

# **Renewal Request for Marine Mammal Protection Act Incidental Harassment Authorization**

## **Falls Bridge Replacement Project**

### **Submitted To**

National Marine Fisheries Service  
Office of Protected Resources  
1315 East-West Highway  
Silver Spring, Maryland 20910-3226

### **Prepared By**

MaineDOT – Environmental Office  
Natural Resources Division  
16 State House Station  
Augusta, ME 04330

**March 28, 2023**

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## Table of Contents

List of Tables .....	3
List of Figures.....	3
<b>1 Renewal Conditions .....</b>	<b>4</b>
<b>1.1 Timing of Renewal Request .....</b>	<b>4</b>
<b>1.2 Explanation of Activities .....</b>	<b>4</b>
1.2.1 Subset of Initial Project Activities .....	4
1.2.2 Minor Changes to Initial Scope .....	4
<b>2 Affected Species Status and Distribution.....</b>	<b>11</b>
<b>3 Appendices.....</b>	<b>12</b>
Appendix A. Marine Mammal Monitoring Report .....	13
Appendix B. Site Photographs.....	14

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## List of Tables

Table 1–1.	Calculated Distance to Level B Harassment Isopleths for 14-inch steel pipe pile.....	5
Table 1–2.	Calculated Distance to Level A Harassment Isopleths and Shutdown Zones during Pile Removal.....	6
Table 1–3.	Authorized Incidental Take.....	7
Table 1–4.	Proposed Incidental Take for Re-Authorization .....	7

## List of Figures

Figure 1–1.	Shutdown Zones for Cetaceans and Pinnipeds during Vibratory Pile Removal for Falls Bridge Replacement Project.....	8
Figure 1–2.	Level B Harassment Zones (and shutdown zones for species not covered by this IHA) during Pile Removal at High Tide for Falls Bridge Replacement Project.....	9
Figure 1–3.	Level B Harassment Zones (and shutdown zones for species not covered by this IHA) during Pile Removal at Low Tide for Falls Bridge Replacement Project.....	10

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# 1 Renewal Conditions

## 1.1 Timing of Renewal Request

Maine Department of Transportation (MaineDOT) has applied for and received an incidental harassment authorization (IHA) for the Falls Bridge Replacement Project (Project) in Blue Hill, Maine. The IHA is valid for a period of one year from July 1, 2022 through June 30, 2023. The IHA authorizes incidental take of specified marine mammals during pile driving activities, including pile installation and removal, by means of impact, vibratory, or down-the-hole (DTH) methods. MaineDOT is submitting this renewal request to cover a subset, with minor changes, of the activities covered by the IHA, and request the renewal IHA be valid from July 1, 2023 through June 30, 2024.

## 1.2 Explanation of Activities

All project related pile installation activities were completed over a two-day period in October and November 2022. A final marine mammal monitoring report was submitted to the National Oceanic and Atmospheric Administration (NOAA) on December 14, 2022. In that report (Appendix A), MaineDOT explained that all pile driving had been completed with the use of an impact hammer, and the DTH method was not used by MaineDOT's contractor (Cianbro Corporation). In addition, the number of driven piles was reduced from the previously estimated 95 piles down to a total of 12 piles. Pile size was also reduced from 24-inch steel pipe piles to 14-inch steel pipe piles.

Cianbro plans to remove all 12 14-inch steel pipe piles through vibratory means between October and December of 2023. These activities will occur after the expiration date of the initial IHA; therefore, MaineDOT is requesting a renewal. Removal activities will likely take two days to complete, though a week is planned. Cianbro Corporation/MaineDOT estimates it will take 30 minutes to remove a single pile, with up to 6 piles removed per day. Updated Level A and Level B Harassment Zones are provided in section 1.2.2, Tables 1-1 and 1-2 respectively.

### 1.2.1 *Subset of Initial Project Activities*

The proposed activities are a subset of the initial project activities for two reasons: 1) all pile installation has been completed under the initial IHA, and 2) the number of installed piles was reduced from 95 to 12; therefore, vibratory removal will be needed for a subset of the initial planned amount.

### 1.2.2 *Minor Changes to Initial Scope*

Minor changes to the initial scope include the reduction of pile size and number of piles required. The initial scope planned for the installation and removal of 95 24-inch steel pipe piles. In total, 12 14-inch piles were installed. MaineDOT is requesting a renewal IHA for vibratory removal of 12 14-inch steel pipe piles.

**1.2.2.1 Affect to Previous Analysis**

The previous analysis was completed assuming vibratory removal would require 30 minutes per pile, with a total of 95 piles. The resulting time of Level B harassment was estimated to be 2,850 minutes. The current plan for removing the 12 14-inch steel pipe piles will result in 360 minutes (30 minutes per pile) of Level B harassment, an 87 percent reduction in exposure time, and presumably a large reduction in the amount of incidental take. However, with the reduction in pile size and increase from 3 to 6 piles removed per day, the distance to Level B Isopleth will increase from 10,000 meters to 15,849 meters (see Table 1-1). Due to the presence of land masses (see Figure 1-2) on all sides of the Project area, the maximum distance noise can travel through water at high tide before encountering land is approximately 8,700 meters. At low tide, the maximum distance noise can travel through water is approximately 7,000 meters. Therefore, the increase in distance to Level B Isopleth will be theoretical only.

