

**Duck Point Development II, LLC
Hoonah Berth II Project
Protected Species Monthly Report
July 2019**

Prepared For:

NMFS Protected Resources Division

P.O. Box 21668

709 West 9th Street

Juneau, AK 99802

August 6, 2019

Table of Contents

Introduction	2
Project Overview and Location.....	2
Mitigation and Monitoring Methods	5
Visual Monitoring Methodology.....	5
Work Completed	6
Environmental Conditions	7
Monitoring and Detection Results	8
Visual Detection.....	8
<i>Cetacean Detections</i>	9
<i>Pinniped Detections</i>	10
<i>Other Marine Mammal Detections</i>	10
Summary	10
References	12

Tables

Table 1. Authorized Takes of Marine Mammals.....	2
Table 2. Level A and Level B Monitoring Zones	4
Table 3. Summary of Pile Driving Activities in July 2019.....	7
Table 4. Environmental Condition During In-Water Work in July 2019.....	8
Table 5. Total Level B Takes Per Species During the DPD Hoonah Berth II Project	9
Table 6. Total Takes Per Species to Date for the DPD Berth II Project	11

Figures

Figure 1. Duck Point Development, LLC Hoonah Berth II Project Location	3
Figure 2. Protected Species Observers Locations During Monitoring	5

Attachments

- Attachment A: Marine Mammal Observation Record Forms
- Attachment B: Marine Mammal Take Summary

Introduction

Duck Point Development II, LLC (DPD) is constructing a cruise ship berth (Berth II) and a small-craft lightering float at Cannery Point (Icy Strait Point) on Chichagof Island near Hoonah, Alaska in order to accommodate more and larger cruise ships.

DPD was granted an Incidental Harassment Authorization (IHA) for the project by the National Marine Fisheries Service (NMFS) on June 3, 2019. The IHA is valid from June 3, 2019 to June 2, 2020. NMFS granted Level A and B harassment of a small number of minke whales (*Balaenoptera acutorostrum*), humpback whales (*Megaptera novaeangliae*), gray whales (*Eschrichtius robustus*), killer whales (*Orcinus orca*), Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), Dall's porpoise (*Phocoenoides dalli*), harbor porpoises (*Phocoena phocoena*), harbor seals (*Phoca vitulina*), and Steller sea lions (*Eumetopias jubatus*) (Table 1). The takes granted for this project were generated based upon stock assessments completed by NMFS, direct consultation with NMFS, and observations from the another berth that was installed at Icy Strait Point. Authorized Level A and B take of marine mammals is summarized in Table 1.

Table 1. Authorized Takes of Marine Mammals

Species	Authorized Take	
	Level A	Level B
Minke whale	0	9
Humpback whale	0	434
Gray whale	0	3
Killer Whale	0	570
Pacific White-Sided Dolphin	0	164
Dall's Porpoise	0	1,038
Harbor Porpoise	32	1,992
Harbor Seal	16	156
Steller Sea Lion	0	559
Northern Sea Otter	0	0

(Source: NMFS 2019)

In-water construction on the small-craft lightering float began in June 22, 2019 and was completed by June 23. Construction on Berth II began on July 12, 2019. This monitoring report will be submitted to NMFS and U.S. Fish and Wildlife Service (USFWS) to meet the monthly monitoring and reporting requirements required by NMFS in the IHA issued to DPD under the authority of Section 101 (a)(5)(D) of the Marine Mammal Protection Act (MMPA) and to deliver northern sea otters sighting information to USFWS.

Project Overview and Location

The program was conducted in Port Frederick and Icy Strait near Hoonah, Alaska at approximately 58.1351° N, 135.4506° W (Figure 1).



