

**Biorka Island Dock Replacement
Protected Species Monthly Report
June 2019**

Prepared For:

NMFS Protected Resources Division

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July 3, 2019

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

Introduction

The Federal Aviation Administration (FAA) is conducting a project to remove and replace the only dock and barge landing in Symonds Bay on Biorka Island near Sitka, Alaska in order to adequately maintain navigational and weather facilities located on the island.

The FAA was granted an Incidental Harassment Authorization (IHA) for the project by the National Marine Fisheries Service (NMFS) on October 25, 2017. The IHA was valid from May 1, 2018 to April 30, 2019, and work ran from May 2018 to December 2018. Due to weather conditions work was unable to be completed and the FAA requested a new IHA. On April 10, 2019, NMFS authorized a new IHA that is valid from May 1, 2019 through April 30, 2020. Authorized Level A and B take of marine mammals (different from the previously issued IHA) is summarized in Table 1.

Table 1. Authorized Takes of Marine Mammals

Species	Authorized Take	
	Level A	Level B
Harbor seal	20	220
Steller sea lion	3	60
Harbor porpoise	15	45
Killer Whale	0	24
Humpback whale	1	60
Minke whale	0	12

(Source: NMFS 2019)

In-water construction resumed on May 23, 2019. This monitoring report is 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 the FAA 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.

The following report details protected species monitoring and mitigation during the 6 days of in-water work for the month of June 2019. For more information on monitoring methods, please see the June 2018 monitoring report for this project.

Environmental Conditions

Environmental conditions on the six days of monitoring varied (Table 2). Temperatures were between 43°F and 61°F. Visibility was generally excellent with one day of moderate visibility on June 1. Weather was partly cloudy with one day of light rain/mist. Wind was light with an average speed of 7.5 mph with the highest wind speeds reaching 10.7 mph on June 6th. Water conditions in Symonds Bay and Sitka Sound were generally favorable during observation periods with the Beaufort Sea State staying at 1 (NOAA 2019).

Table 2. Environmental Condition During In-Water Work in June 2019

Date	Temperature Range (Fahrenheit)	Average Wind Speed (mph)	Visibility	Glare	Weather Condition	Beaufort Sea State
1-June	48-51	7.5	Moderate	0%	LR	1
3-June	45-53	4.9	Excellent	10%	PC	1
5-June	43-59	9.1	Excellent	20%	S	1
6-June	48-61	10.7	Excellent	20%	S	1
7-June	51-55	8.5	Excellent	0%	CL	1
8-June	46-54	4.2	Excellent	0%	PC	1

Monitoring and Detection Results

Visual Detection

A summary of 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, extrapolated takes, and Level B takes per species for the month of June is in Table 3. Level B takes per day and per species is in Attachment B. No level A takes occurred.

Table 3. Total Level B Takes Per Species During the Biorka Island Dock Replacement In-Water Construction in June 2019 (no level A take occurred)

Species	Total Number of Sightings	Number of Level B Takes	Extrapolated Level B Takes	Total Number of Level B Takes
Humpback whale	1	0	0	0
Killer whale	0	0	0	0
Harbor porpoise	0	0	0	0
Harbor seal	15	12	6	18
Northern sea otter	68	0	0	0
Steller sea lion	0	0	0	0
Total	84	12	6	18

Pinniped Detections

Harbor seals

Harbor seals were sighted on four days of in-water work with a total of 15 individuals sighted. Only 12 individuals resulted in a Level B take, and there were 6 extrapolated Level B takes. Sightings were of single individuals and a group of 6. They were exhibiting looking behavior and one group was temporarily hauled out. The sex of the individuals was unable to be determined. One juvenile was sighted.

Cetacean Detections

Humpback whale

A single humpback whale was sighted on June 8. No work was occurring during the sighting and take did not occur. The individual was determined to be foraging. The sex and age of the individual was unable to be determined.

Other Marine Mammal Detections

Northern Sea otters

Sixty-eight sea otters were sighted in June. Individuals were seen on all days that in-water work occurred in June; however, none of the sightings resulted in takes. A shutdown occurred on June 3 and pile driving did not resume for the day. Groups ranged from 1 to 5 individuals and were determined to be foraging, resting, milling, playing, and travelling. The sex and age of individuals were unable to be positively determined.

Summary

Visual monitoring during June 2019 resulted in the sightings of a total of 84 marine mammals. Three species of marine mammals were positively identified: harbor seals, humpback whales, and northern sea otters. A total of 18 harbor seal Level B takes occurred. No level A takes occurred.

