Gulf Coast Ecosystem Restoration Council
Finding of No Significant Impact
Indian Point Causeway Shoreline Protection Project - Implementation

The Gulf Coast Ecosystem Restoration Council (Council) hereby adopts the U.S. Army Corps of Engineers (USACE) Environmental Assessment (EA) included in the statement of findings for USACE permit SWG-2020-00839 approved on August 4, 2024. The Council adopts the EA in order to address requirements of the *National Environmental Policy Act* (42 U.S.C. §§ 4321 et seq.) (NEPA) associated with the approval of implementation funding for the Indian Point Causeway Shoreline Protection Project (Indian Point project) sponsored by the Texas Commission on Environmental Quality (TCEQ) and located adjacent to the Highway 181 causeway in Nueces Bay, east of Corpus Christi, in San Patricio County, Texas.

The Council has reviewed the EA and determined that it addresses the environmental effects of the Indian Point project activity to be funded. On April 23, 2026, the Council opened a public comment period on this proposed project and the associated environmental compliance documentation. This public notice also sought comment on the Council's proposals to approve funding for other Council activities sponsored by the TCEQ under the Council's Funded Priorities List (FPL) 3b. The public comment period ended on May 26, 2026. The Council received one comment regarding the Indian project. A response to this comment can be found in the FPL Amendment Summary.

The Council has determined that approval of funding for the Indian Point project would not result in a significant effect on the human environment. The following is a brief description of the activity to be funded, the EA being adopted by the Council, and contact information pertaining to this action.

Funded Activity

The Council is approving $5,759,851 in implementation funding reallocation for the Indian Point project, which is part of the Texas Shoreline Protection Through Living Shorelines Program sponsored by TCEQ. The amount of funding initially approved for the Dagger Point Stabilization living shoreline project (Dagger Point project) will be reduced from $12,859,851 to $7,100,000 as the project construction bid came in under budget. The $5,759,851 in savings from the Dagger Point project will be reallocated to implement the proposed Indian Point living shoreline project. Since the publication of FPL 3b, all environmental compliance necessary for a Council vote to approve implementation funding for the Indian Point project has been completed. FPL 3b was developed pursuant to the *Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012* (RESTORE Act) (33 U.S.C. § 1321(t) and *note*).

The Indian Point project will construct approximately 1,300 linear feet of rock breakwater and place approximately 5,510 cubic yards of beach fill at the Indian Point Park, creating a living shoreline adjacent

to Highway 181. The design for the living shoreline protection includes rock breakwaters to stabilize the shoreline, protect existing and newly constructed emergent wetlands and submerged seagrass, and protect the shoreline and marshes from further erosion, wave action and storm surge. The Indian Point project aims to protect marshes and shorelines, improve water quality, create habitat (including oyster reefs) and reduce the current erosion rate. The Indian Point project will be implemented in partnership with the Texas General Land Office, the Port of Corpus Christi Authority and the City of Portland.

More information on the RESTORE Act and FPL 3b can be found at www.restorethegulf.gov.

Environmental Assessment Adopted

The EA is hereby incorporated by reference into this Council finding, consistent with the Council's NEPA Procedures (May 6, 2026). Prepared pursuant to NEPA, the EA analyzes the environmental impacts and cumulative effects of and alternatives for the Indian Point project. Additional environmental compliance coordination was completed for the *Fish and Wildlife Coordination Ac*t (FWCA), the *Endangered Species Act* (ESA), the *Magnuson-Stevens Fishery Conservation and Management Act* (MSA), and the *National Historic Preservation Act* (NHPA) during the environmental evaluation process for USACE Clean Water Act permit SWG-2020-00839.

Environmental Conditions

In addition to NEPA, the Council has an independent responsibility to comply with all other applicable Federal laws. To ensure compliance with FWCA, ESA, MSA, NHPA, and other relevant laws, the Council will require that the sponsor of the project adhere to all applicable conditions in the EA, USACE permit authorization, and the associated environmental compliance documents. Compliance with these conditions is mandatory and serves to limit the environmental effects of an action to those that are insignificant, discountable or beneficial, and do not result in take or adverse effects to designated critical habitat. The TCEQ is also responsible for ensuring that any contractors that may work on this project are aware of and comply with all of these environmental compliance requirements.

Finding of No Significant Impact

Based on an independent review of the information and analysis provided in the EA, the Council hereby issues this Finding of No Significant Impact (FONSI) for the Indian Point project. The EA is incorporated herein by reference. In making this determination, the Council has coordinated with the TCEQ, the sponsor of the activity. The Council has authorized the Executive Director of the Council to execute the FONSI on its behalf.

Determination by Responsible Official

I have determined that the Indian Point project would not have a significant effect on the human environment.

Mary S. Walker
Executive Director, Gulf Coast Ecosystem Restoration Council

(Signature) MARY WALKER Digitally signed by MARY WALKER Date: 2026.06.16 14:08:59 -05'00'

For Further Information

For further information, please contact Heather Young, Senior Advisor for Ecosystem Restoration and Environmental Compliance, Gulf Coast Ecosystem Restoration Council, at (504) 252-7716 or by e-mail at heather.young@restorethegulf.gov.

052MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for the Above-Referenced Standard Individual Permit Application

This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, as applicable, Public Interest Review, and Statement of Findings for the subject application.

1.0 Introduction and Overview: Information about the proposal subject to one or more of the Corps' regulatory authorities is provided in Section 1, detailed evaluation of the activity is found in Sections 2 through 11 and findings are documented in Section 12 of this memorandum. Further, summary information about the activity including administrative history of actions taken during project evaluation is attached (ORM2 Summary) and incorporated in this memorandum.

1.1 Applicant: Port of Corpus Christi Authority
222 Power Street
Corpus Christi, Texas 78401
POC: Ms. Sarah Garza
Telephone: 361-885-6163
Email: sarah@pocca.com

1.2 Activity location: The project site is located in Corpus Christi Bay at Indian Point, Portland, Texas. The project can be located on the U.S.G.S. quadrangle map titled: Portland, Texas.

1.3 Description of activity requiring permit: The discharge of a maximum of 5,000 cubic yards (cy) of sand along approximately 3 acres of the Indian Point shoreline to stabilize the soil, help absorb low-energy waves, and increase intertidal habitat conditions by establishing a stable slope for the shoreline. The sand fill will be placed along the shoreline below the High Tide Line (HTL) within the unvegetated bay bottom. Fill would not be placed within any existing seagrass areas. Nearshore segmented breakwaters placed in approximately 2 acres of bay bottom would further absorb wave energy offshore and create a low-energy environment in the lee area; they may be constructed of approximately 10,000 cy of material or units composed of concrete, rock, steel, mesh, geotextile, geogrid, bedding stone, piles, chains, anchors, floating platforms, oyster shell, or similarly placed within unvegetated bay bottom below the HTL. Oyster reefs would be constructed to provide new marine habitat; they would be composed of approximately 2,000 cy of shell hash, shell bags, live oysters, or similarly placed material within unvegetated bay bottom below the HTL in an approximate 1.5-acre area.

1.3.1 Proposed avoidance and minimization measures: The project was designed to avoid impacts to the greatest extent practicable while still meeting the project's purpose and need. The offshore breakwaters would be constructed using heavy construction equipment such as barge-mounted excavators, marsh excavators, or similar instead

of the placement of temporary fill. The beach fill would likely be constructed using land-based earthwork equipment such as loaders, mini excavators, and similar. The oyster reefs may be installed by hand and/or with heavy equipment such as an excavator. Silt curtains or approved equal Best Management Practices (BMPs) would be placed adjacent to existing seagrasses. The water depths are shallow where the silt curtains will be placed, but stakes may be used to secure the curtain if needed. Stakes would be either installed by hand or pushed into the bottom using an excavator. It is anticipated that the silt curtains would be stable, and the contractor would be required to monitor and maintain the curtains throughout construction to ensure their placement remains stable, and they function as needed.

1.3.2 Proposed compensatory mitigation: The applicant does not propose any compensatory mitigation as they believe the project will create environmental lift due to the nature of the proposed project.

1.4 Existing conditions and any applicable project history: The area has had significant shoreline erosion losing 720 feet between 1930 and 1985. Between 1985 and 2005, the site has been losing between 1 to 2 feet of beach per year. Between 2005 and 2011, the shoreline retreated ≈14.2 feet per year. While the shoreline has been relatively stable since 2011, historical images identified significant shifts after the beach areas had been breached, exposing the lagoons. Recent 2020 and 2021 storms have created a breach to the lagoon leaving critical habitat for piping plovers, red knot, and eastern black rail exposed to being lost due to future storms.

1.5 Permit Authority: Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act.

2.0 Scope of review for National Environmental Policy Act (i.e. scope of analysis), Section 7 of the Endangered Species Act (i.e. action area), and Section 106 of the National Historic Preservation Act (i.e. permit area):

2.1 Determination of scope of analysis for National Environmental Policy Act (NEPA):

The determination of the scope of analysis for the Corps federal action is guided by Corps NEPA implementing regulations at 33 CFR 325, Appendix B. The scope is established to address the impacts of the specific activity requiring a Department of the Army (DA) permit and those portions of the entire project over which the Corps has sufficient control and responsibility to warrant federal review. When determining whether there is sufficient control and responsibility to include portions of the project beyond the limits of the Corps jurisdiction in the scope, factors from Appendix B that may be considered include:

1) Whether or not the regulated activity comprises “merely a link” in a corridor type project; 2) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity; 3) The extent to which the entire project will be within Corps jurisdiction; and

4) The extent of cumulative Federal control and responsibility.

Once the scope of analysis is defined under NEPA, this is the geographic area within which the Corps is responsible for evaluating effects of activities. Direct, indirect, and cumulative effects of the activities within this scope will be evaluated.

The scope of analysis includes the specific activity requiring a Department of the Army permit. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

Final description of scope of analysis: The scope of analysis includes the project's footprint within the waters of the US and the upland portions of the project.

2.2 Determination of the “Corps action area” for Section 7 of the Endangered Species Act (ESA):

Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. “Action” is defined to mean all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States (US) or upon the high seas. In the context of this decision, the federal action being contemplated is authorization of an activity in waters of the US under one or more of the Corps regulatory authorities.

The action area includes those areas comprising waters of the US that will be directly affected by the proposed work or structures, as well as activities outside of waters of the US.

Final description of the action area: The action area includes the project's footprint within the waters of the US and the upland portions of the project.

2.3 Determination of permit area for Section 106 of the National Historic Preservation Act (NHPA):

The NHPA scope is defined as “permit area.” The permit area for an undertaking is defined in 33 CFR 325, Appendix C. Permit area means those areas comprising waters of the US that will be directly affected by the proposed work or structures and uplands directly affected as a result of authorizing the work or structures. The following three (3) tests must all be satisfied for an activity undertaken outside of waters of the US to be included within the “permit area”: 1) Such activity would not occur but for the authorization of the work or structures within the waters of the US; 2) Such activity is integrally related to the work or structures to be authorized within waters of the US (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and 3) Such activity is directly associated (first order impact) with the work or structures to be authorized.

The permit area includes those areas comprising waters of the US that will be directly

affected by the proposed work or structures, as well as activities outside of waters of the US because all three tests identified in 33 CFR 325, Appendix C(g)(1) have been met.

Final description of the permit area: The permit area includes the project's footprint within the waters of the US and the upland portions of the project.

3.0 Purpose and Need:

3.1 Purpose and need for the project as provided by the applicant and reviewed by the Corps: The Indian Point Causeway shoreline located adjacent to the Corpus Christi Bay in Portland, TX, has been experiencing erosion due to wave impact and lack of engineered shoreline stabilization. Thus, the current conditions of the shoreline leave the existing habitat and upland causeway and infrastructure vulnerable to damage during daily and storm conditions. This proposed living shoreline and breakwater project has been designed to improve these conditions by reducing onshore wave energy, increasing stabilization along the shoreline, introducing new intertidal and marine habitat areas.

3.2 Basic project purpose, as determined by the Corps: Conduct shoreline stabilization

3.3 Water dependency determination: The activity does require access or proximity to or siting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is water dependent in accordance with 40 CFR Part 230, Section 404(b)(1) Guidelines.

3.4 Overall project purpose, as determined by the Corps: To stabilize the shoreline at Indian Point in order to protect the adjacent State Highway 35 and adjacent critical habitat.

4.0 Coordination:

4.1 The results of coordinating the proposal on Public Notice (PN) are identified below, including a summary of issues raised (see Table 1).

Were comments received in response to the PN? Yes

Was a public meeting and/or hearing requested and, if so, was one conducted? No, no public hearing or meeting was requested.

Table 1 – PN Comments

Agency and/or Person provided with notice of proposal	Response received	Date Received	Comments/Issues Raised
US Environmental Protection Agency (EPA)	No		

Table 1 – PN Comments			
Agency and/or Person provided with notice of proposal	Response received	Date Received	Comments/Issues Raised
US Fish and Wildlife Service (FWS)	Yes	8 January 2021	See below for discussion.
National Marine Fisheries Service - Habitat Conservation Division (NMFS-HCD)	Yes	11 January 2021	No Objection
National Marine Fisheries Service - Protected Resources Division (NMFS-PRD)	No		
US Coast Guard (USCG)	No		
Texas Commission on Environmental Quality (TCEQ)	No		
Texas Parks and Wildlife Department (TPWD)	Yes	4 February 2021	See below for discussion.
Texas General Land Office (GLO)	Yes	11 January 2021	See below for discussion.
Texas State Historic Preservation Officer (SHPO)	Yes	5 February 2021	See below for discussion.

Additional discussion of submitted comments:

USFWS- The PN indicates that consultation with the Service will be initiated to assess the effect of the proposed project activities on threatened and endangered species or their critical habitat. Black skimmers and other waterbirds are known to nest in the project's vicinity. The Service recommends conducting work outside of the February 14 through September 1 peak waterbird nesting season, otherwise an equipment and activity setback distance of 1,000 feet (304 m) from rookery islands or nests along the shoreline should be maintained.

GLO- This will be a Tier 2, TCEQ review project due to the 3 acres of sand fill, 2 acres of breakwaters, and approximately 1.5 acres of oyster reef plus it is over the 3-acre threshold.

Mr. Kenneth Teague, 1/21/2021- The applicant should be required to formally monitor, using currently accepted seagrass monitoring protocols, the entire site, but with special emphasis on the existing seagrass bed. The primary purpose of this monitoring would be to ensure that the proposed project does not negatively impact the existing seagrass bed, but also to document any potential seagrass expansion

behind the new breakwaters. If there is a net loss of seagrass area or quality following construction of the project, the applicant must be required to provide compensatory mitigation.

TPWD- The applicant should indicate the staging sites for the materials and heavy equipment on the project plans. To ensure that BMP's were effective, the applicant should conduct post-construction surveys on the existing seagrass beds and oyster reefs. Any net loss should be accounted for with compensatory mitigation. The applicant's proposed site plan indicates the construction corridor and the optional temporary access path but does not provide information if dredging will be required for the equipment and barge access. The applicant should utilize the footprints of the primary breakwaters if dredging is required for equipment or barge access during construction.

SHPO- No identified underwater archeological sites, historic shipwrecks, and/or significant remote-sensing targets present or affected. However, if buried cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

- No identified historic properties, archeological sites, or other cultural resources are present or affected. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.
- THC/SHPO concurs with information provided for the underwater project area.
- THC/SHPO concurs with information provided.

4.2 Internal coordination conducted within the Galveston District Corps (Corps) offices on: 29 December 2020

The Programs and Project Management Division, Real Estate (RE) Division, Operations Division (OD-Navigation Branch and OD-Operations Branch), Engineering and Construction Division (including area offices) (E&C), Southwestern Division Regional Planning and Environmental Center (RPEC), Project Management Office (PM), and the Regulatory Division's Compliance Branch (RD-C) and Corps staff archeologist (RD-P) were coordinated with during the Internal Review period. Reference Table 2 for summary of responses received.

Table 2 – Corps Internal Coordination Comments			
Corps Office	Response received	Date Received	Comments/Issues Raised
RE	Yes	31 December 2020	No Objection
OD-Navigation Branch	Yes	31 December 2020	No Objection
OD-Operations Branch	Yes	29 December 2020	No Objection
E&C	No		
RPEC	No		
PM	No		
RD-C	No		
RD-P	Yes	4 January 2021	See Section 10.3

4.3 Were comments and/or concerns forwarded to the applicant for response? Yes

USFWS Request: The species may be present in all of the Texas coastal counties year-round. The species is most vulnerable during breeding, chick rearing, and the flightless molt period. Where black rails are present, avoid disturbance activities March 1st through September 30th in suitable black rail habitat (e.g., dense overhead cover, moist soils that are occasionally dry and interspersed or adjacent to shallow water, depths up to 5 cm but typically <3 cm) as described in the Final Rule (pgs. 63767, 63798, and 63800).

Applicant Response: It is understood that project-related avoidance measures for threatened and endangered species are currently being coordinated between USACE and USFWS through the Endangered Species Act (ESA) Section 7 Informal Consultation process and do not need to be addressed as part of this response to resource agency and public comment.

TWPD: The applicant should indicate the staging sites for the materials and heavy equipment on the project plans. To ensure that BMP's were effective, the applicant should conduct post-construction surveys on the existing seagrass beds and oyster reefs. Any net loss should be accounted for with compensatory mitigation. The applicant should utilize the footprints of the primary breakwaters if dredging is required for equipment or barge access during construction.

Applicant Response: The contractor will have the option of staging equipment and material offsite, on barges within the designed construction limits, or within select upland areas. Mott MacDonald anticipates that upland staging will be allowed within the Indian Point Pier parking lot at the eastern side of the project site and along the access road at the western side of the project site. However, agreements with property owners for staging areas have not been established yet, as coordination to

establish permissible staging areas will be performed during final design. Furthermore, marine staging will be limited to the construction corridor shown on the permit drawings, as the contractor may choose to store materials on barges. Equipment and material will not be staged within any of the surveyed wetlands, oyster, or seagrass habitat areas. Constructions mats or similar will also be utilized within any land access areas to minimize disturbance to the shoreline and vegetation. The applicant recognizes that numerous seagrass beds and oyster reefs exist in proximity to the project area and understands the ecological role that they play in the bay and adjacent waters. It is for this reason that BMPs such as weighted silt screens and turbidity curtains are to be utilized during construction activities. As a result, the implementation of BMPs, which exist for the purposes of significantly reducing or eliminating turbidity-related impacts to local seagrass and oysters, create an environment where seagrass monitoring is unnecessary and cost prohibitive. It is also the applicant's opinion that post-construction habitat monitoring surveys are not necessary as this project is specifically designed to improve habitat conditions for seagrass and wetlands and provide new aquatic habitat for marine life. Should any unexpected seagrass losses occur, it is anticipated that the project will self-mitigate as the site acclimates and new growth establishes. An optional access path is shown in the drawings to provide contractors the option of performing localized and limited excavation in order to improve access for construction equipment, as the breakwaters will likely need to be constructed from water. Localized sediment excavation may be needed to improve vessel and barge access due to shallow conditions at the site. After construction, the contractor will be required to replace the excavated material and the seabed to pre-construction conditions and elevations.

4.4 Corps' evaluation of applicant's response:

The majority of the agency requests regarded minimization measures required under various permits or were included in consults with agencies and not included on the public notices. BMPs for water quality certifications, minimization measures for ESA listed species, and water protective measures were not included in the PN since they would have been covered under the 401 process. The BMPs and protective measures for the ESA consult process are not included in the PN, which states the Corps will initiate the process. The applicant addressed the PN comments that were forwarded satisfactorily and were forwarded to the various agencies that provided the comments if needed.

