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VIA Email: masterplan@la.gov

The Coastal Protection and Restoration Authority
Master Plan Public Comments
150 Terrace Avenue
Baton Rouge, LA 70802

RE: Comments
DRAFT 2023 Coastal Master Plan

Dear CPRA Members:

Biloxi Marsh Land Corporation (BILOXI) and Lake Eugenie Land & Development, Inc. (LAKE EUGENIE) appreciate this opportunity to submit comments to the Coastal Protection and Restoration Authority (CPRA) concerning the DRAFT 2023 Coastal Master Plan (CMP23). BILOXI and LAKE EUGENIE own approximately 150,000 acres of marsh lands located in St. Bernard Parish, Louisiana which make up a portion of the 450,000-acre Biloxi Marsh Complex (BMC) southeast of New Orleans and south of Slidell, Louisiana. Since 1957, BILOXI has made available over 35,000 acres of property, at no cost, that constitute the Biloxi Wildlife Management Area (WMA), which is enjoyed by the public for multiple recreational uses. BILOXI and LAKE EUGENIE have been and continue to be proactive in efforts to protect and restore Louisiana's coast and for many years, have supported scientific research focused on identifying root causes for land loss in the BMC as well as examining its potential for long-term sustainability. Considerable efforts including scientific evaluations, project proposals, research reports and peer-reviewed publications compiled since 2006 have been provided to the CPRA. Scientific resources are available on the BILOXI website¹, link provided below. In addition, presentations were made at public forums such as Louisiana Coastal Geology Symposium (McDade, 2019), State of the Coast (McDade, 2020), and Back to the Basin (Day, 2019).

- Website: Biloxi Marsh Lands Corporation -- Biloxi Marsh Coastal Restoration
- Peer-reviewed scientific journal articles: Kemp et al. 2021; Lane et al. 2021
- Reports transmitted to CPRA: Day et al, 2019, Poirrier 2019
- Project Proposal submitted in response to RFP for CMP 2023: Rudolf 2019
- Comments by BILOXI and LAKE EUGENIE in response to DRAFT Coastal Master Plan: 2017: Rudolf 2017, McLindon 2017, Kemp and Day 2017
- Project proposals and rationale: The Biloxi Marsh Stabilization and Restoration Plan, 2006

¹ <https://biloximarshlandscorp.com/biloxi-marsh-coastal-restoration/>

Significance of the BMC

Our March 24, 2017, comments for DRAFT 2017 Coastal Master Plan provide detail on the economic value of BMC goods and services including: hurricane and flood protection, fisheries, wildlife habitat, water quality, and recreation. Because of its size, the high level of commercial and recreational fisheries, and its value as a natural habitat, marshlands of the BMC, Lake Borgne, and Chandeleur Sound comprise one of the most important areas in the coastal zone.

2023 DRAFT Coastal Master Plan (CMP23) Comments

Overall, CMP23 is an improvement over the 2017 Coastal Master Plan as it includes some projects for the combined Pontchartrain/Breton Basins. However, we are concerned that CMP23, like earlier master plans, has not definitively acknowledged nor addressed the root cause of degradation in the BMC, and thus, does not properly prioritize projects necessary to protect and restore this important land mass within a reasonable timeline. To be clear, armoring and stabilizing the southeastern Lake Borgne shoreline to prevent significant marsh loss is the immediate priority and requires prompt implementation. This prioritization should not diminish the critical need for the implementation of other projects including without limitation those projects set forth in USACE-MRGO Ecosystem Restoration Plan (USACE 2012) to save this massive wetland area. Furthermore, projects that improve the long-term sustainability of the BMC will benefit the other planned projects in the Lake Pontchartrain Basin through an integrated approach for projects.

There are improvements needed to be addressed in the CMP23 prior to its adoption. The following are specific items that should be addressed in the CMP23 related to the BMC:

- **CMP23 should clearly acknowledge that the root cause for degradation in the BMC is marsh edge erosion along a portion of the western shoreline of the peninsula with Lake Borgne resulting in shoreline retreat, compounding marsh loss from increased hydrologic connections to the marsh interior.** Like other Louisiana coastal marshes, BMC has suffered land loss in the last century (Couvillion et al. 2016, Penland et al. 2000), but unlike other coastal marshes, subsidence is not the chief culprit causing areas of emergent marsh to become open water (Day et al. 2019, Lane et al. 2020, Kemp et al. 2021). Land loss in the BMC has been shown to result from marsh edge erosion due to extreme shoreline retreat along the western shoreline of the BMC peninsula with Lake Borgne from near St. Malo to Three Mile Bay (Couvillion et al. 2016) which in turn has accelerated exposure to the marsh interior, increasing tidal flux and marsh loss. Cold fronts severely batter the BMC at least 10-20 times each year with strong winds that rapidly shift in direction from southerly to northerly following each frontal passage causing rapid water level drop (Moeller et al, 1998, Feng 2009), a scenario which negatively affects the BMC particularly along the southeastern shoreline of Lake Borgne area due to its local geographic configuration (Guo et al. 2020, Trosclair 2013). The high frequency of frontal passages and the well-documented detrimental effects must be an important component of designing and prioritizing projects for the BMC and obviously dictates that shoreline protection be implemented as soon as possible. In its natural condition, the BMC shoreline was protected by naturally formed berms composed of shell from Lake Borgne's vibrant population of *Rangia* clams (Poirrier, 2019, Poirrier 2013). **CPRA should acknowledge the root cause for degradation in the BMC and promptly implement projects which address and resolve this root cause.**