Table 4 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 4. Total Takes Per Species During the Biorka Island Dock Replacement
In-Water Construction under the IHA issued on April 10, 2019**

Species	Level A Authorized	Level B Authorized	Level A Exposures to Date	Level B Exposures to Date	Remaining Level B takes allowed
Humpback Whale	1	60	0	0	60
Killer Whale	0	24	0	0	24
Harbor Porpoise	15	45	0	0	45
Harbor Seal	20	220	0	23	197
Steller Sea Lion	3	60	0	0	60
Minke Whale*	0	12	0	0	12

Note: Take numbers do not include takes accumulated under the previously issued IHA.

References

National Marine Fisheries Service. 2019. Biorka Island Incidental Harassment Authorization. Accessed from <https://www.fisheries.noaa.gov/action/incidental-take-authorization-faa-biorka-island-dock-replacement-project-sitka-ak> on June 3, 2019.

National Oceanic and Atmospheric Administration (NOAA). 2019. National Weather Service: Biorka Island. Accessed from <https://w2.weather.gov/climate/getclimate.php?wfo=pajk> on June 17, 2019.

Attachment A

LAURA KALTENSTEIN
KRISANNE TRICE

NIB ON 9:50-10:05
AND (DTH) 10:40-11:05
11:30-11:33

scenario 1
remove & install 2 temporary pilings

Project Name: Biorka Island Dock Replacement

MARINE MAMMAL OBSERVATION RECORD FORM

MMMO1 100 m from work
Monitoring Location MMO2 350 m from work
(Pier Location, Vessel based, Land Location, other)

Page (of)

Date: June 1 2019

Vessel Name: _____

Time Effort Initiated: 8:00

Time Effort Completed: 12:00

Sighting Data

Event Code	Sighting Number (1 or 1.1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist/Dir to Animal (from Observer)	Dist to Pile (btwn animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Mitigation used during sighting?	Mitigation Type?	visibility	% Glare	Weath Cond	Sea State and Wave Ht	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	8:40	-	KR	V	HS	400 m or km	325 m or km	1111 _ calves	LO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% MIST		Light Mod Heavy	N or S W or E	
S	2	9:00 to 12:00	-	KR LK	V	SO	500 m or km	500 m or km	2122 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% MIST		Light Mod Heavy	N or S W or E	
S	3	9:00 to 12:00	-	KR LK	V	SO	600 m or km	700 m or km	4,4,4 _ calves	PL opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% MIST		Light Mod Heavy	N or S W or E	RESTING IN KELP
S	4	9:15	-	LK	V	HS	200 m or km	200 m or km	1111 _ calves	LO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% MIST		Light Mod Heavy	N or S W or E	
S	5	10:30 to 11:00	-	LK KR	V	SO	300 m or km	350 m or km	2,2,2 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% PC		Light Mod Heavy	N or S W or E	
S	6	11:45	-	LK	V	HS	100 m or km	100 m or km	1111 _ calves	LO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y (N)	DE SD	B M P M G E	0% PC		Light Mod Heavy	N or S W or E	
							m or km	m or km	11 _ calves	opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC DP ST NONE	Y N	DE SD	B M P M G E			Light Mod Heavy	N or S W or E	

Sighting #: chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP (Waypoint)=GPS recording of lat/long, time/date stamp. Critical for vessel observers.

LAURA KALTENSTEIN
KRISANNE RICE

DRILL 16:30-18:00 1 30" PILE DTH
SHUTDOWN FOR 2 S.O. IN ZONE AT 18:00 UNTIL END.
THEY DID NOT CONTINUE DRILLING AFTER OTTERS LEF

MARINE MAMMAL OBSERVATION RECORD FORM

Project Name: Biorka Island Dock Replacement

Monitoring Location NMO 1 100 M FROM WORK
NMO 2 350-400 M FROM WORK
(Pier Location, Vessel based, Land Location, other)