Figure 1. Duck Point Development, LLC Hoonah Berth II Project Location

Table 2. Level A and Level B Monitoring Zones

Source	Shutdown Zones in Meters (<i>monitoring zone, if different, in meters</i>)					Level B Monitoring Zones (m)
	Low-Frequency Cetaceans (humpback whale, gray whale, minke whale)	Mid-Frequency Cetaceans (killer whale, Pacific white-sided dolphin)	High-Frequency Cetaceans (Dall's porpoise, harbor porpoise)	Phocid (harbor seal)	Otariid (sea lion)	
In-Water Construction Activities*						
Barge movements, pile positioning, sound	10	10	10	10	10	N/A
Vibratory Pile Driving/Removal						
24-inch steel installation	25	10	25	10	10	6,215
30-inch steel temporary installation	25	10	25	10	10	6,215
30-inch steel removal	25	10	25	10	10	6,215
30-inch steel permanent installation	25	10	25	10	10	6,215
36-inch steel permanent installation	25	10	50	25	10	16,345
42-inch steel permanent installation	50	10	50	25	10	16,345
Impact Pile Driving						
36-inch steel permanent installation	1,000	50	100 (1,200)	50 (525)	50	3,745
42-inch steel permanent installation	750	50	100 (900)	50 (400)	50	3,745
Socketed Pile Installation						
24-inch steel permanent installation	25	10	50	15	10	12,025
30-inch steel temporary installation	25	10	50	15	10	12,025
Rock Anchor Installation						
8-inch anchor permanent installation	25	10	25	10	10	12,025
33-inch anchor permanent installation	100	10	100	50	10	12,025

Mitigation and Monitoring Methods

The Protected Species Observer (PSO) monitoring guidelines followed the mitigation measures detailed in the IHA granted by NMFS. The monitoring and mitigation protocols were established in order to minimize impacts to marine mammals in the vicinity of the dock replacement project. Visual observations allowed for the adherence of the shutdown areas and collection of data for use in future activities. All data collected by PSOs are located in Attachment A.

Visual Monitoring Methodology

Three on-site PSOs scanned for marine mammals, recorded and reported sightings, and implemented mitigation actions (shut downs) in accordance with the IHA throughout the month. A 30-minute watch prior to the start of and at the conclusion of any in water work, soft start procedures, and a consistent watch during all in water work occurred. The PSOs were located with a clear view of the action areas and had a full view of Port Frederick and Icy Strait (Figure 2). On days where visibility was reduced takes were extrapolated.