4.5 Were comments raised that do not require further discussion because they address activities and/or effects outside of the Corps' purview or within the Corps purview but not relevant to the proposed project's review? Yes

USFWS responded with recommendations regarding the Migratory Bird Treaty (MBT). The permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts to migratory birds or eagles, including whether ''incidental take''

permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity and is outside the Corps Purview.

5.0 Alternatives Analysis:
(33 CFR Part 325 Appendix B(7), 40 CFR 230.5(c) and 40 CFR 1502.14). An evaluation of alternatives is required under NEPA for all jurisdictional activities. An evaluation of alternatives is required under the Section 404(b) (1) Guidelines for projects that include the discharge of dredged or fill material. NEPA requires discussion of a reasonable range of alternatives, including the no action alternative, and the effects of those alternatives; under the Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative.

5.1 Site selection/screening criteria: In order to be practicable, an alternative must be available, achieve the overall project purpose (as defined by the Corps), and be feasible when considering cost, logistics and existing technology.

Criteria for evaluating alternatives as evaluated and determined by the Corps: A key provision of the 404(b)(1) guidelines is the “practicable alternative test” which requires that “no discharge of fill material shall be permitted if there is a practicable alternative to the proposed fill which would have a less adverse impact on the aquatic ecosystem.” This is especially true when the proposed project is not water dependent. The applicant must demonstrate that there are no less damaging sites available and that all onsite impacts to waters of the US have been avoided to the maximum practicable extent possible. For an alternative to be considered “practicable”, it must be available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purpose. The applicant considered the following siting criteria to determine the preferred alternative:

1. Protection to shoreline, vegetation, and critical habitat
2. Resilience to storms
3. Cost
4. Oyster Growth

Alternatives were considered based on the above siting criteria and will be rated 1-5, with 5 being the highest for each criterion. Any score of 1 would not meet the project’s purpose and need.

5.2 Description of alternatives:

5.2.1 No action alternative: The no action alternative results in no construction requiring a Corps permit and may include either the applicant electing to modify the proposal to eliminate work in waters of the US, or denial of the permit. In this instance a permit authorizing the discharge of fill material into waters of the US would either not be required or be denied. In either case no fill would be authorized to be discharged into

any waters of the US or special aquatic site. The proposed project site would not be protected by the project for this project and the wetlands on the project sites functions and habitat would eventually lose due to natural processes.

5.2.2 Off-site alternatives: No off-site alternatives were considered as it would not meet the project's purpose and need of protecting the shoreline at Indian Point.

5.2.3 On-site alternatives:

On-site alternative 1 (applicant's preferred alternative): The preferred alternative is the nearshore segmented breakwaters at -2 ft NAVD88 with protected gaps; primary breakwaters constructed of rock and gap protection breakwaters constructed of artificial reef units. In addition, the living shoreline and beach fill component will be included in this alternative.

On-site alternative 2: This alternative includes constructing segmented armor stone breakwaters along the -3.5 ft NAVD88 contour within the project site. The breakwaters would be located approximately 680 ft from the shoreline at the farthest point.

On-site alternative 3: This alternative includes constructing segmented breakwaters out of artificial reef units along the -3.5 ft NAVD88 contour within the project site. The artificial reef breakwaters would be located approximately 680 ft from the shoreline at the farthest point.

On-site alternative 4: This alternative includes constructing segmented armor stone breakwaters along the -2.0 ft NAVD88 contour within the project site. The breakwaters would be located approximately 560 ft from the shoreline at the farthest point.

On-site alternative 5: This alternative includes constructing segmented breakwaters out of artificial reef units along the -2.0 ft NAVD88 contour within the project site. The artificial reef breakwaters would be located approximately 560 ft from the shoreline at the farthest point.

On-site alternative 6: This alternative includes constructing segmented armor stone breakwaters along the -2.0 ft NAVD88 contour and armor stone gap protection breakwaters within the project site. This alternative is similar to Alternative No. 4, with the additional of smaller breakwaters to be located opposite the gaps between the larger breakwaters.

On-site alternative 7: This alternative includes constructing segmented breakwaters constructed of artificial reef units along the -2.0 ft NAVD88 contour and gap protection breakwaters constructed out of artificial reef units. This is similar to

Alternative No. 6, with the additional of shorter breakwaters to be located opposite the gaps between the longer breakwaters.

5.3 Evaluate alternatives and whether or not each is practicable under the Guidelines or reasonable under NEPA:

Alternatives were considered based on the below siting criteria and will be rated 1-5, with 5 being the highest for each criterion. Any score of 1 would not meet the project's purpose and need.

1. Protection to shoreline, vegetation, and critical habitat
2. Resilience to storms
3. Cost
4. Oyster Growth

Alternative	Protection to shoreline, vegetation, and critical habitat	Resilience	Cost	Oyster Growth	Total Score
1	5	5	2	3	15
2	3	5	4	1	13
3	1	2	2	3	8
4	3	5	2	1	11
5	2	2	2	4	10
6	5	5	3	2	15
7	3	3	4	4	14

No Action Alternative: At this project site, the no-action alternative involves allowing erosion and damage during daily and storm conditions to continue without any planed intervention. Although there is no up-front cost to this alternative, doing nothing can result in much higher costs in the future. The no-action alternative would lead to damage and/or potential loss of critical shoreline and marsh habitat, upland property and roadways. Furthermore, the no-action alternative does not provide any new habitat, nor does it offer protection to the existing habitat. For these reasons, the no-action alternative does not meet the projects' purpose and need.

On-Site Alternative 1: Alternative 1 is practicable for the selected criteria.

On-Site Alternative 2: Alternative 2 is not practicable for the selected criteria. This alternative would not include artificial habitat for oysters and would not meet criteria 4.

On-Site Alternative 3: Alternative 3 is not practicable for the selected criteria. This alternative would not provide adequate shoreline protection or vegetation, has an overall high cost, and high expected future costs, while still leaving critical habitat and public infrastructure vulnerable to storm damage. This alternative would not meet criterion 1.

On-Site Alternative 4: Alternative 4 is not practicable for the selected criteria. This alternative would not include artificial habitat and would not meet criteria 4.

On-Site Alternative 5: The alternative is practicable for the selected criteria.

On-Site Alternative 6: The alternative is practicable for the selected criteria.

On-Site Alternative 7: The alternative is practicable for the selected criteria

5.4 Least environmentally damaging practicable alternative under the 404(b)(1) Guidelines (if applicable) and the environmentally preferable alternative under NEPA:

On-Site Alternative 1: The purpose of the shoreline restoration and planting aspect of the preferred alternative is to help establish a living shoreline within the project site. The rock and artificial reef unit breakwater component aim to reduce wave heights at the shoreline by decreasing wave transmission further offshore. By reducing wave transmission further offshore, this is anticipated to create a low-energy water environment in the lee of the breakwaters, thereby reducing the risk of erosion along the shoreline, protecting the upland area from unobstructed wave attack, providing suitable conditions to protect existing seagrass, and encouraging the growth of new vegetation. This alternative is tied for the highest overall score with alternative 6; however, this alternative has a smaller total impact on the aquatic environment. On-site alternative 1 would be the LEPDA.

On-Site Alternative 5: This alternative is located within shallower water depths than Alternative No. 3; however, since reef units are produced in specific sizes, there is little flexibility in the arrangement of the structures. Therefore, to achieve the desired wave attenuation level, the breakwaters may end up being the same or similar size and layout as Alternative No. 3, resulting in little or no cost and material savings. This alternative has relatively low overall protection from storm surge. It would have a very low resiliency to storm surge, which would likely drive-up long-term costs due to constant repair of the breakwaters and associated shoreline.

On-Site Alternative 6: The alternative is practicable for the selected criteria. The use of artificial reef units would increase the amount of aquatic habitat; however, they would likely need to be designed with a large footprint to provide the desired level of wave attenuation, which would increase the project's overall cost. This alternative is tied for the highest overall score with alternative 1; however, this alternative has the largest overall impact on the aquatic environment.

On-Site Alternative 7: The alternative is practicable for the selected criteria; however, the use of artificial reef units would increase the amount of aquatic habitat; however, they would likely need to be designed with a large footprint to provide the desired level of wave attenuation. This alternative would provide a mid-level of shoreline, vegetation, and critical habitat protection and resiliency, with the second-highest overall oyster growth and third-highest overall aquatic impacts.

6.0 Evaluation for Compliance with the Section 404(b)(1) Guidelines:
The following sequence of evaluation is consistent with 40 CFR 230.5

6.1 Practicable alternatives to the proposed discharge consistent with 40 CFR 230.5(c) are evaluated in Section 5. The statements below summarize the analysis of alternatives.

In summary, based on the analysis in Section 5.0 above, the no-action alternative, alternatives 2, 3, and 4 are not practicable.

For those projects that would discharge into a special aquatic site and are not water dependent, the applicant has demonstrated there are no practicable alternatives that do not involve special aquatic sites.

It has been determined that there are no alternatives to the proposed discharge that would be less environmentally damaging. (Subpart B, 40 CFR 230.10(a)). The proposed discharge in this evaluation is the practicable alternative with the least adverse impact on the aquatic ecosystem, and it does not have other significant environmental consequences.

6.2 Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)). Each disposal site shall be specified through the application of these Guidelines:

Reference Table 3.

Table 3 – Candidate Disposal Site Delineation	
Depth of water at the disposal site	X
Current velocity, direction, and variability at the disposal site	X
Degree of turbulence	X
Stratification attributable to causes such as obstructions, salinity, or density profiles at the disposal site	X
Discharge vessel speed and direction	X
Rate of discharge	X
Ambient concentration of constituents of interest	X
Dredged material characteristics, particularly concentrations of constituents, amount of material, type of material (sand, silt, clay, etc.) and settling velocities	X
Number of discharge actions per unit of time	X
Other factors of the disposal site that affect the rates and patterns of mixing	X

Discussion: N/A

6.3 Potential impacts on physical and chemical characteristics of the non-living environment (Subpart C, 40 CFR 230.20). Reference Table 3:

Table 3 – Potential Impacts on Physical and Chemical Characteristics						
Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Substrate				X		
Suspended particulates/ turbidity				X		
Water				X		
Current patterns and water circulation						X
Normal water fluctuations		X				
Salinity gradients		X				

Discussion:

Minor Short Term: There will be minor short-term effects during construction, and they are expected to return to pre-construction conditions shortly after the project is completed.

Major Effects: There will be major effects on the water current and circulation at the project site, and it is expected to be permanent. However, the changes are expected to benefit the environment that project location by protecting critical and sensitive habitats.

6.4 Potential impacts on the living communities or human uses (Subparts D, E and F):

6.4.1 Potential impacts on the biological characteristics of the aquatic ecosystem (Subpart D 40, CFR 230.30). Reference Table 4:

Table 4 – Potential Impacts on Biological Characteristics						
Biological characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Threatened and endangered species				X		
Fish, crustaceans, mollusk, and other aquatic organisms				X		
Other wildlife				X		

Discussion:

Minor Short Term: There will be minor short-term effects during construction, and they are expected to return to pre-construction conditions shortly after the project is completed.

6.4.2 Potential impacts on special aquatic sites (Subpart E, 40 CFR 230.40). Reference Table 5:

Table 5 – Potential Impacts on Special Aquatic Sites						
Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Sanctuaries and refuges	X					
Wetlands			X			
Mud flats			X			
Vegetated shallows		X				
Coral reefs	X					
Riffle pool complexes	X					

Discussion:

No Effect: While there are vegetated shallows present outside of the project area, the use of BMPs will prevent any impacts to vegetated shallows.

Negligible: There would be negligible effects to wetlands and mudflats during construction; however, they are expected to return to normal once construction is complete.

6.4.3 Potential impacts on human use characteristics (Subpart F, 40 CFR 230.50). Reference Table 6:

Table 6 – Potential Impacts on Human Use Characteristics						
Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Municipal and private water supplies	X					
Recreational and commercial fisheries				X		
Water-related recreation				X		
Aesthetics				X		

Table 6 – Potential Impacts on Human Use Characteristics						
Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves	X					

Discussion: Minor Short Term: There will be minor short-term effects to recreational and commercial fisheries, water related activities, and aesthetics during construction, and they are expected to return to pre-construction conditions shortly after the project is completed.

6.5 Pre-testing evaluation (Subpart G, 40 CFR 230.60):

The following has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. Reference Table 7:

Table 7 – Possible Contaminants in Dredged/Fill Material	
Physical characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	X
Results from previous testing of the material or similar material in the vicinity of the project	X
Known, significant sources of persistent pesticides from land runoff or percolation	X
Spill records for petroleum products or designated (Section 331 of CWA) hazardous substances	X
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	X
Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	X

Discussion: N/A

It has been determined that testing is not required because the proposed material is not likely to be a carrier of contaminants because it is comprised of sand, gravel or other naturally occurring inert material.

6.6 Evaluation and testing (Subpart G, 40 CFR 230.61):

Discussion: N/A

6.7 Actions to minimize adverse impacts (Subpart H). The following actions, as appropriate, have been taken through application of recommendations of 40 CFR 230.70-230.77 to ensure minimal adverse effects of the proposed discharge. Reference Table 8:

Table 8 – Actions to Ensure Adverse Effects are Minimized	
Actions concerning the location of the discharge	X
Actions concerning the material to be discharged	X
Actions controlling the material after discharge	X
Actions affecting the method of dispersion	X
Actions affecting plant and animal populations	X
Actions affecting human use	X

Discussion: N/A

6.8 Factual Determinations (Subpart B, 40 CFR 230.11). The following determinations are made based on the applicable information above, including actions to minimize effects and consideration for contaminants. Reference Table 9:

Table 9 – Factual Determinations of Potential Impacts						
Site	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect
Physical substrate				X		
Water circulation, fluctuation and salinity						X
Suspended particulates/turbidity				X		
Contaminants	X					
Aquatic ecosystem and organisms				X		
Proposed disposal site		X				
Cumulative effects on the aquatic ecosystem			X			
Secondary effects on the aquatic ecosystem			X			

Discussion: See section 6.3

6.9 Findings of compliance or non-compliance with the restrictions on discharges (40 CFR 230.10(a-d) and 230.12). Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur. Reference Table 10:

Table 10 – Compliance with Restrictions on Discharge		
Subject	Yes	No
Is there a practicable alternative to the proposed discharge that would have less adverse impacts on the aquatic ecosystem (notwithstanding an alternative that may have more aquatic resource impacts but was evaluated above because the alternative with the least aquatic resource impacts has other significant adverse environmental consequences)?		X
Will the discharge cause or contribute to violations of any applicable water quality standards?		X
Will the discharge violate any toxic effluent standards (under Section 307 of the Act)?		X
Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?		X
Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries?		X
Will the discharge cause or contribute to significant degradation of waters of the U.S.?		X
Have all appropriate and practicable steps (Subpart H, 40 CFR 230.70) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?	X	

Discussion: N/A

7.0 General Public Interest Review:
(33 CFR 320.4 and RGL 84-09). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest as stated at 33 CFR 320.4(a). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR 320.4(b) through (r). The benefits which reasonably may be expected to accrue from the proposal are balanced against its reasonably foreseeable detriments.

7.1 All public interest factors have been reviewed and those that are relevant to the proposal are considered and discussed in additional detail. Reference Table 11 and any discussion that follows:

Table 11 – Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	N/A
1. Conservation	X					
2. Economics				X		

Table 11 – Public Interest Factors	Effects					
	None	Detrimental	Neutral (mitigated)	Negligible	Beneficial	N/A
3. Aesthetics				X		
4. General Environmental Concerns					X	
5. Wetlands				X		
6. Historic Properties						X
7. Fish and Wildlife Values					X	
8. Flood Hazards						X
9. Floodplain Values						X
10. Land Use				X		
11. Navigation				X		
12. Shore Erosion and Accretion					X	
13. Recreation					X	
14. Water Supply and Conservation						X
15. Water Quality				X		
16. Energy Needs						X
17. Safety					X	
18. Food and Fiber Production						X
19. Mineral Needs						X
20. Consideration of Property Ownership					X	
21. Needs and Welfare of the People					X	

Discussion:

Negligible Effects: The project would have a temporary negative effect during construction activities due to disturbances to the surrounding environment in the forms of added turbidity in the water column, added human presence, wetland impacts, land use, navigation, and noise higher than ambient levels. All of these effects would return to normal levels once the project is complete and construction activities have ceased. The project will also not change the current baseline in such a way that the public interests in this area will change.

Beneficial Effects: The project will have a beneficial effect on general environmental concerns, fish and wildlife values, shore erosion and accretion, recreation, safety, property ownership, and the needs and welfare of the people. The loss of the lagoon's shoreline protection would put local infrastructure in jeopardy from storms and hurricanes. Wildlife values would be drastically affected as the area is critical habitat for piping plover and proposed critical habitat for eastern black rail. The area is also spawning and nursing habitat for migratory birds and various aquatic species.

Historic Properties Factor: See Section 10.3 of this document for information regarding how the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA.

7.1.1 Climate Change. The proposed activities within the Corps federal control and responsibility likely will result in a negligible release of greenhouse gases into the atmosphere when compared to global greenhouse gas emissions. Greenhouse gas emissions have been shown to contribute to climate change. Aquatic resources can be sources and/or sinks of greenhouse gases. For instance, some aquatic resources sequester carbon dioxide whereas others release methane; therefore, authorized impacts to aquatic resources can result in either an increase or decrease in atmospheric greenhouse gas. These impacts are considered de minimis. Greenhouse gas emissions associated with the Corps federal action may also occur from the combustion of fossil fuels associated with the operation of construction equipment, increases in traffic, etc. The Corps has no authority to regulate emissions that result from the combustion of fossil fuels. These are subject to federal regulations under the Clean Air Act and/or the Corporate Average Fuel Economy (CAFE) Program. Greenhouse gas emissions from the Corps action have been weighed against national goals of energy independence, national security, and economic development and determined not contrary to the public interest.

7.2 The relative extent of the public and private need for the proposed structure or work:

The loss of the shoreline protecting the lagoon and sunset lake would leave state highway 181 unprotected from storm surges. If the project was not completed it could cause the need for SHW 181 to be redesigned or heavily armored to protect it from natural forces costing the public millions of dollars.

7.3 If there are unresolved conflicts as to resource use, explain how the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work was considered.

Discussion: N/A

7.4 The extent and permanence of the beneficial and/or detrimental effects that the proposed work is likely to have on the public and private use to which the area is suited:

Detrimental effects are expected to be minimal and temporary.

Beneficial effects are expected to be more than minimal and permanent.

8.0 Mitigation:
(33 CFR 320.4(r), 33 CFR Part 332, 40 CFR 230.70-77, 40 CFR 1508.20 and 40 CFR 1502.14)

8.1 Avoidance and Minimization: When evaluating a proposal including regulated activities in waters of the US, consideration must be given to avoiding and minimizing effects to those waters. Avoidance and minimization measures are described above in Sections 1 and 3.

Were any other mitigative actions including project modifications discussed with the applicant that were implemented to minimize adverse project impacts? (see 33 CFR 320.4(r)(1)(i)) No

8.2 Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the US? No

If no, rationale: While the project will have the overall loss of waters of the US, the project is expected to be a net benefit to the aquatic, natural, and human environment.

9.0 Consideration of Cumulative Impacts:
(40 CFR 230.11(g) and 40 CFR 1508.7, RGL 84-9) Cumulative impacts result from the incremental environmental impact of an action when added to all other past, present, and reasonably foreseeable future actions. They can result from individually minor but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider both direct and indirect, or secondary, impacts. Indirect impacts result from actions that occur later in time or are farther removed in distance from the original action, but still reasonably foreseeable.