Page _____ of _____

Date: JUNE 3 2019

Vessel Name: _____

Time Effort Initiated: 15:00

Time Effort Completed: 18:30

Sighting Data

Event Code	Sighting Number (1 or 1.1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist/Dir to Animal (from Observer)	Dist to Pile (between animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Mitigation used during sighting?	Mitigation Type?	Visibility	% Glare	Weather	Sea State and Wave Ht	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	15:00 to 18:30	-	LK	✓	SO	600 m or km	700 m or km	2 1 3 3 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	RESTING IN ICE/LP
S	2	15:15	-	KR	✓	SO	250 m or km	450 m or km	2 1 2 2 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	
S	3	15:15	-	KR	✓	HS	200 m or km	400 m or km	1 1 1 1 _ calves	LO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	
S	4	15:30	-	KR LK	✓	SO	200 m or km	350 m or km	1 1 1 1 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	
S	5	15:00 to 18:00	-	KR	✓	SO	500 m or km	650 m or km	1 1 1 1 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	
S	6	18:00 to 18:30	-	KR LK	✓	SO	350 m or km and 275	250 m or km and 200	2 1 2 2 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y (N)	DE SD	B ⁰ M ⁰ G ⁰ E ⁰	10%	PC	Light Mod Heavy	No S W or E	Drilling stopped at 50 for the day
							m or km	m or km	1 1 _ calves	opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PCEP ST NONE	Y N	DE SD	B ⁰ M ⁰ G ⁰ E ⁰			Light Mod Heavy	No S W or E	

Sighting #: chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP (Waypoint)-GPS recording of lat/long, time/date stamp. Critical for vessel observers

DRILL DTH 11:10 - 13:00
 UIB 2:36 - 2:38

30" DOWETTIN

LAURA KALTENSTEIN
 KRISAXNE RICE

MARINE MAMMAL OBSERVATION RECORD FORM

Project Name: Biorka Island Dock Replacement

Monitoring Location: MMO 1 100 M FROM WORK
 (Pier Location, Vessel based, Land Location, other) MMO 2 350-400 M FROM WORK

Page 1 of 1

Date: JUNE 5 2019

Vessel Name: _____

Time Effort Initiated: 10:00

Sighting Data

Time Effort Completed: 3:10

Event Code	Sighting Number (1 or 1.1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist/Dir to Animal (from Observer)	Dist to Pile (blwn animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Mitigation used during sighting	Mitigation Type?	Visibility	% Glare	Weather	Sea State and Wave Ht	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	10:10	-	LK KR	V	SO	400 m or km 500	450 m or km 550	4, 4, 5 2 calves	FO opening closing parallel none Fishery Cryst	FRE POST SSV SSI V T PCEP ST NONE	(N)	DE	B M G E	20%	S	Light Mod Heavy	None S W or E	RESTING / FO IN USUAL KEEP
S	2	10:30	-	LK KR	V	SO	700 m or km	600 m or km	4, 4, 4 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	(N)	DE	B M G E	20%	S	Light Mod Heavy	None S W or E	
							m or km	m or km	1 1 — calves	opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	Y	DE	B M G E			Light Mod Heavy	None S W or E	
							m or km	m or km	1 1 — calves	opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	Y	DE	B M G E			Light Mod Heavy	None S W or E	
							m or km	m or km	1 1 — calves	opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	Y	DE	B M G E			Light Mod Heavy	None S W or E	
							m or km	m or km	1 1 — calves	opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	Y	DE	B M G E			Light Mod Heavy	None S W or E	
							m or km	m or km	1 1 — calves	opening closing parallel none Behavior Code	FRE POST SSV SSI V T PCEP ST NONE	Y	DE	B M G E			Light Mod Heavy	None S W or E	

Sighting #: chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP (Waypoint) = GPS recording of lat/long, time/date stamp. Critical for vessel observers

LAURA KALTENSTEIN
KRISANNE RICE

DRILL DTH 1 18" BATTER 11:45-11:50,
VIB 1 18" BATTER 14:10-14:45
15:55-15:58

Project Name: Biorka Island Dock Replacement

MARINE MAMMAL OBSERVATION RECORD FORM

MNO 1 100 M FROM WORK
Monitoring Location MNO 2 350-400 M FROM WORK
(Pier location, Vessel based, Land Location, other)

Page () of ()