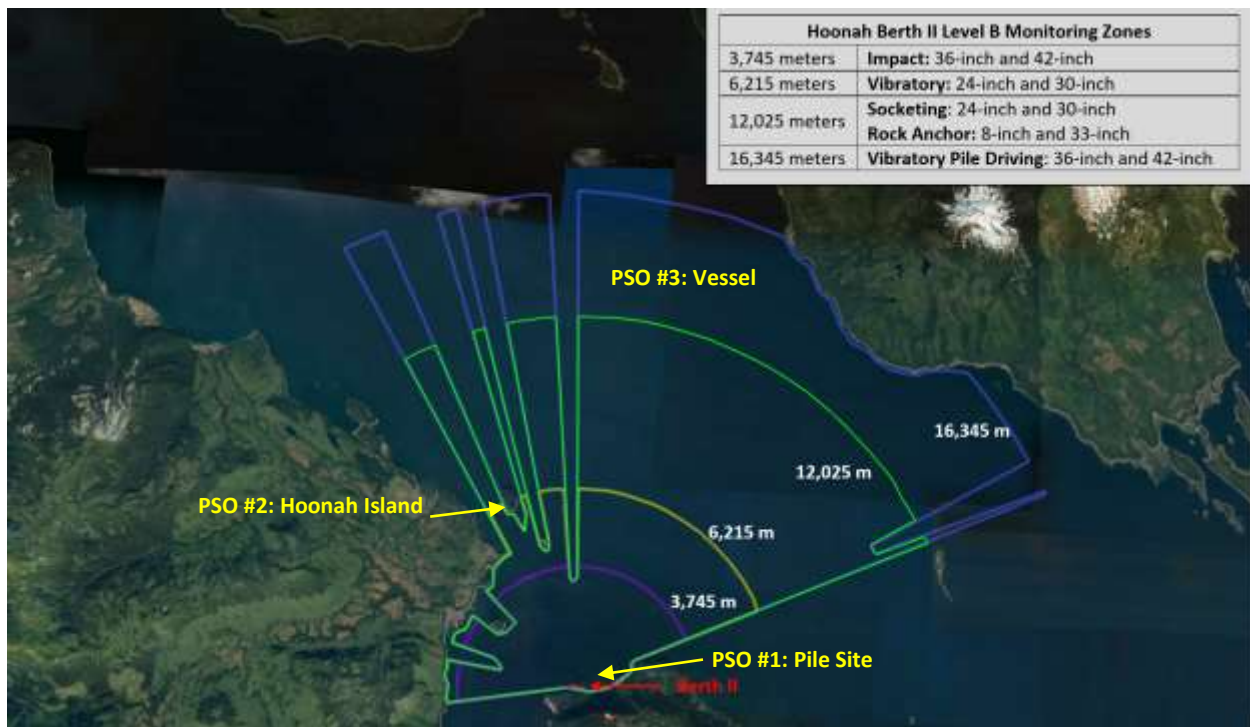


Figure 2. Protected Species Observers Locations During Monitoring (Source: NMFS 2019).

The PSOs were equipped with a VHF radio, binoculars, a rangefinder, and GPS unit. The head observer also was equipped with a cell phone to communicate with the construction superintendent. Guidelines for observers to mitigate for fatigue were closely followed. If a marine mammal was sighted, the observer would identify and record the species. If the marine mammal appeared to be likely to enter a shutdown area, the superintendent was notified and in water work was halted and delayed until the marine mammal left the area or 15 minutes (pinnipeds) and 30 minutes (cetaceans) had passed after the last sighting within or near the action area.

The PSOs recorded the following information for each protected species observation:

- Species, date, and time for each sighting event.
- Number of animals per sighting event (adults/juveniles/calves).
- Primary, and if observed, secondary behaviors of the marine mammal.
- Geographic coordinates for the observed animals.
- Time of the most recent pile-driving activity or other project activity prior to sighting.
- Environmental conditions (i.e. sea state, weather conditions, visibility, lighting conditions, etc.).

When a protected species was observed, distance estimates were made using a rangefinder, the naked eye, and by relating the animal's proximity to an object at a known distance. Species and sex were determined, when possible, by observing anatomical features and behaviors. Identifications were confirmed and recorded.

Based upon the location, timeframe, behavior, and tracking movement observers were able to positively determine if an individual was being re-sighted. If an individual was re-sighted, a note was made on the sighting form to ensure that additional takes or sightings were not counted. If it could not be positively determined whether it was the same individual, the individual was counted as a new sighting and an additional take, if appropriate.

Work Completed

Protected species monitoring and mitigation during the **eighteen days** of in-water work during the month of July 2019. Table 3 below details the pile size, number, and method (vibratory hammer, socketing, impact hammer, stabbing, and deadpull method) on each day.

Table 3. Summary of Pile Driving Activities in July 2019

Date	Pile Type	# of Piles	Method
12-July	30"-Temporary	8	Vibratory Hammer
13-July	30"-Temporary	1	Vibratory Hammer
14-July	36"-Permanent	4	Vibratory Hammer and Impact Hammer
	42"-Permanent	1	Vibratory Hammer
15-July	42"-Permanent	1	Impact Hammer
16-July	24"-Permanent	2	Socketing
	42"-Permanent	1	Vibratory Hammer and Impact Hammer
17-July	24"-Permanent	2	Socketing
	36"-Permanent	2	Vibratory Hammer and Impact Hammer
18-July	24"-Permanent	2	Socketing
	24"-Temporary	6	Vibratory Hammer
	36"-Permanent	2	Vibratory Hammer
19-July	36"-Permanent	2	Vibratory Hammer and Impact Hammer
	24"-Permanent	2	Socketing and Vibratory Hammer
20-July	36"-Permanent	2	Vibratory Hammer and Impact Hammer
	24"-Permanent	1	Socketing
21-July	24"-Permanent	1	Socketing and Vibratory Hammer
	24"-Temporary	2	Vibratory Hammer (removal)
24-July	24"-Temporary	7	Vibratory Hammer (removal)
25-July	30"-Temporary	1	Vibratory Hammer (probing)
26-July	30"-Temporary	4	Vibratory Hammer
27-July	30"-Temporary	4	Vibratory Hammer
28-July	42"-Permanent	2	Vibratory Hammer and Impact Hammer
29-July	24"-Permanent	2	Socketing and Vibratory Hammer
	24"-Temporary	2	Vibratory Hammer
30-July	36"-Permanent	2	Vibratory Hammer and Impact Hammer
	24"-Permanent	2	Socketing and Vibratory Hammer
31-July	36"-Permanent	2	Vibratory Hammer and Impact Hammer
	24"-Temporary	2	Vibratory Hammer

