

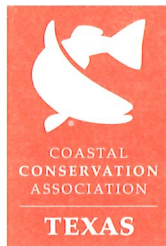
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U.S. Army Corps of Engineers, Galveston District
Attn: Ms. Jennifer Morgan, Environmental Compliance Branch
Regional Planning & Environment Center
P.O. Box 1229
Galveston, Texas 77553-1229

Re: Coastal Texas Protection & Restoration Feasibility Study DIFR-EIS

Dear Ms. Morgan,

The Coastal Conservation Association Texas Chapter (CCA Texas) offers the following comments regarding the U.S. Army Corps of Engineers (Corps) Draft Coastal Texas Protection and Restoration Feasibility Study - Draft Integrated Feasibility Report and Draft Environmental Impact Statement (Study). CCA Texas is a non-profit organization of nearly 70,000 recreational anglers and outdoor enthusiasts. The mission of CCA Texas is to advise and educate the public on conservation of marine resources. The objective of CCA Texas is to conserve, promote and enhance the present and future availability of coastal resources for the benefit and enjoyment of the general public. In this letter, we are limiting our comments regarding the Study to the immediate area of Galveston Bay.

The Galveston Bay system covers an area of approximately 600 square miles and is the largest of the Texas major bay and estuary systems. It supports a thriving recreational fishing industry with economic output totaling over \$152 million. More marine recreational fishing trips are taken in the Galveston Bay system than any other bay system along the Texas Coast, with most of the trips taken by resident anglers. It is home to numerous species of marine shrimp, crabs, finfish that utilize the varied habitat types offered including oyster reefs, seagrass beds, mud flats, hard structures, shoreline vegetation and unique intertidal mosaics of the aforementioned habitats. Most inshore recreational anglers target spotted seatrout, red drum, black drum and southern flounder. Nearshore and offshore anglers utilize launch sites across the bay complex and navigate through the Galveston Ship Channel (Bolivar Roads) to access their preferred fishing locations.

The conservation of and access to healthy fisheries in Galveston Bay is a concern of CCA Texas. There is an overwhelming lack of analysis and detail in the Study regarding environmental impacts, ecological impacts, specific location and alignment of structures, design and magnitude of both man-made and natural

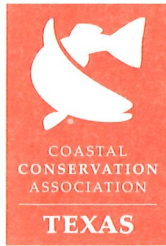
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structures to be utilized in the Coastal Barrier Preferred Alternative (Coastal Barrier) along Galveston Bay.

The proposed Coastal Barrier will have a total footprint of nearly 5,000 acres with significant direct and indirect impacts to wetlands, marsh, estuarine and marine habitats. Construction of a Coastal Barrier will alter or destroy non-tidal and tidal wetlands, effect sedimentation rates, alter water hydrology and water chemistry of the entire Galveston Bay system, resulting in the loss of thousands of acres of bay bottom and open water.

At this time, given the lack of detail in the Study, CCA Texas is opposed to the plans to construct gate system across Bolivar Roads without first completing environmental studies on potential impacts to the Galveston Bay system.

Understanding that there are currently many unknowns, the intent of the following comments is to address concerns that a Coastal Barrier may have on coastal fisheries in the Galveston Bay system. In the Study, the Corps admits that further studies are needed to determine the full environmental impacts. CCA Texas agrees with this assessment and requests that before any further action is taken to implement the Coastal Barrier preferred alternative that fisheries and environmental studies be completed to determine the following:

- 1. Sedimentation Rates: The Coastal Barrier will result in a reduction in tidal connectivity.** How much will tidal connectivity be reduced? How much erosion will occur at San Luis Pass? How much erosion will occur on Galveston Island and Bolivar Peninsula near gate structures? What are the measurable impacts of decreased sedimentation inside the bay system following a storm?
- 2. Shoreline Change: The Coastal Barrier will increase Gulf-side erosion rates and shoreline retreat rates.** How much will these specific rates increase? Please quantify. What effect will these erosion and retreat rates have on public access to recreational fishing opportunities?
- 3. Tidal Prism: Construction of proposed surge barrier gates will result in a 27.5% constriction at Bolivar Roads, reducing the tidal prism by 13.5-16.5% and tidal amplitude by 9-22%.** Tidal flow effects many aspects of fisheries including fish movement and feeding opportunities. What effects will a reduced tidal prism have on the movement of fisheries, fish feeding activity, and exchange of nutrients? What are the effects on coastal

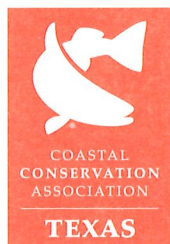
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vegetation? What effects would changes in coastal vegetation have on shrimp, crab and finfish communities?