Date: JUNE 6 2019

Vessel Name: _____

Time Effort Initiated: 10:00

Time Effort Completed: 16:30

Sighting Data

Event Code	Sighting Number (1 or L1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist to Animal (from Observer)	Dist to Pile (between animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Mitigation used during sighting?	Mitigation Type?	Visibility	% Glare	Weath Cond	Sea State and Wave Ht	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	11:00	/	LK KR	V	SO	500	500	2,2,2 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	
S	2	11:00 to 16:30	/	LK KR	V	SO	500	650	4,5,5 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	RESTING IN USUAL Kelp PATCH
S	3	11:10	/	LK KR	V	SO	200	350	2,2,2 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	
S	4	11:50	/	LK	V	SO	300	400	1,1,1 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or F	MOVED FURTHER WHEN DRILL STARTED
S	5	13:00	/	LK KR	V	SO	200	200	1,1,1 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	MOVING OUT
S	6	14:50	/	LK KR	V	SO	300	400	1,1,1 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	
S	7	15:10	/	KR	V	SO	200	150	1,1,1 — calves	FO opening closing parallel none Behavior Code	FRE POST SSV SSI V I PCLP ST NONE	Y (N)	DE SD	B M P G E	20%	S	Light Mod Heavy	Nor S W or E	
S	8	15:55	/	KR	V	SO	150	400	1,1,1	FO	VI	N		E	20%	S	Light	NW	
S	9	15:55	/	KR LK	V	SO	400	500	1,1,1	FO	VI	N		E	20%	S	Light	NW	

Logging Chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP # (Waypoint) - GPS recording of lat/long, time/date stamp. Critical for vessel observers

LAURA KALTENSTEIN
KRISANNE RICE

DRILL DTH 14:20-14:27, 14:45-14:55 1 batter 18"

VIB 15:45-15:47 1 batter 18"

DRILL DTH 18:00-18:30 1 batter

(2 batter piles 18" today)

MARINE MAMMAL OBSERVATION RECORD FORM

Project Name: Biorka Island Dock Replacement

Monitoring Location: MMO 1 100 M FROM WORK
MMO 2 350-400 FROM WORK
(Pier Location, Vessel based, Land Location, other)

Page _____ of _____

Date: JUNE 7 2019

Vessel Name: _____

Time Effort Initiated: 13:30

Time Effort Completed: 19:00

Sighting Data

Event Code	Sighting Number (1 of 1.1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist/Dir to Animal (from Observer)	Dist to Pile (between animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Evolution used during sighting?	Mitigation Type?	Visibility	% Glare	Weather Cond	Sea State and Wave Ht	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	13:30 to 19:00	✓	LK KR	V	SO	500 m or km	700 m or km	3,3,3 — calves	PL opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	REST, PLAY IN USUAL KELP
S	2	13:30	✓	LK KR	V	SO	400 m or km	500 m or km	1,1,1 — calves	FO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	3	13:30	✓	LK KR	V	SO	400 m or km	600 m or km	2,2,2 — calves	FO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	4	14:10	✓	LK KR	V	SO	400 m or km	500 m or km	2,2,2 — calves	FO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	5	14:50	—	LK	V	HS	500 m or km	600 m or km	1,1,1 — calves	LO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	6	15:15	—	LK KR	V	SO	300 m or km	500 m or km	2,2,2 — calves	FO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	7	17:00	—	LK KR	V	SO	200 m or km	300 m or km	2,2,2 — calves	FO opening closing parallel none Behavior Code	PRE POST SSV SSI V I P P P P ST NONE	Y (N)	DE SD	B M P G E	0%	CL	Light Mod Heavy	Nor S W or E	
S	8	17:22	—	LK	V	SO	600	700	2,2,2	FO	NONE	N		E	0%	CL	Light	NW	
S	9	17:45	—	LK	V	HS	100	200	1,1,1	LO	NONE	N		E	0%	CL	Light	NW	
S	10	18:00	—	LK KR	V	SO	400	550	1,1,1	FO	V(DTH)	N		E	0%	CL	Light	NW	
S	11	18:20	—	LK	V	HS	400	500	6,6,6 (1 HO)	LO MI	V(DTH)	N		E	0%	CL	Light	NW	

Sighting # = chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP (Waypoint) - GPS recording of lat/long, time/date stamp. Critical for vessel observers

LAURA KALTENSTEIN
KATRISANNE RICE

VIB 8:10-8:12 1 batter

DTH 10:35-11:37 2nd "

VIB 12:00-12:01 2nd batter

18" 2 batters for dolphins

2nd shift 17:15-18:45 Vib 2 18" pilings - 18:13-18:15

MARINE MAMMAL OBSERVATION RECORD FORM

Project Name: Biorka Island Dock Replacement

mno 1 100 m from work
Monitoring Location mno 2 350-400 m from work page 1 of 1
(Pier Location, Vessel based, Land Location, other)

