposed to be a newly constructed permanent access route just southwest of Dufrene Ponds. The access road would be approximately 1.5 miles long and 150 feet wide and include construction of a permanent bridge across the Godchaux canal in order to gain access to the alignment for construction and future operation and maintenance.

Staging Areas are proposed for use within the construction ROW. Staging areas will be within construction ROW, and will have no potential effects greater than levee construction. A staging area is proposed on both ends of the access road, to ease its construction. A staging area to be used during construction of the Reach G levee, is located at the west end of this RGE construction plan and will eventually be consumed by the continuation of the UBB levee.

Borrow material for the proposed construction of levee and access road, will come from the Raceland Raw Sugars borrow pits (Heller et al. 2008). These pits contain a combined total of 231 acres.

Area of Potential Effects (APE)

The APE is defined as the entire Right of Way (ROW) that exists for all features of RGE. Due to the predominance of water surrounding RGE, including the Dufrene Ponds, and Petit Lac Des Allemands, the ROW extends no farther South or east than the project features of levee, access road, staging areas, and borrow.

This letter offers an assessment of effects for the entire APE, and is inclusive of all potential effects, both direct (construction) and indirect (staging area, haul road, etc.).

Identification and Evaluation

The proposed borrow sources have been previously surveyed for cultural resources (Heller et al. 2008) and previously coordinated with conclusion of No Historic Properties Affected (IER #31 2008).

No cultural resources survey was completed for the RGE ROW. Archival maps, aerial images, and historic sources were utilized to assess that the lands of proposed levee and access road are extremely low potential to contain undiscovered cultural resources. Historic maps such as the 1891 Hahnville 1:62,500 topographic map show the area to be marsh. Data of the National Resource Conservation Service (NRCS) indicate that all soils of the APE are classified as AE Allemands muck and very frequently flooded. Saucier's (1994) study of the Geologic History of the Lower Mississippi River defines the APE to be brackish and saline.

In their report of cultural resources survey for alternatives of the I-49 corridor, Earth Search Inc. (Apollonio et al. 2011) cite sources to describe the APE during prehistoric times as an ephemeral lake, with eventual erosion from tidal channels that formed the modern Bayou Des Allemands.

Assessment of Effects

Based on the information presented in this letter and attached materials, USACE has made a determination of **no historic properties affected** within the Reach G East footprint. If cultural resources are located during construction of Reach G East, work will cease while Stipulation X of the PA for UBB is enacted and followed.

We look forward to your concurrence with this determination. Should you have any questions or need additional information with this undertaking, please contact Dr. Paul Hughbanks, Archaeologist; U.S. Army Corps of Engineers, New Orleans District at (504) 862-1100 paul.j.hughbanks@usace.army.mil; or Brian Ostahowski, Archaeologist and Tribal Liaison at (504) 862-2188 brian.e.ostahowski@usace.army.mil.

Sincerely,

ERIC M. WILLIAMS
Chief, Environmental Planning Branch

Source Cited

Apollonio, K.B. Lintott, B.D. Maygarden, A. Montana, S.A. Orton, J. Barton, M.E. Pokrant, and P.V. Heinrich
2011 *Intensive Cultural Resources Survey, Future I-49 South Corridor, SIU 1, Lafourche and St. Charles Parishes, Louisiana*. (State Report 22-2722)

Heller, Nathanael, E. Crowe, G. Jones, and W.P. Athens
2008 *Phase I Cultural Resources Survey and Archeological Inventory of the Terrestrial Portion of Two Proposed Borrow Locations, Lafourche Parish, Louisiana*. (State Report 22-3135)

Saucier, Roger
1994 *Geomorphology and Quaternary Geologic History of the Lower Mississippi Valley*. U.S. Army Engineer Waterways Experiment Station, Vicksburg MS.

