

MARINE MAMMAL COMMISSION
4340 East-West Highway, Room 700
Bethesda, MD 20814-4447

24 November 2008

Mr. P. Michael Payne
Chief, Permits Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by the Jacksonville Transportation Authority under section 101(a)(5)(D) of the Marine Mammal Protection Act. We also have reviewed the Service's 24 October 2008 *Federal Register* notice announcing receipt of and requesting comments on the application. The applicant is seeking authorization to take small numbers of marine mammals by harassment incidental to replacing support structures for the Beach Boulevard Bridge over the Atlantic Intracoastal Waterway in Duval County, Florida.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the requested authorization, provided that—

- the National Marine Fisheries Service consult with the Fish and Wildlife Service to ensure that it has reviewed the applicant's recent information supplementing the 1999 biological assessment, revised blasting plan, and the current Draft Manatee, Marine Mammal, and Sea Turtle Survey Watch Plan;
- the applicant be required to conduct all practicable monitoring and mitigation measures that reasonably can be expected to protect the potentially affected marine mammal species from serious injury; and
- operations be suspended immediately, pending review by the Service, if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death or injury could have occurred incidental to those operations.

BACKGROUND

The Jacksonville Transportation Authority currently is replacing the Beach Boulevard Bridge. This process entails the removal of 12 support structures from the existing bridge. The contractor has determined that demolishing the bridge footers with explosives is the most practical means of removal. Also, the applicant notes that blasting will reduce the amount of time that tugs and barges would be active in the project area, thereby reducing risks to marine mammals and other wildlife. A blasting plan has been prepared for the proposed action.

The applicant is requesting authorization to take by Level B harassment up to six Atlantic bottlenose dolphins incidental to the proposed activities. The Service has preliminarily determined that the impact of the proposed blasting project will result, at most, in a small number of Atlantic bottlenose dolphins temporarily vacating the Beach Boulevard Bridge area and exhibiting minor short-term and localized behavioral changes because of temporary shifts in hearing sensitivity. The Service anticipates no take by injury or death and believes that takes by Level B harassment will be at the lowest level practicable due to incorporation of the proposed monitoring and mitigation measures. The Service has further preliminarily determined that the anticipated takes will have a negligible impact on the affected species or stock of marine mammals.

Three separate blast events would take place during December 2008. In preparation for each event, floating turbidity curtains would be deployed within 40 feet of the structures to be blasted. The target concrete would then be drilled, explosives placed in the drill holes, and the drill holes stemmed (tamped with rock). Mats to contain debris would be draped over the above-water portion of the bridge supports. Each blasting event would be approximately two seconds in duration. The safety-zone radius of the blast (i.e., 556 m or 1,824 ft.) has been determined using the U.S. Navy's Dive Manual's Safety Formula for an uncontrolled blast suspended in the water column. In the current instance, the applicant and Service consider the formula to be conservative because the charges to be used for demolition of the bridge footers will be confined within the footers, thus reducing both the pressure and impulse of a water shock wave. In addition, boreholes would be stemmed at the in-collars to further contain the pressures. Blasting would proceed only after all of the measures described in the applicant's Marine Wildlife Safety Plan and Manatee, Marine Mammal, Sea Turtle Survey Watch Plan have been implemented. The watch plan will be implemented for the entirety of the safety zone surrounding the project area to minimize the impacts on wildlife to the fullest extent practicable. A marine wildlife safety observer team would consist of a chief observer in a helicopter and four ground and/or waterborne observers. An aerial survey of the safety zone would be conducted by helicopter beginning one hour prior to each detonation event and would continue for 30 minutes following each detonation. A detonation event would be halted if a marine mammal or sea turtle is seen within or approaching the safety zone. The blast countdown would not resume until the animal is seen moving away from the area. If the animal is not sighted a second time, the event would not resume until 30 minutes after the initial sighting.

RATIONALE

The application states that the U.S. Fish and Wildlife Service has concurred with a biological assessment of the project prepared by the Florida Department of Transportation in 1999. The Service concluded that, with the inclusion of the specified monitoring and mitigation measures, the proposed action is not likely to adversely affect manatees. The National Marine Fisheries Service's *Federal Register* notice states that manatee sightings are extremely rare in the project area during winter months (i.e., December, January, and February). It states that the Fish and Wildlife Service considers this time frame as "the manatee construction window" for using explosives. Nevertheless, the Florida Department of Transportation has recently supplemented its biological assessment with

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new information. It also has submitted a revised blasting plan and a Draft Manatee, Marine Mammal, Sea Turtle Survey Watch Plan.

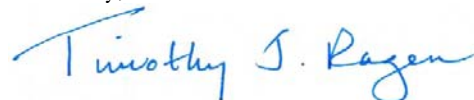
The Commission concurs with the National Marine Service's preliminary determinations and supports the various proposed mitigation and monitoring activities. The Marine Mammal Commission recommends that the National Marine Fisheries Service consult with the Fish and Wildlife Service to ensure that it has reviewed the applicant's recent information supplementing the 1999 biological assessment, the revised blasting plan, and the Draft Manatee, Marine Mammal, and Sea Turtle Survey Watch Plan.

The Marine Mammal Commission further recommends that the applicant be required to conduct all practicable monitoring and mitigation measures that reasonably can be expected to protect the potentially affected marine mammal species from serious injury and suspend operations immediately, pending review by the Service, if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death or injury could have occurred incidental to those operations.

The Commission also reiterates its view that an across-the-board definition of temporary threshold shift as constituting no more than Level B harassment inappropriately dismisses possible injury and biologically significant behavioral effects to the affected animals that may occur if an animal's hearing is compromised, even temporarily.

Please contact me if you or your staff has any questions concerning these recommendations and comments.

Sincerely,



Timothy J. Ragen, Ph.D.
Executive Director

Cc: Timothy J. Van Norman