Date: JUNE 8 2019

Vessel Name: _____

Time Effort Initiated: 7:30

Sighting Data

Time Effort Completed: 12:31
17:15 to 18:45

Event Code	Sighting Number (1 or 1.1 if resight)	Time/Duration watching sighting (Start/End time if continuous)	WP # (every time a sighting is made)	Observer	Sighting cue	Species	Dist/Dir to Animal (from Observer)	Dist to Pile (btwn animal & pile)	# of Animals Group Size (min/max/best) # of Calves	Relative Motion/and Behavior Code (see code sheet)	Const Type During Sighting	Mitigation used during sighting ?	Mitigation Type?	Visibility	% Glare	Weath Cond	Sea State and Wave HT	Swell Dir	Behavior Change/Response to Activity/Comments
S	1	7:30 to 12:00	/	LK	V	HS	500 m or km	600 m or km	2 adults 1 calves	HO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	PC	Light Mod Heavy	N or S W or E	
S	2	7:30 to 12:00	/	LK KR	V	SO	600 m or km	700 m or km	3, 3, 4 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	R	Light Mod Heavy	N or S W or E	RESTING IN USUAL KELP
S	3	9:50 to 10:20	/	LK KR	V	HW	300 m or km	400 m or km	1, 1, 1 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	PC	Light Mod Heavy	N or S W or E	
S	4	10:50	/	LK KR	V	SO	400 m or km	500 m or km	2, 2, 2 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	PC	Light Mod Heavy	N or S W or E	
S	5	18:00	/	LK KR	V	SO	500 m or km	600 m or km	4, 4, 4 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	PC	Light Mod Heavy	N or S W or E	RESTING IN USUAL KELP
S	6	18:15	/	LK KR	V	SO	400 m or km	500 m or km	2, 2, 2 _ calves	FO opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y (N)	DE SD	B M P G E	0%	PC	Light Mod Heavy	N or S W or E	
							m or km	m or km	1, 1 _ calves	opening closing parallel none Behavior Code:	FRE POST SSV SSI V I PC CP ST NONE	Y N	DE SD	B M P G E			Light Mod Heavy	N or S W or E	

Sighting # = chronological number of sightings, if resight of same animal, then 1.1, 1.2, etc. WP (Waypoint) = GPS recording of lat/long, time/date stamp. Critical for vessel observers.

Attachment B



Project: Biorke Island, Dock Replacement
Owner: Federal Aviation Administration
Engineer: R&M Consultants, Inc.
Contractor: Parsons
Subcontractor: Turnagain Marine Construction

Protected Species Observers:
 Laura Kallenstein
 Krisanne Rice
 Angela Bowers

MMO Exposure Summary

Species	Level A Authorized	Level B Authorized	Level A Exposures to Date	Level B Exposures to Date	Remaining Level B takes allowed
Humpback Whale	1	60	0	0	60
Killer Whale	0	24	0	0	24
Harbor Porpoise	15	45	0	0	45
Harbor Seal	20	220	0	23	197
Minke Whale	0	12	0	0	12
Steller Sea Lion	3	60	0	0	60

Number of B takes By day

Species	5/1/19	5/2/19	5/3/19	5/4/19	5/5/19	5/6/19	5/7/19	5/8/19	5/9/19	5/10/19	5/11/19	5/12/19	5/13/19	5/14/19	5/15/19	5/16/19	5/17/19	5/18/19	5/19/19	5/20/19	5/21/19	5/22/19	5/23/19	5/24/19	5/25/19	5/26/19	5/27/19	5/28/19	5/29/19	5/30/19	5/31/19	Extrapolated Takes	Monthly Total		
Humpback Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Killer Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbor Porpoise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbor Seal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5
Otter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Steller Sea Lion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minke Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Species	6/1/19	6/2/19	6/3/19	6/4/19	6/5/19	6/6/19	6/7/19	6/8/19	6/9/19	6/10/19	6/11/19	6/12/19	6/13/19	6/14/19	6/15/19	6/16/19	6/17/19	6/18/19	6/19/19	6/20/19	6/21/19	6/22/19	6/23/19	6/24/19	6/25/19	6/26/19	6/27/19	6/28/19	6/29/19	6/30/19	Extrapolated Takes	Monthly Total			
Humpback Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Killer Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbor Porpoise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harbor Seal	2	0	0	0	0	0	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	18
Otter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minke Whale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Steller Sea Lion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary: