ADDENDUM NO. 2

TO THE RFP DOCUMENTS

Design & Construction of the Homer Harbor's System 4 Float Replacement CITY OF HOMER, ALASKA

_	Notice to Pro	posers:		
Issued By:	Leon Galbrait City Engineer City of Homer	,		
Previous Ad	denda Issued:	one	_	
Proposal Su	bmittal Date:	November 7, 2025		
Addendum I	ssue Date:	October 24, 2025		

Proposers must **acknowledge receipt of this addendum** by including the Addenda Acknowledgement Form with the proposal.

Proposers are required to acknowledge each addenda separately on the Addenda Acknowledgement Form. Any proposals received without acknowledgment of addenda may be rejected prior to evaluation.

This addendum modifies the original Request for Proposal (RFP) contract documents for the above referenced project and shall become part of the contract documents. Acknowledge receipt of this Addendum as required on the provided form. Any discussions that may have occurred during the meeting or elsewhere and not covered by addendum is not considered relevant, accurate, or binding. The following information will supersede previous information provided.

- 1. The City has determined that a formal USACE Section 408 review will be necessary. To support the need for use/occupancy of the federal navigation channel, the Design-Builder will ensure that the design does not negatively impact USACE periodic dredging operations and their dredging (including over-dredging) does no impact the structural integrity of the pile foundations. Sufficient pile embedment shall be provided in the areas of the channel and side slopes. Pile removal operations shall include complete removal of piles, including any broken pile stubs that may remain in the dredging prism to a sufficient depth so as to ensure it does not result in a navigation hazard and/or impact dredging operations.
- 2. The attached draft *Protected Species Monitoring and Mitigation Plan (PSMMP)* shall be included as part of the project requirements. Minor revisions to this plan should be expected.
- 3. The following are responses and clarifications to relevant Proposer questions received during the Pre-Proposal meeting and/or in writing by email:

Q1. Is the sewer pumpout system intended to be seasonal or all-season?

Response: The sewer pumpout system will only be used during summer season. Revise Detail 3 on Sheet C5 to eliminate the requirement for a heating system and added insulation in the sewer pump enclosure.

Q2. Will it be possible to close off the end of the harbor if needed to allow our 70-ft wide barge unrestricted access?

Response: A fairway for boater access to the other floating docks is critical to harbor operations. Short closures are manageable with sufficient advanced notice and coordination with the Homer Port Director, who will work with the design-builder to schedule closures and any access restrictions to boaters. The Barge Ramp located near the harbor entrance channel can be used during closures of the Load & Launch Ramp. Harbor activity generally slows down October 1st through mid-March, when such closures will be more easily accommodated. The design-builder should plan to include any needs for short closures and/or temporary vessel relocations (i.e., days not weeks) in their initial Work Plan & Schedule as well as the Demolition Plan.

Q3. What is the City's budget/sources for this project? The RFP is clear that the construction award is not guaranteed. Is the engineering funding available now?

Response: The City has applied for a grant for \$11.2M from MARAD with a \$4.5M City Match to be used for construction as well as City costs for project management, grant compliance/management, and design/construction support. There are no guarantees the MARAD grant will be awarded (in full or in part). The Engineering and Environmental Permitting portion of the project is currently funded in part by a Denali Commission grant with a deadline for expenditure of October 1, 2026. It is the City's intent to award the Engineering portion of the project as soon as possible and pay line Item #1 of the Schedule of Values for "Engineering & Design" as part of the initial NTP.

Q4. What is the required bury depth for City water piping?

Response: 7 feet

Q5. Will the City provide storage space for materials in the uplands at no cost?

Response: Yes.

Q6. The permits seem to limit pile removal to 10 piles per day. Please confirm this interpretation of the permitted limit.

Response: The limits for pile removal/install are based on the time/minutes per day; and these are being revised to provide more flexibility on the total vibratory pile removal and installation time per day. The pile table to be submitted in the IHA applications and corresponding shut-down zones, etc. are outlined in the attached PSMMP. Consultation regarding potential approval of these changes by the federal agencies is delayed until after the government shutdown ends.

Q7. We understand that the schedule was revised in Addendum 1 to push construction out one year due to concern about the grant award and grant obligation schedule; however, if the grant is awarded and obligated by June 2026, would the City allow construction to occur in Fall '26 to Spring '27 as originally planned?

Response: This would be desirable and allowed if grant funding and permits are in place.

Q8. "As a witness to the Surety signature block, it appears Homer is looking to have the Surety Secretary witness the signature for the attorney-in-fact. This seems redundant as we will already having our attorney-in-fact signature witnessed. Will you please get clarity from the City of Homer on what is actually required on the signature page? If we are able to gain some clarity it will be a lot cleaner. If not, we have a process approved with surety to move forward. We will provide a notarial acknowledgment. Our signature will be notarized, and we will attach notary along with the bid bond and the POA. We will have the notary witness our signature on the bid bond form where it says Witness as to Surety."

Response: Payment and performance bonds must have the signatures of the Principal's Corporate Secretary, the Surety's Corporate Secretary and the Attorney-in-Fact

Q9. Article 5.01A states 100% Performance and Payment Bonds shall remain in effect for a minimum of six years after the date when final payment becomes due. Is the City of Homer intending for the Performance Bond to cover the 5-year workmanship warranty? If so, Turnagain's bonding company is recommending a separate warranty bond be created for an amount specific to the value of work being bonded for warranty claim. The City could stipulate an amount or % of contract value. Without changing RFP to include a warranty bond, Turnagain's bonding company would charge the additional warranty premium for the entire contract amount which will be less cost effective than having separate warranty bond or an inclusion in contract of the exact amount being warrantied. Essentially a warranty bond would save the City of Homer money.

Response: There is no need to have the payment and performance bonds remain in effect for 6 years after final payment. The payment and performance bonds shall remain in effect for the duration of the contract. The contract includes the warranty period, which the standard construction specifications, where applicable, define as one year beginning on the date of Certificate of Completion. In addition, the Technical Performance Specifications require a 5-year warranty on materials and workmanship for the float system and a 10-year warranty on the polyethylene flotation units.

Q10. In the RFP, it currently says "Removed materials may not be sold, transferred, donated, or delivered to any entity without prior consent by the City." Does this imply that we should plan to dispose of all materials at a landfill?

Response: The City will consider options for recycle or reuse of materials (i.e., floats, gangway, etc.) however, the City will require written certification and methods included in the required demolition and disposal plan that ensures safe and proper transport and prevents environmental impacts. For example, the requirements may include storing materials in the uplands for several weeks and inspection by ADF&G to prevent invasive species propagation into other waters. See Attachment #2.

Q11. The RFP documents indicate the BB Float to be a deductive alternative however the schedule of values does not include the associated quantities in the baseline project. Is the intent that this is deductive or additive?

Response: BB float is a deductive alternative.

Q12. Available funds for this project are currently \$1.7M for design and permitting services [partially spent], including any field investigations. The City is also awaiting the outcome of a grant application through MARAD PIDB. Consequently, there would be separate NTPs for design and construction. Design work will commence immediately upon award and execution of the contract, expected around November/December 2025. The NTP for construction will only proceed if and when funding is secured, with MARAD grant awards scheduled for notification by December 31, 2025. If awarded, grant agreements should be in place by the revised date of August 2026 in Addendum 1. Additionally, the NTP for materials procurement was revised to be after 75% design approval and pending grant agreement or preauthorization from MARAD, expected around May 2026. On-site demo and construction have also been revised to a whole winter construction season after this spanning from September 2027 through May 2028.

These milestones suggest that the City has two opportunities to apply for grant funding before the actual construction schedule of September 2027 through May 2028. However, we have noticed that the RFP lacks a contract method protecting the contractor from cost inflation between the proposal due date and the eventual NTP for materials procurement, as well as inflation between the proposal due date and on-site construction. Additionally, there is no verbiage or clause specifying how long the contractor is expected to hold their prices. This poses a risk to the contractor, especially if both attempts at securing a MARAD grant fail, as there is no expiration date on the proposal.

Considering all of this, we kindly request that a clause be added to the RFP to cover cost inflation on materials between the proposal date and eventual materials procurement. Additionally, we would appreciate it if a clear expiration date for the proposal could be provided.

Response: Prices shall be good through the dates shown in the schedule.

Q13. The quantity of fire extinguishers & cabinets is significantly different than the quantity of life rings & cabinets on the SOV. Historical experience shows that these quantities are typically very similar. Please take a second look at the take offs for these items or provide and explanation for the significant difference.

Response: Refer to Section 4.9 of the Technical Performance Specifications for current plan for placement of safety equipment.

Q14. Would the city allow life rings to be hung on the outside of a pedestal as opposed to inside a cabinet?

Response: Life rings can be hung on a post instead of protected in a cabinet.

Q15. The project specifications appear to imply that existing steel piles installed are planned to be salvaged and reinstalled and acknowledges that the piles may require replacement prior to the 50-year service life. For consistency amongst bidders, what should the design-builder assume for section loss on the existing piles (if any)? Is the design-builder to assume that the lengths of the existing piles match the 'pile supply length' in the provided drawings?

Response: It is up to the discretion of the engineer of record to review as-built records and make any necessary field measurements to evaluate suitability of salvage and re-use of

existing materials. The salvaged floats and associated piles are expected to have a similar remaining service life.

Q16. The project plans state that "pile supply lengths shall be based on 30-ft of embedment" and the specifications require that the design-builder determines the pile embedment lengths. Will pile embedment less that 30-ft be permitted?

Response: The engineer of record is responsible for determining pile embedment lengths, demonstrated in accordance with approved methods outlined in the technical performance specifications.

