



# MARINE MAMMAL COMMISSION

2 August 2013

Ms. Rachel Jacobsen  
U.S. Fish and Wildlife Service  
P.O. Box 2099  
Fairhope, Alabama 36533

Dear Ms. Jacobsen:

The Deepwater Horizon Natural Resource Damage Assessment Trustee Council is charged with assessing injuries to natural resources resulting from the Deepwater Horizon oil spill and with developing a restoration plan to address those injuries, including injuries to marine mammals and their habitats. The Trustees have published a notice of intent to conduct scoping on a programmatic environmental impact statement (PEIS) to evaluate the environmental consequences of early restoration project types as well as newly planned projects (78 Fed. Reg. 33431).

The Marine Mammal Protection Act established the Marine Mammal Commission (MMC) to oversee and advise federal officials regarding activities that may adversely affect marine mammals and the ecosystems upon which they depend. In that capacity, the MMC, in consultation with its Committee of Scientific Advisors on Marine Mammals, offers the following recommendations and rationale to assist the Trustees in early restoration planning and project evaluation for the Gulf.

## **RECOMMENDATIONS**

The Marine Mammal Commission recommends that the Deepwater Horizon Natural Resource Damage Assessment Trustee Council include in its early restoration plans projects to (1) continue assessing injuries to marine mammals from the spill over the long term (i.e., multiple generations) and (2) minimize threats from other human activities that may be impeding recovery and restoration of affected stocks (as identified in the Commission's enclosed letter to the National Marine Fisheries Service dated 28 December 2012). The Marine Mammal Commission further recommends that the Trustee Council include in its programmatic environmental impact statement updated information on injuries to marine mammals and other natural resources to assist in the evaluation of the proposed projects and their appropriateness for addressing oil spill-related injuries. If restoration projects directed at addressing marine mammal injuries are not included in early restoration plans, the Commission requests that the Trustee Council provide to the Commission and in the PEIS a detailed explanation as to why injuries to marine mammals are not being considered for early restoration.

## **RATIONALE**

The Oil Pollution Act of 1990 requires federal, state, and tribal Natural Resource Damage Trustees (Trustees) to conduct a Natural Resource Damage Assessment (NRDA) following an oil spill or other discharge event to address resulting injuries. The Trustees then determine the restoration actions needed to bring injured natural resources and services back to baseline conditions and make the environment and public whole with regard to spill-related losses (15 C.F.R. § 990.30).

The 2011 Framework Agreement for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement) provided a unique opportunity to jump-start the restoration process. This is especially important for the Deepwater Horizon case, where the determination of final damages is likely to be a protracted process. In accordance with the Framework Agreement, the Trustees have selected and are implementing several early restoration projects as identified in its Phase I and Phase II early restoration plans, and are planning to select additional projects in the future, as identified in the draft Phase III early restoration plan. The Trustees are proposing to prepare a PEIS to evaluate the environmental consequences of various early restoration project types as well as the Phase III planned projects.

A programmatic approach to evaluating alternatives for early restoration is warranted considering the number, diversity, and potential impacts of projects that are being considered for early restoration, both under Phase III and in the future. A public review of documented injuries, proposed restoration projects, and alternatives would ensure that the projects selected for implementation meet the spirit and intent of the NRDA process, i.e., that projects address injured natural resources and services and restore them to baseline (pre-spill) conditions. A programmatic approach would ensure also that a broad range of restoration alternatives has been considered and that a systematic, interdisciplinary approach is used to determine the environmental impact of restoration alternatives, as required by the National Environmental Policy Act. This is especially important given that the Trustees are currently considering a much broader range of projects under Phase III, including many that have the potential for negative impacts on near- and offshore marine habitat (78 Fed. Reg. 26319).