Every permit application must be considered on its own merits. Its impacts on the environment must be assessed in light of historical permitting activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause a significant impairment of water resources and interfere with the productivity and water quality of existing aquatic ecosystems.

Cumulative impacts can result from many different activities including the addition of materials to the environment from multiple sources, repeated removal of materials or organisms from the environment, and repeated environmental changes over large areas and long periods. More complicated cumulative effects occur when stresses of different types combine to produce a single effect or suite of effects. Large, contiguous habitats can be fragmented, making it difficult for organisms to locate and maintain populations between disjunctive habitat fragments. Cumulative impacts may also occur when the timings of perturbations are so close in space that their effects overlap.

9.1 Identify/describe the direct and indirect effects of the proposed activity:
The project would directly affect approximately 2-acres of intertidal and subtidal waters. The direct effect would be a temporary increase in suspended sediments in

the immediate area surrounding the in-water work and a temporary removal of the benthic community in the area. There would be a temporary decrease in prey species in the area during and immediately following the dredging project due to loss of substrate and reconstructed beach. There would be an increase in shoreline aquatic vegetation and an increase in the aquatic environment from the seeding of oysters and the create of the oyster beds. The indirect effects from the proposed project would include the decrease sediment transport after the installations of the new breakwaters.

9.2 The geographic scope for the cumulative effects assessment is: The project and its effects will be limited to a small portion of the North Corpus Christi Bay watershed (Hydrologic Unit Code (HUC) 12110201). Approximately 27% of the watershed is open water, 15% of the watershed is wetland, 36% is pastureland and 10% is developed open space, and 12% forested, shrub, and grassland according to the 2016 National Land Cover Database. The projects watershed covers a small portion Nueces County. The primary rivers in the watershed drain into the Corpus Christi Bay.

9.3 The temporal scope of this assessment covers: A review of the National Land Cover Database for the watershed spanning 15 years (2001-2016) and an ORM overall impacts search was performed. Similarly, the Corps analysis will estimate future impacts for the next five years.

9.4 Describe the affected environment: Key resources of concern in this watershed are water quality degradation, loss of undeveloped land, loss of aquatic resources, and fragmentation of natural habitat.

Past and present actions, outside the Corps jurisdiction, that have been constructed include infrastructure, commercial and residential developments, parks and recreational areas, and industrial areas. While these actions did not require a Corps permit, they did require City and/or County approval prior to construction.

Past and present actions, within the Corps jurisdiction, that have been authorized for impacts within the scope of this assessment were analyzed by a review of the Corps regulatory database. It is important to note that not every action that was authorized has resulted in a loss of Waters of the US. Many permits are authorized and not constructed for a variety of reasons. Nevertheless, a review of authorized activities does provide some indication of potential stressors, and potential impacts, on the environment. The aggregated effect of past actions resulted in the authorization to impact approximately 235 acres of waters of the US. These permitted impacts also required compensatory mitigation resulting in the mitigation through varies means of approximately 384-acres of waters of the US resulting in a net increase of waters of the U.S.

When considering the overall impacts that will result from this project, in context with the overall impacts from similar past, present, and reasonably foreseeable future

projects, their cumulative impacts are not considered to be significantly adverse. It is likely we will receive similar projects in the future, which will go through a comparable review process.

9.5 Determine the environmental consequences: Reasonably foreseeable future actions within this watershed include construction of this project and other planned developments to meet future demands of a growing population. Associated infrastructure, such as schools, roadways, business parks, transportation of goods and services; and more pipelines to transfer liquids, such as liquid natural gas and water may be constructed. The need for these actions is expected to be driven by market demands, population increases, and economics.

The impacts from these present and future actions on the watershed's aquatic resources, if constructed/completed, include upland habitat losses and disturbance; temporary impacts to water quality; continued flooding during storm events; and development pressure on aquatic areas requiring Corps permits.

9.6 Discuss any mitigation to avoid, minimize or compensate for cumulative effects: No sensitive resources, in the form of seagrass, or wetlands were found within the project footprint or disposal site. There is a seagrass outside the project footprint and one oyster bed within the expected impact zone. The oyster bed in not expected to be impacts from the proposed project and the project will place additional oyster beds. A silt curtain and appropriate BMP's will be installed prior to dredging to maintain existing water turbidity levels in the project area and to protect any resources outside the project footprint.

9.7 Conclusions regarding cumulative impacts:

When considering the overall impacts that will result from the proposed activity, in relation to the overall impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in the area described in section 9.2, are not considered to be significant. Compensatory mitigation will not be required to help offset the impacts to eliminate or minimize the proposed activity's incremental contribution to cumulative effects within the geographic area described in Section 9.2. Mitigation required for the proposed activity is discussed in Section 8.0.

10.0 Compliance with Other Laws, Policies, and Requirements:

10.1 **Section 7(a)(2) of the Endangered Species Act (ESA):** Refer to Section 2.1 for description of action area for Section 7.

10.1.1 Has another federal agency been identified as the lead agency for complying with Section 7 of the ESA with the Corps designated as a cooperating agency and has that consultation been completed? No

10.1.2 Are there listed species, or designated critical habitat present or in the vicinity of the Corps' action area: Yes

Name of species and/or critical habitat considered: green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), and Loggerhead sea turtle (*Caretta caretta*), and West Indian manatee (*Trichechus manatus*), giant manta ray (*Manta birostris*), whooping crane (*Grus americana*), piping plover (*Charadrius melodus)*; red knot (*Calidris canutus rufa)*, Eastern black rail (*Laterallus jamaicensis ssp. Jamaic*)

Effect determination(s): May affect, not likely to adversely affect

Basis for determination(s): The proposed activity may affect, but is not likely to adversely affect the above listed species and/or its critical habitat based on the location of the proposed project within critical habitat for the piping plover and the nature of the activity that includes vessel traffic and the placement of rocky structures within turbid marine waters were turtles maybe hard to identify. The project includes the discharge of fill material into critical habitat for piping plover; however, the discharge will be a net benefit to the local habitat due to providing additional storm surge protection and preventing further erosion from removing the last protective barrier to the lagoons.

10.1.3 Consultation with either the National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service was initiated and completed as required, for any determinations other than "no effect" (see the attached ORM2 Summary sheet for begin date, end date and closure method of the consultation).

Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 7(a) (2) of the ESA. The documentation of the consultation is incorporated by reference.

10.2 **Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), Essential Fish Habitat (EFH):**

10.2.1 Has another federal agency been identified as the lead agency for complying with the EFH provisions of the Magnuson-Stevens Act with the Corps designated as a cooperating agency and has that consultation been completed? No

10.2.2 Did the proposed project require review under the Magnuson-Stevens Act? Yes

10.2.3 EFH species or complexes considered: The following is a summary of the type of species listed in the Gulf of Mexico Fishery Management Plans: red drum, triggerfishes (Balistidae), jacks (Carangidae), wrasses (Labridae), snappers (Lutjanidae), tilefishes (Malacanthidae), groupers (Serranidae), and coastal migratory pelagic species, shrimps, stone crabs, and spiny lobsters.

Effect determination: Minimal adverse effect

Basis for determination: Effects to fish habitat are temporary and minimal. Baseline habitat conditions are expected to return once the project is complete.

Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under EFH provisions of the Magnuson-Stevens Act.

10.3 **Section 106 of the National Historic Preservation Act (Section 106):** Refer to Section 2.2 for permit area determination.

10.3.1 Has another federal agency been identified as the lead federal agency for complying with Section 106 of the National Historic Preservation Act with the Corps designated as a cooperating agency and has that consultation been completed? No

10.3.2 Known historic properties? No, there are no cultural resources present and no survey is needed.

Effect Determination(s): No potential to cause effects

Basis for determination(s): The Corps staff archaeologist reviewed the project site for cultural resources and found that there are no previously recorded historic properties known to exist within the proposed permit area.

In addition, the permit area has been so extensively impacted by erosion that there is no potential for historic properties to exist within the permit area. Therefore, the proposed project has no potential to effect historic proper

Based on a review of the information above, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA. Compliance documentation incorporated by reference.

10.4 **Tribal Trust Responsibilities:**

10.4.1 Was government-to-government consultation conducted with Federally-recognized Tribe(s)? No, consultation with tribes was not required.

Provide a description of any consultation(s) conducted including results and how concerns were addressed.

The Corps has determined that it has fulfilled its tribal trust responsibilities.

10.4.2 Other Tribal including any discussion of Tribal Treaty rights? N/A

10.5 **Section 401 of the Clean Water Act – Water Quality Certification (WQC):**

10.5.1 Is a Section 401 WQC required, and if so, has the certification been issued or waived? An individual WQC is required and was waived by the certifying authority.

10.5.2 401(a)(2) Process
Did EPA make a determination that the discharge 'may affect' water quality in a neighboring jurisdiction? No

10.6 **Coastal Zone Management Act (CZMA):**

10.6.1 Is a CZMA consistency concurrence required, and if so, has the concurrence been issued, waived or presumed? An individual CZMA consistency concurrence is required and has been issued by the appropriate agency.

The applicant has stated that the proposed activity complies with Texas' approved Coastal Management Program (CMP) and will be conducted in a manner consistent with such program. The GLO/Texas Coastal Coordination Council (CCC) was notified of the proposed project in the PN. As of the date of this Statement of Findings, no written response from the CCC/GLO was received. Since more than 15 days have passed since the issuance of the PN, in accordance with the GLO/CCC's General Concurrence #1 (Revised May 18, 2004) the GLO/CCC is deemed to have concurred that the proposed activity is consistent with the CMP goals and policies.

10.7 **Wild and Scenic Rivers Act:**

10.7.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system? No

The Corps has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.

10.8 **Effects on Corps Civil Works Projects (33 USC 408):**

10.8.1 Does the applicant also require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because the activity, in whole or in part, would alter, occupy, or use a Corps Civil Works project? No, the appropriate non-Regulatory office has determined that there will be no effects to federal projects that require permission from the Corps.

10.9 **Corps Wetland Policy (33 CFR 320.4(b)):**

10.9.1 Does the project propose to impact wetlands? Yes

10.9.2 Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

10.10 **Other (as needed):** N/A

11.0 Special Conditions:

11.1 Are special conditions required to protect the public interest, ensure effects are not significant and/or ensure compliance of the activity with any of the laws above? Yes

11.2 Required special condition(s):

Special condition(s):

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. When structures or work authorized by this permit are determined by the District Engineer to have become abandoned, obstructive to navigation or cease to be used for the purpose for which they were permitted, such structures or other work must be removed, the area cleared of all obstructions, and written notice given to the Corps of Engineers, Galveston District, Regulatory Division, Corpus Christi Field Office (Corps), within 30 days of completion.

3. The permittee must install and maintain, at the permittee's expense, any safety lights, signs and signals required by U.S. Coast Guard, through regulations or otherwise, on the permittee's fixed structures. To receive a U.S. Coast Guard Private Aids to Navigation marking determination, at no later than 30 days prior to installation of any fixed structures in navigable waters and/or prior to installation of any floating private aids to navigation, you are required to contact the Eighth Coast Guard District (dpw), 500 Poydras St. Suite 1230, New Orleans, LA 70130, (504) 671-2328 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation please visit the Eight Coast Guard District web site at: http://www.uscg.mil/d8/waterways/PATON.Home.asp

4. The permittee shall comply with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (Number FWS 02ETTX00-2021-I-2717, dated July 28, 2021) and National Marine Fisheries Service letter of concurrence

(Number NMFS SERO-2021-00166, dated July 23, 2021), including those ascribed to the Corps therein. If you are unable to implement any of these measures, you must immediately notify the Corps, the U.S. Fish and Wildlife Office, and the National Marine Fisheries Service so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

Rationale: In accordance with 33 CFR 325.4 Conditioning of permits, the district engineer will add special conditions to Department of Army permits when such conditions are necessary to satisfy legal requirements or to otherwise satisfy the public interest requirements. The above special conditions are required for fulfillment of the public interest requirements specified according to 33 CFR 320.4(o)(3) Navigation and 33 CFR 320.4(g) Consideration of property ownership, Endangered Species Act (*40 CFR 230.30*), and 404(b)(1) Guidelines.

12.0 Findings and Determinations:

12.1 Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed deminimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

12.2 Presidential Executive Orders (EO):

12.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.

12.2.2 EO 11988, Floodplain Management: This action is not located in a floodplain.

12.2.3 EO 12898, Environmental Justice: The Corps has determined that the proposed project would not use methods or practices that discriminate on the basis of race, color or national origin nor would it have a disproportionate effect on minority or low-income communities.

12.2.4 EO 13112, Invasive Species: There are no invasive species issues involved in this proposed project.

12.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The proposal is not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

12.3 Findings of No Significant Impact: Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be required.

12.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation above, I have determined that the proposed discharge complies with the Guidelines.

12.5 Public interest determination: Having reviewed and considered the information above, I find that the proposed project is not contrary to the public interest.

PREPARED BY:

Digitally signed by Michael Gala
Date: 2021.08.04 10:16:35 -05'00'

Michael R. Gala
Regulatory Project Manager

REVIEWED BY:

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Digitally signed by FITZPATRICK.WAYNE.CHARLES.1367310002
Date: 2021.08.04 12:44:49 -05'00'

Wayne C. Fitzpatrick
Regulatory Specialist

REVIEWED BY:

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Date: 2021.08.04 14:53:03 -05'00'

Robert W. Heinly
Deputy Chief, Regulatory Division

APPROVED BY:

MCMAHAN.JOSEPH.ANTHONY.1107792623
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Date: 2021.08.04 14:57:47 -05'00'

Joseph A. McMahan
Chief, Regulatory Division

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, GALVESTON DISTRICT
5151 FLYNN PARKWAY, SUITE 306
CORPUS CHRISTI, TEXAS 78411-4318

August 24, 2021

Corpus Christi Regulatory Field Office

SUBJECT: Permit Application – SWG-2020-00839

Port of Corpus Christi Authority
ATTN: Sarah Garza
222 Power Street (PO Box 1541)
Corpus Christi, Texas 78403-1541

Dear Ms. Garza:

The above numbered permit has been approved and a signed copy is enclosed for your retention.

Also enclosed is a copy of "Notice to Permittee" which provides important information for permit administration. You should notify the Corpus Christi Regulatory Field Office, in writing, upon completion of the authorized work.

To assist us in improving our service to you, please complete the survey found at: https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,

Joseph A. McMahan

Joseph A. McMahan
Chief, Regulatory Division

cc w/Encl.

EPA Kaspar.paul@epa.gov; maria.martinez@epa.gov

[Section 404 Projects] Texas Commission on Environmental Quality (TCEQ)
401Certs@tceq.texas.gov

[Section 10 Projects] United States Coast Guard (USCG) d8dpball@uscg.mil

[Section 10 Projects] National Ocean Service (NOAA) tara.wallace@noaa.gov

DEPARTMENT OF THE ARMY PERMIT

Permittee Port of Corpus Christi

Permit No. SWG-2020-00839

Issuing Office Galveston District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The discharge of a maximum of 5,000 cubic yards (cy) of sand along approximately 3 acres of the Indian Point shoreline to stabilize the soil, help absorb low-energy waves, and increase intertidal habitat conditions by establishing a stable slope for the shoreline. The sand fill will be placed along the shoreline below the High Tide Line (HTL) within the unvegetated bay bottom. Fill would not be placed within any existing seagrass areas. Nearshore segmented breakwaters placed in approximately 2 acres of bay bottom would further absorb wave energy offshore and create a low-energy environment in the lee area; they may be constructed of approximately 10,000 cy of material or units composed of concrete, rock, steel, mesh, geotextile, geogrid, bedding stone, piles, chains, anchors, floating platforms, oyster shell, or similarly placed within unvegetated bay bottom below the HTL. Oyster reefs would be constructed to provide new marine habitat; they would be composed of approximately 2,000 cy of shell hash, shell bags, live oysters, or similarly placed material within unvegetated bay bottom below the HTL in an approximate 1.5-acre area. The project will be conducted in accordance with the attached plans, in 5 sheets.

Project Location: The project site is located in Corpus Christi Bay at Indian Point, Portland, Texas.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 31 December 2026. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. When structures or work authorized by this permit are determined by the District Engineer to have become abandoned, obstructive to navigation or cease to be used for the purpose for which they were permitted, such structures or other work must be removed, the area cleared of all obstructions, and written notice given to the Corps of Engineers, Galveston District, Regulatory Division, Corpus Christi Field Office (Corps), within 30 days of completion.

3. The permittee must install and maintain, at the permittee's expense, any safety lights, signs and signals required by U.S. Coast Guard, through regulations or otherwise, on the permittee's fixed structures. To receive a U.S. Coast Guard Private Aids to Navigation marking determination, at no later than 30 days prior to installation of any fixed structures in navigable waters and/or prior to installation of any floating private aids to navigation, you are required to contact the Eighth Coast Guard District (dpw), 500 Poydras St. Suite 1230, New Orleans, LA 70130, (504) 671-2328 or via email to: D8oanPATON@uscg.mil. For general information related to Private Aids to Navigation please visit the Eight Coast Guard District web site at: http://www.uscg.mil/d8/waterways/PATON.Home.asp

4. The permittee shall comply with the Federal Endangered Species Act, you must implement all of the mitigating measures identified in the enclosed U.S. Fish and Wildlife Service letter of concurrence (Number FWS 02ETTX00-2021-I-2717, dated July 28, 2021) and National Marine Fisheries Service letter of concurrence (Number NMFS SERO-2021-00166, dated July 23, 2021), including those ascribed to the Corps therein. If you are unable to implement any of these measures, you must immediately notify the Corps, the U.S. Fish and Wildlife Office, and the National Marine Fisheries Service so we may consult as appropriate, prior to initiating the work, in accordance with Federal law.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE) 8/4/2021 *(DATE)*

Sarah L. Garza
Port of Corpus Christi Authority
Director of Environmental
Planning & Compliance

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

(DISTRICT ENGINEER) 24 Aug 2021 *(DATE)*

JOSEPH A. MCMAHAN
CHIEF, REGULATORY DIVISION
FOR COLONEL TIMOTHY R. VAIL

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE – Typed/Printed Name) *(DATE)*

(REVERSE OF ENG FORM 1721)

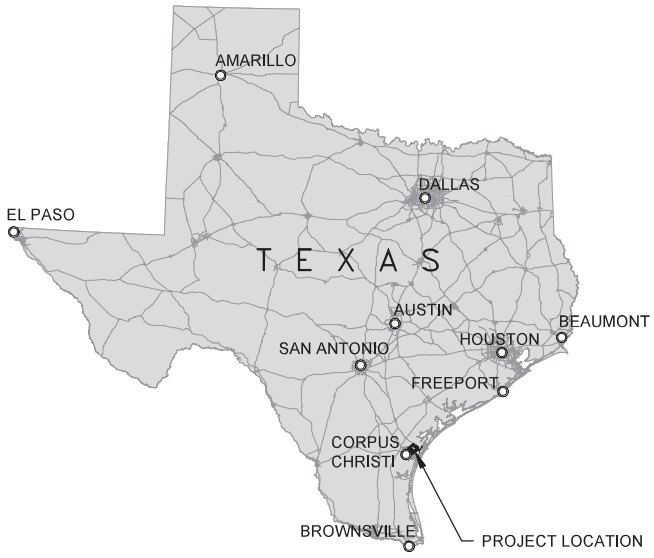
(TRANSFEREE - Signature) (*Mailing Address)*

(REVERSE OF ENG FORM 1721)