ATTACHMENTS

- 1. Draft PSMMP
- 2. Transfer of Float Unit Ownership and Liability Agreement

Protected Species Monitoring and Mitigation Plan Homer Boat Harbor System 4 Float Replacement

Homer, Alaska October 2025

> Prepared for: City of Homer 491 East Pioneer Ave Homer, Alaska 99603

> > Prepared by:



2607 Fairbanks Street Suite B Anchorage, Alaska 99503

Revised on 10/22/2025

Submitted to:

National Marine Fisheries Service

Office of Protected Resources 1315 East-West Highway, 13th Floor Silver Spring, MD 20910

National Marine Fisheries Service

Alaska Regional Office; Protected Resources Division P.O. Box 21668 Juneau, AK 99802

U.S. Fish and Wildlife Service

Alaska Marine Mammal Management Office 1011 East Tudor Road Anchorage, AK 99503

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Attachment B: Construction Activity and Communication Log

Attachment C: Marine Mammal Observation Record and Sighting Form

Attachment D: Grid Maps

ACRONYMS AND ABBREVIATIONS

μPa micropascal
AUD INJ auditory injury
City City of Homer
dB decibels

DPS distinct population segment ESA Endangered Species Act

HF high-frequency

Homer Harbor City of Homer Small Boat Harbor Incidental Harassment Authorization

LF low-frequency

MMPA Marine Mammal Protection Act

m meters

NMFS National Marine Fisheries Service
PR1 NMFS Office of Protected Resources

PRD NMFS Alaska Region, Protected Resources Division PSMMP protected species monitoring and mitigation plan

PSO protected species observer

PW phocids in water
OW otariids in water
rms root mean square
SPL sound pressure level

USACE U.S. Army Corps of Engineers USFWS U.S. Fish and Wildlife Service

VHF very high-frequency

1 INTRODUCTION

The City of Homer (City) proposes the following Protected Species Monitoring and Mitigation Plan (PSMMP) for use during pile installation and removal activities during construction of the Homer Small Boat Harbor (Homer Harbor) System 4 Float Replacement Project in Homer, Alaska (Figure 1). The project is in waters of the United States, within the ranges of marine mammals listed protected under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA) and has the potential to generate noise that could exceed Level A and Level B harassment thresholds established by the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). This PSMMP supports the biological assessment in accordance with the ESA, and the incidental harassment authorization (IHA) applications, in accordance with the MMPA (Section 101(a)(5)(D) permitting). Monitoring and shutdown zones will be implemented to minimize Level A and Level B harassment of marine mammals.

The goal of this PSMMP is to ensure compliance with the ESA and the MMPA when implemented by the protected species observers (PSOs) at the project site. The project will comply with the terms and conditions outlined in the following requested permits and authorizations:

- U.S. Army Corps of Engineers (USACE), Homer Harbor, for activities in waters of the U.S. (POA-1981-00465; requested)
- NMFS Office of Protected Resources (PR1) IHA (requested)
- NMFS Alaska Region Protected Resources Division (PRD), ESA Section 7(a)(2) Biological Opinion (requested)
- USFWS Alaska Marine Mammals Management Office IHA (requested)

2 PROJECT DESCRIPTION

The City is planning to undertake overdue repairs and necessary improvements to Homer Harbor, which is located near the end of the Homer Spit, a narrow 4.5-mile-long gravel bar extending into Kachemak Bay in Homer, Alaska. The Homer Harbor System 4 Float Replacement Project would provide safe, modern facilities at Homer Harbor that comply with current structural, engineering, and safety codes and requirements and meet the existing and future needs of harbor users and the fleet of vessels operating out of Homer.

The project would involve removing and replacing the majority of Float System 4 and its associated infrastructure. Pile driving and dredging associated with the proposed project may result in auditory injury (AUD INJ; Level A harassment) and behavioral harassment (Level B harassment) of select marine mammal species. Construction would begin in August 2027 and would be completed by the end of July 2028 Pile installation and removal activities are expected to occur for a total of approximately 68 hours over a period of 75 days (not necessarily consecutive). The construction timeline takes into account the mobilization of materials and potential delays due to delayed material deliveries, equipment maintenance, inclement weather, and shutdowns that may occur to prevent impacts to marine mammals. No blasting, dredging, or fill is proposed as part of this project. Table 1 provides a more detailed overview of project components.



Figure 1. Homer Harbor System 4 Float Replacement Project Location and Vicinity

Table 1. Homer Boat Harbor System 4 Float Replacement Project Pile Installation and Removal Summary

	Existing Pile Removal			Temporary Pile Installation and Removal		Permanent Pile Installation			
	12-inch	12.75- inch	16-inch	16-inch Installation	16-inch Removal	12.75- inch	16-inch	18-inch	24-inch
Pile Material	Timber	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
Total Number of Piles	36	40	26	28	28	14	70	29	20
			Vibratory	Pile Driving					
Max # of Piles Vibrated per Day	20	20	20	2	2	10	10	10	10
Estimated # of Piles Vibrated per Day	10	10	10	2	2	4	4	4	4
Vibratory Time per Pile (mins)	10	10	10	10	10	15	15	20	30
Max Vibratory Time per Day (mins)	200	200	200	20	20	150	150	200	300
Estimated Number of Days ¹	4	4	3	14	14	4	18	8	5
Vibratory Time Total (mins)	360	400	260	280	280	210	1,050	580	600
			Impact I	Pile Driving					
Number of Piles	0	0	0	0	0	0	0	2	0
Max # of Piles Impacted per Day								2	
Number of Strikes per Pile								240	
Impact Time per Pile (mins)								20	
Impact Time per Day (mins)								40	
Number of Days								1	
Impact Time Total (mins)								40	

¹The City does not anticipate that they will install/remove the maximum number of piles every day, so the estimated number of piles per day was used to conservatively calculate the total number of project days. The maximum number of piles per day was used to calculate the most conservative Level A isopleths.

3 SPECIES COVERED UNDER THE IHA

There are 12 marine mammal species under NMFS jurisdiction, and one marine mammal species and two avian species under USFWS jurisdiction that have ranges that extend into the project area. The marine mammal species are categorized under five underwater hearing groups: low-frequency (LF), high-frequency (HF), and very high-frequency (VHF) cetaceans; phocid pinnipeds in water (PW); and otariid pinnipeds in water (OW). Take has been requested for the seven ESA-listed and MMPA-listed species known to frequent the area, broken down by stock or distinct population segment (DPS; Table 2). Although their range overlaps with the ensonified area of the project, gray whales, fin whales, minke whales, beluga whales, Pacific white-sided dolphins, northern fur seals, and short-tailed albatrosses are rare or very rare in the project area, and no level A or B take is requested. For additional information about species within ranges in the project area, see Attachment A.

The shutdown of work following Level B thresholds for USFWS-managed species will occur if any marine mammal or ESA-listed avian species (i.e. Steller's eider) not listed in Table 2 enters the project action area.

Table 2. Homer Harbor System 4 Float Replacement Project Take Summary

Species Stock/DPS (N _{EST}) ¹		Jurisdiction	Level A	Level B	Total Take Requested
	Hawaii DPS (11,278)		0	9	
Humpback Whale	Western North Pacific DPS (1,084)	NMFS			9
	Mexico DPS (918) ²				
	Eastern North Pacific Alaska Resident (1,920)		0	30	
Killer Whale	Eastern North Pacific Gulf of Alaska, Aleutian Islands, and Bering Sea Transient (587)	NMFS			30
Dall's Porpoise	Alaska (13,110)	NMFS	0	4	4
Harbor Porpoise	Gulf of Alaska (31,046) ³	NMS	0	4	4
Harbor Seal	Cook Inlet/Shelikof Strait Stock (28,411)	NMFS	9	854	863
Steller Sea Lion ⁴	Western DPS (49,837)	NMFS 0 8		8	8
Northern Sea Otter	Southcentral Alaska Stock (21,617)	USFWS	0	450	450

¹ Stock estimates from the most recent stock assessment reports unless otherwise noted (USFWS 2023 [Northern Sea Otter]; Young et al. 2024, 2025 [all others]). Take estimates are weighted based on calculated percentages of population for each distinct stock, assuming animals present would follow same probability of presence in project area.

² Population estimate based on surveys in Alaskan waters, as abundance estimates for the Mexico-North Pacific stock are more than eight years old and no longer considered reliable (Young et al. 2024, 2025).

³ Population estimation based on surveys from the Gulf of Alaska only, as abundance estimates for the Alaska stock are more than 25 years old and no longer considered reliable (Young et al. 2024, 2025).

⁴ Steller sea lion takes represent multiple takes of the same individuals that frequent the project area; however, for purposes of percent of stock calculation, take totals assume separate individuals of the species.

4 MONITORING

Protected species observers will monitor for, document, and track marine mammals near the project area. The following mitigation measures will be applied based on species, in-water activity, and distance of the species from the project location:

- If a permitted marine mammal enters a Level B monitoring zone during permitted activities, a Level B take will be recorded and animal behaviors would be documented.
 Permitted construction activities would continue without cessation unless the animal approaches or enters the shutdown zone.
- If a marine mammal approaches or appears in a Level A shutdown zone, all permitted construction activities will immediately halt until the marine mammal has left the shutdown zone on its own accord or has not been sighted for 15 minutes (small cetaceans¹, pinnipeds, and sea otters) or 30 minutes (large cetaceans²). If construction activities are occurring at the time of the sighting within the Level A zone, a Level A take would be recorded and animal behaviors would be documented.
 - o For certain construction activities, the Level A zone is larger than the shutdown zone and, in these cases, construction would continue until the animal approaches or appears in the smaller shutdown zone area. Level A take would be recorded and animal behaviors would be documented. See Section 0.
- If a non-permitted marine mammal or a species for which authorization has been granted but the authorized takes are met, approaches or appears in a Level B zone, all permitted construction activities will immediately halt until the animal has left the Level B zone or has not been sighted for 15 minutes (small cetaceans, pinnipeds, sea otters, and Steller's eiders) or 30 minutes (large cetaceans). If take occurs, contact the project engineer immediately so that the observations can be reported by the City to NMFS PR1 or USFWS.
- Because species are impacted differently by noise, species-specific monitoring and shutdown zones have been calculated for this project. Monitoring and shutdown zones are shown in Table 3 and Table 4.

Homer Harbor can only be accessed through a small channel between the breakwater and the landmass of Homer Spit, which encloses much of the harbor. This configuration limits underwater sound transmission and pile driving noise from propagating outside the harbor when work occurs on the northeastern halves of the floats (closest to shore). To more accurately model the harassment zones, the project area has been delineated into two project units, Unit 1 and Unit 2 (Figure 2 and Figure 3). Unit 1 includes Ramp 6, Float AAA, and the northeastern halves of Floats BB through GG. Unit 2 includes the southwestern halves of Floats BB through GG.

¹ Small cetaceans include killer whales, Dall's porpoises, and harbor porpoises.

² Large cetaceans include humpback whales.