U.S. Army Corps of Engineers
2010 *Final Individual Environmental Report, Contractor-Furnished Borrow Material #7. East Baton Rouge, Jefferson, Lafourche, Plaquemines, St. Bernard, and St. Tammany Parishes, Louisiana, and Hancock County, Mississippi*. IER #31

Upper Barataria Basin
Modifications to Reach G East

Appendix B – Clean Water Act Compliance Supplement

SEA #609

SEAX-202-00-MVN-1759852695

US Army Corps
of Engineers®
St. Paul District

Appendix B – Clean Water Act Compliance Supplement

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1 Project Description

1.1 Location and General Description

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation. To work within current funding available, Reach G was divided into Reach G East and Reach G West. A Supplemental Environmental Assessment (SEA) and Section 404(b)(1) evaluation have been prepared to address the potential effects associated with the proposed modifications and additions to Reach G East, located between the Reach F barge gate structure and the junction of the Midway Canal and the Godchaux Canal.

1.2 Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R)

The proposed project would implement a structural alignment constructed to a one percent annual exceedance probability (AEP; 100-year future design) requiring the development of an Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual. A draft OMRR&R manual will be provided to the local sponsor at the substantial construction completion of each reach. This OMRR&R manual will be updated as each reach is completed and new elements are added. Included in the document will be guidance for the local sponsor with regards to operational requirements for the structural components of the system during both normal operations and a flood event. Maintenance and associated inspections will be required to keep the system operating and prepared for a flood event. Discharges of dredge or fill material needed for repairs would be authorized under Nationwide Permit (NWP) 3 – Maintenance.

2 Authority and Purpose

2.1 Basic Project Purpose

The basic project purpose is flood and storm damage risk reduction.

2.2 Water Dependency

The project does not require siting within a special aquatic site; therefore, the project is not water dependent.

2.3 Overall Project Purpose

The basic project purpose is flood and storm damage risk reduction within the Upper Barataria Basin in Lafourche Parish.

2.4 Authority

The UBB study was authorized by a 1998 House Committee Resolution and funded by the Bipartisan Budget Act of 2018 (Public Law 115-123), Division B, Subdivision 1, Title IV (BBA 2018). BBA 2018 provided supplemental funding for certain feasibility studies that

predominately focused on flood and storm damage risk reduction, as well as comprehensive studies and watershed studies that are predominately for flood and storm damage risk reduction.

Under the BBA 2018, the usual cost-sharing requirements for feasibility studies pursuant to Section 105(a) of the Water Resources Development Act (WRDA) of 1986 (33 U.S.C. 2215(a)) were waived, allowing these studies to be conducted at full Federal expense if funded by the act. The feasibility cost sharing agreement for the UBB Study between the Department of the Army and the Coastal Protection and Restoration Authority Board of Louisiana was executed on October 9, 2018. The UBB study was conducted in accordance with Sections 1001 and 1002 of the Water Resources Reform and Development Act of 2014 and incorporated SMART Planning principles, ensuring alignment with existing USACE regulations and guidance.

The UBB feasibility study was completed in December 2021. A Record of Decision for the project's Environmental Impact Statement was signed on May 8, 2023. The Report of the Chief of Engineers for UBB approved the recommended plan on January 28, 2022. The project was subsequently authorized for construction in Section 8401 of WRDA 2022. A design agreement was signed on September 26, 2022. Pursuant to Division B, Title IV of Disaster Relief Supplemental Appropriations Act of 2022, PL 117-43, the costs for design are at full Federal expense.

3 Project Alternatives

Alternatives to the Recommended Plan were evaluated in Section 4 of the IFR/EIS. This Section 404(b)(1) Supplement addresses proposed modifications to Reach G East. The Proposed Alternative is described below.

3.1 Practicable Alternative Carried Forward for Further Evaluation

The proposed modifications for Reach G East include: (1) larger levee footprint, (2) updated design for the Godchaux Canal Bridge, (3) shift in access road alignment, (4) new construction staging location, and (5) new borrow location. See Section 2.2 of the SEA for details.

