

Letter #10: National Marine Fisheries Service (NMFS)



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

July 22, 2010 F/SER46/PW:jk
225/389-0508

Ms. Joan M. Exnicios, Chief
Environmental Planning and Compliance Branch
Planning, Programs, and Management Division
New Orleans District, U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Ms. Exnicios:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Pre-Decisional Draft Integrated Feasibility Study and Supplemental Environmental Impact Statement (SEIS) for the Louisiana Coastal Area (LCA) Terrebonne Basin Barrier Shoreline Restoration, Terrebonne Parish, Louisiana. This document was transmitted for our review by your letter dated June 10, 2010. It should be noted that NMFS has agreed to serve as a cooperating agency on this project under provisions of the National Environmental Policy Act.

A total of 12 alternatives were evaluated in the final array to restore and maintain the Isle Dernieres and Timbalier Islands. With the exception of the No Action alternative, various plans of differing widths and elevations were evaluated for each alternative. Alternative Five, comprised of Raccoon Island with a terminal groin, and Whiskey, Trinity, and Timbalier Islands was selected as the National Environmental Restoration (NER) and Tentatively Selected Plans (TSP). However, this NER/TSP cannot be constructed within the funding constraints of the current Water Resources Development Act (WRDA) 2007 authorization. As a result, Whiskey Island with maintenance events at years 20 and 40 was recommended as a first increment of construction. When compared to the No Action alternative over the 50-year period of analysis, this recommended increment would result in 379.1 Average Annual Habitat Units and 527 net acres as assessed with the Wetland Value Assessment methodology. The estimated fully funded cost without the maintenance events is \$119,000,000. Each nourishment event is estimated to cost \$173,000,000. Re-nourishment is considered an operations and maintenance cost that will be fully funded by the non-federal sponsor and does not count toward the WRDA 2007 authorization cap of \$180,900,000 for this project.

The enclosed comments are provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act. It should be noted that given the initial adverse impacts of project construction activities on EFH, as per requirements of the



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Magnuson-Stevens Fishery Conservation and Management Act and our findings with the New Orleans District, NMFS has provided EFH conservation recommendations in the enclosure to this letter. Efforts to resolve NMFS' concerns regarding adverse impacts to EFH should be implemented during the Preliminary Engineering and Design phase of project implementation.

Sincerely,



Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

Enclosure

c:
FWS, Lafayette, Walther
EPA, Dallas, Ettinger
LA DNR, Consistency, Ducote
F/SER46, Swafford
F/SER4, Dale
NOAA PPI, Reid
Files

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ENCLOSURE

National Marine Fisheries Service (NMFS) Comments on the Pre-Decisional Draft Integrated Feasibility Study and Supplemental Environmental Impact Statement (SEIS) for the Louisiana Coastal Area (LCA) Terrebonne Basin Barrier Shoreline Restoration Project, Terrebonne Parish, Louisiana
Authorized under the Water Resources Development Act of 2007

Essential Fish Habitat Consultation

NMFS views the submittal of the SEIS as an expression of intent by the Corps of Engineers (COE) to initiate essential fish habitat (EFH) consultation as required by provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (P.L. 104-297). NMFS' response is provided in accordance with the EFH regulations (50 CFR 600.920(i)(4)) and focuses on the adequacy of the SEIS to fulfill the requirements of an EFH assessment.

Based on our review of the SEIS, NMFS has determined that the document contains all required EFH assessment contents listed in section 600.920(e)(3) of the EFH regulations. Specific comments are provided where NMFS believes clarification or additional information is needed concerning EFH and other environmental factors. For example, a key concern of NMFS is the substantial temporal adverse impacts to EFH that would result from dredging and filling to construct various alternatives and plans. Because construction activities would initially cause substantial adverse impacts to existing barrier island habitats identified as EFH, NMFS believes that measures to avoid, minimize, and offset adverse effects must be implemented. Most important of these measures with respect to the proposed action is the need to minimize adverse impacts to intertidal habitat to the maximum extent practicable and maximize the creation and maintenance of that habitat over the entire project life. Other measures include means to ensure created habitats develop natural habitat functions.