Healthy marine mammal populations would be one indication of a vibrant and fully restored marine ecosystem in the Gulf of Mexico. As such, the MMC is concerned that no projects have been identified to date for restoration of injured marine mammals in either nearshore or offshore habitats. The vast majority of projects identified by the Trustees for early restoration appear instead to focus on the restoration of beach and shoreline habitat, estuarine and nearshore species, and lost recreational opportunities. It is perplexing that projects directed at marine mammals and their habitats and prey species are not included as there is substantial information indicating that at least some marine mammal species or stocks were injured either directly or indirectly as a result of the spill. For example, the mean monthly stranding rate of cetaceans (whales and dolphins) in the northern Gulf during the initial response phase of the spill (30 April 2010 through 2 November 2010) was five times greater than the mean monthly stranding rate for the same area before the spill (2002-2009).<sup>1</sup> Although it is not yet clear whether all of the observed strandings were directly related to the oil spill, strandings continue to be elevated above pre-spill levels in the northern Gulf, with 916 cetacean strandings documented between 30 April 2010 and 28 July 2013. Of particular concern is the large percentage of stranded premature, stillborn, and neonatal bottlenose dolphins in Louisiana and Mississippi, indicating an abnormally high rate of reproductive failure in dolphin stocks that inhabit coastal areas affected by the spill.

Preliminary results from other, ongoing injury assessments further substantiate spill-related injuries to marine mammals. With respect to coastal species, researchers from the National Oceanic and Atmospheric Administration (NOAA), the Louisiana Department of Wildlife and Fisheries, and other public and private institutions conducted a health assessment of bottlenose dolphins in 2011

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<sup>1</sup> [http://www.nmfs.noaa.gov/pr/health/mmume/cetacean\\_gulfofmexico2010.htm](http://www.nmfs.noaa.gov/pr/health/mmume/cetacean_gulfofmexico2010.htm)

in Barataria Bay, Louisiana, an estuary known to have been heavily oiled during the spill. A similar health assessment was conducted for comparison in Sarasota Bay, Florida, an area that did not receive significant oiling during the spill. Preliminary results from the Barataria Bay health assessments showed poor health condition in many of the dolphins examined (i.e., low body weight, anemia, low blood sugar, liver and/or lung disease). Researchers also reported that many of the dolphins had abnormally low levels of hormones that are essential to stress response, metabolism and immune function (NOAA 2012). The Sarasota Bay dolphins showed significant health differences as compared to the Barataria Bay dolphins.<sup>2</sup>

With respect to offshore species, Dr. Bruce Mate and his team from Oregon State University tagged sperm whales in the Gulf in the vicinity of the Deepwater Horizon spill site both before and after the spill. Whales tagged immediately after the spill had smaller home ranges than those tagged in earlier studies, and this trend continued for whales tagged in 2011 and 2012. Habitat use was also more fragmented after the spill, with whales avoiding a 4,000 sq. km oblong around the spill site, separating whales on the upper slope edge from those in deeper water (Mate pers. comm.). Sperm whale avoidance of the spill site was also reported by Ackleh et al. (2012), who recorded whale vocalizations in September 2010 at several sites located at different distances from the spill site and compared those to similar recordings made in 2007. There was less acoustic activity and there were fewer whales at the site closest to the spill in 2010 than in 2007, and more activity at one of the farther sites in 2010, indicating possible avoidance of areas around the spill site.

The MMC highlighted evidence indicating injuries to marine mammals in a letter to the National Marine Fisheries Service dated 28 December 2012 (enclosed). The MMC noted that information collected and analyses conducted to date had not provided a clear answer to the question of whether the spill and response actions were contributing factors. Therefore, the MMC argued that the Trustees should take a precautionary approach by assuming that the spill and response efforts did contribute to the injury of the above-mentioned Gulf marine mammal species and stocks. It also is likely that reported injuries represent only a fraction of total spill-related injuries, and that other species and stocks of marine mammals that occur in the same habitat were injured also but their injuries were not detected (Williams et al. 2011).