4 General Description of Dredged or Fill Material

4.1 General Characteristics

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

4.2 Source of Material

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

4.3 Quantity of Material

Material quantities are still being evaluated for Reach G East.

4.4 Description of the Proposed Discharge Site

4.4.1 Location

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

4.4.2 Size

All Reach G East project features would result in the discharge of fill material into wetlands. Impacts by project feature are listed in the table below. The 2025 acreages shown in the table are based on 65 percent design and are the best estimates at this stage. If needed, acreages would be revised at final design; however, they are not expected to change by more than 20 percent and if they do change, it would not substantially affect the impact analyses.

Feature	**Habitat**	**Acreage 2025**
Staging Area	Fresh Marsh	0.44
Access Road (includes ROW)	Fresh Marsh	7.69
	Estuarine Water Bottoms	7.64
	Estuarine Water Column	7.64
Bridge	Fresh Marsh	0.62
	Estuarine Water Bottoms	0.05
	Estuarine Water Column	0.05
Levee	Fresh Marsh	57.84
Totals	**Fresh Marsh**	**66.59**
	Estuarine Water Bottoms	**7.69**
	Estuarine Water Column	**7.69**

4.4.3 Site and Habitat Description

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

4.4.4 Timing and Duration

Initial construction is expected to occur over 5 years and will be executed through multiple separate design efforts and construction contracts. Subsequent levee lifts would be executed through separate construction contracts.

4.5 Description of Disposal Method

Typical complex construction equipment would be used including but not limited to cranes, backhoes, dozers, pile drivers, and rollers.

5 Factual Determinations

5.1 Physical Substrate Determinations

5.1.1 Substrate Elevation and Slope

Per the 2021 IFR/EIS, the levee in Reach G would be constructed to an elevation of 14 feet in the first construction event. However, recent soil borings of the marsh within the project area indicate the area consists of soft peat and organic deposits overlaying soft fat clay soils with silt and sand lenses. These soft soil conditions would limit the practical top of levee elevation for the first lift to below 14 feet. Therefore, a 5-year staged levee construction is anticipated to allow strength gain in the foundation soils between subsequent lifts to mitigate for the soft soil conditions. The levee would be constructed to 11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet after 15 years and maintenance lifts up to 16 feet afterward. Side slopes would be 1:4 horizontal: vertical.

The side slopes of the access road are 1V:6H on the left slope and 1V:5H on the right slope. The access road would require future raises to account for sea-level rise to maintain access to the levee alignment.

The Godchaux Canal bridge is currently estimated to have a top of wall elevation of 8.4 feet, plus wave and freeboard to avoid any hydraulic barriers.

5.1.2 Sediment Type

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.1.3 Fill Material Movement

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation. Fill material is not expected to move significantly once placed.

5.1.4 Actions Taken to Minimize Impacts

Effects are similar to what is described in the original Section 404(b)(1) evaluation. A number of procedures would be used to minimize impacts where needed. All work performed by a contractor will be subject to adherence with a work plan and applicable agency permits and 401 State Water Quality certification. The work plan shall detail the contractor’s proposed methods to perform work described by contract drawings. This plan (and other related plans) shall be submitted to Government Representative (Corps COR) for review and acceptance before any site work commences.

5.2 Water Circulation, Fluctuation and Salinity Determination

5.2.1 Water

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2 Current Patterns and Circulation

5.2.2.1 Current Velocity and Patterns

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2.2 Stratification

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2.3 Hydrologic Regime

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2.4 Normal Water Level Fluctuations

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2.5 Salinity

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.2.2.6 Actions Taken to Minimize Impacts

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.3 Suspended Particulate/Turbidity Determination

5.3.1 Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.3.2 Effects on Chemical and Physical Properties of the Water Column

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.3.3 Actions Taken to Minimize Impacts

The discharge of fill material and excavation would result in disturbance to the existing substrate, causing a temporary and localized increase in turbidity and suspended particulates. As part of the project's plans and specifications, the contractor will develop an environmental protection plan that will include Best Management Practices (BMPs) designed to minimize impacts of the project to the surrounding environment. BMPs could include sediment fencing and floating silt curtain to prevent the movement of soil and sediment. All construction related debris would be managed so that no debris, garbage, or fuel enters the water. Visual monitoring for excessive turbidity, floating debris, trash, or oil sheen would also be continuously performed to ensure water quality is being protected.