Given the substantial initial construction impacts and the need to minimize impacts to intertidal habitats, the COE should coordinate with the natural resources agencies during the preliminary engineering and design (PED) phase to further refine project alternatives. During the PED phase of project implementation, design measures to create habitat heterogeneity (e.g., tidal creeks and ponds) and function (e.g., degrading/gapping containment dikes) should be evaluated. Best management practices also should be developed during the PED phase of project construction, in coordination with the natural resource agencies.

The EFH assessment provided a basis and justification for implementing the Tentatively Selected Plan (TSP) when the benefits for that effort are compared to the consequences of the No Action alternative. However, NMFS believes additional measures are necessary to avoid, minimize, and offset potential impacts to EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires that NMFS provide EFH conservation recommendations for any federal action that may result in adverse impacts to EFH. Therefore, NMFS recommends the following to ensure the conservation of EFH and associated marine fishery resources:

NMFS10-01: PED will consider means of offsetting adverse impacts to EFH from the proposed construction, with the goal of minimizing those impacts while creating viable sustainable intertidal habitat.

NMFS10-02: The Preconstruction Engineering and Design process will include consultation with natural resource agencies to ensure necessary habitat heterogeneity and function design measures are incorporated in the project.

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EFH Conservation Recommendations

1. Means to avoid and minimize direct and temporal adverse impacts to intertidal habitat for Timbalier and Raccoon Islands should be adopted. This includes, but is not limited to, adoption of alternative plans or plan hybridization during the PED phase of project implementation.
2. Including tidal creeks and ponds in created marsh platform designs should be considered to the maximum extent practicable to ensure the development of functional habitat heterogeneity.
3. Containment dikes for the marsh platforms should be degraded or gapped in an acceptable manner to be developed through coordination with NMFS.
4. During the PED phase of project implementation, the need for dredging windows to avoid or minimize potential impacts to blue crab in the vicinity of Ship Shoal should be considered through further coordination with NMFS, the Bureau of Ocean Energy Management, Regulation and Enforcement, and other interested resource agencies.

Consistent with Section 305(b)(4)(B) of the Magnuson-Stevens Act and the NMFS' implementing regulation at 50 CFR 600.920(k), the COE is required to provide a written response to these EFH conservation recommendations within 30 days of receipt. As per the findings with the New Orleans District (NOD) pertaining to EFH coordination on planning and operations activities subject to provisions of the National Environmental Policy Act, if the COE is unable to complete a signed Record of Decision for this project within 30 days of receiving NMFS' EFH Conservation Recommendations, the NOD should provide NMFS with an interim written response within 30 days. The NOD should then provide a detailed response at least 10 days prior to signing of a Record of Decision. If the NOD's response is inconsistent with the EFH conservation recommendations, the NOD must provide a substantive discussion justifying the reasons for not implementing those recommendations.

General Comments

Given existing workloads, NMFS has concentrated its review on the environmental consequences of the Tentatively Selected Plan (TSP). By letter dated May 25, 2010, NMFS submitted comments to the Fish and Wildlife Service on the initial draft Fish and Wildlife Coordination Act Report. We recommend those comments be incorporated directly or by reference into the final SEIS. We also request adherence to Positions and Recommendations listed in the May 2010 draft Fish and Wildlife Coordination Act Report. Any future decision to select a different action alternative or modifications in design that result in increased direct or indirect impacts to EFH would likely create the need for another SEIS.

NMFS is concerned with the significant amount of temporal adverse impacts, including extended loss of ecosystem services, to intertidal habitat that would occur with restoration construction

NMFS10-3: The PED process will develop island design alternatives that address impact minimization.

NMFS10-4: The PED process will develop island design alternatives that address habitat heterogeneity, stability, and longevity.

NMFS10-5: The PED process will develop island design alternatives that address habitat heterogeneity, stability, and longevity.

NMFS10-6: All concerned agencies will be consulted regarding timing of utilization of the Ship Shoal borrow areas in order to minimize impact to fisheries resources.

NMFS10-7: Acknowledged. Previously submitted comments have been incorporated into the SEIS.

NMFS10-8: Acknowledged.

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proposed for Timbalier and Raccoon Islands. The design philosophy employed with this alternative is to sequester substantial amounts of fill at supratidal elevations to provide barrier and structural integrity functions. However, until these elevations subside and are subjected to sea level rise and storm losses, there would be a net loss of 450, 592, 415, and 250 acres of intertidal habitat at target years (TY) one, five, ten, and twenty, respectively, on Timbalier and Raccoon Islands. Pursuit of Plan E for these islands as the "best buy" in terms of cost effectiveness is based on the speculation that benefits from intertidal habitat gains and other habitats during years 30 to 50 would offset these temporal losses projected to occur through year 30.