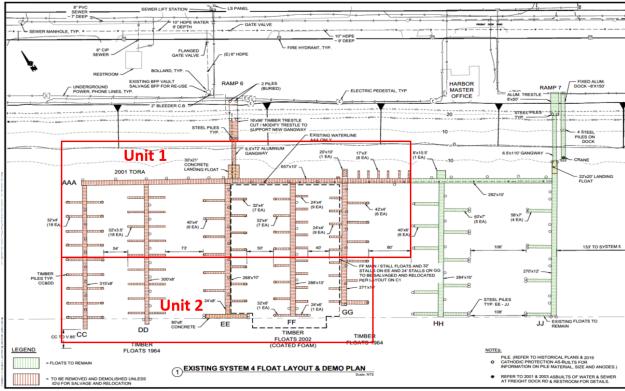
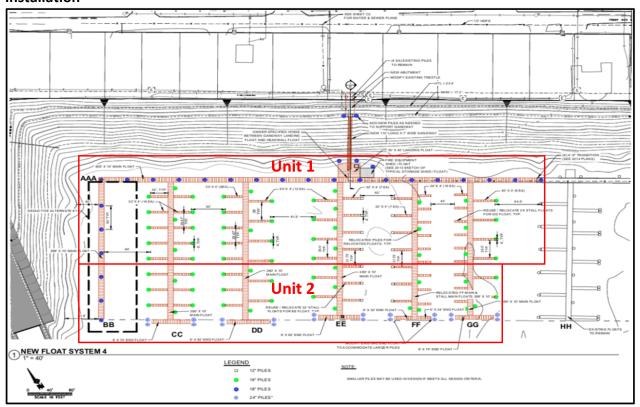


Figure 2. Homer Boat Harbor System 4 Float Replacement Project Units During Pile Removal

Figure 3. Homer Boat Harbor System 4 Float Replacement Project Units During Pile Installation



4.1 Harassment Zones

The NMFS has developed acoustic thresholds that identify the level of underwater sound above which marine mammals, when exposed to, would be reasonably expected to behaviorally harassed (Level B harassment) or to incur AUD INJ to some degree (Level A harassment).

4.1.1 Level B Harassment Zones

Level B harassment zones for marine mammals have been determined based on in-water activity type. For NMFS-managed species, Level B zones represent areas where the sound pressure levels (SPL), expressed in root mean square (rms), generated from pile driving activities meet or exceed 120 decibels (dB) re 1 micropascal (μ Pa) during vibratory pile driving and 160 dB re 1 μ Pa during impact pile driving. The USFWS-managed species uses a noise threshold of 160 dB re 1 μ Pa rms for all pile driving activities.

These zones serve as an area within which instances of permitted marine mammal harassment (Level B take) will be documented, if in-water work is actively occurring. Alternatively, for non-permitted marine mammals and ESA-listed avian species, it acts as an area in which in-water work should cease if they approach or appear likely to enter. These Level B zones also allow PSOs to be aware of the presence of permitted marine mammals as they near the shutdown zone and prepare for shutdowns if required. Level B harassment zones for marine mammals are presented in Table 3 and shown in Figure 4 through Figure 7.

Table 3. Homer Boat Harbor System 4 Float Replacement Project Level B Monitoring Zones for NMFS- and USFWS-Jurisdiction Species

Pile Size and	A satistics	Distance (meters) to Level B Thresholds ¹				
Material	Activity	NMFS Species	USFWS Species			
Barge movements, p	ile positioning, etc.	10	10			
	Vibratory Pile Di	riving				
12-in timber	Existing pile removal	6,310	15			
12.75-in steel	Existing pile removal	4,645	10			
12.75-111 Steel	Permanent pile installation	4,645	10			
	Existing pile removal	3,415	10			
16-in steel	Temporary pile installation	3,415	10			
10-111 Steel	Temporary pile removal	3,415	10			
	Permanent pile installation	3,415	10			
18-in steel	Permanent pile installation	3,415	10			
24-in steel	Permanent pile installation	7,360	20			
	Impact Pile Dri					
18-in steel	Permanent pile installation	470	470			

¹ Distances, in meters, refers to the maximum radius of the zone and is rounded. The actual zone may be truncated by landforms.

Figure 4. Homer Boat Harbor System 4 Float Replacement Project Unit 1 Level B Monitoring Zones for NMFS-Jurisdiction Species



Figure 5. Homer Boat Harbor System 4 Float Replacement Project Unit 1 Level B Monitoring Zones for USFWS-Jurisdiction Species



Figure 6. Homer Boat Harbor System 4 Float Replacement Project Unit 2 Level B Monitoring Zones for NMFS-Jurisdiction Species

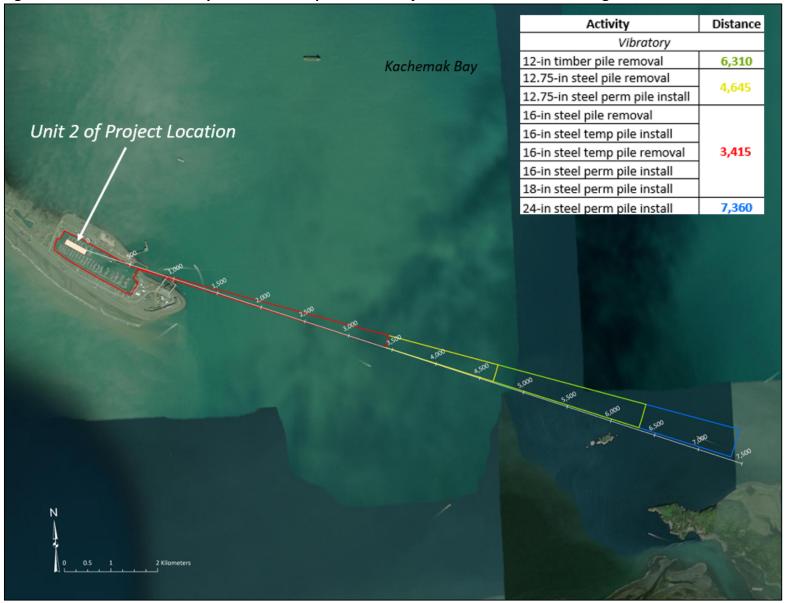


Figure 7. Homer Boat Harbor System 4 Float Replacement Project Unit 2 Level B Monitoring Zones for USFWS-Jurisdiction Species



4.1.2 Level A Harassment Zones and Shutdown Zones

Level A harassment zones are defined as areas where SPLs meet or exceed the level that would cause AUD INJ to marine mammals. Shutdown zones are also used to protect marine mammals from AUD INJ. In-water activities would be halted upon the sighting of a marine mammal that is in (or anticipated to enter) the shutdown zone.

A maximum shutdown zone distance of 30 m for PW will be maintained due to their common presence in Homer Harbor. Level A take has been requested for harbor seals in those instances in which they occur within the Level A harassment zone beyond the proposed shutdown zones. The full Level A zone will be monitored as much as possible even if shutdowns are not required, and any mammals present in the zone will be recorded as Level A takes.

There will also be a nominal 10-m shutdown zone for construction activity where acoustic injury is not the primary concern. This type of work could include (but is not limited to) the following activities: movement of the barge to the pile location; positioning of the pile on the substrate via a crane (i.e., stabbing the pile); and removal of the pile from the water column/substrate via a crane (i.e., deadpull). For these activities, monitoring would take place starting 15 minutes before initiation and ending when the action is complete. This can be monitored by the vessel operator or personnel on the barge when a PSO is not present. Radial distances to Level A and harassment zones and shutdown zones are defined in Table 4 and shown in Figure 8 through Figure 19.

Table 4. Homer Boat Harbor System 4 Float Replacement Project Level A Shutdown Zones

Pile Size and		Distance (meters) to Level A Shutdown Zones ¹							
Material	Activity	LF Cetaceans	HF Cetaceans	VHF Cetaceans	PW	ow	Otters		
Barge movemen	its, pile positioning, etc.	10	10	10	10	10	10		
		Vibratory	Pile Driving						
12-in timber	Existing pile removal	25	10	20	35	15	10		
12.75-in steel	Existing pile removal	20	10	15	25	10	10		
12.75-111 Steel	Permanent pile installation	15	10	15	20	10	10		
	Existing pile removal	15	10	15	20	10	10		
16 in stool	Temporary pile installation	10	10	10	10	10	10		
16-in steel	Temporary pile removal	10	10	10	10	10	10		
	Permanent pile installation	15	10	10	15	10	10		
18-in steel	Permanent pile installation	15	10	15	20	10	10		
24-in steel	Permanent pile installation	40	15	30	50	20	10		
Impact Pile Driving									
18-in steel	Permanent pile installation	180	25	280	50	60	10		

¹ Distances, in meters, refers to the maximum radius of the zone and is rounded. The actual zone may be truncated by landforms. The values provided for Level A calculated distances represent the distance at which an animal may incur AUD INJ if that animal remained at that distance for the entire duration of the activity within a 24-hour period.

Figure 8. Homer Boat Harbor System 4 Float Replacement Project Unit 1 LF Cetacean Shutdown Zones*



^{*}not expected in Homer Harbor

Kachemak Bay Activity Distance (m) Vibratory Unit 1 of Project Location 12-in timber pile removal 12.75-in steel pile removal 12.75-in steel perm pile install 16-in steel pile removal 10 16-in steel temp pile install 16-in steel temp pile removal 16-in steel perm pile install 18-in steel perm pile install 24-in steel perm pile install 15 Impact 18-in steel perm pile install 25

Figure 9. Homer Boat Harbor System 4 Float Replacement Project Unit 1 HF Cetacean Shutdown Zones*

^{*}not expected in Homer Harbor

Figure 10. Homer Boat Harbor System 4 Float Replacement Project Unit 1 VHF Cetacean Shutdown Zones*



^{*}not expected in Homer Harbor

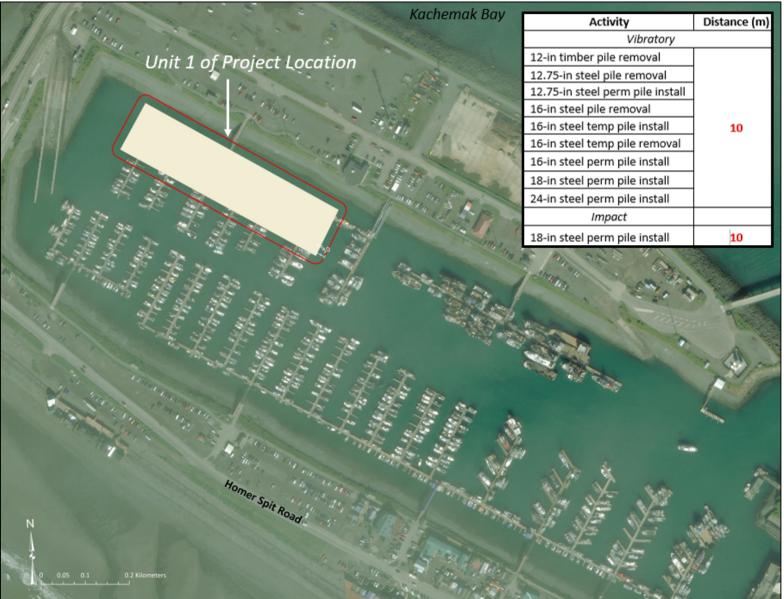
Kachemak Bay Activity Distance (m) Vibratory Unit 1 of Project Location 12-in timber pile removal 12.75-in steel pile removal 25 12.75-in steel perm pile install 20 16-in steel pile removal 16-in steel temp pile install 10 16-in steel temp pile removal 16-in steel perm pile install 15 18-in steel perm pile install 20 24-in steel perm pile install 50 18-in steel perm pile install