5.4 Contaminant Determinations

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.5 Aquatic Ecosystem and Organism Determination

5.5.1 Effects on Plankton

During construction, increases in turbidity and suspended solids near fill areas would have a localized suppressing effect on phytoplankton productivity. However, these local effects would be short-term and minor. The plankton populations would recover quickly once construction activities have ceased.

5.5.2 Effects on Benthos

The proposed modifications would directly affect approximately 73.84 acres of benthic habitat. Most non-mobile organisms in the filled areas would be destroyed during construction. Benthic organisms would quickly recolonize the area following construction.

5.5.3 Effects on Nekton

The project would have a temporary and minor effect on nekton as they would avoid the area during construction. Nekton populations would recover quickly once construction activities have ceased.

5.5.4 Effects on Aquatic Food Web

The burial of existing benthos and localized impacts on plankton productivity could cause a temporary minor impact on the local food web. However, benthos and plankton would recover quickly, and there would likely be no long-term negative effects on the aquatic food web.

5.5.5 Effects on Special Aquatic Sites

Construction of Reach G East would result in both temporary and permanent impacts to wetlands within the project area. The proposed project would result in an immediate, permanent

impact to 66.59 acres. The staging area would be impacted during construction; however, this area would be restored (i.e. returned to pre-construction contours and elevations and seeded with native species) following the initial 5-year construction contract as well as after subsequent lifts. Due to the length of time the staging area would be in place, it is being considered a permanent impact.

Indirect effects of wetland impacts would include loss of habitat and water quality protection. Wetlands outside of the project area would continue to provide services such as water quality protection and wildlife habitat. Best management practices would be used to minimize effects to wetlands immediately outside of the project area by clearly marking construction limits to avoid unnecessary plant loss or ground disturbance. Construction of Reach G East would have no effect on sanctuaries and refuges, mud flats, vegetated shallows, coral reefs or riffle and pool complexes.

5.5.6 Threatened and Endangered Species

USACE has determined the proposed action may affect but is not likely to adversely affect the eastern black rail, west Indian manatee, tricolor bat, alligator snapping turtle, and pallid sturgeon. The proposed action would have no effect on the monarch butterfly.

The Proposed Alternative may affect but is not likely to adversely affect tricolor bat. USACE initiated informal consultation with USFWS via the Northern Long-eared Bat and Tricolored Bat Rangewide Determination Key (DKey) on January 23, 2025. Pursuant to the established consultation procedures for tricolor bat, USFWS had 15 days to verify this determination, after which concurrence can be presumed. USACE has also determined that the Proposed Alternative may affect but is not likely to adversely affect the alligator snapping turtle and initiated informal consultation with USFWS on June 16, 2025. USFWS concurred with the USACE's determination on July 14, 2025. A copy of the consultation documentation can be found in Appendix A. For additional details, see Section 3.2.6 of the SEA.

5.5.7 Other Wildlife

Wildlife would be temporarily displaced during construction due to noise and construction activity~~; however, wildlife would return to the area once construction was complete~~. Migratory waterfowl and other avian species would also be temporarily displaced from the project area during construction. These species would be expected to move to existing adjacent habitat during construction activities. Levee and access road construction would reduce wetland habitat in the area; however, similar habitats adjacent to the project area could be utilized by birds and other wildlife species. Project effects to wildlife are expected to be temporary and minor.