- CMP23 should include and prioritize the completion of PO72 as initially designed and approved for implementation and should be expanded to include additional shoreline to Malheureux Pt.** To stem land loss in the BMC, the need for protection of the western shoreline from damaging waves and tidal incursion with a rock berm has been recognized since 2006 to be a high priority to prevent shoreline retreat and further degradation of the BMC (King et al., 2006) and was a cornerstone of our submittal for CMP23 in response to CPRA's project solicitation in 2019 (Rudolf, 2019). PO-72, a CWPPRA project completed in 2014, clearly has had a strong benefit for sediment capture in satellite aerial views in time series from Google Earth and appears to create an environment conducive to marsh growth into Lake Borgne (Day et al. 2019, Lane et al., 2020). But only 4 miles of the planned 7-mile extent of PO-72 were completed, and now, the shoreline that was not protected by PO-72 to Malheureux Pt. is the area with the worst shoreline retreat. We are pleased to be included in the planning process for the 3 miles of protection of CWPPRA PPL33 Biloxi Marsh Shoreline Protection project currently under development and look forward to following this critically important project through to funding and implementation. However, this project is merely the portion of PO-72 that was not completed despite being planned, permitted, and funded. While we are grateful for any project in the BMC, the 3 miles of protective berm proposed for PPL33 are not of the scale needed to protect the whole NW-projecting point from the end of PO-72 past Malheureux Pt. as we originally proposed. Our proposal as modelled for CMP23 and ultimately not chosen, coupled with the extension of PO-72 in PPL33 and the Three Mile Bay project that is in CMP23 are all critically needed to protect the western BMC shoreline.
- CMP23 should include other critical elements of our project proposal: "Leveraging Natural Resilience to Ensure Long Term Sustainability of Biloxi Marsh Complex"** As discussed above, one element of our 2019 project proposal for CMP23 includes a shore-parallel concrete berm to address shoreline retreat from the end of PO-72 to Malheureux Pt. Marsh creation using dredged material and marsh nourishment using thin-layer sediment dispersal methods are other important components of our integrated project proposal. Beneficial use of dredged material and adding mineral sediment to the marsh where possible would augment and improve the success of the overall project area and benefit a larger area than just the project footprint. Long-term, with a protective berm, BMC's stable geologic environment would be expected to have a positive effect on project longevity and its ecosystem.
- CMP23 should include all elements of the MRGO Ecosystem Restoration Plan** (USACE 2012). The recent announcement that the Federal government intends to fund the State's share of the costs associated with the implementation of this plan is encouraging. CPRA and the USACE should work together to identify funding sources for the prompt implementation of this plan. Prompt funding and impletion of all the components of this plan are required to stabilize and restore the BMC from the well documented disastrous effects of the construction and operation of the MRGO on the BMC (USACE 2008).
- CPRA should not overemphasize projects that build new land at the expense of developing and supporting projects that preserve existing, but vulnerable coastal lands like the BMC shoreline and marsh interior.** While CPRA has acknowledged the scientific results and benefits of shoreline protection along Lake Borgne, these tenets have not instigated urgency, and projects designed to stem land loss for much of the BMC remain uncompleted. It seems CPRA evaluation

methods for project selection leave important areas with simple solutions out of action in part because of decision-making criteria based on models with inappropriate, incomplete, or incorrect data and assumptions (Rudolf 2017, Kemp and Day 2017, McLindon 2017, Day et al 2019).

Thank you for the opportunity to provide comments to the DRAFT 2023 Coastal Master Plan. Please let us know if you have any questions or wish to discuss any of the comments.

Sincerely,



William Rudolf

President & CEO, Biloxi Marsh Land
Corporation and Vice President & General Manager,
Lake Eugenie Land & Development, Inc.

Cc- Chip Kline, Chairman CPRA
Bren Haase, Executive Director CPRA
Stuart Brown, CPRA
Board of Directors, Biloxi & Lake Eugenie

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