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April 20, 2020

U.S. Fish and Wildlife Service
P.O. Box 29649
Atlanta, Georgia 30345

Re: Comments on the Draft Restoration Plan/Environmental Assessment #5: Living Coastal and Marine Resources (LCMR) – Marine Mammals and Oysters

Dear Louisiana Trustee Implementation Group (LA TIG),

Ten years ago, the Deepwater Horizon oil rig exploded, killing eleven men and beginning a disaster that impacted organisms and habitats throughout the northern Gulf of Mexico. Since then considerable progress has been made to move forward on projects that address oil spill injuries, but there is still much work to do. Thank you for providing the opportunity to comment on the *Draft Restoration Plan/Environmental Assessment #5: Living Coastal and Marine Resources (LCMR) – Marine Mammals and Oysters*. As organizations with long-standing interest in coastal projects and on behalf of our supporters, we would like to offer the following comments:

Marine Mammals:

We would like to offer our support for the marine mammal **preferred action alternative**, Increasing Capacity and Expanding Partnerships along the Louisiana Coastline for Marine Mammal Stranding Response. The Deepwater Horizon (DWH) oil spill spread through nearshore and offshore waters, impacting marine mammals and contributing to the largest and longest marine mammal unusual mortality event recorded in the Gulf of Mexico. Bottlenose dolphins were hard hit by oil spill injuries, particularly in Louisiana's Barataria Basin. Between 2010 and 2014, more than 1,000 dolphin carcasses were found in the oiled areas of the northern Gulf, many from coastal Louisiana. Given the dramatic toll on the population, without dedicated restoration and rehabilitation efforts the injured marine mammal stocks will likely take many decades to recover. Investment in a portfolio of projects that identify and reduce stressors to marine mammals, along with projects that improve the long-term health and sustainability of critical wetland habitat along Louisiana's coast, will help enhance the long-term health of marine mammal populations.

We commend the LA TIG for recognizing the importance of increasing the capacity and capabilities of the Marine Mammal Stranding Network (MMSN) in Louisiana. A NOAA-based stranding coordinator in Louisiana will help ensure consistency and communication with the NOAA Fisheries Southeast Fisheries Science Center and other stranding network partners across the Gulf. Additionally, the stranding coordinator as well as the investment in equipment, MMSN personnel, and training are



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essential to building partnerships and enhancing the capacity to broaden coverage and provide timely response to reports of sick and injured animals and strandings across Louisiana's large and often inaccessible coast. By addressing gaps in response and enhancing capacity, the causes of illness and death in these populations can be detected and understood earlier, improving our ability to anticipate and respond to needs. We note that this plan has outlined appropriate objectives, monitoring parameters, and performance criteria that will enable the TIG to monitor the success of the program and take corrective actions as needed. The thorough details included in this plan, along with the oversight provided by the LA TIG in addition to NOAA Fisheries through its Southeast Fisheries Science Center, will help ensure the success of the preferred alternative.

Before finalizing this restoration plan, we strongly encourage the TIG to give additional consideration to the potential disruption and "take" of nesting birds, their eggs, and young, which could result from Marine Mammal Stranding Network activities. Coastal Louisiana is home to some of the greatest breeding colonies and highest numbers of seabirds, waterbirds, and shorebirds in the country¹, and human disturbance along beaches and islands has been identified by multiple state and federal conservation plans as a substantial threat to these species. Although the plan recognizes that temporary disturbances may be possible during stranding response activities (e.g., Section 4.4.2.2., page 98), the plan fails to fully evaluate and develop a plan to mitigate for the potential impacts to bird species, in compliance with the Migratory Bird Treaty Act (MBTA) (Section 5.1, [page numbering in this section of the report is incorrect]). Specifically, the take of eggs and young are possible consequences of activities outlined in the preferred alternative, and the plan does not address how to minimize the threat associated with stranding activities. The training of stranding network staff, partners, and volunteers must include best practices to minimize the take of nesting birds, and should coordinate with state and NGO partners in areas that have been identified as "no entry" to protect nesting birds. As an aside, we agree with the draft plan that non-breeding and over-wintering bird species, including Endangered Species Act protected species, would be minimally impacted by the proposed marine mammal and oyster restoration activities.

