

Introduction

On September 24, 2014 MaineDOT was issued an incidental harassment authorization (IHA) for level B harassment of marine mammals during the reconstruction of a breakwater in Eastport, Maine. A revised IHA (Appendix A) was issued on July 13, 2015 that authorized harassment between the effective dates of July 20, 2015 and July 19, 2016. As required in Section 8 of the IHA, this document will serve as the monitoring report for the effective period.



Current Progress (photo credit Jim Lowe).

1.1. Monitoring protocol

The protocol for monitoring for marine mammals was largely dictated in the IHA issued by NMFS. The contractor had two protected species observers (PSOs) on site during all pile driving events. At times there were three PSOs on the site at one time. The PSOs were positioned on the breakwater to gain the maximum visibility around the pile driving events. The PSOs recorded all marine mammals that were witnessed from the breakwater, regardless of whether pile driving was occurring. This will serve as a great record for the amount of marine mammal activity in this area. They also recorded any animals that moved into the level B harassment areas. The PSOs were prepared to stop pile driving work if the animals moved into the level A harassment areas. This did not occur.

The observers monitored at least 30 minutes prior to any activity that could result in harassment.

1.2. Data Summary

MaineDOT staff reviewed the PSO reports provided by the contractor and developed the following summary table.

In general, there was a lot of seal activity in the vicinity of the breakwater. Five of the observation months recorded greater than 100 seals. The reports indicated that the seals were generally traveling through the area or foraging in front of the breakwater.

1.3. Harassment Summary

As indicated in table 2, the harassment numbers for marine mammals were well below the amount authorized in the IHA.

1.4. Unanticipated Take

It is not expected that there was any take to marine mammals in a manner that was prohibited in the IHA.

No marine mammals were found dead or injured during the project.

Table 1. Species/stocks and numbers of marine mammals allowed under the IHA.

Species	Estimated marine mammal takes
Harbor seal	456
Gray seal	456
Harbor porpoise	456
Atlantic white-sided dolphin	76

Table 2. Summary of data recorded by PSOs

Month	Harbor and Grey Seals Observed	Harbor and Grey Seals Harassed	Harbor Porpoises Observed	Harbor Porpoises Harassed	Atlantic White Sided Dolphins Observed	Atlantic White Sided Dolphins Harassed	Minke Whales Observed	Minke Whales Harassed	Number of Days per month Observed
July 15	190	11	27	1	0	0	4	0	20
August 15	133	13	11	0	0	0	10	0	18
September 15	139	4	12	0	0	0	11	0	18
October 15	146	22	20	0	0	0	3	0	20
November 15	170	15	5	0	0	0	0	0	17
December 15	20	1	0	0	0	0	0	0	12
January 16	42	2	0	0	0	0	0	0	15
February 16	13	3	0	0	0	0	0	0	6
March 16	27	0	0	0	0	0	0	0	23
April 16	22	0	0	0	0	0	0	0	20
May 16	3	0	0	0	0	0	0	0	6
June 16	11	11	1	1	0	0	0	0	18
Total:	916	82	76	2	0	0	28	0	193

Note: All the marine mammal harassment was caused by vibratory driving (within a distance of 380m)

Table 3. Summary of hours of observation

Month	Hours of Observation	Number of Observed Harbor and Grey Seals	Number of Observed Harbor Porpoise	Number of Observed Atlantic White-Sided Dolphin	Number of Observed Minke Whales
July 15	195.5	190	27	0	4
August 15	168.5	133	11	0	10
September 15	168.5	139	12	0	11
October 15	183	146	20	0	3
November 15	161	170	5	0	0
December 15	115	20	0	0	0
January 16	157.5	42	0	0	0
February 16	57	13	0	0	0
March 16	238	27	0	0	0
April 16	232	22	0	0	0
May 16	61.5	3	0	0	0
June 16	188	11	1	0	0
Total:	1,925.5	916	76	0	28