SWG-2020-00839
PERMITTED PLANS 11/30/2020

INDIAN POINT CAUSEWAY

SHORELINE EROSION PROTECTION - PHASE 1



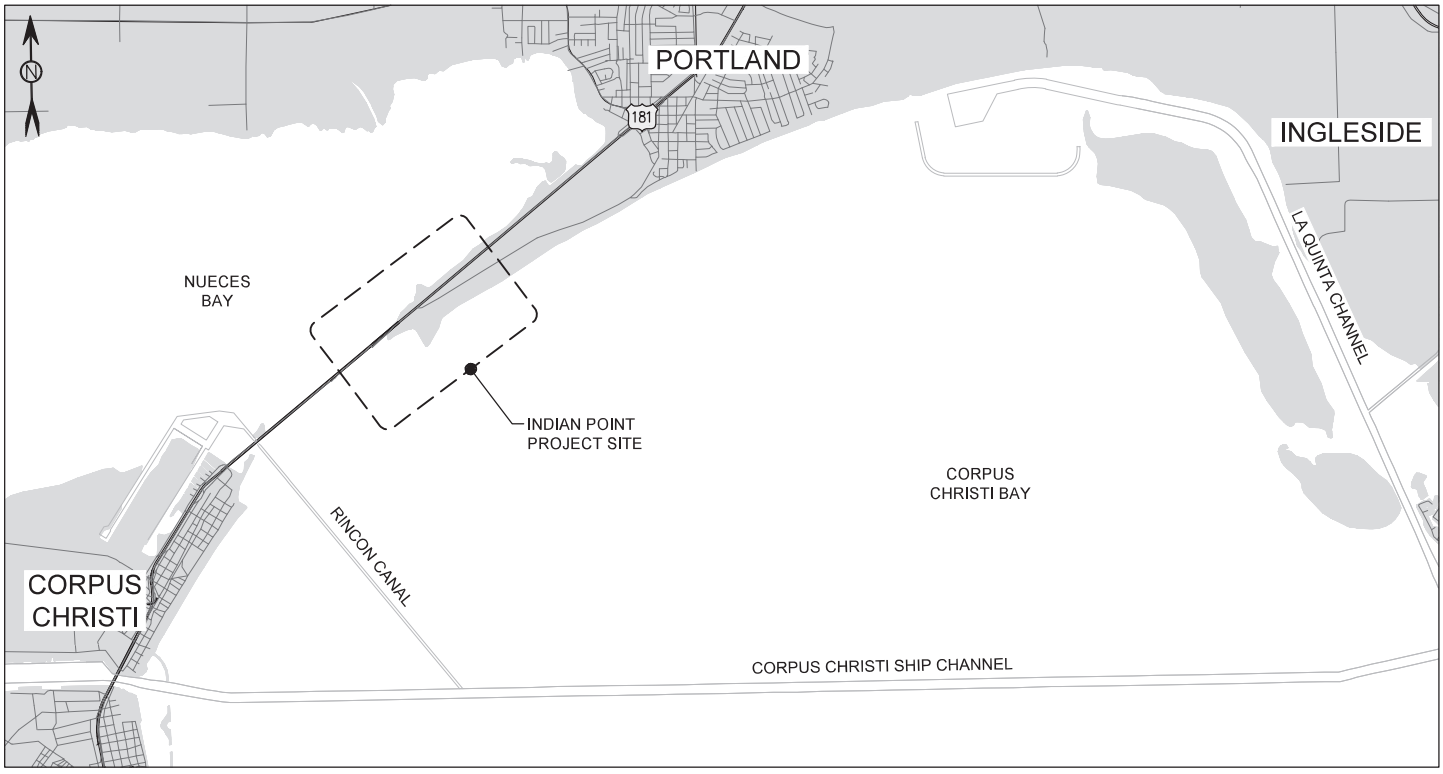
DIRECTIONS:

THE PROJECT SITE CAN BE ACCESSED VIA INDIAN POINT PIER ROADWAY LOCATED OFF THE INDIAN POINT PARK EXIT ON THE NUECES BAY CAUSEWAY (TX-35) HIGHWAY.

NATURE OF ACTIVITY:

THE PURPOSE OF THIS PROJECT IS TO PROVIDE SHORELINE STABILIZATION AND ENHANCE SEAGRASS AND MARSH HABITATS ALONG THE SHORELINE SOUTH OF THE INDIAN POINT CAUSEWAY. A LIVING SHORELINE COMPOSED OF SEGEMENTED OFF SHORE RIPRAP BREAKWATERS, LIVING SHORELINE UNITS, OYSTER REEFS, AND SHORELINE FILL WILL BE CONSTRUCTED.

SHEET INDEX



LOCATION MAP

0 4,000 8,000

SCALE IN FEET

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 1 OF 5

MOTT MACDONALD

711 North Carancahua
Suite 1610
Corpus Christi, Texas 78401
Texas Registered Firm No. 12181
T +1 (361) 661-3061
www.mottmac.com

THESE PLANS ARE INTENDED FOR PERMITTING AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION.

SITE ADDRESS:
27° 51' 3.43" N
97° 21' 18.44" W

VERIFY SCALE

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0 1"

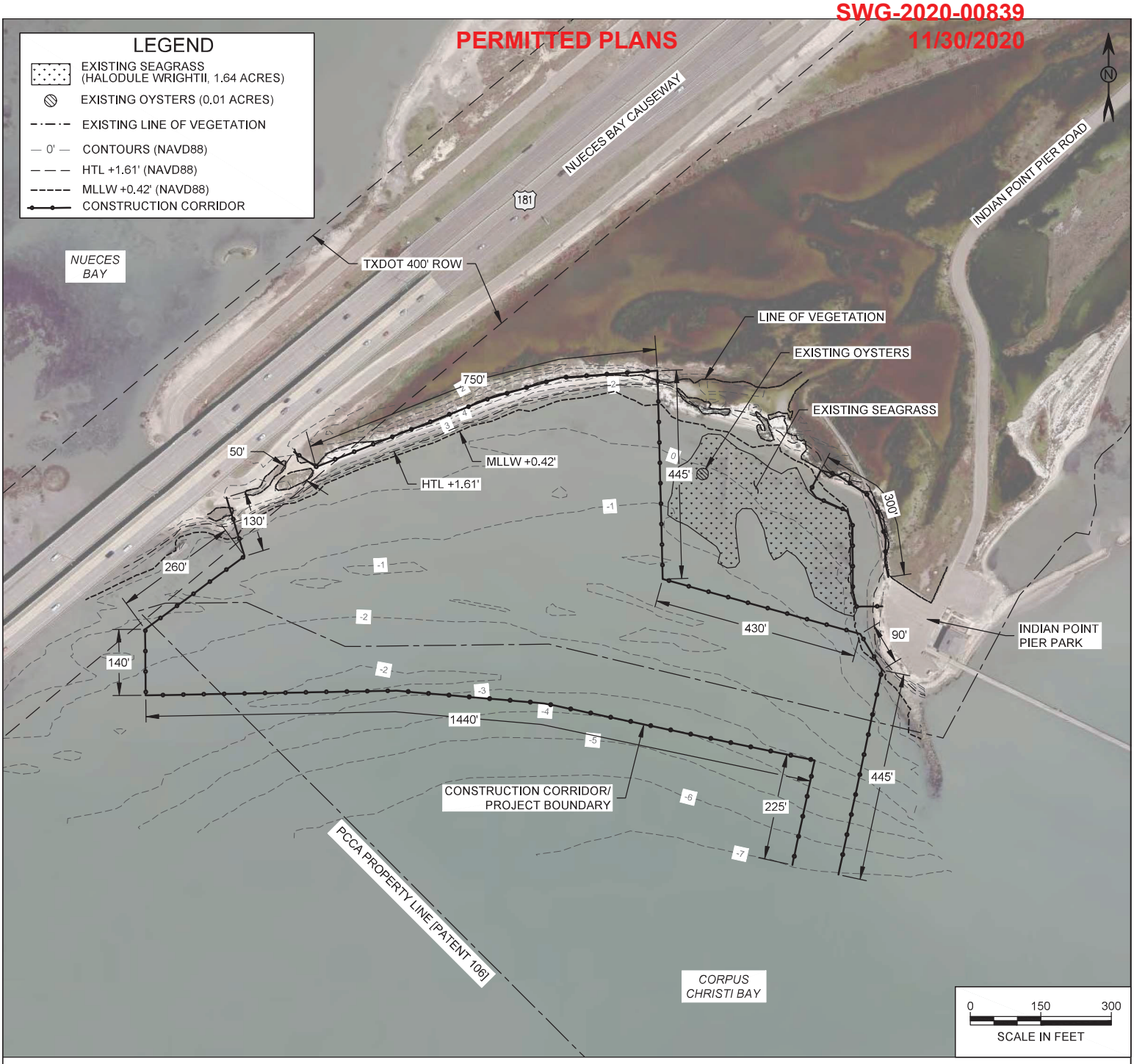
CLIENT: PORT OF CORPUS CHRISTI AUTHORITY
IN: NUECES COUNTY
ADJACENT: NUECES BAY
COUNTY: NUECES
STATE: TEXAS
VERTICAL DATUM: NAVD88
HORIZ. DATUM: TSPS NAD83-FT

INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

VICINITY - LOCATION MAP

SWG-2020-00839
11/30/2020

PERMITTED PLANS



NOTES:

1. AERIAL PHOTOGRAPH DATED AUGUST 29, 2017 FROM GOOGLE EARTH .
2. VEGETATION SURVEY WAS PERFORMED BY NAISMITH MARINE SERVICES ON FEBRUARY 12, 2020.
3. BATHYMETRIC SURVEY WAS PERFORMED BY NAISMITH MARINE SERVICES ON FEBRUARY 12, 2020.
4. AERIAL AND SURVEYS FROM THE ABOVE SOURCES ARE SHOWN ON THE FOLLOWING SHEETS AND ARE ONLY REPRESENTATIVE OF THE CONDITIONS AT THE TIME TAKEN.

TIDAL WATER LEVELS (NAVD88)

HIGH TIDE LINE (HTL)	+1.61'
MEAH HIGHER HIGH WATER (MHHW)	+1.02'
MEAN SEA LEVEL	+0.76'
MEAN LOWER LOW WATER (MLLW)	+0.42'

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 2 OF 5

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STATE: TEXAS
VERTICAL DATUM: NAVD88
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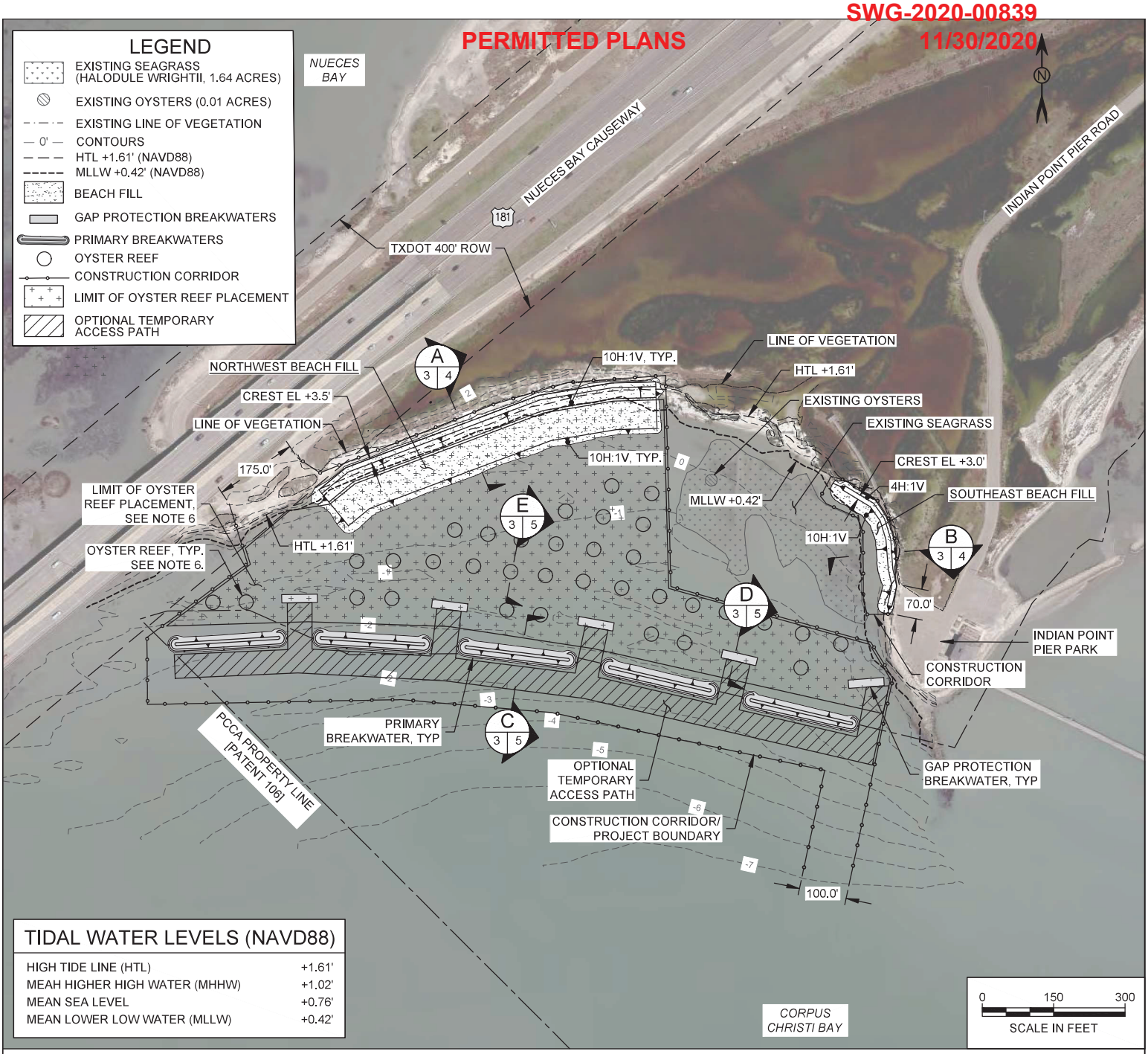
INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

EXISTING SITE PLAN

SWG-2020-00839
11/30/2020

PERMITTED PLANS



TIDAL WATER LEVELS (NAVD88)

HIGH TIDE LINE (HTL)	+1.61'
MEAH HIGHER HIGH WATER (MHHW)	+1.02'
MEAN SEA LEVEL	+0.76'
MEAN LOWER LOW WATER (MLLW)	+0.42'

NOTES:

1. PROPOSED BREAKWATER, OYSTER REEF, AND BEACH FILL LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN AND/OR DURING CONSTRUCTION DUE TO CHANGE IN CONDITIONS.
2. NAVIGATION AIDS WILL BE PLACED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS.
3. CONTRACTOR SHALL INSTALL TURBIDITY CURTAINS AND/OR APPROVED EQUAL BMPS TO MINIMIZE TURBIDITY DUE TO CONSTRUCTION IN THE VICINITY OF SEAGRASSES AND OYSTERS.
4. CONTRACTOR SHALL USE CONSTRUCTION MATS OR SIMILAR WITHIN LAND ACCESS AREAS TO MINIMIZE DISTURBANCE TO THE SHORELINE AND VEGETATION.
5. PERMANENT IMPACTS WATERWARD OF THE HTL WILL BE WITHIN UNVEGETATED BAY BOTTOM. NO IMPACTS TO EXISTING SEAGRASS, OYSTERS, OR WETLANDS ARE PROPOSED AS PART OF PROJECT CONSTRUCTION.
6. LAYOUT SHOWN OF PROPOSED OYSTER REEFS IS PRELIMINARY AND IS SUBJECT TO CHANGE. EXACT LOCATION OF PROPOSED OYSTER REEFS WILL BE DEPENDENT ON SEABED ELEVATIONS AFTER THE SITE HAS HAD TIME TO EQUILIBRATE FOLLOWING INSTALLATION OF THE BREAKWATERS AND BEACH FILL. OYSTER REEF PLACEMENT SHALL BE LIMITED TO EXTENTS SHOWN.

MAX PLACED MATERIAL (WATERWARD OF HTL)

MATERIAL	LENGTH (FT)	FOOTPRINT AREA (ACRES)	VOLUME (CY)
BEACH FILL	1,200	3	5,000
BREAKWATER	2,000	2	10,000
OYSTER REEFS	2,100	1.5	2,000

MAX TEMPORARY IMPACTS (SEAWARD OF HTL)

ACTIVITY	FOOTPRINT AREA (ACRES)
CONSTRUCTION CORRIDOR/ PROJECT BOUNDARY	20
OPTIONAL ACCESS PATH	3

PERMIT

APPLICANT: PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020

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INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

PROPOSED SITE PLAN

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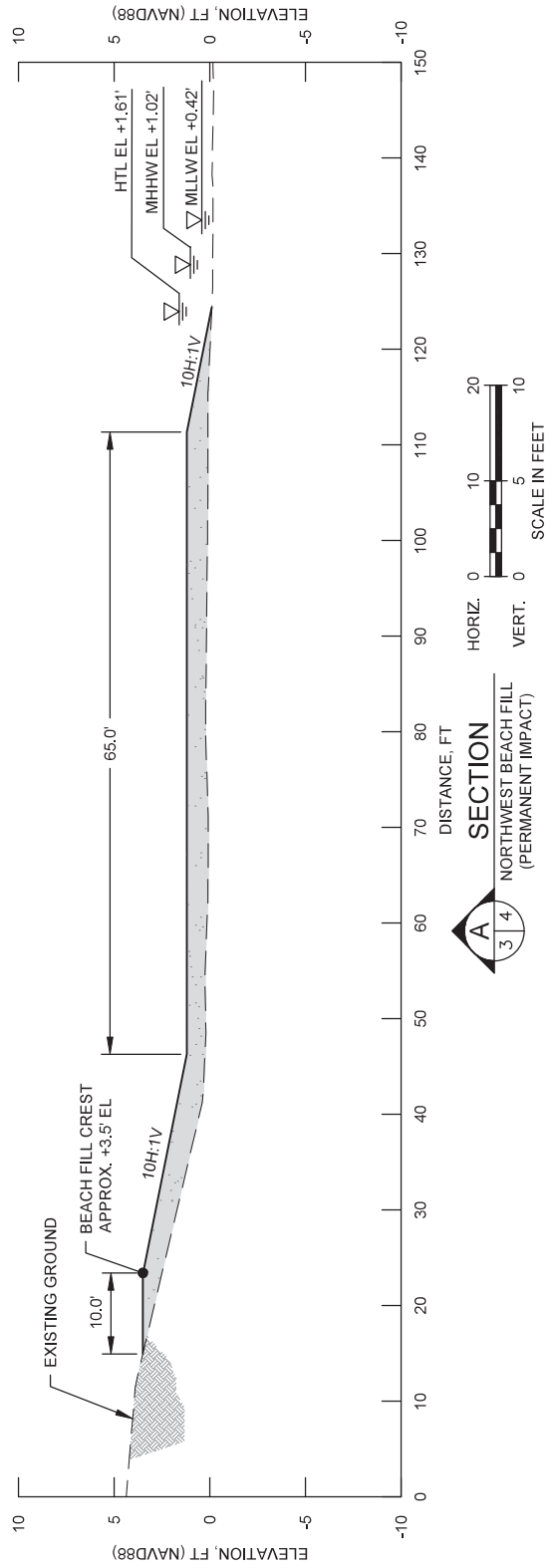
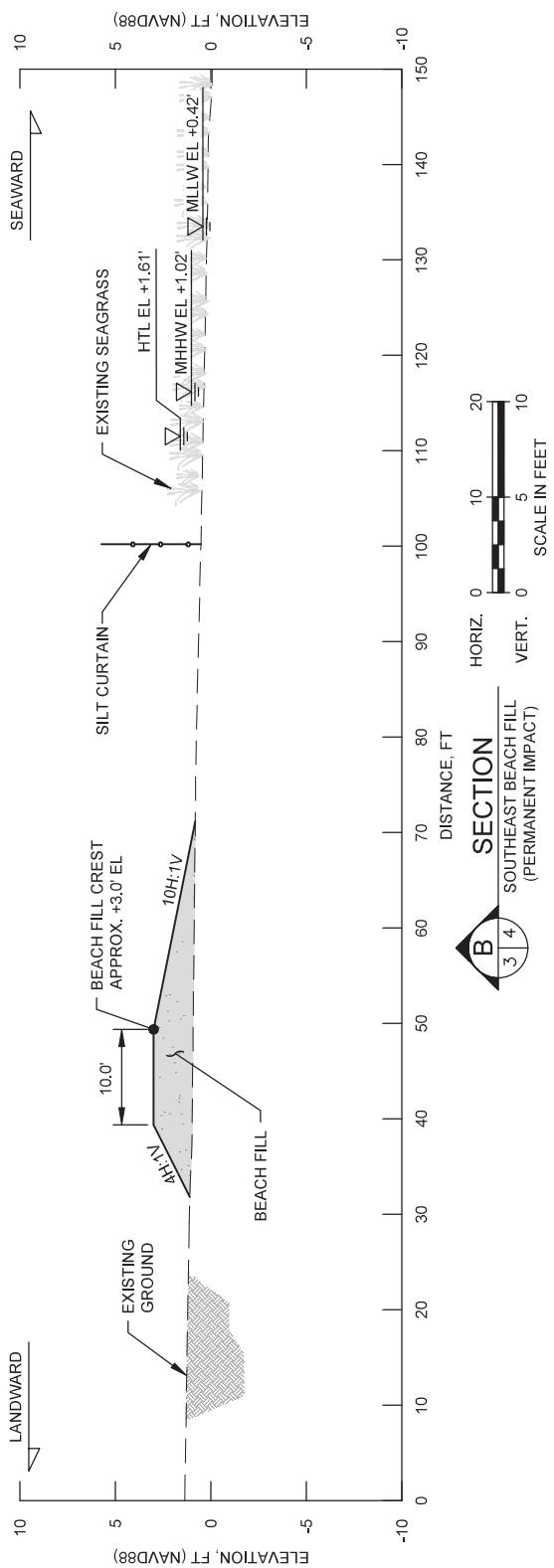
SWG-2020-00839
11/30/2020