The final array of alternatives focused on attaining the "best buy." As acknowledged in the SEIS, a best-buy focus results in a restoration plan of the island or islands that is most cost effective rather than restoring the integrity of a barrier island chain. The goal of the LCA study is a comprehensive and integrated plan for multiple benefits, including the environment, economy and culture of southern Louisiana. This goal includes sustaining and restoring coastal ecosystems with essential functions and diversity. NMFS is supportive of restoring as many barrier islands as possible and pleased that the TSP now includes multiple islands rather than just Whiskey Island. Recognizing the funding constraints of the authorization, the incremental approach to restoring multiple islands is understood. However, proceeding with only a single island increment highlights that near-term ecosystem-level goals of the LCA study are not attainable unless more funding is authorized. The SEIS should further emphasize that fulfilling the intended basin scale island restoration goal depends upon additional federal and non-federal funds being provided to support project implementation.

Given the amount of restoration needed for coastal Louisiana, funding is a substantial challenge and is a potential limitation in plan formulation and project implementation. When evaluating the merits of the type and scale of various LCA projects, NMFS discourages comparisons of mainland versus island projects, in particular cost-benefit comparisons. Islands provide unique marine-estuarine transitional habitat for fish and wildlife communities that are distinctly different from other mainland habitats. Barrier island habitats interspersed around and within islands are selectively preferred by different groups of fish and crustaceans. In addition, restoration of barrier island habitats is inherently more expensive than similar acreages of mainland wetlands. Any comparison of LCA cost effectiveness should only be made within island alternatives and not between island and mainland projects.

Specific Comments

SECTION 3.0 ALTERNATIVES 3.5 Comparison of Alternative Plans

Page 3-77, line 3440 Table 3-37 should be revised to indicate data therein is for Timbalier Island Plan E, not C.

3.8 Plan Selection-Recommended Increment for Construction

NMFS10-9: Concur. There is an obvious trade-off to obtain the desired protection and long-term habitat values.

NMFS10-10: Concur. The report indicates the desirability of the basin scale restoration.

NMFS10-11: Concur. This is a policy issue beyond the scope of this report.

NMFS10-12: This correction either has been or will be undertaken.

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3.8.6 Components

Page 3-92, lines 3982-3988 The performance of sand fences varies depending on sediment type, time of construction relative to fill placement, number of rows, and alignment. NMFS discourages the use of alignments other than shore parallel. The number and size of gaps in the fences should be coordinated with the Fish and Wildlife Service and Louisiana Department of Wildlife and Fisheries to allow passage of wildlife species. NMFS encourages an offset section of fence be considered for inclusion in front of or behind the gaps to minimize overwash vulnerability at the gaps. This section of the final SEIS should be revised to identify the orientation of sand fences, gaps, and number of rows. This section also should be revised to identify species and spacing for vegetative plantings either directly or through reference to an appendix.

SECTION 4.0 AFFECTED ENVIRONMENT

4.2 Significant Resources

4.2.8 Aquatic Resources

4.2.8.2 Benthic

Dubois et al. (2009) provided information on the diversity and composition of macrobenthic communities associated with sandy shoals to be targeted as borrow for this project. NMFS recommends the final SEIS be revised to cite this reference and summarize information contained therein.

4.2.9 Fisheries

4.2.9.2 Existing Conditions

Page 4-56, lines 6330 and 6336 The date of the Williams fisheries study on East Timbalier Island should be changed from 1988 to 1998.

Page 4-59, Blue Crab NMFS recommends the use of Ship Shoal as spawning, hatching, and foraging grounds for blue crab be discussed in the final SEIS using data and observations from Gelpi et al. (2009).

Page 4-59, line 6444 The date of the Williams fisheries study on East Timbalier Island should be changed from 1988 to 1998. It should be noted in the final SEIS that that study identified barrier island sand flats as a significant nursery habitat for lesser blue crab.

4.2.10 Essential Fish Habitat (EFH)

Page 4-62, lines 6493-6496 Information in this table is outdated and incomplete. Detailed information on federally managed fisheries and their EFH is provided in the 2005 Generic Amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council. Summary guidance is available upon request. The final

NMFS10-13: Sand fencing and vegetation palette and planting issues are described in Appendix L.

