

Memo

Date: Tuesday, February 23, 2021

Project: Metlakatla Seaplane Facility Refurbishment Project

To: Stephanie Egger, NMFS
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From: Christy Gentemann, DOT&PF

Subject: Addition of eight 24-inch temporary (template) piles to proposed action

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Alaska Division of the Federal Aviation Administration, is proposing maintenance improvements to the existing Metlakatla Seaplane Facility as part of the Metlakatla Seaplane Facility Refurbishment Project (Project). An application for an incidental harassment authorization (IHA) and biological assessment (BA) were submitted to NMFS on 10 August 2020.

Upon review of the construction plan and design, DOT&PF has determined that an additional eight (8) template piles may be required to support pile installation, bringing the total anticipated number of temporary (template) piles to twelve (12). These piles are necessary to ensure safe, effective, and efficient construction of the facility. The eight additional template piles will be identical to those originally proposed; they will be the same diameter (24-inch) and will be installed using the same pile installation and removal techniques. Therefore, there are no changes to sound source levels, Level A or B harassment threshold distances, or harassment zone sizes. Installation and removal of the eight additional piles will require an additional six days (four for install, two for removal) of in-water construction, for an estimated total of 26 days.

An updated Table 1-1 (from both BA and IHA application) is provided below, with revised values highlighted.



Table 1-1. Numbers and Types of Piles to be Installed and Removed

Pile Diameter and Type	Number of Piles	Rock Sockets	Tension Anchors	Impact Strikes per Pile (duration in minutes)	Vibratory Duration per Pile (minutes)	DTH Pile Installation (Rock Socket) Duration per Pile (minutes)	DTH Pile Installation (Tension Anchor) Duration per Pile (minutes)	Total Duration of Activity per Pile (hours)	Production Rate Piles per Day (Range)	Days of Installation or Removal
Pile Installation										
24" Steel Plumb Piles (Permanent)	4	4	4	20 (15)	15	180	120	5.5	0.5 (0-1)	8
24" Steel Batter Piles (Permanent)	2	2	2	20 (15)	15	90	120	4	0.5 (0-1)	4
24" Steel Piles (Temporary)	12	12	0	20 (15)	15	60	N/A	1.5	2 (1-3)	6
Pile Removal										
16" Steel Piles	11	N/A	N/A	N/A	30	N/A	N/A	0.5	3 (2-4)	4
24" Steel Piles (Temporary)	12	N/A	N/A	N/A	30	N/A	N/A	0.5	3 (2-4)	4
TOTALS	29	18	6	N/A	N/A	N/A	N/A	N/A	N/A	26

Following discussions with NMFS analyst Stephanie Egger on February 18th, 2021, DOT&PF also proposes to reduce the minimum shutdown zones from 100 meters to 50 meters during vibratory installation or removal of 16- and 24-inch piles as well as during down-the-hole pile installation of 8-inch tension anchors. The proposed changes to Table 6-6 in the IHA are highlighted below.

Table 6-2. Shutdown Zones during Pile Installation and Removal

Activity	Pile Diameter	Pile Type or Number of Piles	Shutdown Distance (meters)	
			Cetaceans	Pinnipeds
Vibratory Installation or Removal	16- and 24-inch	Battered and Plumb	50	50
DTH (Rock Socket)	24-inch	Temporary	200	200
		Battered, Permanent	260	120
		Plumb, Permanent	415	200
DTH (Tension Anchor)	8-inch	Permanent	100	50
Impact	24-inch	3 piles	135	100
		2 piles		
		1 pile	100	

Note: DTH = down-the-hole pile installation.

To address the increase in duration of in-water construction from 20 to 26 days, we have adjusted our marine mammal exposure estimates. There were no changes to exposure estimation methods. We did not change exposure estimates for Dall’s porpoise, Pacific white-sided dolphins, killer whale, or minke whale because they occur only rarely in the project area, and the estimates of potential exposure detailed in the existing IHA application are likely sufficient. During discussions with NMFS analyst Stephanie Egger (during a February 18, 2021, teleconference) it was agreed that Level A take of harbor seals and harbor porpoises was not necessary given the large shutdown zones, biology of the species in the area, and the robust monitoring program described in the project’s Marine Mammal Monitoring and Mitigation Plan (included as Appendix B of the IHA application). Also, it is extremely unlikely that an individual would remain within the calculated Level A zone long enough to accumulate enough sound pressure exposure to become a Level A take. Revisions to estimated exposures and requested takes are described below for each species (i.e., a copy of Section 6.5 of the IHA application) with changes in **bold** and summarized in Table 6-9 from the IHA application with changes highlighted.

Steller Sea Lion

We conservatively estimate that two groups of 10 individuals each (20 individuals; see Section 4.1.2) of Steller sea lions may be exposed to Project-related underwater noise once per day during pile installation and removal activities, for a total of **520** Level B exposures (**26** days * 20 sea lions per day = **520**). It is expected that the same individuals will be exposed on multiple days; therefore, the total number of individuals exposed to Level B harassment by the Project will likely be fewer than **520**.

No Level A harassment is anticipated.

Harbor Seal

Up to three known harbor seal haulouts are located within or near the Level B harassment zone for vibratory pile installation activities as described in Section 4.2.2. Harbor seals are regularly sighted in Port Chester by local residents (Section 4.2.2). For these reasons, we conservatively estimate that up to 15 harbor seals could be exposed to noise levels in excess of the Level B harassment threshold each day, for a total of **390** exposures (**26** days * 15 seals per day = **390**).