**Table 1-1. Calculated Distance to Level B Harassment Isopleths for 14-inch steel pipe pile**

Pile type, size & pile driving method	Distance to Level B Isopleth (m)	Area of Level B Isopleth (km <sup>2</sup> ) at High Tide	Area of Level B Isopleth (km <sup>2</sup> ) at Low Tide
<b>Continuous (Level B Isopleth = 120 dB)</b>			
<del>24-inch Steel Pipe Pile (Vibratory)</del>	10,000	20.6	1.15*
14-inch Steel Pipe Pile (Vibratory)	15,849	20.6	1.15

\*Strike through indicates pipe size and corresponding distances planned for in IHA

A change that will be realized, and accounted for in monitoring, is the difference in distance to Level A Harassment Isopleths. Distance to Level A Harassment Isopleth for Phocid Pinnipeds will increase from 11 meters to 26 meters (Table 1-2). Because the shutdown distance for Pinnipeds was conservatively set at 50 meters in the IHA, this minor increase in distance will result in no change to the potential for take and the corresponding shutdown zone will not be altered. However, when considering high frequency Cetaceans, the level A Harassment Isopleth will increase from 25 meters to 62 meters, requiring a change in shutdown distance. The shutdown distance for Cetaceans in the IHA was set at 50 meters. MaineDOT proposes increasing that distance to 100 meters (Figure 1-1) to allow for the additional piles to be removed per day.

**Table 1–2. Calculated Distance to Level A Harassment Isopleths and Shutdown Zones during Pile Removal**

Activity	Pile/Hole Diameter(s)	Minutes per Pile or Strikes per Pile	Piles Installed or Removed per day	Level A Harassment Isopleth Distance (m)			Shutdown Distance (m)	
				Cetaceans		Pinnipeds	Cetaceans	Pinnipeds
				MF	HF	Phocid		
<del>Vibratory Removal</del>	<del>24-inch steel pipe</del>	<del>30 Minutes</del>	<del>3 piles</del>	<del>2</del>	<del>25</del>	<del>11</del>	<del>50</del>	<del>50*</del>
Vibratory Removal	14-inch steel pipe <sup>1</sup>	30 Minutes	6 piles	4	62	26	100	50

Notes: LF = MF = Mid-Frequency; HF = High-Frequency; DTH = Down-the-hole pile installation; <sup>1</sup>Level A Isopleths determined using 168 dB RMS from figure I.3-40 in Caltrans 2015; \*Strike through indicates pipe size and corresponding distances planned for in IHA

**1.2.2.2 Affect to Mitigation and Monitoring**

The selected contractor was able to implement additional mitigation measures by further reducing pile size and numbers to have minimal effects on marine mammals. DTH was also not utilized during pile installation, further reducing the potential for incidental take. These additional mitigation measures allowed pile installation to be completed in a fraction of the time with far fewer impacts to marine mammals. In total, there have been two harbor seals and one gray seal observed within the Level B Harassment Zone (see Monitoring Report in Appendix A). There have been no marine mammals in the Level A Harassment Zone during pile driving activities.

MaineDOT expects monitoring to remain as described in the IHA except for the cetacean shutdown distance being extend from 50 to 100 meters.

**1.2.2.3 Affect to Take Estimates**

MaineDOT does not anticipate a need for adjustments to the take estimates. The authorized incidental take provided in the IHA and shown below in Table 1-3 should greatly exceed any incidental take that occurs due to the removal of piles. Due to the expected incidental take reduction, and through coordination with NOAA, a new proposed level of incidental take is shown in Table 1-4 below.

**Table 1–3. Authorized Incidental Take**

<b>Common name</b>	<b>Scientific name</b>	<b>Stock</b>	<b>Level A harassment</b>	<b>Level B harassment</b>
Harbor porpoise	<i>Phocoena phocoena</i>	Gulf Maine/ Bay of Fundy	0	3,200
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	Western North Atlantic	0	40
Common dolphin	<i>Delphinus delphis</i>	Western North Atlantic	0	40
Harbor seal	<i>Phoca vitulina</i>	Western North Atlantic	96	7,824
Gray seal	<i>Halichoerus grypus</i>	Western North Atlantic	0	320
Harp seal	<i>Pagophilus groenlandicus</i>	Western North Atlantic	0	4
Hooded seal	<i>Cystophora cristata</i>	Western North Atlantic	0	4