The LA TIG also considered another alternative in this plan, Region-wide Marine Mammal Conservation Medicine and Health Program, but chose not to move forward on it at this time. We agree that this alternative would benefit from the increase in knowledge that implementing the preferred alternative would provide. However, we do propose that this alternative be reconsidered within two years of the preferred alternative's implementation. The working group outlined in the alternative description would help identify possible risks for illness and death that could be offset before strandings occur. This program might also be a good candidate for consideration by the Region-wide TIG, which we understand is currently screening marine mammal projects for inclusion in their forthcoming Restoration Plan. Whether included in the Region-wide TIG Restoration Plan or a future LA TIG plan,

¹ Remsen, Jr., J.V., B.P. Wallace, M.A. Seymour, D.A. O'Malley, and E.I. Johnson. 2019. The regional, national, and international importance of Louisiana's coastal avifauna. *Wilson Journal of Ornithology* 131: 221-242.



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we encourage Trustees to consider implementation of this project in the near future. This type of proactive approach to identify and mitigate threats and impacts is a critical component to the recovery and long-term health of marine mammals along Louisiana's coast.

Oysters:

We offer our support for the preferred action alternatives selected to address injuries to oysters, Cultch Plant Oyster Restoration, Enhancing Oyster Recovery Using Brood Reefs, and Hatchery-based Oyster Restoration. These selected oyster restoration techniques are all appropriate to address injuries to oysters during the DWH oil spill. However, we do have concerns about the habitat suitability of some of the selected locations for brood reefs and cultch plants in the Breton and Mississippi Sounds.

The oil spill and response efforts impacted intertidal and subtidal oysters in the Gulf of Mexico by reducing spawning stocks, larval production spat settlement, and spat substrate availability. Significant investments to address injuries to oysters has already been made during the early NRDA restoration phase which included the placement of 187,000 cubic yards of oyster cultch material across more than 1,000 acres of public seed grounds and the construction of an oyster hatch facility to provide a supplemental source of oyster larvae and seed. Monitoring results of placed cultch indicate that performance of sites in the Barataria, Terrebonne and North Pontchartrain Basins substantially outperformed those in the Breton Sound Basin.² In Louisiana's coastal waters, favorable environmental conditions for oysters vary both in space and time and areas that were historically suitable for oysters may no longer consistently have the conditions required for oysters.

Brood Reefs: Brood reefs can address injuries from the oil spill by increasing spawning oyster populations. In this plan, a brood reef is proposed in the areas of Mozambique Point, Lake Machias, Karako Bay, and Petit Pass. According to the plan, these sites were selected based on a number of factors, including trends in salinity, larval transport models and historical productivity. However, based on results of the nearby Lake Fortuna cultch placement and monitoring, it is not clear if conditions in the Mozambique Point area are reasonably suitable to support a brood oyster reef. An oyster suitability analysis conducted by the Lake Pontchartrain Basin Foundation suggests that salinity in this area between 2013 and 2018 may not be favorable in this area on a consistent basis.³ Similarly, the Petit Pass brood reef location may also have experienced salinities too low to support the productivity of a brood reef for consecutive years given the recent river floods on the Mississippi River which have triggered operation of the Bonnet Carré Spillway to manage excess floodwaters. While the Petit Pass area may have been historically suitable for brood reefs, precipitation trends in the Mississippi River watershed

² Louisiana Natural Resource Trustees. 2016. Deepwater Horizon NRDA Early Restoration Project Comprehensive Final Monitoring Report: Louisiana Oyster Cultch Project. https://pub-data.diver.orr.noaa.gov/restoration/Comprehensive%20Final_LA%20Oyster%20Cultch%20Project_2016%2005%2009

³ Denapolis TV, JA Lopez (2019) Habitat suitability analyses for the Eastern oyster, *Crassostrea virginica*, of the Pontchartrain Basin Estuary, Southeast Louisiana, in 2018. Lake Pontchartrain Basin Foundation, Coastal and Community Program, 57 pp. <https://saveourlake.org/?wpdmdl=16044&ind=1564409014031>



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indicate it may no longer be the case now or in the future.⁴ In contrast, the sites at Lake Machias and Karako Bay areas appear more suitable based on the available data.³ While we agree with the LA TIG that brood reefs are a proven technique, we do suggest that trends in salinity and other parameters be considered in selecting brood reef locations. While most sites will not have perfect conditions year-after-year, by employing a network of brood reefs across consistently suitable areas this technique will increase spawning oyster populations.