5.5.8 Actions Taken to Minimize Impacts

Birds. USACE will require the construction contractor to have a qualified ornithologist survey the project area during construction for the presence of documented and undocumented wading bird colonies and bald eagles. Colonial nesting wading birds (including but not limited to heron,

egrets and ibis) and bald eagles may be found at the project site and should be avoided to reduce the risk of injuring birds. The nesting activity period general extends from February 15 through October 31 for wading birds and September to May for bald eagles. If nests of these birds are present at the work area, a no work distance restriction of 1000 feet for colonial nesting wading birds and 660 feet for nesting bald eagles will be implemented. Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds.

For colonies containing nesting gulls, terns, and/or black skimmers, all project activity occurring within 400 meters (700 meters for brown pelicans) of an active nesting colony should be restricted to the non-nesting period (i.e., September 16 through April 1).~~Colonial nesting wading birds (including but not limited to heron, egrets and ibis) and bald eagles may be found at the project site and should be avoided to reduce the risk of injuring birds. The nesting activity period general extends from February 15 through September 15 for wading birds and September to May for bald eagles. If nests of these birds are present at the work area, a no work distance restriction of 1000 feet for colonial nesting wading birds and 660 feet for nesting bald eagles will be implemented.~~

Manatees. All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). The following conditions may be implemented during construction to minimize potential impacts to manatees in areas of their potential presence:

All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of manatee(s) in the buffer zone, in- water work can resume under careful observation for manatee(s).

If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at “no wake/idle” speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.

If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

Tricolored bats. To avoid impacts to tricolor bats, tree removal would be completed outside of the pup season which is May 1 to July 15 for the state of Louisiana.

Alligator snapping turtles. To avoid adverse effects to the alligator snapping turtle when working in waters having a water depth of at least three feet, the construction contractor will be required to have a qualified herpetologist survey the project area for suitable nesting habitat and train workers in the identification of the turtle. Although equipment-use, noise, and other pre-construction activities would likely cause alligator snapping turtles to leave the area before the start of construction, construction activities would be suspended if an alligator snapping turtle is observed within the work zone. Work would not resume until the alligator snapping turtle has left the work area. To discourage the presence of nests during the alligator snapping turtle nesting season (May through July), the Corps will require its contractor to install turtle exclusion fencing

along the bank in areas where suitable nesting habitat is present prior to the nesting season and maintain the exclusion fencing through the end of construction.

These actions are anticipated to ensure compliance with associated laws and regulations, including the Endangered Species Act, Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act.

5.6 Proposed Disposal Site Determinations

5.6.1 Mixing Zone Determination

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.6.2 Determination of Compliance with Applicable Water Quality Standards

It is not anticipated that the proposed project would violate water quality standards for toxicity as all fill material will be free of contaminants. Water quality certification (WQC) pursuant to Section 401 of the Clean Water Act was obtained from the LDEQ on December 4, 2020. USACE coordinated the proposed project changes with LDEQ on July 23, 2025. LDEQ responded via email on July 31, 2025, stating the original water quality certification would remain in effect (Appendix A).

5.6.3 Potential Effects on Human Use Characteristics

5.6.3.1 Municipal and Private Water Supply

There would be no change from what was described in the Programmatic Section 404(b)(1) evaluation.

5.6.3.2 Recreational and Commercial Fisheries

The proposed project may have a minor and temporary impact on recreational fisheries during construction. Fish would be temporarily displaced from the area during construction, but these effects would be temporary and minor. There would be no effect to commercial fisheries.

5.6.3.3 Water Related Recreation

During construction, there could be short-term indirect impacts to recreational resources along the immediate levee area, temporary access roads, and staging areas. Mobile wildlife species associated with hunting and fishing may attempt to move from the area during construction. Non-consumptive recreation resources relating to sports and leisure could be impacted by noise and/or dust associated with construction activity.

5.6.3.4 Aesthetics

Direct impacts to visual resources would be minimal as all of Reach G East is remote and public access is limited.