4. **Water Chemistry, specifically salinity: The reduced circulation that is expected would increase residence time of freshwater in the bay.** During floods, what are the effects of increased residence time of freshwater on oyster reefs in the upper areas of Galveston Bay? During droughts, how will oyster reefs be effected by saline water remaining in the bay for longer periods? During periods of extreme flood or drought, what will be the effects on shrimp, crabs and marine finfish?
5. **Water Quality: The Coastal Barrier is expected to affect water and sediment quality throughout the Galveston Bay system.** How will phytoplankton and zooplankton communities be effected by changes in water and sediment quality? How will these changes effect dissolved oxygen levels and conditions favorable for dead zones? How will oyster reefs be effected by changes in water and sediment quality? What are the specific effects on nutrient balance?
6. **Water Hydrology: The surge barrier gates associated with the Coastal Barrier will alter the hydrology of Galveston Bay.** What are the specific effects on habitat conditions for crabs, shrimp, and finfish?
7. **Coastal and Tidal Wetlands: The proposed Coastal Barrier is expected to have direct and indirect impacts to wetlands and marsh habitats in the Galveston Bay region.** How many acres of wetlands will be indirectly impacted because of increased erosion and sedimentation during construction? How many acres of wetlands will be continually degraded from the combined affects of changes in water chemistry, water hydrology, sedimentation rates and shoreline changes?
8. **Seagrass: The proposed Coastal barrier is expected to have direct and indirect impacts to seagrass beds.** How many acres of seagrass will be indirectly impacted because of increased erosion and sedimentation during construction? How many acres of seagrass will be continually degraded from the combined effects of changes in water chemistry, water hydrology, sedimentation rates and shoreline changes?

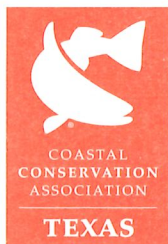
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9. **Estuarine and Bay Habitats: The Coastal Barrier would result in a loss of 2,154 acres of open water and bay bottom habitat. The majority occurring at Bolivar Roads, which would be covered by the support structures and gates for the surge barrier gates.** What specific effects do these habitat losses have on shrimp, crabs and finfish?
10. **Marine Larval Transport, Larval Recruitment and Fish Migrations: The conservation of energy is vital for marine fishes.** Wild red drum larvae measuring 8.3-16.3 mm have a critical maximum swimming speed of 0.72 feet per second (Faira et al. 2009). Currents in the immediate area of the proposed gate structure could reach as high as 6.6 feet per second. It will be physically impossible for red drum larvae and many other larval fishes to swim at such speeds during migrations/recruitment events, avoid predation, feed on prey items and complete numerous other essential functions necessary for survival. What are the effects of increased velocities at Bolivar Roads on recruitment of red drum larvae, migration of adult red drum, recruitment of southern flounder larvae and migration of adult southern flounder?
11. **Recreational Fishing Access:** How will access to shoreline angling be affected? How will access through Bolivar Roads to nearshore and offshore waters be affected?
12. **Recreational fisheries driven economic impacts:** How will the aforementioned environmental and socioeconomic impacts affect the recreational fishing driven economy in the Galveston Bay region? What effects will this have on tourism in the Galveston Bay region?

In summary, CCA Texas is opposed to the tentatively selected plan with a gate system across Bolivar Roads without first completing environmental studies on potential impacts to the Galveston Bay system. The protection of the Galveston Bay's fisheries is vital to the region's economic viability and quality of living. In no way are we stating that a coastal barrier should not be constructed, but a gate system across Bolivar Roads will fundamentally change the Galveston Bay system and likely create more problems than those it is intended to reduce. It is not enough for the Corps to state that environmental conditions, habitat types, aquatic communities, water hydrology, etc. may lessen or increase because of a Coastal Barrier with a gate

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system. The Corps needs to fully understand, and communicate with the public, all the potential impacts that a Coastal Barrier has on the ecological health of Galveston Bay. We recommend that the Corps revise the Study, determine specific levels of these changes and impacts, and then present them to the public for a 75-day comment period before moving forward with any further plans for a Coastal Barrier.

Literature Cited

Faria, Ana & Ojanguren, A.F. & A. Fuiman, Lee & Gonçalves, Emanuel. (2009). "Ontogeny of critical swimming speed of wild-caught and laboratory-reared red drum *Sciaenops ocellatus* larvae." *Marine Ecology Progress Series*. 384. 221-230. 10.3354/meps08018.

Sincerely,

Robby Byers
Executive Director
Coastal Conservation Association Texas