



# MARINE MAMMAL COMMISSION

2 May 2013

Mr. P. Michael Payne, Chief  
Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

Dear Mr. Payne:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application from the Seattle Department of Transportation, on behalf of the City of Seattle, seeking issuance of regulations under section 101(a)(5)(A) of the Marine Mammal Protection Act. The Department is seeking authorization to take marine mammals incidental to replacement of the Elliott Bay Seawall in Seattle, Washington, from September 2013 to September 2018. The Commission also has reviewed the National Marine Fisheries Service's 12 April 2013 notice (78 Fed. Reg. 22096) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

## RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service issue the final rule but—

- (1) justify its conclusion that taking up to 19 percent of the southern resident killer whale population each year would be considered “small numbers,” (2) provide a basis for that threshold, and (3) work with the Fish and Wildlife Service and the Commission to develop a policy that sets forth the criteria and/or thresholds for determining what constitutes “small numbers” and “negligible impact” for the purpose of authorizing incidental takes of marine mammals;
- require the Department of Transportation to implement ramp-up procedures (1) after 15 minutes, if pile removal or driving was delayed or shut down due to the presence of a pinniped or small-sized cetacean within or approaching the exclusion zone or (2) after 30 minutes, if pile driving or removal was delayed or shut down due to the presence of a medium- or large-sized cetacean; and
- require the Department of Transportation to monitor for marine mammals not only before and during pile-removal and -driving activities, but for 30 minutes after all pile-removal and -driving activities have ceased.

## RATIONALE

The Department plans to replace the Elliott Bay Seawall from South Washington street to Broad Street along the Seattle waterfront. During the project, operators would remove 80 14-in timber piles using a vibratory hammer and/or a cutting tool. They also would install 1,740 48-in

temporary steel sheet piles using a vibratory hammer and impact hammer for proofing of 348 piles. All sheet piles would be removed once the project is complete. In addition, operators would install 190 16.5-in permanent octagonal concrete piles using an impact hammer. The majority of the concrete piles would be installed landward of the sheet piles that could serve as a sound attenuation device, much like a cofferdam. The piles would be installed in waters approximately 9.1 m in depth. The Department expects pile removal and installation to take 35 days per year (weather permitting) between Labor Day and Memorial Day weekends. It would limit activities to daylight hours only.

The Service preliminarily has determined that, at most, the proposed activities temporarily would modify the behavior of small numbers of nine marine mammal species or stocks. The Service anticipates that any impact on the affected species and stocks would be negligible. The Service also does not anticipate any take of marine mammals by death or serious injury and believes that the potential for disturbance will be at the least practicable level because of the proposed mitigation and monitoring measures. Those measures include—

- using no more than one vibratory hammer at any given time to remove/install piles;
- using sound attenuation devices during impact pile driving;
- conducting in-situ sound measurements (in water and in air) during impact and vibratory pile driving at the beginning of the project and adjusting the exclusion zones, if necessary;
- using at least three Service-approved protected species observers (one in the near-field and two in the far-field) to monitor the exclusion zones 30 minutes prior to and during pile removal and driving;
- increasing the extent of the exclusion zones (normally these are based on the extent of the Level A harassment zone) to minimize impacts to large whales;
- using ramp-up procedures at the beginning of pile-removal or -driving activities and when those activities have been interrupted for more than one hour;
- using delay and shut-down procedures;
- using delay and shut-down procedures if the number of marine mammal takes for any species or stock reaches the limit authorized for that species or stock under the incidental harassment authorization and an animal from that species or stock approaches the Level B harassment zone;
- reporting injured and dead marine mammals to the Service and local stranding network using the Service's phased approach and suspending activities, if appropriate;
- requiring an adaptive management process; and
- submitting weekly and annual reports and a final comprehensive report.

### **Small numbers and negligible impact**

The Act allows the authorization of incidental taking if it involves “small numbers of marine mammals of a species or population stock” and has no more than a negligible impact on such species or stock. The courts have ruled that “small numbers” and “negligible impact” are not synonymous and the former cannot be defined on the basis of the latter—that is, they are separate standards. Defining the term “small numbers” for application to multiple species or stocks has been a challenge. An absolute definition (i.e., a set number of animals) might make sense in some cases

but would not in others. A relative definition (e.g., a percentage) also might be appropriate in some cases but not in others.

The Service proposes to authorize the incidental taking of no more than 16 southern resident killer whales, or 19 percent of the estimated population of 84 individuals. However, it did not indicate why it believes the taking of 16 animals meets both the “small numbers” and “negligible impact” standards. Another applicant indicated that the Service had defined “small numbers” as no more than 20 percent of the species or stock in a few recent incidental harassment authorization applications (78 Fed. Reg. 9373, 78 Fed. Reg. 11844). However, the Service has authorized incidental takes that exceed that threshold (77 Fed. Reg. 65060, 77 Fed. Reg. 27284). The inconsistency raises the important question of how the Service determines whether the number of takes incidental to any proposed activity constitutes “small numbers.” In this case, the southern resident killer whale population has been declining and likely would continue to decline even if the Department did not conduct the proposed activity. That is, the population appears to have no tolerance for added impacts or losses. Furthermore, the effects on the population could be more than negligible if focused on females, particularly females just reaching the age of sexual maturity and beginning to reproduce. So although “small numbers” and “negligible impact” are separate standards, one cannot be defined in such a way that may violate the other.

Perhaps the best approach to define “small numbers” would be for the National Marine Fisheries Service, Fish and Wildlife Service, and Commission to form a task force to develop an appropriate working definition that could then be submitted for public review and comment. Until such a definition is developed, the Service will need to justify its judgments regarding “small numbers” of marine mammal species taken by various human activities. With that need in mind, the Marine Mammal Commission recommends that the National Marine Fisheries Service justify its conclusion that taking up to 19 percent of the southern resident killer whale population each year would be considered “small numbers” and provide a basis for that threshold. To address this issue more broadly, the Commission recommends that the Service work with the Fish and Wildlife Service and the Commission to develop a policy that sets forth the criteria and/or thresholds for determining what constitutes “small numbers” and “negligible impact” for the purpose of authorizing incidental takes of marine mammals.

### **Mitigation and monitoring measures**

The Service would require the Department to implement ramp-up procedures only at the beginning of each work day and only when pile-removal and -driving activities have ceased for more than one hour. The 1-hour timeframe is longer than normally stipulated by the Service in its incidental harassment authorizations. It generally conditions authorizations to require ramp-up procedures if hammering ceases for more than 30 minutes (77 Fed. Reg. 20361, 77 Fed. Reg. 14736, 76 Fed. Reg. 51947) or 15 minutes (77 Fed. Reg. 59904). The Service also would require that, if a pinniped or small-sized cetacean is sighted within or on a path toward an exclusion zone (i.e., based on the Level A harassment zone) during pile removal and driving, operators would cease those activities until that animal has cleared the zone and is on a path away from the zone or 15 minutes has lapsed since the last sighting. A similar requirement would be made for medium- and large-sized cetaceans, with a clearance time of 30 minutes. The Commission continues to believe that ramp-up procedures should be initiated after extended periods (i.e., after 15 minutes for pinnipeds and small-

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sized cetaceans) without pile removal or driving based on their respective clearance times. For that reason, the Marine Mammal Commission recommends that the National Marine Fisheries Service require the Department of Transportation to implement ramp-up procedures (1) after 15 minutes, if pile removal or driving was delayed or shut down due to the presence of a pinniped or small-sized cetacean within or approaching the exclusion zone or (2) after 30 minutes, if pile driving or removal was delayed or shut down due to the presence of a medium- or large-sized cetacean.

In addition, the Service proposed to require the Department to monitor only before and during pile-removal and -driving activities. That is, no post-activity monitoring would be required. The Service based that proposal on the application from the Department, which did not include post-activity monitoring. The Commission is unsure why the Service is deferring to the Department regarding mitigation and monitoring requirements. The Service, as the regulatory agency, is responsible for requiring applicants to implement appropriate mitigation and monitoring measures. Post-activity monitoring is a standard practice and has been included in other incidental take authorizations for pile-removal and -driving activities. Such monitoring is needed to ensure that marine mammals are not taken in unexpected or unauthorized ways or in unanticipated numbers. Some types of taking (e.g., taking by death or serious injury) may not be observed until after the activity has ceased. Post-activity monitoring is the best way, and in some situations may be the only reliable way, to detect certain impacts. Accordingly, the Marine Mammal Commission recommends that the National Marine Fisheries Service require the Department of Transportation to monitor for marine mammals not only before and during pile-removal and -driving activities, but for 30 minutes after all pile-removal and -driving activities have ceased.

Please contact me if you have questions regarding the Commission's recommendations and rationale.

Sincerely,

A handwritten signature in blue ink that reads "Timothy J. Ragen". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Timothy J. Ragen, Ph.D.  
Executive Director