5.6.3.5 Cultural Resources

MVN, the Louisiana State Historic Preservation Officer, and the Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA) that would govern USACE's Section 106 review process for this Undertaking. The PA was executed and filed with the Advisory Council on Historic Preservation on March 11, 2021. All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties. A letter of coordination with a determination of No Historic Properties Affected for the activities discussed in this SEA was sent to SHPO and Federal Tribes, on April 26, 2024. Responses of agreement were received from the SHPO on May 21, 2024, and the Choctaw of Oklahoma on May 31, 2024. No other responses were received.

5.7 Determination of Cumulative Effects on the Aquatic Ecosystem

The proposed discharge of dredged or fill material would cause no significant adverse cumulative impacts on the aquatic ecosystem when considered collectively with other similar discharges. Effects of the construction would be minor and mostly positive in maintaining the quality of the human environment. The proposed action would not affect the biodiversity of the area above existing conditions.

5.8 Determination of Secondary Effects on the Aquatic Ecosystem

No significant secondary effects on the aquatic ecosystem would be expected from the proposed action.

6 Mitigation

Proposed mitigation includes the purchase of mitigation bank credits either prior to or concurrent with impacts. Purchase of credits relieves USACE and the non-federal sponsor of the responsibility for monitoring and of demonstrating mitigation success. Credits purchased from a mitigation bank, must be in compliance with the requirements of the USACE Regulatory Program and the bank's Mitigation Banking Instrument (MBI), which specifies the management, monitoring, and reporting required to be performed by the bank. Impacts would be mitigated through the purchase of tidally influenced fresh marsh credits equaling 36.52 AAHUs (see table below for details). The same version of the WVA model that was used to assess the impacts of constructing the proposed action would be run on the mitigation banks to ensure that the assessment of the functions and services provided by the mitigation bank match the assessment of the lost functions and services as the impacted site. Credits would be purchased from a mitigation bank within the deltaic plain service area.

Feature	**AAHUs**
Staging Area	-0.23
Access Road	-6.53
Bridge	-0.37
Levee	-29.39
Total	**-36.52**

No particular bank is proposed for use at this time. The bank(s) from which credits would be purchased would be selected through a solicitation process, through which any mitigation bank meeting eligibility requirements and having the appropriate resource type of credits could submit a proposal to sell credits. If appropriate and cost-effective, USACE may choose to purchase mitigation bank credits from more than one bank to fulfill the compensatory mitigation requirements for marsh habitat type. The solicitation for mitigation bank bids will include requirements that the banks are Office of Coastal Management approved, and within the same or adjacent Coastal Wetlands Planning, Protection, and Restoration Act defined hydrologic basin as the impacts.

If mitigation bank credits were not available, USACE-constructed mitigation would be considered and presented to the public through a supplemental NEPA document. Refined project specific monitoring, reporting and success criteria for the mitigation features would be required. USACE would monitor the complete mitigation site, on a cost-shared basis with the Non-federal Sponsor, to determine whether additional construction, invasive species control and/or plantings would be necessary to achieve mitigation success. USACE would undertake additional actions necessary to achieve mitigation success in accordance with cost-sharing applicable to the project and subject to the availability of funds.

7 Finding of Compliance with Restrictions on Discharge

1. No significant adaptations of the guidelines were made relative to this evaluation.
2. The proposed fill activity would comply with the Section 404(b)(1) guidelines of the Clean Water Act. The placement of fill is required to provide the desired benefits.
3. There are no practical and feasible alternatives to the placement of fill in the proposed sites that would meet the objectives and goals of this project. The proposed project is the least environmentally damaging practicable alternative.
4. The proposed fill activity would comply with State water quality standards. The disposal operation would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.
5. The proposed project would not jeopardize the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or result in likelihood of the destruction or adverse modification of critical habitat.
6. The proposed fill activities would not result in significant adverse effects on human health and welfare, including municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, aquatic habitat, terrestrial habitat, and recreation. The life stages of aquatic life and other wildlife would not be adversely affected. Significant adverse effects on the aquatic ecosystem, and recreational, aesthetic, and economic values would not occur.
7. On the basis of this evaluation, I conclude that the proposed discharge complies with the Section 404(b)(1) Guidelines for the discharge of dredged or fill material.