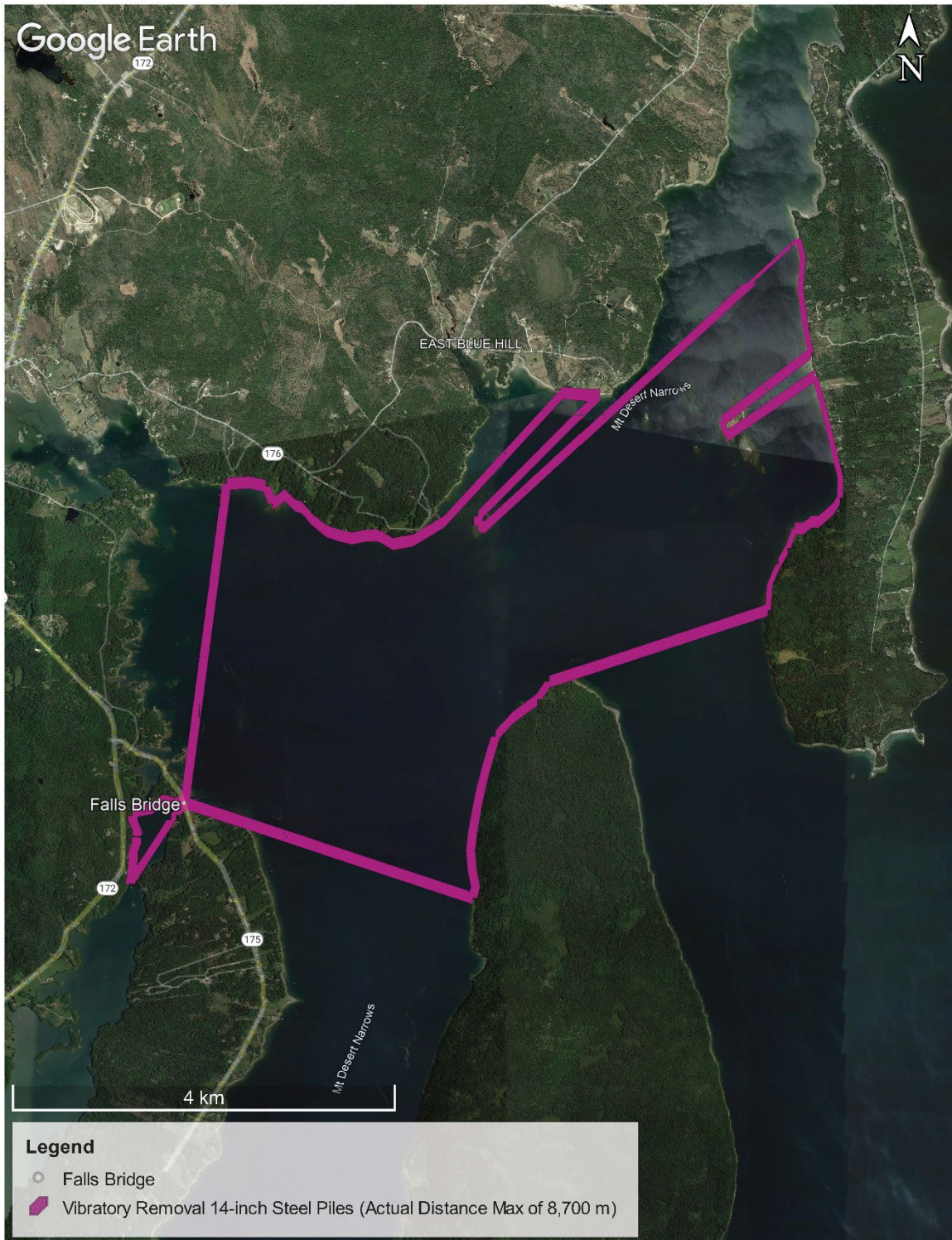
**Table 1–4. Proposed Incidental Take for Re-Authorization**

<b>Common name</b>	<b>Scientific name</b>	<b>Stock</b>	<b>Level A harassment</b>	<b>Level B harassment</b>
Harbor porpoise	<i>Phocoena phocoena</i>	Gulf Maine/ Bay of Fundy	0	80
Atlantic white-sided dolphin	<i>Lagenorhynchus acutus</i>	Western North Atlantic	0	20
Common dolphin	<i>Delphinus delphis</i>	Western North Atlantic	0	20
Harbor seal	<i>Phoca vitulina</i>	Western North Atlantic	0	198
Gray seal	<i>Halichoerus grypus</i>	Western North Atlantic	0	8
Harp seal	<i>Pagophilus groenlandicus</i>	Western North Atlantic	0	1
Hooded seal	<i>Cystophora cristata</i>	Western North Atlantic	0	1