Environmental Conditions

Environmental conditions on the eighteen days of monitoring varied (Table 4). Temperatures were between 46°F and 72°F. Visibility was generally good with weather and visibility varying on some days. Weather was partly cloudy and overcast with periods of light rain and fog. Wind was generally light. Water conditions in Port Frederick and Icy Strait were generally favorable during observation periods with the Beaufort Sea State staying at 1 and occasionally increasing to 4 (NOAA 2019).

Table 4. Environmental Condition During In-Water Work in July 2019

Date	Temperature Range (Fahrenheit)	Average Wind Speed (mph)	Visibility	Glare	Weather Condition	Beaufort Sea State
12-July	54-62	2.9	Moderate	5%-15%	L/PC/OC	1
13-July	53-61	4.0	Good-Excellent	3%-10%	OC/PC	1
14-July	53-64	3.4	Good-Excellent	3%-10%	OC/PC	1-2
15-July	54-69	6.9	Poor-Excellent	3%-10%	L/R/PC/OC	1-2
16-July	54-61	9.7	Moderate-Excellent	1%-10%	L/R/F/OC	2-4
17-July	51-67	6.0	Excellent	2%-40%	F/PC/OC	1
18-July	54-59	9.6	Poor-Good	0%-10%	L/R/F/PC/OC	1
19-July	54-58	9.6	Moderate-Excellent	0%-10%	PC/F/OC	1
20-July	53-58	5.9	Bad-Excellent	3%-30%	L/F/OC	1
21-July	50-66	4.3	Good-Excellent	10%-30%	S/PC/OC	1
24-July	53-63	10.2	Poor-Excellent	0%-10%	L/R/F/OC	1
25-July	48-62	5.6	Moderate	5%-10%	L/R/F/OC	1
26-July	53-64	3.2	Moderate-Excellent	0%-5%	L/R/F/OC	1
27-July	54-64	10.2	Moderate-Excellent	0%-10%	L/R/OC	1
28-July	53-60	10.4	Moderate-Excellent	5%-20%	L/R/F/OC	1-2
29-July	52-61	9.8	Moderate-Excellent	0%-25%	PC/OC	1
30-July	46-70	5.4	Good-Excellent	0%-10%	S/PC	1
31-July	48-72	6.1	Moderate-Excellent	5%-40%	S/PC/F/OC	1

Monitoring and Detection Results

Visual Detection

A summary of marine mammal take is included below. Takes only occurred if the sighting happened during periods of in water work. A detailed log of sightings per day is located in Attachment A. The total number of sightings and Level B takes per species for the month of June is in Table 5. Level B takes per day and per species is in Attachment B. No level A takes occurred.

**Table 5. Total Level B Takes Per Species During the DPD Hoonah Berth II Project
 In-Water Construction in July 2019 (no level A take occurred)**

Species	Total Number of Sightings	Number of Level B Takes	Extrapolated Level B Takes	Total Number Level B Takes
Minke whale	1	0	0	0
Humpback whale	75	23	0	23
Gray whale	0	0	0	0
Killer Whale	7	3	0	3
Pacific White-Sided Dolphin	2	0	0	0
Dall's Porpoise	4	0	0	0
Harbor Porpoise	41	8	0	8
Harbor Seal	7	3	0	3
Steller Sea Lion	74	7	0	7
Northern Sea Otter	331	0	0	0
Total	512	44	0	44

Cetacean Detections

Minke whale

A minke whale was sighted on one day of in-water work. The individual that was sighted did not result in a Level B take, and there were no extrapolated Level B takes. The sighting was of a single individual that exhibited traveling and swimming behaviors. The sex of the individuals was unable to be determined. No calves were sighted.

Humpback whale

Humpback whales were sighted on sixteen days of in-water work. Twenty-three (23) of the seventy-five (75) individuals that were sighted were a Level B take, and there were no extrapolated Level B takes. Sightings were of a single individual, a pair, and a group of 5 exhibiting traveling, diving, and foraging behaviors. The sex of the individuals was unable to be determined. No calves were sighted.