Figure 11. Homer Boat Harbor System 4 Float Replacement Project Unit 1 PW Shutdown Zones

Figure 12. Homer Boat Harbor System 4 Float Replacement Project Unit 1 OW Shutdown Zones



Figure 13. Homer Boat Harbor System 4 Float Replacement Project Unit 1 Northern Sea Otter Shutdown Zones



Kachemak Bay Activity Distance (m) Vibratory 12-in timber pile removal 25 12.75-in steel pile removal 20 12.75-in steel perm pile install 15 Unit 2 of Project Location 16-in steel pile removal 16-in steel temp pile install 16-in steel temp pile removal 16-in steel perm pile install 15 18-in steel perm pile install 24-in steel perm pile install

Figure 14. Homer Boat Harbor System 4 Float Replacement Project Unit 2 LF Cetacean Shutdown Zones*

^{*}not expected in Homer Harbor

Figure 15. Homer Boat Harbor System 4 Float Replacement Project Unit 2 HF Cetacean Shutdown Zones*



^{*}not expected in Homer Harbor

Figure 16. Homer Boat Harbor System 4 Float Replacement Project Unit 2 VHF Cetacean Shutdown Zones*



^{*}not expected in Homer Harbor

Activity Distance (m) Kachemak Bay Vibratory 12-in timber pile removal 12.75-in steel pile removal 25 Unit 2 of Project Location 12.75-in steel perm pile install 20 16-in steel pile removal 16-in steel temp pile install 10 16-in steel temp pile removal 16-in steel perm pile install 15 18-in steel perm pile install 20 24-in steel perm pile install

Figure 17. Homer Boat Harbor System 4 Float Replacement Project Unit 2 PW Shutdown Zones

Figure 18. Homer Boat Harbor System 4 Float Replacement Project Unit 2 OW Shutdown Zones



Figure 19. Homer Boat Harbor System 4 Float Replacement Project Unit 2 Northern Sea Otter Shutdown Zones



5 MITIGATION MEASURES

The following mitigation measures will be implemented during in-water activities to limit impacts to marine mammals.

5.1 General Mitigation Measures

5.1.1 Project Design Mitigation Measures

- 1. The project uses the most compact design possible, while meeting the demands of vessels that use the facility.
- 2. The project uses a design that does not require dredging, blasting or fill.
- 3. The project uses a design that minimizes pile diameters, number of piles, and footprint to the greatest extent practicable

5.1.2 Oil and Spill Prevention/Trash Disposal

- 1. The contractor will provide and maintain a spill cleanup kit on-site at all times, to be implemented as part of the Shipboard Oil Pollution Emergency Plan for oil spill prevention and response.
- 2. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, and similar equipment would be checked regularly for drips or leaks and maintained and stored properly to prevent spills.
- 3. Oil booms will be readily available for oil or another contaminant should a release occur.
- 4. All chemicals and petroleum products will be properly stored to prevent spills.
- 5. No petroleum products, cement, chemicals, or other deleterious materials will be allowed to enter surface waters.
- 6. Trash bins will be properly secured with locked or secured lids that cannot blow open, preventing trash from entering into the environment, thus reducing the risk of marine mammal entanglement should waste enter marine waters.
- 7. Consistent with Alaska Statute 46.06.080, trash will be disposed of in accordance with state law. The project proponent will ensure that all closed loops (e.g., packing straps, rings, bands, etc.) will be cut prior to disposal. In addition, the project proponent will secure all ropes, nets, and other marine mammal entanglement hazards so they cannot enter marine waters.

5.1.3 General Conditions for In-Water Work

- 1. The project proponent will inform NMFS and USFWS of impending in-water activities a minimum of one week prior to the onset of those activities (email information to akr.prd.records@noaa.gov and USFWS consultation biologist).
- 2. If construction activities will occur outside of the time window specified in this document, the applicant will notify NMFS and USFWS of the situation at least 60 days prior to the end of the specified time window to allow for reinitiation of consultation.
- 3. The contractor is required to conduct briefings for construction supervisors and crews and the monitoring team prior to the start of all pile driving activity; and upon hiring

- new personnel, to explain responsibilities, communication procedures, the marine mammal monitoring protocol, and operational procedures.
- 4. The contractor is required to employ PSOs during all in-water construction activities, and to adhere to the project specific PSMMP.
- 5. Prior to in-water construction activities, a shut-down zone will be established (Table 4). For this project, the shutdown zone includes all marine waters within an established distance from the sound source.
- 6. Protected species monitoring must take place from 30 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity. Pile driving may commence when PSOs have declared the shutdown zone clear of protected species. In the event of a delay or shutdown of activity resulting from protected species in the shutdown zone, their behavior must be monitored and documented until they leave the shutdown zone of their own volition and they have been visually confirmed beyond the shutdown zone; 15 minutes have passed without subsequent observations of small cetaceans, pinnipeds, sea otters, and Steller's eiders; or 30 minutes have passed without subsequent observations of large cetaceans.
- 7. Ramp-up (soft start) procedures will be applied prior to beginning pile-driving activities each day and/or when pile-driving hammers have been idle for more than 30 minutes:
 - a. For impact pile-driving, contractors will be required to provide an initial set of three strikes from the hammer at 40 percent energy, followed by a 30-second waiting period. This procedure will be repeated twice more prior to operational impact pile driving.
- 8. Pile driving must be halted or delayed if a marine mammal is observed entering or within an established shutdown zone (Table 4). Pile driving may not commence or resume until either: the animal has voluntarily left and has been visually confirmed beyond the shutdown zone; 15 minutes have passed without subsequent observations of small cetaceans, pinnipeds, and sea otters; or 30 minutes have passed without subsequent observations of large cetaceans
- 9. Pile installation and removal must be delayed or halted immediately if a species for which authorization has not been granted, or a species for which authorization has been granted but the authorized takes are met, is observed approaching or within the monitoring zone (Table 3). Activities must not start or resume until the animal has been confirmed to have left the area or the observation time period, as indicated in the conditions above, has elapsed.
- 10. In-water activities will take place only:
 - a. between civil dawn and civil dusk when PSOs can effectively monitor for the presence of protected species;
 - b. during conditions with a Beaufort Sea State of four or less; and
 - c. when the entire shutdown zone and adjacent waters are visible (e.g., monitoring effectiveness is not reduced due to rain, fog, snow, volcanic ash, etc.).
- 11. If visibility degrades to the point that the PSO cannot ensure the shutdown zone remains devoid of protected species during in-water work, the crew will cease in-water

- work until the entire shutdown zone is visible and the PSO has indicated that the zone has remained devoid of protected species for 30 minutes.
- 12. Lines attached to heavy items on the ocean bottom (e.g., anchors, traps, instruments) will incorporate weak links at the point of connection that can be broken by entangled marine mammals.

5.2 PSO Qualification Requirements

- 1. Advanced education in biological science, wildlife management, mammalogy or related fields (Bachelor's degree or higher is preferred), or equivalent Alaska Native traditional knowledge; PSOs may substitute education or training for experience.
- 2. At least one PSO will have either prior experience as a PSO in Alaska, or will have taken a NMFS-approved PSO or marine mammal observer training course.
 - a. A lead observer or monitoring coordinator must be designated if a team of three or more PSOs are required. The lead observer must have prior experience working as a marine mammal observer during construction.
- 3. Training, knowledge, or experience with vessel operations and pile driving operations sufficient to provide personal safety during observations.
- 4. All PSOs must be employed by an independent subcontractor (i.e., not construction personnel) and have no other assigned tasks during monitoring periods.
- 5. PSO training will include:
 - a. field identification of marine mammals and marine mammal behavior;
 - b. ecological information on marine mammals and specifics on the ecology and management concerns of those marine mammals;
 - c. ESA and MMPA regulations;
 - d. proper equipment uses;
 - e. methodologies in marine mammal observation and data recording and property reporting protocols; and
 - f. an overview of PSO roles and responsibilities.
- 6. The action agency or its designated non-federal representative will provide resumes or qualifications of PSO candidates to akr.prd.records@noaa.gov and NMFS and USFWS consultation biologists for approval at least one week prior to in-water work. NMFS/USFWS will provide a brief explanation of lack of approval in instances where an individual is not approved.

7. PSOs will:

- have visual acuity in both eyes (correction is permissible) sufficient to discern moving targets at the water's surface and ability to estimate target size and distance;
- b. collectively be able to effectively observe the entirety of the shutdown zone with the naked eye, binoculars, and/or spotting scope;
- c. be able to identify marine mammals and accurately record the date, time, and species, of all observed marine mammals in accordance with project protocols;

- d. be able to identify listed marine mammals that may occur in the action area, at a distance equal to the outer edge of the applicable shutdown zone and determine marine mammal's location and distance from sound source;
- e. have the ability to effectively communicate orally, by radio or in person with project personnel to provide real-time information on listed marine mammals;
- f. possess a copy of mitigation measures; and
- g. possess data forms.
- 8. PSOs will not scan for marine mammals for more than four hours without at least a one-hour break from monitoring duties between shifts. PSOs will not perform PSO duties for more than 12 hours in a 24-hour period.

