



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Richard Harrell
Director, Office of Pollution Control
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225

APR 24 2014

Dear Mr. Harrell,

In August 2013, we were first contacted by staff from the NOAA Restoration Center in reference to the Popp's Ferry Causeway Park Project (Popp's Ferry Project) in Biloxi, MS. With the continued assistance of the NOAA Restoration Center, we subsequently engaged in discussions with the State of Mississippi in order to ascertain whether the Popp's Ferry Project will have impacts on marine mammals. The Marine Mammal Protection Act (MMPA) prohibits the "taking" of marine mammals incidental to a specified activity, unless such taking is appropriately authorized.

Popp's Ferry Project is designed to convert undeveloped land owned by the City of Biloxi, Mississippi to an interactive visitor center consisting of a system of waterfront and marsh boardwalks and nature trails and including four new fishing piers. Project construction includes in-water pile driving, involving vibratory driving of 12-in diameter timber piles. Specifically, each of the four fishing piers is expected to require installation of 12-15 piles, the marsh overlook boardwalk and pier will require 125 piles, and the waterfront boardwalk will require 100 piles. With an expected production rate of 16-20 piles per day, 16-18 pile driving days are expected in total.

The best available information indicates that vibratory installation of 12-in timber piles may produce a source level of 168 dB root mean square re 1 μ Pa (as measured by the Washington State Department of Transportation). The expected source level is greater than the relevant threshold for determining when marine mammals may incur behavioral harassment from exposure to continuous acoustic signals (i.e., 120 dB rms), such as those produced through vibratory pile driving. Therefore, the potential exists for incidental take of marine mammals by Level B (behavioral) harassment to occur unless mitigation measures adequate to eliminate such potential are implemented.

In order to eliminate the potential for incidental harassment of marine mammals, we consulted with you on development of the following suite of mitigation and monitoring measures to avoid take:

- Establishment of Shut-Down Zone: The calculated radius for the 120 dB rms/Level B harassment zone (i.e., distance from driven pile to area where harassment would no longer be expected to occur) is 1,585 m. The area defined by this radius in all relevant



directions from the pile driving activity (see Figure 3 of attachment) will comprise the shut-down zone. Shut-down of pile driving activity would occur immediately upon observation of any marine mammal within or approaching this zone.

- **Visual Monitoring and Shut-down of Pile Driving Activities:** The shut-down zone will include all areas where underwater sound pressure levels are anticipated to equal or exceed the 120 dB threshold, as described under "Establishment of Shut-Down Zone." Qualified observers will monitor these zones and advise project personnel when delay or shut-down of pile driving activities is required. The shut-down zone will be monitored for the presence of marine mammals before, during, and after any pile installation activity, beginning 15 minutes prior to initiating the start of pile installation and continuing for 15 minutes following the completion of pile installation. If marine mammals are present within the shut-down zone prior to pile installation, the start of pile installation will be delayed until the animals voluntarily leave the shut-down zone and have been visually confirmed beyond the zone, or until 15 minutes have elapsed without redetection. Shut-down of pile driving activities will occur if any marine mammal enters or approaches the established zone, and will not resume until the animal has voluntarily moved beyond the relevant shut-down zone radius, either through visual confirmation or by waiting until 15 minutes has elapsed without redetection.

Qualified biologists will be present on site at all times during pile driving activities. The action area will be monitored by at least three observers during vibratory pile driving. One will be based on land; two will be on vessels traveling along and within the radius while visually scanning the area.

Monitoring of the shut-down zone will be conducted using binoculars, spotting scopes and visual observations. Each monitor will have a radio for contact with other monitors or work crews. A GPS unit, range finder, or other suitable methodology will be used for determining the observation location and distance to marine mammals, vessels, and construction equipment.

No pile driving will occur in low-light conditions, or when visibility is impaired such that the shut-down zone cannot be effectively monitored. Pile driving will only be conducted between one hour post-sunrise through one hour prior to sunset. If waters exceed small craft advisories or conditions otherwise restrict biologists' ability to make observations or become unsafe for the observation boat to operate, pile installation will cease until conditions allow for monitoring to resume.

Because the project is occurring in estuarine waters of the Gulf of Mexico, the possibility exists that bottlenose dolphins may be present in the project area and could occur within the zone defined for behavioral harassment (Figure 3 of attachment). Although bottlenose dolphins typically spend a large proportion of time submerged, their dive durations are short with frequent surfacing, and they are commonly observed in groups of multiple individuals. Further, the water depths in the affected area are shallow, ranging from 1-5 ft outside the Biloxi River channel (which is immediately adjacent to the project site). Accordingly, individuals occurring in the project area should be easily observed, increasing the likelihood of mitigation effectiveness. We

believe that establishment of the shut-down zone and effective implementation of the mitigation and monitoring program described above, in conjunction with the limited timeframe of in-water pile driving, would eliminate the risk of marine mammal harassment incidental to Popp's Ferry Project. Therefore, conditional upon appropriate implementation of the mitigation and monitoring plan described above, we believe there is no need for you to take any further action pursuant to the MMPA.

If for any reason you do not implement the aforementioned mitigation and monitoring measures, then our finding does not apply, and we would recommend that you apply for an incidental take authorization under section 101(a)(5) of the MMPA. The same recommendation would apply if you subsequently obtain information during the activities that indicates that marine mammals have been incidentally harassed by the planned activities. Although we believe that take is not likely to occur, the State of Mississippi remains liable for any unauthorized takes of marine mammals resulting from the activity. If you have any further questions or concerns, please contact Ben Laws, Office of Protected Resources, at 301-427-8425.

Sincerely,



Jolie Harrison,
Incidental Take Program Supervisor,
Permits and Conservation Division,
Office of Protected Resources,
National Marine Fisheries Service.

Attachment

cc: Jamie Schubert, NOAA Restoration Center
Stephen Parker, Adaptive Management Services, LLC