_____
Date

Scotty Autin
Colonel, Corps of Engineers
District Commander

Upper Barataria Basin Modifications to Reach G East

Appendix C – Finding Of No Significant Impact

SEA #609

SEAX-202-00-MVN-1759852695

US Army Corps of Engineers®
St. Paul District

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS LA 70118-3651

DRAFT FINDING OF NO SIGNIFICANT IMPACT

Upper Barataria Basin
Modifications to Reach G East
Lafourche Parish, Louisiana

SEA #609
SEAX-202-00-MVN-1759852695

The U.S. Army Corps of Engineers, New Orleans District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. Detailed engineering and design studies conducted since the completion of the Integrated Feasibility Report and Environmental Impact Statement (IFR/EIS) in 2021 have resulted in several proposed modifications to Reach G of the Project. As defined in the 2021 IFR/EIS, Reach G begins on the southern bank of the Petit Lac Des Allemands and continues parallel to U.S. Highway 90 through the existing marsh measuring approximately 31,000 feet in length. The first levee lift for Reach G would be constructed to an elevation of 14-feet with a second lift to an elevation of 16-feet proposed approximately 30-years later to maintain the one percent annual exceedance probability (AEP) design elevation over the authorized 50-year period of analysis. Five sets of culverts with sluice gates would be included to maintain the hydraulic flows in and out of the marsh. Access to Reach G would be from US Highway 90 via a newly constructed permanent 7,925-foot access route southwest of Dufrene Ponds. The access road would include construction of a permanent bridge across Godchaux Canal providing access for future operations and maintenance. A staging area would be on the northeast corner where Godchaux Canal and the permanent access route intersect. Structures would be constructed using a temporary access route located along the levee alignment within the right of way. To work within current funding available, Reach G was divided into Reach G East and Reach G West. Reach G East will connect to the Reach F barge gate structure spanning Bayou Des Allemands and run southwest for 8,500 linear feet, terminating on the western side of the junction between the Midway Canal and the Godchaux Canal.

The proposed modifications for Reach G East would consist of the following:

- 5-year staged levee construction where the levee would be constructed to 11 feet in the first year of construction, 13 feet after a two year wait period, 16 feet by approximately year 15, and maintenance lifts up to 16 feet.
- Toe to toe levee footprint increase from 170 feet to approximately 258 feet.
- Access road shifted to the southwest of Midway Canal.
- More detailed bridge design.
- New staging area

The Supplemental Environmental Assessment (SEA) as well as the information presented in the IFR/EIS dated 2021 are incorporated in this Finding of No Significant Impact (FONSI) by reference. In addition to a “no action” plan, one alternative was evaluated and the potential effects evaluated, as appropriate. A summary assessment of the potential effects of the Proposed Alternative are listed in Table 1.

Table 1: Summary of Potential Effects of the Proposed Alternative

	Insignificant effects	Insignificant effects as a result of mitigation*	Resource unaffected by action
Aesthetics	☒	☐	☐
Air quality	☒	☐	☐
Aquatic resources/wetlands	☒	☐	☐
Invasive species	☒	☐	☐
Fish and wildlife habitat	☒	☐	☐
Threatened/Endangered species/critical habitat	☒	☐	☐
Historic properties	☒	☐	☐
Other cultural resources	☒	☐	☐
Floodplains	☒	☐	☐
Hazardous, toxic & radioactive waste	☒	☐	☐
Hydrology	☒	☐	☐
Land use	☒	☐	☐
Noise levels	☒	☐	☐
Public infrastructure	☒	☐	☐
Socio-economics	☒	☐	☐
Soils	☒	☐	☐
Tribal trust resources	☒	☐	☐
Water quality	☒	☐	☐

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the Proposed Alternative. Mitigation measures as detailed in Section 3.5.2 of the SEA will be implemented, if appropriate, to minimize impacts.