5.3 PSO Procedures

- 1. PSOs will have the ability, authority, and obligation to order appropriate mitigation response, including shutdown, to avoid takes of listed marine mammals.
- 2. One or more PSOs will perform PSO duties onsite throughout the authorized activity.
- 3. Where a team of three or more PSOs are required, a lead observer or monitoring coordinator will be designated.
- 4. The PSOs should monitor VHF radio channels to listen for marine mammal activity that may be present in the area. This could be especially helpful in the summer months during the whale watching tour season.
- 5. For each in-water activity, PSOs will monitor all marine waters within the indicated shutdown zone and monitoring zone radius for that activity (Table 3 and Table 4).
- 6. PSOs will be positioned such that they will collectively be able to monitor the entirety of each activity's shutdown zone.
- 7. Monitoring must take place from 30 minutes prior to initiation of pile driving activity (i.e., pre-start clearance monitoring) through 30 minutes post-completion of pile driving activity.
- 8. Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones indicated for each activity in Table 4 are clear of marine mammals. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.
- 9. If a marine mammal is observed entering or within the shutdown zones, pile driving activity must be delayed or halted. Pile driving must be commenced or resumed as described in condition (10).
- 10. If pile driving is delayed or halted due to the presence of a marine mammal, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zone or 15 minutes have passed without redetection of the animal.
- 11. Activities listed in Table 1 will only take place:
 - a. between sunrise and sunset;
 - b. during conditions with a Beaufort Sea State of 4 or less; and

- c. when the entire shutdown zone and adjacent waters are visible (e.g., monitoring effectiveness is not reduced due to rain, fog, snow, haze, or other environmental/atmospheric conditions).
- 12. If visibility degrades such that PSOs can no longer ensure that the shutdown zone remains devoid of listed marine mammals during any of the activities listed in Table 4, the crew will stop activities until the entire shutdown zone is visible and the PSOs has indicated that the zone remained devoid of listed protected species for 30 minutes.
- 13. The PSOs will order ongoing activities listed in Table 1 to immediately cease if one or more listed marine mammals has entered, or appears likely to enter, the shutdown zone.
- 14. If any of the activities listed in Table 1 are shut down for less than 30 minutes due to the presence of listed marine mammals in the shutdown zone, the activities may commence when the PSOs provides assurance that listed marine mammals were observed exiting the shutdown zone. Otherwise, the activities may only commence after the PSO provides assurance that listed marine mammals have not been seen in the shutdown zone for 30 minutes (for large cetaceans) or 15 minutes (for small cetaceans, pinnipeds, and otters).
- 15. If a listed marine mammal is observed within a shutdown zone or is otherwise harassed, harmed, injured, or disturbed, the PSO will immediately report that occurrence to NMFS using the contact information specified in Table 5.
- 16. Prior to commencing any activity listed in Table 1, or at changes in watch, PSOs will establish a point of contact with the construction crew. The PSO will brief the point of contact as to the shutdown procedures if the PSO observes that listed marine mammals are likely to enter or enter the shutdown zone. If the point of contact goes "off shift" and delegates their duties, the point of contact must inform the PSO and brief the new point of contact.

5.3.1 Impact Pile Installation

- 1. If no listed marine mammals are observed within the applicable shutdown zone (see Table 4) after the pre-start clearance monitoring immediately prior to pile installation, soft-start procedures will be implemented immediately prior to activities. Soft-start procedures require contractors to provide an initial set of strikes at no more than half the operational power, followed by a 30-second waiting period, then two subsequent reduced-power-strike sets. A soft-start must be implemented:
 - a. at the start of each day's impact pile installation;
 - b. any time pile installation has been shut down or delayed due to the presence of a listed marine mammal;
 - c. whenever pile installation has temporarily stopped (≤ 30 min) and PSO observation has also stopped; or
 - d. whenever pile installation has temporarily stopped for more than 30 min and PSO observation has also stopped.
- 2. Following the soft-start procedure, operational impact pile installation may commence and continue provided listed marine mammals remain absent from the shutdown zone.

3. Following a lapse of impact pile installation activities of more than 30 minutes, the PSO will authorize resumption of impact pile installation only after the PSO provides assurance that listed species have not been present in the shutdown zone for at least 30 minutes immediately prior to resumption of operations.

5.3.2 Vibratory Pile Installation

- 1. If no listed marine mammals are observed within the applicable shutdown zone (see Table 4) after the pre-start clearance monitoring immediately prior to pile removal or installation, vibratory pile removal or installation may commence. This pre-pile removal or installation observation period will take place at the start of each day's vibratory pile removal or installation, each time pile removal or installation has been shut down or delayed due to the presence of a listed species, and following a cessation of pile driving for a period of 30 minutes or longer.
- 2. Following a lapse of vibratory pile removal or installation activities of more than 30 minutes, the PSO will authorize resumption of vibratory pile removal or installation only after the PSO provides assurance that listed marine mammals have not been present in the shutdown zone for at least 30 minutes immediately prior to resumption of operations.

5.4 Equipment

The following equipment will be required to conduct observations for this project:

- appropriate personal protective equipment
- portable VHF radios for the observers to communicate with other observers and the pile driving supervisor
- cellular phone as backup for radio communication
- contact information for the other observers, the pile driving supervisor, and the NMFS and USFWS points of contact
- daily tide tables for the project area
- binoculars (quality 7 x 50 or better) and a rangefinder
- hand-held GPS unit, or grid maps along with map and stand-alone compass or clinometer to record locations of marine mammals
- copies of the PSMMP, IHA, and other relevant permit requirement specifications in a sealed, clear, plastic cover
- notebook with pre-standardized monitoring observation record forms and grid maps (Appendices B and C)
- (optional) a hand-held measuring device such as a tape measure

Note: Each PSO is equipped with a rangefinder, binoculars, and typically identifies objects or points at a known distance prior to the start of in-water work. The grid map is an additional tool to aid in tracking an individual through the action area, communicate where the next PSO can expect to sight the individual, and as a visual log of sightings over the course of the project. PSOs ultimately use the rangefinder to determine if mitigation measures are needed (shutdown

or delay) and note whether an individual was present in the Level B or Level A zone during construction activities.

5.5 Project-Dedicated Vessels

- 1. Vessel operators will:
 - a. maintain a watch for marine mammals at all times while underway;
 - b. stay at least 91 meters (100 yards) away from listed marine mammals;
 - c. travel at less than 5 knots when within 274 meters (300 yards) of a whale;
 - d. avoid changes in direction and speed within 274 meters (300 yards) of a whale, unless doing so is necessary for maritime safety;
 - e. not position vessel(s) in the path of a whale, and will not cut in front of a whale
 in a way or at a distance that causes the whale to change direction of travel or
 behavior (including breathing/surfacing pattern);
 - f. reduce vessel speed to 10 knots or less when weather conditions reduce visibility to 1.6 kilometers (1 mile) or less;
 - g. adhere to the Alaska Humpback Whale Approach Regulations when vessels are transiting to and from the project site: (see 50 CFR 216.18, 223.214, and 224.103(b); these regulations apply to all humpback whales). Specifically, pilot and crew will not:
 - approach, by any means, including by interception (i.e., placing a vessel in the path of an oncoming humpback whale), within 100 yards of any humpback whale;
 - ii. cause a vessel or other object to approach within 100 yards of any humpback whale; or
 - iii. disrupt the normal behavior or prior activity of a humpback whale by any other act or omission.
- 2. If a whale's course and speed are such that it will likely cross in front of a vessel that is underway, or approach within 91 meters (100 yards) of the vessel, and if maritime conditions safely allow, the engine will be put in neutral and the whale will be allowed to pass beyond the vessel, except that vessels will remain 460 meters (500 yards) from North Pacific right whales.
- 3. Vessels will not allow lines to remain in the water unless both ends are under tension and affixed to vessels or gear.
- 4. Project-specific barges will travel at 12 knots or less.

For Northern Sea Otter:

- 1. Project vessels will not approach within and will maintain a minimum distance of 100 meters (328 feet) from all sea otters in the water, and maintain a minimum distance of 500 meters (1,640 feet) from a raft of 10 or more sea otters in the water, unless safety is a factor.
- 2. Operators will scan the water surface ahead of the boat vigilantly for otters while operating skiffs in nearshore areas. A second operator (if more than one person is aboard the skiff) will be located at the boat's bow to help search for sea otters in choppy water conditions when they may be difficult to spot.

- 3. The boat's course will be altered and the speed will be slowed to avoid disturbance and collision if an otter(s) is sighted. Once an otter(s) is sighted, it will not be assumed that the otter(s) will dive and get out of the way. The action of knowingly staying the course will be considered harassment even though sea otters are alert, capable, and do dive.
- 4. A skiff will not be operated at any rate of speed heading directly toward the otter(s). A buffer will be maintained that allows ample room for the otter(s) to swim away without being startled by the skiff. The boat operator will understand that it is their responsibility to minimize the stimulus and threat of a loud boat approaching quickly.
- 5. The more otters that are seen, the wider the berth that will be given. The boat operator will not pass between otters, but rather will go around the outside perimeter and will add a buffer.
- 6. The boat operator will acknowledge that it is illegal to pursue or chase sea otters or single out or surround an otter(s).

For Western DPS Steller Sea Lion:

- 1. vessels will not approach within 5.5 kilometers (3 nautical miles) of rookery sites listed in (50 CFR § 224.103(d)); and
- 2. vessels will avoid approaching within 914 meters (3,000 feet) of any Steller sea lion haulout or rookery.

For North Pacific Right Whale (measures for project vessels transiting to the project site through North Pacific right whale habitat only [i.e., the Gulf of Alaska]):

- 1. Vessels will remain 460 meters (500 yards) from North Pacific right whales (50 CFR § 224.103(d); or
- 2. Vessels will avoid traveling within or through North Pacific right whale critical habitat (73 FR 19000).
- 3. If travel within or through North Pacific right whale critical habitat cannot be avoided:
 - vessels will travel through North Pacific right whale critical habitat at 5 knots or less; or
 - b. vessels will travel through North Pacific right whale critical habitat at 10 knots or less while PSOs maintain a constant watch for marine mammals from the bridge;
 - vessel speed while within North Pacific right whale critical habitat will not exceed
 knots; and
 - d. operators will maintain a ship log indicating the time and geographic coordinates at which vessels enter and exit North Pacific right whale critical habitat.

5.6 Number and Location of Protected Species Observers

The contractor will employ PSOs to be present during all pile installation or removal activities to minimize impacts to marine mammals that might be present during in-water construction activities. The PSO positions will be based on site accessibility, field of vision, and safety as well a they type/size/location of piles being driven. Proposed PSOs stations are shown below in Figure 20.