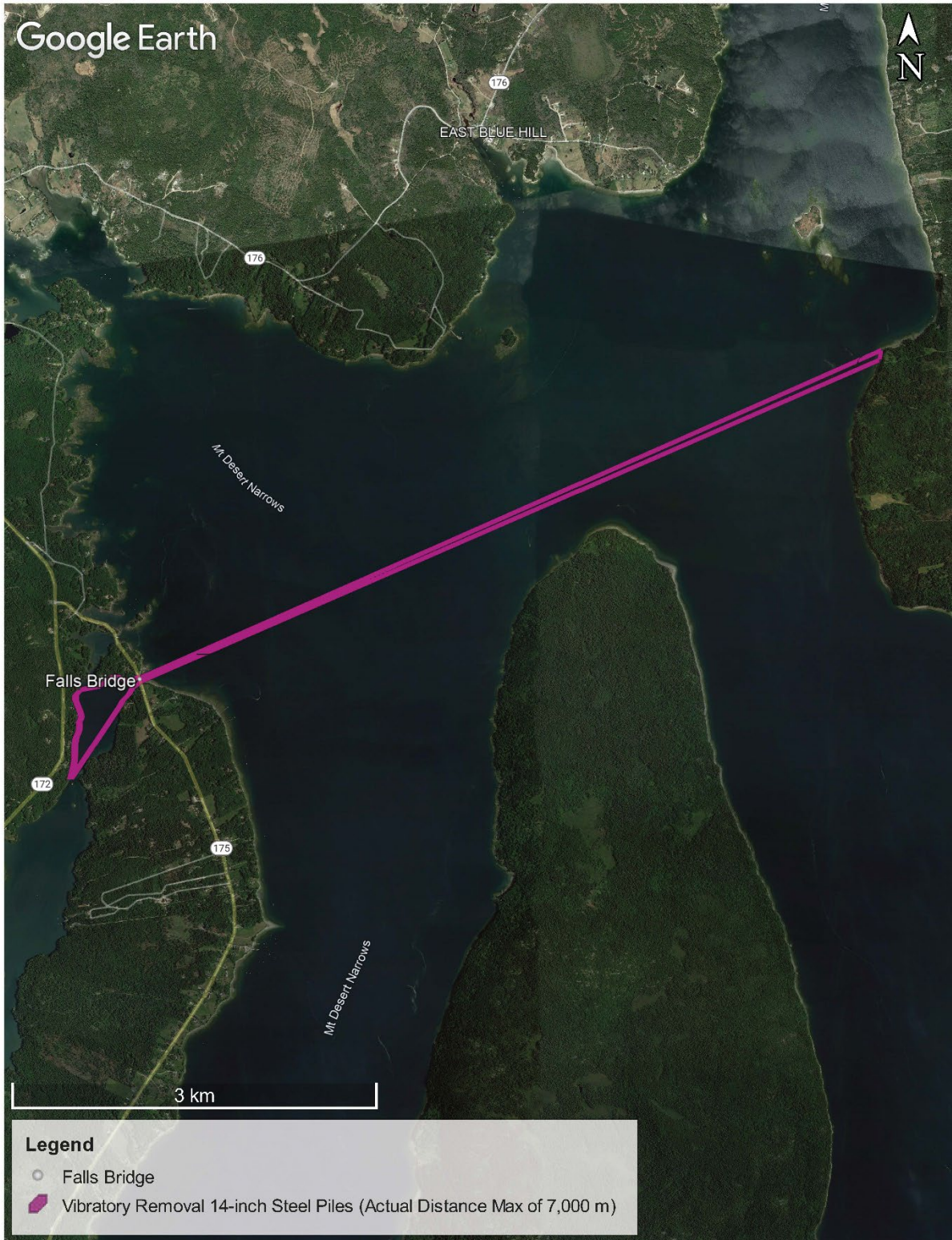


**Figure 1-1. Shutdown Zones for Cetaceans and Pinnipeds during Vibratory Pile Removal for Falls Bridge Replacement Project**





**Figure 1–2. Level B Harassment Zones (and shutdown zones for species not covered by the IHA) during Pile Removal at High Tide for Falls Bridge Replacement Project**



**Figure 1–3. Level B Harassment Zones (and shutdown zones for species not covered by the IHA) during Pile Removal at Low Tide for Falls Bridge Replacement Project**

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## **2 Affected Species Status and Distribution**

Species status assessment and distribution information provided in the initial IHA application are the most relevant and up-to-date information available. There are no updated species status assessments for species potentially affected by the Project.

### **3 Appendices**

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## **Appendix A. Marine Mammal Monitoring Report**



STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

Janet T. Mills  
GOVERNOR

Bruce A. Van Note  
COMMISSIONER

December 14, 2022

Jolie Harrison  
Chief, Permits and Conservation Division  
Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West highway  
Silver Spring, MD 20910

Re: Blue Hill, Falls Bridge #5038 Replacement Project (WIN 17712.00) Marine  
Mammal Monitoring Report

Dear Ms. Harrison:

The following is the annual report for marine mammal monitoring at the Blue Hill Falls Bridge Project. All project related pile installation was completed in 2022. In total, MaineDOT's contractor installed twelve 14" steel pipe piles to support the temporary work trestle (bridge demolition platform). All piles were installed between 10/31/2022 and 11/1/2022. Pile driving was completed with an impact hammer between the hours of 1240 and 1438 on 10/31, and again from 0908 to 1414 on 11/1. These times include the time needed for soft start procedures. There were two PSOs present during all pile driving activities (and for at least 30 min before/after pile driving activities). Both PSOs completed the monitoring from Location 1 (north side of bridge) in the monitoring plan. Completed activity logs and observation sheets are provided in Appendix A and B, respectively.

When the IHA application was submitted by MaineDOT, we considered the potential for the selected contractor to use down-the-hole (DTH) drilling as a method of pile installation, and as such harassment zones were established for this method. The selected contractor (Cianbro Corporation) decided to use methods that did not require DTH drilling, and no DTH drilling was completed during the installation of piles.