Killer whale

Seven killer whales were sighted on three days of in-water work. Of those individuals sighted, three (3) resulted in a Level B take, and there were no extrapolated Level B takes. Sightings were of a single individual, and a group of three exhibiting swimming behavior. The sex of the individuals was unable to be determined. No calves were sighted.

Pacific white-sided dolphin

Pacific white-sided dolphins were sighted on one day of in-water work. None of the two (2) individuals that were sighted were a Level B take, and there were no extrapolated Level B takes. Sightings were of a group of two exhibiting diving behavior. The sex of the individuals was unable to be determined. No calves were sighted.

Dall's porpoise

On July 29, four (4) Dall's porpoises were sighted swimming approximately 6,000 meters from in-water work. None of the four individuals that were sighted were a Level B take, and there were no

extrapolated Level B takes. Sightings were of a group of 4 exhibiting a traveling behavior. The sex of the individuals was unable to be determined. No calves were sighted.

Harbor porpoise

Harbor porpoise were sighted on thirteen days of in-water work. Eight of the 48 individuals that were sighted were a Level B take, and there were no extrapolated Level B takes. Sightings were of single individuals, a pair, a group of 3 and 5 exhibiting traveling, swimming, porpoising, and milling behaviors. The sex of the individuals was unable to be determined. No calves were sighted.

Pinniped Detections

Harbor seals

Harbor seals were sighted seven days of in-water work with a total of 7 individuals sighted. Three sightings resulted in a Level B take, and there were no extrapolated Level B takes. Sightings were all of single individuals that were exhibiting looking and milling behaviors. The sex of the individuals was unable to be determined. No pups were sighted.

Steller sea lions

Thirty-seven (37) Steller sea lions were sighted during in-water work. All 37 individuals were sighted alone or in a pair and only 7 resulted in a Level B take, there were no extrapolated takes. The individuals were foraging, spyhopping, milling, looking, hauled out, and swimming. The sex of the individuals was unable to be determined. No pups were sighted.

Other Marine Mammal Detections

Northern sea otters

Three hundred and thirty-one (331) sea otters were sighted in July. Individuals were seen on all days that in-water work occurred in July; however, none of the sightings resulted in takes. Note that due to the distance from the work, no shutdowns were needed or occurred. Groups ranged from 1 to 35 individuals and were determined to be foraging, resting, milling, spyhopping, travelling, and swimming. Individuals' ages were unable to be positively determined. Two pups were observed.

Summary

Visual monitoring during July 2019 resulted in the sightings of a total of 512 individuals and a total of 44 Level B takes. Nine species of marine mammals were positively identified: minke whale, humpback whale, killer whale, Pacific white-sided dolphin, Dall's porpoise, harbor porpoise, harbor seals, Steller sea lions, and northern sea otters. No level A takes occurred.

Table 6 summarizes the total number of take that has occurred during construction to date on the project. Currently the project is on track for not exceeding the number of authorized take under the IHA.

Table 6. Total Takes Per Species to Date for the DPD Berth II Project

Species	Level A Authorized	Level B Authorized	Level A Exposures to Date	Level B Exposures to Date	Remaining Level B takes Authorized
Minke Whale	0	9	0	0	9
Humpback Whale	0	434	0	23	411
Gray Whale	0	3	0	0	3
Killer Whale	0	570	0	3	567
Pacific White-Sided Dolphin	0	164	0	0	164
Dall's Porpoise	0	1,038	0	0	1038
Harbor Porpoise	32	1,992	0	8	1984
Harbor Seal	16	156	0	3	153
Steller Sea Lion	0	559	0	10	549
Northern Sea Otter	0	0	0	0	0

References

National Marine Fisheries Service. 2019. Duck Point Development, LLC. Incidental Harassment Authorization. Accessed from <https://www.fisheries.noaa.gov/action/incidental-take-authorization-pile-driving-and-removal-activities-during-construction-cruise> June 26, 2019.

National Oceanic and Atmospheric Administration (NOAA). 2019. National Weather Service: Hoonah, Alaska. Accessed from <https://w2.weather.gov/climate/getclimate.php?wfo=pajk> on August 2, 2019.

Attachment A

Attachment B