In the letter, the MMC provided recommendations for restoration activities to address injuries to marine mammals Gulf-wide. These included assessments of long-term (i.e., multi-generational) injuries from the oil spill and response activities, such as more frequent stock assessment surveys and stock structure studies, enhancement of the Gulf stranding response program, live capture/release health assessments, analyses of contaminants in blood and other tissues, studies of the physiological effects of oil and chemical dispersant on reproduction and survival of marine mammals and model species, and environmental studies (including prey studies). Because restoration of injured marine mammals is dependent on reducing threats from human activities in the Gulf, the MMC recommended additional actions that would facilitate recovery of marine mammals, including establishing or expanding fisheries observer coverage, minimizing incidental take in fisheries, minimizing indirect effects of fishing on marine mammals (i.e., overfishing of important prey species), monitoring sound levels in the Gulf and minimizing the harmful effects of sound on marine mammals, and reducing other environmental impacts (such as factors contributing to hypoxia and harmful algal blooms).

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<sup>2</sup> <http://sarasotadolphin.org/2013/05/15/2013-sarasota-bay-dolphin-health-assessments/>

Comprehensive restoration planning and implementation of projects to restore injuries resulting from the Deepwater Horizon oil spill is likely to be a long and protracted process. However, the MMC believes that, based on information currently available to the public, sufficient evidence exists to infer injury to at least certain Gulf marine mammal stocks, including coastal and estuarine bottlenose dolphins and sperm whales. Therefore, the MMC recommends that the Trustee Council include in its early restoration plans projects to (1) continue assessing injuries to marine mammals from the spill over the long term (i.e., multiple generations) and (2) minimize threats from human activities that may be impeding recovery and restoration of affected stocks. Specific types of activities that should be considered are identified in the Commission's letter of 28 December 2012. The MMC further recommends that the Trustee Council include in its programmatic environmental impact statement updated information on injuries to marine mammals and other natural resources to assist in the evaluation of the proposed projects and their appropriateness for addressing oil spill-related injuries. If restoration projects directed at addressing marine mammal injuries are not included in the Trustee Council's early restoration plans, the MMC requests that the Trustee Council provide to the Commission and in the PEIS a detailed explanation as to why injuries to marine mammals are not being considered for early restoration.

To aid the Trustees in restoration planning to address injuries to marine mammals, the MMC, in cooperation with Ocean Conservancy and marine mammal stranding network members in each of the Gulf coastal states, developed and submitted a specific project proposal to the Trustees through the NOAA portal in April 2013.<sup>3</sup> The title of the proposal was "Expand and Improve Gulf of Mexico Marine Mammal Stranding Response and Science Capacity." The proposal included a description of the proposed project, links to injury, benefit and rationale, funding sources and mechanisms, and a detailed project budget. A copy of that proposal is enclosed with this letter for the Trustees' further consideration.

The Commission appreciates this opportunity to provide comments and hopes its recommendations will be helpful as the Trustees continue restoration planning efforts for Gulf natural resources.

Sincerely,



Rebecca J. Lent, Ph.D.  
Executive Director

Enclosures

cc: Donna Wieting, National Marine Fisheries Service, Office of Protected Resources  
Dr. Roy Crabtree, National Marine Fisheries Service Southeast Regional Office  
Dr. Bonnie Ponwith, National Marine Fisheries Service Southeast Fisheries Science Center  
David Westerholm, NOAA Office of Response and Restoration

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<sup>3</sup> <http://www.gulfspillrestoration.noaa.gov/restoration/give-us-your-ideas/>

## References

- Ackleh, A.S., G.E. Ioup, J. W. Ioup, B. Ma, J.J. Newcomb, N. Pal, N.A. Sidorovskaia, C. Tiemann. 2012. Assessing the Deepwater Horizon oil spill impact on marine mammal population through acoustics: Endangered sperm whales. *Journal of the Acoustical Society of America* 131(3):2306-2314.
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