Additionally, in the IHA document we had planned on the contractor using 24" steel pipe piles, and our Level A (shutdown distance of 50 meters for Pinnipeds and 100 meters for Cetaceans) and Level B (1585 meters) Harassment Zones were based on installing up to 3 piles per day. The contractor decided to go with 14" steel pipe piles and ended up driving 6 piles per day. The recalculated harassment zones for the 14" piles, driving 6 per day, with an average of 180 strikes per pile came out to the following (see Table 1). It should be noted that after conversations with Cianbro, it was determined that piles required significantly more strikes than

anticipated to be driven to refusal. MaineDOT had anticipated 20 strikes per pile, but the actual was closer to an average of 180 strikes per pile. For the updated calculations in Table 1 below, MaineDOT assumed one strike per second for the duration of the driving activities (average of 3 minutes per pile) documented in activity logs provided in Appendix A.

Table 1. Harassment Zones for Impact Driving 14” Steel Pipe Piles at Blue Hill Falls Bridge

	<b>High-Frequency Cetaceans</b>	<b>Phocid Pinnipeds</b>	<b>Otariid Pinnipeds</b>
<b>Level A Harassment<sup>1</sup></b>	42.8 meters	19.2 meters	1.4 meters
<b>Level B Harassment</b>	398.1 meters		

1. Level A Isopleths determined using maximum data from Table I.3-29 in CalTrans. 2015.

While the contractor installed double the number of piles per day, the significantly reduced diameter of the piles resulted in smaller Harassment Zones. Out of an abundance of caution, the PSOs used the conservative zones established in the IHA, based on the 24” steel pipe pile, for all monitoring events. Below are the results of those monitoring efforts.

### Results

A single harbor seal was observed on 10/31, and that observation occurred during the 30-minute observation period following the end of pile driving activities.

On 11/1 there were 2 harbor seals and a single grey seal observed. The first harbor seal was observed during the soft start procedures at the beginning of the day. Soft start procedures started at 0908 and the harbor seal was first observed at 0909 moving towards the project area from the Blue Hill Bay side of the bridge (see location maps provided in Appendix B). The seal continued moving towards the project area and all work was paused at 0911 when the seal was 75 meters east of the bridge (in the “falls”). The seal moved through the falls and under the bridge and continued moving west into the Salt Pond. At 0914 the harbor seal was 100 meters west of the bridge (well outside the Level A zone) and heading west. The first pile was driven between 0915 and 0916, and at 0916 the harbor seal was recorded at 250 meters west of the bridge, moving away at a leisurely pace. The harbor seal continued to work away (moving west) from the project area until it was out of sight at 0920 (more than 400 meters away in Level B Zone). This individual is accounted for in sightings #1-5 on the observation sheets (Appendix B). The second harbor seal was observed on the Blue Hill Bay side of the bridge at 0925. This harbor seal was observed at 225 meters from the bridge (within Level B Zone) and was moving away from the work area (sighting #6 on observation sheets). The Grey seal was also observed on the Blue Hill Bay side of the bridge, between 1348 and 1430. It ranged from 150 meters to 350

meters from the work area (Level B Zone), and only two of the four sightings (sightings #7-10 on observation sheets) occurred during pile driving activities.

### Conclusion

In total, two harbor seals and one grey seal were observed in the Level B Harassment Zone during impact pile driving activities. No individuals were observed in the Level A Harassment Zone during pile driving activities (see results for clarification). All animals appeared to be exhibiting normal behaviors and no injured animals were observed. No Cetaceans were observed during the two days of pile installation.

MaineDOT will coordinate with the contractor to determine what methods will be used for pile removal. Depending on what the contractor has planned, MaineDOT may need to request a renewal IHA to cover those activities. Based on the current schedule, pile removal is planned for October to December 2023. This IHA is valid through June 30, 2023.



## Appendix A

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Daily Environmental Conditions, Construction, and Communication Activity Log:**

Monitoring Location #1

Monitoring Location North Side Bridge

Observer Name (s) Teddy Hallett

Page 1 of 1

Date 10/31/2022

Environmental Conditions (Recorded every 30 minutes or as conditions change)								Construction and Communication Activities (include all start-up and shut-down activities and all communication to construction crew)			
Time	Weather Conditions	Wind Speed (mph)	Wind Direction	Beaufort Sea State	Glare (%)	Visibility (m)	Cloud Cover (%)	Comments	Time	Type of Construction Activity (Ramp up, Startup, Shutdown, Type of Pile Driving)	Communication/Comments
1200	S	5	E	1	0	5km	10	Outgoing tide	12:40	Impact 14"	Center west (I)
1230	S	5	E	1	0	5km	10	Slack tide	13:44	"	South west (I)
1300	S	5	E	1	20	5km	10	Flow tide	13:48	"	"
1330	S	10	E	1	20	5km	10	Flow tide	13:57	"	"
1400	S	10	NE	1	50	5km	15	Flow tide	13:52	"	SW (0)
1430	PC	10	NE	1	50	5km	15	Flow tide	14:01	"	SE (I)
1500	PC	15	NE	1	70	5km	40	Flow tide	14:03	"	"
									14:04	"	SE (I)
									14:11	"	CE (I)
									14:14	"	CE (I)
									14:27	"	CW (I)
									14:29	"	"
									14:35	"	"
									14:37	"	CW (0)