Up to three PSOs will be onsite during all in-water activities. There are three potential locations where PSOs may be stationed depending on in-water activity (between two and three PSOs would be on duty at a time):

- Scenario 1: 2 PSOs
 - o Activity in Unit 1
 - o PSO at locations 1 and 3
- Scenario 2: 3 PSOs
 - o Activity in Unit 2
 - o PSOs at locations 1, 2, and 3



5.7 Data Collection

5.7.1 Construction Activities

Construction activity communication logs will be used by PSOs to document the following (Attachment B):

- Monitoring location
- Pile types and sizes being installed/removed, and the duration to install/remove
- Type of construction activity
- · Communications between PSOs and construction crew
- Time that activities and communications take place

5.7.2 Sightings and Environmental Conditions

Observers will use an approved marine mammal observation record form and a grid map (Attachment C and Attachment D) or GPS system which will be completed by each observer for each monitoring day and PSO location. Marine mammal observation record forms will be used by observers to record the following:

- Environmental conditions:
 - at the beginning of every monitoring period and as conditions change
 - PSO names, monitoring location, time that monitoring activities began and ended
 - weather conditions including sea state, cloud cover, visibility, glare, wind, and swell direction, and wave height
- Marine mammal sightings:
 - the name of the PSO who sighted the animal(s) and their PSO location
 - the date and time observations begin and end
 - marine mammal species observed, including location, group size, bearing and direction of travel, closest point of approach to work activities, behavior, group size, and if possible, sex and age class
 - geographic coordinates for the observed animal(s), with the position recorded using the most precise coordinates practicable (coordinates will be recorded in decimal degrees or a similar standard)
 - behavioral reactions just prior to, or during, soft-start and shutdown procedures
 - construction activities occurring during each sighting
 - whether mitigation measures, including shutdown procedures, were required, including the duration of each shutdown
 - reason for stopping work, time of shutdowns, and type of pile installation or other in-water work taking place
 - marine mammal exposures including the estimated amount of time that the animal(s) remained in the Level A or Level B zone
 - any other, non-project-related, activities that could disturb marine mammals in the area, such as the presence of large and small vessels

- observer rotations including the time of rotation and the initials of the incoming observer
- If possible, observations of humpback whales will be transmitted to akr.prd.section7@noaa.gov, including:
 - photographs (especially flukes) and video obtained
 - geographic coordinates for the observed animals, with the position recorded using the most precise coordinates practicable (coordinates will be recorded in decimal degrees, or a similar standard, or extrapolated from grid maps)
 - number of animals per observation event and number of adults/juveniles/calves per observation event (if determinable)
 - environmental conditions as they existed during each observation event, including sea conditions, weather conditions, visibility, lighting conditions, and percent ice cover

All observations of marine mammal species not considered in this monitoring plan will be reported to NMFS and/or USFWS within 24 hours. If possible, photographs and/or video will be taken to aid in photo identification of individual animals. Reports will include all applicable information that would be included in a final report.

The above-mentioned forms and logs will be checked for quality assurance and quality control by the lead PSO for submission at the end of every monitoring day. Upon request, the data will be submitted to NMFS and USFWS along with the final report.

6 REPORTING

The City will be the point of contact between the agencies (NMFS PR1, NMFS PRD, and USFWS) and the contractor/PSOs. The contractor will direct any and all communication to the City project engineer who will then report to the agencies.

6.1 Notification of Intent to Commence Construction

The City will inform NMFS PR1, NMFS PRD, and USFWS one week prior to commencing construction activities.

6.2 Weekly Sighting Counts

A summary of the following will be submitted to the construction project manager at the conclusion of each week of construction activity (Friday evening):

- Completed monitoring forms for the week
- Completed environmental conditions and construction activity logs for the week
- Preliminary counts of sightings and takes per species

Additionally, the contractor will notify the City project engineer immediately if Level A or B exposures have reached 75 percent of the authorized limit for any species, or if any species not expected in the action area is observed.

6.3 Final Report

The City will submit a draft final report by email to akr.prd.records@noaa.gov, to the NMFS PR1 analyst, and to the USFWS consultation biologist no later than 90 days following the end of construction activities. The report will include all species under NMFS and USFWS jurisdiction. The City will provide a final report within 30 days following resolution of NMFS's and/or USFWS's comments on the draft report. If no comments are received from the agencies within 30 days, the draft final report will be considered the final report.

The final report will contain, at minimum, the following information:

- A summary of construction activities, including start and end dates.
- Date and time that monitored activity begins and ends for each day when monitoring is conducted (monitoring period), and the location of the PSOs during monitoring.
- Construction ac activities occurring during each daily observation period, including how many, what type of piles were driven, and the duration and/or number of strikes for each pile
- A description of any deviation from the initially proposed pile numbers, pile types, average driving times, etc.
- A table summarizing all sightings during the construction period, including:
 - dates, times, species, numbers, locations, and behaviors of any observed marine mammals or ESA-listed avian species;
 - daily average number of individuals of each species (differentiated by month as appropriate) detected within the Level A and Level B zones, and whether estimated as taken, if appropriate; and
 - the number of shutdowns throughout all monitoring activities.
- A brief description of any impediments to obtaining reliable observations during construction period.
- A description of any impediments to complying with these mitigation measures.
- Appendices containing all PSO daily logs and marine mammal observation records.

6.4 Unauthorized Take

If it is clear that project activity has caused the take of a marine mammal in a manner prohibited by the (requested) IHAs, such as unauthorized Level A or Level B harassment, serious injury, or mortality, the contractor shall immediately cease the specified activities and report the incident to NMFS OPR at PR.ITP.MonitoringReports@noaa.gov, the NMFS Alaska Region Protected Resources Division at akr.prd.section7@noaa.gov, and the NMFS statewide 24-hour Stranding Hotline (877) 925-7773. The report must include the following:

- digital, queryable documents containing PSO observations and records, and digital, queryable reports;
- the date, time, and location of each event (provide geographic coordinates);
- description of the event;
- number of individuals of each listed marine mammal species affected;
- the time the animal(s) was first observed or entered the shutdown zone, and, if known, the time the animal was last seen or exited the zone, and the fate of the animal;

- mitigation measures implemented prior to and after the animal was taken;
- if a vessel struck a listed marine mammal, the contact information for the PSO on duty on the vessel or the contact information for the individual piloting the vessel; and
- photographs or video footage of the animal(s), if available.

If a sea otter, report to the USFWS Marine Mammal Management Office at (800) 362–5148, or the Alaska SeaLife Center in Seward (888) 774–7325, or both.

The report must include the following:

- time and date of the incident;
- description of the incident;
- environmental conditions (e.g., wind speed and direction, Beaufort Sea state, cloud cover and visibility);
- description of all marine mammal observations in the 24 hours preceding the incident;
- species identification or description of the animal(s) involved;
- fate of the animal(s); and
- photographs or video footage of the animal(s) (if available).

Activities will not resume until NMFS and/or USFWS is able to review the circumstances of the unauthorized take. NMFS and/or USFWS would work with the contractor to determine what measures are necessary to minimize the likelihood of further unauthorized take and ensure ESA and MMPA compliance. The contractor may not resume their activities until notified by NMFS and/or USFWS.

6.5 Stranded, Injured, Sick, or Dead Listed Species

In the event that the contractor discovers an injured or dead marine mammal within the action area, and the lead PSO determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), Turnagain will immediately report the incident to the USFWS or NMFS PR1, and the NMFS Alaska Regional Stranding Coordinator or Hotline at 877-925-7773. The City will submit photos and available data to aid NMFS in determining how to respond to the stranded animal. If possible, data submitted to NMFS in response to stranded marine mammals will include date/time, location of stranded marine mammal, species and number of stranded individuals, description of the stranded marine mammal's condition, event type (e.g., entanglement, dead, floating), and behavior of live-stranded marine mammals.

If a sea otter, it must be reported to USFWS within 24 hours of the discovery to either the USFWS Marine Mammal Management Office at (800) 362–5148 (business hours), or the Alaska SeaLife Center in Seward (888) 774–7325 (24 hours a day), or both. The City will provide photographs, video footage (if available), or other documentation of the animal sighting to USFWS.

If PSOs observe marine mammals being disturbed, harassed, harmed, injured, or killed (e.g., feeding or unauthorized harassment), these activities will be reported to NMFS Alaska Region Office of Law Enforcement at (1-800) 853-1964. Data submitted to NMFS will include date/time, location, description of the event, and any photos or videos taken.

6.6 Extralimital Sightings

All observations of marine mammal species not considered in this consultation will be reported to NMFS or USFWS within 24 hours. Photographs and/or video should be taken, if possible, to aid in photo ID of individual animals. Reports will include all applicable information that would be included in a final report.

Table 5. Summary of Agency Contact Information

Reason for Contact	Contact Information
Consultation Questions & Unauthorized Take	akr.prd.section7@noaa.gov and NMFS PR1 analyst fw7_mmm_reports@fws.gov and USFWS consultation biologist
Reports & Data Submittal	akr.prd.records@noaa.gov and NMFS PR1 analyst fw7_mmm_reports@fws.gov and USFWS consultation biologist
Stranded, Injured, or Dead Marine Mammals	Stranding Hotline (24/7 coverage) 1-877-925-7773 USFWS Marine Mammal Management Office (800) 362–5148, or the Alaska SeaLife Center in Seward (888) 774–7325, or both
Oil Spill & Hazardous Materials Response	U.S. Coast Guard National Response Center: 1-800-424-8802 and AKRNMFSSpillResponse@noaa.gov
Illegal Activities (not related to project activities; e.g., feeding, unauthorized harassment, or disturbance to marine mammals)	NMFS Office of Law Enforcement (AK Hotline) (800) 853-1964 Marine Mammal Management Office (800) 362–5148
In the event that this contact information becomes obsolete	NMFS Anchorage Main Office: 907-271-5006 or NMFS Juneau Main Office: 907-206-4342 Marine Mammal Management Office (800) 362–5148

7 REFERENCES

- Young, N.C., A.A. Brower, M.M. Muto, J.C. Freed, R.P. Angliss, N.A. Friday, B.D. Birkemeier, P.L. Boveng, B.M. Brost, M.F. Cameron, J.L. Crance, S.P. Dahle, B.S. Fadely, M.C. Ferguson, K.T. Goetz, J.M. London, E.M. Oleson, R.R. Ream, E.L. Richmond, K.E.W. Shelden, K.L. Sweeney, R.G. Towell, P.R. Wade, J.M. Waite, and A.N. Zerbini. 2025. DRAFT Alaska Marine Mammal Stock Assessments, 2024. U.S. Department of Commerce. NOAA [RTID 0648–XE739].
- Young, N.C., A.A. Brower, M.M. Muto, J.C. Freed, R.P. Angliss, N.A. Friday, B.D. Birkemeier, P.L. Boveng, B.M. Brost, M.F. Cameron, J.L. Crance, S.P. Dahle, B.S. Fadely, M.C. Ferguson, K.T. Goetz, J.M. London, E.M. Oleson, R.R. Ream, E.L. Richmond, K.E.W. Shelden, K.L. Sweeney, R.G. Towell, P.R. Wade, J.M. Waite, and A.N. Zerbini. 2024. Alaska Marine Mammal Stock Assessments, 2023. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-493, 327 p.