NMFS10-14: Pertinent information from Dubois, *et al.* (2009) will be incorporated into the report and considered during PED.

NMFS10-15: Concur. The date will be corrected.

NMFS10-16: Pertinent information from Gelpi, *et al.* (2009) will be incorporated into the report and considered during PED.

NMFS10-17: The date will be corrected. The blue crab nursery issue will be addressed.

NMFS10-18: The table will be updated.

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SEIS should include up-to-date information on EFH categories and appropriate species and life stages to be impacted by project implementation.

SECTION 5.0 ENVIRONMENTAL CONSEQUENCES

5.6 Vegetation Resources

5.6.2 Wetland Vegetation Resources

Page 5-39 Clarification is needed on the acres of direct, indirect and cumulative impacts by habitat type for each alternative in this section. The cumulative impact sections should be revised to not only include a running total or acres impacted for the proposed features, but also the overall net change, including the other islands, to illustrate barrier shoreline sustainability on the basin level.

For each alternative there will be substantial direct impacts to intertidal elevations during construction. This is based on the need for initial fill elevations to allow for compaction and consolidation, much of which was projected to occur by TY 5. NMFS recommends the direct impact sections for each alternative be revised to include both the TY 1 and 5 acres to reflect the initial construction impacts and their temporary nature.

5.6.2.1 Direct

Page 5-40, lines 9242-9246 Based on comparison of Tables 3-19 and 3-35, -59 acres of direct impact of intertidal habitat should be listed. NMFS concurs that 529 acres of dune and supratidal habitat would be restored. However, 463 acres instead of 477 acres of dune and supratidal habitats at TY 20 would result from renourishment. Also, 556 acres of dune and supratidal habitat instead of 360 acres would result with the renourishment at TY 40.

The loss of 59 acres of intertidal habitat results from the need for an initial fill elevation for the marsh platform to allow for consolidation and compaction. Once that occurs, there is a positive 116 acres of intertidal habitat by TY 5. NMFS suggests the TY 5 acres also be listed under the direct impact section(s) to illustrate the temporary nature of these impacts.

5.6.2.2.6 Cumulative

Page 5-41, line 9295 Please re-verify the acres of net benefit for Alternative 2, Timbalier (Plan E). NMFS calculated the TY 50 net gain to be 1,322 acres, not 1,139 acres.

5.6.2.3 Cumulative

Page 5-42, line 9321 NMFS calculated the TY 50 net gain as 1,802 acres, not 1,502. Please verify the correct acres and revise as needed.

5.6.2.4.1 Direct

Page 5-42 The 528, 347, and 1,979 should be identified as dune and supratidal acres. Also, please verify that the acres listed under direct, indirect, and cumulative for sections 5.6.2.4 and 5.6.2.5 are correct.

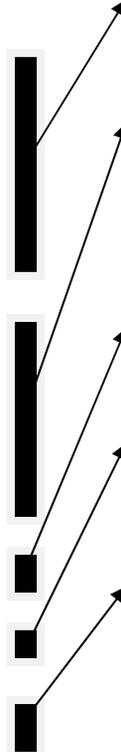
NMFS10-19: The desire for additional information is understood. The suggested revisions will be considered, time permitting.

NMFS10-20: The figures will be verified and corrected, if needed. The suggested revisions will be considered, time permitting.

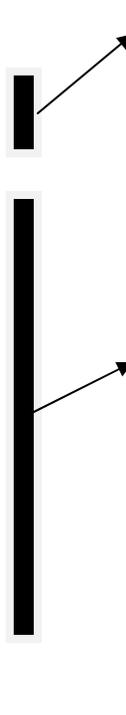
NMFS10-21: The acreage figures will be verified and corrected, if needed.

NMFS10-22: The acreage figures will be verified and corrected, if needed.

NMFS10-23: The numbers will be correctly identified and verified.



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- NMFS10-24: Potential impact to blue crab population and fisheries will be considered during the PED process. This is an issue that requires interagency and intergovernmental coordination and cooperation, which will be emphasized.
 - NMFS10-25: Concerns about the potential negative impacts to fisheries resources resulting from this proposed project are understood and appreciated. The referenced sections of the report will be revisited, time permitting, to further address the competing issues of short-term impact versus long-term benefit posed in this comment. The final acreage figures for impacted areas will be developed during the PED phase.