Table 4. Summary per species of Harbor and Grey Seals

Month	Hours of Observation	Number of Days of Observation	Total Number Observed	Number Observed per Hour	Number Observed per Day
July 15	195.5	20	190	1	10
August 15	168.5	18	133	1	8
Sept 15	168.5	18	139	1	8
Oct 15	183	20	146	1	8
Nov 15	161	17	170	2	10
Dec 15	115	12	20	1	2
Jan 16	157.5	15	42	1	3
Feb 16	57	6	13	1	3
March 16	238	23	27	1	2
April 16	232	20	22	1	2
May 16	61.5	6	3	1	1
June 16	188	18	11	1	1

Note: All values for mammals are rounded up to the nearest whole number

Table 5. Summary per species of Harbor Porpoise

Month	Hours of Observation	Number of Days of Observation	Total Number Observed	Number Observed per Hour	Number Observed per Day
July 15	195.5	20	27	1	2
August 15	168.5	18	11	1	1
Sept 15	168.5	18	12	1	1
Oct 15	183	20	20	1	1
Nov 15	161	17	5	1	1
Dec 15	115	12	0	0	0
Jan 16	157.5	15	0	0	0
Feb 16	57	6	0	0	0
March 16	238	23	0	0	0
April 16	232	20	0	0	0
May 16	61.5	6	0	0	0
June 16	188	18	1	1	1

Note: All values for mammals are rounded up to the nearest whole number

Table 6. Summary per species of Minke Whale

Month	Hours of Observation	Number of Days of Observation	Total Number Observed	Number Observed per Hour	Number Observed per Day
July 15	195.5	20	4	1	1
August 15	168.5	18	10	1	1
Sept 15	168.5	18	11	1	1
Oct 15	183	20	3	1	1
Nov 15	161	17	0	0	0
Dec 15	115	12	0	0	0
Jan 16	157.5	15	0	0	0
Feb 16	57	6	0	0	0
March 16	238	23	0	0	0
April 16	232	20	0	0	0
May 16	61.5	6	0	0	0
June 16	188	18	0	0	0

Note: All values for mammals are rounded up to the nearest whole number

1350
Porpoise

Eastport Breakwater MDOT WIN 020806.00
Marine Mammal Observation Monitoring
Data Cover Sheet

Date: 7/1/15 Time: start 8:50 AM end _____

Observer: Steve Erwin / Steve Forek Location: Pier

Recorders Name(s): Steve Erwin

Identify Exclusion Zone (<30m): Yes No

Identify Level B Harassment Zone (>30m, <1000m): Yes No

Weather Conditions: (Record at start of observation, note changes through the day)

Wind Direction: Westerly

Beaufort Sea State: 1 2 3 4 5 (Circle One)

Visibility: 0 NM ~~1 NM~~ and in between 2 NM 3 NM 4 NM

Weather: Cloudy Clear Haze Rain Light Rain Snow Fog

Cloud Cover: <10% 10-50% 50-90% 90%

High Water: 11:05 am _____ pm Low Water: _____ am _____ pm

Construction Activity: Vibro Hammer Underwater Sawing Impact Hammer

Photograph or Video Collected: Yes No

Comments:

Eastport Breakwater MDOT 020806.00
 Marine Mammal Observation Monitoring
 Data Sheet

Date	Time	Species	Number	Behavior	Bearing to Animal	Dist. to Animal	Animal Heading	Const. Activity	In Exclusion Zone
7/15	8:52A	Por	1						
7/15	8:59	net boat	1	net boat proceeded through zone			left to right		
7/15	9:03	seal	1	travelling	115	950m	north		
	9:05	border patrol		left inner	basic headed north				
	9:24	boat	1		150°	123m	south		
	9:25	st. And. boat	1		45°	298	south		
	9:32	Coast Guard	1		95°	95m	south		
	9:39	Pure Vis. net boat	1	left inner	170°	293	south	P.I.E. P.	
	9:50	Coast Guard	1	left inner	170°	89	north	P.I.E. P.	
	10:10	Seal	1	Bobbing	75°	800m		ri.e.p.	
	10:18	Purpure	1	Trav.	70°	860m	south		
	10:20	Auyst. Seint	1		110°	1000m	west		
	10:35	Seal	1	Trav	56°	760m	west		
	10:38	Seal	1	Trav	85°	150 yd.	North		
	10:45	Seal	1	Bobbing	55°	600m			
	10:51	Seal	1	Trav	55°	500m	North		
	11:02	Seal	1	Trav	120°	800m	south		
	11:05	Seal	1	Trav	115°	200m	west		
	1:10	Boat	1	Trav	280	70m	south	P.I.E. Drive	

1:25
 Seal
 116° Dist = 20m
 Trav South
 267-841 2402
 P.I.E. Dr.