Attachment A: List of Species with Ranges in the Project Action Area

Species	Status Listing	Jurisdiction	Occurrence	Link to Species Profile
Gray Whale (Eschrichtius robustus)	ММРА	NMFS	Very Rare	https://www.fisheries.noaa.gov/species/gray- whale
Fin Whale (Balaenoptera physalus)	ESA Threatened	NMFSS	Rare	https://www.fisheries.noaa.gov/species/fin- whale
Minke Whale (Balaenoptera acutorostrata)	ММРА	NMFS	Rare	https://www.fisheries.noaa.gov/species/minke- whale
Humpback Whale (Megaptera novaeangliae)	ESA Threatened (Mexico DPS) ESA Endangered (WNP DPS) MMPA (Hawaii DPS)	NMFS	Frequent	https://www.fisheries.noaa.gov/species/humpb ack-whale
Beluga Whale (Delphinapterus leucas)	ESA Endangered	NMFS	Rare	https://www.fisheries.noaa.gov/species/beluga -whale
Killer Whale (Orcinus orca)	ММРА	NMFS	Frequent	https://www.fisheries.noaa.gov/species/killer- whale
Pacific White-Sided Dolphin (Lagenorhynchus obliquidens)	ММРА	NMFS	Very Rare	https://www.fisheries.noaa.gov/species/pacific- white-sided-dolphin
Dall's Porpoise (Phocoenoides dalli)	ММРА	NMFS	Infrequent	https://www.fisheries.noaa.gov/species/dalls- porpoise
Harbor Porpoise (Phocoena phocoena)	ММРА	NMFS	Infrequent	https://www.fisheries.noaa.gov/species/harbor -porpoise
Northern Fur Seal (Mirounga angustirostris)	ММРА	NMFS	Rare	https://www.fisheries.noaa.gov/species/northe rn-fur-seal
Harbor Seal (Phoca vitulina)	ММРА	NMFS	Common	https://www.fisheries.noaa.gov/species/harbor -seal
Steller Sea Lion (Eumetopias jubatus)	ESA Endangered (WDPS)	NMFS	Infrequent	https://www.fisheries.noaa.gov/species/steller- sea-lion
Northern Sea Otter (Enhydra lutris kenyoni)	MMPA (Southcentral Alaska Stock)	USFWS	Common	https://www.fws.gov/alaska/pages/endangered -species/northern-sea-otter
Short-Tailed Albatross (Phoebastria Diomedia albatrus)	ESA Endangered	USFWS	Very Rare	https://www.fws.gov/species/short-tailed- albatross-phoebastria-albatrus
Steller's Eider (Polysticta stelleri)	ESA Threatened	USFWS	Infrequent	https://www.fws.gov/species/stellers-eider- polysticta-stelleri

Attachment B: Construction Activity and Communication Log

Filling Out Construction Activity and Communication Logs							
Data Columns	Data Columns Definition and How to Record						
	General Information (top of form)						
Project Name	Homer Harbor System 4 Float Replacement						
Location	See PSMMP						
Date	MM/DD/YYYY						
Number of Days of	Running tally of days that any pile driving has occurred						
Pile Driving							
	Construction and Communication Activities						
Time	Time that construction activities and all communications between						
	MMOs/PSOs and construction crews take place						
Pile Size	Size of pile						
Pile Type	Temporary (template piles) or permanent						
Pile ID	ID number that corresponds to pile site plan						
Construction/Equipm	Type of construction activity occurring, including ramp up, startup,						
ent Type	shutdown, type of pile installation technique						
Obs.	Initials of PSO recording the construction activity						
Construction	Construction crew leads						
Personnel							
Communication	Information communicated between PSOs and construction crew						
Work Completed	Summary of work for the day						

Page _	of
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Construction Activity and Communication Log

Project	Name:			Location:		Date:	Number of Days of Pile Driving:
Time	Pile Size	Pile Type	Pile ID	Construction/Equipment Type	Obs.	Construction Personnel	Communication/Comments
Work C	omplet	ed:	1	I			I

Attachment C: Marine Mammal Observation Record and Sighting Form

MARINE MAMMAL OBSERVATION RECORD

Project Nam	e:	
Monitoring 1		
Date:		
Time Effort	Initiated:	
Time Effort	Completed:	
D		

Time	Visibility	Glare	Weather Condition	Wave Height	BSS	Wind	Swell
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW
:	B-P-M-G-E	%	S - PC - L - R - F - OC - SN - HR	Lt/Mod/Hvy		NSEW	NSEW

Event Code	Sight # (1 or 1.1 if re- sight)	Time/Dur (Start/End time if cont.)	WP/ Grid #/ DIR of travel	Distance from Pile	Obs.	Sighting Cue	Species	Group Size	Behavior Code (see code sheet)	Construction Type	Mitigation Type	Exposure (Y/N)	Behavior Change/ Response to Activity/Comments/Human Activity/Vessel Hull # or Name/ Visibility Notes
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		
E ON PRE/POST CON S M OR E OFF		:	Grid N or S W or E			BL BO BR DF SA OTHER		Min: Max: Best:		DR I V OWC NOWC NONE	DE SD None		

Marine Mammal Observation Record - Sighting Codes

Behavior Codes

Code	Behavior	Definition
BR	Breaching	Leaps clear of water
CD	Change Direction	Suddenly changes direction of travel
CH	Chuff	Makes loud, forceful exhalation of air at surface
DI	Dive	Forward dives below surface
DE	Dead	Shows decomposition or is confirmed as dead by investigation
DS	Disorientation	An individual displaying multiple behaviors that have no clear direction or purpose
FI	Fight	Agonistic interactions between two or more individuals
FO	Foraging	Confirmed by food seen in mouth
MI	Milling	Moving slowly at surface, changing direction often, not moving in any particular direction
PL	Play	Behavior that does not seem to be directed towards a particular goal; may involve one, two or more individuals
PO	Porpoising	Moving rapidly with body breaking surface of water
SL	Slap	Vigorously slaps surface of water with body, flippers, tail etc.
SP	Spyhopping	Rises vertically in the water to "look" above the water
SW	Swimming	General progress in a direction. Note general direction of travel when last seen [Example: "SW (N)" for swimming north]
TR	Traveling	Traveling in an obvious direction. Note direction of travel when last seen [Example: "TR (N)" for traveling north]
UN	Unknown	Behavior of animal undetermined, does not fit into another behavior
AWA	Approach Work	·
LWA	Leave Work Area	
		Pinniped only
EW	Enter Water (from haul out)	Enters water from a haul-out for no obvious reason
FL	Flush (from haul out)	Enters water in response to disturbance
НО	Haul out (from water)	Hauls out on land
RE	Resting	Resting onshore or on surface of water
LO	Look	Is upright in water "looking" in several directions or at a single focus
SI	Sink	Sinks out of sight below surface without obvious effort (usually from an upright position)
VO	Vocalizing	Animal emits barks, squeals, etc.
		Cetacean only
LG	Logging	Resting on surface of water with no obvious signs of movement

Sea State and Wave Height: Use Beaufort Sea State Scale for Sea State. This refers to the surface layer and whether it is glassy in appearance or full of white caps. In the open ocean, it also considers the wave height or swell, but in inland waters the wave height (swells) may never reach the levels that correspond to the correct surface white cap number. Therefore, include wave height for clarity.

Glare: Percent glare should be the total glare of observers' area of responsibility. Determine if observer coverage is covering 90 degrees or 180 degrees and document daily. Then assess total glare for that area. This will provide needed information on what percentage of the field of view was poor due to glare.

Swell Direction: Swell direction should be where the swell is coming from (S for coming from the south). If possible, record direction relative to fixed location (pier). Choose this location at beginning of monitoring project.

Wind Direction: Wind direction should also be where the wind is coming from.

Event

Code	Activity Type
E ON	Effort On
E OFF	Effort Off
PRE	Pre-Construction Watch
POST	Post-Construction Watch
CON	Construction (see types)
S	Sighting
М	Mitigation
OR	Observer Rotation

Sighting Cues

Code	Distance Visible
BL	Blow
ВО	Body
BR	Breach
DF	Dorsal Fin
SA	Surface Activity
OTHR	Other

Marine Mammal Species

Code	Marine Mammal Species			
HPBK	Humpback Whale			
FIN	Fin Whale			
DAPO	Dall's Porpoise			
HAPO	Harbor Porpoise			
ORCA	Killer Whale			
HSEA	Harbor Seal			
STSL	Steller Sea Lion			
SO	Sea Otter			

Construction Type

Code	Activity Type		
OWC	Over-Water Construction		
NOWC	No Over-Water Construction		
V	Vibratory Hammer		
l	Impact Hammer		
DR	Drilling		
DRED	Dredging		
NONE	No Construction		

Mitigation Codes

Code	Activity Type	
DE	Delay onset of In-Water Work	
SD	Shutdown In-Water Work	

Visibility

Code	Distance Visible
В	Bad (<0.5km)
Р	Poor (0.5-0.9km)
M	Moderate (0.9-3km)
G	Good (3-10km)
Е	Excellent (>10km)

Weather Conditions

Code	Weather Condition	
S	Sunny	
PC	Partly Cloudy	
LR	Light Rain	
RR	Heavy Rain	
F	FOG	
OC	Overcast	
LS	Light Snow	
HS	Heavy Snow	

Wave Height

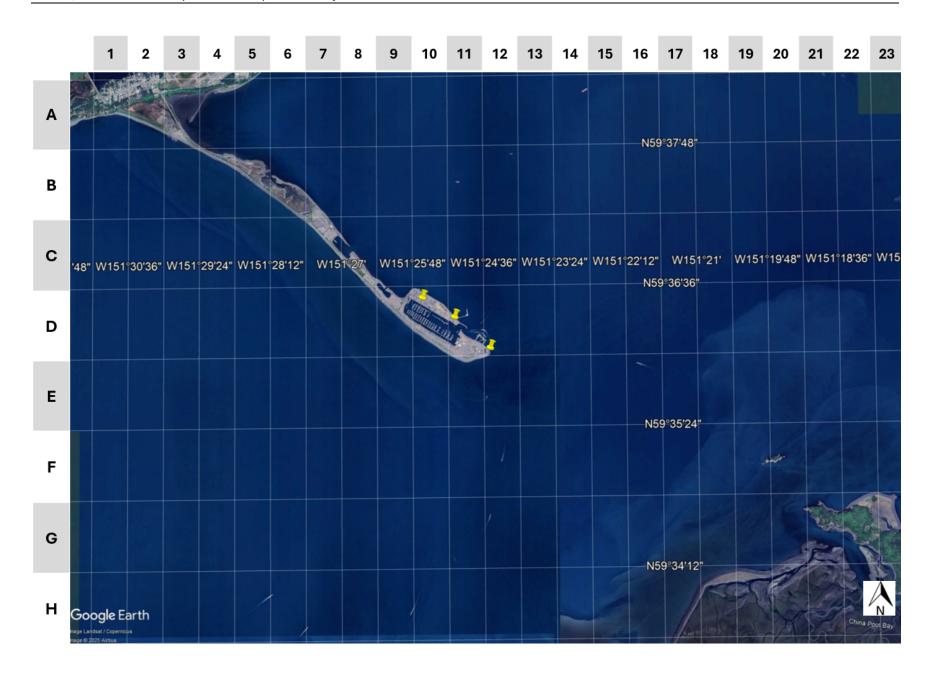
Code	Wave Height
Light	0-3 ft
Moderate	4-6 ft
Heavy	>6 ft