PERMITTED PLANS



A 3 4 SECTION NORTHWEST BEACH FILL (PERMANENT IMPACT)



B 3 4 SECTION SOUTHEAST BEACH FILL (PERMANENT IMPACT)

TIDAL WATER LEVELS (NAVD88)

HIGH TIDE LINE (HTL)	+1.61'
MEAH HIGHER HIGH WATER (MHHW)	+1.02'
MEAN SEA LEVEL	+0.76'
MEAN LOWER LOW WATER (MLLW)	+0.42'

NOTES:
1. PROPOSED BEACH FILL LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

PERMIT

APPLICANT: PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 4 OF 5

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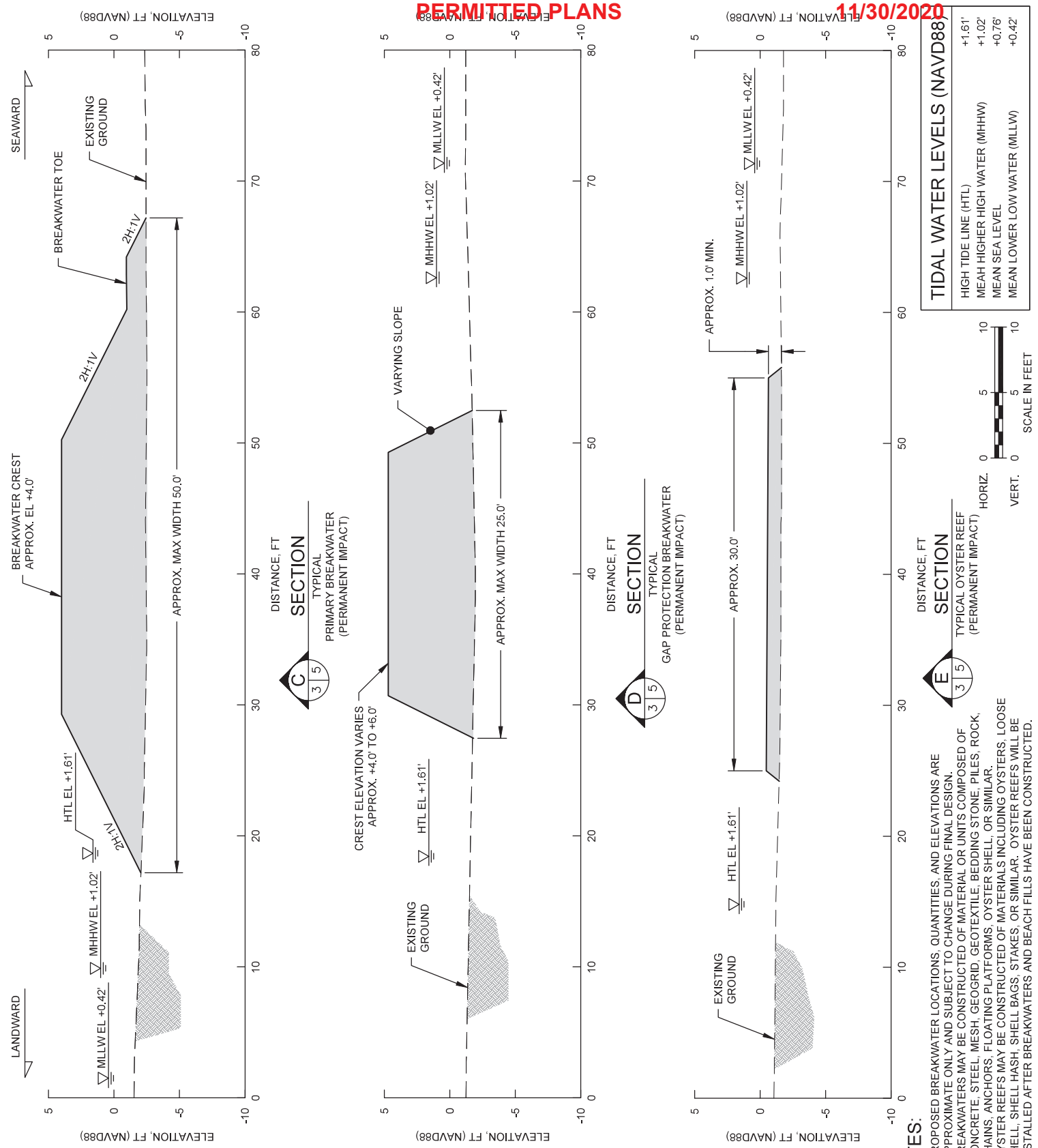
INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

CROSS SECTIONS - 1

SWG-2020-00839
PERMITTED PLANS
11/30/2020



NOTES:

1. PROPOSED BREAKWATER LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. BREAKWATERS MAY BE CONSTRUCTED OF MATERIAL OR UNITS COMPOSED OF CONCRETE, STEEL, MESH, GEOGRID, GEOTEXTILE, BEDDING STONE, PILES, ROCK, CHAINS, ANCHORS, FLOATING PLATFORMS, OYSTER SHELL, OR SIMILAR.
3. OYSTER REEFS MAY BE CONSTRUCTED OF MATERIALS INCLUDING OYSTERS, LOOSE SHELL, SHELL HASH, SHELL BAGS, STAKES, OR SIMILAR. OYSTER REEFS WILL BE INSTALLED AFTER BREAKWATERS AND BEACH FILLS HAVE BEEN CONSTRUCTED.

PERMIT

APPLICANT: PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020

SHEET 5 OF 5

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INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

CROSS SECTIONS - 2

PW:\MOTT-USE-PW.BENTLEY.COM:MOTT-USE-PW-10\DOCUMENTS\507407985-INDIAN POINT BREAKWATERS\DRAWINGS_MODELS\12_MA_MARINE\7 - DESIGN\CAD\F - PERMIT\ Oct 23, 2020 - 9:54AM MOR69833

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Port of Corpus Christi Authority	File Number: SWG-2020-00839	Date: 8/12/2021
Attached is:		See Section below
X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
Mr. Michael R. Gala
Project Manager (CESWG-RDR)
U.S. Army Corps of Engineers
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-4318
361-814-5847 ext. 100X

If you only have questions regarding the appeal process you may also contact:
Mr. Jamie Hyslop
Administrative Appeals Review Officer
Southwestern Division (CESWD-PD-O)
U.S. Army Corps of Engineers
1100 Commerce Street, Suite 831
Dallas, Texas 75242-1317
Phone: 469-216-8324
Email: Jamie.r.hyslop@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

Recvd 7/28/2021

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
4444 Corona Drive, Suite 215
Corpus Christi, Texas 78411
361/994-9004 / (FAX) 361/994-8262

In Reply Refer To:
02ETTX00-
2021-I-2717

July 28, 2021

Robert W. Heinly, Deputy Chief
Regulatory Division, CESWG-RD-R
U.S. Army Corps of Engineers
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-4318

Dear Mr. Heinly:

The U.S. Fish and Wildlife Service (Service) received your letter dated January 20, 2021, requesting concurrence on determination of effects to federally listed threatened and endangered species and critical habitat pursuant to section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). The request is for activities required for the work and discharge of fill material to construct multiple breakwaters and a living shoreline proposed by the Port of Corpus Christi Authority as described in the U.S. Army Corps of Engineers (Corps) Permit Application SWG-2020-00839. The project location is Indian Point, Portland, San Patricio County, Texas.

The Corps submitted documentation to the Service requesting concurrence that the proposed project ***may affect but is not likely to adversely affect*** the following species:

Eastern black rail	(T)	*Laterallus jamaicensis ssp. jamaicensis*
Green sea turtle	(T)	*Chelonia mydas*
Hawksbill sea turtle	(E w/CHI)	*Eretmochelys imbricata*
Kemp's Ridley sea turtle	(E)	*Lepidochelys kempii*
Leatherback sea turtle	(E w/CHI)	*Dermochelys coriacea*
Loggerhead sea turtle	(T)	*Caretta caretta*
Piping plover	(T w/CH)	*Charadrius melodus*
Red knot	(T)	*Calidris canutus ssp. rufa*
West Indian manatee	(T)	*Trichechus manatus*
Whooping crane	(E w/CH)	*Grus americana*
Least tern	Delisted	*Sternula antillarum*

Section 7 of the Act requires that all Federal agencies consult with the Service to ensure that the actions authorized, funded, or carried out by such agencies do not jeopardize the continued

existence of any threatened or endangered species or adversely modify or destroy designated critical habitat of such species.

The Service concurs that the proposed project will not adversely modify piping plover critical habitat and is not likely to adversely affect the federally listed West Indian manatee, whooping crane, piping plover, red knot, nesting sea turtles, or eastern black rail since the effects are insignificant or discountable. The least tern (*Sternula antillarum*) was delisted from the federal list of threatened and endangered species on January 13, 2021. This concurrence is based upon a review of Service files, observing the avoidance measures outlined in the Corps' January 20, 2021, letter, and the following best management practices (BMPs) for eastern black rail agreed upon in a July 26, 2021, email from the Corps.

In addition to the BMPs referenced above the following avoidance measures for the eastern black rail (BLRA) should also be included in this project to keep effects insignificant and discountable:

1) The species may be present in all of the Texas coastal counties year-round. The species is most vulnerable during breeding, chick rearing, and the flightless molt period. Where black rails are present, avoid disturbance activities March 1st through September 30th in suitable BLRA habitat (e.g., dense overhead cover, moist soils that are occasionally dry and interspersed or adjacent to shallow water, depths up to 5 cm but typically <3 cm. If this timing restriction cannot be achieved, then we recommend the following measures:

    a) A survey should be done prior to the start of the proposed action to assess BLRA breeding activity within the planned project area. Survey recommendations will be given on a project by project basis, please coordinate with the Texas Coastal Ecological Services Office (TCESO).
    b) A biological monitor on site should maintain pathways to refugia and avoid clearing in a way that creates isolated pockets of suitable BLRA habitat on the project site. In part this is done by linear clearing in the direction of refugia, and avoiding clearing by decreasing concentric circles.
    c) The biological monitor may also be required to maintain a sufficiently slow pace of equipment moving through potential habitat which allows for the escape of the birds ahead. Biological monitors should be aware that the species will run to escape oncoming disturbance and are highly unlikely to fly during day light.
    d) The biological monitor will have authority to stop work immediately if BLRA chick or eggs are observed within the project area. In addition, the TCESO should be contacted immediately at (361)533-6765.
    e) If temporary access routes or staging areas occur within potential BLRA habitat the contractor must minimize traffic in these areas therefore minimizing the construction footprint, by limiting the number of ingress and egress routes to the maximum extent possible.

We appreciate your efforts to conserve these sensitive species. No further endangered species consultation will be required unless: 1) the identified action is subsequently modified in a

Recvd 7/28/2021

manner that causes an effect on a listed species or designated critical habitat; 2) new information reveals the identified action may affect federally protected species or designated critical habitat in a manner or to an extent not previously considered; 3) a new species is listed or a critical habitat is designated under the Act that may be affected by the identified action; or, 4) the project is not completed within five years from the date of this consultation. If you have any questions or comments, please feel free to contact Mary Kay Skoruppa at 361-225-7314, or by email at mary_kay_skoruppa@fws.gov.

Sincerely,

Charles Ardizzone
Field Supervisor

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
5151 FLYNN PARKWAY, SUITE 306
CORPUS CHRISTI, TEXAS 78411-4318

20 January 2021

Corpus Christi Regulatory Field Office

SUBJECT: Section 7 Informal Consultation for Department of the Army Permit SWG-2020-00839, Port of Corpus Christi Authority

Ms. E. Dawn Gardiner
Assistant Field Supervisor
Texas Coastal Ecological Services
United States Department of the Interior
U.S. Fish & Wildlife Service
P.O. Box 81468
Corpus Christi, TX 78468-1468

Dear Ms. Gardiner:

The U.S. Army Corps of Engineers (Corps) has received an application from Port of Corpus Christi Authority for a permit pursuant to Section 404 of the Clean Water Act (CWA) of 1972, as amended (33 U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act (RHA) of 1899, as amended (33 U.S.C. § 403). The proposed project includes regulated activities required for the work and discharge of fill material to construct multiple breakwaters and one living shoreline, at Indian Point, Portland, San Patricio County, Texas. Specifically, the project is located at 27.85109° North, -97.35711° West. Project plans are enclosed in 5 sheets.

The Corps has determined that the proposed project may affect, but is not likely to adversely affect (NLAA) federally-listed species and their designated critical habitat, as described below, and is therefore requesting concurrence with our determinations pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. § 1536), and the consultation procedures at 50 C.F.R. Part 402.

Pursuant to our request for informal consultation, the Corps is providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or designated critical habitat (DCH) that may be affected by the action; and,
- An analysis of the potential route(s) of effect on any listed species or DCH.

1. PROPOSED ACTION

Project Purpose

The applicant's stated purpose of the project is to stabilize the Indian Point Shoreline that has been experiencing erosion due to wave impact and lack of engineered shoreline stabilization. Thus, the current conditions of the shoreline leave the existing habitat and upland causeway and infrastructure vulnerable to damage during daily and storm conditions. This proposed living shoreline and breakwater project has been designed to improve these conditions by reducing onshore wave energy, increasing stabilization along the shoreline, and introducing new intertidal and marine habitat areas.

Project Description

The applicant proposes the placement of a maximum of 5,000 cubic yards (cy) of sand along approximately 3 acres of the Indian Point shoreline to stabilize the soil, help absorb low-energy waves, and increase intertidal habitat conditions by establishing a stable slope for the shoreline. The sand fill would be placed along the shoreline below the High Tide Line (HTL) within the unvegetated bay bottom. Fill would not be placed within any existing seagrass areas. Nearshore segmented breakwaters placed in approximately 2 acres of bay bottom would further absorb wave energy offshore and create a low-energy environment in the lee area; they may be constructed of approx. 10,000 cy of material or units composed of concrete, rock, steel, mesh, geotextile, geogrid, bedding stone, piles, chains, anchors, floating platforms, oyster shell, or similarly placed within unvegetated bay bottom below the HTL. Oyster reefs would be constructed to provide new marine habitat; they would be composed of approximately 2,000 cy of shell hash, shell bags, live oysters, or similarly placed material within unvegetated bay bottom below the HTL in an approximate 1.5-acre area.

The offshore breakwaters would be constructed using heavy construction equipment such as barge-mounted excavators, marsh excavators, or similar. The rock would be selectively placed to meet the designed breakwater parameters, elevations, and slopes. The beach fill would likely be constructed using land-based earthwork equipment such as loaders, mini excavators, and similar. The oyster reefs may be installed by hand and/or with heavy equipment such as an excavator. Construction material may be stockpiled on land away from any sensitive habitats and/or on barges anchored within the work area limits. Silt curtains or approved equal Best Management Practices (BMPs) would be placed adjacent to existing seagrasses. The water depths are shallow where the silt curtains would be placed, but stakes may be used to secure the curtain if needed. Stakes would be either installed by hand or pushed into the bottom using an excavator. Operations requiring sound mitigation such as impact driving are not proposed as part of this project. As the breakwaters are constructed, wave energy in

the lee area (i.e., where the silt curtains would be located) would reduce. It is anticipated that the silt curtains would be stable, and the contractor would be required to monitor and maintain the curtains throughout construction to ensure their placement remains stable, and they function as needed. A temporary access channel maybe required to construct the new breakwaters. If needed the access channel would include dredging to -3 feet mean lower low water via mechanical means and restored to previous conditions once construction is complete.

Minimization Measures

For installation of proposed breakwaters and oyster reefs, including the option to dredge a temporary access channel for barges to access submerged construction areas, the following Conservation Measures would be utilized to minimize potential impacts to the West Indian Manatee:

Project construction and operations personnel should:

- Be advised that manatees and/or sea turtles may approach the proposed project area.
- Be provided materials, such as a poster or informational flier, to assist in identifying these animals.
- Be instructed not to feed or water the animals.
- Report manatee sightings to USFWS and the Texas Marine Mammal Stranding Network (TMMSN),
  - for the middle and lower coast, contact the USFWS at 361-533-6047
  - the TMMSN hotline number is 800-962-6625
- Report injured or cold stunned sea turtles to the Texas Sea Turtle Stranding and Salvage Network at 361-949-8173 ext. 226 (this is at Padre Island National Seashore), or the hotline number 866-887-8535 (866-TURTLE5).
- Per recommendations from the National Oceanic Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), siltation barriers that may entangle manatees or sea turtle species will be secured and regularly monitored during construction activities.
- Construction vessels will operate at “no wake/idle” speeds while in the construction area and in water depths where the draft of the vessel is less than 4-feet from the bottom.
- Should dredging of a temporary construction access channel be necessary to construct proposed breakwaters and oyster reefs, a biological monitor will accompany dredging equipment each day to monitor for sea turtles and manatee within the water.

- Construction/dredging equipment working within the water will cease operations if a sea turtle or manatee is within a 100-foot radius of the equipment and will not resume work until the protected species has left the project area of its own volition.

For construction of the proposed beach fill, the following BMPs would be utilized to minimize potential impacts to the piping plover, red knot, Eastern Black Rail, Whooping Crane:

Project construction and operations personnel should:

- Be advised that piping plover, red knot, and sea turtles may approach the proposed project area.
- Be provided materials, such as a poster or instructional fliers, to assist in identifying piping plover and red knot.
- Be instructed not to approach or feed the animals.
- Be advised that nesting sea turtles may approach the proposed project area.
- Be provided materials, such as a poster or informational flier, to assist in identifying the five species of sea turtles.
- Report nesting sea turtles to the Texas Sea Turtle Stranding and Salvage Network at 361-949-8173 ext. 226 (this is at Padre Island National Seashore), or the hotline number 866-887-8535 (866-TURTLE5).