**Weather Conditions:** (S) Sunny, (PC) Partly Cloudy, (L) Light Rain, (R) Steady Rain, (F) Fog, (OC) Overcast, (LS) Light Snow, (SN) Snow

**Beaufort Scale:** (0) Calm, (1) Ripples – up to 4", (2) Small wavelets – up to 8", (3) Large wavelets – up to 2', (4) Small waves – up to 3', (5) Moderate waves – up to 6', (6) Large waves – up to 9'

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Daily Environmental Conditions, Construction, and Communication Activity Log:**

Monitoring Location MONITORING LOCATION #1

Observer Name (s) SABRINA RANCOURT

Page 1 of 1

Date 10/31/2022

Environmental Conditions (Recorded every 30 minutes or as conditions change)								Construction and Communication Activities (include all start-up and shut-down activities and all communication to construction crew)			
Time	Weather Conditions	Wind Speed (mph)	Wind Direction	Beaufort Sea State	Glare (%)	Visibility (m)	Cloud Cover (%)	Comments	Time	Type of Construction Activity (Ramp up, Startup, Shutdown, Type of Pile Driving)	Communication/Comments
1200	S	5	E	1	0%	5km	10	Outgoing tide (slow)	12:40	IMPACT 14" Pipe	CENTER WEST (INSIDE) {SOFT START}
1230	S	5	E	1	0%	5km	10	slack tide	12:41		↓
1300	S	5	E	1	0%	5km	10	Flow tide (slow)	13:44	↓	↓
1330	S	10	E	1	0%	5km	10	Flow tide	13:45	↓	↓
1400	S	10	NE	1	0%	5km	15	Flow tide	13:48	↓	↓
1430	PC	10	NE	1	0%	5km	15	Flow tide	13:50	↓	SOUTH WEST (OUTSIDE)
1500	PC	15	NE	1	0%	5km	40	Flow tide	13:51	↓	SOUTH EAST (INSIDE)
									13:52	↓	↓
									13:57	↓	↓
									14:01	↓	SOUTH WEST (OUTSIDE)
									14:02	↓	SOUTH EAST (INSIDE)
									14:03	↓	↓
									14:04	↓	↓
									14:06	↓	SOUTH EAST (INSIDE)
									14:11	↓	↓
									14:11	↓	CENTER EAST (INSIDE)
									14:14	↓	↓
									14:15	↓	CENTER EAST (EXTERIOR)
									14:27	↓	↓
									14:27	↓	CENTER WEST (INTERIOR)
									14:29	↓	↓
									14:30	↓	↓
									14:35	↓	↓
									14:35	↓	↓
									14:37	↓	↓
									14:38	↓	CENTER WEST (EXTERIOR) END.

**Weather Conditions:** (S) Sunny, (PC) Partly Cloudy, (L) Light Rain, (R) Steady Rain, (F) Fog, (OC) Overcast, (LS) Light Snow, (SN) Snow

**Beaufort Scale:** (0) Calm, (1) Ripples – up to 4", (2) Small wavelets – up to 8", (3) Large wavelets – up to 2', (4) Small waves – up to 3', (5) Moderate waves – up to 6', (6) Large waves – up to 9'

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Daily Environmental Conditions, Construction, and Communication Activity Log:**

Monitoring Location Monitoring Location #1

Observer Name (s) SABRINA RANCOURT

Page 1 of 1

Date 11/1/2022

Environmental Conditions (Recorded every 30 minutes or as conditions change)									Construction and Communication Activities (include all start-up and shut-down activities and all communication to construction crew)		
Time	Weather Conditions	Wind Speed (mph)	Wind Direction	Beaufort Sea State	Glare (%)	Visibility (m)	Cloud Cover (%)	Comments	Time	Type of Construction Activity (Ramp up, Startup, Shutdown, Type of Pile Driving)	Communication/Comments
0830	OC	<5	E	1	0	3km	100	Tide going out	9:08	Impact 14" Pipe	{Soft Start} Northeast (inside)
0900	OC	<5	E	1	0	3km	100	Ebbing tide	9:09		
0930	OC	<5	E	1	0	3km	100	Ebbing tide	9:15	↓	Northeast (Exterior)
1000	OC	<5	E	1	0	5km	100	Ebbing tide	9:16	↓	Northeast (inside)
12:00	MC	<5	E	1	0	5km	100	↓	9:18	↓	Northwest (inside)
1230	MC	<5	E	1	0	5km	90	↓	9:19	↓	NorthWest (Exterior) {End}
1300	MC	<5	E	1	0	5km	90	↓	9:26	↓	East center (outside) {Soft Start}
1330	OC	<5	E	1	0	5km	100	Slack tide	9:29	↓	↓
1400	MC	<5	E	1	20	5km	75	Flow tide	9:30	↓	↓
1430	PC	<5	E	1	20	5km	50	Flow tide	9:34	↓	↓
									12:40	↓	West Center (outside)
									12:47	↓	West Center (inside) {Soft Start}
									12:49	↓	↓
									12:54	↓	↓
									12:55	↓	↓
									12:57	↓	↓
									12:58	↓	↓
									13:01	↓	↓
									13:02	↓	↓
									14:11	↓	↓
									14:12	↓	↓
									14:13	↓	↓
									14:14	↓	↓