Filling Out Sighting Forms (Observation Record)			
Data Columns Definition and How to Record Data			
Genera	Information (Top of Form)		
Project Name	Homer Harbor System 4 Float Replacement Project		
Monitoring Location	See PSMMP		
Date	MM/DD/YYYY		
Time effort initiated and completed	Time started pre-watch and time post-watch ended		
·	(military time). If there is more than one monitoring		
	period in a day, start a new form for each period.		
Env	rironmental Conditions		
Environmental Conditions	Record at the start of monitoring period, when		
	changes, and at the end of monitoring period.		
Visibility	B-bad, P-poor, M-moderate, G-good, and E-excellent		
Glare	Amount of water obstructed by glare (0–100%) and		
	direction of glare (from south, north, or another		
	direction)		
Weather conditions	Dominant weather conditions: sunny (S), partly cloudy		
	(PC), light rain (LR), heavy rain (HR), fog (F), overcast		
	(OC), light snow (LS), heavy snow (HS)		
Wave Height	Lt-light, Mod-moderate, Hvy-heavy		
Wind and Swell direction	From the north (N), northeast (NE), east (E), southeast		
	(SE), south (S), southwest (SW), west (W), northwest		
	(NW)		
Beaufort Sea State	Scale 1-12. See BSS sheet.		
	Sightings		
Event Code	Indicates what events are happening at the time of the		
	sighting, what events may have occurred due to the		
	sighting, and observer rotations.		
Time/Duration	Time first sighted and time of last sighting (military		
	time).		
Sighting Number	Chronological (1,2,3, etc.)		
	If the same marine mammal is resighted at a distance		
	greater than 25 meters from the original sighting		
	location record as a resight		
	(Ex. 1.1- same marine mammal as sighting 1, but		
	sighted for a second time in different location)		
WP/Grid #/DIR of Travel	Grid number that marine mammal was sighted in and		
	direction of travel. Format should be grid map letter-		
	grid map number		
Distance from pile	Distance in meters from in-water work		
Observer (Obs.)	Initials of the Observer who sighted the marine		
	mammal or who is coming on shift during a rotation		
Sighting Cue	How was the marine mammal sighted		

Species	Appropriate species abbreviation from code sheet
Group Size	Record the minimum and maximum number of individuals that were sighted. Then determine and record the best number of individuals. If sea otter pups are present, indicate total number of pups in the group in the notes column.
Behavior	Behaviors observed using appropriate abbreviations from code sheet
Construction Type	Circle construction type that is actively occurring at the time and for the duration of the sighting.
Mitigation Type	Circle mitigation type, if any. Based upon monitoring and shutdown zones does a delay of work (pre-watch and post-watch) or a shutdown (monitoring period) need to occur.
Exposure	If a marine mammal enters its Level A or Level B distance and work is actively occurring it will be an exposure indicate yes (Y). If no work is actively occurring indicate no (N)

Estimating Wind Speed and Sea State with Visual Clues				
Beaufort number	Wind Description	Wind Speed	Wave Height	Visual Clues
0	Calm	0 knots	0 feet	Sea is like a mirror. Smoke rises vertically.
1	Light Air	1-3 kts	< 1/2	Ripples with the appearance of scales are formed, but without foam crests. Smoke drifts from funnel.
2	Light breeze	4-6 kts	1/2 ft (max 1)	Small wavelets, still short but more pronounced, crests have glassy appearance and do not break. Wind felt on face. Smoke rises at about 80 degrees.
3	Gentle Breeze	7-10 kts	2 ft (max 3)	Large wavelets, crests begin to break. Foam of glassy appearance. Perhaps scattered white horses (white caps). Wind extends light flag and pennants. Smoke rises at about 70 deg.
4	Moderate Breeze	11-16 kts	3 ft (max 5)	Small waves, becoming longer. Fairly frequent white horses (white caps). Wind raises dust and loose paper on deck. Smoke rises at about 50 deg. No noticeable sound in the rigging. Slack halyards curve and sway. Heavy flag flaps limply.
				Moderate waves, taking more pronounced long form. Many white horses (white caps) are formed (chance of some spray).
5	Fresh Breeze	17-21kts	6 ft (max 8)	Wind felt strongly on face. Smoke rises at about 30 deg. Slack halyards whip while bending continuously to leeward. Taut halyards maintain slightly bent position. Low whistle in the rigging. Heavy flag doesn't extended but flaps over entire length.
				Large waves begin to form. White foam crests are more extensive everywhere (probably some spray).
6	Strong Breeze	22-27 kts	9 ft (max 12)	Wind stings face in temperatures below 35 deg F (2C). Slight effort in maintaining balance against wind. Smoke rises at about 15 deg. Both slack and taut halyards whip slightly in bent position. Low moaning, rather than whistle, in the rigging. Heavy flag extends and flaps more vigorous.
7	Near Gale	28-33 kts	13 ft (max 19)	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of wind. Necessary to lean slightly into the wind to maintain balance. Smoke rises at about 5 to 10 deg. Higher pitched moaning and whistling heard from rigging. Halyards still whip slightly. Heavy flag extends fully and flaps only at the end. Oilskins and loose clothing inflate and pull against the body.
8	Gale	34-40 kts	18 ft (max 25)	Moderately high waves of greater length. Edges of crests begin to break into the spindrift. The foam is blown in well-marked streaks along the direction of the wind. Head pushed back by the force of the wind if allowed to relax. Oilskins and loose clothing inflate and pull strongly. Halyards rigidly bent. Loud whistle from rigging. Heavy flag straight out and whipping.
9	Strong Gale	41-47 kts	23 ft (max 32)	High waves. Dense streaks of foam along direction of wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.
10	Storm	48-55 kts	29 ft (max 41)	Very high waves with long overhanging crests. The resulting foam, in great patches is blown in dense streaks along the direction of the wind. On the whole, the sea takes on a whitish appearance. Tumbling of the sea becomes heavy and shock-like. Visibility affected.
11	Violent Storm	56-63 kts	37 ft (max 52)	Exceptionally high waves (small and medium-sized ships might be for time lost to view behind the waves). The sea is completely covered with long white patches of foam lying along the direction of the wind. Everywhere, the edges of the wave crests are blown into froth. Visibility greatly affected.
12	Hurricane	64+ kts	45+ ft	The air is filled with foam and spray. The sea is completely white with driving spray. Visibility is seriously affected.

Attachment D: Grid Map





Port and Harbor

4311Freight Dock Road Homer, AK 99603

port@cityofhomer-ak.gov (p) 907-235-3160 (f) 907-235-3152

Transfer of Float Unit Ownership and Liability Agreement

The following transfer of Float Unit Ownership and Liability Agreement shall be followed to its fullest extents. By signing this Transfer of Flat Ownership and Liability Agreement the TRANSFEREE has knowingly read, understood and fully acknowledges the following terms of the agreement:

1)	 The City of Homer (TRANSFEROR), whom is clarified here as the current owner, is transferring 		
	possession of ownership and liability of the	_ named CITY OF HOMER small boat	
	Harbor vessel moorage float units to		
(TRANSFEREE) whom is clarified here as the new owner of the herein named Float Unit.			

- 2) The TRANSFEREE, agrees to assume all responsibility associated with possession of the Float Units being removed from the CITY OF HOMER Small Boat Harbor. The TRANSFEREE expressly agrees to hold the CITY OF HOMER harmless and to indemnify the CITY OF HOMER, their agents, employees, personal representatives, affiliates, and any and all persons, firms or corporations affiliated with the CITY OF HOMER to fullest extent of the law from any and all liability associated in any way with the removed Float Units.
- 3) Specifically, the TRANSFEREE, agrees to fully indemnify and hold harmless the CITY OF HOMER from any and all damages, losses, lawsuits or other actions that may be sustained or suffered resulting from the removal, transport or future use of the Float Units whether those actions are the result of willful action or negligence by the TRANSFEREE or by those of another person who is injured or causes injury, property damage, or loss in connection with the Float Units.
- 4) Demolition, disposal and/ or further transfer of ownership of the Float Units shall abide by all local, State, and federal requirements and standards. It is the responsibility of the TRANSFEREE to obtain and follow all State and Federal permits required for transport and reuse of the Float Units.
- 5) The TRANSFEREE shall air dry the Float unit(s) for a minimum of three (3) weeks and clean by power washing and/or scraping prior to relocating the float units with the intent of re-installation within any aquatic location. The CITY OF HOMER will provide a maximum of sixty days of uplands use, at the current Non Fishing Gear Storage tariffed per square foot rate per month rate for the purpose of air drying the Float Units. If the TRANSFEREE fails to remove the Float Units from the Port facilities within the agreed to 60 day laydown period TRANSFEREE agrees to pay the CITY OF HOMER at DEMURRAGE rate of nine cents per square foot per DAY for each day that expires after the period specified above.

6١	Beginning date of Lay down storage	End date
וס	beginning date of Lay down storage	Enduate



Port and Harbor

4311Freight Dock Road Homer, AK 99603

port@cityofhomer-ak.gov (p) 907-235-3160 (f) 907-235-3152

- 7) The TRANSFEREE agrees to at their own expense to remove and dispose of all uncoated polystyrene floatation billets within the Float Units prior to transfer. The removed billets shall be disposed of according to all local, state, and federal laws and regulations.
- 8) The TRANSFEREE understands that the CITY OF HOMER may provide other entities (such as the Alaska Department of Fish and Game) the TRANSFEREE's contact information for follow up regarding the Float Units. Such agencies may elect to inspect the Float Units prior to transport or use at another location.

9)	The TRANSFEREE will (please choose all that apply and detail all pertinent information)					
	Salvage and Reuse					
	Sell (after removal from city facilities)					
	Other:					
	NOTES:					
10))) The TRANSFEREE, will take into possession a total of	Square Feet of Float Units				
	from the CITY OF HOMER Small Boat Harbor and will provide a (brief) description of the intended usage					
	of each of the Float Units:					