The Proposed Alternative will result in unavoidable adverse impacts to approximately 66.59 acres of fresh marsh wetland. Impacts would be mitigated through the purchase of mitigation bank credits equaling 36.52 average annual habitat units (AAHUs). If mitigation bank credits are not available, USACE-constructed mitigation would be considered and presented to the public through a supplemental NEPA document.

Public review of the draft SEA and FONSI was completed on **DATE DRAFT EA AND FONSI REVIEW PERIOD ENDED**. All comments submitted during the public review period were responded to in the Final SEA and FONSI.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (FWS) issued a biological opinion, dated 18 November 2020, that determined that the proposed project will not jeopardize the continued existence of the following federally listed species or adversely modify designated critical habitat: West Indian manatee, eastern black rail, and pallid sturgeon. All terms and conditions, conservation measures, and reasonable and prudent alternatives and measures resulting from these consultations shall be implemented in order to minimize take of endangered species and avoid jeopardizing the species. The proposed modifications would have no additional effect to these species beyond those consulted on for the original design.

Since 2021, three additional species have been proposed for listing, tricolor bat, alligator snapping turtle and monarch. No critical habitat for any of these species exists in or near the action area. The Proposed Alternative may affect but is not likely to adversely affect tricolor bat. USACE initiated informal consultation with USFWS via the Northern Long-eared Bat and Tricolored Bat Rangewide Determination Key (DKey) on January 23, 2025. Pursuant to the

established consultation procedures for tricolor bat, USFWS had 15 days to verify this determination, after which concurrence can be presumed. USACE has also determined that the Proposed Alternative may affect but is not likely to adversely affect the alligator snapping turtle and initiated informal consultation with USFWS on June 16, 2025. USFWS concurred with the USACE's determination on July 14, 2025. A copy of the consultation documentation can be found in Appendix A. USACE determined the proposed action would have no effect on the monarch butterfly.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties may be adversely affected by the proposed project. The Corps, Louisiana State Historic Preservation Office, and Choctaw Nation of Oklahoma entered into a Programmatic Agreement (PA), dated 11 March 2021**.** All terms and conditions resulting from the agreement shall be implemented in order to minimize adverse impacts to historic properties. A letter of coordination with a determination of No Historic Properties Affected for the activities discussed in this EA was sent to SHPO and Federal Tribes, on April 26, 2024. Responses of agreement were received from the SHPO on May 21, 2024, and the Choctaw of Oklahoma on May 31, 2024. No other responses were received.

Pursuant to the Clean Water Act of 1972, as amended, the discharge of dredged or fill material associated with the Proposed Alternative has been found to be compliant with Section 404(b)(1) Guidelines (40 CFR 230). The Clean Water Act Section 404(b)(1) Guidelines evaluation is found in Appendix B of the SEA.

A water quality certification pursuant to Section 401 of the Clean Water Act was obtained from the Louisiana Department of Environmental Quality (LDEQ) for the 2021 UBB project. The proposed modifications addressed in the SEA were coordinated with LDEQ on July 23, 2025. LDEQ responded via email on July 31, 2025, stating the original water quality certification would remain in effect. All conditions of the water quality certification shall be implemented in order to minimize adverse impacts to water quality.

A determination of consistency with the Louisiana Coastal Zone Management program pursuant to the Coastal Zone Management Act of 1972 was obtained from the Louisiana Department of Natural Resources Office of Coastal Management for the 2021 UBB project. The proposed modifications addressed in the SEA were coordinated with LDEQ on July 23, 2025. In a letter dated September 3, 2025, LDNR determined the proposed modifications are consistent with the Louisiana Coastal Resources Program. All conditions of the consistency determination shall be implemented in order to minimize adverse impacts to the coastal zone.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

_____
Date

_____
Scotty Autin
COL, Corps of Engineers
District Commander