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Literature Cited

- Dubois, S., C.G. Gelpi, Jr., R.E. Condrey, M.A. Grippo, and J.W. Fleeger. 2009. Diversity and composition with sandy shoals of the Louisiana continental shelf. Biodiversity Conservation. COE 10.1007/s10531-009-9678-3.
- Gelpi, C.G., Jr., R.E. Condrey, J.W. Fleeger, and S.F. Dubois. 2009. Discovery, evaluation, and implications of blue crab, *Callinectes sapidus*, spawning, hatching, and foraging grounds in Federal (USS) waters offshore Louisiana. Bulletin of Marine Sciences 85(3):3203-222.

Letter #11: National Marine Fisheries Service (NMFS)



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

May 25, 2010

F/SER46/PW:jk
225/389-0508

Mr. James F. Boggs, Field Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service
646 Cajundome Boulevard, Suite 400
Lafayette, Louisiana 70506

Dear Mr. Boggs:

NOAA's National Marine Fisheries Service (NMFS) has received the draft Fish and Wildlife Coordination Act Report (Report) titled "Louisiana Coastal Area - Terrebonne Basin Barrier Shoreline Restoration, Integrated Feasibility Study" (TBBSR). The Report discusses the U.S. Fish and Wildlife Service's initial findings and recommendations associated with the National Ecosystem Restoration (NER) Plan and Corps of Engineers' Tentatively Selected Plan (TSP) for barrier island restoration in Terrebonne Parish, Louisiana.

As described in the Report, 12 alternatives were included in the final array. Various plans of differing widths and elevations were evaluated. After numerous iterations of TSP formulation, the Corps of Engineers identified the TSP to consist of Plan C for Whiskey Island only. That alternative includes 622 acres of beach/dune with a +6.4 feet NAVD 88 dune crown, that is 100 feet wide, and approximately 100 acres of created marsh elevations constructed landward of the dune to a +2.4 feet NAVD 88 for a settled target of +1.6 feet NAVD 88.

NMFS supports further emphasis in the Report on two broad points. These are: 1) implementation of a comprehensive coastal ecosystem restoration plan should include construction of both barrier islands and mainland habitats; and, 2) construction of multiple islands rather than one island should be pursued as the TSP.

The goal of the Louisiana Coastal Area (LCA) Study is a comprehensive and integrated plan for multiple benefits, including the environment, economy and culture of southern Louisiana. This includes sustaining and restoring coastal ecosystems with essential functions and diversity. Barrier islands, including those under the TBBSR, are an important component of a complete coastal ecosystem plan and NMFS is supportive of accomplishing as much barrier island restoration as possible. Although Whiskey Island Plan C contributes to NER, selection of a single island as the TSP incompletely meets the near-term barrier island restoration needs for Terrebonne Basin by only addressing one of seven islands. Further, the ability to attain long-term restoration needs for TBBSR will be more daunting and fleeting while degradation of the remaining barrier island arc exceeds the capabilities of other restoration programs. We encourage the Report be revised to further emphasize this shortcoming by including a discussion of the measurement of the quantity and quality of benefit (i.e., NER outputs) and how those net changes may be compared to the one-island TSP and other multi-island plans.

In discussing the limits of applicability of project justification, the importance of barrier islands in providing unique habitat for fish and wildlife resources that is distinctly different from mainland marshes cannot be understated. The environmental benefits for all plans/projects under the LCA Study are



NMFS11-01: 1)WRDA 2007 authorized only analysis of the barrier islands and prevented the project delivery team from analyzing measures on mainland habitat to the north. 2) The State and USACE are requesting additional authorization to construct the multiple island NER plan, but the authorized budget precludes us from recommending a multiple island plan for immediate construction.

NMFS11-02: The report has been revised to include discussion of the NER plan in addition to the 1-island TSP.