In addition, the following BMPs should be implemented during construction:

- Staging areas will be located within upland areas; existing parking lots will be utilized where possible.
- Project equipment and vehicles moving between staging areas and the beach fill project site will reduce speed to the maximum extent practicable using only designated routes. Vehicle access to the beach fill project area will be limited to the project-related needs only.
- The contractor will sequence the work to minimize frequency and density of vehicular traffic within beach fill areas to the greatest extent practicable. During the beach fill phase of the project, the contractor will minimize the number of vehicles in the beach area during vehicle ingress and egress and avoid stacking vehicles on the beach to load and unload materials.

- Driving within the beach fill area by the public will be suspended until construction is complete.
- Use of construction lighting at night shall be minimized and directed towards the construction activity area and shielded from view outside of the project site to the maximum extent practicable.
- Should beach fill construction activities take place within sea turtle nesting season (March 1 - October 1, a biological monitor will be onsite during construction activities to survey the construction area and access routes prior to work activities beginning each day.
- If a Piping Plover, Red Knot, Eastern Black rail, Least Tern, or Whooping Crane is found in an active construction area, work will be stopped within that area until the bird(s) leave the construction site of its own volition.
- If a sea turtle nest is found in an active construction area, work will be stopped within that area until the biological monitor contacts the Texas Sea Turtle Stranding and Salvage Network, or Padre Island National Seashore and the nest is cleared for construction to resume.

2. ACTION AREA

Pursuant to 50 C.F.R. § 402.02, the term *action area* is defined as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action." Accordingly, the action area typically includes the affected jurisdictional waters and other areas affected by the authorized work or structures within a reasonable distance. The ESA regulations recognize that, in some circumstances, the action area may extend beyond the limits of the Corps' regulatory jurisdiction. The federal action consists of the regulated activities, as previously described.

The Corps has defined the action area to include the proposed project's footprint, staging areas, and the immediate vicinity.

Existing Conditions

The Indian Point project site is a section of shoreline located on the Corpus Christi Bay, between the Highway 181 bridge (Nueces Bay Causeway) and the armored groin at the end of the Indian Point Park parking lot. This section of shoreline is very dynamic; erosion, beach morphology, and reduction to vegetation and habitat coverage and density has been observed over the past few decades. In its present state, there is minimal sandy beach with exposed sections of marsh vegetation. A recent habitat survey showed that there are minimal oysters present and a lack of substantial aquatic

vegetation habitat. The existing shoreline is vulnerable to direct wave impact. Furthermore, the offshore bathymetry has been observed to be deepening, allowing greater wave energy to propagate further inshore, leading to more erosive conditions. Without an engineered protection project, this stretch of shoreline can be expected to continue eroding until the wetlands located behind the remaining beach become fully exposed to the Corpus Christi Bay, at which point further erosion and wetlands damage would only intensify. The eroded conditions of the shoreline and marsh would also increase the vulnerability of the Nueces Bay Causeway and adjacent roadways.

3. AFFECTED SPECIES/HABITAT

Project activities have the potential to affect the listed species as shown in Table 1 below. The action area is located within piping plover DCH unit TX-13.

Table 1: Species in the action area

Species	ESA Listing Status[1]	Listing Rule/Date	Critical Habitat Present	USACE Effect Determination (Species)[2]
West Indian Manatee	T	32 FR 4001/ March 11, 1967	No	NLAA
Least tern	E	47 FR 58454-58460/ December 30, 1982	No	NLAA
Whooping crane	E	32 FR 4001/ March 11, 1967	No	NLAA
Red Knot	T	79 FR 73705-73748/ December 11, 2014	No	NLAA
Piping Plover	T	50 FR 50726-50734/ December 11, 1985	No	NLAA
Eastern Black Rail	T	85 FR 63764 63803/ October 8, 2020	No	NLAA
Green sea turtle[3]	T	81 FR 20057/ April 6, 2016	No	NLAA
Kemp's ridley sea turtle	E	35 FR 18319/ December 2, 1970	No	NLAA
Leatherback sea turtle	E	35 FR 8491/ June 2, 1970	No	NLAA
Loggerhead sea turtle[4]	T	76 FR 58868/ September 22, 2011	No	NLAA
Hawksbill sea turtle	E	35 FR 8491/ June 2, 1970	No	NLAA

[1] E = endangered; T = threatened
[2]NLAA = not likely to adversely affect; NE = No Effect
[3]North Atlantic and South Atlantic Distinct Population Segments (DPS)
[4] Northwest Atlantic Ocean DPS

4. ROUTE(S) OF EFFECT TO SPECIES:

During the placement of the breakwater's manatees could be crushed or injured; however, this is expected to be extremely unlikely to occur and discountable due to the manatee's ability to move, using observers, and the rarity of manatees within Corpus Christi Bay. The potential for physical injury to manatees is further reduced because the area contains primarily shallow (less than 3 feet) water habitat, with foraging habitat adjacent to the proposed project area in areas less than 2 feet of water. Additionally, the Corps' proposed minimization measures, discussed in Section 1 of this letter, would require that activities cease if a listed species is identified in the area and would not resume until the protected species has departed the project area of its own volition.

Potential impacts to West Indian Manatee would be temporary in nature, since construction within the water is only estimated to take 2-4 months. West Indian Manatee would typically avoid areas of construction noise and should be able to utilize other areas of the bay until construction of the breakwaters and oyster reefs are complete. Installation of the breakwaters would provide additional areas for West Indian Manatee and sea turtles to forage, since juvenile fish, shrimp, and crabs would utilize the breakwaters as habitat post-construction.

Potential impacts to Piping Plover, Red Knot, Eastern Black rail, Least Tern, or Whooping Crane would be temporary in nature, since beach fill construction activities are estimated to only take 1-2 months. During construction of the beach fill, Piping Plover, Red Knot, Eastern Black rail, Least Tern, or Whooping Crane would still be able to use adjacent mud flats and wetland areas located within Sunset Lake Park. Once construction of the beach fill area is complete, piping plover and red knot would be able to utilize the expanded beach shoreline, which would offer a larger foraging/loafing area than the existing narrow beach present prior to placement of beach fill. Current conditions at the proposed beach fill project site are not suitable for sea turtle nesting due to the lack of sand. Therefore, it is not likely that sea turtles utilize this area of shoreline for nesting. Lack of suitable habitat, implementation of the above conservation measures, and the presence of a biological monitor during sea turtle nesting season should minimize any short-term effects on nesting sea turtles.

The proposed project involves using turbidity curtains; the turbidity curtains would restrict access temporarily to the construction area and may pose an entanglement issue for manatees; however, the Corps' proposed minimization measures would be

utilized to minimize the potential for these effects to occur. Once construction is completed, these species would be able to return to the sites. Although manatees would be temporarily unable to access the construction areas, either due to avoidance or exclusion by turbidity curtains, the Corps believes these effects would be insignificant. These effects would also be insignificant because similar habitat adjacent to the proposed project area would remain available for these species. The presence of flexible materials in the water, such as turbidity curtains and in-water lines, could create an entanglement risk to manatees. Although the turbidity curtains and in-water lines pose an entanglement risk to manatees, stiff, taut, and non-looping in-water lines (e.g., rope, chain, and cable, including the lines to secure turbidity curtains) minimize the risk of entanglement. The Corps' minimization measures, listed in Section 1, would minimize the potential risk of entanglement by requiring siltation barriers, if used, to be made of material in which manatees cannot become entangled, be appropriately secured, and be regularly monitored to avoid protected species entrapment. Therefore, the Corps has determined that the potential for entanglement of manatees is discountable.

The physical effects and review of the action on sea turtles would be restricted to onshore effects. These include the risk of physical injury during the placement of fill material during the living shoreline construction. The Corps believes these effects would be discountable due to the species' ability to move away from the project sites if disturbed and the relatively small area where the proposed action would occur, and the rarity of turtles nesting at this location deep within the Corpus Christi Bay. The area is not a typically known nesting habitat; however, it contains seagrasses and foraging habitat. Additionally, the Corps' proposed minimization measures, discussed in Section 1 of this letter, would require that activities cease if a listed species is identified in the area and would not resume until the protected species has departed the project area of its own volition.

Potential project-related impacts to ESA listed avian species would be associated with modifications to the prey base from constructing the living shoreline, construction noise, and post-construction conditions, which may not be immediately suitable for foraging. It is unknown how long the living shoreline would take to become suitable foraging habitat; however, because the construction of the living shoreline would utilize similar sediments and less than 1 meter at depths, the proposed project is anticipated to temporarily impact the benthic fauna preyed upon by ESA listed species. Avian species that currently use the project area are already subjected to regular displacement by the public's use of the beaches and the adjacent high traffic parking lots and facilities. The project is not expected to cause any loss of habitat for the ESA-listed avian species and as stated above, would improve the size of the habitat on beaches.

5. ROUTES OF EFFECT TO CRITICAL HABITAT

The project is located in piping plover DCH Unit TX–13: Sunset Lake in San Patricio County. This unit is approximately 435 acres and triangle shaped, with State Highway 181 as the northwest boundary, and the limits of the City of Portland as the northeast boundary. The shore on Corpus Christi Bay is the third side of the triangle, with the actual boundary being the mean lower-low water (MLLW) line off this shore. This unit is a large basin with a series of tidal ponds, sand spits and wind tidal flats. This unit is owned and managed by the City of Portland within a system of city parks. Some of the described area falls within the jurisdiction of the TGLO. It includes two city park units referred to as Indian Point and Sunset Lake. Much of the unit is a recent acquisition by the city, and management considerations for the park include the area's importance as a site for wintering and resident shorebirds. This unit includes lands known as wind tidal flats that are infrequently inundated by seasonal winds.

Primary constituent elements for Piping Plover:

1. The primary constituent elements essential for the conservation of wintering piping plovers are those habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support these habitat components. The primary constituent elements include intertidal beaches and flats (between annual low tide and annual high tide) and associated dune systems and flats above annual high tide. Important components of intertidal flats include sand and/or mud flats with no or very sparse emergent vegetation. In some cases, these flats may be covered or partially covered by a mat of blue-green algae. Adjacent non-or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting piping plovers, and are primary constituent elements of piping plover wintering habitat. Such sites may have debris, detritus (decaying organic matter), or microtopographic relief (less than 50 cm above substrate surface) offering refuge from high winds and cold weather. Important components of the beach/dune ecosystem include surf-cast algae, sparsely vegetated back beach (beach area above mean high tide seaward of the permanent dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road), spits, and wash over areas. Wash over areas are broad, unvegetated zones, with little or no topographic relief, that are formed and maintained by the action of hurricanes, storm surge, or other extreme wave action.

2. Critical habitat does not include existing developed sites consisting of buildings, marinas, paved areas, boat ramps, and similar structures.

The primary constituent elements currently found within the action area include intertidal beaches and flats, and back beaches. The areas adjacent to the proposed project include sparsely vegetated sand and mud flats, and algal flats all above the HTL. The proposed project would have direct effects on PCE 1, by increasing the side of the beach utilizing sand and crushed shell similar to what is currently on the beach. The areas behind the proposed project area would benefit from the additional protection provided by the living shoreline that is will stop the areas from becoming continuously inundated should the remaining beach erode.

In general, the effects of building a living shoreline on the Piping Plover are expected to be minimal. The proposed project area contains features associated with PCE 1 and PCE 2. In studies along the Laguna Madre, Drake et al. (2000) found that overall usage of relatively undisturbed beach habitats by wintering Piping Plovers, including both foraging and roosting activities, was minimal (2.8 percent). Piping Plovers were found primarily to use beach habitats when other preferred habitats were unavailable, such as when algal and sand flats were inundated. This is considered to be partly due to the prime availability of forage species on tidal flats but also possibly due to the high level of disturbance on beach habitats (Drake et al., 2000). The current beach area proposed to be expanded to a living shoreline is primarily unvegetated, sand, and crushed shell.

Although construction would temporarily disrupt the functions of the primary constituent elements within TX-13, the Corps believes completion of the proposed project would result in a beneficial increase in habitat for the species and would not result in adverse modification or destruction of piping plover DCH unit TX-13.

6. DETERMINATION:

The Corps has reviewed the proposed project impacts to federally listed species and their DCH. The Corps has concluded that all potential project effects to the species listed in Table 1 were found to be discountable and insignificant. Therefore, the Corps has determined that the project may affect, but is not likely to adversely affect these species, and it would have a beneficial effect on DCH. This analysis was prepared based on the best scientific and commercial data available.

The Corps is requesting U.S. Fish and Wildlife (USFWS) written concurrence with these determinations. The Corps appreciates your cooperation in completing this informal Section 7 consultation by concurring with the Corps' effect determination in a timely manner. If USFWS disagrees with the Corps' effect determinations and requests formal Section 7 consultation, please contact the below-referenced Project Manager to discuss suggested modifications to the action to avoid potential adverse effects and USFWS' additional information needs. The Corps will continue to coordinate with the USFWS office via email to provide the requested information and, if warranted, a revised effects determination.

If you have questions, please contact Mr. Michael R. Gala by phone at 361-814-5847 x1009 or by e-mail at michael.r.gala@usace.army.mil. Please reference file number **SWG-2020-00839** in all correspondence related to this consultation.

Sincerely,

HEINLY.ROBERT.W.1231130400

Digitally signed by HEINLY.ROBERT.W.1231130400
Date: 2021.01.20 08:16:50 -06'00'

Robert W. Heinly
Deputy Chief, Regulatory Division

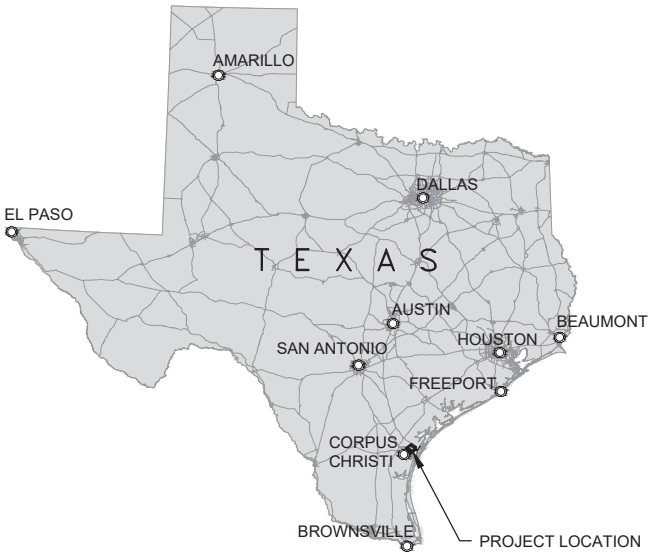
Enclosures

Literature Cited:

Drake, K., K. Drake, and J. Thompson. 2000. The effects of dredge material on piping plovers and snowy plovers along the southern Laguna Madre of Texas. Final Report 1997 1999. Caesar Kleberg Wildlife Research Institute/Texas A&M University, Kingsville. 147 pp.

SWG-2020-00839
11/30/2020

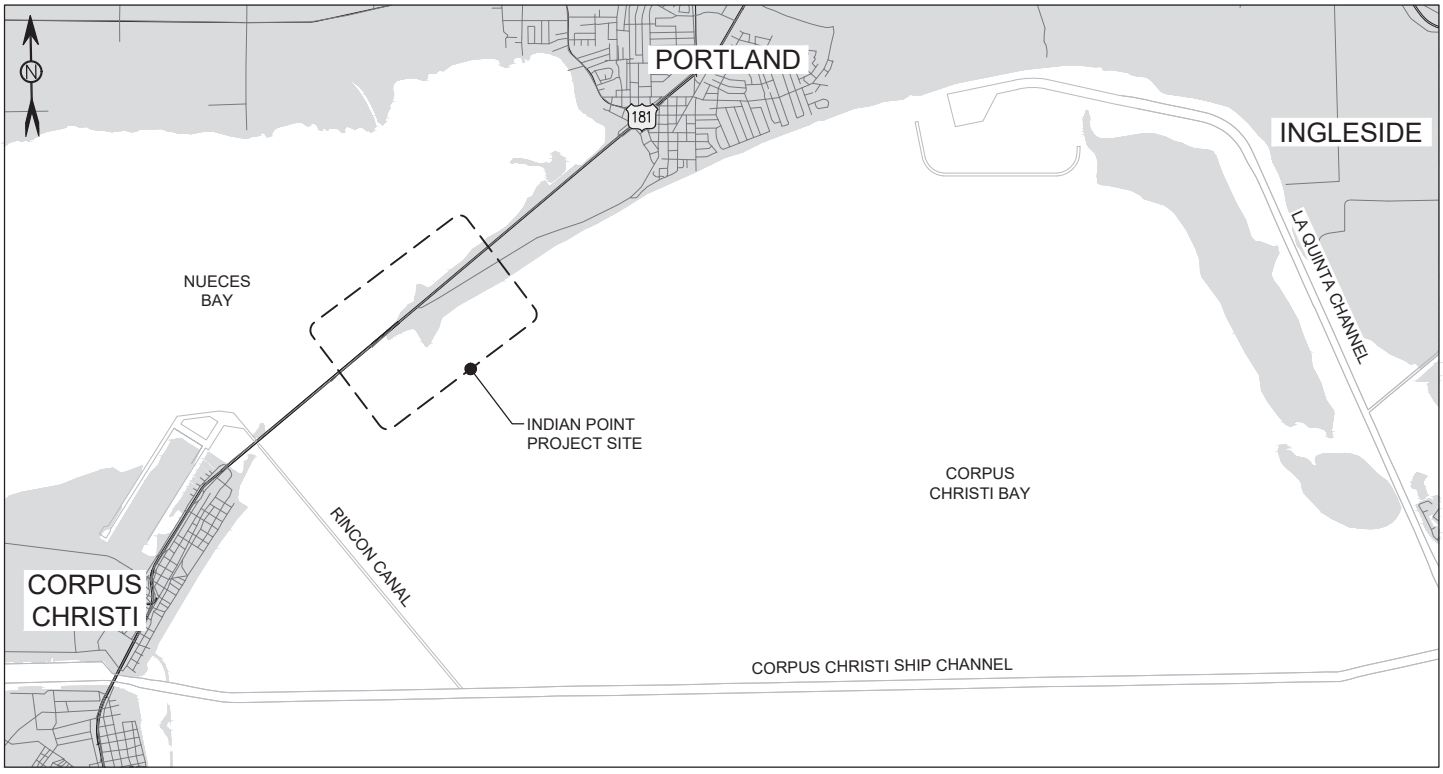
INDIAN POINT CAUSEWAY
SHORELINE EROSION PROTECTION - PHASE 1



DIRECTIONS:
THE PROJECT SITE CAN BE ACCESSED VIA INDIAN POINT PIER ROADWAY LOCATED OFF THE INDIAN POINT PARK EXIT ON THE NUECES BAY CAUSEWAY (TX-35) HIGHWAY.

NATURE OF ACTIVITY:
THE PURPOSE OF THIS PROJECT IS TO PROVIDE SHORELINE STABILIZATION AND ENHANCE SEAGRASS AND MARSH HABITATS ALONG THE SHORELINE SOUTH OF THE INDIAN POINT CAUSEWAY. A LIVING SHORELINE COMPOSED OF SEGEMENTED OFF SHORE RIPRAP BREAKWATERS, LIVING SHORELINE UNITS, OYSTER REEFS, AND SHORELINE FILL WILL BE CONSTRUCTED.