**Weather Conditions:** (S) Sunny, (PC) Partly Cloudy, (L) Light Rain, (R) Steady Rain, (F) Fog, (OC) Overcast, (LS) Light Snow, (SN) Snow

**Beaufort Scale:** (0) Calm, (1) Ripples – up to 4", (2) Small wavelets – up to 8", (3) Large wavelets – up to 2', (4) Small waves – up to 3', (5) Moderate waves – up to 6', (6) Large waves – up to 9'

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Daily Environmental Conditions, Construction, and Communication Activity Log:**

Monitoring Location Monitoring location #1

Observer Name (s) Teddy Hallett

Page 1 of 1

Date 11/1/2022

Environmental Conditions (Recorded every 30 minutes or as conditions change)								Construction and Communication Activities (include all start-up and shut-down activities and all communication to construction crew)			
Time	Weather Conditions	Wind Speed (mph)	Wind Direction	Beaufort Sea State	Glare (%)	Visibility (m)	Cloud Cover (%)	Comments	Time	Type of Construction Activity (Ramp up, Startup, Shutdown, Type of Pile Driving)	Communication/Comments
0830	OC	<5	E	1	0	3Km	100	Tide going out	9:08	Impact 14" pipe	Soft start NE (I)
0900	OC	<5	E	1	0	3Km	100	Ebbing	9:15	"	NE (0)
0930	OC	<5	E	1	0	3Km	100	"	9:18	"	NE (I)
1000	OC	<5	E	1	0	3Km	100	"	9:26	"	NW (I)
1200	MC	<5	E	1	0	5Km	100	"	9:30	"	NW (0)
1230	MC	<5	E	1	0	5Km	90	"	12:46	"	East (0)
1300	MC	<5	E	1	0	5Km	90	"	12:47	"	"
1330	OC	<5	E	1	0	5Km	100	Slack tide	12:54	"	"
1400	MC	<5	E	1	20	5Km	75	Flow tide	12:57	"	"
1430	PC	<5	E	1	20	5Km	50	"	13:01	"	West (0)
									14:11	"	west (I)
									14:13	"	"

**Weather Conditions:** (S) Sunny, (PC) Partly Cloudy, (L) Light Rain, (R) Steady Rain, (F) Fog, (OC) Overcast, (LS) Light Snow, (SN) Snow

**Beaufort Scale:** (0) Calm, (1) Ripples – up to 4", (2) Small wavelets – up to 8", (3) Large wavelets – up to 2', (4) Small waves – up to 3', (5) Moderate waves – up to 6', (6) Large waves – up to 9'

## Appendix B

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Observation Sheet:**

Project WIN: 017712.00

Lead Observer Name: SABRINA RANCOURT

Page 1 of 1

Date: 10/31/2022

Lead Observer Contact: 207-614-4240

Monitoring Location: MONITORING LOCATION #1

START OF SHIFT: 12:00  
END OF SHIFT: 15:10

Sighting #	Time (military)	Species	# of Individuals	Entered Harassment Zone A (Yes or No)	Entered Harassment Zone B (Yes or No)	Location <sup>1</sup>	Behavior <sup>2</sup> /Construction Activity
							No sightings.

<sup>1</sup>Direction, Distance Estimate or Mark on Figure with Sighting Number

<sup>2</sup>Travel, Disoriented, Feeding, Fight, Play, Swimming Toward, Swimming Away, Mill, Dive, Hauled Out, Other (describe), Unknown

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Observation Sheet:**

Project WIN: 017712.00

Lead Observer Name: Teddy Hallett

Page 1 of 1

Date: 10/31/2022

Lead Observer Contact: \_\_\_\_\_

Monitoring Location #1  
Northside Bridge

SOS 12:00  
EoS 15:10

Monitoring Location: \_\_\_\_\_

Sighting #	Time (military)	Species	# of Individuals	Entered Harassment Zone A (Yes or No)	Entered Harassment Zone B (Yes or No)	Location <sup>1</sup>	Behavior <sup>2</sup> /Construction Activity
1	14:44	Harbor Seal	1	No	No	200-250m, 90°	<u>POST WATCH. Swimming away, parallel to work. Milling. Adult.</u>

<sup>1</sup>Direction, Distance Estimate or Mark on Figure with Sighting Number

<sup>2</sup>Travel, Disoriented, Feeding, Fight, Play, Swimming Toward, Swimming Away, Mill, Dive, Hauled Out, Other (describe), Unknown



10/31 PSO Monitoring  
(Blue Hill, Maine)