Date	Time	Species	Number	Behaviour	Bearing	Distance	Heading	Cont. Act.
7/1	1:55	Boat	1	Trav.	115°	90m	South	Pike Drive
	2:22	Seal	1	Trav.	48°	100m	North	—
	2:25	Boat	1	Trav.	64°	600m	South	—
	2:35	Vannie Vul Boat	1	Trav.	75°	100m	North	—
	2:48	Seal	1	Trav.	72°	400m	South	—
	2:52	Seal	1	Trav.	128°	50m	South	—
	2:55	Boat	1	Trav.	150°	50m	South	—
	2:56	Seal	1	Trav.	110°	60m	South	—
	3:05	Maintenance	1	Trav.	180°	150m	North	—
	4:00	Seal Boat	1	Trav.	176°	160m	South	Pike Drive
	5:00	CHS		On section				

High Maintenance
Boat

Eastport Breakwater MDOT WIN 020806.00
Marine Mammal Observation Monitoring
Data Cover Sheet

Date: 7/2/15 Time: start 7:40 a.m. end _____

Observer: Steve E & Ellen J. Location: Pier

Recorders Name(s): Steve E, _____

Identify Exclusion Zone (~~30m~~): 1000 m Yes No

Identify Level B Harassment Zone (>30m, <1000m): Yes No

Weather Conditions: (Record at start of observation, note changes through the day)

Wind Direction: SW

Beaufort Sea State: 1 2 3 4 5 (Circle One)

Visibility: 0 NM 1 NM 2 NM 3 NM 4 NM

Weather: Cloudy Clear Haze Rain Light Rain Snow Fog

Cloud Cover: <10% 10-50% 50-90% 90%

High Water: Noon am _____ pm Low Water: _____ am _____ pm

Construction Activity: Vibro Hammer Underwater Sawing Impact Hammer

Photograph or Video Collected: Yes No

Comments:

Eastport Breakwater MDOT 020806.00
 Marine Mammal Observation Monitoring
 Data Sheet

Date	Time	Species	Number	Behavior	Bearing to Animal	Dist. to Animal	Animal Heading	Const. Activity	In Exclusion Zone
7/2/15	7:40 AM			Start Observ.					
	8:30	Boat	1	Trav.	175°	157m	North	Vib. Ham	—
	8:32	B.P.	1	Trav	175	127	North	Vib. Ham	—
	8:57	Boat	1	Into to Harb	360°	426m	—	V.H.	—
	8:59	Boat	1	Trav.	70°	178m	South	V.H.	—
	9:02	Boat	1	Trav	160°	157m	North	V.H.	—
	9:05	Boat	1	Trav	70°	800m	North	V.H.	—
	9:07	Seal	1	Trav	160°	50m	North	V.H.	—
	9:42	boat	1	Trav	80°	501m	North	V.H.	—
	9:49	Boat	1	Trav.	200°	750m	South	V.H.	—
	9:54	Seal	1	Trav.	80°	150m	North	V.H.	—
	9:58	Boat	1	Trav	88°	116m	South	V.H.	—
	10:12	Boat	1	Trav	65°	277m	South	—	—
	10:14	Boat	1	Trav	210	317m	South	—	—
	10:31	Boat	1	Trav	17	253m	South	V.B	—
	10:41	Boat	1	Trav	200	155m	South	V.B.	—
	10:42	Boat	1	Trav	82°	245m	North	V.B	—
	10:45	Boat	1	Trav	167°	294	North	V.B	—
	10:47	Boat	1	Trav	500	395m	South	V.B	—