No Level A harassment is anticipated.

Harbor Porpoise

Sightings of harbor porpoises in Port Chester occur with some regularity (Section 4.3.2). As such, there is potential for them to occur in the Project area. Based on information synthesized in Section 4.3.2, we assume that 2 groups of 5 harbor porpoises per 5 days of in-water work could enter the Level B harassment zone. **Expressed in another way, this is an average of 2 harbor porpoise per day of in-water work.** Therefore, we estimate **52** exposures over the course of the Project (**26** days * **2** porpoises per day = **52**).

No Level A harassment is anticipated.

Dall's Porpoise

Dall's porpoises are not expected to occur in Port Chester because the shallow water habitat of the bay is atypical of areas where Dall's porpoises usually occur (see Section 4.4.2). However, recent research indicates that Dall's porpoises may opportunistically exploit nearshore habitats when predators, such as killer whales, are absent (Moran et al. 2018). Therefore, we anticipate approximately one observation of one large Dall's porpoise pod (15 individuals) in the Project area during in-water construction per month. Therefore, we estimate that two pods may be exposed to Level B harassment for a total of 30 Dall's porpoises during the **26** days of in-water construction (2 months * 15 porpoises per month = 30).

No Level A harassment is anticipated.

Pacific White-sided Dolphins

Pacific white-sided dolphins do not generally occur in the shallow, inland waterways of Southeast Alaska. There are no records of this species occurring in Port Chester, and it is uncommon for individuals to occur in the Project area (see Section 4.5.2). However, recent fluctuations in distribution and abundance decrease the certainty in this prediction. In order to reduce risk to the Project, we conservatively predict that one large group (92 individuals) of Pacific white-sided dolphins may be exposed to Level B harassment noise during the in-water construction period, for a total of 92 Level B exposures.

No Level A harassment is anticipated.

Killer Whale

Killer whales are observed occasionally during summer throughout Nichols Passage (see Section 4.6.2), but their presence in Port Chester is unlikely. As a precaution, because Level B harassment zones extend into Nichols Passage, the DOT&PF requests Level B take for one killer whale pod of up to 15 individuals once during the Project (15 exposures total).

No Level A harassment is anticipated.

Humpback Whale

Use of Nichols Passage and Port Chester by humpback whales is common but intermittent and dependent on the presence of prey fish. Based on the available information synthesized in Section 4.7.2, the DOT&PF predicts that two groups of two whales, up to four individuals per day, may be exposed to Project-related Level B underwater noise each day during the **26** days of the Project, or a total of **104** individuals (4 per day * **26** days = **104** humpback whales). It is likely that some individuals will be exposed to Level B noise more than once during the Project, so the total number of individual whales exposed is likely to be less than **104**.

Wade et al. (2016) estimated that approximately 6.1 percent of humpback whales in Southeast Alaska are members of the Mexico DPS, while all others are members of the Hawaii DPS. Therefore, we predict that **7** of the Level B exposures (**104** whales x 0.061 = **6.3**) will be of Mexico DPS individuals and **97** Level B exposures will be of Hawaii DPS individuals.

No Level A harassment is anticipated.

Minke Whale

Minke whale abundance throughout Southeast Alaska is low, and anecdotal reports have not included minke whales near the Project area. However, minke whales are distributed throughout a wide variety of habitats and have been observed elsewhere in Southeast Alaska; therefore, this species could occur near the Project area. NMFS estimated that three individual minke whales could occur in Tongass Narrows or Clarence Strait every 4 months (85 FR 673), so the DOT&PF conservatively estimates that up to three minke whales may be exposed to Level B harassment over the entire project. Level A take is not requested for minke whales.

Table 6-3. Summary of the Estimated Numbers of Marine Mammals Potentially Exposed to Level A and B Harassment Sound Levels

Species	DPS/Stock	Estimated Number of Exposures to Level B Harassment	Estimated Number of Exposures to Level A Harassment	Total Estimated Exposures (Level A and Level B)	Stock Abundance	Percent of Population
Steller sea lion	Eastern DPS	520	0	520	41,638	1.2
Harbor seal	Clarence Strait	390	0	390	31,634	1.2
Harbor porpoise	Southeast Alaska	52	0	52	975	5.3
Dall's porpoise	Alaska	30	0	30	83,400	<0.1
Pacific white-sided dolphin	North Pacific	92	0	92	26,880	0.3
Killer whale	West Coast Transient				243	6.2 ^a
	Alaska Resident	15	0	15	2,347	0.6 ^a
	Northern Resident				261	5.7 ^a



Species	DPS/Stock	Estimated Number of Exposures to Level B Harassment	Estimated Number of Exposures to Level A Harassment	Total Estimated Exposures (Level A and Level B)	Stock Abundance	Percent of Population
Humpback whale	Hawaii DPS	97	0	97	11,571	0.8 ^b
	Mexico DPS	7	0	7	2,806	0.2 ^b
Minke whale	Alaska	3	0	3	Unknown	--
Total	N/A	1,206	0	1,206	N/A	N/A

Note: DPS = Distinct Population Segment; N/A = not applicable.

^a These percentages assume that all takes come from each individual killer whale stock; thus the percentage should be adjusted down if multiple stocks are actually affected.

^b Assumes that 6.1 percent of humpback whales exposed are members of the Mexico DPS (Wade et al. 2016).