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quantified using various fish and wildlife community-based models. Each of those has a common output metric, the Average Annual Habitat Unit (AAHU). In the case of TBBSR, the Barrier Island Community Model was used. A substantial limitation of that model is the dune, supratidal, and intertidal variables are defined by fixed vertical elevations. Of all the variables in the model, the intertidal variable carries the most weight. So, when attempts are made to optimize designs and associated alternatives based in part on AAHUs, intertidal acreage is maximized as early and as long as possible during the project life. However, because each of the habitat types in this model are based on fixed vertical elevations, no adjustment is possible when the effects of sea level rise on project performance are considered over a 50-year project life. With sea level rise effects included with fixed elevation definitions, there is a substantial loss of intertidal habitat as presently defined in the model. This limits the amount of resulting AAHUs when in reality the intertidal range would adjust with sea level rise. Most applications of this model to date have been through the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) which has a 20-yr project life where sea level rise has less impact on benefits. Further, under CWPPRA, cost/benefit is not the only metric used to compare island versus mainland projects. We recommend the Report be revised to discuss this methodology limitation and to indicate that until programmatic changes are made to methods, the results should be used for comparing within island alternatives and not between island and mainland projects. We also recommend the Report indicate that if methods changes were made to allow intertidal habitat to adjust with sea level rise, different design alternatives may have been developed for optimal benefit performance.

NMFS concurs with and supports the Fish and Wildlife Service's recommendation that the TSP should consist of the NER Plan plus Wine Island. Although re-building Whiskey Island further than restoration efforts undertaken by CWPPRA would result in substantial net positive benefits to the environment, a single island action is not representative of ecosystem restoration. Recognizing the funding limits of the existing authorization, NMFS is supportive of proceeding with as many islands under the NER Plan as possible while emphasizing that anything less than the NER Plan is representative of only a near term solution that addresses only a minor part of the barrier island restoration needs for the Terrebonne Basin. We recommend the Report indicate the preferred priority for restoration of the islands identified in the NER Plan with presently limited and potential future available funds. We are interested in developing a priority with your staff and that of the Louisiana Department of Wildlife and Fisheries based on the completed analyses.

Fishery Resources and Essential Fish Habitat

The proposed restoration alternatives potentially would mine sand from Ship Shoal and/or South Pelto lease blocks. Please revise the fishery resources discussion to indicate that a portion of Ship Shoal has been identified as spawning, hatching, and foraging habitat for blue crab and the proposed mining may adversely affect these support functions¹. We suggest the Report discuss the potential need for prohibiting mining during annual periods of highest blue crab use of the shoals. Essential fish habitat has been designated for areas in the vicinity of offshore shoals for various life stages of King mackerel, cobia, and red snapper. We recommend the Report be revised accordingly.

Report Position and Recommendations

We request recommendation number two number be revised to also include impacts to essential fish habitat to ensure contract plans and specifications are coordinated with the FWS and NMFS Habitat Conservation Division. In addition, we request recommendation number six be revised to indicate the

¹ Gelpi, Jr., C.G., R.E. Condrey, J.W. Fleegeer, and S.F. Dubois. 2009. Discovery, evaluation and implications of blue crab, *Callinectes sapidus*, spawning, hatching and foraging grounds in Federal (US) water offshore of Louisiana. Bulletin of Marine Science: 85(3)203-222.

NMFS 11-03: Acknowledged. Three sea level rise rates were applied to each alternative in the final array to assess WVA benefits. Uncertainties related to each rate were discussed in the Risk and Uncertainties section of the Integrated Feasibility Report.

NMFS 11-04: The State and USACE are requesting additional authorization for the NER plan and the additional benefits related to system-wide restoration have been discussed in the Integrated Feasibility Report.

NMFS 11-05: Acknowledged. The report has been revised to discuss impacts to blue crab.

NMFS 11-06: Plans and specifications will be coordinated with the USFWS and NMFS. Monitoring plans will also be consistent with the BICM program as outlined in the Adaptive Management report located in the Appendices.

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monitoring plans should be consistent with the Barrier Island Comprehensive Monitoring requirements developed by the Office of Coastal Protection and Restoration under funding from LCA Science and Technology Program.

Thank you for the efforts of your staff to assess impacts of plans under the TBBSR, coordination with the NMFS, and for the opportunity to review and comment on this Report. Please direct questions pertaining to these comments to Patrick Williams at (225) 389-0508, extension 208.

Sincerely,


for Miles M. Croom
Assistant Regional Director
Habitat Conservation Division

c:
USACE, Planning, Klein, *Looney*
LA DNR, Consistency, Ducote
F/SER4, Dale
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Files