SHEET INDEX



LOCATION MAP
0 4,000 8,000
SCALE IN FEET

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 1 OF 5

MOTT MACDONALD
711 North Carancahua
Suite 1610
Corpus Christi, Texas 78401
Texas Registered Firm No. 12181
T +1 (361) 661-3061
www.mottmac.com

THESE PLANS ARE INTENDED FOR PERMITTING AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION.

SITE ADDRESS:
27° 51' 3.43" N
97° 21' 18.44" W

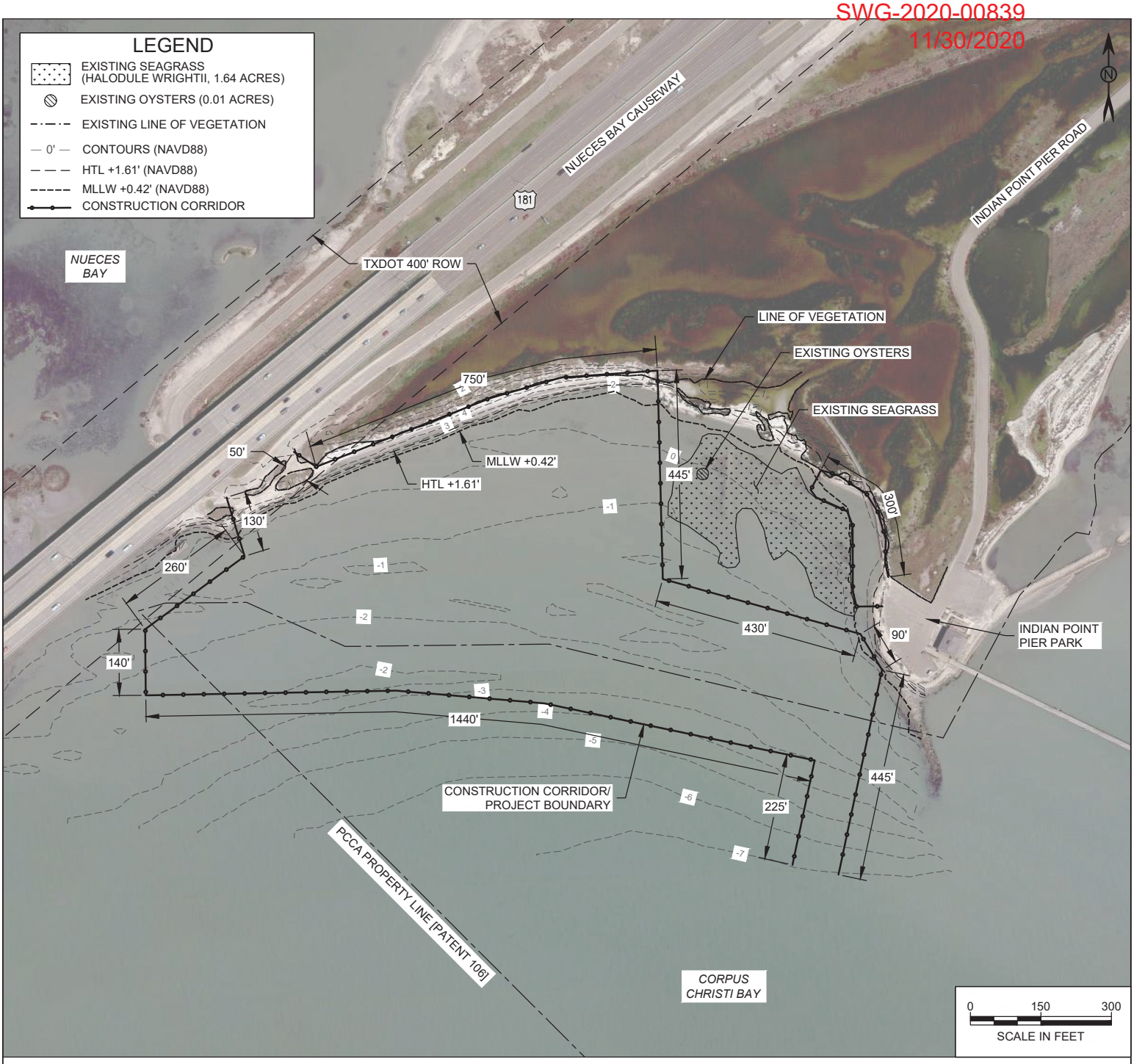
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWINGS IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY
0 1"

CLIENT: PORT OF CORPUS CHRISTI AUTHORITY
IN: NUECES COUNTY
ADJACENT: NUECES BAY
COUNTY: NUECES
STATE: TEXAS
VERTICAL DATUM: NAVD88
HORIZ. DATUM: TSPS NAD83-FT

INDIAN POINT CAUSEWAY
SHORELINE EROSION PROTECTION
PHASE 1

VICINITY - LOCATION MAP

SWG-2020-00839
11/30/2020



NOTES:

1. AERIAL PHOTOGRAPH DATED AUGUST 29, 2017 FROM GOOGLE EARTH .
2. VEGETATION SURVEY WAS PERFORMED BY NAISMITH MARINE SERVICES ON FEBRUARY 12, 2020.
3. BATHYMETRIC SURVEY WAS PERFORMED BY NAISMITH MARINE SERVICES ON FEBRUARY 12, 2020.
4. AERIAL AND SURVEYS FROM THE ABOVE SOURCES ARE SHOWN ON THE FOLLOWING SHEETS AND ARE ONLY REPRESENTATIVE OF THE CONDITIONS AT THE TIME TAKEN.

TIDAL WATER LEVELS (NAVD88)	
HIGH TIDE LINE (HTL)	+1.61'
MEAH HIGHER HIGH WATER (MHHW)	+1.02'
MEAN SEA LEVEL	+0.76'
MEAN LOWER LOW WATER (MLLW)	+0.42'

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 2 OF 5

MOTT MACDONALD
711 North Carancahua
Suite 1610
Corpus Christi, Texas 78401
Texas Registered Firm No. 12181
T +1 (361) 661-3061
www.mottmac.com

THESE PLANS ARE INTENDED FOR PERMITTING AND ARE NOT TO BE USED FOR BIDDING OR CONSTRUCTION.

SITE ADDRESS:
27° 51' 3.43" N
97° 21' 18.44" W

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWINGS IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

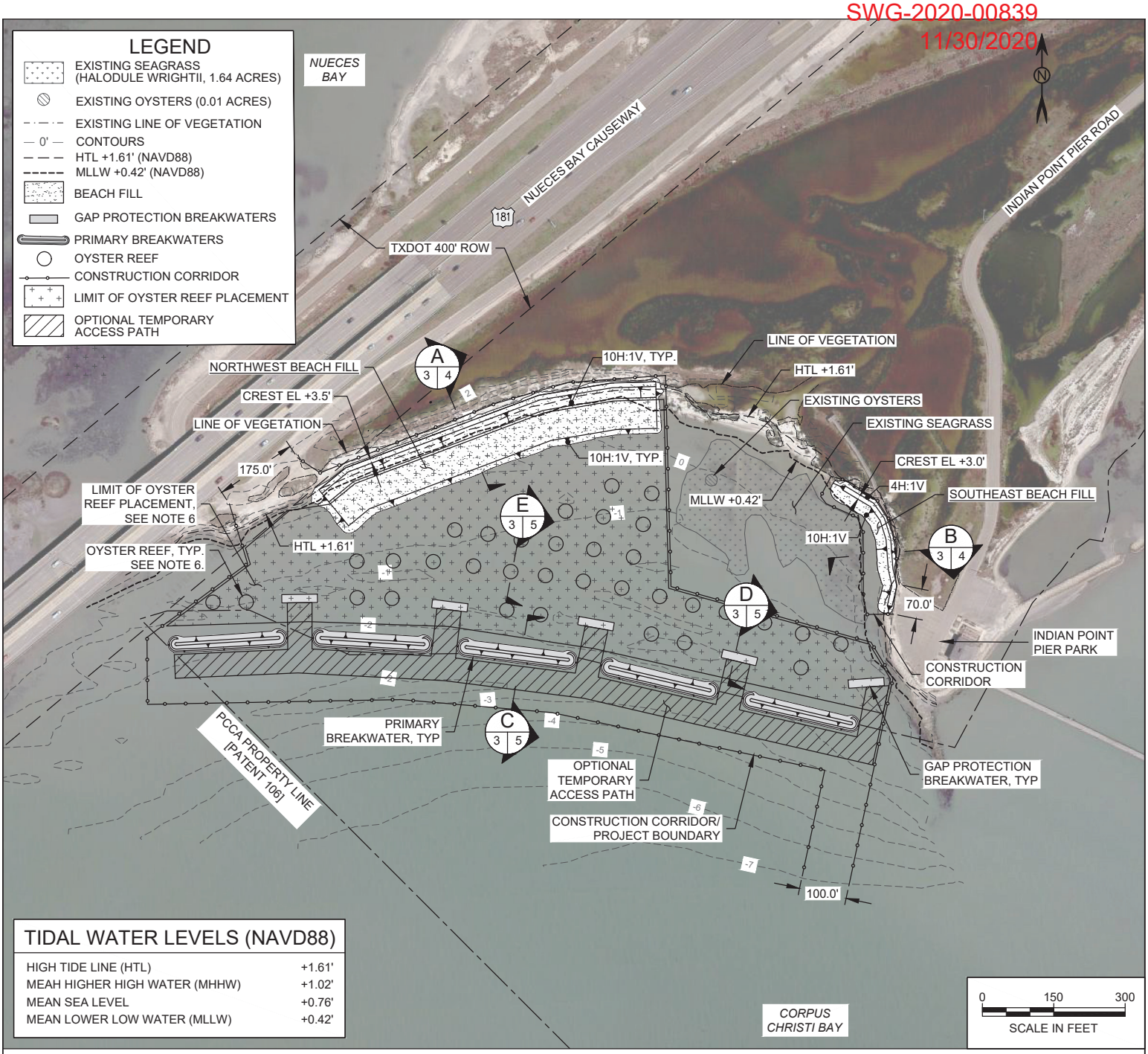
0 1"

CLIENT: PORT OF CORPUS CHRISTI AUTHORITY
IN: NUECES COUNTY
ADJACENT: NUECES BAY
COUNTY: NUECES
STATE: TEXAS
VERTICAL DATUM: NAVD88
HORIZ. DATUM: TSPS NAD83-FT

INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

EXISTING SITE PLAN

SWG-2020-00839
11/30/2020



TIDAL WATER LEVELS (NAVD88)

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NOTES:

1. PROPOSED BREAKWATER, OYSTER REEF, AND BEACH FILL LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN AND/OR DURING CONSTRUCTION DUE TO CHANGE IN CONDITIONS.
2. NAVIGATION AIDS WILL BE PLACED IN ACCORDANCE WITH U.S. COAST GUARD REQUIREMENTS.
3. CONTRACTOR SHALL INSTALL TURBIDITY CURTAINS AND/OR APPROVED EQUAL BMPS TO MINIMIZE TURBIDITY DUE TO CONSTRUCTION IN THE VICINITY OF SEAGRASSES AND OYSTERS.
4. CONTRACTOR SHALL USE CONSTRUCTION MATS OR SIMILAR WITHIN LAND ACCESS AREAS TO MINIMIZE DISTURBANCE TO THE SHORELINE AND VEGETATION.
5. PERMANENT IMPACTS WATERWARD OF THE HTL WILL BE WITHIN UNVEGETATED BAY BOTTOM. NO IMPACTS TO EXISTING SEAGRASS, OYSTERS, OR WETLANDS ARE PROPOSED AS PART OF PROJECT CONSTRUCTION.
6. LAYOUT SHOWN OF PROPOSED OYSTER REEFS IS PRELIMINARY AND IS SUBJECT TO CHANGE. EXACT LOCATION OF PROPOSED OYSTER REEFS WILL BE DEPENDENT ON SEABED ELEVATIONS AFTER THE SITE HAS HAD TIME TO EQUILIBRATE FOLLOWING INSTALLATION OF THE BREAKWATERS AND BEACH FILL. OYSTER REEF PLACEMENT SHALL BE LIMITED TO EXTENTS SHOWN.

MAX PLACED MATERIAL (WATERWARD OF HTL)

MATERIAL	LENGTH (FT)	FOOTPRINT AREA (ACRES)	VOLUME (CY)
BEACH FILL	1,200	3	5,000
BREAKWATER	2,000	2	10,000
OYSTER REEFS	2,100	1.5	2,000

MAX TEMPORARY IMPACTS (SEAWARD OF HTL)

ACTIVITY	FOOTPRINT AREA (ACRES)
CONSTRUCTION CORRIDOR/ PROJECT BOUNDARY	20
OPTIONAL ACCESS PATH	3

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 3 OF 5

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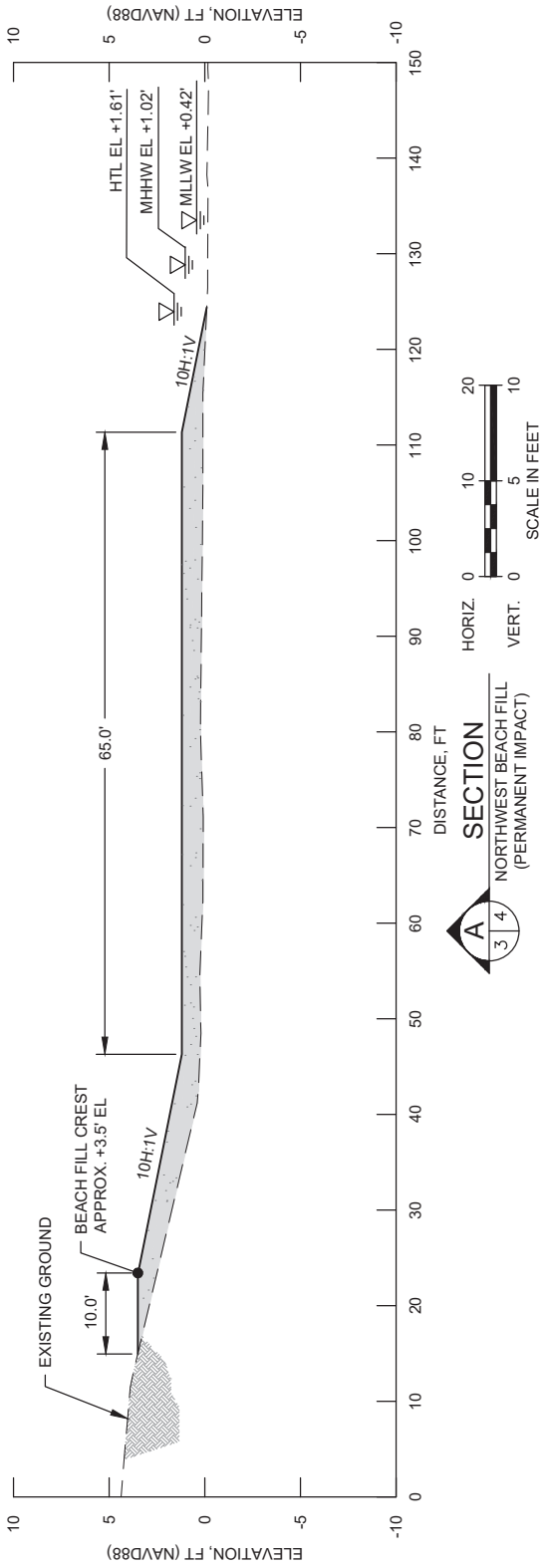
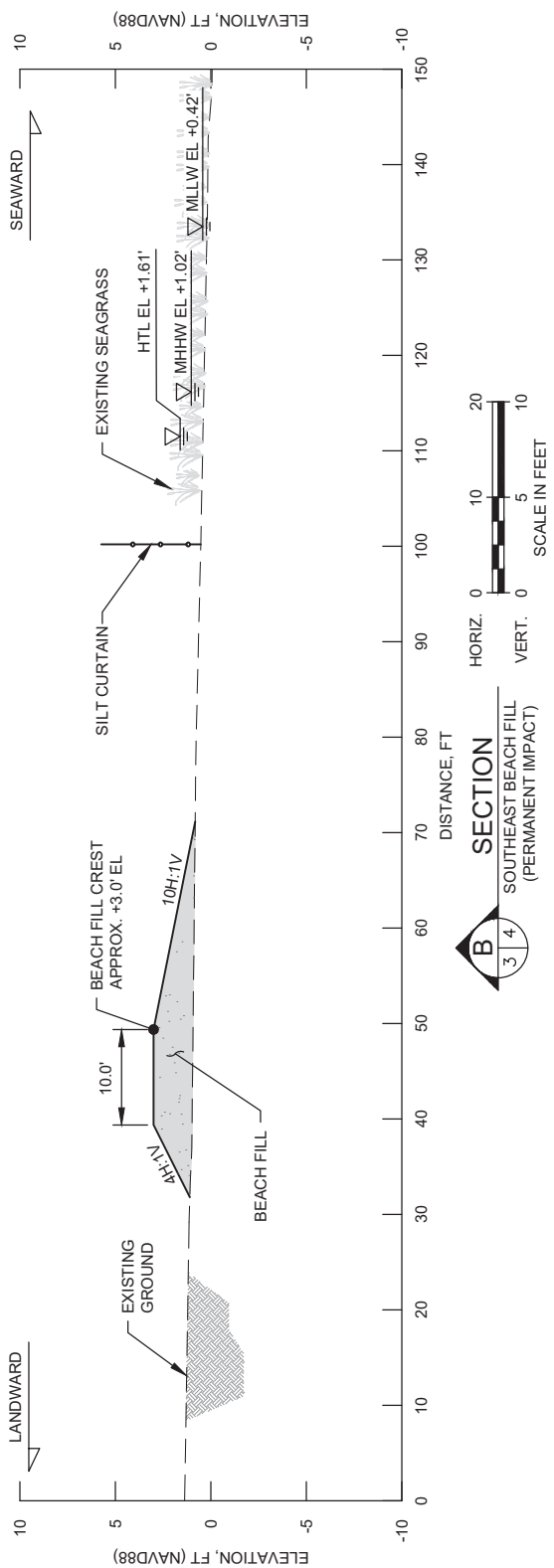
INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

PROPOSED SITE PLAN

PW:\MOTT-USE-PW.BENTLEY.COM:MOTT-USE-PW-10\DOCUMENTS\507407985-INDIAN POINT BREAKWATERS\DRAWINGS_MODELS\12_MA_MARINE\7 - DESIGN\CAD\F - PERMIT\ Oct 23, 2020 - 9:54AM MOR69833

SWG-2020-00839
11/30/2020





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NOTES:
1. PROPOSED BEACH FILL LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020 | SHEET 4 OF 5