#1  
↓



Monitoring Location



**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Observation Sheet:**

Project WIN: 017712.00

Lead Observer Name: SABRINA RANCOURT

start of Shift: 0830 Page 1 of 2

Date: 11/1/2022

Lead Observer Contact: 207-614-4240

End of Shift: 1005

Start of Shift: 12:00

End of Shift: 15:00

Monitoring Location: Monitoring Location #1

Sighting #	Time (military)	Species	# of Individuals	Entered Harassment Zone A (Yes or No)	Entered Harassment Zone B (Yes or No)	Location <sup>1</sup>	Behavior <sup>2</sup> /Construction Activity
1	0909	Harbor Seal	1	No	Yes	90° (175m) by rocks	Swimming → North then changed direction, headed towards construction activity.
2	0911	Harbor Seal	1 <i>same seal</i>	No	Yes	110° (75m) in narrows	Breaching/Surfing in current headed towards work. *Work paused*
3	0914	Harbor Seal	1 <i>same seal</i>	No	Yes	250° (100m) west side of bridge swimming away.	Swimming away from work. → headed west/SW
4	0916	Harbor Seal	1 <i>same seal</i>	No	No	200° (250m) west side	*outside shutdown zone* Swimming further away @ leisurely pace.
5	0920	Harbor Seal	1 <i>same seal</i>	No	No	200° (400m) continuing away	same behaviour

<sup>1</sup>Direction, Distance Estimate or Mark on Figure with Sighting Number

<sup>2</sup>Travel, Disoriented, Feeding, Fight, Play, Swimming Toward, Swimming Away, Mill, Dive, Hauled Out, Other (describe), Unknown

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Observation Sheet:**

Project WIN: 017712.00

Lead Observer Name: SABRINA RANCOURT

Date: 11/1/2022

Lead Observer Contact: 207 614 4240

Monitoring Location: Monitoring Location #1

Sighting #	Time (military)	Species	# of Individuals	Entered Harassment Zone A (Yes or No)	Entered Harassment Zone B (Yes or No)	Location <sup>1</sup>	Behavior <sup>2</sup> /Construction Activity
6	0925	Harbor Seal	1	No	No	90° (225m)	Seal swimming by rocks, headed away from work.
		<i>new seal</i>					
7	1348	Grey Seal	1	No	Yes	90° (175m)	Milling towards work area.
8	1352	Grey Seal	1	No	Yes	90° (150m)	Moving SE moving parallel to work area.
		<i>same seal</i>					
9	1420	Grey Seal	1	No	Yes	90° (150m)	Headed South, parallel to work.
		<i>same seal</i>					
10	1430	Grey Seal	1	No	No	90° (350m)	milling E of bridge no direction.
		<i>same seal</i>					

<sup>1</sup>Direction, Distance Estimate or Mark on Figure with Sighting Number

<sup>2</sup>Travel, Disoriented, Feeding, Fight, Play, Swimming Toward, Swimming Away, Mill, Dive, Hauled Out, Other (describe), Unknown

**Blue Hill, Rt. 175 Falls Bridge Marine Mammal Observation Sheet:**

Project WIN: 017712.00

Lead Observer Name: Teddy Hallett

Page 1 of 1

Date: 11/1/2022

Lead Observer Contact: 207-416-2396

SOS: 630  
EoS: 10:05  
SOS: 1200  
EoS: 1600

Monitoring Location: Monitoring Location #1

Sighting #	Time (military)	Species	# of Individuals	Entered Harassment Zone A (Yes or No)	Entered Harassment Zone B (Yes or No)	Location <sup>1</sup>	Behavior <sup>2</sup> /Construction Activity
1	0909	Harbor Seal	1	No	Yes	90° (175m) by rocks	Swimming North then changed direction, headed towards construction activity
2	0911	HS	Same seal	No	Yes	110° (75m) narrows	Breaching/surfing incident headed towards work. Work Paused.
3	0914	HS		No	Yes	250° (100m) west side of bridge	Swimming away from work headed west then west. Outside zone
4	0916	HS		No	No	200° (250m) west side	Swimming away from work
5	0920	HS	1	No	No	200° (400m)	Still swimming away
6	0925	HS	1	No	No	90° (225m)	swimming by rocks. Headed away from work
7	1348	Grey seal	1	No	Yes	90° (175m)	Milling towards work area
8	1352	Grey Seal	1	No	Yes	90° (150m)	Moving SE moving parallel to work area
9	1420	Grey seal	1	No	Yes	90° (150m)	Headed south. Parallel to work
10	1430	Grey seal	1	No	Yes	90° (350m)	Milling East of bridge

<sup>1</sup>Direction, Distance Estimate or Mark on Figure with Sighting Number

<sup>2</sup>Travel, Disoriented, Feeding, Fight, Play, Swimming Toward, Swimming Away, Mill, Dive, Hauled Out, Other (describe), Unknown

11/1 PSO Monitoring  
(Blue Hill, Maine)



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## **Appendix B. Site Photographs**



Six pairs (12 total) of 14" steel pipe piles installed and demolition platform being attached.