Oyster Cultch Plantings: Oyster cultch plantings can address injuries from the DWH oil spill by increasing oyster abundance and spawning stocks. In this plan, two specific sites for cultch placement are identified: Caillou Lake (locally known as Sister Lake) and Grand Banks. Caillou Lake was one of the sites of oyster cultch placement in the early NRDA project and monitoring indicated that this site was successful with high seed density and live sack counts.⁵ These results are encouraging and we support the placement of additional cultch material in this area. However, we do have concerns about the potential success of the Grand Banks oyster cultch placement, much like the brood reef near Petit Pass, as a result of low salinities in the area due to high water events on the Mississippi River which results in operation of the Bonnet Carré as well as the high discharge from the Pearl River. The fluctuations in salinities due to high river events may threaten the success of cultch placement at this site and this concern is identified as a source of uncertainty in the monitoring and adaptive management plan. Success of this preferred alternative is dependent on site-selection for cultch placements and we ask that the LA TIG look at long term trends of the environmental conditions in the Grand Banks which, based on publicly available data and given recent events, appears to be unfavorable. We also suggest that trends in salinity be considered when selecting all the programmatic cultch planting areas. Cultch plantings are a proven technique and can certainly help address injuries to oysters, but environmental conditions have been a barrier in the past to the success of this restoration technique.

Thank you again for this opportunity to provide comments on Draft Restoration Plan/ Environmental Assessment #5. To address oil spill injuries to these natural resources it is critical that restoration funds are wisely invested for long-term success. We support the preferred action alternative for marine mammals to increase the capacity of the Marine Mammal Stranding Network, and also ask the TIG to reconsider implementing the “Region-wide Marine Mammal Conservation Medicine and Health Program” either through the LA TIG or Region-wide TIG in the next two years. We also support the preferred alternatives to address injuries to oysters via brood reefs, cultch plantings, and support of the oyster hatchery, but do have concerns about the suitability of sites near Mozambique Point, Grand Banks, and Petit Pass. We ask that the salinity trends be used when evaluating these locations for oyster suitability. Here on the 10 year anniversary of the DWH oil spill, we also want to thank the TIG for their

⁴ Federick, B. 2019. Precipitation Trends in the Mississippi River Watershed.

<https://www.mvd.usace.army.mil/Portals/52/docs/Precipitation%20Trends.pdf>

⁵ Louisiana Natural Resource Trustees. 2016. Deepwater Horizon NRDA Early Restoration Project Comprehensive Final Monitoring Report: Louisiana Oyster Cultch Project. [https://pub-](https://pub-data.diver.orr.noaa.gov/restoration/Comprehensive%20Final_LA%20Oyster%20Cultch%20Project_2016%2005%2009)

[data.diver.orr.noaa.gov/restoration/Comprehensive%20Final_LA%20Oyster%20Cultch%20Project_2016%2005%2009](https://pub-data.diver.orr.noaa.gov/restoration/Comprehensive%20Final_LA%20Oyster%20Cultch%20Project_2016%2005%2009)



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past and ongoing efforts to identify and fund projects that will address injuries to habitats and wildlife in the Gulf of Mexico.

Brian Moore
Legislative Director
National Audubon Society

Kim Reyher
Executive Director
Coalition to Restore Coastal Louisiana

Natalie Snider
Senior Director, Coastal Resilience
Environmental Defense Fund

John Lopez, Ph.D,
Director, Coastal Sustainability Program
Lake Pontchartrain Basin Foundation

David Muth
Director, Gulf Restoration Program
National Wildlife Federation