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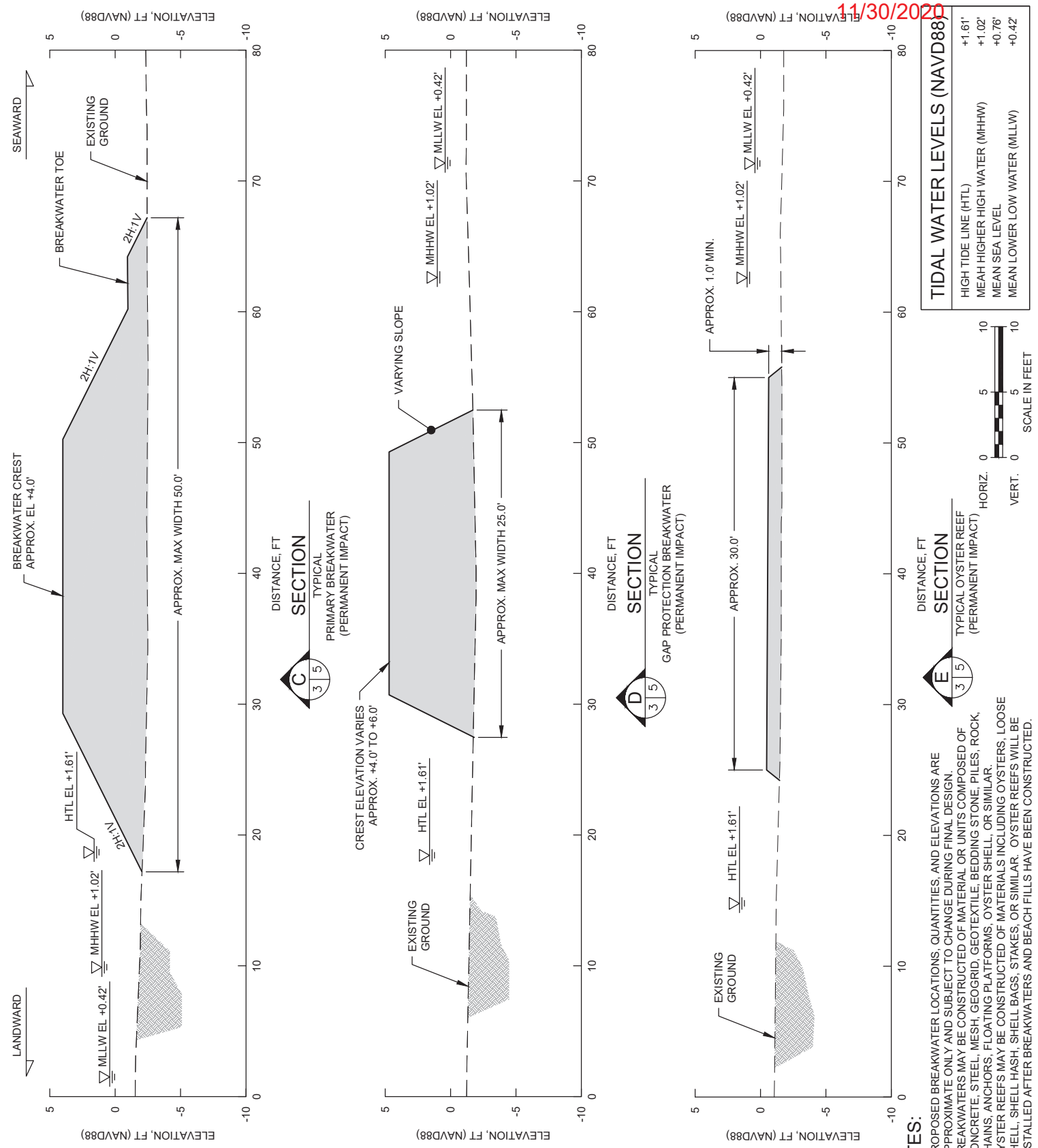
INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

CROSS SECTIONS - 1

SWG-2020-00839
11/30/2020



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NOTES:

1. PROPOSED BREAKWATER LOCATIONS, QUANTITIES, AND ELEVATIONS ARE APPROXIMATE ONLY AND SUBJECT TO CHANGE DURING FINAL DESIGN.
2. BREAKWATERS MAY BE CONSTRUCTED OF MATERIAL OR UNITS COMPOSED OF CONCRETE, STEEL, MESH, GEOGRID, GEOTEXTILE, BEDDING STONE, PILES, ROCK, CHAINS, ANCHORS, FLOATING PLATFORMS, OYSTER SHELL, OR SIMILAR.
3. OYSTER REEFS MAY BE CONSTRUCTED OF MATERIALS INCLUDING OYSTERS, LOOSE SHELL, SHELL HASH, SHELL BAGS, STAKES, OR SIMILAR. OYSTER REEFS WILL BE INSTALLED AFTER BREAKWATERS AND BEACH FILLS HAVE BEEN CONSTRUCTED.

PERMIT

APPLICANT:PORT OF CORPUS CHRISTI AUTHORITY

OCTOBER 23, 2020

SHEET 5 OF 5

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INDIAN POINT CAUSEWAY SHORELINE EROSION PROTECTION PHASE 1

CROSS SECTIONS - 2

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
https://www.fisheries.noaa.gov/region/southeast

Received 7/23/2021

07/23/2021

F/SER31:LW
SERO-2021-00166

Deputy Chief, Regulatory Division
Galveston District Corps of Engineers
Department of the Army
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411

Ref.: SWG-2020-00839, Port of Corpus Christi Authority, Breakwater and Living Shoreline, Portland, San Patricio County, Texas – EXPEDITED TRACK

Dear Mr. Heinly:

This letter responds to your June 7, 2021, request pursuant to Section 7 of the Endangered Species Act (ESA) for consultation with the National Marine Fisheries Service (NMFS) on the subject action.

We reviewed the action agency's consultation request document and related materials. Based on our knowledge, expertise, and the action agency's materials, we concur with the action agency's conclusions that the proposed action is not likely to adversely affect the NMFS ESA-listed species and/or designated critical habitat. This concludes your consultation responsibilities under the ESA for species and/or designated critical habitat under NMFS's purview. Reinitiation of consultation is required and shall be requested by the action agency or by NMFS where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) take occurs; (b) 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 in this consultation; (c) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not previously considered in this consultation; or (d) if a new species is listed or critical habitat designated that may be affected by the action.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Laura Wright, Consultation Biologist, at (727) 209-5977 or by email at Laura.Wright@noaa.gov.

Sincerely,

WUNDERLICH.MARY.JANE.1400345488

Digitally signed by WUNDERLICH.MARY.JANE.1400345488
Date: 2021.07.23 14:06:00 -04'00'

for David Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.f.8

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT
5151 FLYNN PARKWAY, SUITE 306
CORPUS CHRISTI, TEXAS 78411-4318

June 3, 2021

Corpus Christi Regulatory Field Office

SUBJECT: Section 7 Informal Consultation for Department of the Army Permit SWG-2020-00839, Port of Corpus Christi Authority

Mr. David Bernhart
Assistant Regional Administrator
Protected Resources Division
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

Dear Mr. Bernhart:

The U.S. Army Corps of Engineers (Corps) has received an application from Port of Corpus Christi Authority for a permit pursuant to Section 404 of the Clean Water Act (CWA) of 1972, as amended (33 U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act (RHA) of 1899, as amended (33 U.S.C. § 403). The proposed project includes regulated activities required for the work and discharge of fill material to construct multiple breakwaters and one living shoreline, at Indian Point, Portland, San Patricio County, Texas. Specifically, the project is located at 27.85109° North, -97.35711° West. Project plans are enclosed in 5 sheets.

The Corps has determined that the proposed project may affect, but is not likely to adversely affect (NLAA) federally-listed species, as described below, and is therefore requesting concurrence with our determinations pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. § 1536), and the consultation procedures at 50 C.F.R. Part 402.

Pursuant to our request for informal consultation, the Corps is providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;
- A description of any listed species or designated critical habitat (DCH) that may be affected by the action; and,
- An analysis of the potential route(s) of effect on any listed species or DCH.

1. PROPOSED ACTION

Project Purpose

The applicant's stated purpose of the project is to stabilize the Indian Point Shoreline that has been experiencing erosion due to wave impact and lack of engineered shoreline stabilization. Thus, the current conditions of the shoreline leave the existing habitat and upland causeway and infrastructure vulnerable to damage during daily and storm conditions. This proposed living shoreline and breakwater project has been designed to improve these conditions by reducing onshore wave energy, increasing stabilization along the shoreline, and introducing new intertidal and marine habitat areas.

Project Description

The applicant proposes the placement of a maximum of 5,000 cubic yards (cy) of sand along approximately 3 acres of the Indian Point shoreline to stabilize the soil, help absorb low-energy waves, and increase intertidal habitat conditions by establishing a stable slope for the shoreline. The sand fill would be placed along the shoreline below the High Tide Line (HTL) within the unvegetated bay bottom. Fill would not be placed within any existing seagrass areas. Nearshore segmented breakwaters placed in approximately 2 acres of bay bottom would further absorb wave energy offshore and create a low-energy environment in the lee area; they may be constructed of approx. 10,000 cy of material or units composed of concrete, rock, steel, mesh, geotextile, geogrid, bedding stone, piles, chains, anchors, floating platforms, oyster shell, or similarly placed within unvegetated bay bottom below the HTL. Oyster reefs would be constructed to provide new marine habitat; they would be composed of approximately 2,000 cy of shell hash, shell bags, live oysters, or similarly placed material within unvegetated bay bottom below the HTL in an approximate 1.5-acre area.

The proposed project would be constructed using heavy construction equipment such as barge-mounted excavators, marsh excavators, or similar and is expected to take 2 to 4 months. The concrete, rock, steel, mesh, geotextile, geogrid, bedding stone, piles, chains, anchors, floating platforms, oyster shell, or similarly would be selectively placed to meet the designed breakwater parameters, elevations, and slopes. The beach fill would likely be constructed using land-based earthwork equipment such as loaders, mini excavators, and similar. The oyster reefs may be installed by hand and/or with heavy equipment such as an excavator. Construction material may be stockpiled on land away from any sensitive habitats and/or on barges anchored within the work area limits. Silt curtains or similar would be placed adjacent to existing seagrasses. The water depths are shallow where the silt curtains would be placed, but stakes may be used to secure the curtain if needed. Stakes would be either installed by hand or pushed into the bottom using an excavator. Operations requiring sound mitigation such

as impact driving are not proposed as part of this project. As the breakwaters are constructed, wave energy in the lee area (i.e., where the silt curtains would be located) would reduce. It is anticipated that the silt curtains would be stable, and the contractor would be required to monitor and maintain the curtains throughout construction to ensure their placement remains stable, and they function as needed. A temporary access channel maybe required to install the new breakwaters. A temporary access channel maybe required to construct the new breakwaters. If needed the access channel would include dredging to -3 feet mean lower low water via mechanical means and restored to previous conditions once construction is complete.

Minimization Measures

For installation of proposed breakwaters and oyster reefs, including the option to dredge a temporary access channel for barges to access submerged construction areas, the Port of Corpus Christi agrees to follow the National Marine Fisheries Service's (NMFS) *Sea Turtle and Smalltooth Sawfish Construction Conditions* (2006) for all ESA listed species under NFMS authority within the action area. To assist in protection of listed species all work will be conducted during daytime ours.

2. ACTION AREA

Pursuant to 50 C.F.R. § 402.02, the term *action area* is defined as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action." Accordingly, the action area typically includes the affected jurisdictional waters and other areas affected by the authorized work or structures within a reasonable distance. The ESA regulations recognize that, in some circumstances, the action area may extend beyond the limits of the Corps' regulatory jurisdiction.

The Corps has defined the action area to include the proposed project's footprint, staging areas, and the immediate vicinity.

Existing Conditions

The Indian Point project site is a section of shoreline located on the Corpus Christi Bay, between the Highway 181 bridge (Nueces Bay Causeway) and the armored groin at the end of the Indian Point Park parking lot. This section of shoreline is very dynamic; erosion, beach morphology, and reduction to vegetation and habitat coverage and density has been observed over the past few decades. In its present state, there is minimal sandy beach with exposed sections of marsh vegetation. A recent habitat survey showed that there are minimal oysters present and a lack of substantial aquatic vegetation habitat with an estimated depth of 3 feet MLLW. The existing shoreline is vulnerable to direct wave impact. Furthermore, the offshore bathymetry has been observed to be deepening, allowing greater wave energy to propagate further inshore,

leading to more erosive conditions. Without an engineered protection project, this stretch of shoreline can be expected to continue eroding until the wetlands located behind the remaining beach become fully exposed to the Corpus Christi Bay, at which point further erosion and wetlands damage would only intensify. The eroded conditions of the shoreline and marsh would also increase the vulnerability of the Nueces Bay Causeway and adjacent roadways.

3. AFFECTED SPECIES/HABITAT

Project activities have the potential to affect the listed species as shown in Table 1 below. The action area is not located within or immediately adjacent to DCH for any of the species listed in Table 1.

Table 1: Species in the action area

Species	ESA Listing Status[1]	Listing Rule/Date	Most Recent recovery plan date	USACE Effect Determination (Species)
Green sea turtle[2]	T	81 FR 20057/ April 6, 2016	October 1991	NLAA[3]
Kemp's ridley sea turtle	E	35 FR 18319/ December 2, 1970	September 2011	NLAA
Leatherback sea turtle	E	35 FR 8491/ June 2, 1970	April 1992	NLAA
Loggerhead sea turtle[4]	T	76 FR 58868/ September 22, 2011	December 2008	NLAA
Hawksbill sea turtle	E	35 FR 8491/ June 2, 1970	December 1993	NLAA
Giant Manta Ray	E	83 FR 2916/January 22, 2018	December 2019	NLAA

[1] E = endangered; T = threatened
[2] North Atlantic and South Atlantic Distinct Population Segments (DPS)
[3] NLAA = not likely to adversely affect
[4] Northwest Atlantic Ocean DPS

4. ROUTE(S) OF EFFECT TO SPECIES:

Physical effects of the action on protected speciesinclude the risk of physical injury during the placement of the rock to construct the breakwaters. There is also a possibility of a protected species strike while moving the barge. The Corps believes these effects will be discountable due to the species' ability to move away from the

project sites if disturbed and the relatively small area where the proposed action would occur. The potential for physical injury to protected species is further reduced because the permit would not authorize activities resulting in the permanent loss of waters of the U.S. or discharges of dredged or fill material within special aquatic sites, including seagrass beds and oyster reefs where these species are known to feed. Additionally, the applicant's adherence to the proposed minimization measures, discussed in Section 1 of this letter, would require that activities cease if a listed species is identified in the area and would not resume until the protected species has departed the project area of its own volition.

Protected species may also be affected by the temporary unavailability of individual project areas within the action area during construction activities, turbidity, and related noise. The action area currently supports limited resources to support frequent or prolonged foraging of the area by protected species. As such, typical pre-construction daily use of the action area by protected species is likely sporadic and infrequent. Although, protected species may forage in the area, the size of the area from which animals will be excluded is relatively small in comparison to the available similar habitat in nearby areas of Corpus Christi Bay. As previously discussed, construction activities (i.e. barge and construction equipment traffic and noise and discharge activities) are expected to cause protected species to avoid the area while these actions occur. Existing seagrass within the action area would be protected from turbidity caused by the proposed construction activities; therefore, there will be no long-term effect on foraging habitat. Siltation barriers used during construction will follow all requirements specified in the *Sea Turtle and Smalltooth Sawfish Construction Conditions (2006)*. Therefore, the temporary inability of these species to access the action area during construction would be discountable.

Protected species may also be affected by elevated noise levels caused by projects authorized under actions that involve the installation of breakwaters. Sound generated by activities related to dredging and associated vessels are considered non-impulsive noise sources, while pile driving activities are considered to be an impulsive sound source. In June 2008, multiple agencies participating in the Fisheries Hydroacoustic Working Group formed by National Marine Fisheries Service (NMFS) signed a memorandum of understanding documenting interim criteria for assessing physiological effects of pile-driving on fish. Since fish are considered by NMFS to be more sensitive to physical injury than sea turtles, NMFS utilizes fish thresholds for both fish and sea turtles as conservative interim criteria.

The following threshold standards for non-impulsive noise are used by NMFS's Southeast Regional Office (NMFS 2020):

- Physical Injury for Sea Turtles and Fish (all sizes): 206 dB re 1 µPa (peak pressure).
- Physical Injury (cSEL) for Sea Turtles and Fish over 102 grams: 234 dB re 1 µPa.
- Behavior for Sea Turtles: 175 dB re 1 µPa.

A recent paper (USACE 2019) comparing available acoustic studies that have evaluated the effects of dredging-induced underwater sound on aquatic species found sound decibel levels recorded from various dredging types range from approximately 100-190 dB re 1 µPa at 1 meter. Even at the maximum range of 190 dB, this source level would be below the physical injury thresholds for sea turtles. Therefore, the Corps has determined that noise effects caused by the proposed action will be discountable.

5. ROUTES OF EFFECT TO CRITICAL HABITAT

The project is not located in DCH for these species, and there are no potential routes of effect to any designated critical habitat for these species.

6. DETERMINATION:

The Corps has reviewed the proposed project impacts to federally listed species and their DCH. The Corps has concluded that all potential project effects to the species listed in Table 1 were found to be discountable and/ordinsignificant. Therefore, the Corps has determined that the project may affect, but is not likely to adversely affect these species,. This analysis was prepared based on the best scientific and commercial data available.

The Corps is requesting NMFS written concurrence with these determinations. The Corps appreciates your cooperation in completing this informal Section 7 consultation by concurring with the Corps' effect determination in a timely manner. If NMFS disagrees with the Corps' effect determinations and requests formal Section 7 consultation, please contact the below-referenced Project Manager to discuss suggested modifications to the action to avoid potential adverse effects and NMFS' additional information needs. The Corps will continue to coordinate with the NMFS office via email to provide the requested information and, if warranted, a revised effects determination.

If you have questions, please contact Mr. Michael R. Gala by phone at 361-814-5847 x1009 or by e-mail at michael.r.gala@usace.army.mil. Please reference file number **SWG-2020-00839** in all correspondence related to this consultation.

Sincerely,

Robert W. Heinly

Robert W. Heinly
Deputy Chief, Regulatory Division

Enclosures

Literature Cited:

NMFS. 2020. South Atlantic Regional Biological Opinion for dredging and material placement activities in the southeast United States (2020 SARBO). U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, SERO-2019-03111, revised July 30, 2020, Saint Petersburg, FL.

USACE. 2019a. Evaluating effects of dredging-induced underwater sound on aquatic species: A literature review. U.S. Department of Defense, Army Corps of Engineers, Engineer Research and Development Center, Dredging Operations and Environmental Research (DOER), ERDC/EL TR-19-18, Vicksburg, MS

NOTICE TO PERMITTEES

Department of the Army Permits for Work in Navigable Waters require attention to administration and policies which are often misunderstood or disregarded. To avoid possible misinterpretations and to expedite procedures, post-authorization permit requirements and pertinent information are outlined as follows:

1. Permits remain in effect until revoked, relinquished, or the structures are removed. An extension of time for completion of structures or work may be granted provided that evidence is furnished of the bona fide intention of the permittee to complete the work within a reasonable time. Coordination with Federal and state agencies, and/or the public may be required. If work or structures are not completed within the time provided in the permit, it is the permittee' s responsibility to request an extension of time at least 4 months before the expiration date.

2. Maintenance of authorized completed structures may be done at any time, under the Corps of Engineers Nationwide Permit (NWP) program, without extending the completion period. Unless maintenance dredging is authorized by the original permit, specific prior approval is required before such work is commenced in navigable waters. Please visit our website for further information or call 409-766-3869.

3. If ownership of structures or work covered by a permit is transferred, the District Commander must be notified immediately. The notification will provide information so that permit responsibilities can be changed to the new owner or assignee. Please visit our website for further information or call 409-766-3869.

4. Projects that may affect Federal properties (owned or controlled by Corps of Engineers) often require real estate authorizations from the Corps Real Estate Division prior to impacting any of these Federally-owned/operated lands. Please visit the Galveston District's website for the most current information regarding the District's outgrant policy at http://www.swg.usace.army.mil/BusinessWithUs/RealEstateDivision/Outgrants.aspx.

5. All changes, associated with the Corps of Engineers authorization, must be submitted and approved, to the District Commander prior to start of work in Waters of the United States.

6. Permits should not be considered as an approval of design features of any structure authorized or an implication that such structure is adequate for the purpose intended.

DISTRICT COMMANDER
GALVESTON DISTRICT
CORPS OF ENGINEERS